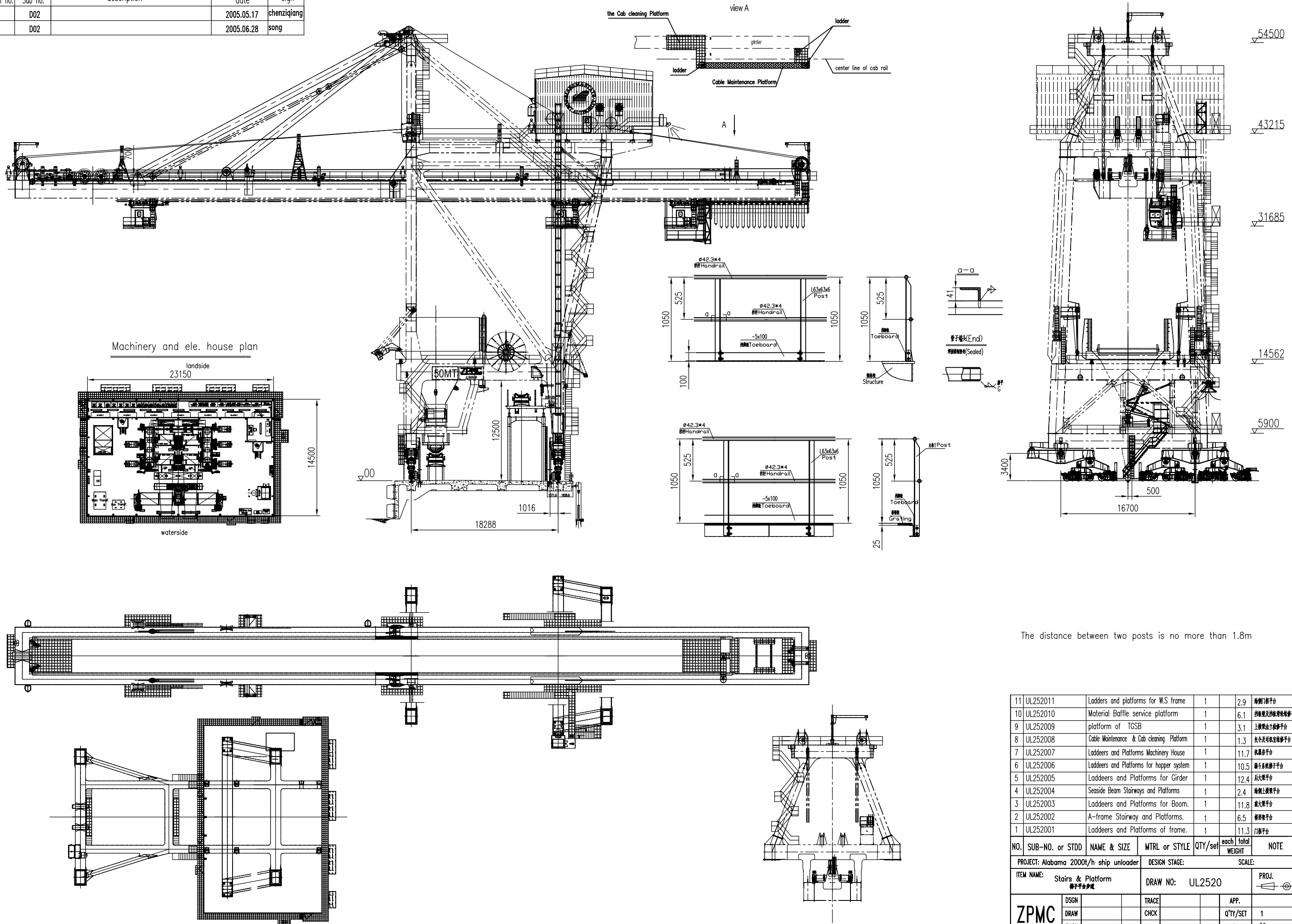


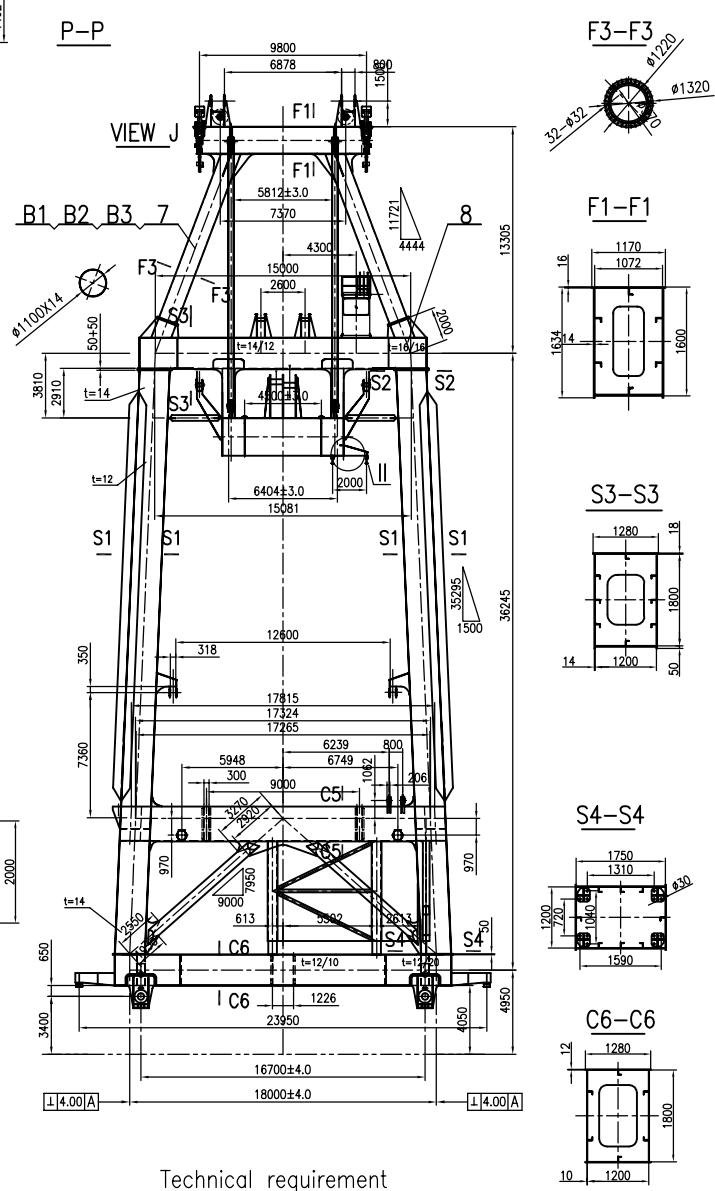
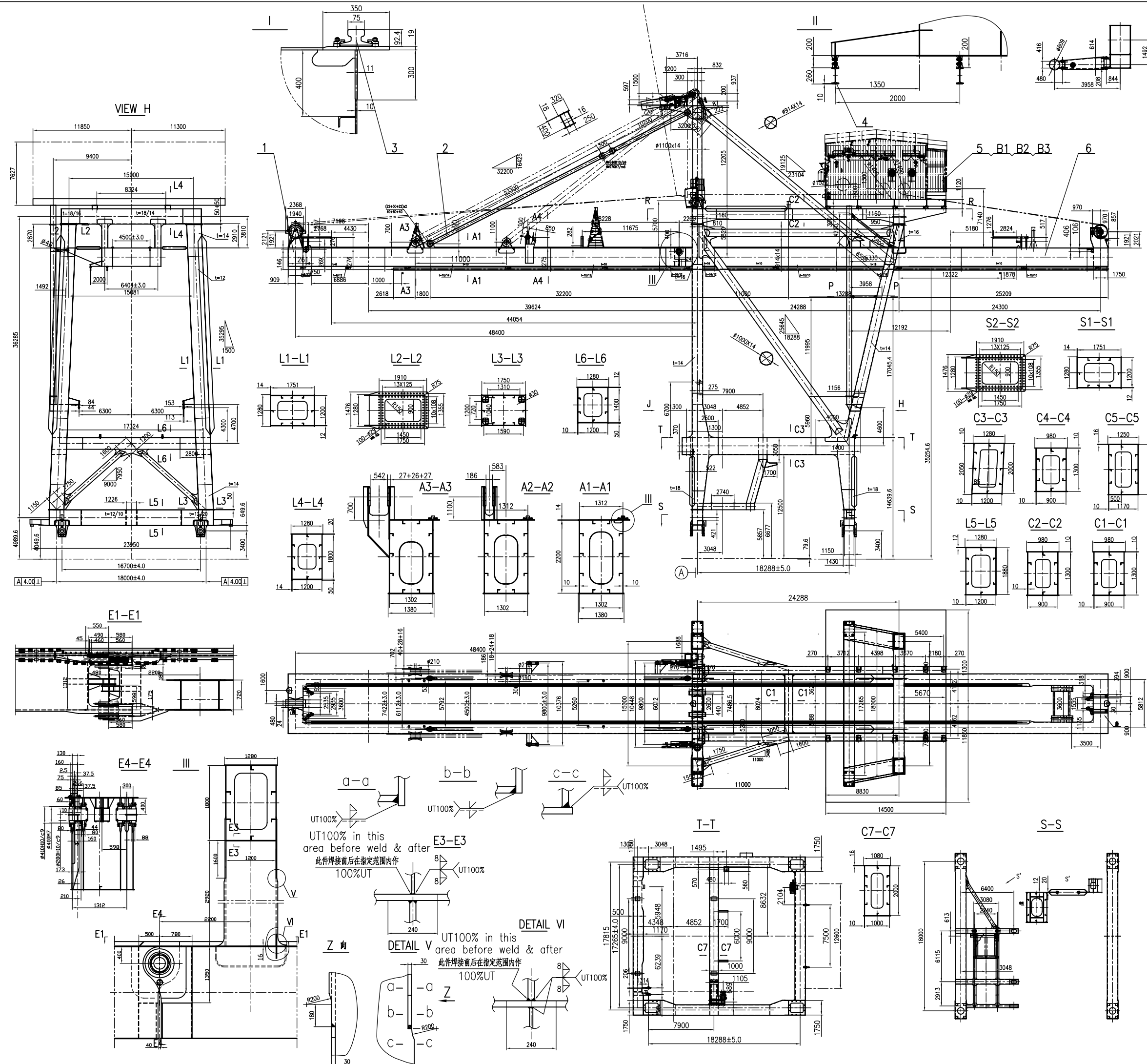
revision no.	Sub no.	description	date	sign
01	D02		2005.05.17	chenziqiang
01	D02		2005.06.28	song



The distance between two posts is no more than 1.8m

11	UL252011	Ladders and platforms for W.S frame	1	2.9	海侧门架平台	
10	UL252010	Material Baffle service platform	1	6.1	挡粮及挡煤溜槽检修平台	
9	UL252009	platform of TGSB	1	3.1	上粮架注兰检修平台	
8	UL252008	Cable Maintenance & Cab cleaning Platform	1	1.3	托车及司机室检修平台	
7	UL252007	Ladders and Platforms Machinery House	1	11.7	机房平台	
6	UL252006	Ladders and Platforms for hopper system	1	10.5	漏斗系统梯子平台	
5	UL252005	Ladders and Platforms for Girder	1	12.4	后大梁平台	
4	UL252004	Seaside Beam Stairways and Platforms	1	2.4	海侧上梁架平台	
3	UL252003	Ladders and Platforms for Boom.	1	11.8	前大梁平台	
2	UL252002	A-frame Stairway and Platforms.	1	6.5	梯架平台	
1	UL252001	Ladders and Platforms of frame.	1	11.3	门架平台	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total WEIGHT	NOTE
PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE:		
ITEM NAME: Stairs & Platform 梯子平台及架		DRAW NO: UL2520		PROJ.		
ZPMC	DSGN	TRACE	APP.			
	DRAW	CHK	QTY/SET	1		
	CHK	VER.	SET/CRANE	80		

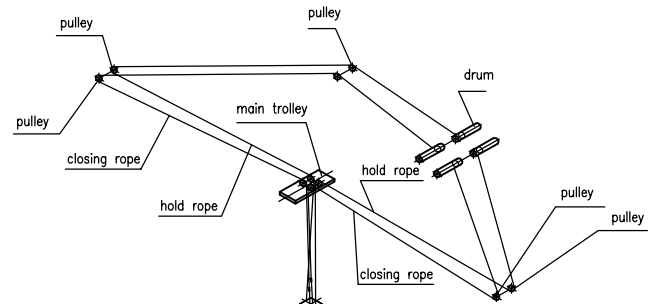
revision no.	Sub no.	description	date	sign
01	D17		2005.04.15	chenziqiang



- Technical requirement
- The fore stay camber should upper after adjusted by the eccentric sleeve.
 - Unmarked seams in the drawing refer to the general technical condition of the welded structure of our factory.
 - When welding web and wing plates, automatic welding should be used as far as practicable, grooves refer to AWS D1.1.
 - Welding rods used in stiffening rib in box are E4315, other E5015.

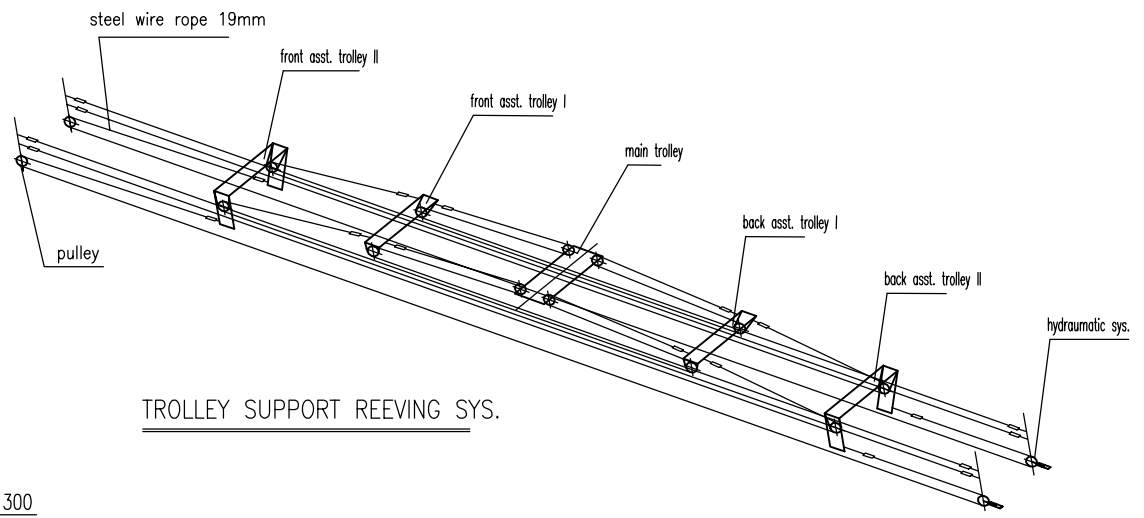
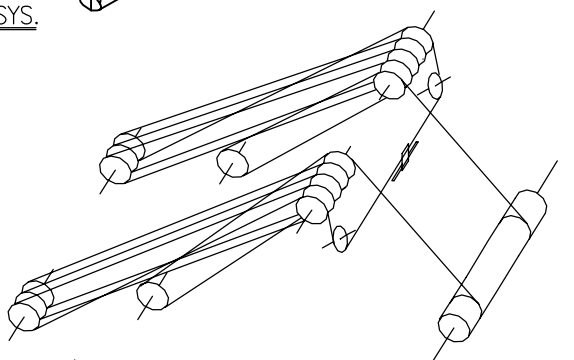
B3	ASTM	Washer 30	HRC35~45	120	0.0754	24.7	达克罗
B2	ASTM	Nut M30	10H	60	0.374	61.33	达克罗
B1	ASTM	Bolt M30X130	10.9s	60	0.993	162.8	达克罗
8	UL250208	Frame	Assembly	1	367148		门框
7	UL250207	Waterside Pylon	Assembly	1	23842		海侧梯架
6	UL250206	Girder	Assembly	1	143802		后大梁
5	UL250205	Machinery frame	Assembly	1	70998		机座架
4	UL250204	Festoon rail	Assembly	1	9636		电缆轨道
3	UL250203	Trolley rail	Assembly	1	12205		小车轨道
2	UL250202	Stay bar system	Assembly	1	39444		拉杆与撑杆系统
1	UL250201	Boom	Assembly	1	117329		前大梁
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:	SCALE: 1:250			
ITEM NAME: 金属结构 GENERAL STRUCTURE			DRAW NO: UL250200				
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHK		Q'TY/SET	784404kg	
	CHK		VER.		SET/CRANE		

revision no.	Sub no.	description	date	sign
01	D00		2005.01.06	song
02	D00		2005.02.23	song

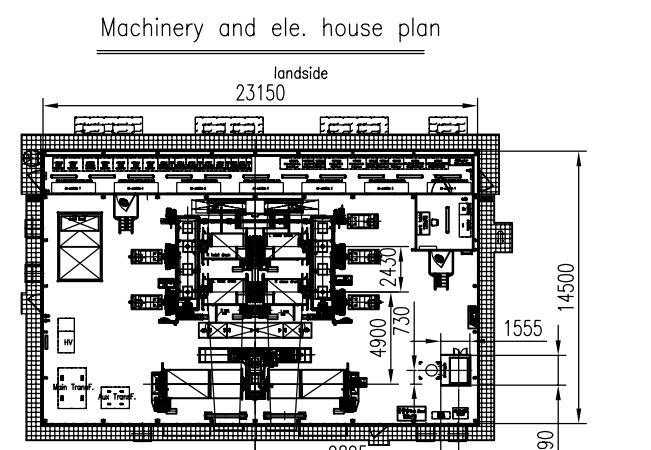


MAIN REEVING SYS.

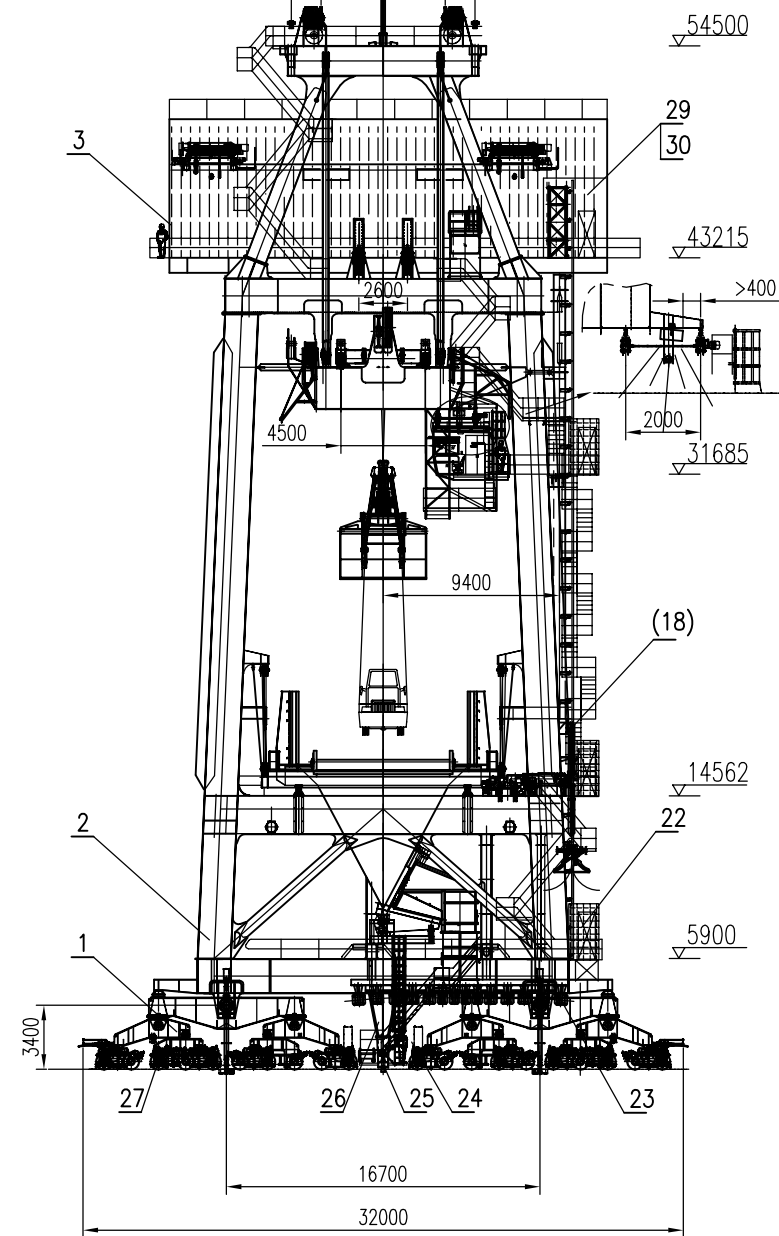
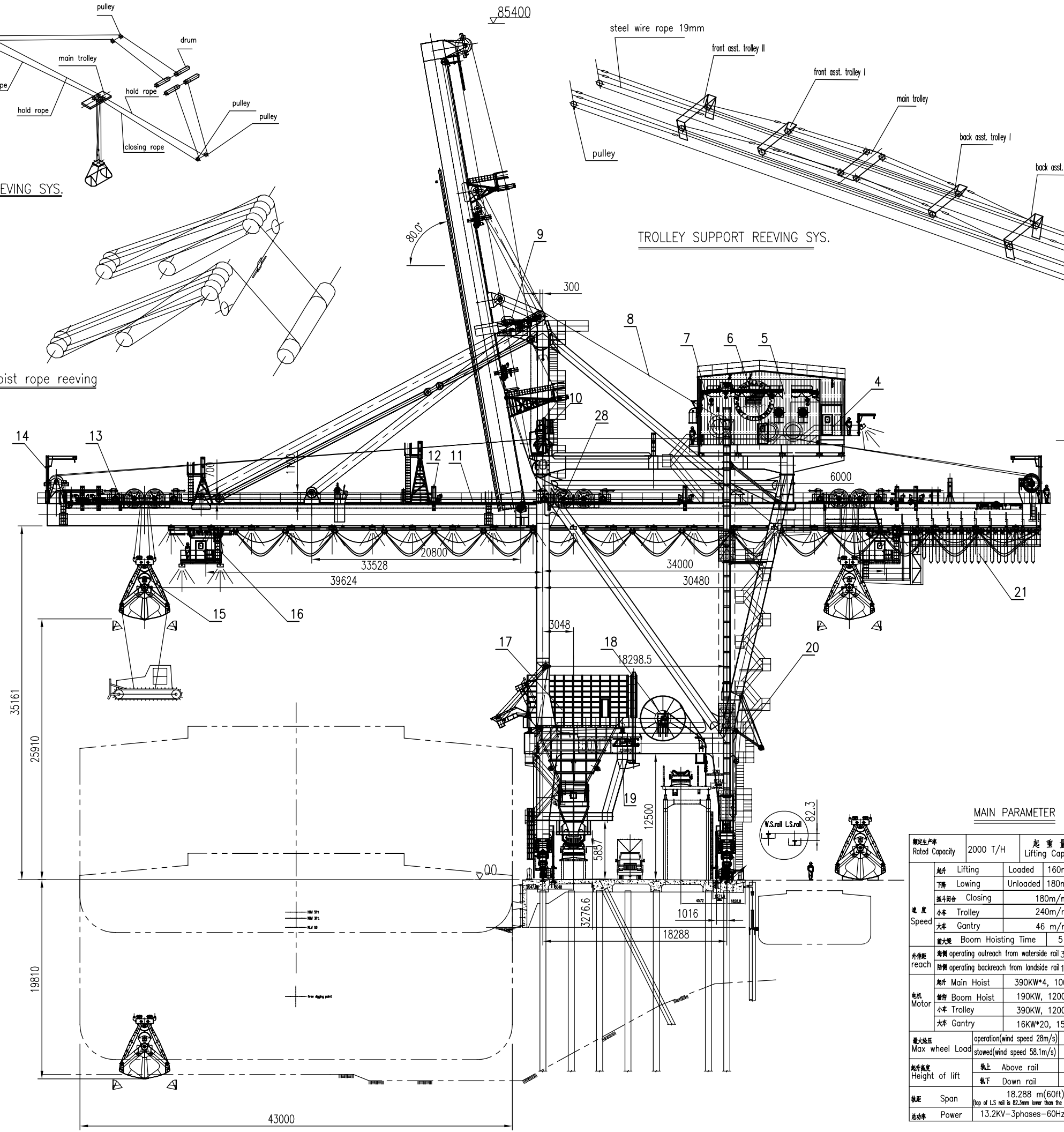
Boom hoist rope reeving



TROLLEY SUPPORT REEVING SYS.



Machinery and ele. house plan



MAIN PARAMETER

额定生产率 Rated Capacity	2000 T/H	起重量 Lifting Capacity	50mt
起升 Lifting	Loaded	160m/min	
下降 Lowering	Unloaded	180m/min	
抓斗闭合 Closing		180m/min	
小车 Trolley		240m/min	
大车 Gantry		46 m/min	
最大 Boom Hoisting Time		5 min	
外伸距 reach	海侧 operating outreach from waterside rail 39.62 m(130ft) 陆侧 operating backreach from landside rail 12.19 m(40ft)		
起升 Main Hoist	390KW*4, 1000/1200RPM		
臂杆 Boom Hoist	190KW, 1200RPM		
小车 Trolley	390KW, 1200RPM		
大车 Gantry	16KW*20, 1500RPM		
最大轮压 Max wheel Load	operation(wind speed 28m/s) 40.2t/m stowed(wind speed 58.1m/s) 53.5t/m		
起升高度 Height of lift	轨上 Above rail 25.91m(85ft) 轨下 Down rail 19.81m(65ft)		
轨距 Span	18.288 m(60ft) (top of LS rail is 82.3mm lower than the top of WS rail)		
总功率 Power	13.2KV-3phases-60Hz 2000KW		

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total WEIGHT	NOTE
PROJECT:		Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE:
ITEM NAME:		GENERAL ARRANGEMENT 总图布置		DRAW NO: UL2500		PROJ.
ZPMC	DSGN	TRACE			APP.	
	DRAW	CHK			QTY/SET	1
	CHK	VER.			SET/CRANE	~1640t

SUBSIDIARY LIST

* The quantity and weight of this list is to one set

1 crane, ~1640 t/crane

PAGE: 1/2

PROJECT NAME or CODE:		SUB-PART NAME:			SUB DRAW NO:		
Alabama 2000t/h ship unloader		GENERAL ARRANGEMENT			UL2500		
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	PIECE WGHT	TOTAL WGHT	
1	1	Gantry 大车机构		4	42.2	168.8	
2	2	Structure 金属结构		1		784.4	
3	3	MECH & ELEC House Arrangement 机械电器房		1		56.4	
4	4	ELEC system 电器系统		1			
5	5	M.H. Maintenance lift 室内维修行车		1		7.5	
6	6	Hoisting and travelling 起升开闭机构		1		139	
7	7	Boom hoist drive 俯仰机构		1		40.8	
8	8	Boom reeving system 俯仰绕绳系统		1		13.7	
9	9	Boom latch 安全钩		1		3.88	
10	10	Boom operation cab 俯仰操作室		1		1.05	
11	11	General limit switch 整机限位布置		1		0.4	
12	12	Main trolley reeving system 小车绕绳系统		1		51.07	
13	13	Support trolley reeving system 拖绳小车绕绳系统		1		16.35	
14	14	Outdoors maintenance lift 室外维修行车		3	0.6	1.8	
15	15	Bucket 抓斗 (两件:一件进口,一件上海配套)		2	20.4	20.4x2	
16	16	Operator's cab 司机室		1		5.6	
17	17	Unload system 卸料系统		1		117.7	
18	18	Power cable reel device 电缆卷筒装置		1		2	
19	19	Nameplate 铭牌布置		1		1.6	
20	20	Stairs & Platform 梯子平台步道		1		80	
21	21	Festoon system 拖令系统		1		0.86	
22	22	Manlift arrangement 电梯布置		1		0.92	
ZPMC		DSGN		TECH		MTRL	
		CHCK		STDD		CHCK	

SUBSIDIARY LIST

* The quantity and weight of this list is to one set

1 crane, ~1640 t/crane

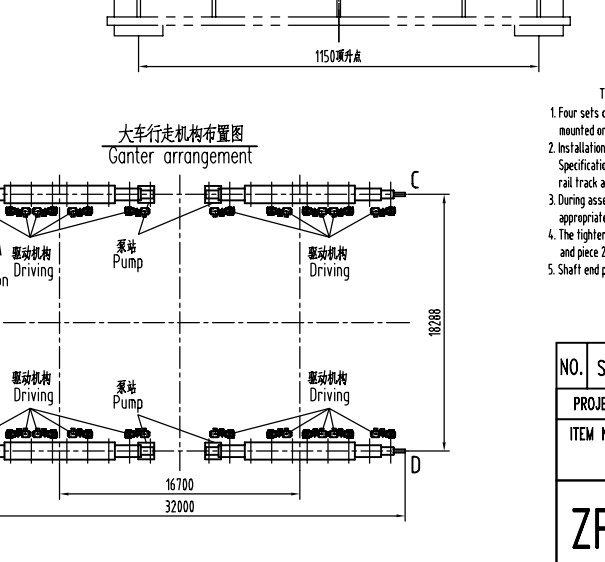
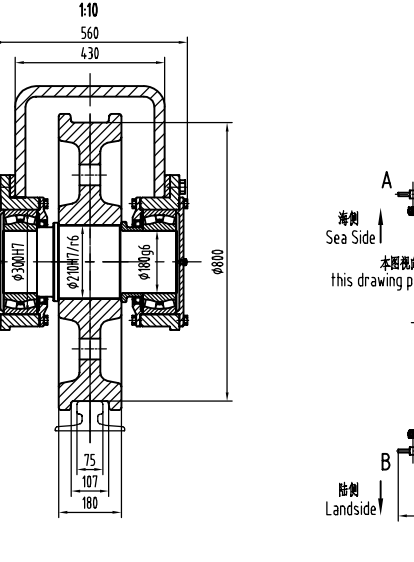
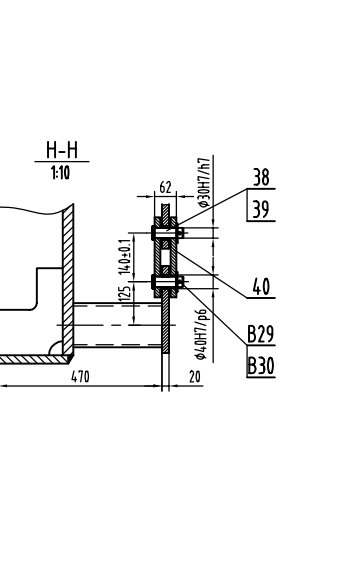
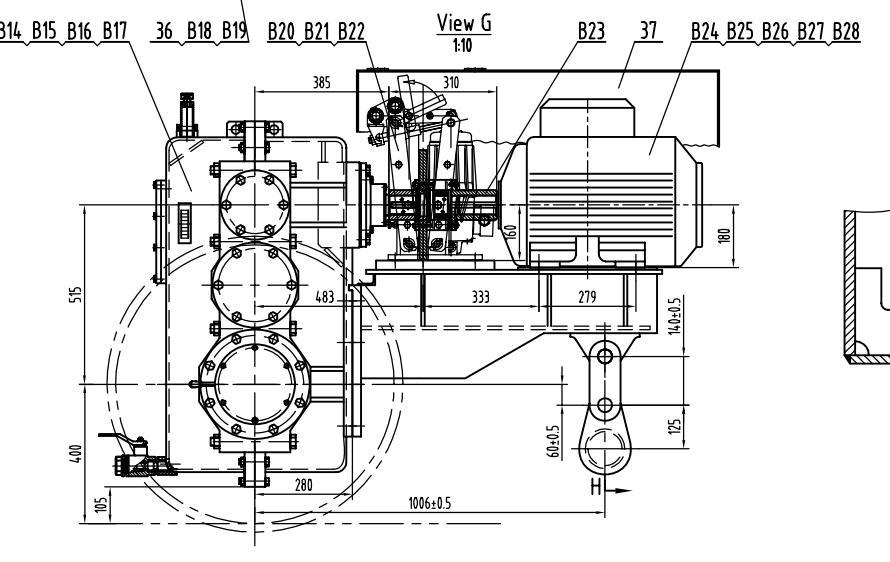
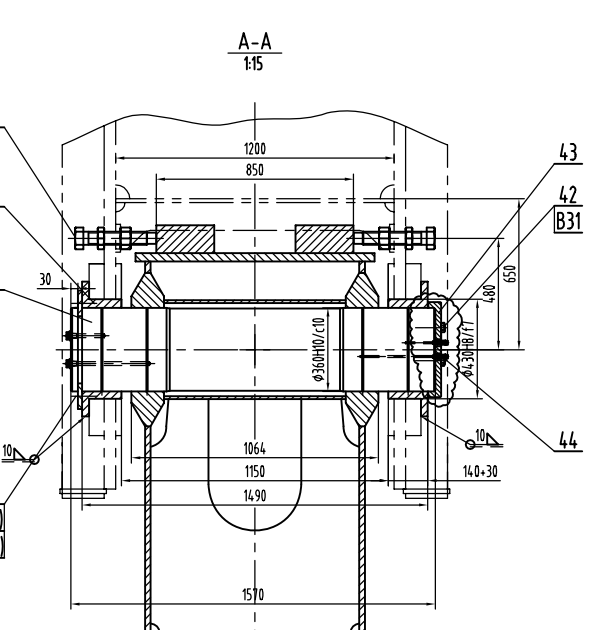
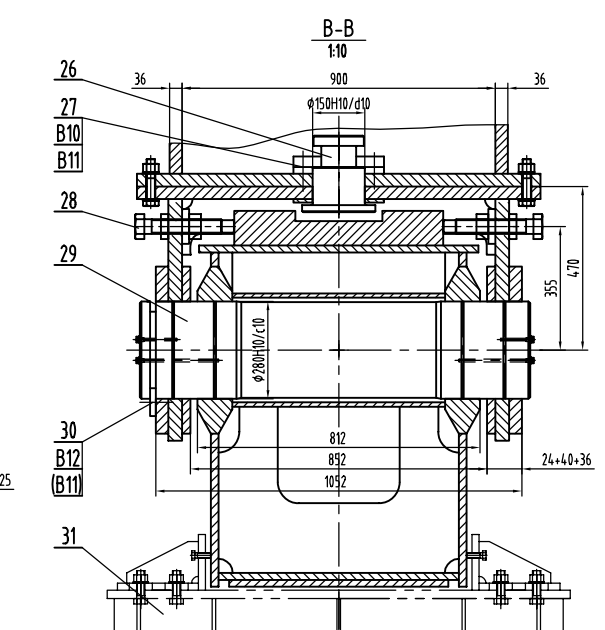
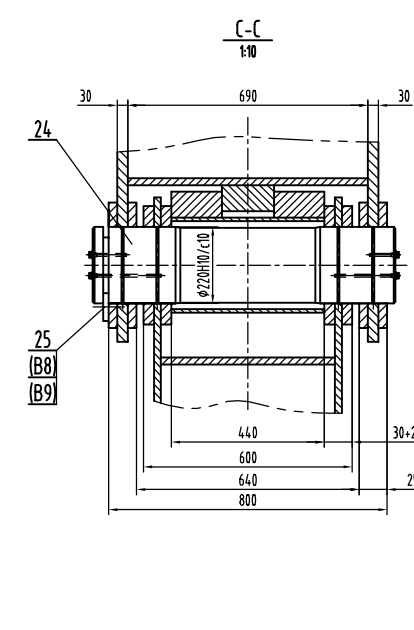
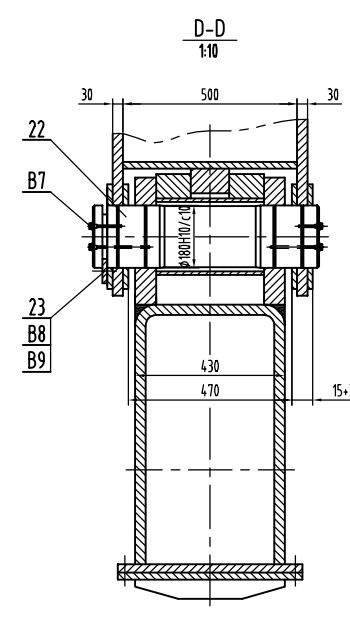
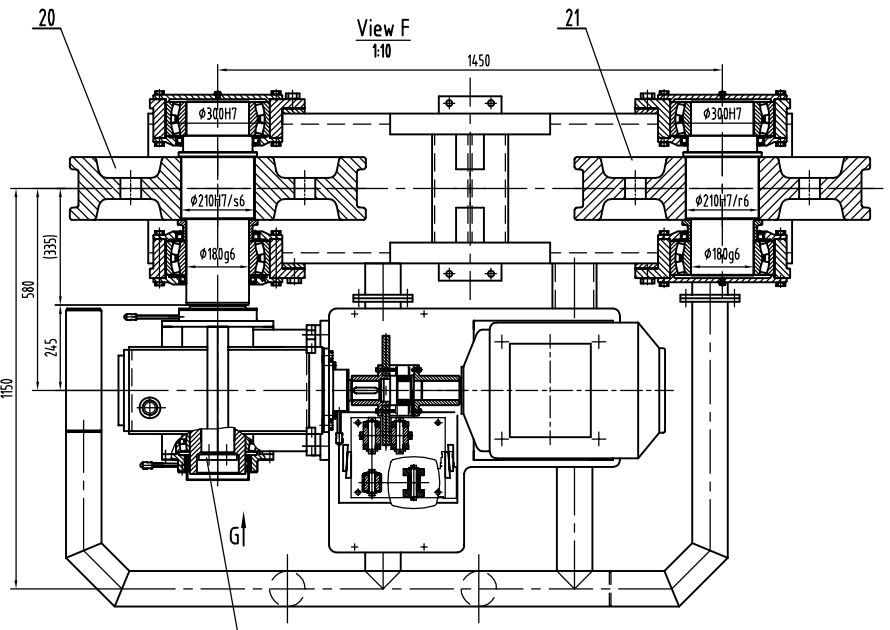
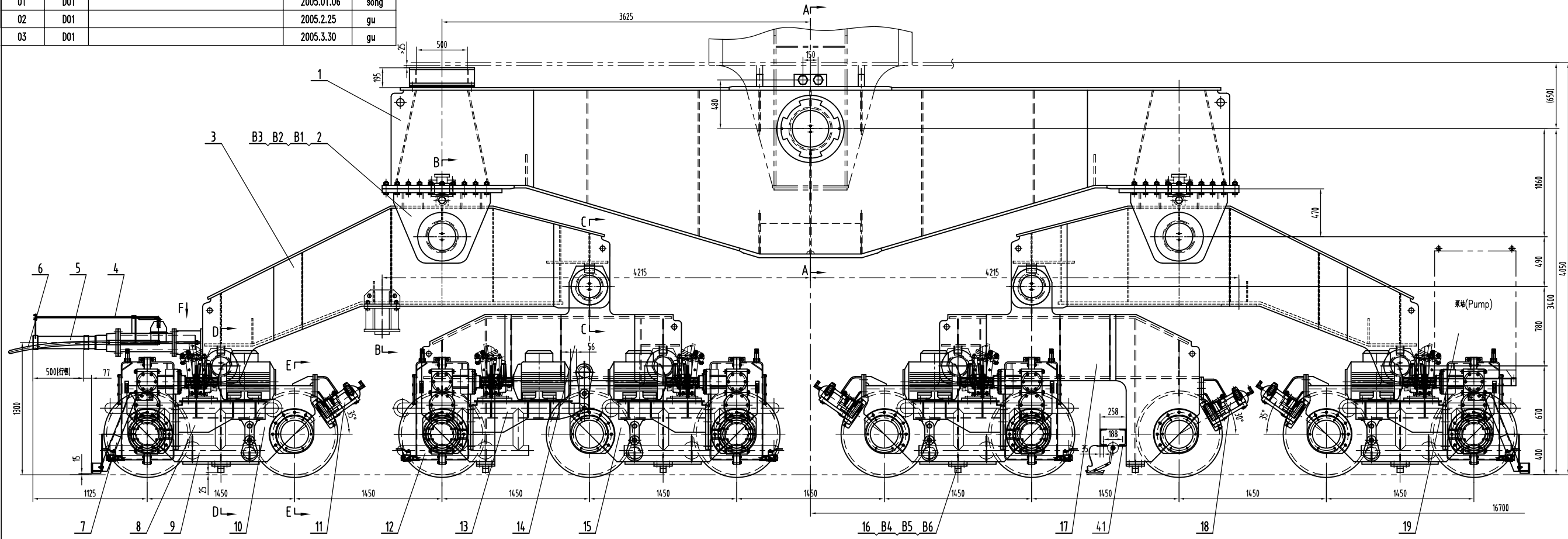
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PROJECT NAME or CODE:		SUB-PART NAME:			SUB DRAW NO:		
Alabama 2000t/h ship unloader		GENERAL ARRANGEMENT			UL2500		
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	PIECE WGHT	TOTAL WGHT	
1	23	Storm anchor 防风拉杆系统		4	0.52	2.08	
2	24	Hydraulic system 液压系统		1		5.5	
3	25	Wharf arrangement 码头布置		1		0	
4	26	Tie down device 锚定装置		2	2.4	4.8	
5	27	Lubrication system 润滑系统		1		3	
6	28	Cab safeguard 司机室保护装置		1		0.2	
7	29	Air compressor system 空压机系统		1		0.6	
8	30	Rope reeving system 换绳装置		1		1.9	
9	31	Boom protection device 前大梁保护装置		1		0.4	
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
ZPMC		DSGN		TECH		MTRL	
		CHCK		STDD		CHCK	

revision no.	Sub no.	description	date	sign
01	D01		2005.01.06	song
02	D01		2005.2.25	gu
03	D01		2005.3.30	gu

MAIN DATA 主要参数

GANTRY SPEED 行走速度	46m/min	
GANTRY WHEEL DIAMETER 车轴直径	φ800mm	
MOTOR 电动机 (ABB)	TYPE 型号	M3BP 180M4
	POWER 功率	18KW
	SPEED 转速	1500rpm
COUPLING 联轴节 (ZPMC)	TYPE 型号	MPLK6-355x20
	TORQUE 扭矩	630Nm
	BRAKE DISC 制动盘尺寸	φ355X20mm
REDUCER 减速机 (ZPMC)	TYPE 型号	FB515.82.D1B-00
	RATIO 速比	82.412
	BRAKE 二级制动器 (ZPMC)	TYPE 型号
WHEEL BRAKE 夹轮器 (ZPMC)	BRAKE TORQUE 制动扭矩	180/380 Nm
	TYPE 型号	YLZ63-180CP
	BRAKING FORCE 夹紧力	114KN
BUFFER 缓冲器 (ZPMC)	TYPE 型号	7/500 BQD14.0-517
	STROKE 行程	500mm
	DYNAMIC CAPACITY 缓冲容量	280KJ
	MAX IMPACT FORCE 冲击力	700KN
WHEEL LOAD 工作轮压	<60t	
NON-WHEEL LOAD 非工作轮压	<80t	
RAIL TYPE 轨道型号	135lb/yd	



- 技术要求
1. 起重机构共有四套行走机构, 按照图中大车行走机构布置图安装。
 2. 同一车轴的车轮安装位置, 应符合FEM规范, 在同一轴上, 同一侧的车轮中心距与轴中心线的偏差不得大于±1mm。
 3. 联轴器, 所有联轴器应安装正确, 主轴承应安装正确。
 4. 保证大车行走机构与支腿(件2)的垂直度, 垂直度公差为78K/gm, 计算力为22480kg。
 5. 车轮(件27)应在装配(件2)安装后, 检查, 但不影响车轮的转动。
 6. 安装联轴器时, 轴与轴套的同心度应小于0.1mm, 轴与轴套的同心度应小于0.2mm。
 7. 在安装联轴器时, 应保证轴与轴套的同心度, 并应在轴与轴套的同心度范围内, 调整轴与轴套的同心度。
 8. 为了保证轴与轴套的同心度, 应在轴与轴套的同心度范围内, 调整轴与轴套的同心度。
 9. 轴与轴套的同心度, 应在轴与轴套的同心度范围内, 调整轴与轴套的同心度。
 10. 联轴器在安装后, 应进行检查。
- Technical Requirement
1. Four sets of traveling units, this drawing is seaside units and symmetrically mounted on the crane.
 2. Installation accuracy of the wheels on the same bogie is to conform to FEM Specification. Misalignment between wheel centres plane rolling on the same rail track and centreline of the rail should be not exceed ±1mm.
 3. During assembly all bearing and bearing pin joints should be filled with appropriate grease. For driven wheels running in should be done.
 4. The tightening moment 78K-g of high-strength bolts in piece 1 and piece 2 must be guaranteed. Tightening force 22480kg.
 5. Shaft end plate (piece 27) should be installed after pin shaft (piece 26) installed.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total WEIGHT	NOTE
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:20	
ITEM NAME: GANTRY 大车行走机构			DRAW NO: UL2501			
ZPMC	DSGN		TRACE		APP.	
	DRAW		CHCK		Q'TY/SET	4
	CHK		VER.		SET/CRANE	4x42200

SUBSIDIARY LIST

* The quantity and weight of this list is to one set
4 set/crane, 42200 kg/set, 168800 kg/crane

PAGE: 1/3

PROJECT NAME or CODE:		SUB-PART NAME:		SUB DRAW NO:		
Alabama 2000t/h ship unloader		Gantry 大车行走机构		UL2501		
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	PIECE WGHT	TOTAL WGHT
1	UL250101	Upper beam 大平衡梁	Welded 焊接件	1		9608
2	UL250102	Support 连接支架	Welded 焊接件	2	815	1630
3	UL250103	Middle beam 中平衡梁	Welded 焊接件	2	2928	5856
4	UL250104	L. S. Ass. 防撞限位装置	Assembly 组件	1		
5	UL250105	Buffer device 缓冲器装置	Assembly 组件	1		247
6	UL250106	Buffer safety device 缓冲器安全装置	Assembly 组件	1		20
7	GTE03a	Sweep suport 清扫架	Assembly 组件	2	36.4	72.8
8	UL250107	Base 底座1	Welded 焊接件	4	162	648
9	UL250108	Enclosure 护栏1	Assembly 组件	4		
10	UL250109	Bogie 台车1	Welded 焊接件	3	886	2658
11	UL250110	Wheel brake Ass. 轮边制动装置1	Assembly 组件	3	182	546
12	UL250111	Enclosure 护栏2	Assembly 组件	1		
13	UL250112	Base 底座2	Welded 焊接件	1		164
14	UL250113	Lower beam 小平衡梁1	Welded 焊接件	1		1510
15	UL250114	Bogie 台车2	Welded 焊接件	1		865
16	GTC02	Anti-break block 剪轴保护块	Welded 焊接件	6	24.4	146.4
17	UL250115	Lower beam 小平衡梁2	Welded 焊接件	1		1510
18	UL250116	Wheel brake Ass. 轮边制动装置2	Assembly 组件	1		180
19	UL250117	Pump support 泵站支架	Welded 焊接件	1		
20	UL250118	Driving shaft assembly 主动轴轴装配	Assembly 组件	5	780	3900
21	UL250119	Driven shaft assembly 从动轴轴装配	Assembly 组件	5	735	3675
22	UL250120	Shaft 轴 φ180	45	4	126	504
23	UL250121	Shaft end plate 卡轴板	Q235	4	1.6	6.4
24	UL250122	Shaft 轴 φ220	45	2	251	502
ZPMC	DSGN		TECH		MTRL	
	CHCK		STDD		CHCK	

SUBSIDIARY LIST

* The quantity and weight of this list is to one set
4 set/crane, 42200 kg/set, 168800 kg/crane

PAGE: 2/3

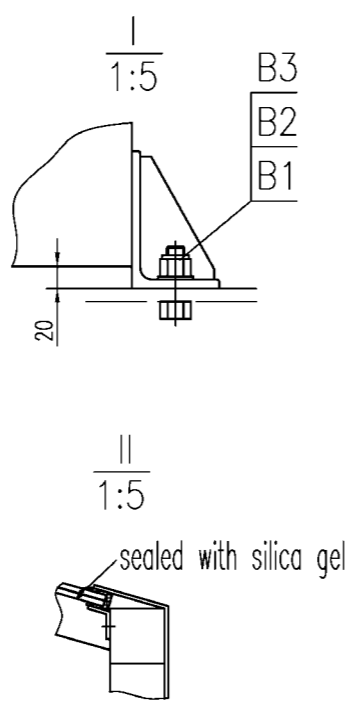
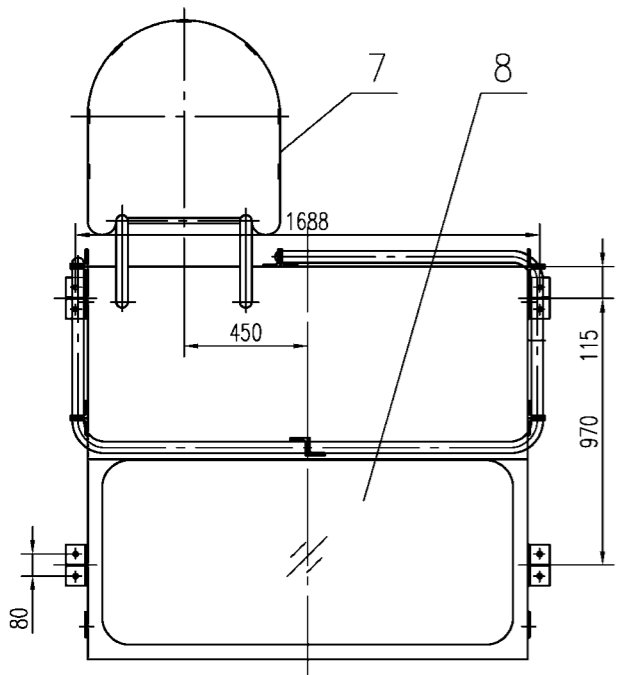
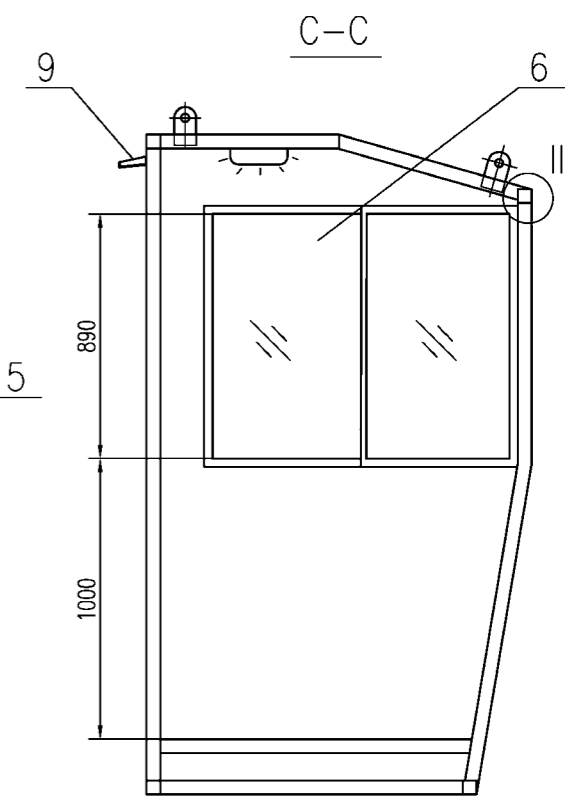
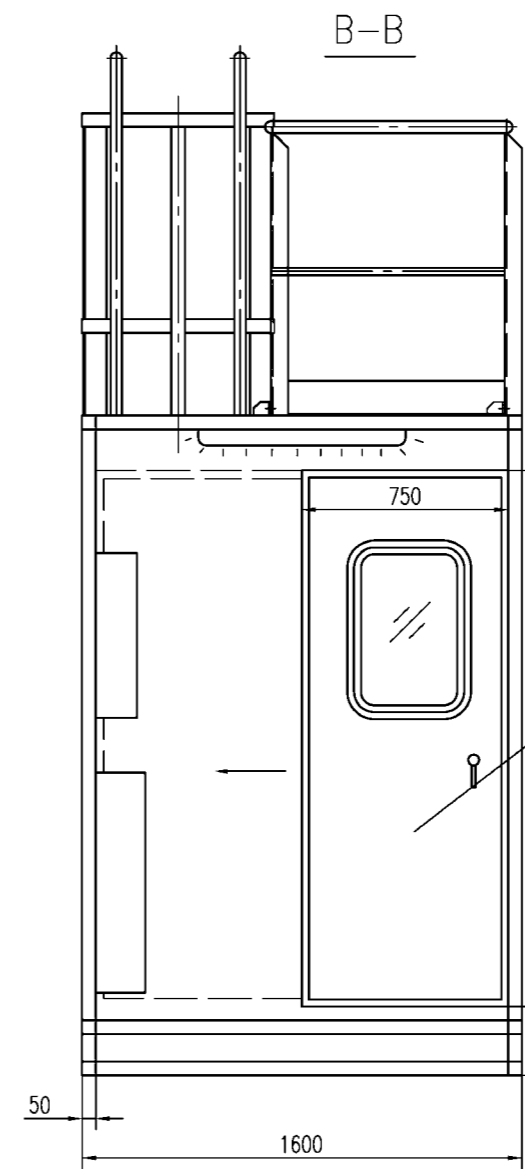
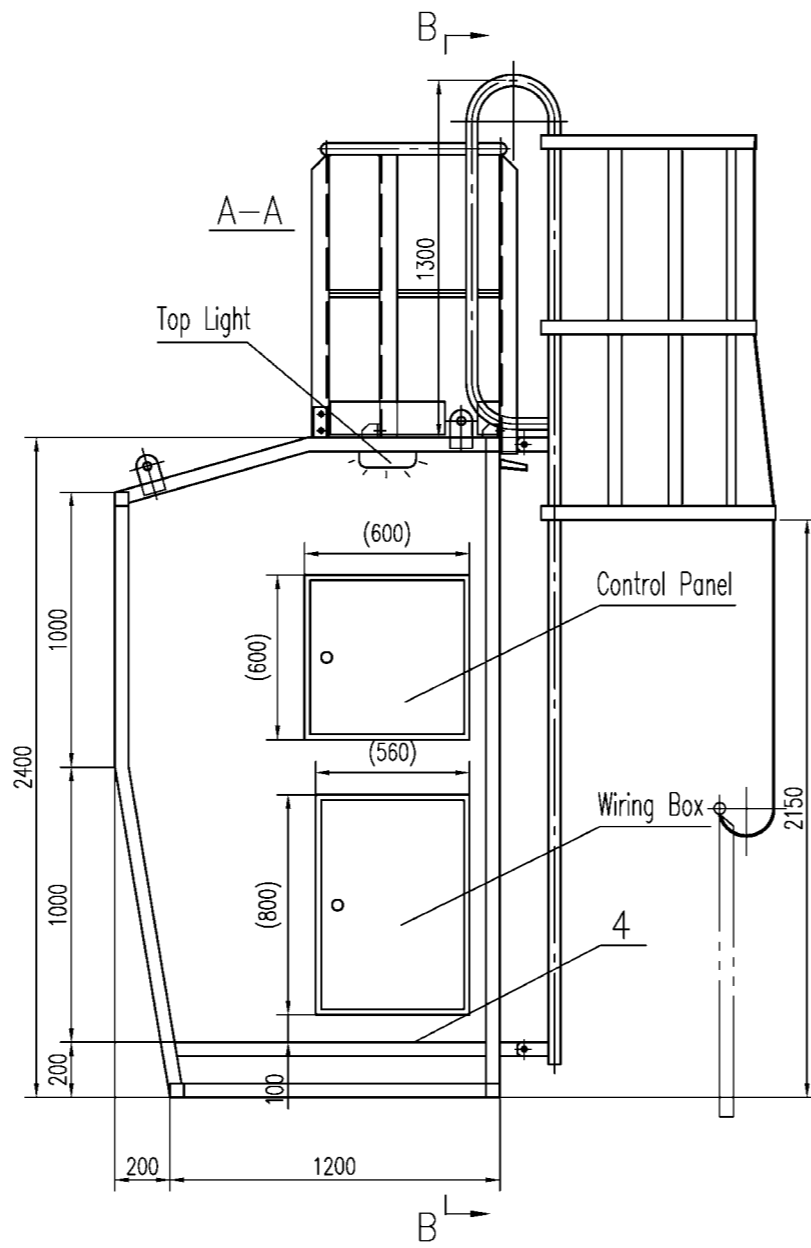
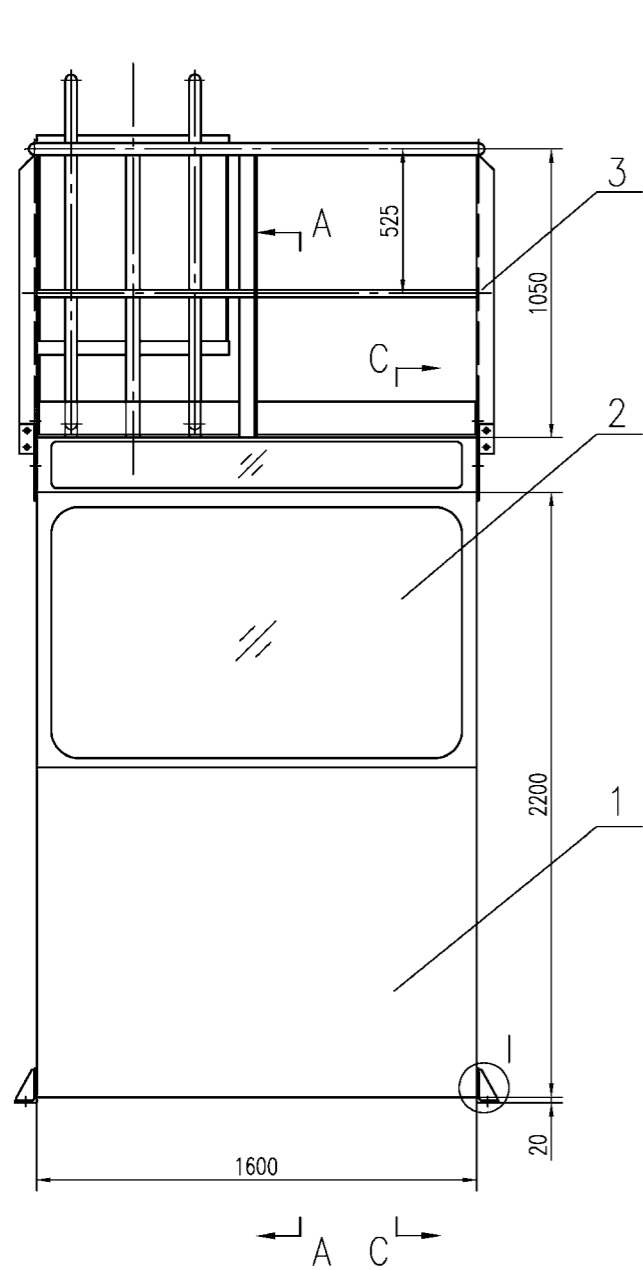
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Alabama 2000t/h ship unloader		Gantry 大车行走机构		UL2501		
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	PIECE WGHT	TOTAL WGHT
25	UL250123	Shaft end plate 卡轴板	Q235	2	2	4
26	GTA02	Shaft end plate 卡轴板	Q235	4	3.8	15.2
27	GTA01b(36)	Pin shaft 销轴	45	2	27	54
28	UL250124	Adjustable device1 调节装置1	Assembly 组件	2	6	12
29	UL250125	Shaft 轴 φ280	45	2	528	1056
30	UL250126	Shaft end plate 卡轴板	Q235	2	2.5	5
31	UL250127	Jacking pedestal 顶升装置	Assembly 组件	1/台	34.3	
32	UL250128	Adjustable device2 调节装置2	Assembly 组件	1		14
33	GTK04.01(UL2501)	Eccentric sleeve 偏心套	35	2	78	156
34	UL250129	Shaft 轴 φ360	45	1		1260
35	UL250130	Shaft end plate 卡轴板	Q235	2	6.1	12.2
36	UL250131	cover 轴端盖	Q235	5	1	5
37	UL250132	Motor cover 罩壳	Assembly 组件	5		
38	UL250133	Sleeve 轴套	Q235	10	0.04	0.4
39	UL250134	Pin shaft 销轴	45	10	0.6	6
40	UL250135	Link plate 连板	Welded 焊接件	10	2.5	25
41	UL250136	earthing shoe 接地靴安装	Welded 焊接件	4	13.4	53.6
42	UL250137	washer 防松垫片	Q235	4		
43	UL250138	end cover 端盖	Q235	4		
44	NPC2	fitting connector 油嘴接头		8	ZPMC standard	
B1	GB/T1228-91	Bolt 螺栓M24×120	10.9S Dacro 达克罗	58		
B2	GB/T1229-91	Nut 螺母M24	10H Dacro 达克罗	58		
B3	GB/T1230-91	Washer 垫圈24	Dacro 达克罗	116		
B4	GB5782-86	Bolt 螺栓M16×75	8.8S Dacro 达克罗	24		
B5	GB889-86	Nut 螺母M16	8s Dacro.达克罗	24		
B6	GB95-85	Washer 垫圈16	Dacro 达克罗	24		
ZPMC	DSGN		TECH		MTRL	
	CHCK		STDD		CHCK	

SUBSIDIARY LIST

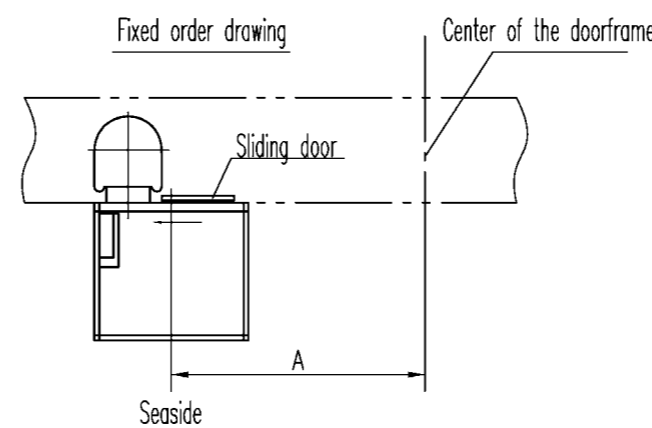
* The quantity and weight of this list is to one set
4 set/crane, 42200 kg/set, 168800 kg/crane

PAGE: 3/3

PROJECT NAME or CODE:		SUB-PART NAME:		SUB DRAW NO:		
Alabama 2000t/h ship unloader		Gantry 大车行走机构		UL2501		
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	PIECE WGHT	TOTAL WGHT
B7	JIS B0203	Nipple 油嘴PT1/4"	Sta.Ste. 不锈钢	36		
B8	GB5783-86	Bolt 螺栓M20×40	8.8S Dacro 达克罗	12		
B9	GB855-88	Washer 垫圈20	Dacro 达克罗	12		
B10	GB5782-86	Bolt 螺栓M24×80	8.8S Dacro 达克罗	8		
B11	GB855-88	Washer 垫圈24	Dacro 达克罗	16		
B12	GB5783-86	Bolt 螺栓M24×50	8.8S Dacro 达克罗	8		
B13	FB515.82.D1B-00	Reducer 减速机	ZPMC	5	620	3100
B14	GB5782-86	Bolt 螺栓M24×95	8.8S Dacro 达克罗	40		
B15	GB889-86	Nut 螺母M24	8s Dacro.达克罗	40		
B16	GB95-85	Washer 垫圈24	Dacro 达克罗	40		
B17	GB118-86	Pin 销16×50	Dacro 达克罗	10		
B18	GB5783-86	Bolt 螺栓M16×40	8.8S Dacro 达克罗	10		
B19	GB856-88	Washer 垫圈16	Dacro 达克罗	10		
B20	YPL11-300-355X20	Brake 二级制动器	ZPMC	5	95	475
B21	GB5783-86	Bolt 螺栓M12×35	Ste.Stl. 不锈钢	20		
B22	GB855-88	Washer 垫圈12	Ste.Stl. 不锈钢	20		
B23	MPLK6-355x20	Coupling 联轴器	ZPMC	5	36	180
B24	M3BP 180M4	Motor 电动机	ABB	5	160	800
B25	GB5782-86	Bolt 螺栓M12×60	8.8S Ste.Stl. 不锈钢	20		
B26	GB889-86	Nut 螺母M12	8s Ste.Stl. 不锈钢	20		
B27	GB95-85	Washer 垫圈12	Ste.Stl. 不锈钢	20		
B28	AS-12	Washer 调整垫圈12 不锈钢(0Cr18Ni9-304)		16组	数量及厚度规格按装配	
B29	GB95-85	Washer 垫圈30	Dacro 达克罗	10		
B30	GB91-86	Pin 开口销6.3×50	Ste.Stl. 不锈钢	10		
B31	GB5783-86	nut 螺栓24×55	Dacro 达克罗	12		
ZPMC	DSGN		TECH		MTRL	
	CHCK		STDD		CHCK	



Item	A
Dominica	6490



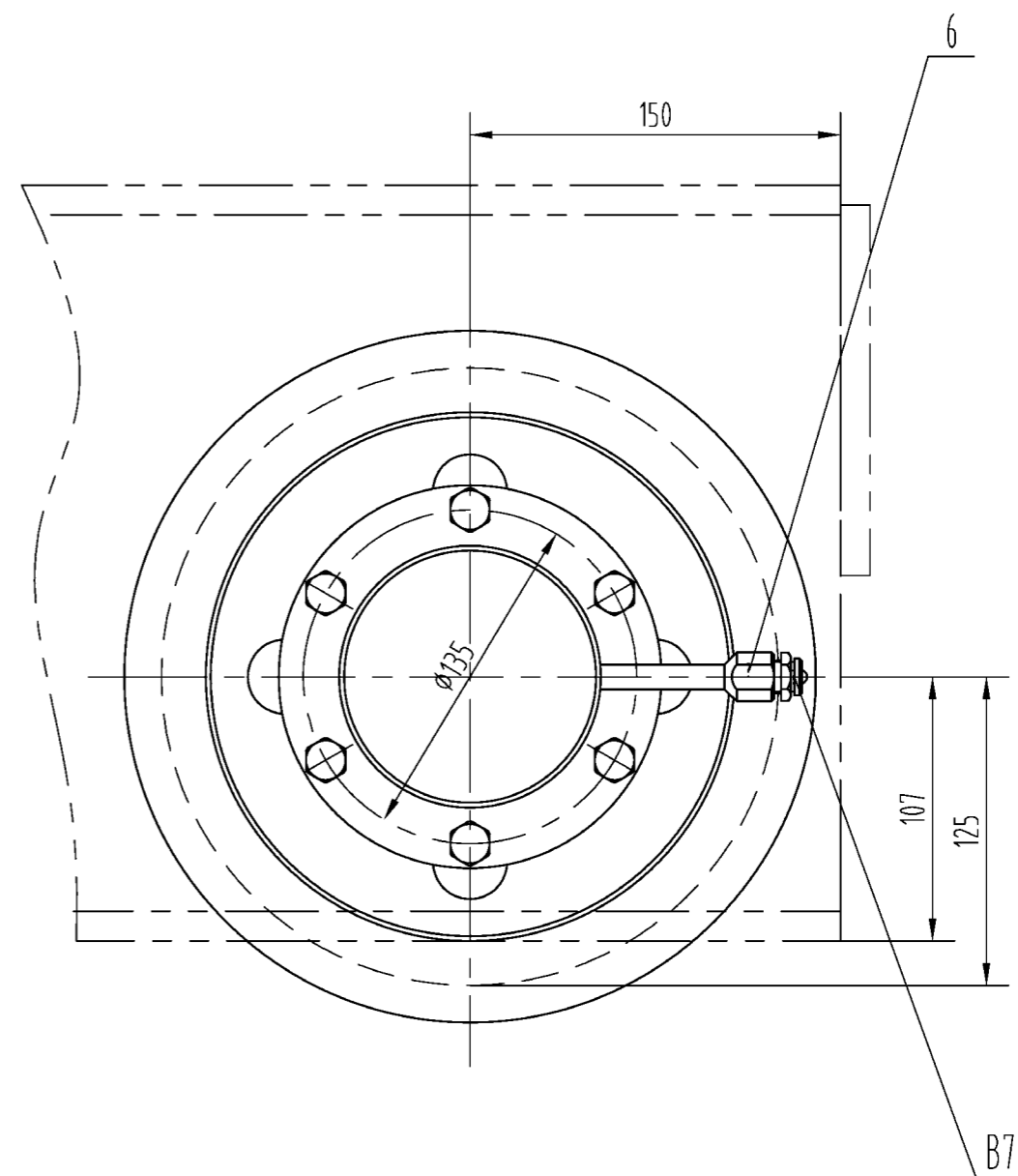
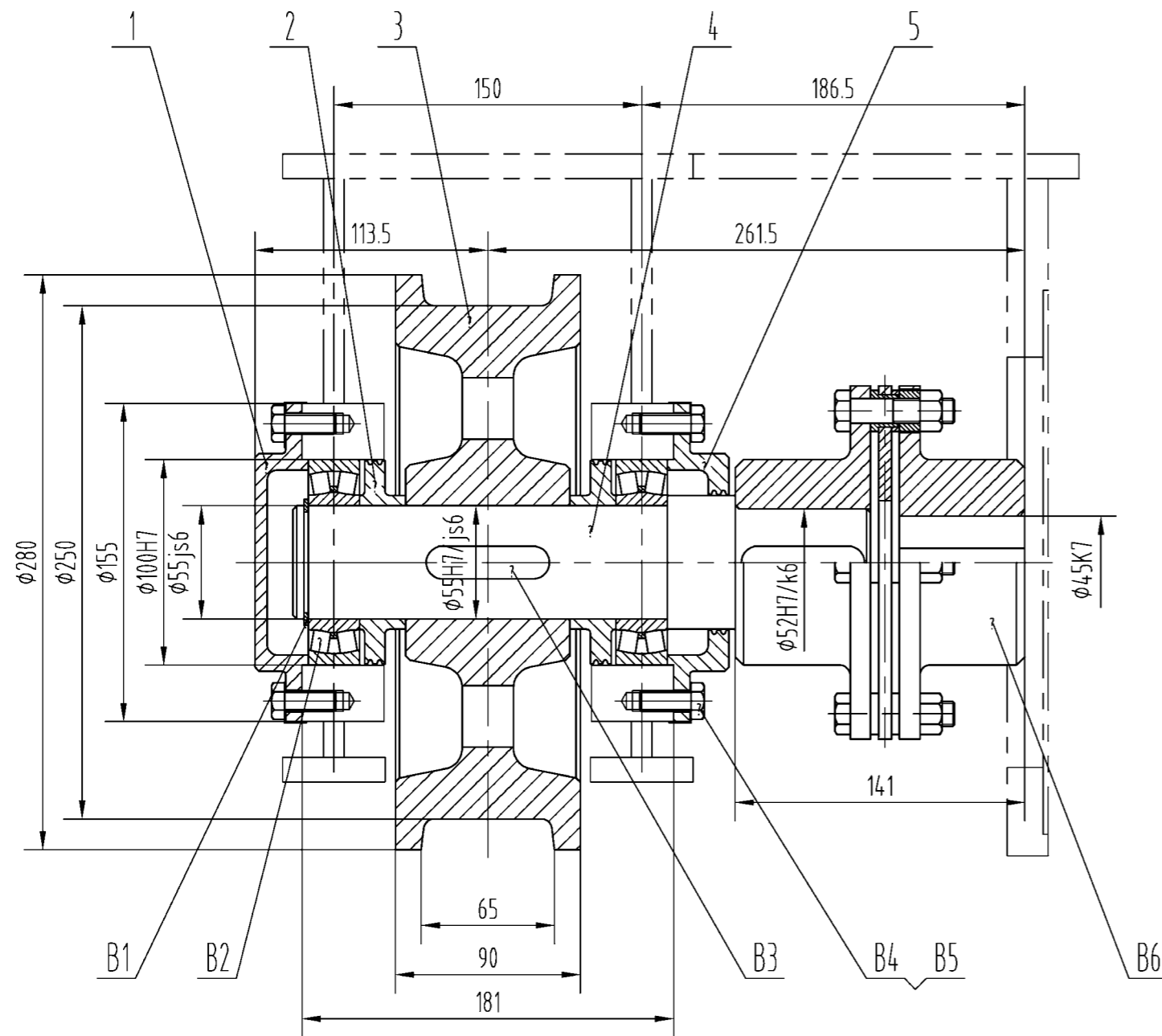
Technical Requirement

- The thickness of the fixed window shall be 5+0.38+5mm,colorless safety glass.
- The thickness of the sliding window shall be 3+0.38+3mm,colorless safety glass.
- The thickness of the glass of the door shall be 3+0.38+3mm,colorless safety glass.

B3	GB95-85	Washer 16	100HV	8		Gal.
B2	GB889-86	Nut M16	8 Grade	8		Gal.
B1	GB5783-86	Bolt M16x45	8.8 Grade	8		Gal.
		BOC01C05	Windows order drawing			
9	BOC01C06	Rain Shield	Q235	1	5	
8		Top Window	Safety Glass	1	25	
7	BOC01C04	Ladder	Assembly	1	84	
6		Lateral Operable Window	Safety Glass	1	8	
5	BOC01C03	Sliding Door	Assembly	1	120	
4		Rubber Carpet	Rubber	1.7m ²	10.2	
3	BOC01C02	Handrail	Q235	1	85	
2		Front Window	Safety Glass	1	34	
1	BOC01C01	Frame of B.O. Cab	Assembly	1	705	




NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
				WEIGHT			
PROJECT:			DESIGN STAGE:				
ITEM NAME: Boom Operation Cab			SCALE: 1:20				
			DRAW NO: BOC01C				
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	1	
	CHCK		VER.		WEIGHT	1077kg	

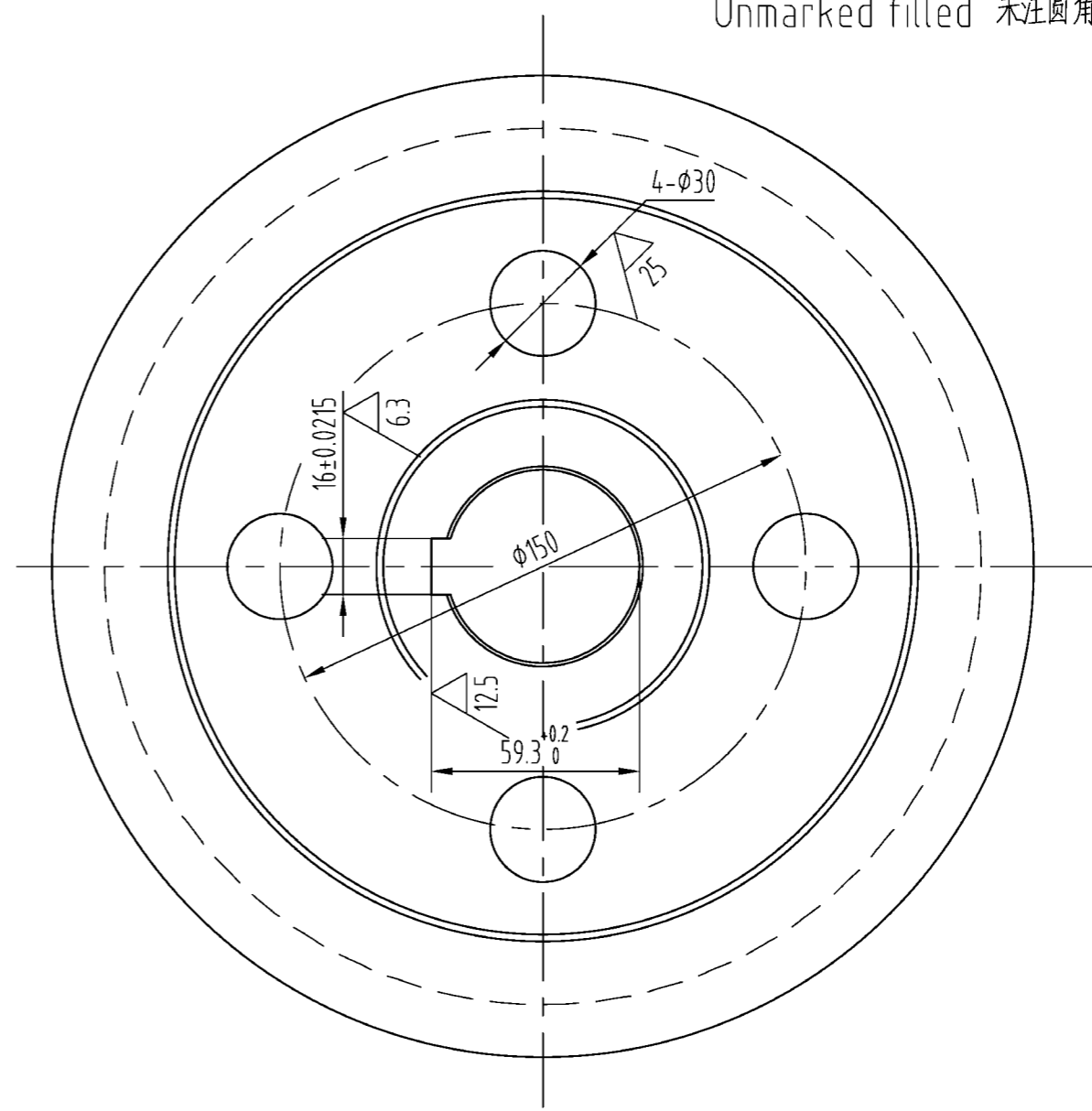
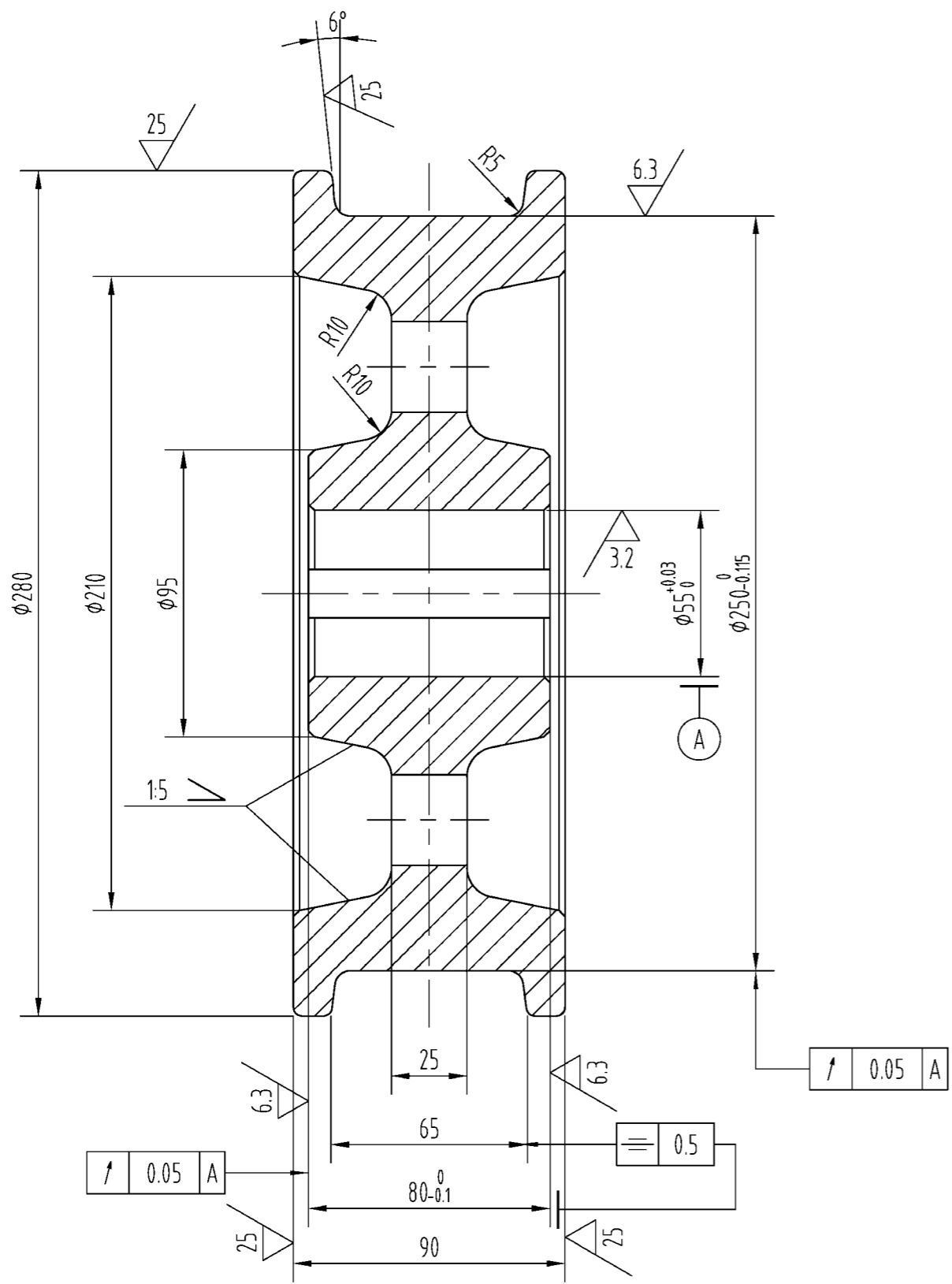
0010H3H



B7	JISB0203	平头油嘴 fitting PT1/4	组件 assembly	2				6	HCH0106	油嘴接管 grease pipe	Q235	2	0.04	0.08	
B6	HCH01B6	膜片联轴器 coupling	组件 assembly	1	10	10	ZPMC	5	HCH0105	通盖 through-hole cover	Q235	1	1.2	1.2	
B5	GB855-88	垫圈 washer 10	不锈钢	12				4	HCH0104	主动轴 driving shaft	45	1	5.3	5.3	
B4	GB5783-86	螺栓 bolt M10×25	A2-70	12				3	HCH0103	车轮 wheel	70	1	21	21	
B3	GB1095-79	键 key 16×60	45	2	0.08	0.16		2	HCH0102	轴套 distance bush	Q235	2	0.3	0.6	
B2	GB/T288-94	轴承 bearing 22211CC	55×100×25	2	0.84	1.68	ZWZ	1	HCH0101	网盖 blind-hole cover	Q235	1	1.4	1.4	
B1	GB894.1-86	挡圈55 baffle	65Mn	1				NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET*WEIGHT	SCALE	
									HCH0100	主动车轮装配 driving wheel unit	组件 assembly	2	41.4	1:3	
								ZPMC	DRAW		TECH.			TRACE	
									CHCK		STDD			CHCK	

HCH0103

Others 其余 
 Chamfer 倒角均2x45°?粗糙度为 
 Unmarked filled 未注圆角R3,粗糙度为 



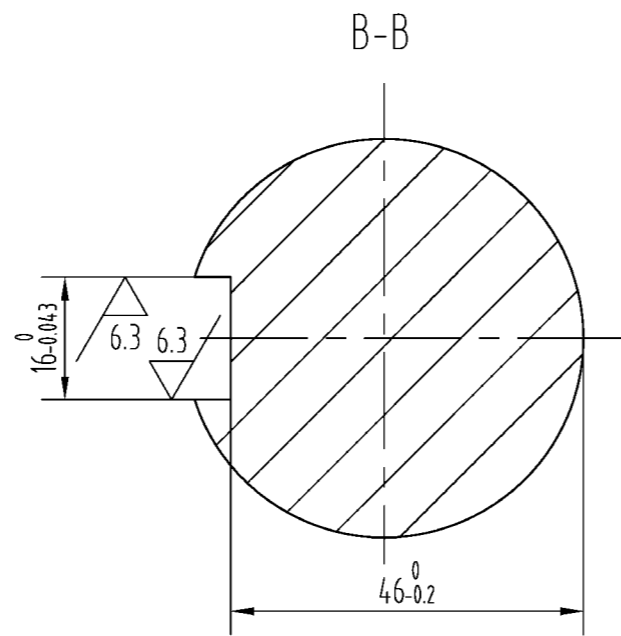
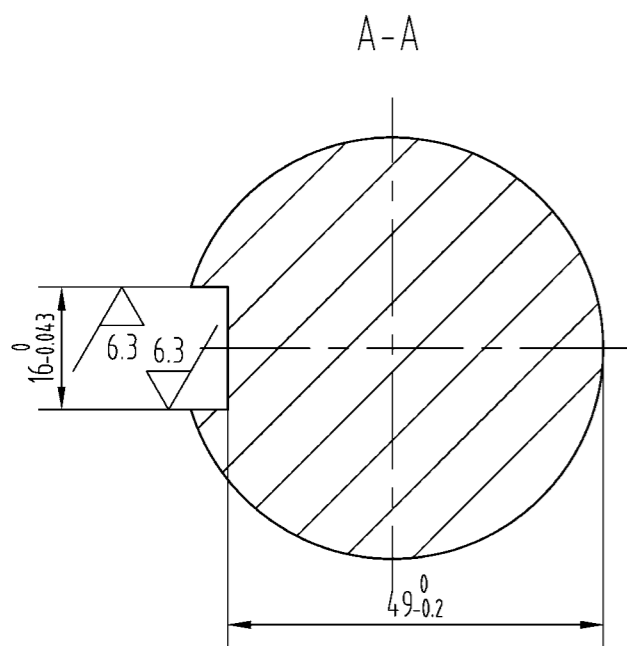
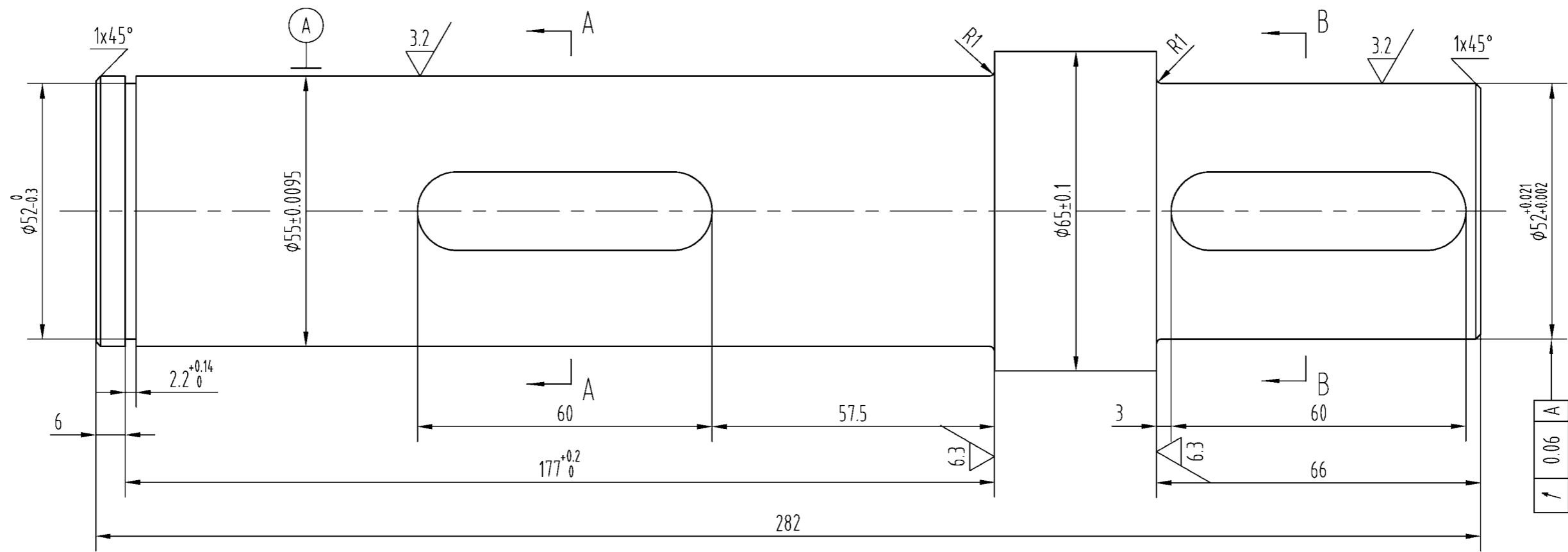
技术要求
 φ250踏面表面淬火,
 深4mm,硬度HRC35~40.

TECHNICAL REQUIREMENT
 Do skin-deep quencher on the surface of φ250,
 the depth is 4mm,the rigidity is HRC35~40.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET*WEIGHT	SCALE
3	HCH0103	车轮 wheel	70	4	21	1:2
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

7010H3H

other 其余 $\sqrt{12.5}$



技术要求

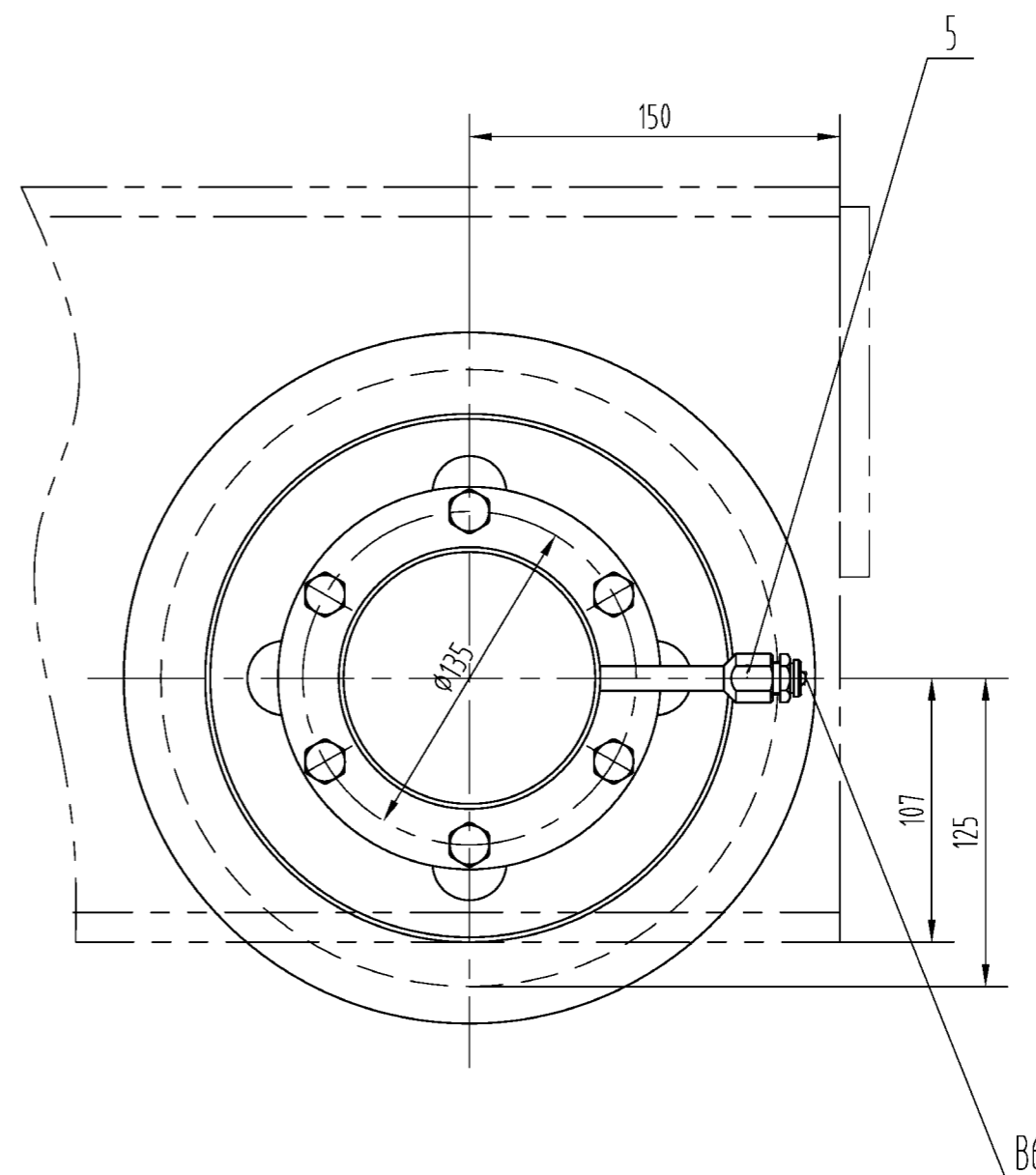
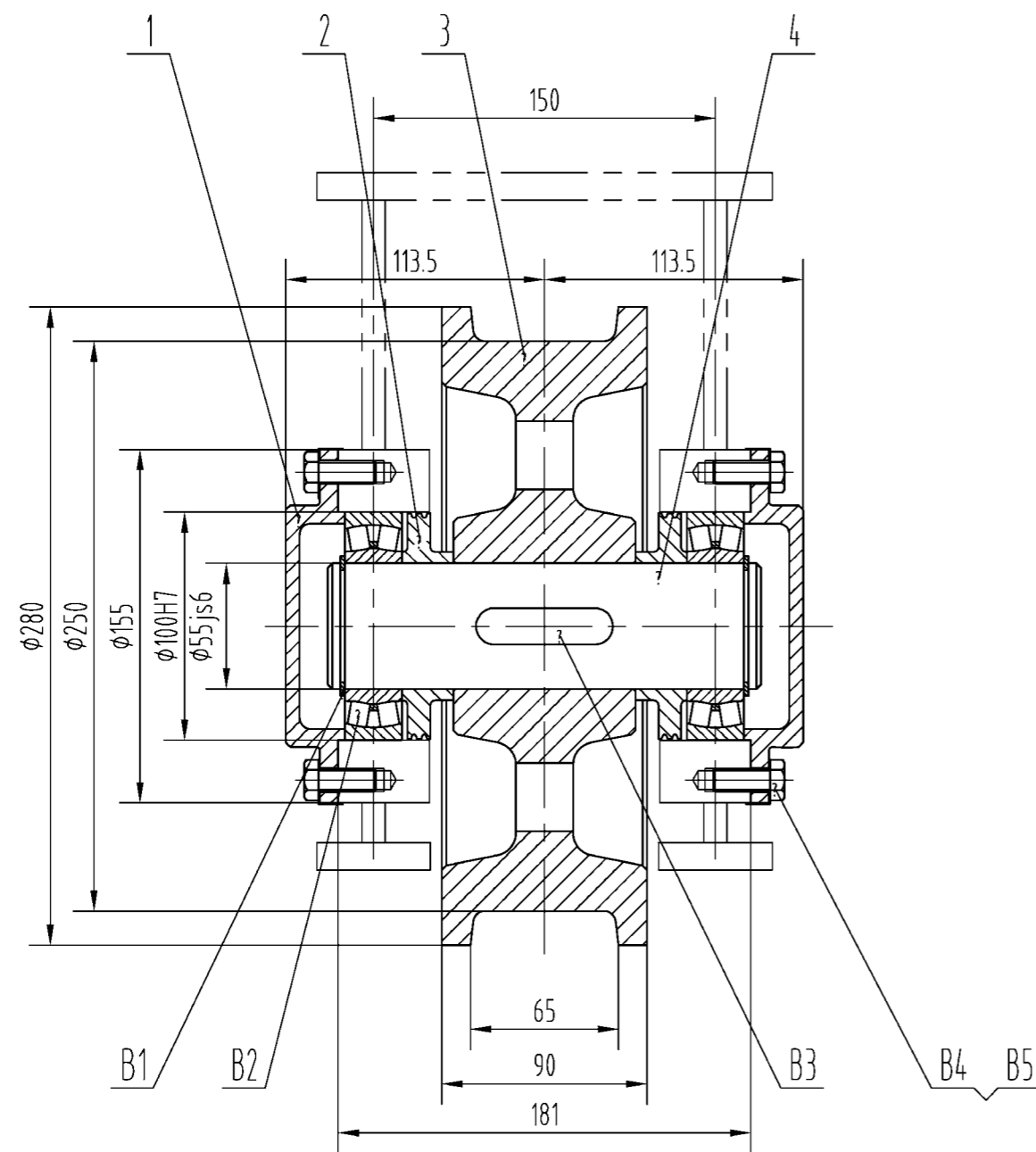
调质处理, 硬度HB220 ~ 250.

Technical Requirement

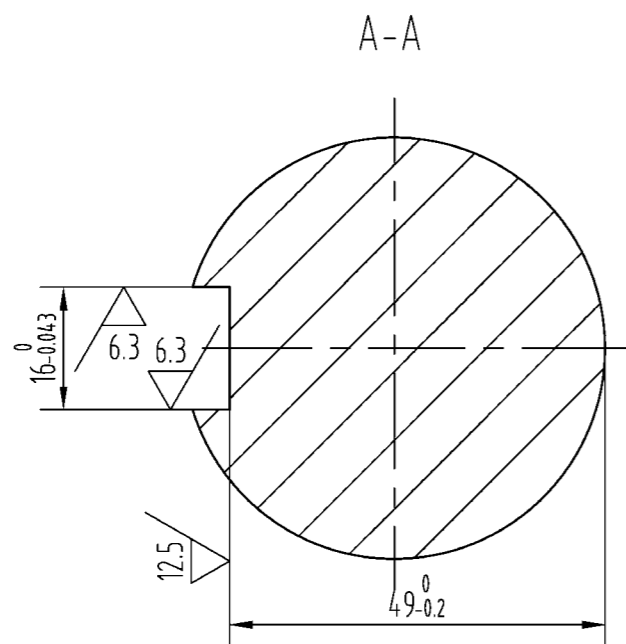
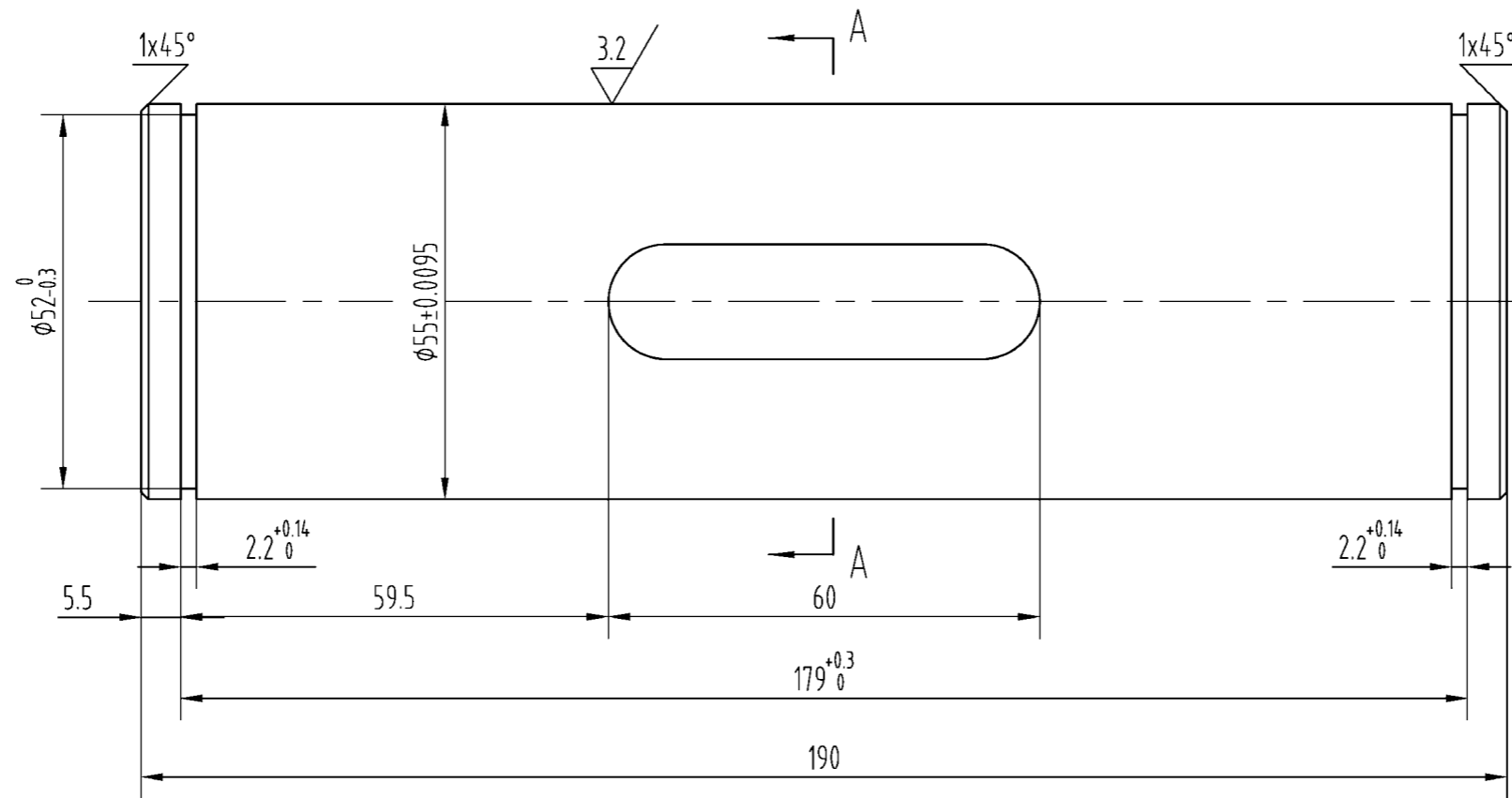
Quenching and tempering: HB220 ~ 250.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET*WEIGHT	SCALE
4	HCH0104	主动轴 driving shaft	45	2	5.3	1:1
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

00Z0H3H



B6	JISB0203	平头油嘴 fitting PT1/4	组件 assembly	2				5	HCH0106	油嘴接管 grease pipe	Q235	2	0.04	0.08	
B5	GB855-88	垫圈 washer 10	不锈钢	12				4	HCH0201	从动轴 driven shaft	45	1	3.5	3.5	
B4	GB5783-86	螺栓 bolt M10×25	A2-70	12				3	HCH0103	车轮 wheel	70	1	21	21	
B3	GB1095-79	键 key 16×60	45	1	0.08	0.08		2	HCH0102	轴套 distance bush	Q235	2	0.3	0.6	
B2	GB/T288-94	轴承 bearing 22211CC	55×100×25	2	0.84	1.68	ZWZ	1	HCH0101	闷盖 blind-hole cover	Q235	2	1.4	2.8	
B1	GB894.1-86	挡圈55 baffle	65Mn	2				NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET*WEIGHT	SCALE	
									HCH0200	从动车轮装配 driven wheel unit	组件 assembly	2	29.7	1:3	
								ZPMC	DRAW		TECH.			TRACE	
									CHCK		STDD			CHCK	



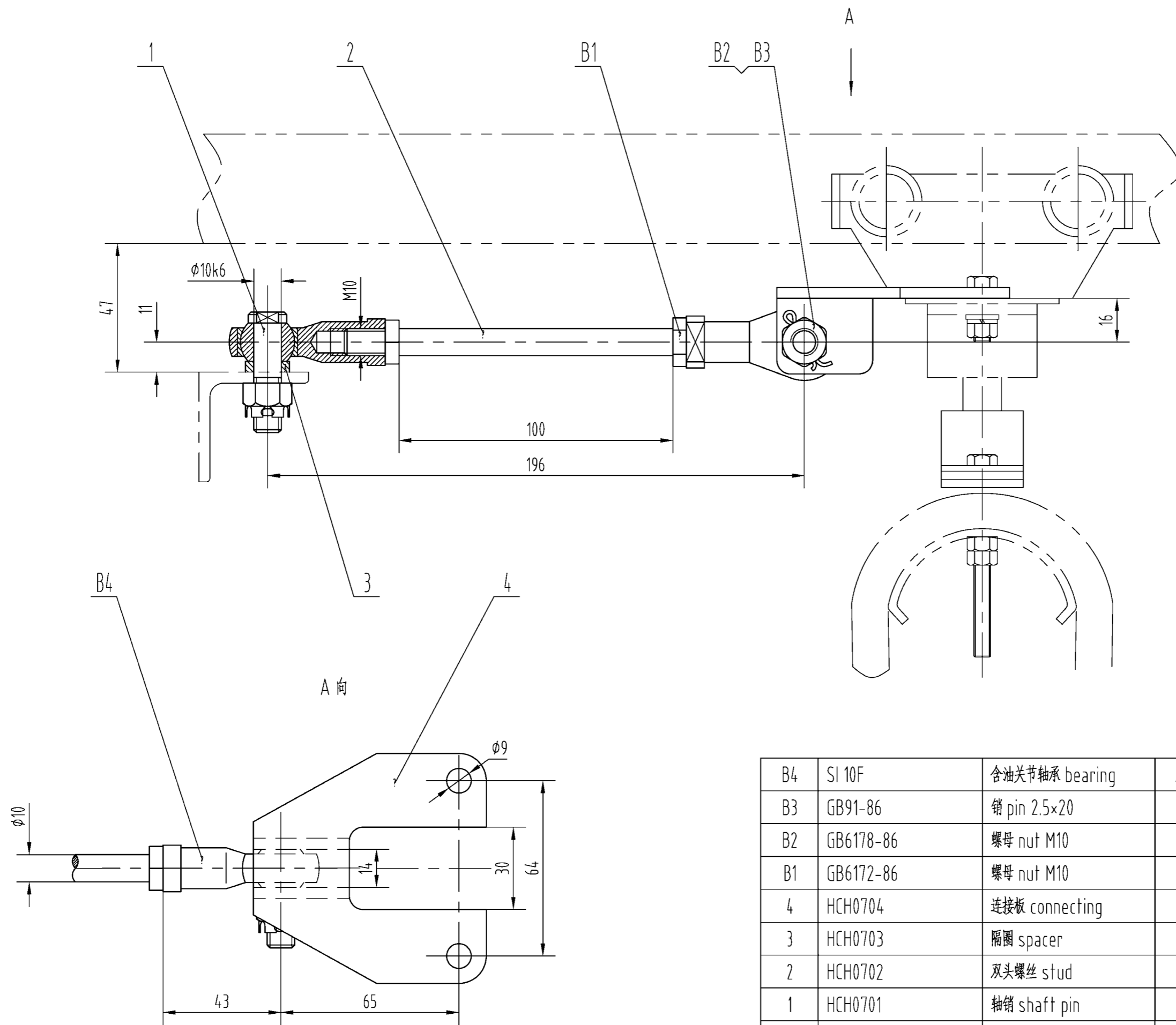
技术要求

调质处理? 硬度HB220~250.

Technical Requirement

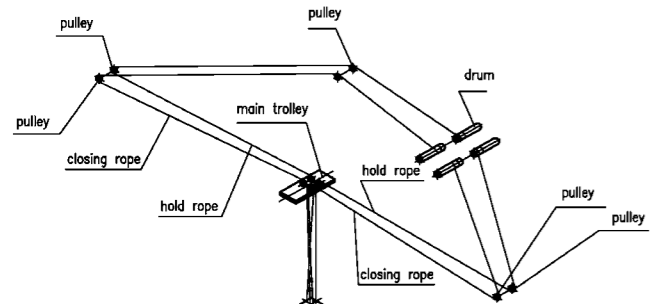
Quenching and tempering: HB220~250.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET*WEIGHT	SCALE
4	HCH0201	从动轴 driven shaft	45	2	3.5	1:1
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



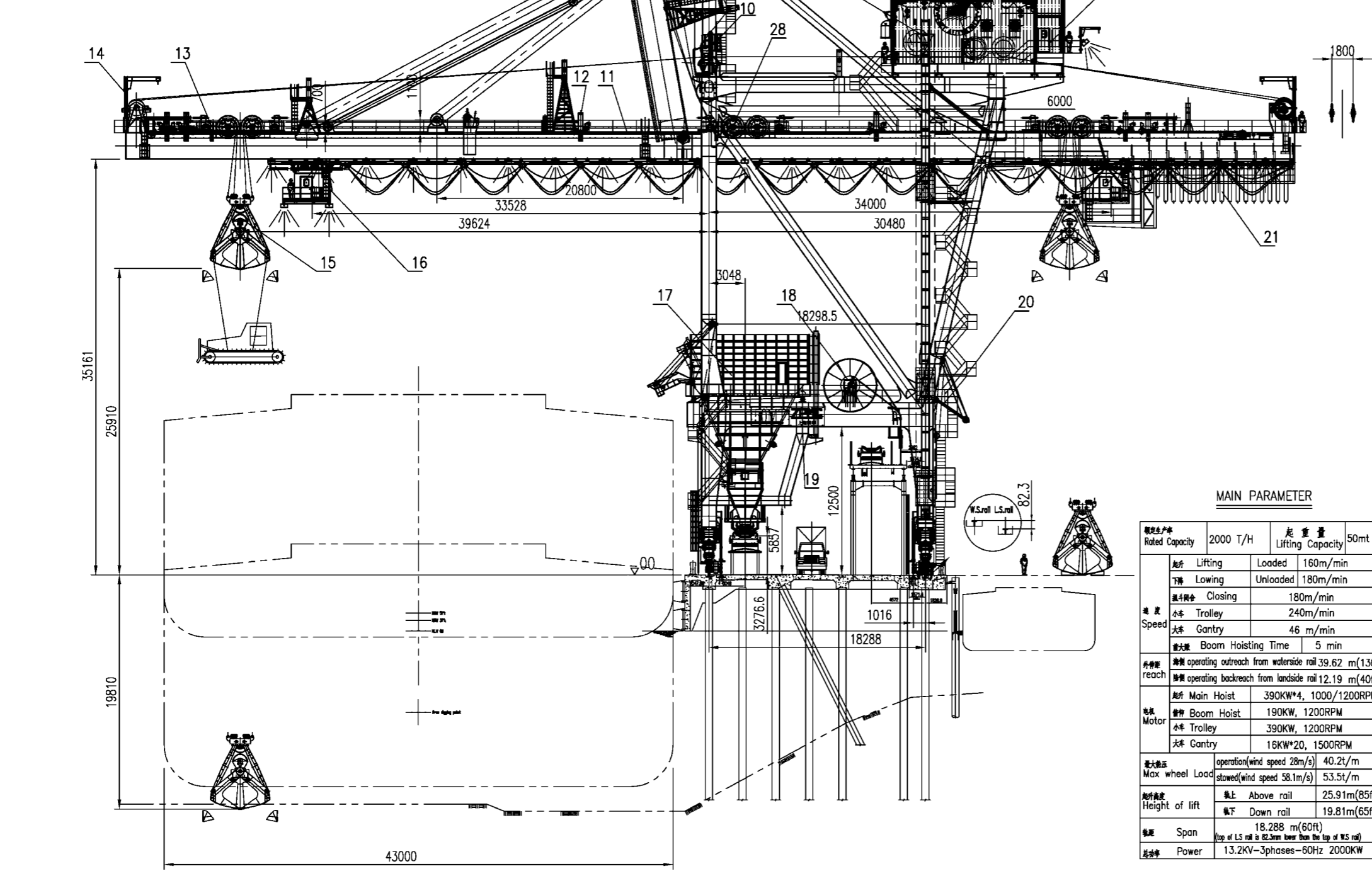
B4	SI 10F	含油关节轴承 bearing	成品 assembly	2			比例
B3	GB91-86	销 pin 2.5×20	1Cr18Ni9Ti	2			
B2	GB6178-86	螺母 nut M10	A2-70	2			
B1	GB6172-86	螺母 nut M10	A2-70	2			
4	HCH0704	连接板 connecting	焊接件 welded	1	0.2	0.2	
3	HCH0703	隔圈 spacer	Q235	1			
2	HCH0702	双头螺丝 stud	20	1	0.08	0.08	
1	HCH0701	轴销 shaft pin	45	2	0.03	0.06	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET*WEIGHT	SCALE	
	HCH0700	拉杆装配 guy rod unit	组件 assembly	2	0.3	1:1.5	
ZPMC		DRAW	TECH.	TRACE			
		CHCK	STDD	CHCK			

revision no.	Sub no.	description	date	sign
01	000		2005.01.06	song
02	000		2005.02.23	song

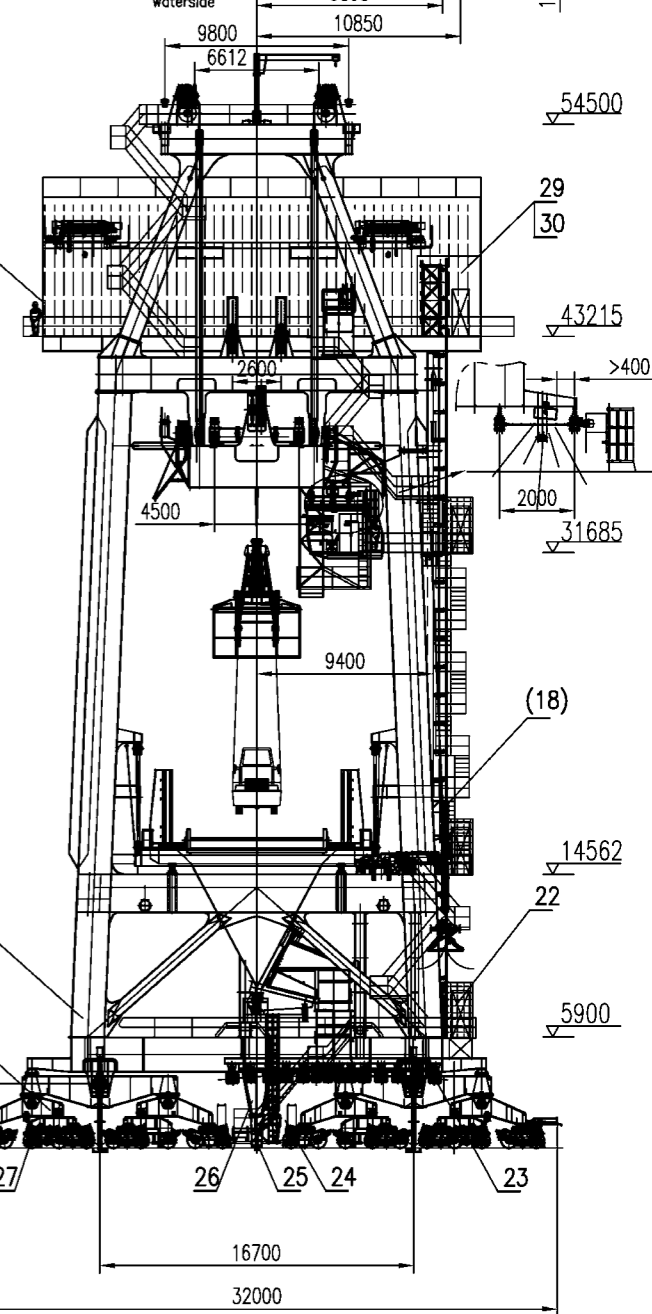
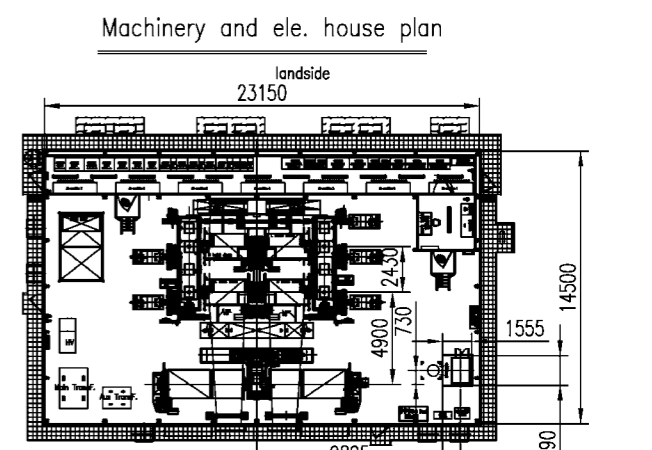


MAIN REEVING SYS.

Boom hoist rope reeving



TROLLEY SUPPORT REEVING SYS.



MAIN PARAMETER

额定生产率 Rated Capacity	2000 T/H	起重量 Lifting Capacity	50mt
起升 Lifting	Loaded	160m/min	
下降 Lowering	Unloaded	180m/min	
小车 Trolley		240m/min	
大车 Gantry		46 m/min	
最大幅度 Boom Hoisting Time		5 min	
海侧操作 outreach from waterside rail	39.62 m (130ft)		
陆侧操作 backreach from landside rail	12.19 m (40ft)		
起升 Main Hoist	390KW*4, 1000/1200RPM		
臂架 Boom Hoist	190KW, 1200RPM		
小车 Trolley	390KW, 1200RPM		
大车 Gantry	16KW*20, 1500RPM		
最大轮压 Max wheel Load	operation(wind speed 28m/s) stowed(wind speed 58.1m/s)	40.2t/m 53.5t/m	
起升高度 Height of lift	海上 Above rail 陆下 Down rail	25.91m(85ft) 19.81m(65ft)	
轨距 Span	18.288 m (60ft) (top of LS rail is 82.5mm lower than the top of WS rail)		
总功率 Power	13.2KV-3phases-60Hz	2000KW	

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total WEIGHT	NOTE
PROJECT:		Alabama 2000t/h ship unloader	DESIGN STAGE:	SCALE:		
ITEM NAME:		GENERAL ARRANGEMENT 总图	DRAW NO:	UL2500	PROJ.	
ZPMC	DSGN	TRACE	APP.			
	DRAW	CHK	QTY/SET	1		
	CHK	VER.	SET/CRANE	~1640t		

SUBSIDIARY LIST

* The quantity and weight of this list is to one set

1 crane, ~1640 t/crane

PAGE: 1/2

PROJECT NAME or CODE:		SUB-PART NAME:			SUB DRAW NO:		
Alabama 2000t/h ship unloader		GENERAL ARRANGEMENT			UL2500		
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	PIECE WGHT	TOTAL WGHT	
1	1	UL250100	Gantry 大车机构	4	42.2	168.8	
2	2	UL250200	Structure 金属结构	1		784.4	
3	3	UL250300	MECH & ELEC House Arrangement 机电器房	1		56.4	
4	4	UL250400	ELEC system 电器系统	1			
5	5	UL250500	M.H. Maintenance lift 室内维修车	1		7.5	
6	6	UL250600	Hoisting and travelling 起升开闭机构	1		139	
7	7	UL250700	Boom hoist drive 俯仰机构	1		40.8	
8	8	UL250800	Boom reeving system 俯仰绕绳系统	1		13.7	
9	9	UL250900	Boom latch 安全钩	1		3.88	
10	10	UL251000	Boom operation cab 俯仰操作室	1		1.05	
11	11	UL251100	General limit switch 整机限位布置	1		0.4	
12	12	UL251200	Main trolley reeving system 小车绕绳系统	1		51.07	
13	13	UL251300	Support trolley reeving system 拖绳小车绕绳系统	1		16.35	
14	14	UL251400	Outdoors maintenance lift 室外维修车	3	0.6	1.8	
15	15	UL251500	Bucket 抓斗 (两件:一件进口,一件上海配套)	2	20.4	20.4x2	
16	16	UL251600	Operator's cab 司机室	1		5.6	
17	17	UL251700	Unload system 卸料系统	1		117.7	
18	18	UL251800	Power cable reel device 电缆卷筒装置	1		2	
19	19	UL251900	Nameplate 铭牌布置	1		1.6	
20	20	UL252000	Stairs & Platform 梯子平台步道	1		80	
21	21	UL252100	Festoon system 拖令系统	1		0.86	
22	22	UL252200	Manlift arrangement 电梯布置	1		0.92	
ZPMC		DSGN	TECH	MTRL			
		CHCK	STDD	CHCK			

SUBSIDIARY LIST

* The quantity and weight of this list is to one set

1 crane, ~1640 t/crane

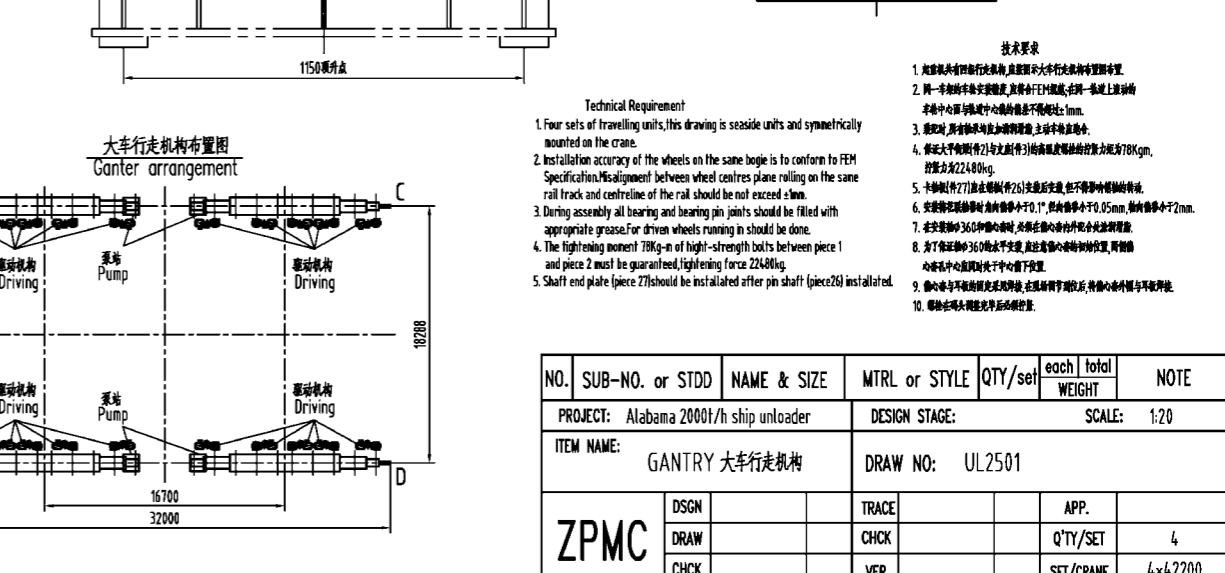
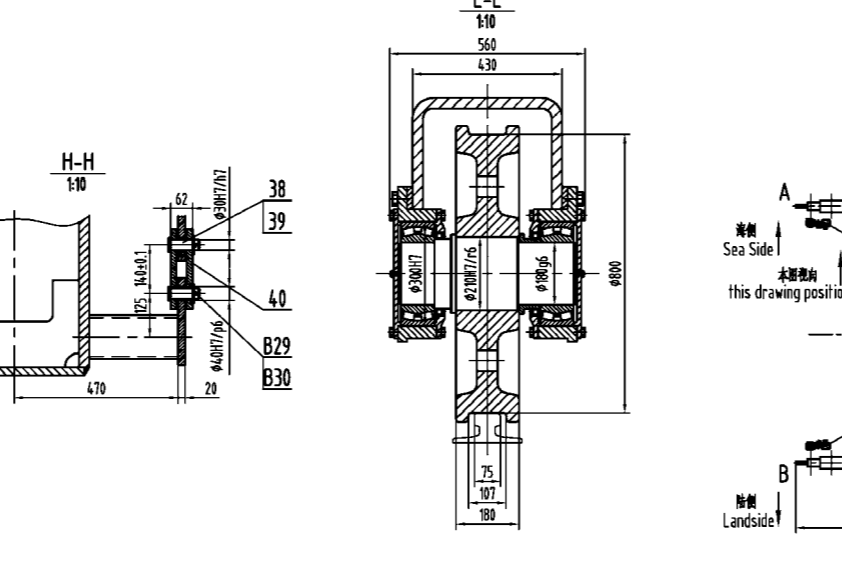
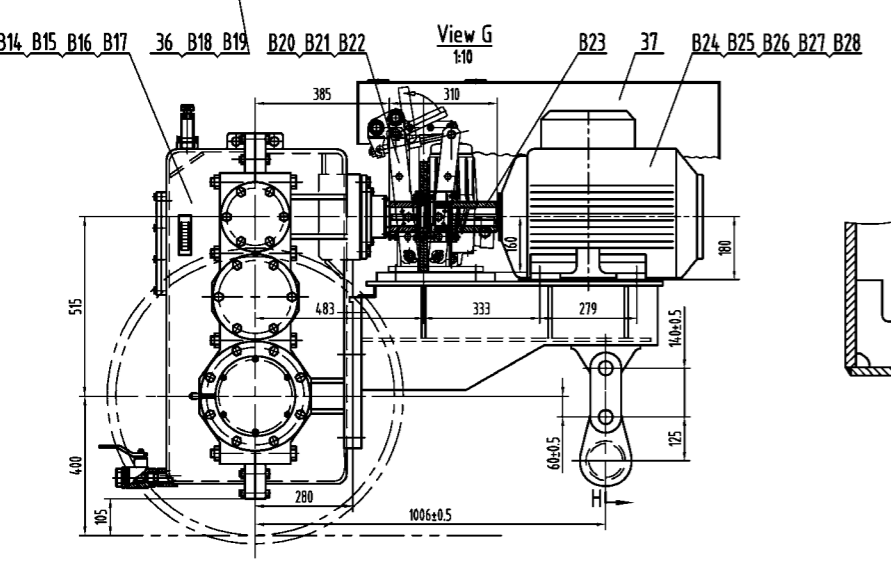
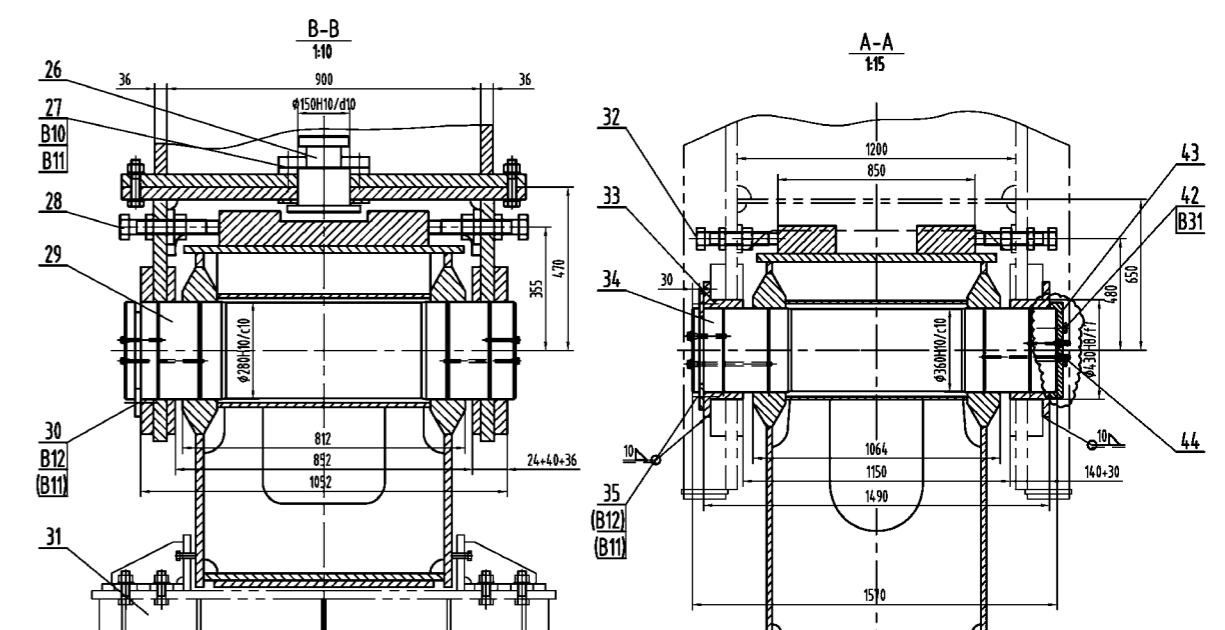
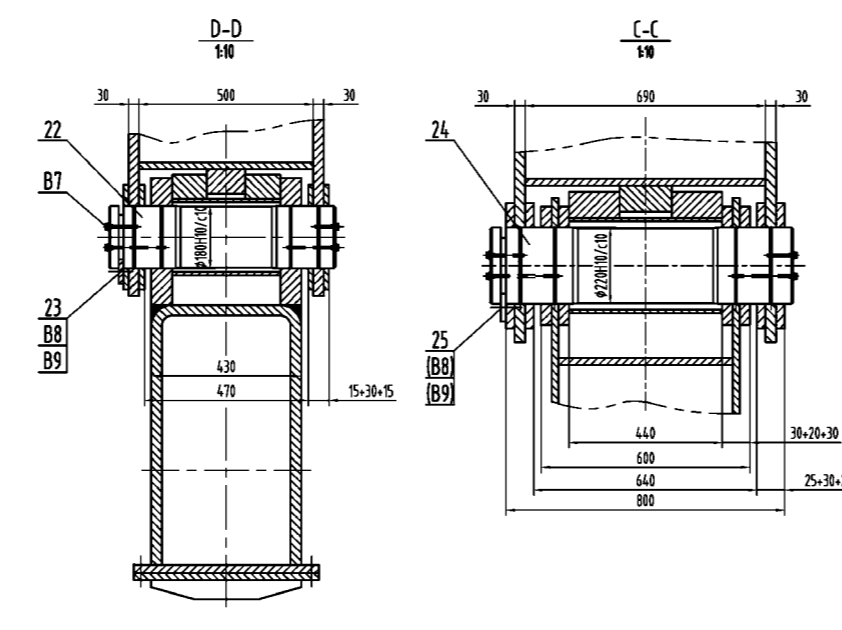
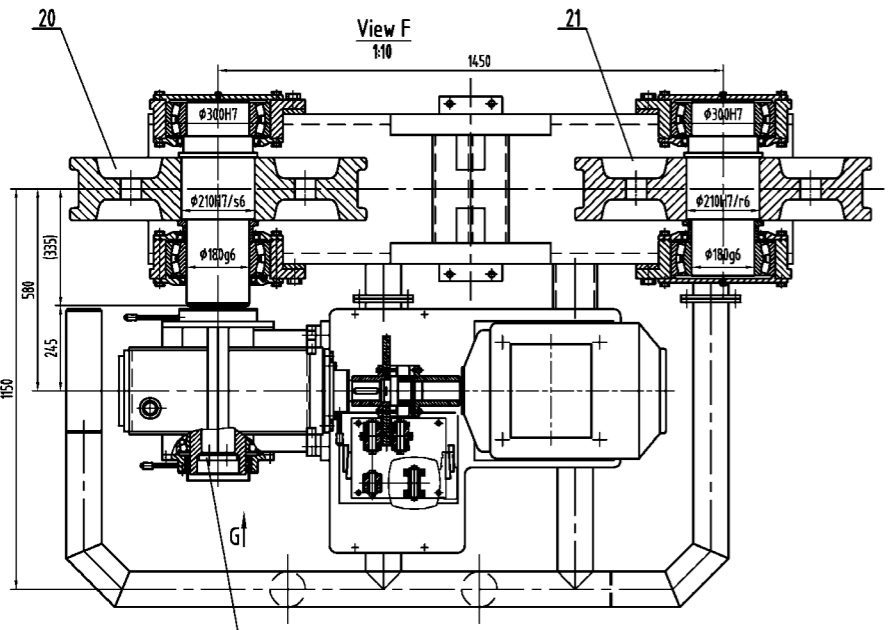
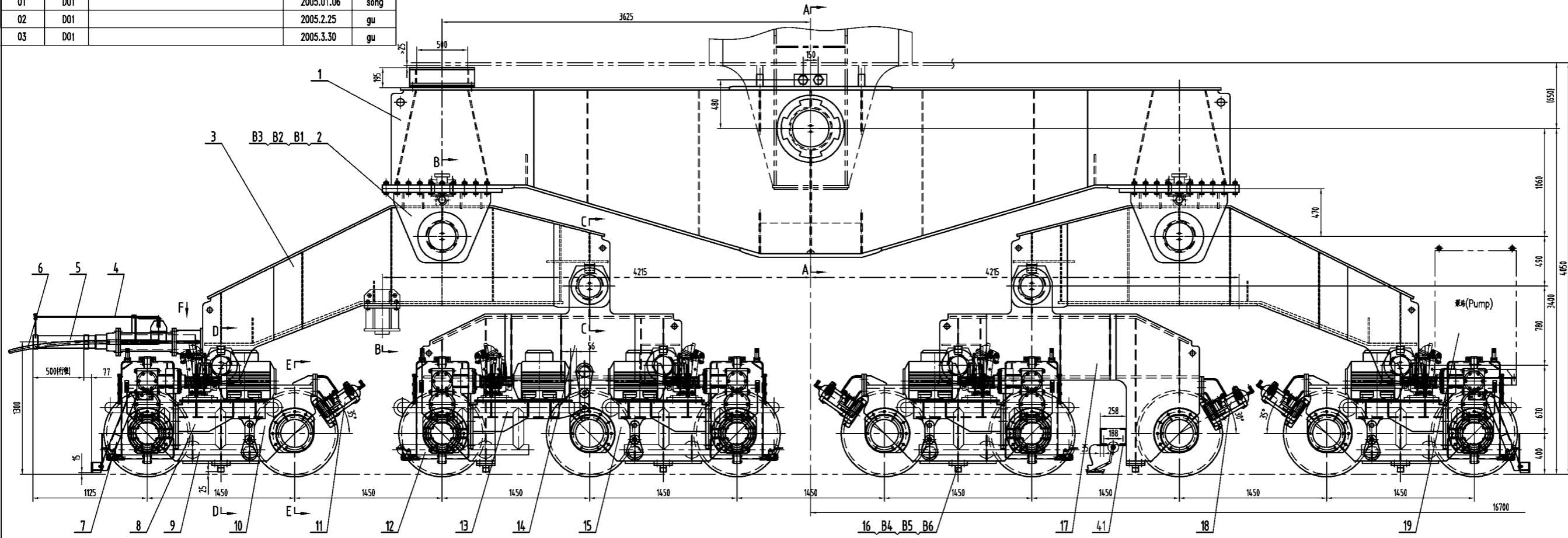
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PROJECT NAME or CODE:		SUB-PART NAME:			SUB DRAW NO:		
Alabama 2000t/h ship unloader		GENERAL ARRANGEMENT			UL2500		
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	PIECE WGHT	TOTAL WGHT	
1	23	UL252300	Storm anchor 防风拉杆系统	4	0.52	2.08	
2	24	UL252400	Hydraulic system 液压系统	1		5.5	
3	25	UL252500	Wharf arrangement 码头布置	1		0	
4	26	UL252600	Tie down device 锚定装置	2	2.4	4.8	
5	27	UL252700	Lubrication system 润滑系统	1		3	
6	28	UL252800	Cab safeguard 司机室保护装置	1		0.2	
7	29	UL252900	Air compressor system 空压机系统	1		0.6	
8	30	UL253000	Rope rereeving system 换绳装置	1		1.9	
9	31	UL253100	Boom protection device 前大梁保护装置	1		0.4	
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
ZPMC		DSGN	TECH	MTRL			
		CHCK	STDD	CHCK			

revision no.	Sub no.	description	date	sign
01	D01		2005.01.06	song
02	D01		2005.2.25	gu
03	D01		2005.3.30	gu

MAIN DATA 主要参数

GANTRY SPEED 行走速度	4.6m/min	
GANTRY WHEEL DIAMETER 车轴直径	φ800mm	
MOTOR 电动机 (ABB)	TYPE 型号	M3BP 180M4
	POWER 功率	18KW
	SPEED 转速	1500rpm
COUPLING 联轴节 (ZPMC)	TYPE 型号	MPLK6-355x20
	TORQUE 扭矩	630Nm
	BRAKE DISC 制动盘尺寸	φ355X20mm
REDUCER 减速机 (ZPMC)	TYPE 型号	FBS15.82.D1B-00
	RATIO 速比	82.412
BRAKE 二致制动器 (ZPMC)	TYPE 型号	YPL11-300-355X20
	BRAKE TORQUE 制动力矩	180/380 Nm
WHEEL BRAKE 夹轮器 (ZPMC)	TYPE 型号	YLZ63-180CP
	BRAKING FORCE 夹力	114KN
BUFFER 缓冲器 (ZPMC)	TYPE 型号	7/500 BQD140-517
	STROKE 行程	500mm
	DYNAMIC CAPACITY 缓冲容量	280KJ
	MAX IMPACT FORCE 冲击力	700KN
WHEEL LOAD 工作轮压	<60t	
NON-WHEEL LOAD 非工作轮压	<80t	
RAIL TYPE 轨道型号	135lb/yd	



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total WEIGHT	NOTE
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:20	
ITEM NAME: GANTRY 大车行走机构			DRAW NO: UL2501			
ZPMC	DSGN		TRACE		APP.	
	DRAW		CHCK		QTY/SET	4
	CHK		VER.		SET/CRANE	4x42200

SUBSIDIARY LIST

* The quantity and weight of this list is to one set
4 set/crane, 42200 kg/set, 168800 kg/crane

PAGE: 1/3

PROJECT NAME or CODE:		SUB-PART NAME:		SUB DRAW NO:		
Alabama 2000t/h ship unloader		Gantry 大车行走机构		UL2501		
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/SET	PIECE WGHT	TOTAL WGHT
1	UL250101	Upper beam 大平衡梁	Welded 焊接件	1		9608
2	UL250102	Support 连接支架	Welded 焊接件	2	815	1630
3	UL250103	Middle beam 中平衡梁	Welded 焊接件	2	2928	5856
4	UL250104	L. S. Ass. 防撞限位装置	Assembly 组件	1		
5	UL250105	Buffer device 缓冲器装置	Assembly 组件	1		247
6	UL250106	Buffer safety device 缓冲器安全装置	Assembly 组件	1		20
7	GTE03a	Sweep suport 清扫架	Assembly 组件	2	36.4	72.8
8	UL250107	Base 底座1	Welded 焊接件	4	162	648
9	UL250108	Enclosure 护栏1	Assembly 组件	4		
10	UL250109	Bogie 台车1	Welded 焊接件	3	886	2658
11	UL250110	Wheel brake Ass. 轮轴制动装置1	Assembly 组件	3	182	546
12	UL250111	Enclosure 护栏2	Assembly 组件	1		
13	UL250112	Base 底座2	Welded 焊接件	1		164
14	UL250113	Lower beam 小平衡梁1	Welded 焊接件	1		1510
15	UL250114	Bogie 台车2	Welded 焊接件	1		865
16	GTC02	Anti-break block 新轴保护块	Welded 焊接件	6	24.4	146.4
17	UL250115	Lower beam 小平衡梁2	Welded 焊接件	1		1510
18	UL250116	Wheel brake Ass. 轮轴制动装置2	Assembly 组件	1		180
19	UL250117	Pump support 泵站支架	Welded 焊接件	1		
20	UL250118	Driving shaft assembly 主动轴轴套	Assembly 组件	5	780	3900
21	UL250119	Driven shaft assembly 从动轴轴套	Assembly 组件	5	735	3675
22	UL250120	Shaft 轴 φ180	45	4	126	504
23	UL250121	Shaft end plate 卡轴板	Q235	4	1.6	6.4
24	UL250122	Shaft 轴 φ220	45	2	251	502
ZPMC	DSGN		TECH		MTRL	
	CHCK		STDD		CHCK	

SUBSIDIARY LIST

* The quantity and weight of this list is to one set
4 set/crane, 42200 kg/set, 168800 kg/crane

PAGE: 2/3

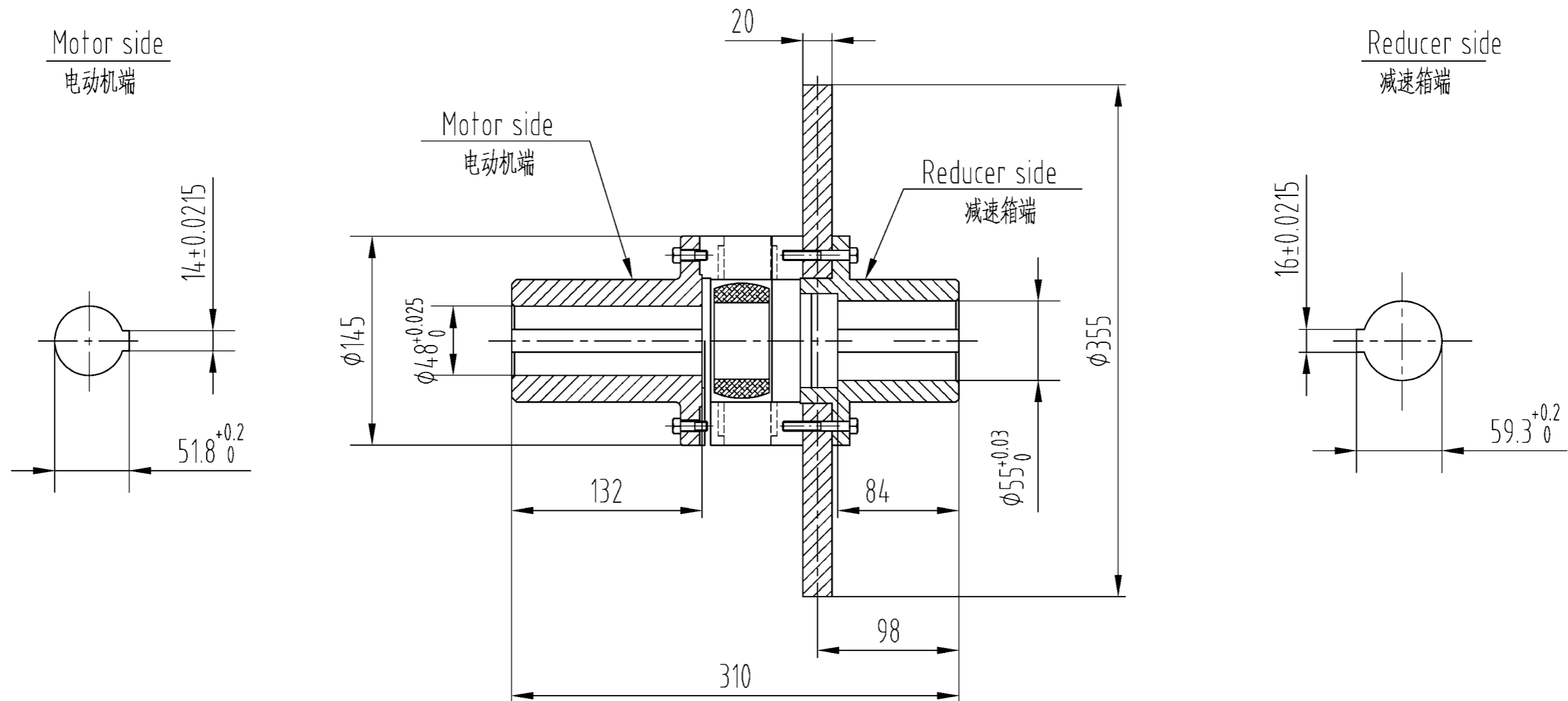
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Alabama 2000t/h ship unloader		Gantry 大车行走机构		UL2501		
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/SET	PIECE WGHT	TOTAL WGHT
25	UL250123	Shaft end plate 卡轴板	Q235	2	2	4
26	GTA02	Shaft end plate 卡轴板	Q235	4	3.8	15.2
27	GTA01b(36)	Pin shaft 销轴	45	2	27	54
28	UL250124	Adjustable device1 调节装置1	Assembly 组件	2	6	12
29	UL250125	Shaft 轴 φ280	45	2	528	1056
30	UL250126	Shaft end plate 卡轴板	Q235	2	2.5	5
31	UL250127	Jacking pedestal 顶升装置	Assembly 组件	1/台	34.3	
32	UL250128	Adjustable device2 调节装置2	Assembly 组件	1		14
33	GTK04.01(UL2501)	Eccentric sleeve 偏心套	35	2	78	156
34	UL250129	Shaft 轴 φ360	45	1		1260
35	UL250130	Shaft end plate 卡轴板	Q235	2	6.1	12.2
36	UL250131	cover 轴端盖	Q235	5	1	5
37	UL250132	Motor cover 罩壳	Assembly 组件	5		
38	UL250133	Sleeve 轴套	Q235	10	0.04	0.4
39	UL250134	Pin shaft 销轴	45	10	0.6	6
40	UL250135	Link plate 连接板	Welded 焊接件	10	2.5	25
41	UL250136	earthing shoe 接地靴安装	Welded 焊接件	4	13.4	53.6
42	UL250137	washer 防松垫片	Q235	4		
43	UL250138	end cover 端盖	Q235	4		
44	NPC2	fitting connector 油嘴接头		8	ZPMC standard	
B1	GB/T1228-91	Bolt 螺栓M24×120	10.9S Dacro 达克罗	58		
B2	GB/T1229-91	Nut 螺母M24	10H Dacro 达克罗	58		
B3	GB/T1230-91	Washer 垫圈24	Dacro 达克罗	116		
B4	GB5782-86	Bolt 螺栓M16×75	8.8S Dacro 达克罗	24		
B5	GB889-86	Nut 螺母M16	8s Dacro 达克罗	24		
B6	GB95-85	Washer 垫圈16	Dacro 达克罗	24		
ZPMC	DSGN		TECH		MTRL	
	CHCK		STDD		CHCK	

SUBSIDIARY LIST

* The quantity and weight of this list is to one set
4 set/crane, 42200 kg/set, 168800 kg/crane

PAGE: 3/3

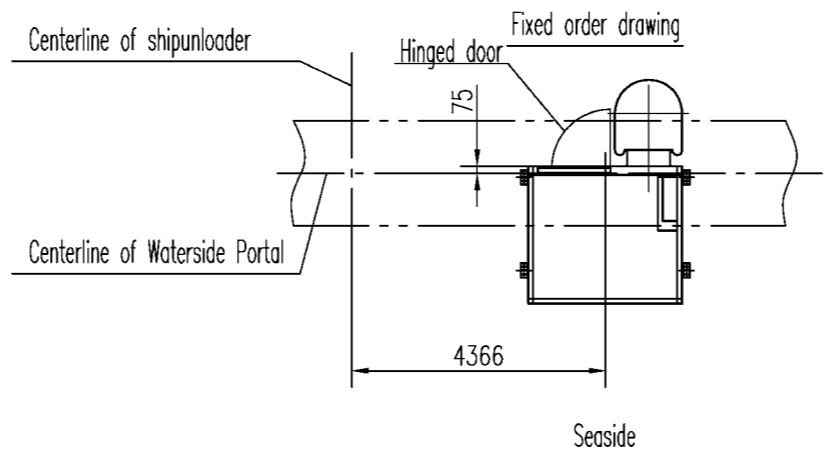
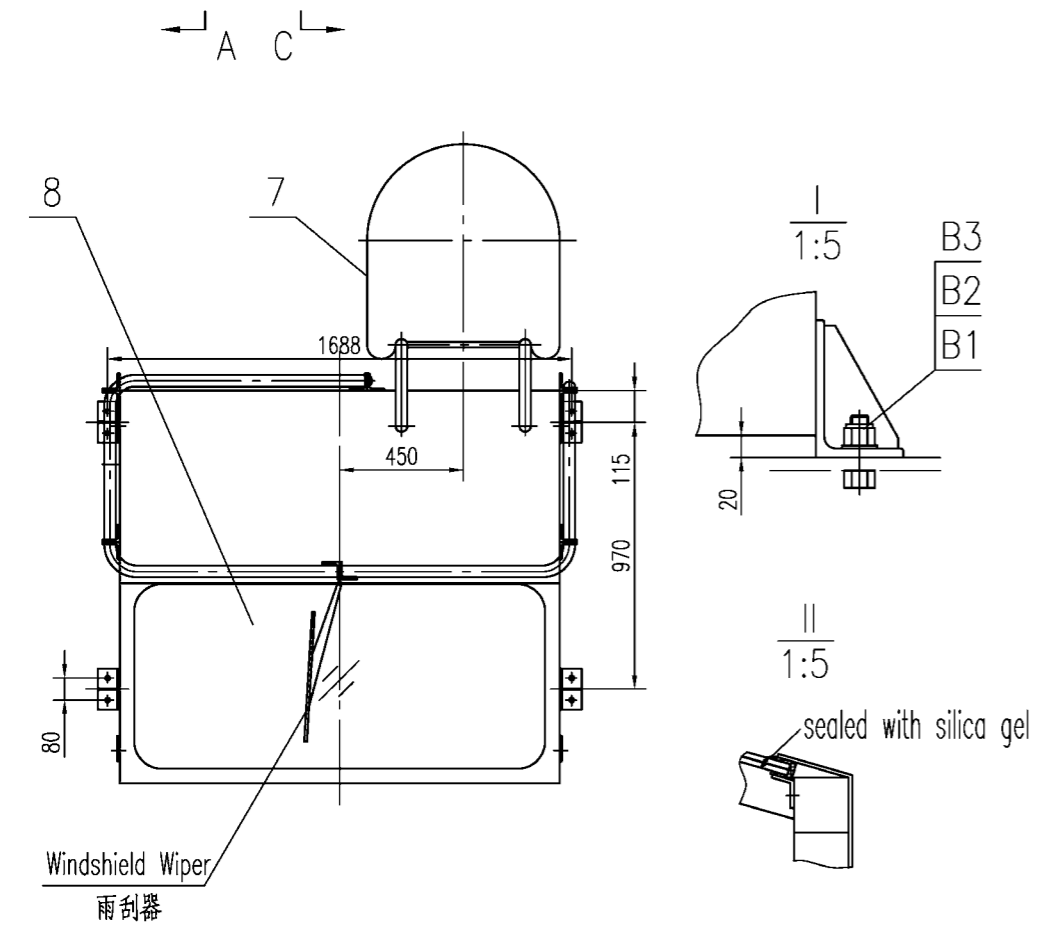
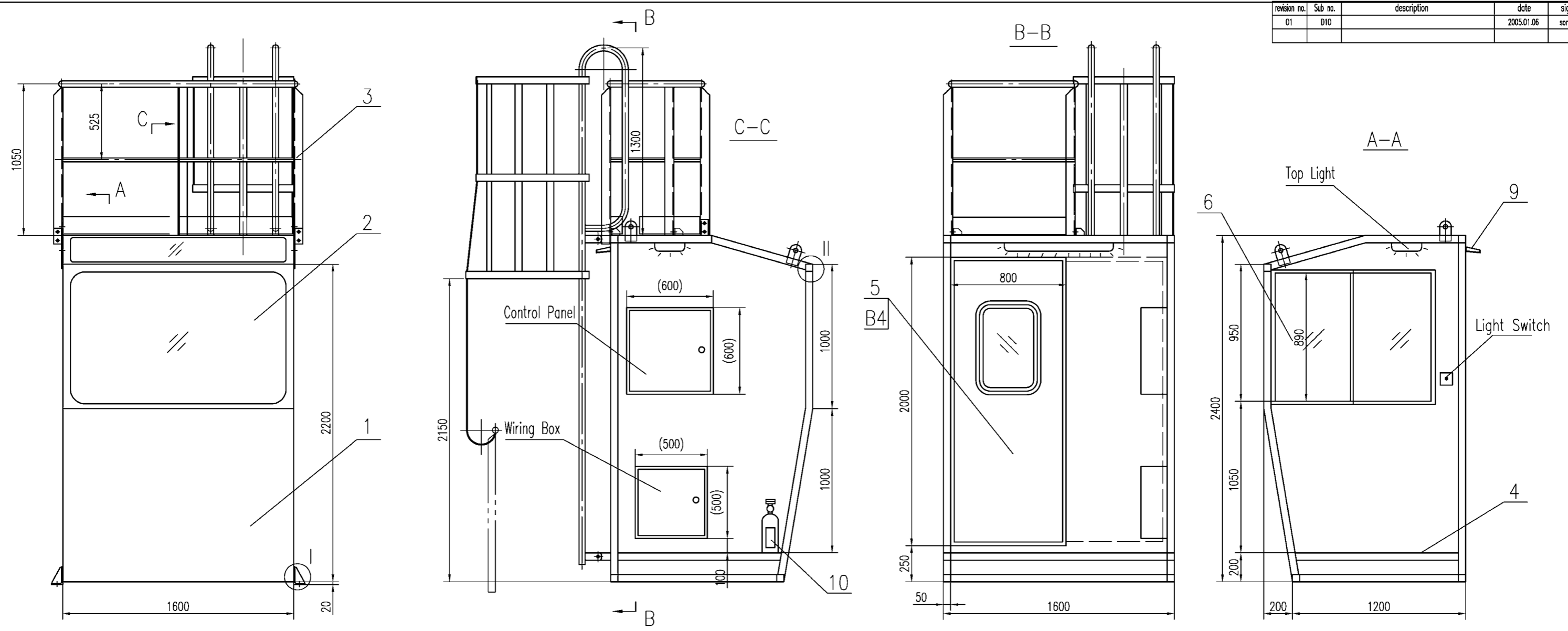
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Alabama 2000t/h ship unloader		Gantry 大车行走机构		UL2501		
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/SET	PIECE WGHT	TOTAL WGHT
B7	JIS B0203	Nipple 油嘴PT1/4"	Sta.Ste. 不锈钢	36		
B8	GB5783-86	Bolt 螺栓M20×40	8.8S Dacro 达克罗	12		
B9	GB855-88	Washer 垫圈20	Dacro 达克罗	12		
B10	GB5782-86	Bolt 螺栓M24×80	8.8S Dacro 达克罗	8		
B11	GB855-88	Washer 垫圈24	Dacro 达克罗	16		
B12	GB5783-86	Bolt 螺栓M24×50	8.8S Dacro 达克罗	8		
B13	FB515.82.D1B-00	Reducer 减速机	ZPMC	5	620	3100
B14	GB5782-86	Bolt 螺栓M24×95	8.8S Dacro 达克罗	40		
B15	GB889-86	Nut 螺母M24	8s Dacro 达克罗	40		
B16	GB95-85	Washer 垫圈24	Dacro 达克罗	40		
B17	GB118-86	Pin 销16×50	Dacro 达克罗	10		
B18	GB5783-86	Bolt 螺栓M16×40	8.8S Dacro 达克罗	10		
B19	GB856-88	Washer 垫圈16	Dacro 达克罗	10		
B20	YPL11-300-355X20	Brake 二级制动器	ZPMC	5	95	475
B21	GB5783-86	Bolt 螺栓M12×35	Ste.Stl. 不锈钢	20		
B22	GB855-88	Washer 垫圈12	Ste.Stl. 不锈钢	20		
B23	MPLK6-355x20	Coupling 联轴器	ZPMC	5	36	180
B24	M3BP 180M4	Motor 电动机	ABB	5	160	800
B25	GB5782-86	Bolt 螺栓M12×60	8.8S Ste.Stl. 不锈钢	20		
B26	GB889-86	Nut 螺母M12	8s Ste.Stl. 不锈钢	20		
B27	GB95-85	Washer 垫圈12	Ste.Stl. 不锈钢	20		
B28	AS-12	Washer 调整垫圈12 不锈钢(0Cr18Ni9-304)	16组		数量及厚度规格按装配定	
B29	GB95-85	Washer 垫圈30	Dacro 达克罗	10		
B30	GB91-86	Pin 开口销6.3×50	Ste.Stl. 不锈钢	10		
B31	GB5783-86	nut 螺栓24×55	Dacro 达克罗	12		
ZPMC	DSGN		TECH		MTRL	
	CHCK		STDD		CHCK	



公称扭矩为630N.m rated moment 630Nm

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL2501B23	MLPK6带制动盘梅花弹性联轴器	定货用图 for order	20/台		
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

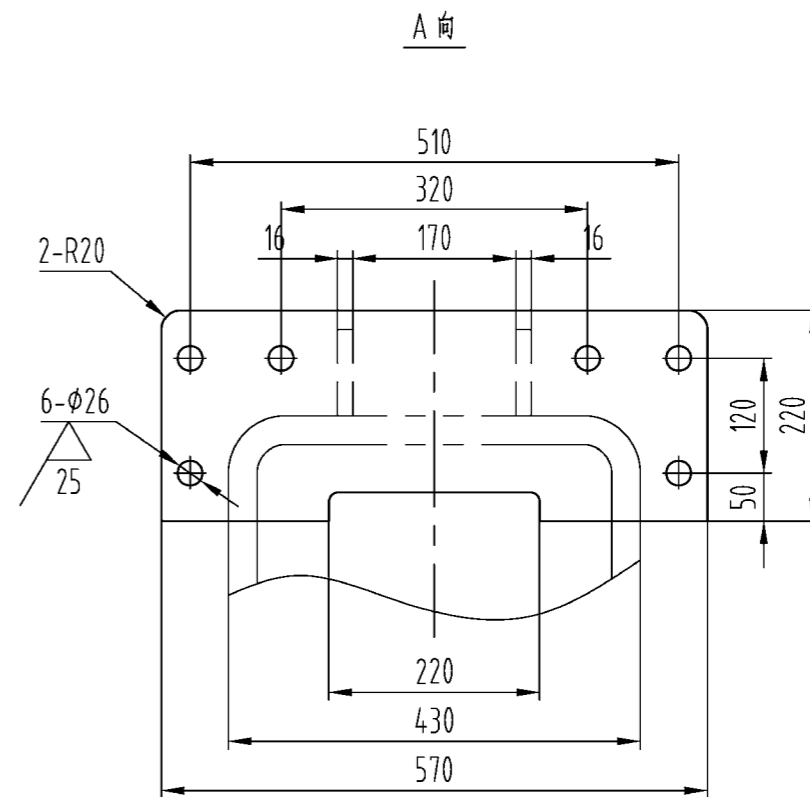
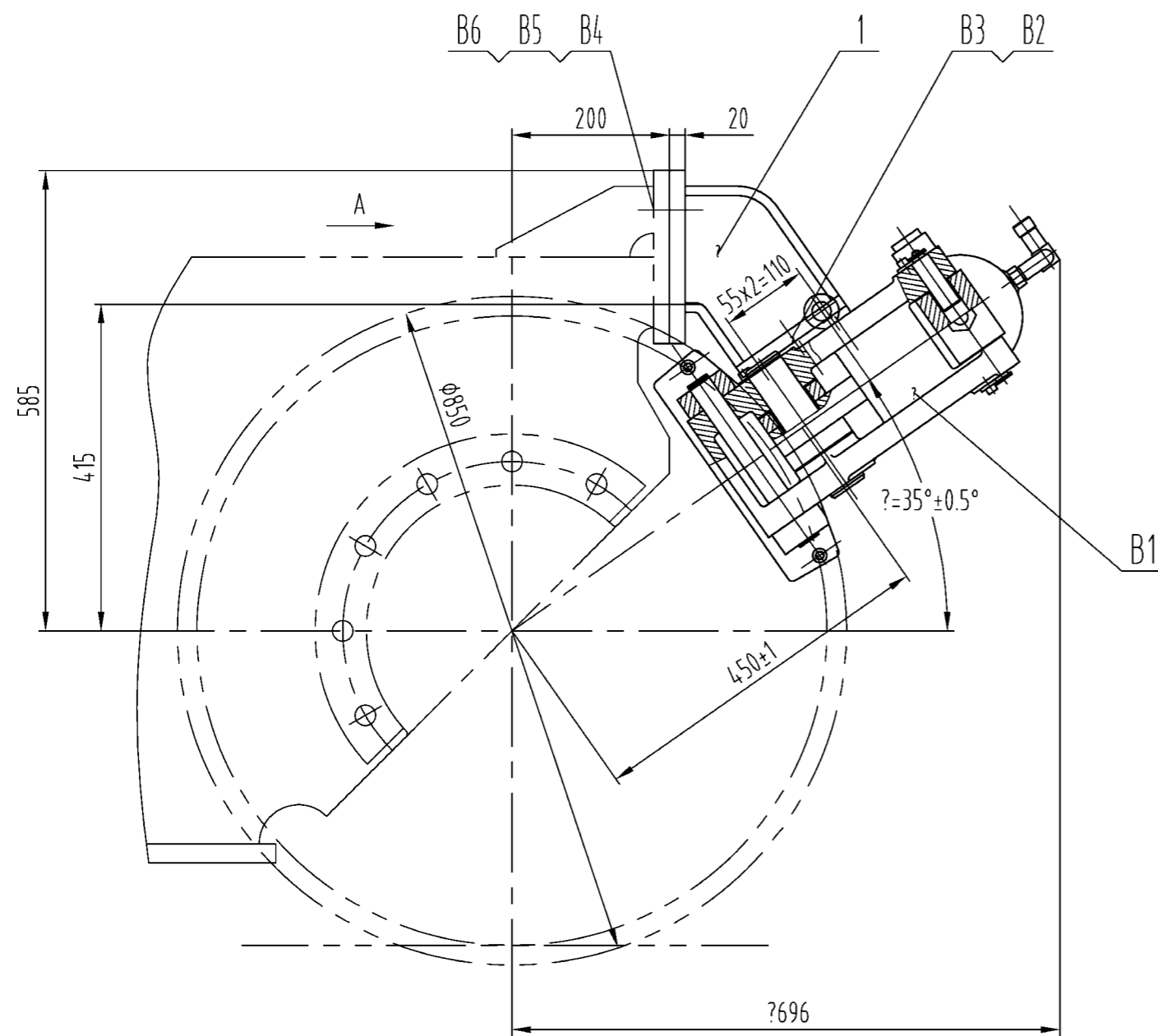
revision no.	Sub no.	description	date	sign
01	010		2005.01.06	song



Technical Requirement

1. The thickness of the fixed window shall be 5+0.38+5mm,colorless safety glass.
2. The thickness of the sliding window shall be 3+0.38+3mm,colorless safety glass.
2. The thickness of the glass of the door shall be 3+0.38+3mm,colorless safety glass.

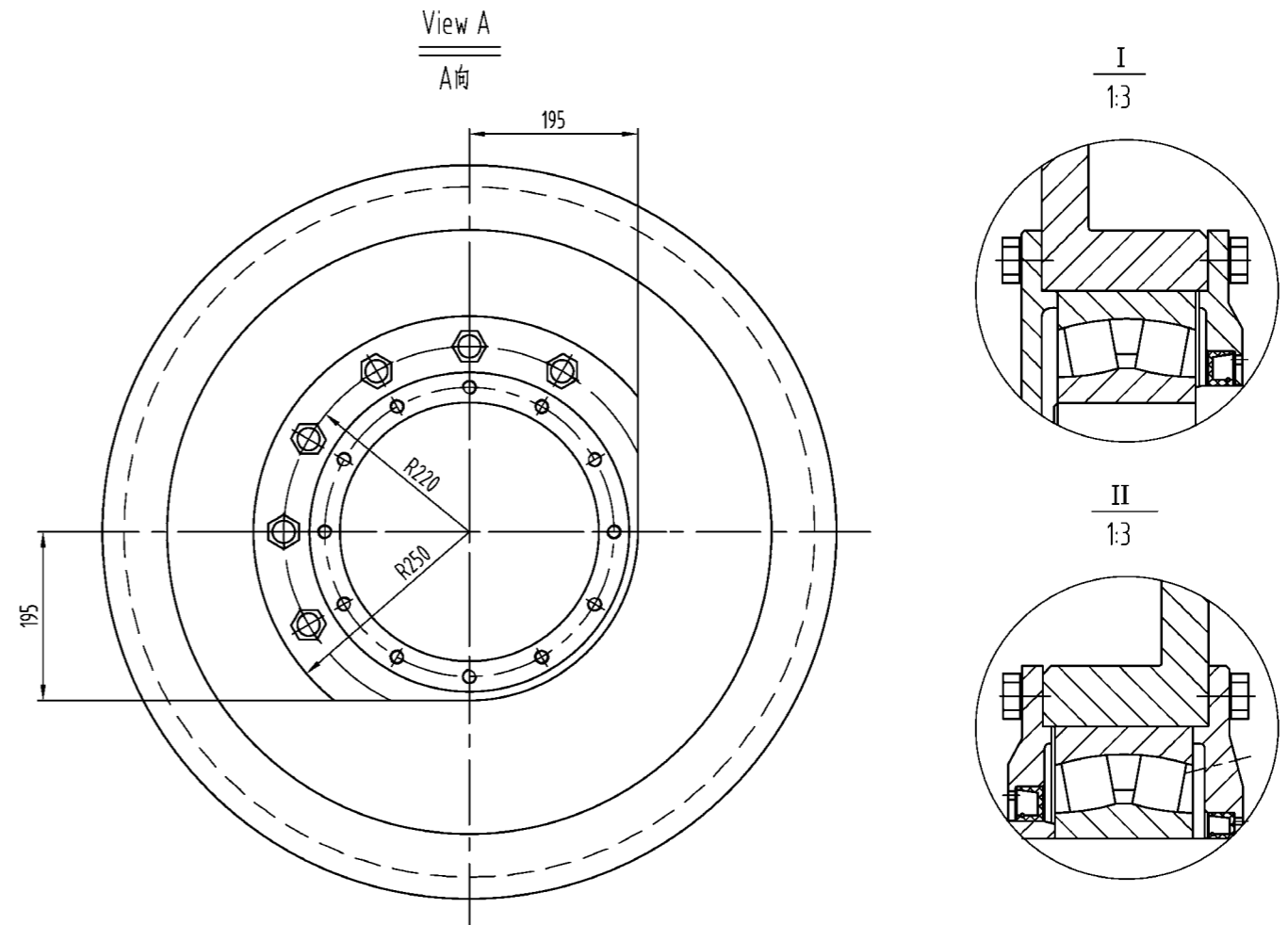
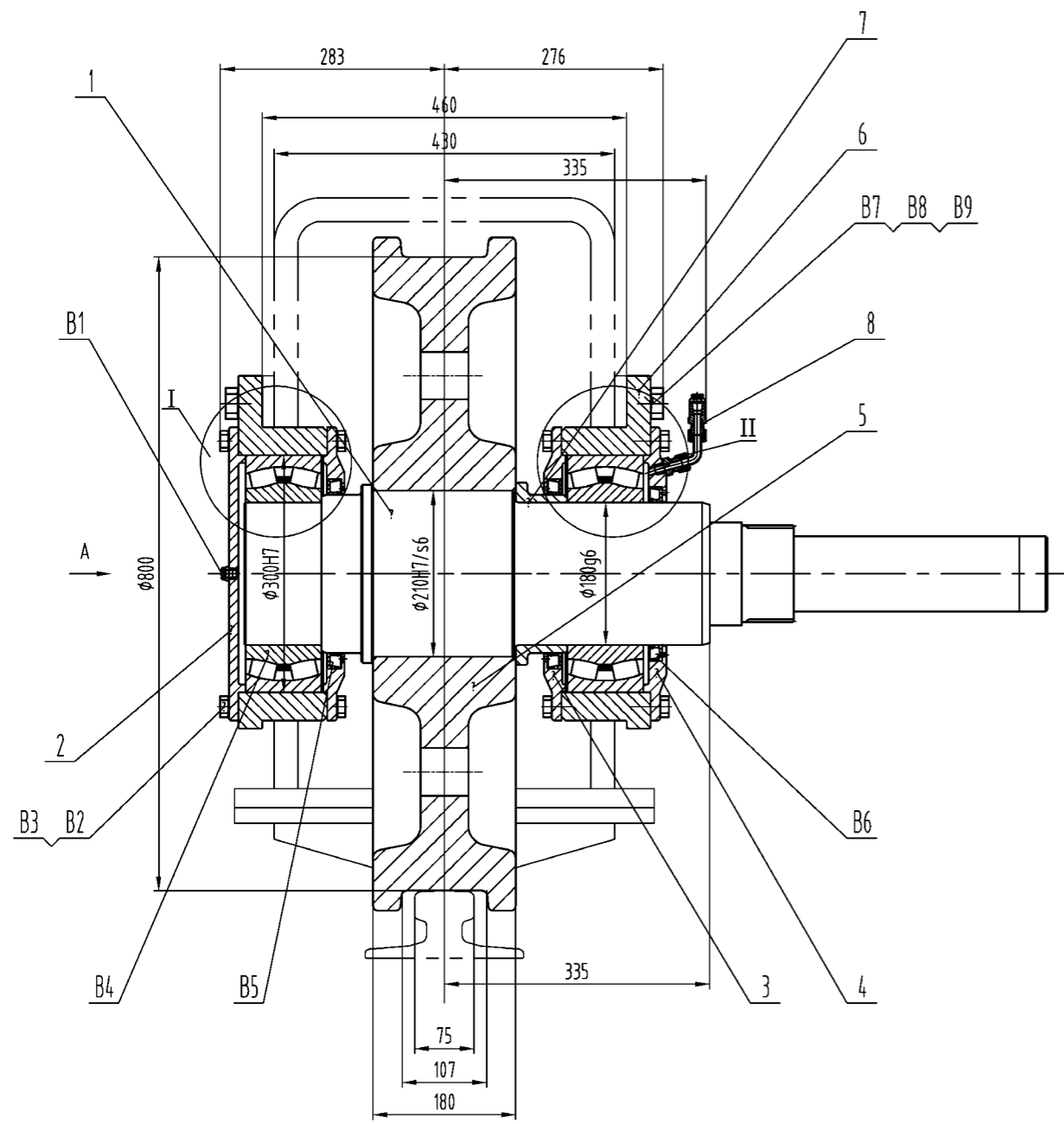
B4		Door closer 闭门器		1		按公司规定	
B3	GB95-85	Washer 16	100HV	8		Gal.	
B2	GB889-86	Nut M16	8 Grade	8		Gal.	
B1	GB5783-86	Bolt M16x50	8.8 Grade	8		Gal.	
10		Fire Extinguisher CO ₂ 灭火器		1		2.5Kg	
	BOC01C05	Windows order drawing 窗框,固定窗订货及安装示意图					
9	BOC01C06	Rain Shield雨篷	Q235	1	5		
8		Top Window 顶固定窗	Safety Glass	1	25	(5+0.38+5)	
7	BOC01C04a	Ladder直梯	Assembly	1	84		
6		Lateral Openable Window侧移窗	Safety Glass	1	8	(3+0.38+3)	
5	RDO3	Hinged Door 铰链开门	Assembly	1	100	左开	
4		Rubber Carpet 橡胶地毯	Rubber	1.7m ²	10.2		
3	BOC01C02-1	Handrail 栏杆	Q235	1	85	StyleB 右侧	
2		Front Window 前固定窗	Safety Glass	1	34	(5+0.38+5)	
1	BOC01C01	Frame of B.O. Cab结构	Assembly	1	705	StyleB 右侧	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
					WEIGHT	WEIGHT	
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:20		
ITEM NAME: Boom Operation Cab			DRAW NO:		UL2510		
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET		1
	CHCK		VER.		WEIGHT		1056kg



注: M24 螺栓的预紧力为12400kg(拧紧力矩为56.8kgm? k=0.145)?

The tightening force 12400kg(or tightening moment 56.8kgm, k=0.145) of all the bolts M24 must be guaranteed.

B6	GB95-85	Washer(垫圈) 24	Dacro.(达克罗)	6		
B5	GB889-86	Nut(螺母) M24	8S Dacro.(达克罗)	6		
B4	GB5782-86	Bolt(螺栓) M24x80	8.8S Dacro.(达克罗)	6		
B3	GB855-86	Washer(双耳止动垫圈) 24	Dacro.(达克罗)	6		
B2	GB5783-86	Bolt(螺栓) M24x45	8.8S Dacro.(达克罗)	6		
B1	YLZ63-180CP	Wheel brake(轮边制动器)		1	142	142
1	UL25011001	Support(支架)	Welded(焊接件)	1	40	40
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET*WEIGHT	SCALE
	UL250110	Wheel brake device(轮边制动器)	Assembly(组件)	12	12x182	1:8
ZPMC		DRAW	TECH.	TRACE		
		CHCK	STDD	CHCK		



Technical Requirement

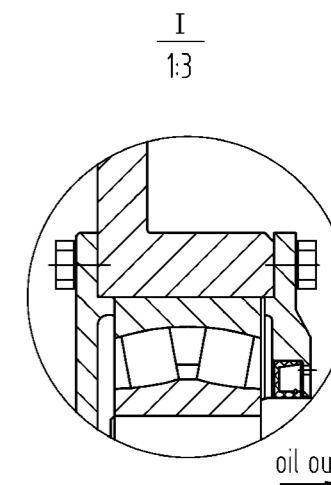
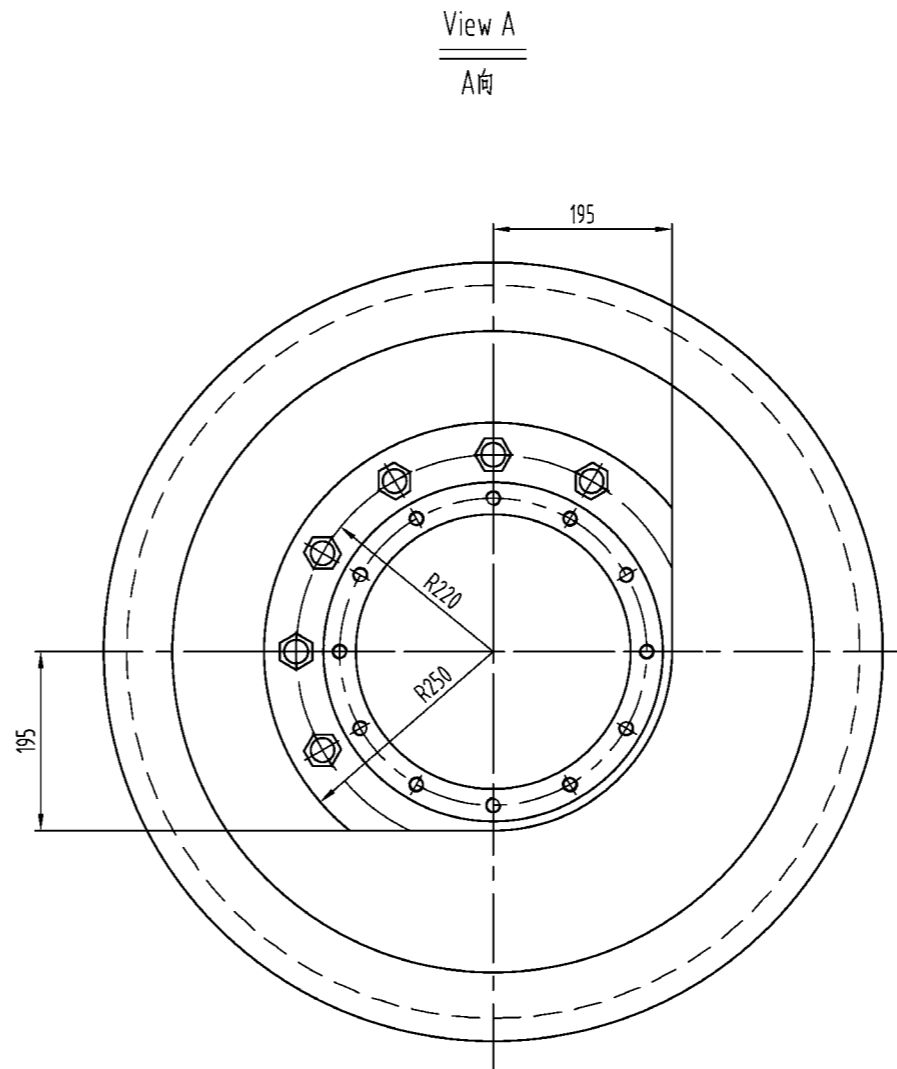
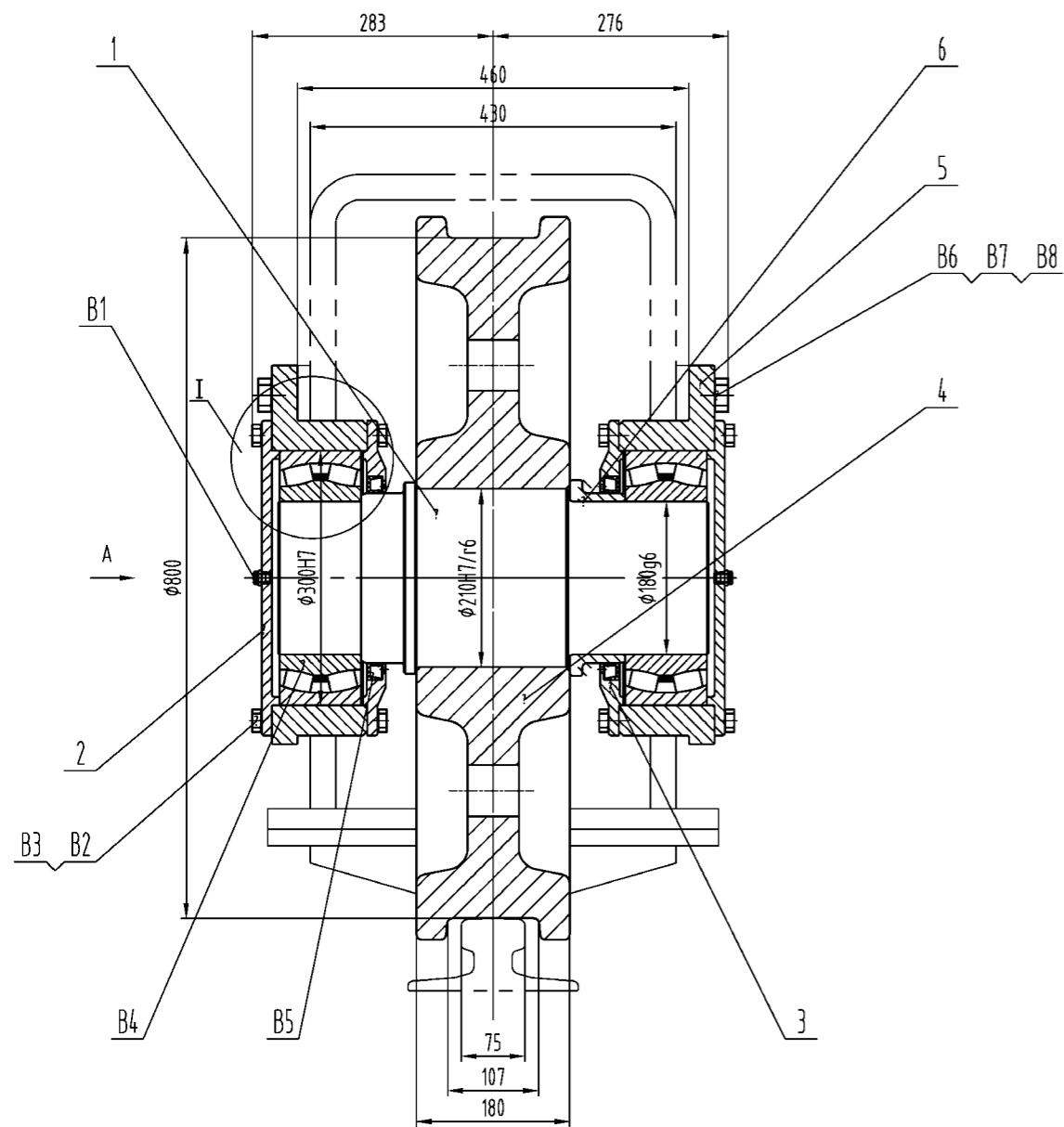
1. During assembly all bearing should be filled with appropriate grease, wheel running should be done.
2. Installing accuracy of the wheels on the same bogie is to conform to FEM Specification. Misalignment between wheel centers plane rolling on the same rail track and centreline of the rail should be not exceed ±1mm.
3. The M16 bolt pre-tension force is 3500kg, the torque is 8kgm. The M24 bolt pre-tension force is 15500kg, the torque is 71kgm.

技术要求

1. 装配时所有轴承内均应加满润滑油?装配完毕走轮必须跑合?
2. 同一车架上的车轮精度应符合FEM规范?同一轨道的车轮中心面与轨道中心线偏差不得超过?
3. 端盖螺栓M16的预紧力控制在3500kg以内?预紧力矩为8kgm?与车架连接螺栓M24的预紧力为15500kg?预紧力矩为71kgm??扭矩系数0.145?

B6	GB889-86	Nut(螺母)M24	8s Dacro 达克罗	12			
B8	GB5783-86	Bolt(螺栓)M24x115	8.8s Dacro 达克罗	12			
B7	GB855-88	Washer(双耳止动垫圈)24	Dacro 达克罗	12			
B6	HG64-692-67	Seal(旋转轴唇形密封圈)	PD180x220x16	1			
B5	HG64-692-67	Seal(旋转轴唇形密封圈)	PD200x240x18	2			
B4	GB288-87	Bearing 轴承3053736	φ180xφ300x96	2	27.1	54.2	same with 23136 c/w33
B3	GB5783-86	Bolt(螺栓)M16x40	8.8s Dacro 达克罗	24			
B2	GB855-88	Washer(双耳止动垫圈)16	Dacro 达克罗	24			
B1	JIS B0203	Grease fitting(油嘴) PT1/4"	ste. sta. 不锈钢	2			
8	GTD01-9	Connect grease(接长油嘴)	assembly(组件)	1	2	2	公司标准
7	UL25011803	Sleeve(轴套)	Q235	1		4.1	
6	GTD02-7A	Bearing pedestal(轴承座)	ZG35	2	44	88	公司标准
5	UL25011802	Wheel(走轮)φ800	42CrMo	1		430	
4	GTD02-4	Through-hole cover2(透盖2)	Q235	1		9.8	公司标准
3	GTD02-3	Through-hole cover1(透盖1)	Q235	2	7.4	14.8	公司标准
2	GTD02-2	Blind-hole cover(闷盖)	Q235	1		10.8	
1	UL25011801	Driving shaft(主动轴)	35CrMo	1		162	

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	
PROJECT:		DESIGN STAGE:		SCALE:		1:6	
ITEM NAME: Driving shaft assembly 主动车轮轴装配		DRAW NO: UL250118		PROJ.			
ZPMC	DSGN		TRACE		APP.	Assembly(组件)	
	DRAW		CHCK		SET/CRANE	20	
	CHCK		VER.		WEIGHT	20x780	



Technical Requirement

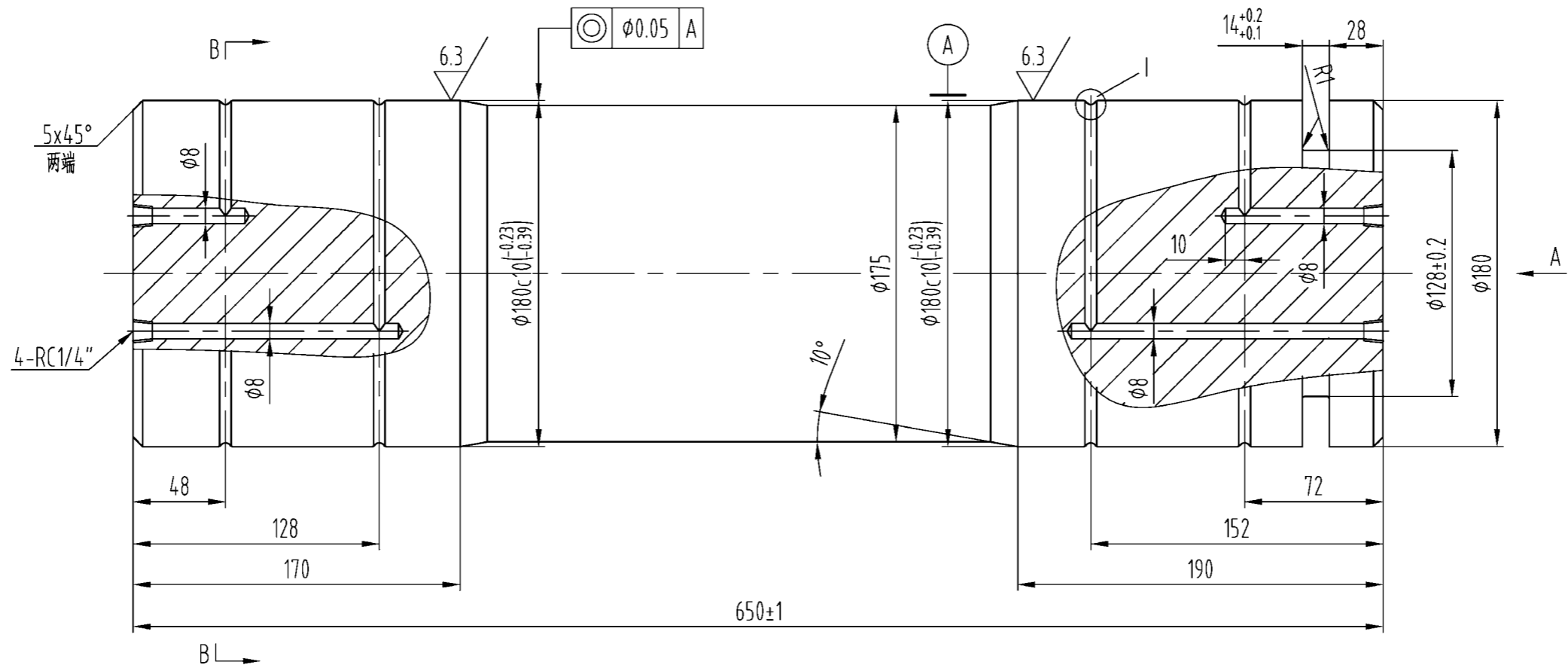
1. During assembly all bearing should be filled with appropriate grease, wheel running should be done.
2. Installing accuracy of the wheels on the same bogie is to conform to FEM Specification. Misalignment between wheel centers plane rolling on the same rail track and centreline of the rail should be not exceed $\pm 1\text{mm}$.
3. The M16 bolt pre-tension force is 3500kg, the torque is 8kgm. The M24 bolt pre-tension force is 15500kg, the torque is 71kgm.

技术要求

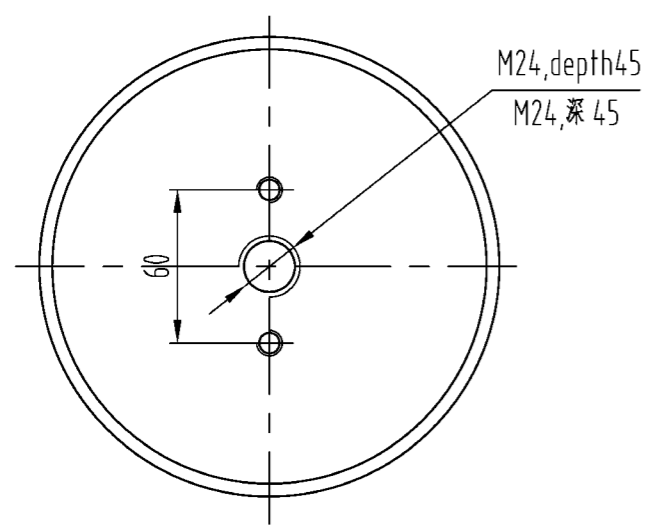
1. 装配时所有轴承内均应加满润滑油?装配完毕走轮必须跑合?
2. 同一车架上的车轮精度应符合FEM规范?同一轨道的车轮中心面与轨道中心线偏差不得超过 $\pm 1\text{mm}$?
3. 端盖螺栓M16的预紧力控制在3500kg以内?预紧力矩为8kgm?与车架连接螺栓M24的预紧力为15500kg?预紧力矩为71kgm??扭矩系数0.145?

B7	GB889-86	Nut(螺母)M24	Class 8	12				Dacro 达克罗
B7	GB5783-86	Bolt(螺栓)M24x115	Class 8.8	12				Dacro 达克罗
B6	GB855-88	Washer(双耳止动垫圈)24		12				Dacro 达克罗
B5	HG64-692-67	Seal(旋转轴唇形密封圈)	PD200x240x18	2				
B4	GB288-87	Bearing 轴承3053736	$\phi 180 \times \phi 300 \times 96$	2	27.1	54.2		same with 23136 c/w33
B3	GB5783-86	Bolt(螺栓)M16x40	Class 8.8	24				Dacro 达克罗
B2	GB855-88	Washer(双耳止动垫圈)16		24				Dacro 达克罗
B1	JIS B0203	Grease fitting(油嘴)PT1/4"	ste. sta.不锈钢	2				
6	UL25011803	Sleeve(轴套)	Q235	1	4.1	4.1		借用
5	GTD02-7A	Bearing pedestal(轴承座)	ZG35	2	4.4	8.8		公司标准
4	UL25011802	Wheel(走轮) $\phi 800$	42CrMo	1	4.30	4.30		借用
3	GTD02-3	Through-hole cover1(透盖1)	Q235	2	7.4	14.8		公司标准
2	GTD02-2	Blind-hole cover1(闷盖)	Q235	2	10.8	21.6		公司标准
1	UL25011901	Driven shaft(从动轴)	35CrMo	1	118	118		

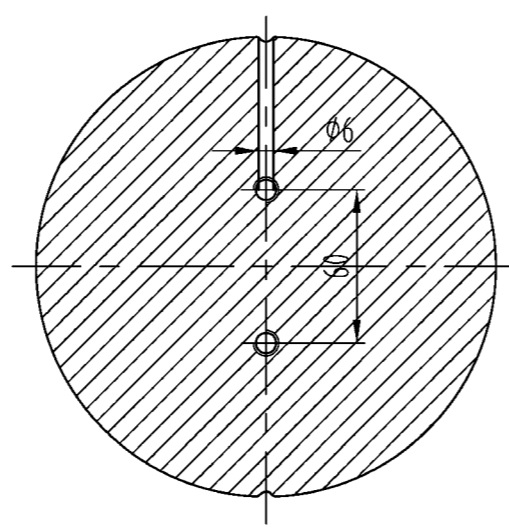
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					each	total	
PROJECT:			DESIGN STAGE:		SCALE: 1:6		
ITEM NAME: Driven shaft assembly 从动车轮轴装配			DRAW NO: UL250119		PROJ. 		
ZPMC	DSGN		TRACE		APP.	Assembly(组件)	
	DRAW		CHCK		SET/CRANE	20	
	CHCK		VER.		WEIGHT	20x735	



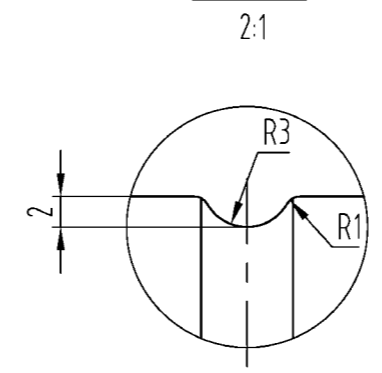
View A



B-B



Detail I



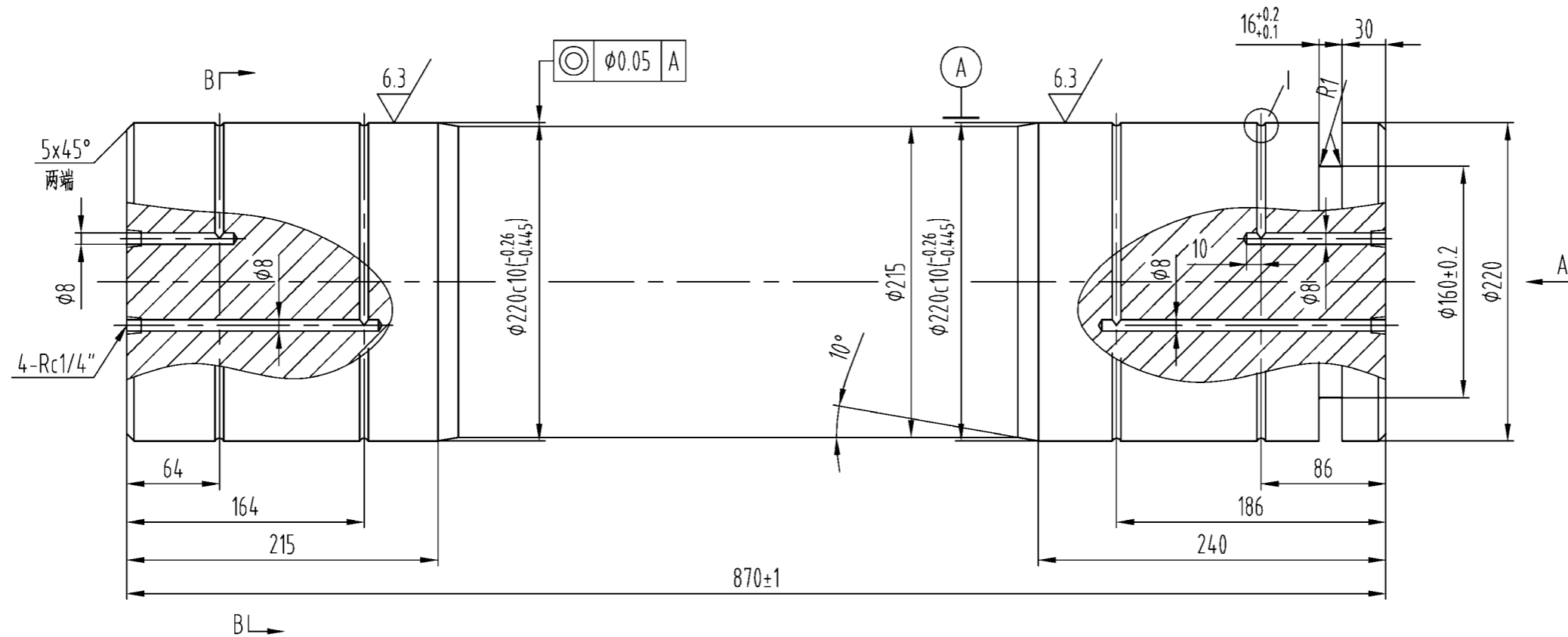
Technical Requirement

1. Quenching and tempering: HB220?250.
2. Original material to be checked physically and chemically.

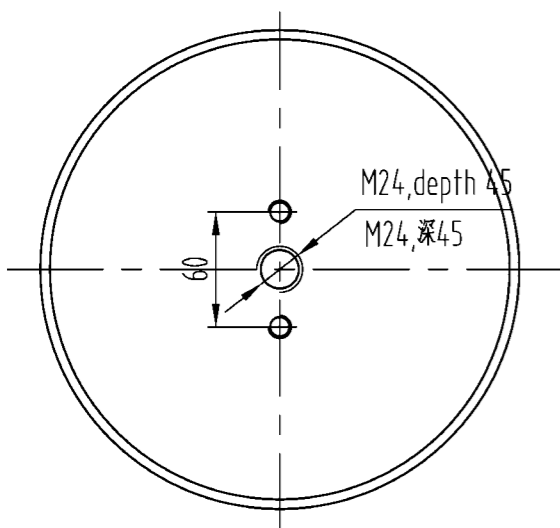
技术要求

1. 调质: HB220?250.
2. 原材料需作物理和化学检查,并探伤.

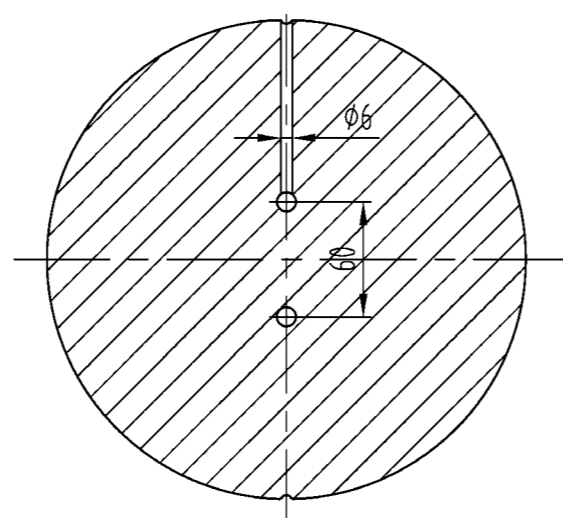
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET*WEIGHT	SCALE
	UL250120	Shaft(轴)φ180	45	16	16x126	1:3
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



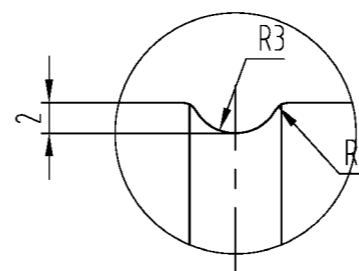
View A



B-B



Detail I
2:1



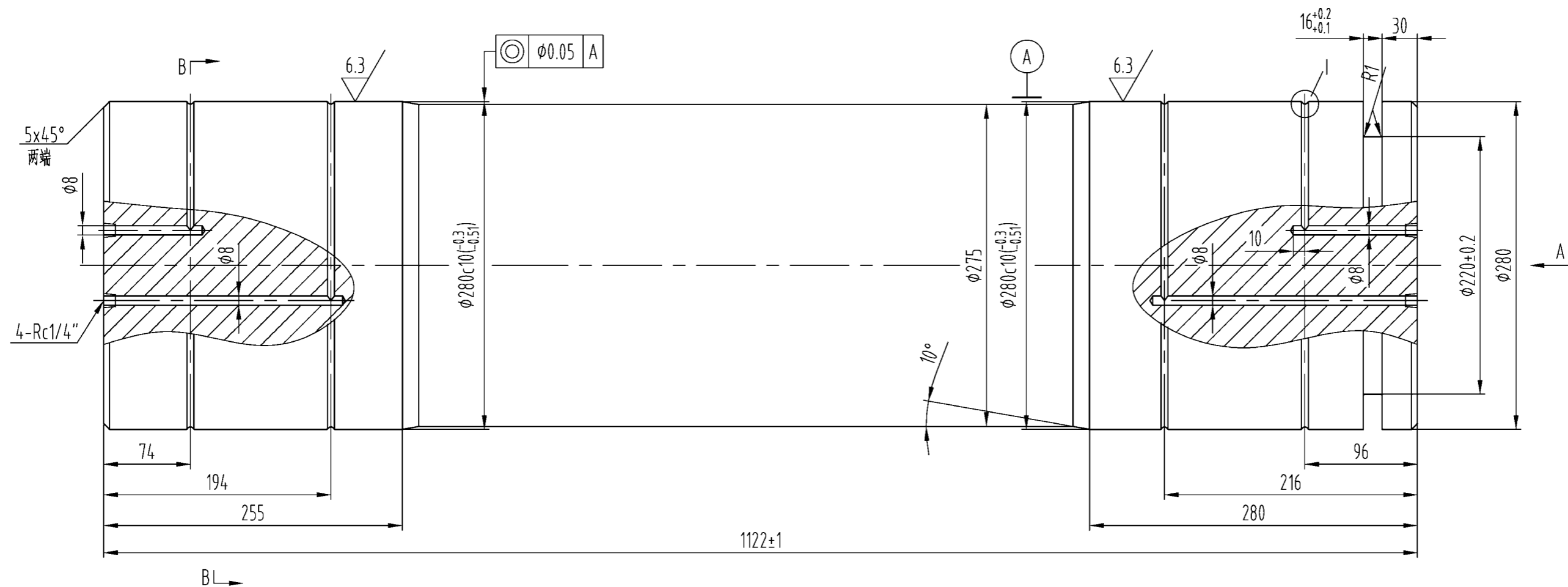
Technical Requirement

1. Quenching and tempering: HB220?250.
2. Original material to be checked physically and chemically.

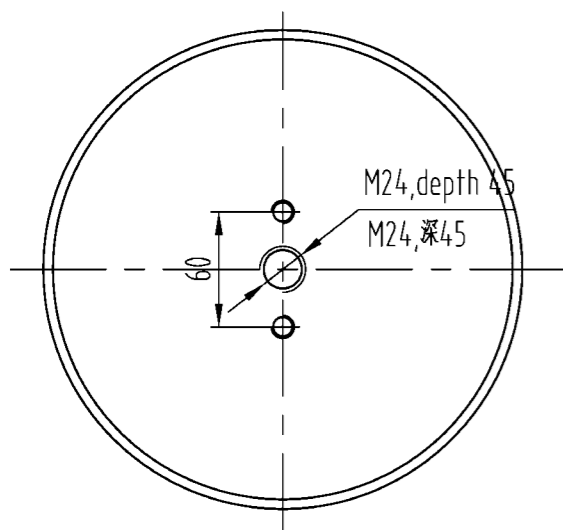
技术要求

1. 调质: HB220?250.
2. 原材料需作物理和化学检查,并探伤.

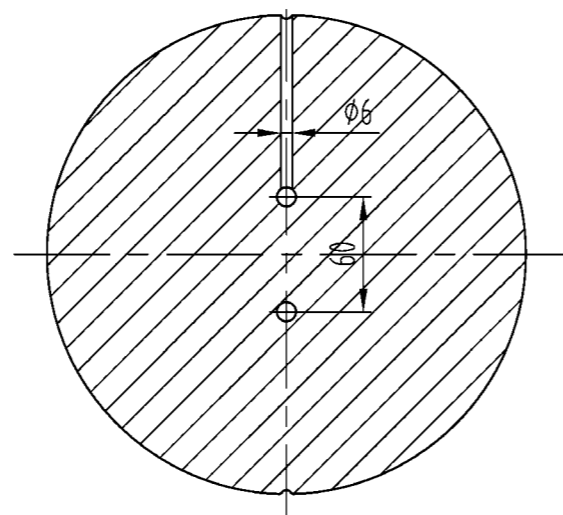
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET*WEIGHT	SCALE
	UL250122	Shaft(轴)φ220	45	8	8×251	1:4
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



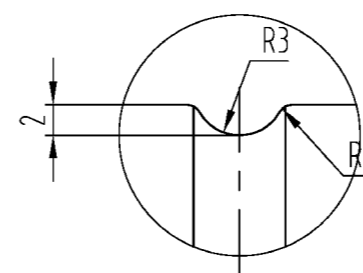
View A



B-B



Detail I



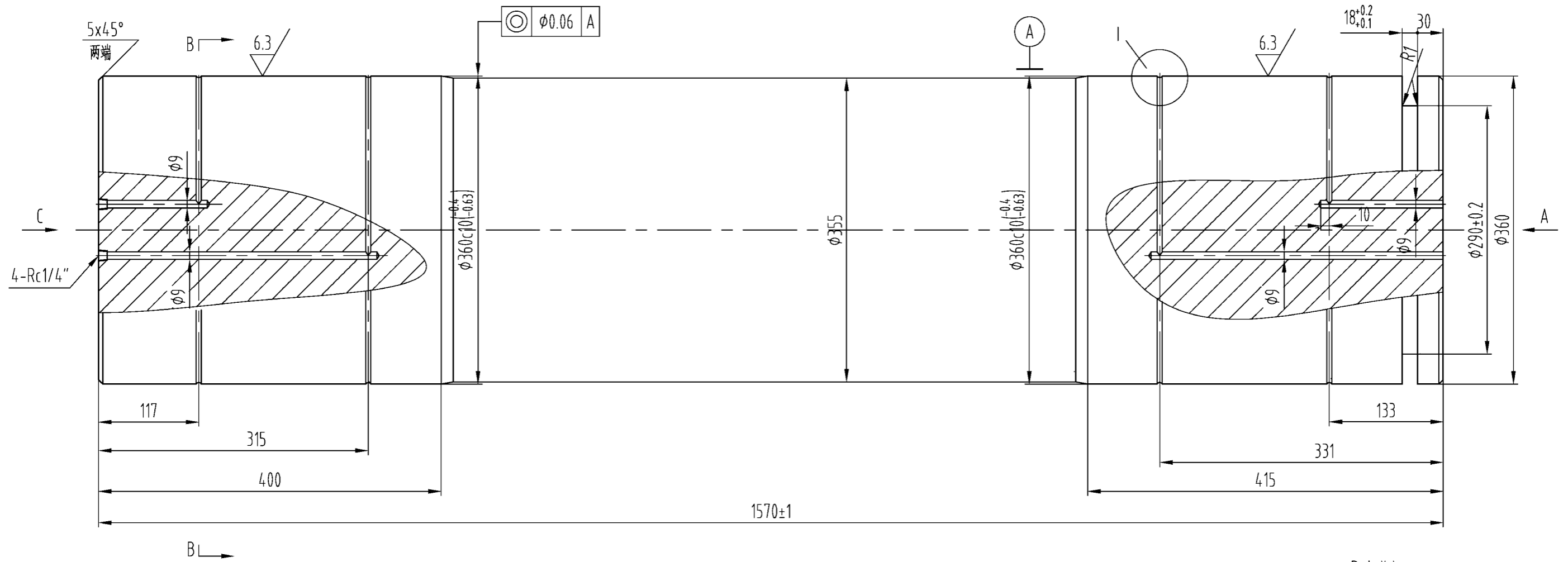
Technical Requirement

1. Quenching and tempering: HB220?250.
2. Original material to be checked physically and chemically.

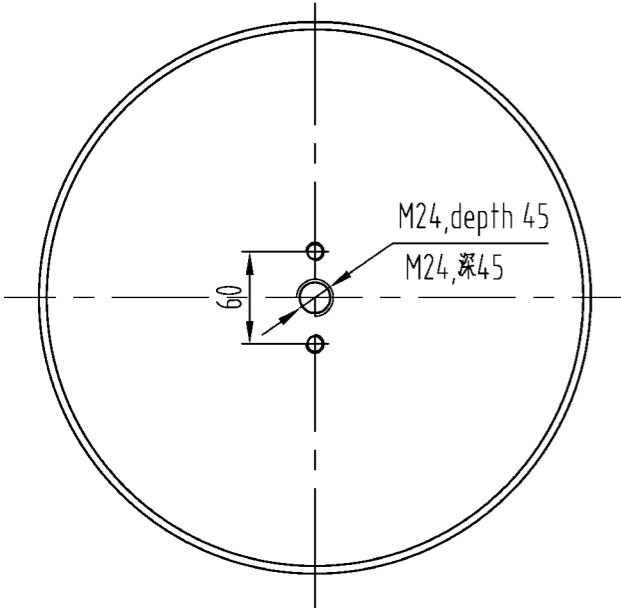
技术要求

1. 调质: HB220?250.
2. 原材料需作物理和化学检查,并探伤.

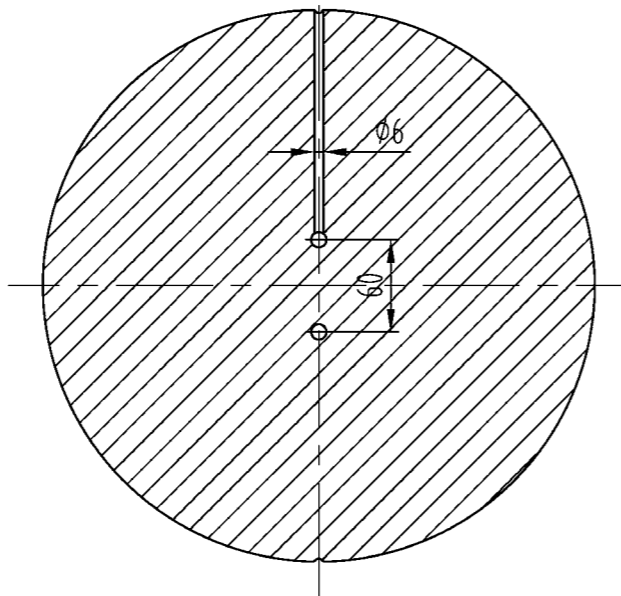
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	UL250125	Shaft(轴)φ280	45	8	8×528	1:4
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



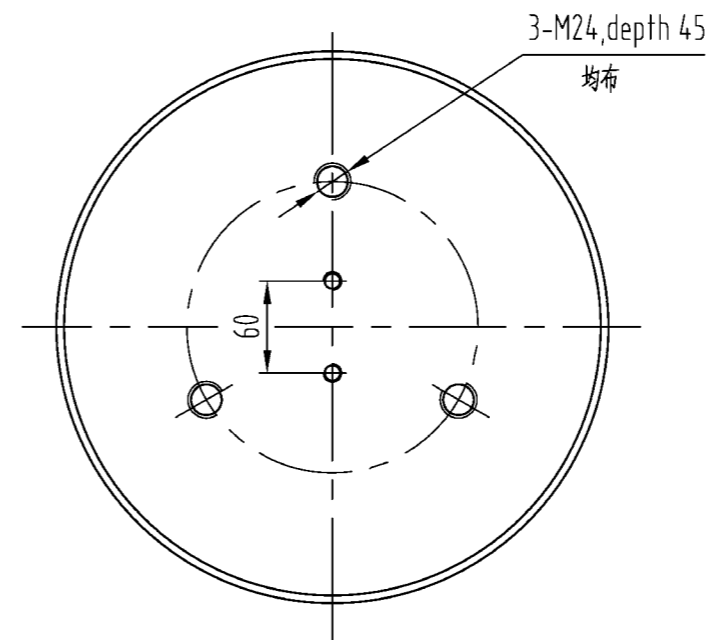
View A



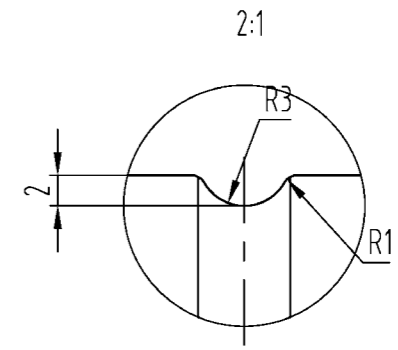
B-B



View C



Detail I



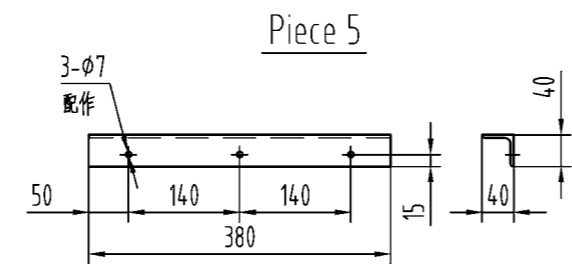
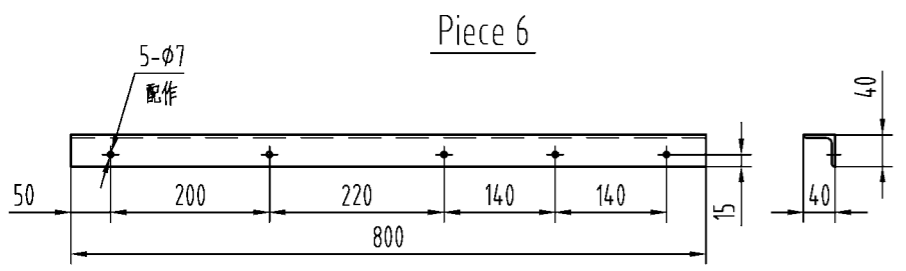
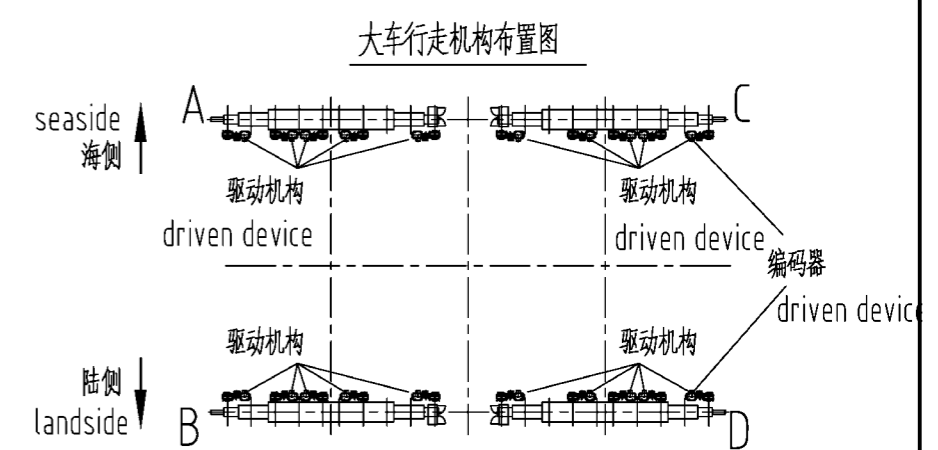
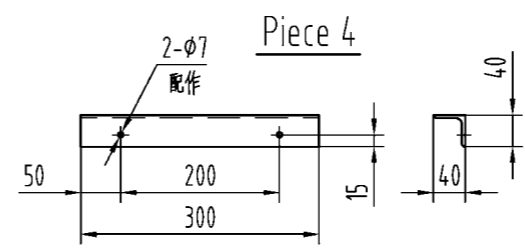
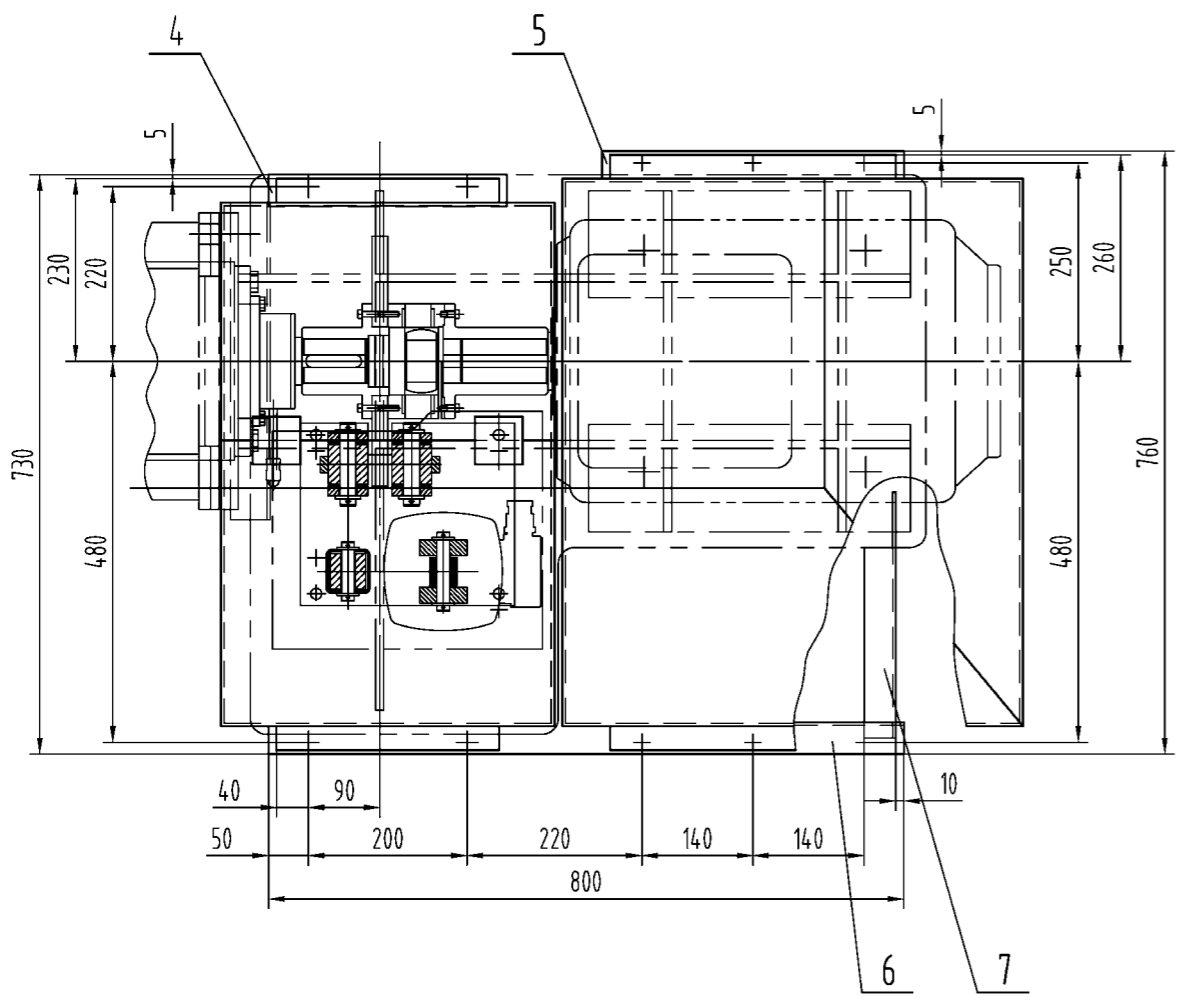
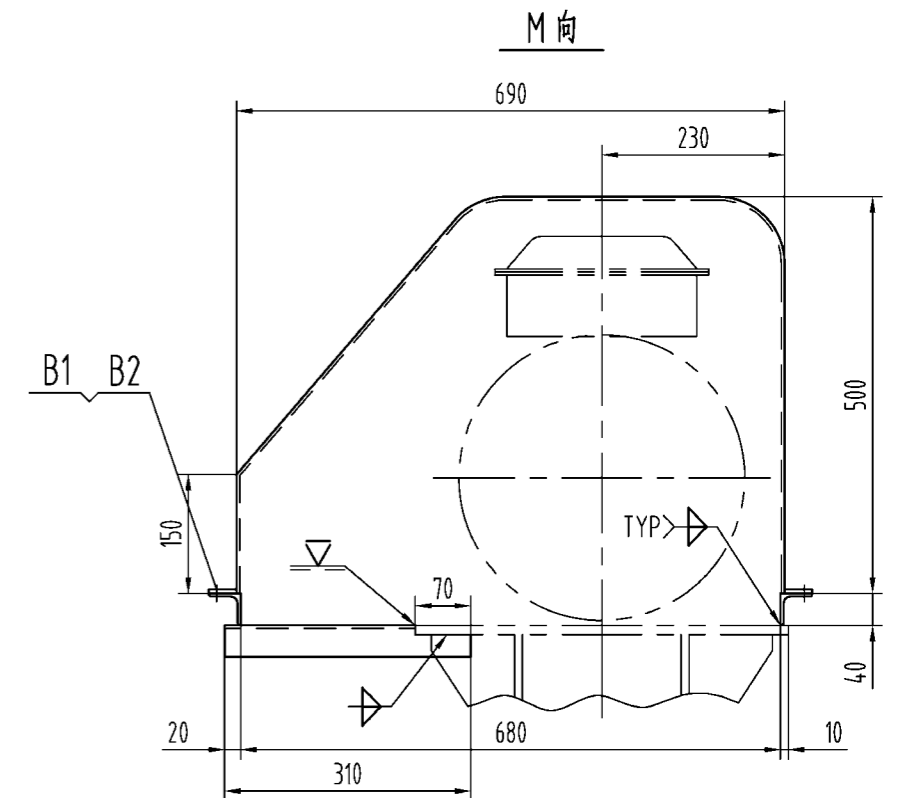
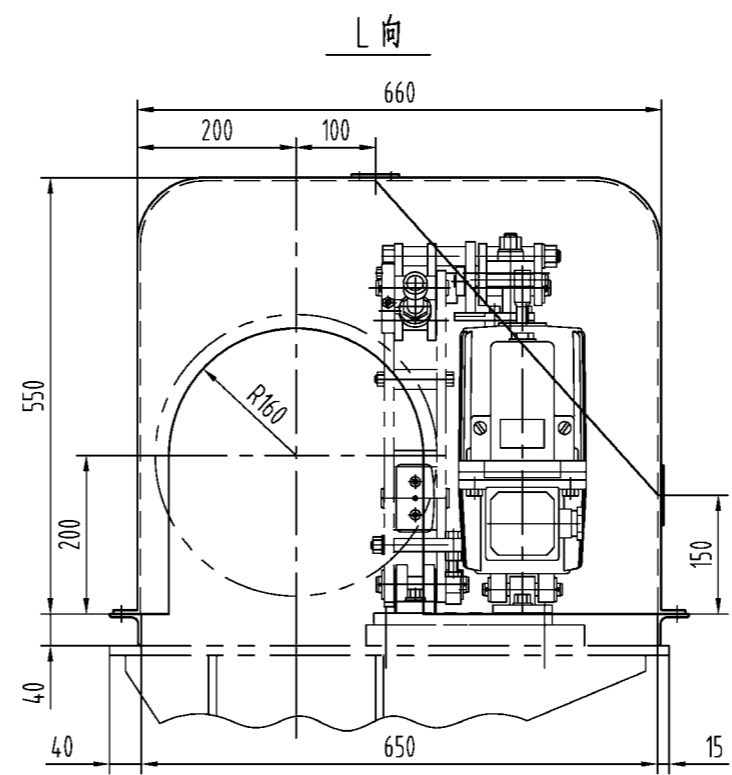
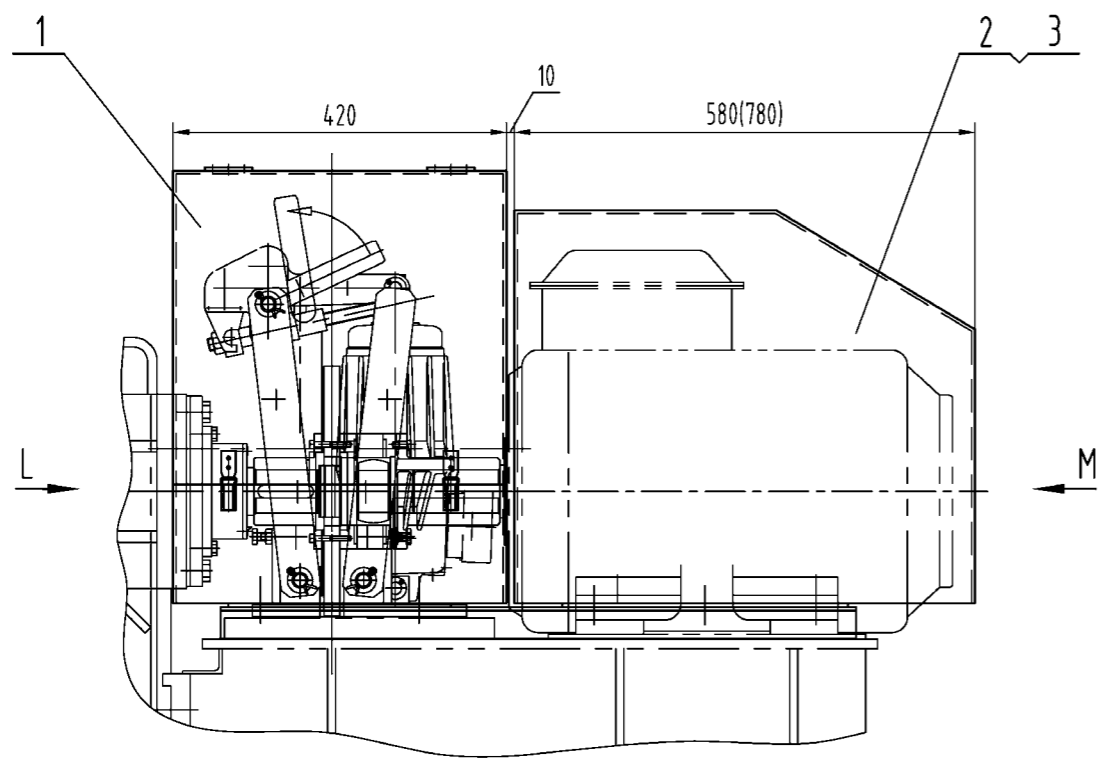
Technical Requirement

1. Quenching and tempering: HB220?250.
2. Original material to be checked physically and chemically.

技术要求

1. 调质: HB220?250.
2. 原材料需作物理和化学检查,并探伤.

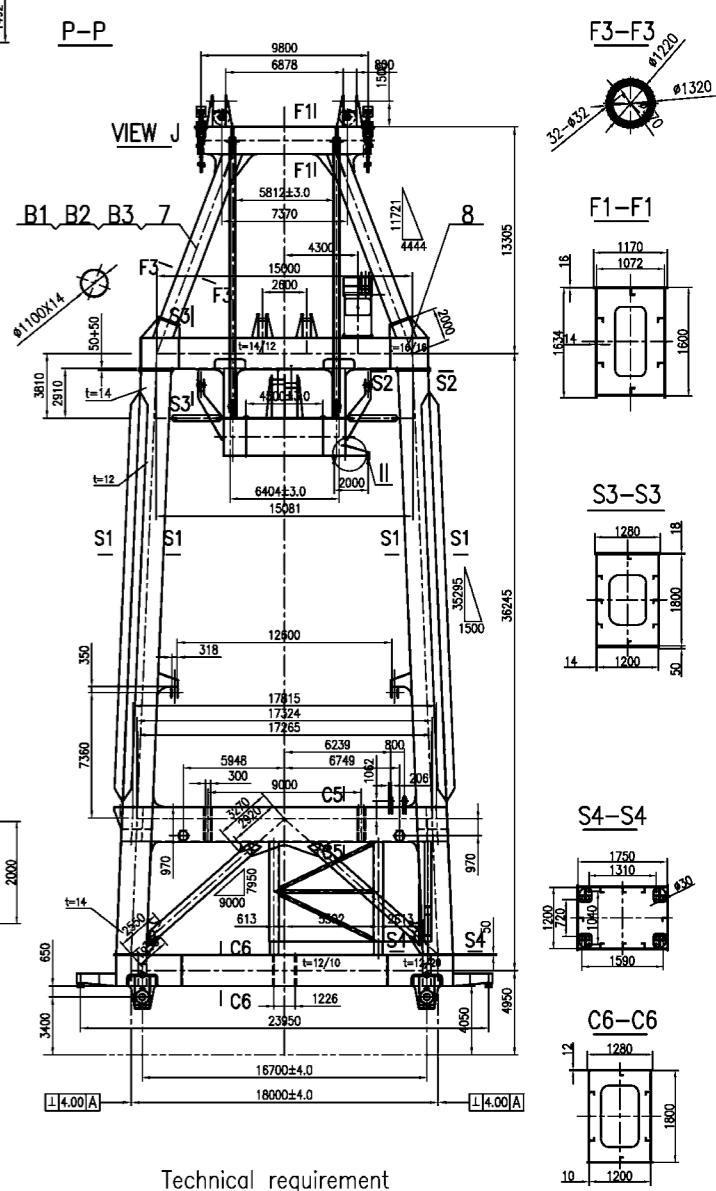
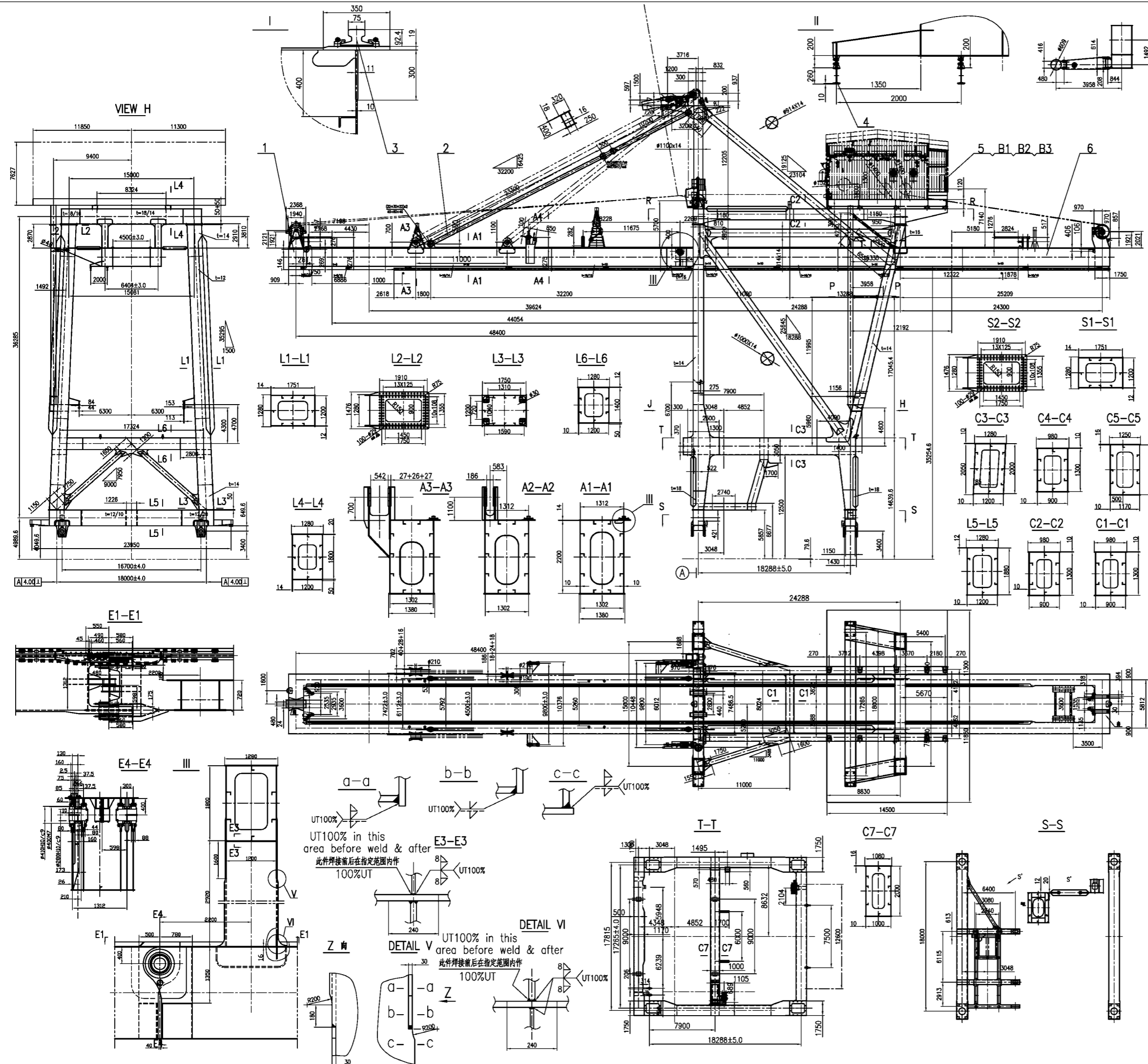
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET*WEIGHT	SCALE
	UL250129	Shaft(轴)φ360	45	4	4x1260	1:5
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



B2	GB62-88	Nut 蝶形螺母 M6	Sta.Ste. 不锈钢	6		
B1	GB5783-86	Bolt 螺栓 M6x30	Sta.Ste. 不锈钢	6		
7		L40x40x4-310	Q235	1		0.8
6		L40x40x4-800	Q235	1		1.9
5		L40x40x4-380	Q235	1		0.9
4		L40x40x4-300	Q235	1		0.8
3	UL25013202	cover2 电动机罩壳2	GRP 玻璃钢	2/台	17.5	
2	UL25013201	cover1 电动机罩壳1	GRP 玻璃钢	18/台	14.5	
1	GTL01a(?,?型)	Brake cover 制动器罩壳	Assembly(组件)	1		14.5
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET*WEIGHT	SCALE
	UL250132	cover 罩壳	Assembly 组件	20	20x34	1:10

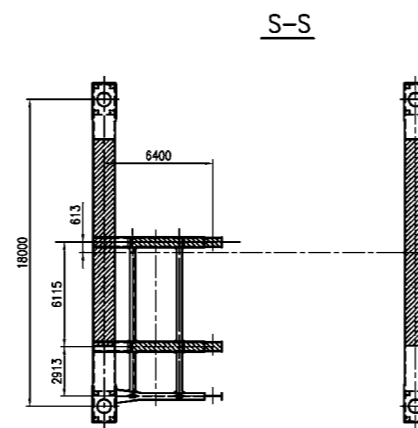
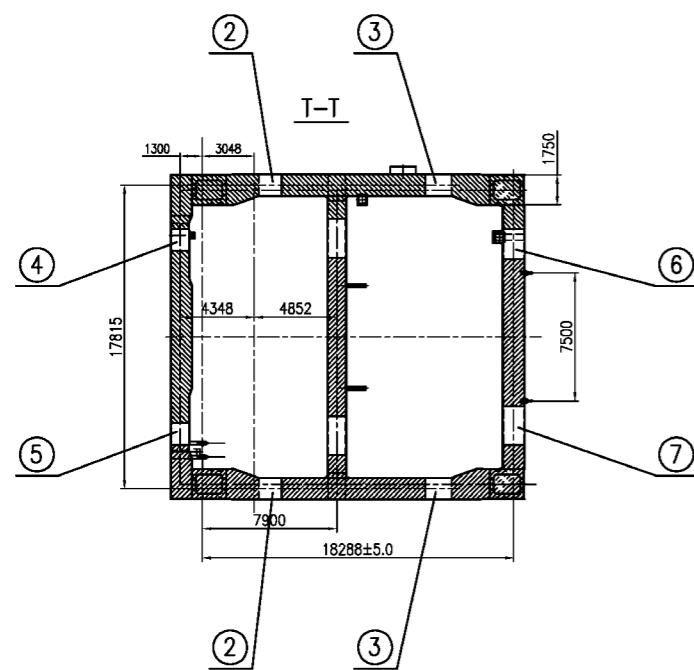
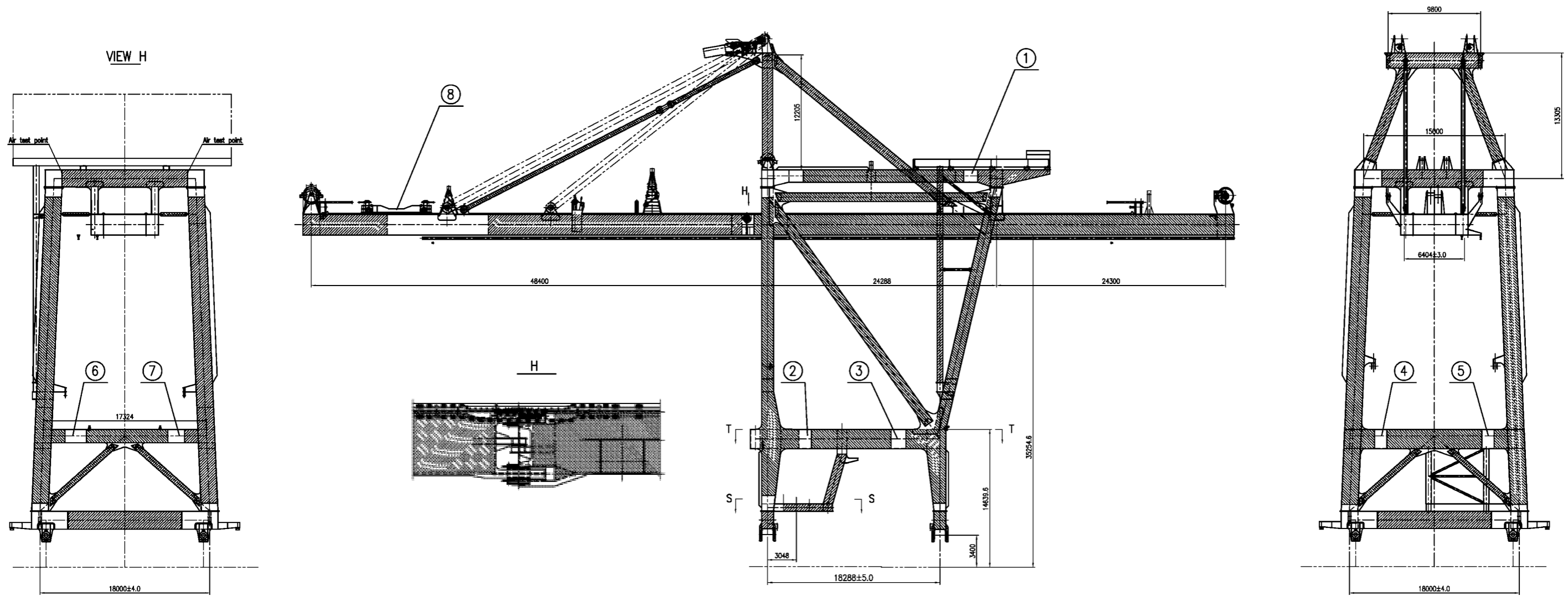
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

revision no.	Sub no.	description	date	sign
01	D17		2005.04.15	chenziqiang



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	WEIGHT	NOTE
PROJECT: Alabama 2000t/h ship unloader				DESIGN STAGE:		SCALE: 1:250		
ITEM NAME: 金属结构			DRAW NO: UL250200			GENERAL STRUCTURE		
ZPMC	DSGN	TRACE	APP.	QTY/SET	78440kg			
	DRAW	CHK	VER.	SET/CRAVE				

revision no.	Sub no.	description	date	sign
01	D02		2005.05.17	chenzhiqiang



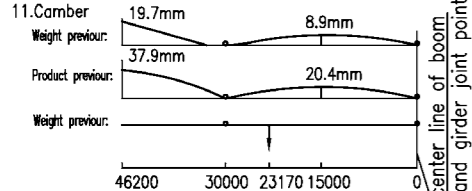
1. hatching area shall be made air tight.
2. area ① ~ ⑦ shall be made air tight after connected
3. main structure of main trolley ⑧ shall be made air tight.

1. 打剖面线的区域, 在部件制造过程中进行气密试验.
2. 区域 ① ~ ⑦ 在部件安装对接后进行气密试验.
3. 主小车的主体结构 ⑧ 进行气密试验

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:250		
ITEM NAME: 金属结构气密 GENERAL STRUCTURE-Air test			DRAW NO: UL250200-air				
ZPMC	DSGN		TRACE			APP.	
	DRAW		CHK			Q'TY/SET	
	CHK		VER.			SET/CRAVE	

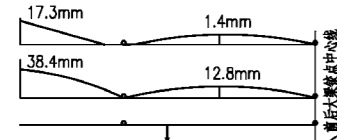
Technical Condition

- 1.The smooth finish of all appearance face of gas cutting must be excellent, grind those flat.
- 2.When welding web and wing plates,automatic welding should be used as far as practicable, grooves refer to AWS D1.1.
- 3.Welding rods used in stiffening rib in box are adopted from E4315,other from E5015.
- 4.The welding wire of automatic welding is adopted from H10Mn2,the welding flux from HJ330.
- 5.Unmarked seams in the drawing refer to the general technical condition of the welded structure of our factory.
- 6.Dimensions shown on the drawing are prior to those shown in table which are for reference only.
- 7.All bolt holes should be matching-drilled with parts concerned.
- 8.All welds-100%UT(criteria-AWS D1.1-94 9.25.1).Tension complete penetration welds-100%UT(AWS D1.1-94 9.25.3).Compression complete penetration welds-25%UT(AWS 1.1-92 Table 8.15.3).Fillet welds on FCM-100%MT(AWS D1.1-94 9.25.2).Fillet welds on NFCM-10%MT(AWS D1.1-94 9.25.2).FCM members should do Charpy V-notch test.At 4°C,impact work is no less than 9.The unmarked seams refer to the same sort. The height of the unmarked filler weld is the thickness of the thin sheet.
- 10.The girder shall be air sealed after assemblage, test pssure 10kPa.
- 11.Camber

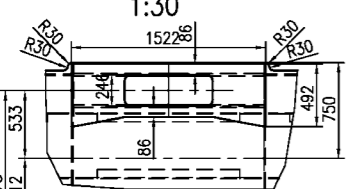


技术要求

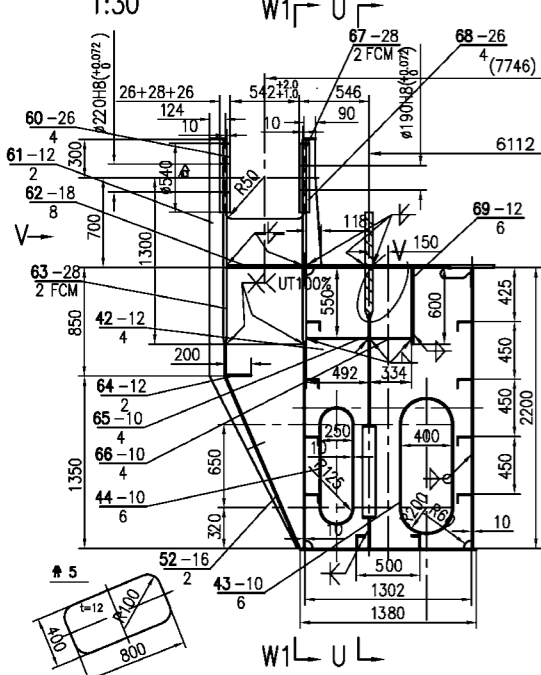
- 1.所有外露的气割切割面都要达到优良或磨平。
- 2.腹板与翼板焊接尽量采用自动焊,手工补焊,接口按AWS D1.1标准。
- 3.焊条采用E5015,其余采用E4315。
- 4.自动焊丝采用H10Mn2,焊剂采用HJ330。
- 5.图中未注明的均按AWS D1.1标准或ZPMC焊接通用技术规范进行制造及检验。
- 6.明细表中尺寸仅供参考,准确尺寸按详图。
- 7.所有的螺栓孔均应与相关件匹配。
- 8.所有焊缝VT100%,受拉焊缝UT100%,受压焊缝UT25%,FCM上的角焊缝连接凡属于FCM构件,MT100%进行检验。
- 9.未注明焊接按同类焊缝施焊,未注明角焊缝高度取连接板的厚度。
- 10.装配后进行气密性检验,试验压力为10kPa。
- 11.接度



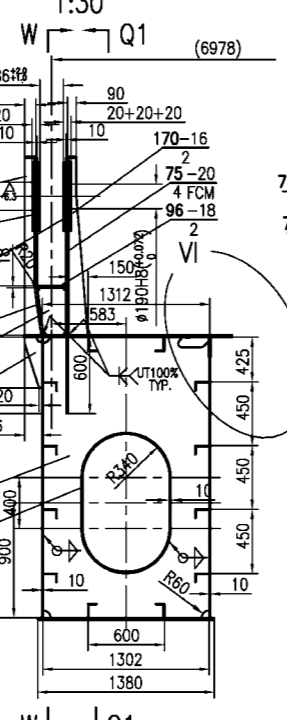
V3-V3
1:30



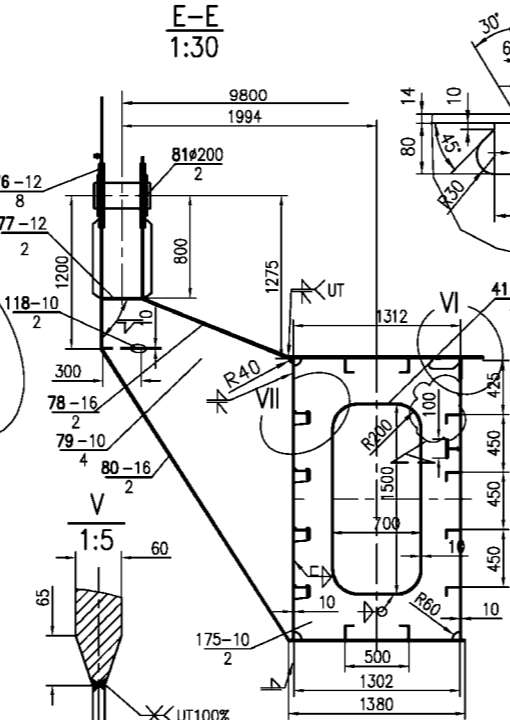
C-C
1:30



D-D
1:30

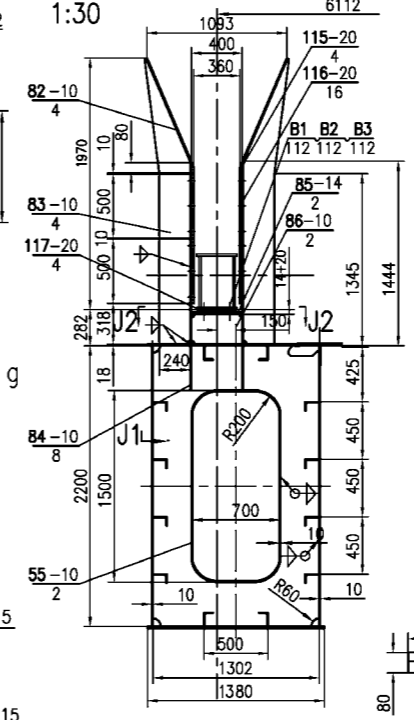


E-E
1:30

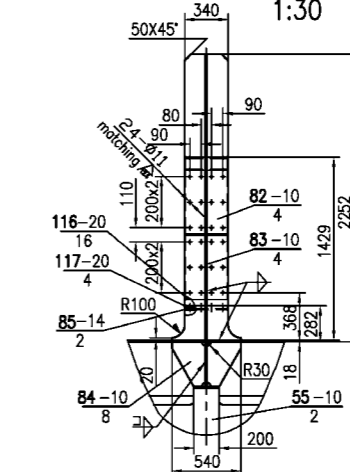


VI
1:6

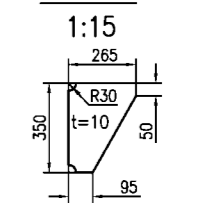
F-F
1:30



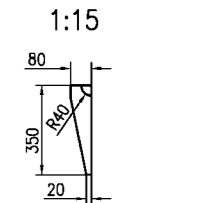
J1-J1
1:30



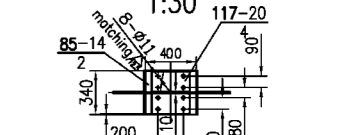
Item 84
1:15



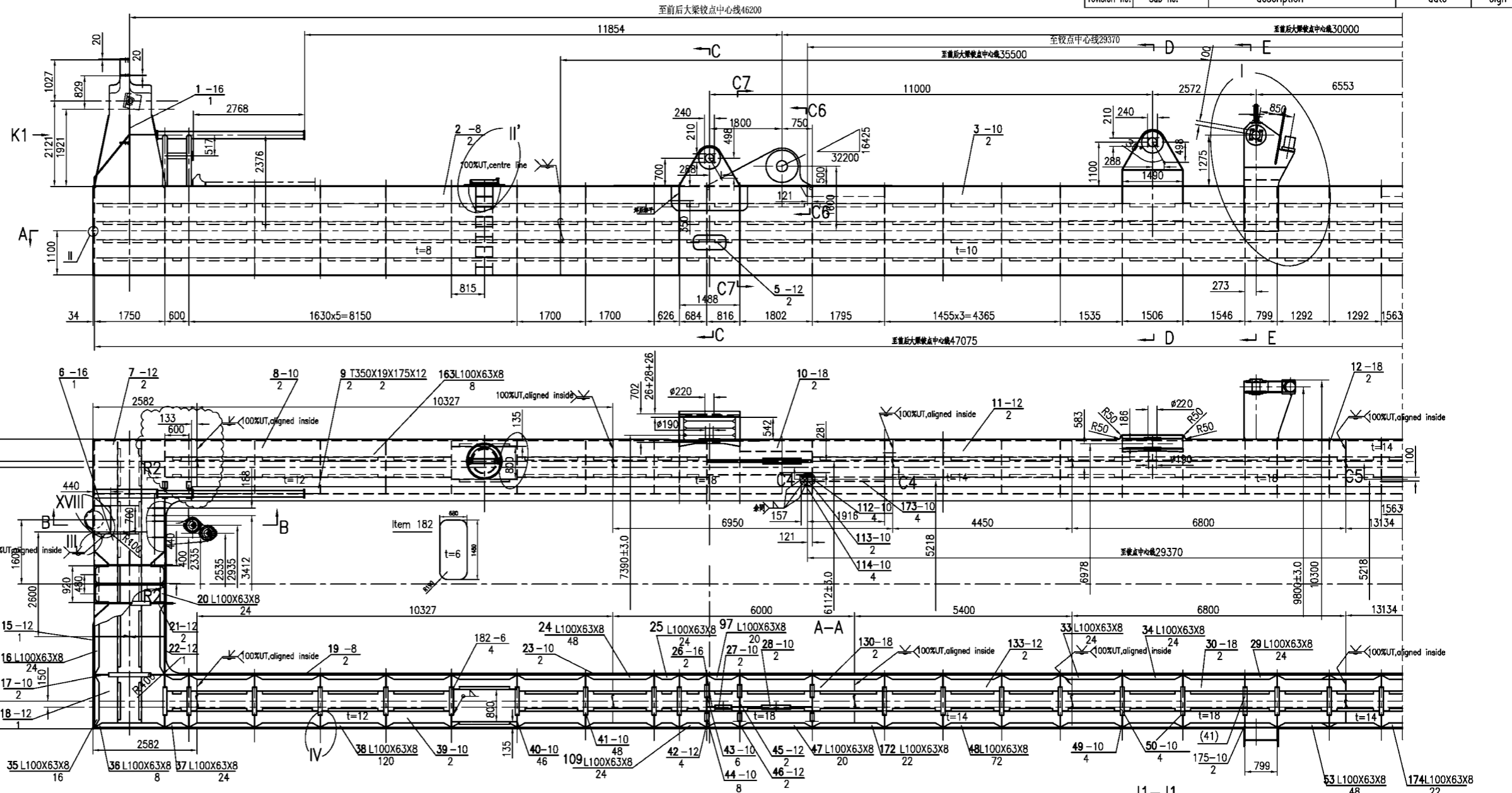
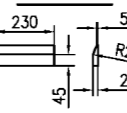
Item 74
1:15



J2-J2
1:30



Item 115

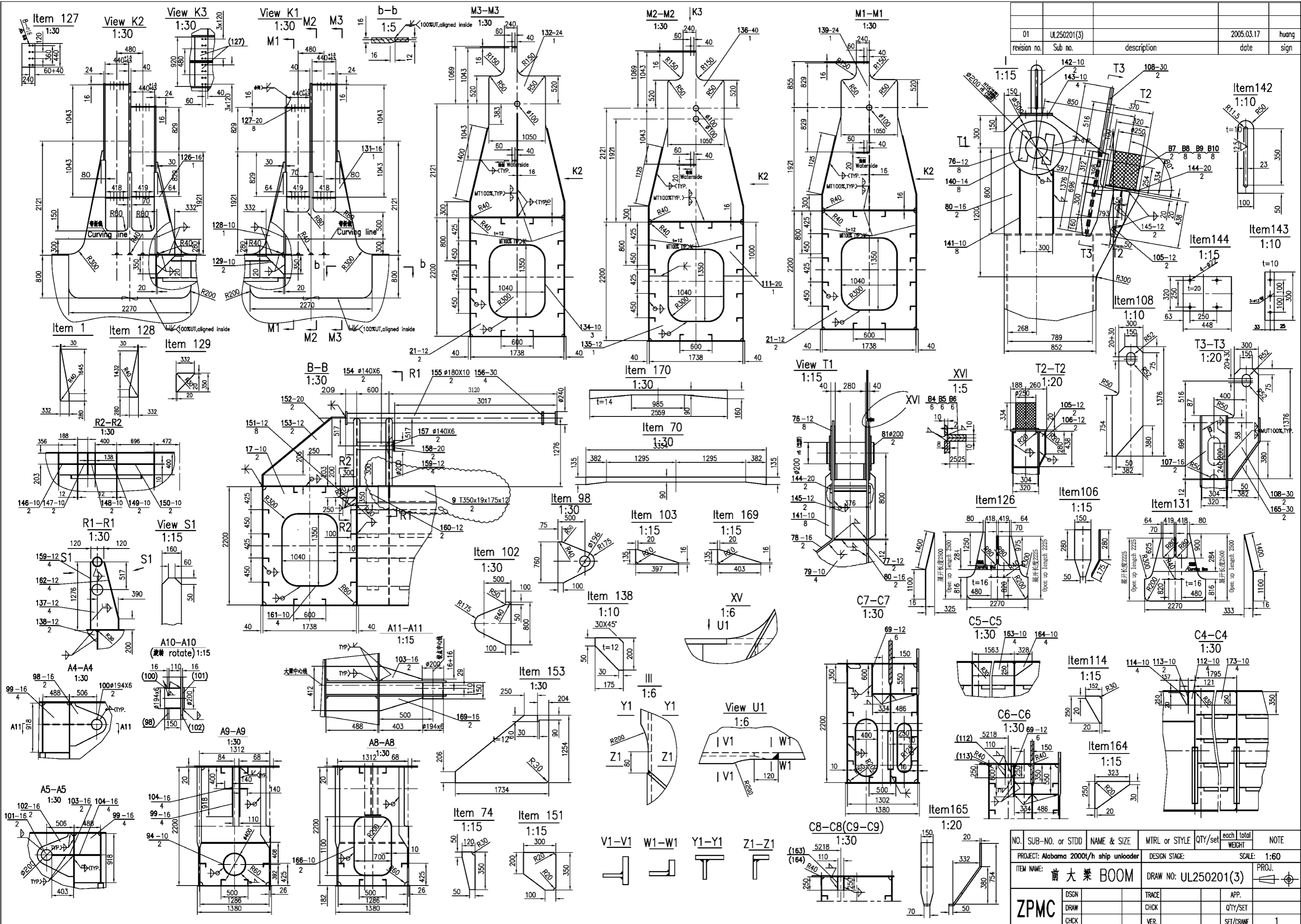


NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each weight	total weight	NOTE
PROJECT: Alabama 2000t/h ship unloader							SCALE: 1:60
ITEM NAME: 前大梁 BOOM							PROJ. [Symbol]
DRAW NO: UL250201(1)			APP. [Symbol]				
DSGN		TRACE		QTY/SET	117379 kg		
DRAW		CHK		SET/CRAVE	1		
CHK		VER.					

ZPMC

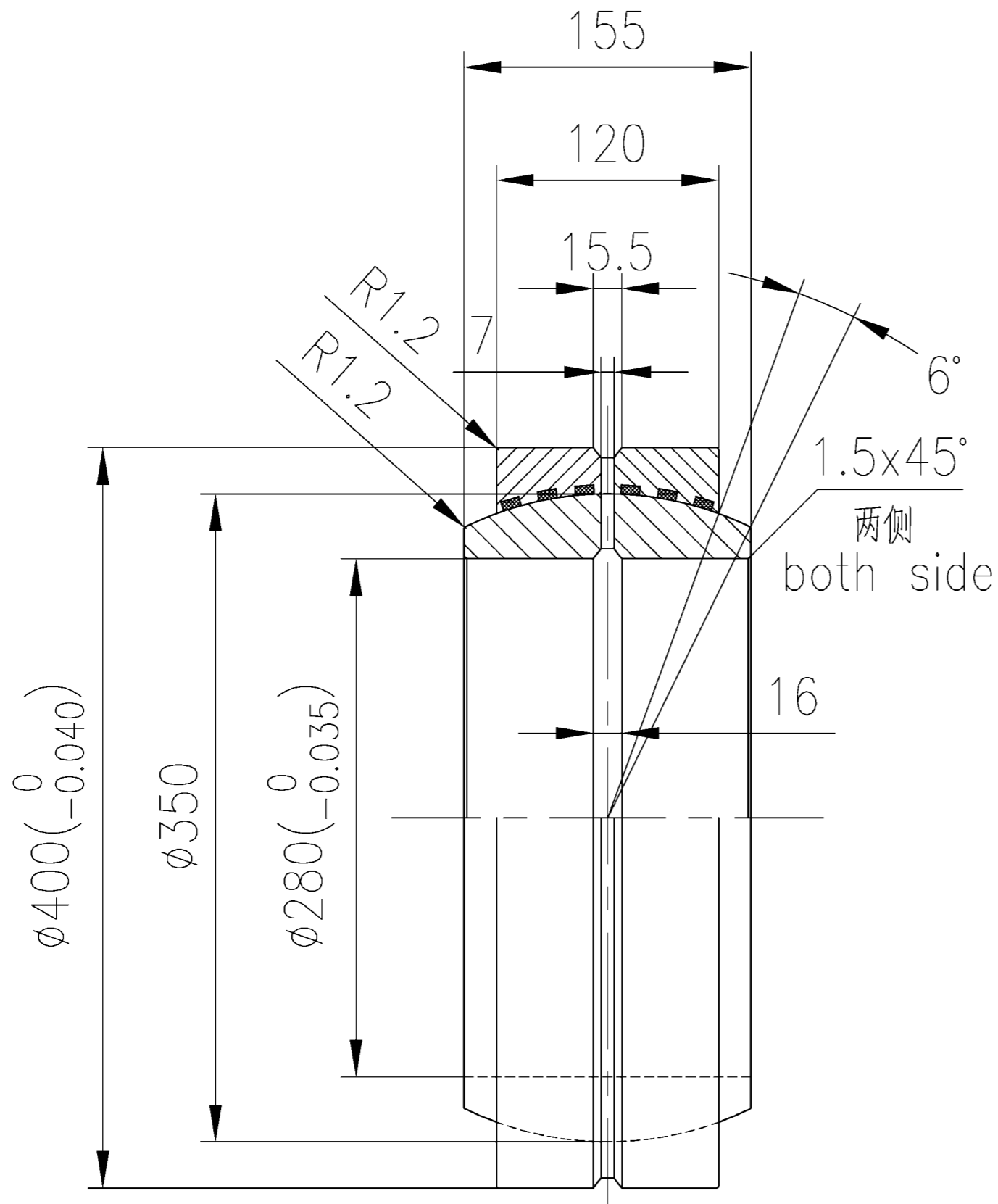
117379 kg

01	UL250201(3)		2005.03.17	huang
revision no.	Sub no.	description	date	sign



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each weight	total weight	NOTE
PROJECT: Alabama 2000t/h ship unloader							SCALE: 1:60
ITEM NAME: 前大梁 BOOM				DRAW NO: UL250201(3)		PROJ.	
DISN	TRACE	APP.	QTY/SET				
DRAW	CHK	APP.	SET/CRAWNE				
CHK	VER.		1				

review no.	description	date	sign



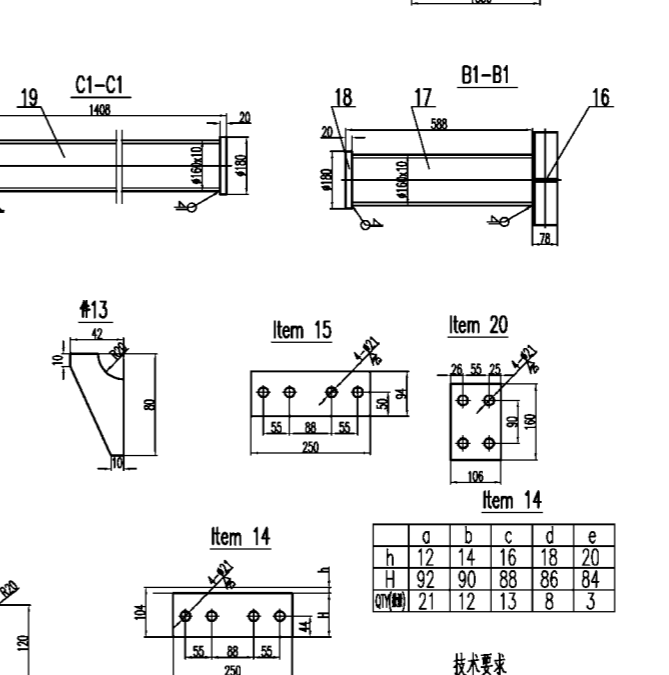
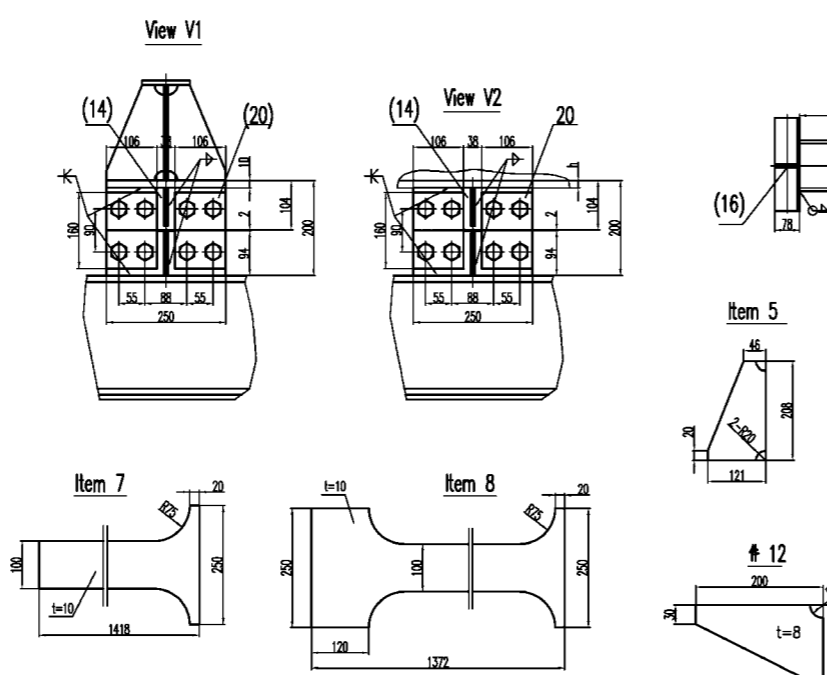
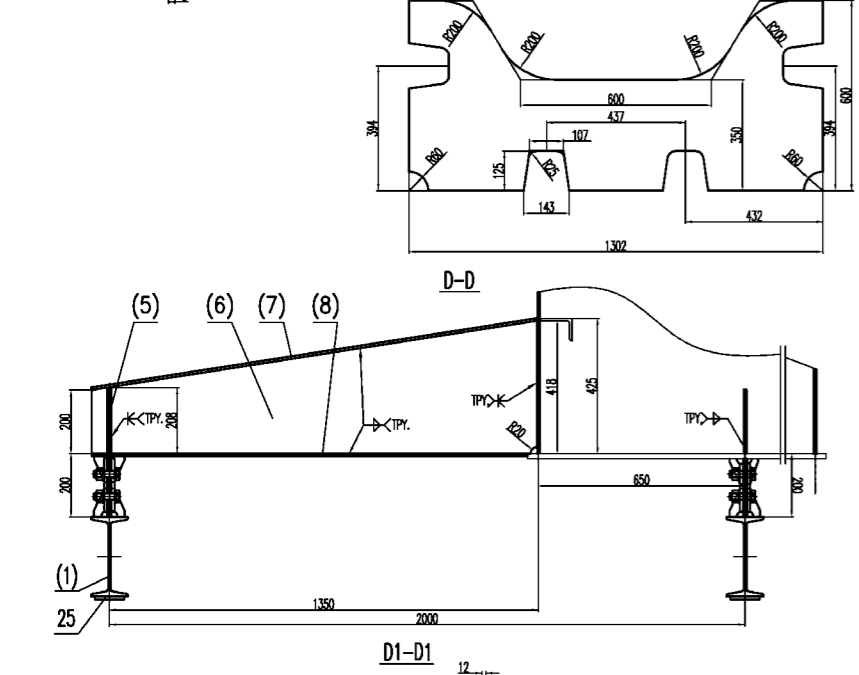
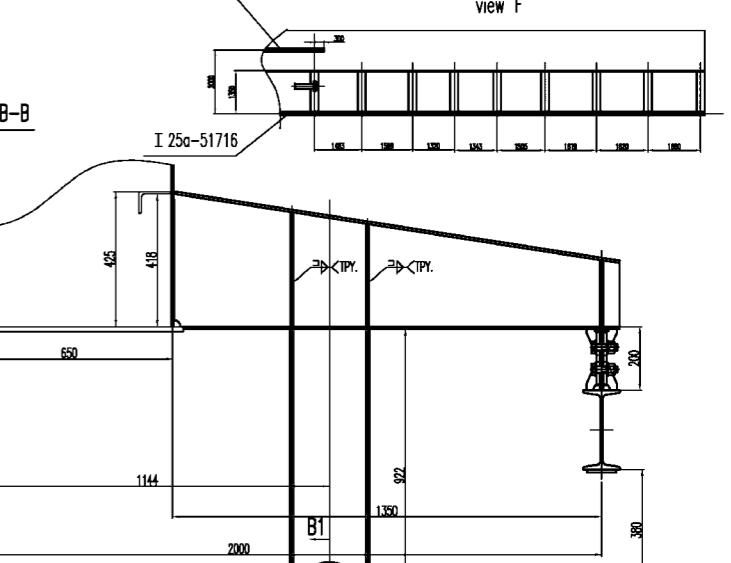
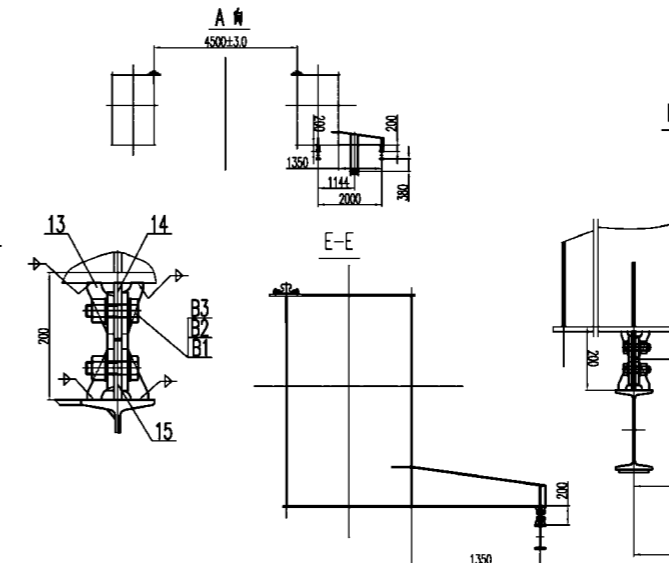
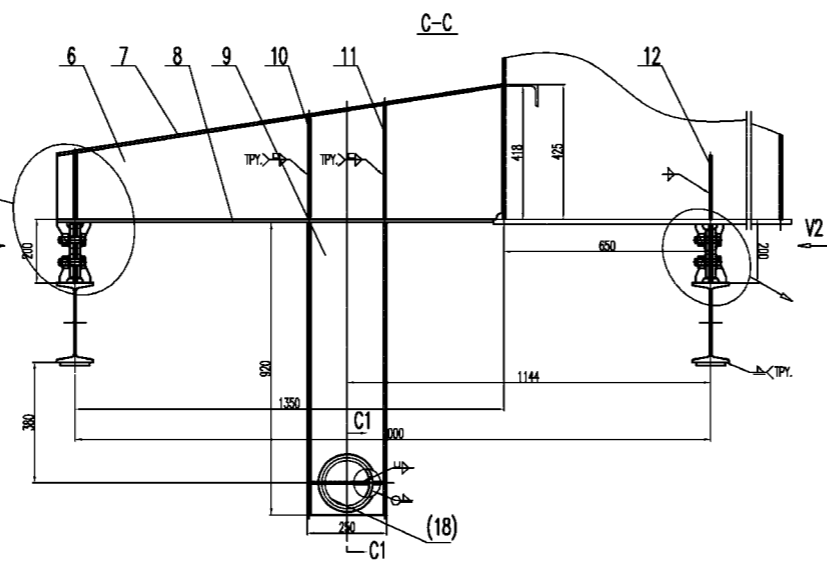
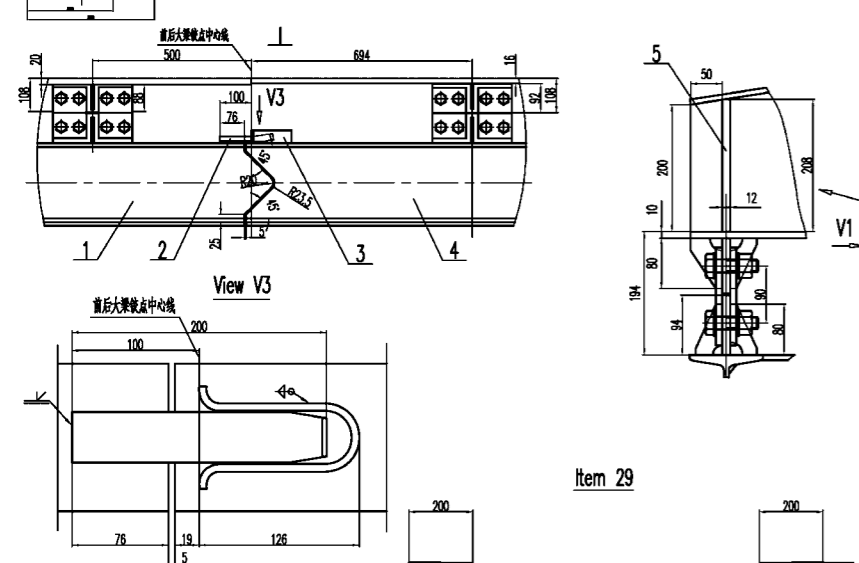
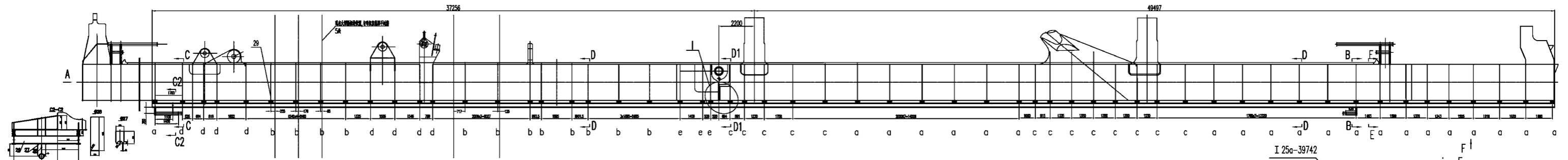
关节轴承按GE.....XSFZ5B-2RS制造:

1. 轴承成品为内外圈整体结构.
2. 轴承内圈基体为高强度特制铜合金及固体润滑剂.
3. 要求承载最大值:
动载— 5000KN, 静载— 10000KN.
4. 两端自带密封, 内外圈滑动.
5. 其他性能参数, 制造精度及表面粗糙度等按厂家(大连三环)的GE.....XSFZ5制造.

Requirement for GE..... XSFZ5B-2RS Spherical plain bearing ordering:

1. The inner or outer race can be fixed at one end by lock ring.
2. The material base of inner race is special high-strength copper alloy and solid lubricants.
3. Maximum capacity:
Dynamic load— 5000KN, Static load— 10000KN.
4. The spherical plain bearing has its own seals at both ends.
5. Other performance and precision are controlled and guaranteed by supplier.

B9	UL250202-B9	向心关节轴承GE280XSFZ5B-2RS订货图	成品	63.9kg	4件/台
ZPMC	DRAW		TECH.		
	CHCK		STDD		
			TRACE		
			CHCK		



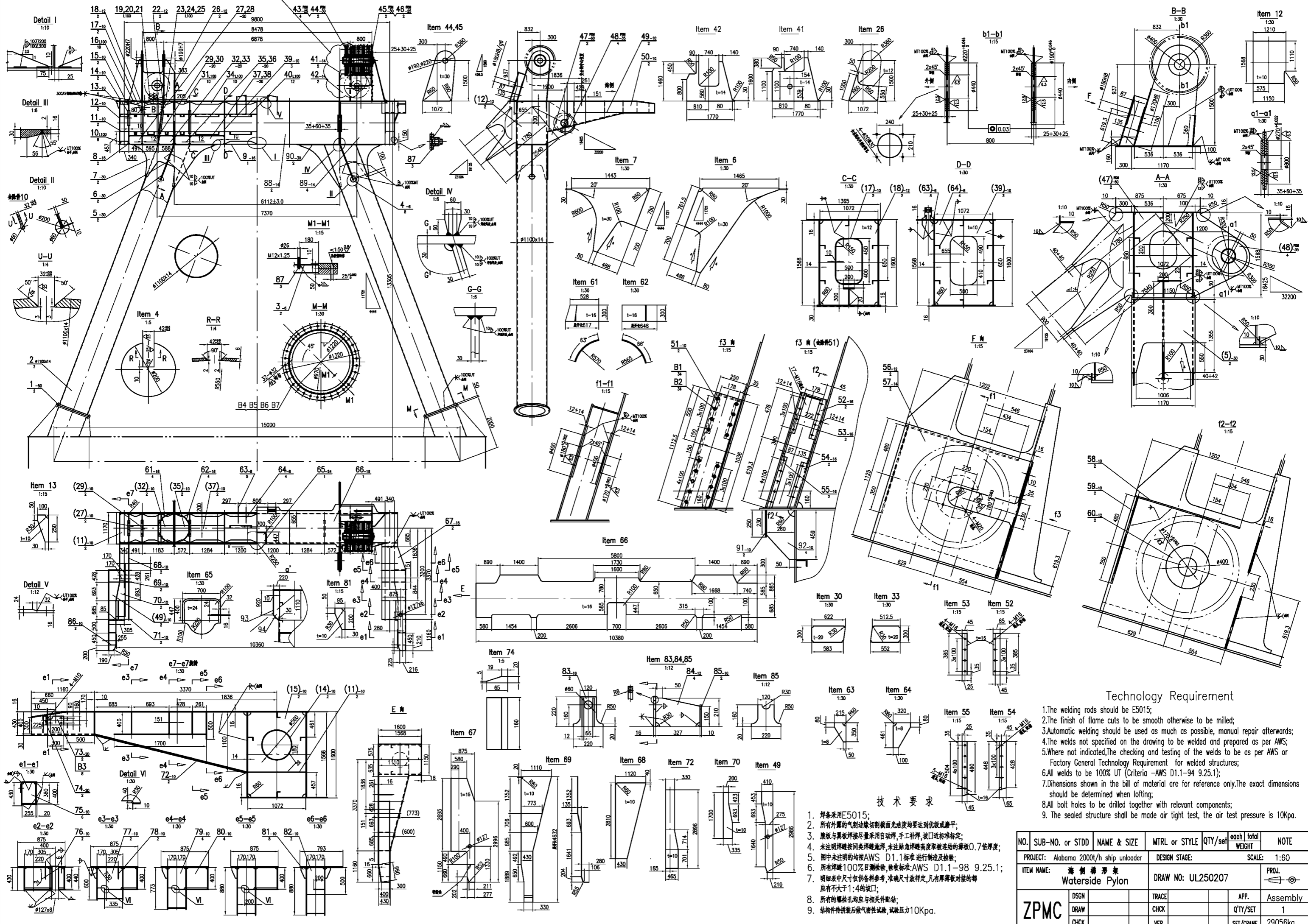
a	b	c	d	e
h 12	14	16	18	20
H 92	90	88	86	84
QTY(套)	21	12	13	8

- 技术要求**
1. 电纜軌道在船后大梁及尾梁上的吊点位置参见本图, 具体以吊点标注为准。
 2. 轨道中心线应与大梁中心线平行, 误差±1mm。
 3. 轨道结合处应打磨平整, 安装时要严格保证不能错开及相互挤压。
 4. 件12在大梁制作时提前预装。
 5. 接口处错位和间隙应不大于0.5mm。
 6. 两轨道之间的间距偏差允差为±2mm。
 7. 可调整吊点的四个滚轮在合拢范围内高低差不得大于2mm。

TECHNICAL REQUIREMENTS

1. The collecting points of festoon rail with boom should align at webs in the boom.
2. The center line of festoon rail should parallel with center line of boom, and error is ±1mm.
3. The combination of the rails should be smooth.
4. The item 12 should be welded when making the boom and girder.
5. Clearance and misalignment of the rail sections should not exceed 0.5mm.
6. The deviation of distance between 2 festoon rails is less than ±2mm.

B3	GB/T1230-91	H.S.Washer 20	45	1824	0.034	62	达罗 Dacro.
B2	GB/T1229-91	H.S.Nut M20	10s	912	0.12	109.4	达罗 Dacro.
B1	GB/T1228-91	H.S.BoltM20x70	10.9s	912	0.23	209.8	达罗 Dacro.
28		-10x260x1045	A709-50-2	1			
27		-10x250x380	A709-50-2	1			
26		I 25a -1992	Q235B	1			
25		-10x90x86753	A709-50-2	2	61.3	1226	
24		-10x250x1222	A709-50-2	1	11.2	11.2	
23		-10x250x1269	A709-50-2	1	9.9	9.9	
22		-10x418x1250	A709-50-2	1	30.3	30.3	
21		-12x121x209	A709-50-2	2	1.6	3.2	
20		-10x106x160	A709-50-2	456	1.2	547.2	
19	GB8162-87	Φ160x10-1388	Q235B	1	51.4	51.4	
18		-20xΦ180	A709-50-2	2	4.3	8.6	
17	GB8162-87	Φ160x10-568	Q235B	1	21	21	
16		-8x70x226	A709-50-2	2	1	2	
15		-12x94x250	A709-50-2	114	2	228	
14		-12X H X250	A709-50-2	114	2	228	
13		-8x42x80	A709-50-2	456	0.15	68.4	
12		-8x120x200	A709-50-2	114	1	114	
11		-8x45x360	A709-50-2	4	1.1	128	
10		-8x45x323	A709-50-2	4	1	112	
9	GB707-88	C25a-920	Q235B	2	25.2	50.4	
8		-10x250x1372	A709-50-2	56	12.4	695.4	
7		-10x250x1418	A709-50-2	56	11.2	627.2	
6		-10x418x1400	A709-50-2	56	34	1902	
5		-12x121x208	A709-50-2	112	1.6	183.2	
4	GB706-88	I 25a -51716	Q235B	Φ1#	1971	3942	
3		-6x40x286	A709-50-2	2	0.55	1.1	
2		-20x40x200	A709-50-2	2	1.25	2.5	
1	GB706-88	I 25a-35126	Q235B	2	1338	2676	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:	SCALE: 1:100			
ITEM NAME: 索鞍架轨道及电纜軌道			DRAW NO:	UL250204			
Festoon rail			TRACE				
ZPMC			DRAW	CHK	APP.	9636Kg	
			CHK	VER.	SET/CRANE	1	



Technology Requirement

1. The welding rods should be E5015;
2. The finish of flame cuts to be smooth otherwise to be milled;
3. Automatic welding should be used as much as possible, manual repair afterwards;
4. The welds not specified on the drawing to be welded and prepared as per AWS;
5. Where not indicated, The checking and testing of the welds to be as per AWS or Factory General Technology Requirement for welded structures;
6. All welds to be 100% UT (Criteria - AWS D1.1-94 9.25.1);
7. Dimensions shown in the bill of material are for reference only. The exact dimensions should be determined when lifting;
8. All bolt holes to be drilled together with relevant components;
9. The sealed structure shall be made air tight test, the air test pressure is 10Kpa.

技术要求

1. 焊条采用E5015;
2. 所有外廓的气割边缘切割面光洁度均要达到铣削或磨平;
3. 腹板与翼板焊接尽量采用自动焊, 手工补焊, 坡口按标准执行;
4. 未注明焊缝同类焊缝施焊, 未注贴角焊缝高度取坡口0.7倍厚度;
5. 图中未注明的按AWS D1.1标准进行制造及检验;
6. 所有焊缝100%目视抽检, 验收标准: AWS D1.1-98 9.25.1;
7. 明细表中尺寸仅供参考, 准确尺寸按详图, 凡有厚薄板对接的都应有不大于1:4的坡口;
8. 所有的螺栓孔均应与相关件配钻;
9. 结构件拼装后做气密性试验, 试验压力10Kpa.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each WEIGHT	total WEIGHT	NOTE
PROJECT: Alabama 2000/h ship unloader			DESIGN STAGE:		SCALE: 1:60		
ITEM NAME: 海侧桥形架 Waterside Pylon			DRAW NO: UL250207		PROJ.		
ZPMC		DSGN	TRACE	APP.	Assembly		
		DRAW	CHCK	QTY/SET	1		
		CHKC	VER.	SET/CRANE	29056kg		

SUBSIDIARY LIST

* The quantity and weight of this list is to one set
1 set/crane, 29056 kg/set, 29056 kg/crane PAGE: 1/5

PROJECT NAME or CODE:		SUB-PART NAME:		SUB DRAW NO:		
Alabama 2000t/h ship unloader		海側揚り架 Waterside Pylon		UL250207		
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/SET	PIECE WGT	TOTAL WGT
1	FCM	-50xØ1320/Ø970	A709-50-2	2	247	494
2		Ø1100x14-10662	A709-50-2	2	3919.4	7838.9
3		-6xØ970	A709-50-2	2	34.8	69.6
4		-6xØ200	A709-50-2	8	1.3	10.4
5		-30x1170x1355	A709-50-2	2	261.6	523.3
6		-30x1568x1735	A709-50-2	2	248.3	496.7
7		-30x1183x1443	A709-50-2	2	180.3	360.6
8		-16x450x1170	A709-50-2	2	66.1	132.3
9		-16x1170x2912	A709-50-2	1	427.9	427.9
10		L100x63x8-280	Q235B	8	2.8	22.1
11		-10x330x1072	A709-50-2	2	27.4	54.8
12		-10x1210x1568	A709-50-2	2	36.7	73.4
13		-10x100x250	A709-50-2	4	1.36	5.4
14		-10x80x1728	A709-50-2	2	10.9	21.7
15		-10x1072x1568	A709-50-2	2	111.7	223.5
16		L100x63x8-430	Q235B	10	4.2	42.5
17		-10x80x2411	A709-50-2	6	15.1	90.8
18		-12x1072x1568	A709-50-2	4	119	476.2
19		L100x63x8-737	Q235B	2	7.3	14.6
20		L100x63x8-677	Q235B	4	6.7	26.7
21		L100x63x8-592	Q235B	4	5.8	23.4
22		-12x1072x1581	A709-50-2	2	120.3	240.6
ZPMC	DSGN CHCK		TECH STDD		MTRL CHCK	11669.4

SUBSIDIARY LIST

* The quantity and weight of this list is to one set
1 set/crane, 29056 kg/set, 29056 kg/crane PAGE: 2/5

PROJECT NAME or CODE:		SUB-PART NAME:		SUB DRAW NO:		
Alabama 2000t/h ship unloader		海側揚り架 Waterside Pylon		UL250207		
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/SET	PIECE WGT	TOTAL WGT
23		L100x63x8-298	Q235B	2	2.9	5.9
24		L100x63x8-357	Q235B	4	3.5	14.1
25		L100x63x8-442	Q235B	4	4.4	17.5
26		-12x956x1117	A709-50-2	2	59	117.9
27		-20x200x480	A709-50-2	2	15	30.1
28		-20x300x480	A709-50-2	2	22.2	44.3
29		-20x200x623	A709-50-2	2	19.6	39.1
30		-20x300x622	A709-50-2	2	27.9	55.9
31		L100x63x8-486	Q235B	10	4.8	48
32		-20x200x511	A709-50-2	2	16	32.1
33		-20x300x552	A709-50-2	2	24.6	49.3
34		L100x63x8-1223	Q235B	10	12.1	120.8
35		-20x200x536	A709-50-2	2	16.8	33.7
36		-20x300x536	A709-50-2	2	24.8	49.6
37		-20x200x1273	A709-50-2	2	40	79.9
38		-20x300x1273	A709-50-2	2	59.5	119
39		-10x1072x1568	A709-50-2	3	99.2	297.5
40		L100x63x8-1140	Q235B	12	11.3	135.1
41		-14x1600x1770	A709-50-2	2	214.2	428.4
42		-14x1460x1770	A709-50-2	2	158.4	316.7
43	FCM	-25xØ440/Ø190	A709-50-2	4	24.3	97.1
44	FCM	-30x1196x1860	A709-50-2	2	359.5	719
ZPMC	DSGN CHCK		TECH STDD		MTRL CHCK	2851

SUBSIDIARY LIST

* The quantity and weight of this list is to one set
1 set/crane, 29056 kg/set, 29056 kg/crane PAGE: 3/5

PROJECT NAME or CODE:		SUB-PART NAME:		SUB DRAW NO:		
Alabama 2000t/h ship unloader		海側揚り架 Waterside Pylon		UL250207		
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/SET	PIECE WGT	TOTAL WGT
45	FCM	-30x1196x1860	A709-50-2	2	358	716
46	FCM	-25xØ440/Ø210	A709-50-2	4	23	92.2
47	FCM	-60x2187x3530	A709-50-2	2	1700.2	3400.3
48	FCM	-35x600x650	A709-50-2	4	70.2	280.7
49		-10x410x2986	A709-50-2	2	72.4	144.8
50		-10x400x2976	A709-50-2	2	93.4	186.9
51		-10x250x1112.5	A709-50-2	2	21.1	42.2
52		-16x65x385	A709-50-2	2	3.1	6.3
53		-16x45x385	A709-50-2	2	2.2	4.4
54		-16x65x485	A709-50-2	2	3.6	7.2
55		-16x45x504	A709-50-2	2	2.8	5.6
56		-12x1202x1125	A709-50-2	2	113.3	226.5
57		-14xØ400/Ø180	A709-50-2	2	4.4	8.8
58		-10x248x1010	A709-50-2	2	21.2	42.4
59		-10x248x830	A709-50-2	2	16.2	32.3
60		-12xØ400/Ø170	A709-50-2	2	9.7	19.4
61		-16x300x617	A709-50-2	4	21.6	86.3
62		-16x300x646	A709-50-2	4	24.3	97.4
63		-8x215x350	A709-50-2	5	3.2	15.8
64		-8x320x461	A709-50-2	4	6.5	25.9
65		-24x650x700	A709-50-2	1	72.4	72.4
66		-16x1570x10380	A709-50-2	1	1762.3	1762.3
ZPMC	DSGN CHCK		TECH STDD		MTRL CHCK	7276.1

SUBSIDIARY LIST

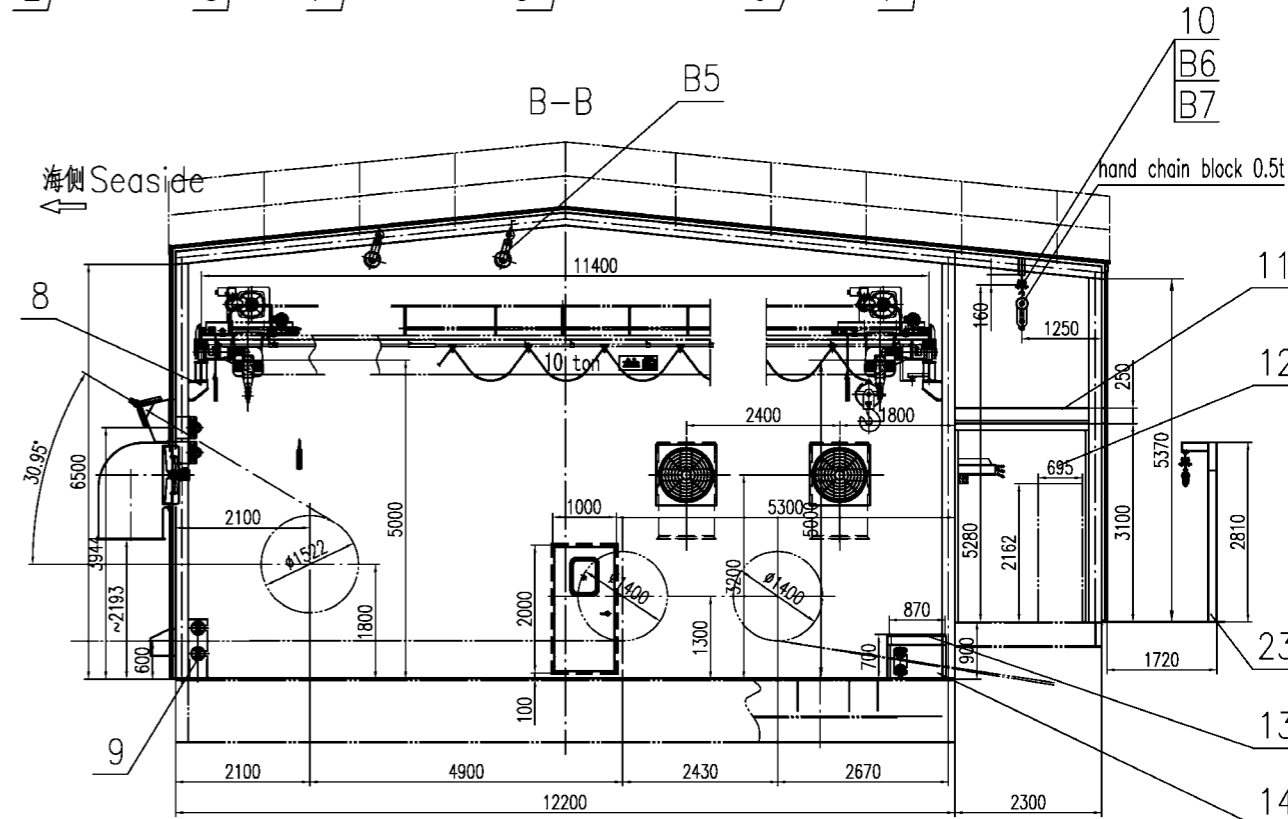
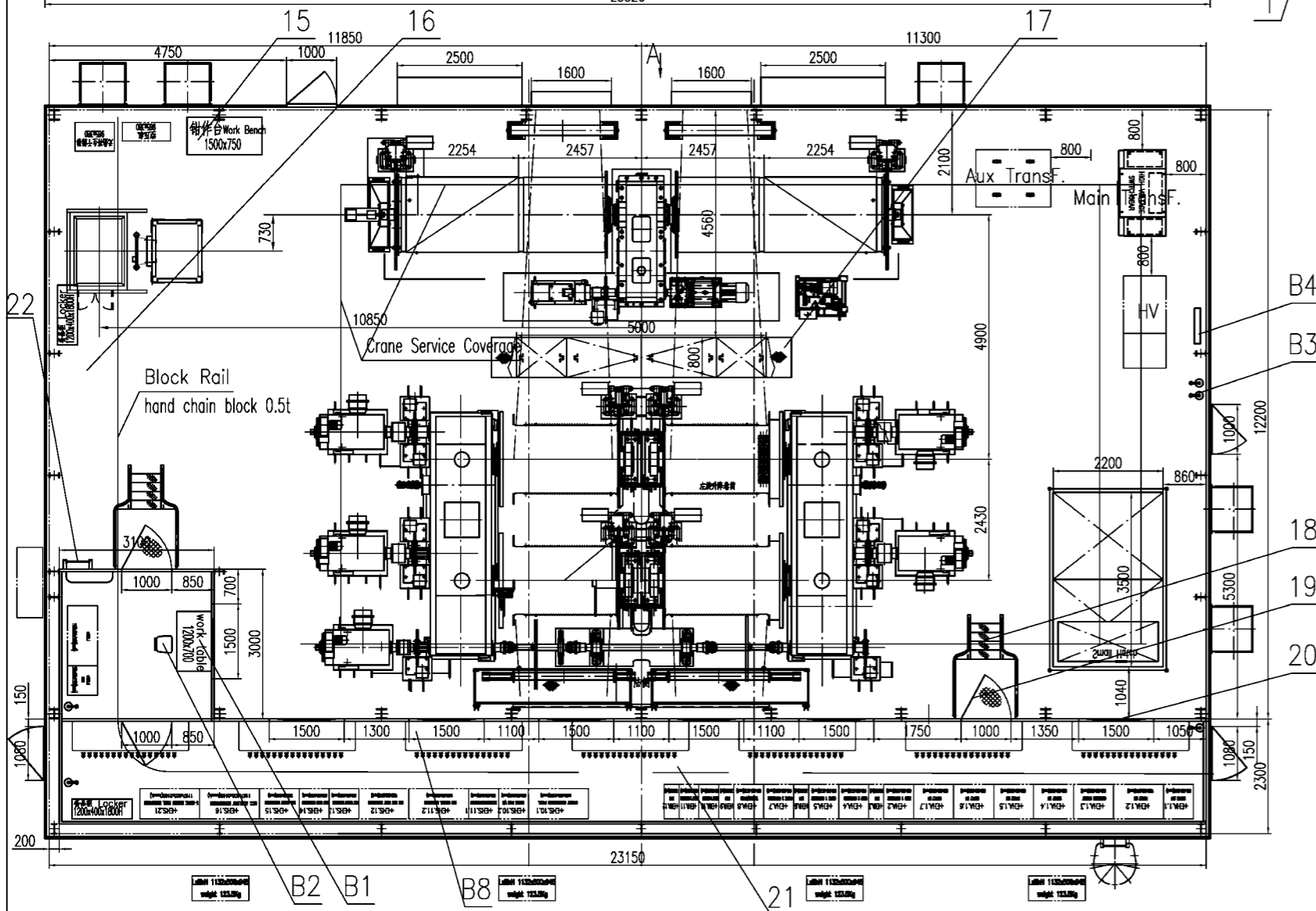
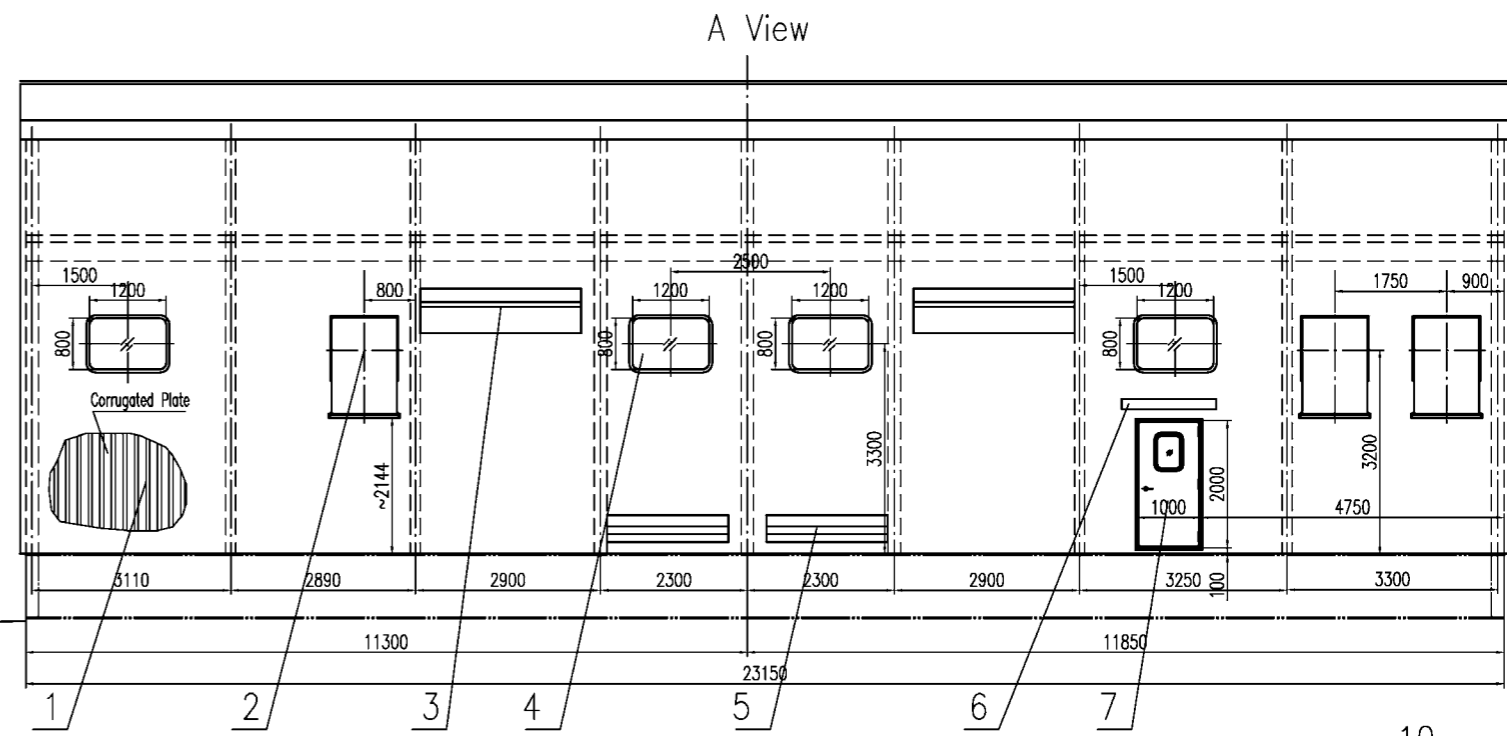
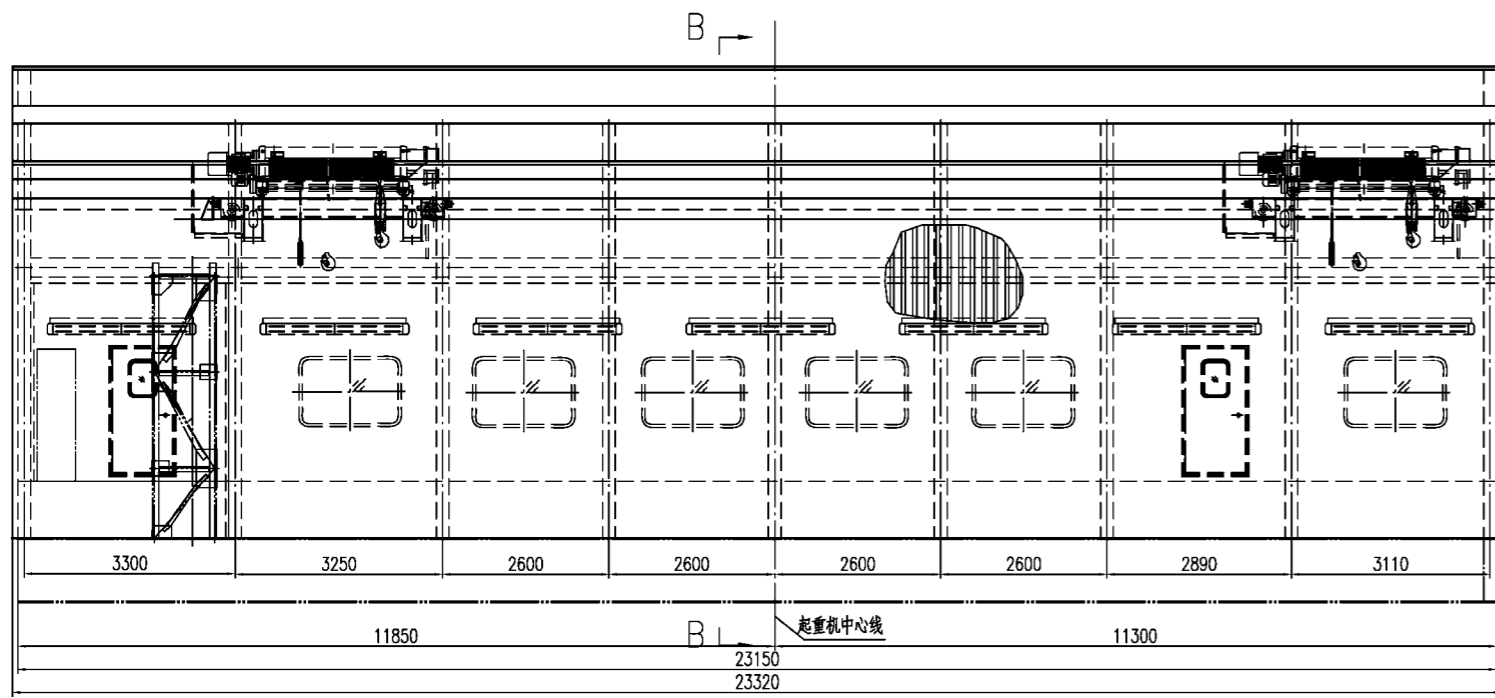
* The quantity and weight of this list is to one set
1 set/crane, 29056 kg/set, 29056 kg/crane PAGE: 4/5

PROJECT NAME or CODE:		SUB-PART NAME:		SUB DRAW NO:		
Alabama 2000t/h ship unloader		海側揚り架 Waterside Pylon		UL250207		
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/SET	PIECE WGT	TOTAL WGT
67		-16x875x3845	A709-50-2	2	318	636
68		-10x1120x2810	A709-50-2	2	171.9	343.7
69		-10x1110x4632	A709-50-2	2	229.2	458.3
70		-10x335x1700	A709-50-2	2	36.5	73.1
71		-10x430x590	A709-50-2	2	19.9	39.8
72		-10x465x2896	A709-50-2	2	86.2	172.5
73	ZPMC海側揚り架SB01-03	SB02-20 鋼塊	UHMWPE	2		
74		-20x65x160	A709-50-2	2	1.2	2.4
75		-10x255x380	A709-50-2	6	7.6	45.6
76		Ø127x6-440	Q235B	2	7.9	15.8
77		-10x400x465	A709-50-2	2	14.6	29.2
78		-8x200x675	A709-50-2	2	8.5	17
79		-10x330x400	A709-50-2	4	10.4	41.4
80		-10x380x390	A709-50-2	4	11.6	46.5
81		-10x95x200	A709-50-2	8	1	8.5
82		-10x330x500	A709-50-2	2	13	25.9
83		-16x220x220	A709-50-2	2	3.4	6.7
84		-12x210x327	A709-50-2	4	5.6	22.3
85		-10x160x220	A709-50-2	2	1.7	3.3
86		-10x255x311	A709-50-2	2	6.2	12.5
87	UL2502020901	鋼製 Plug screw assm. 起吊件 (吊用件)		3	0.08	0.24
ZPMC	DSGN CHCK		TECH STDD		MTRL CHCK	2005.3

SUBSIDIARY LIST

* The quantity and weight of this list is to one set
1 set/crane, 29056 kg/set, 29056 kg/crane PAGE: 5/5

PROJECT NAME or CODE:		SUB-PART NAME:		SUB DRAW NO:		
Alabama 2000t/h ship unloader		海側揚り架 Waterside Pylon		UL250207		
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/SET	PIECE WGT	TOTAL WGT
B1	GB5782-86	鋼絲 M16x30	8.8s	34	0.06	1.9
B2	GB955-87	鋼絲 16	65Mn	34	0.003	0.09
B3	GB69-85	鋼釘 M10X30	不銹鋼	8	0.018	0.15
B4	GB117-86	tap pin25x120		45	4	
B5	GB1230-91	Wash 30		45	128	
B6	GB1229-91	Nut M30	40B	64		10.8 grade
B7	GB1228-91	Bolt M30X150	40B	64		10.9 grade
ZPMC	DSGN CHCK		TECH STDD		MTRL CHCK	2005.3

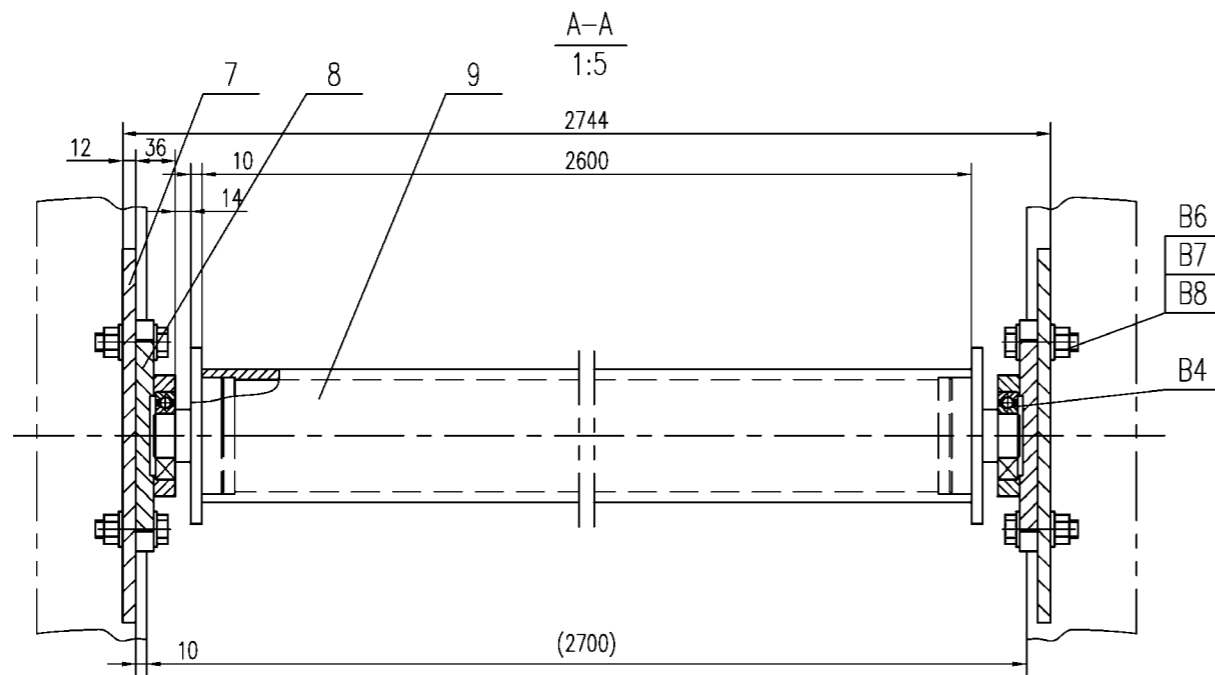
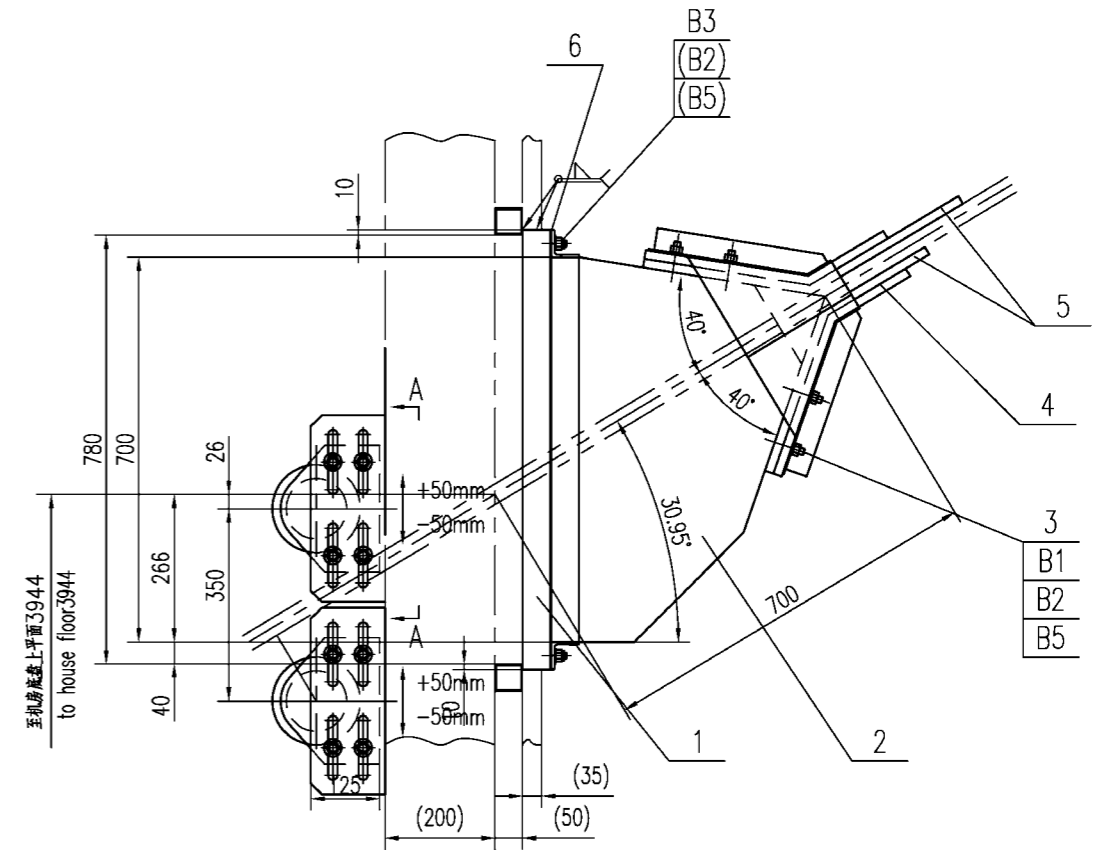
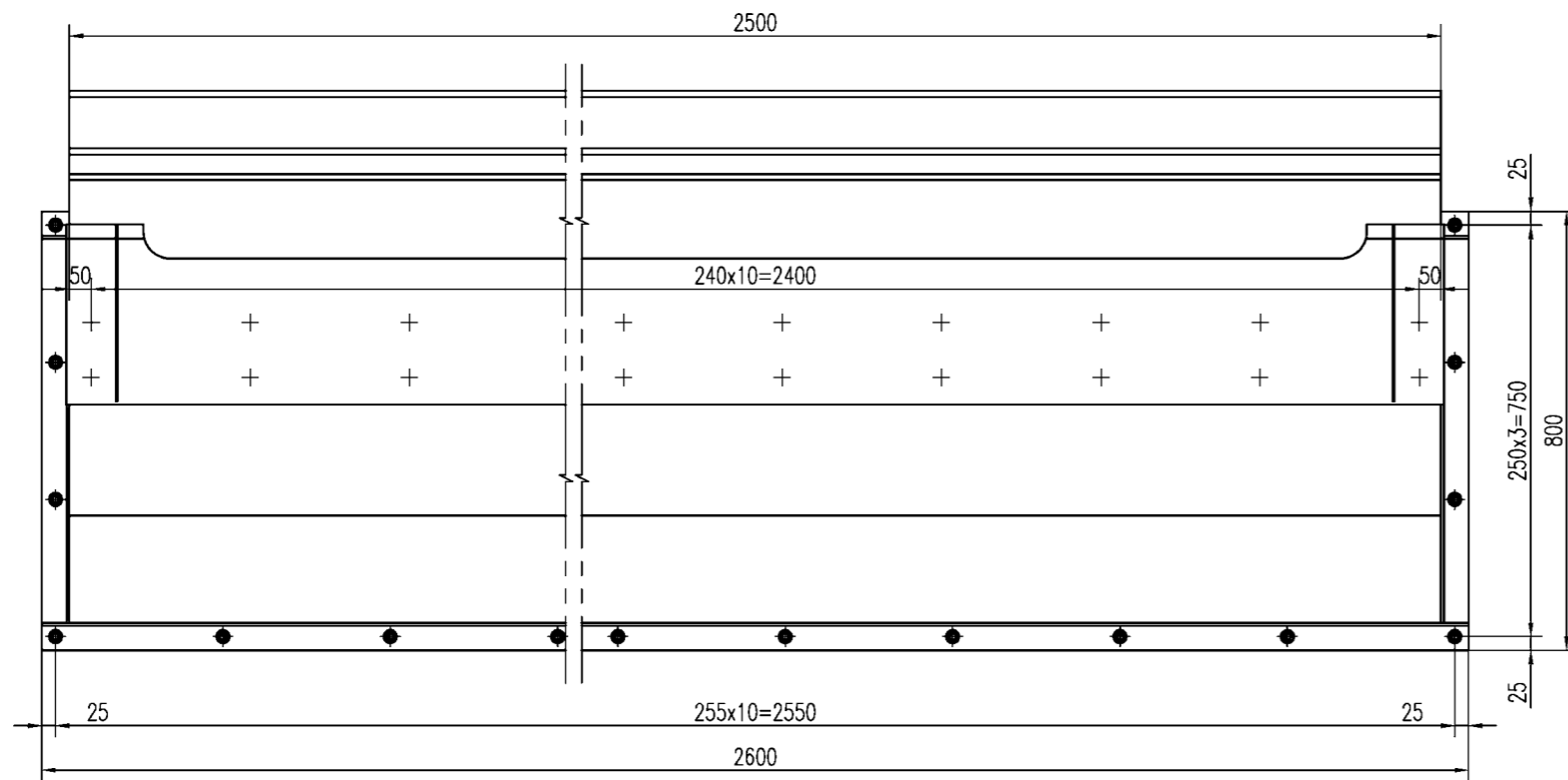


B8	Air Conditioner	3		电气E.E. provide
B7	Chain Block	0.5t	1	外购 out-sourcing
B6	Plain Trolley	0.5t	1	外购 out-sourcing
B5	Block	组件 Ass.	4	98.2 196.4 外购 out-sourcing
B4	Stair Ladder	铝铝 aluminium alloy	1	~50
B3	Fire Extinguisher	CO2 灭火器	1	当地购买 U.S.A
B2	Chair	椅子	1	14
B1	Work Table	1200x700	1	50

23	UL250319	crane for air conditioner	组件	1	44
22	MHA06b	Ladder	组件	1	44
21	UL250317	Rubber Matting	Ass. 橡胶垫板(厚12)	1	342
20	UL250316	Fixed Window	Ass. 固定窗	7	32 224
19	UL250315	Hinged Door II	Ass. 铰链门II	3	135 405 铰链门II right left open
18	UL25031400	Stair	组件	2	87 174
17	UL250313	Bridge	焊接件	2	880 760
16	MHA03a	Locker	组件	2	150 300 借用 borrow
15	MHA02a	Work Bench	组件	1	100 借用 borrow
14	UL25031200	Roller Unit 2	组件	2	742.2 1484.4 借用 borrow
13	UL25031100	Foldable Platform	组件	2	244 488
12	UL250310	Stair	焊接件	1	3509
11	UL250309	Roof Platform	组件	1	4554
10	UL250308	Block Rail	组件	1	76
9	UL25030700	Roller Unit 1	组件	2	742.2 1484.4

revision no.	Sub no.	description	date	sign	
01	D03		2005.01.06	song	
8	UL250306	Rail Support	Weldment	2	665 3300 对称 symmetry
7	UL250305	Hinged Door I	Ass. 铰链门I	4	135 540 4铰链 right open
6	UL250304	Rain Shield	Weldment	4	11 44
5	UL25030300	Hoist & O/C rope's hold	Ass. 吊钩及钢丝绳夹	2	95 190
4	MHA25	Fixed Window	Ass. 固定窗	4	20 80
3	UL25030200	Boom rope's hood	Ass. 吊钩罩	2	425 850
2	UL25031800	Suction Fan	Ass. 吸风扇	5	125 625
1	UL250301	House Structure	Ass. 房屋结构	1	3554.5

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total WEIGHT	NOTE
PROJECT: Alabama 2000t/h ship unloader						
DESIGN STAGE: SCALE: 1:60						
ITEM NAME: 机械电器室						
MECH & ELEC House Arrangement						
DRAW NO: UL250300						
PROJ.						
DSGN			TRACE		APP.	
DRAW			CHK		QTY/SET	56.4
CHK			VER.		SET/CRANE	1



技术要求

1. 安装时?宽620mm的橡胶板应位于俯仰出绳罩的上方?宽520mm的橡胶板应位于俯仰出绳罩的下方?
2. B7预紧力矩为160Nm.

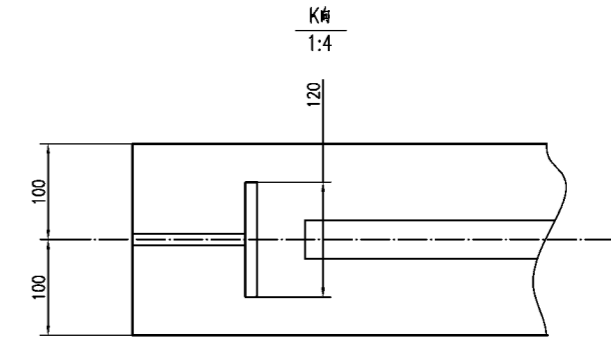
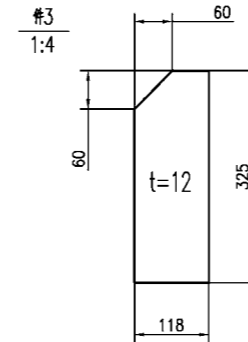
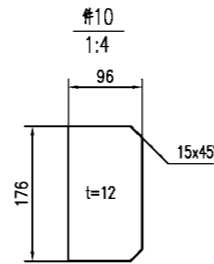
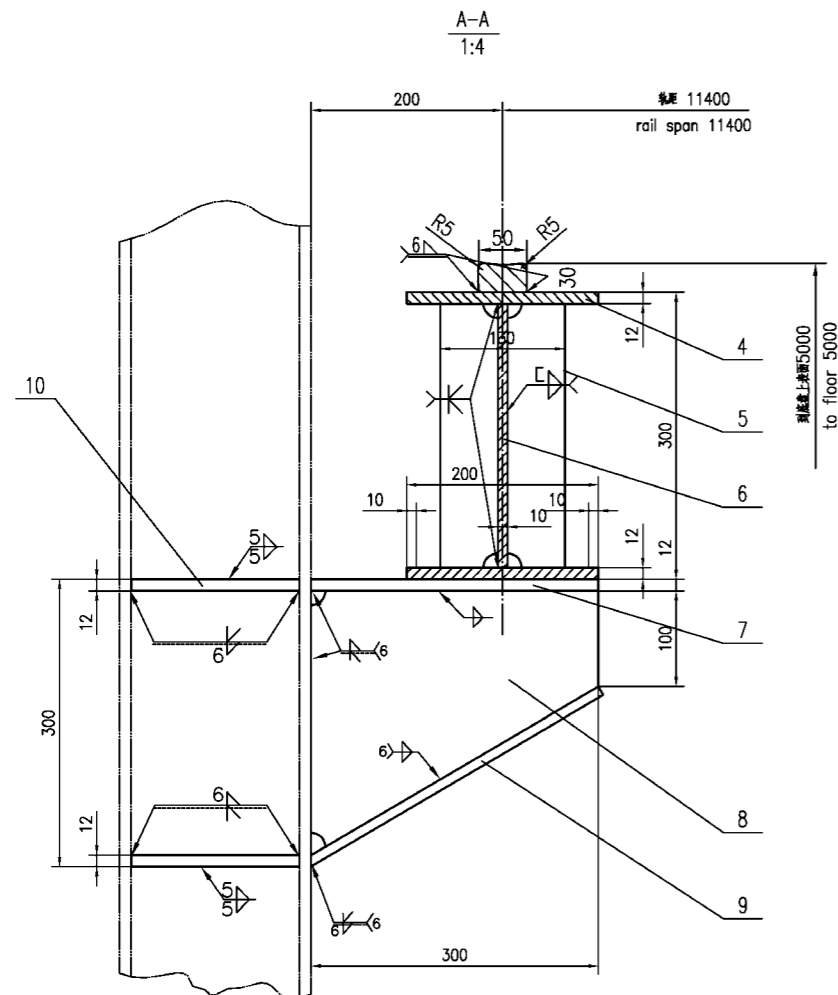
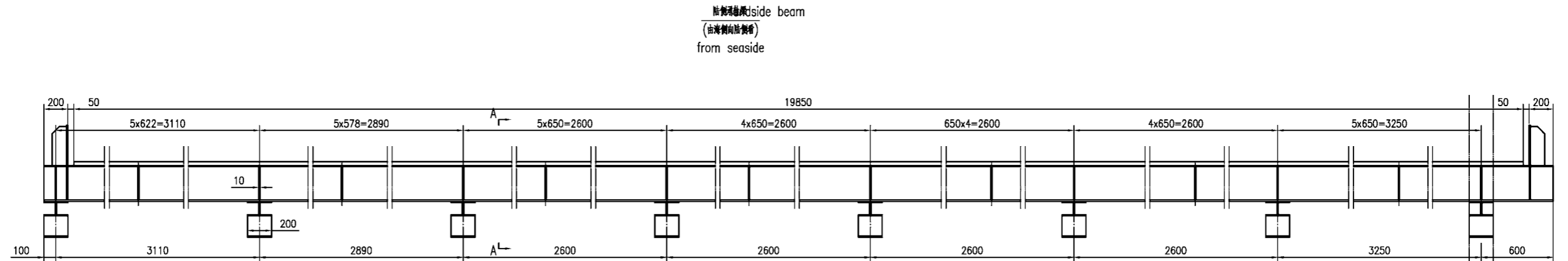
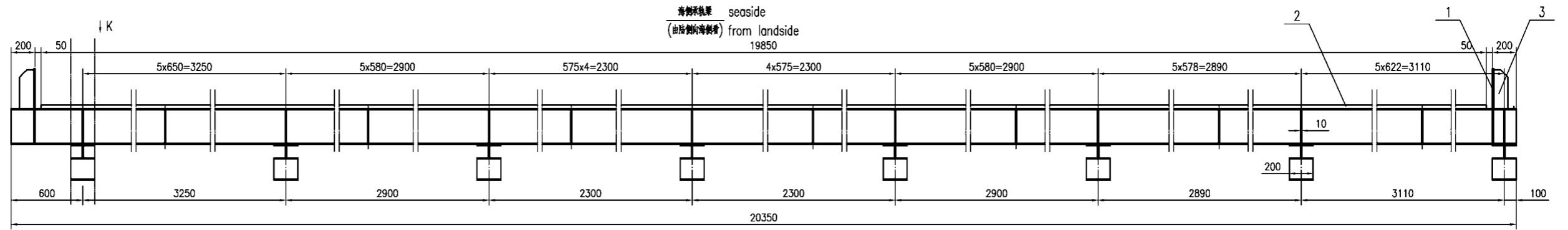
Technical Requirement

- 1.The width 620mm rubber should put on the upward and the 520mm rubber beneath.
- 2.The torque of the B7 should be 160Nm.

B8	GB96-85	大垫圈 16	Dacro 达克罗	8		140HV
B7	GB889-86	螺母 M16	Dacro 达克罗	8		8级
B6	GB5781-86	螺栓 M16x55	Dacro 达克罗	8		8.8级
B5	GB95-85	Wash 垫圈 12	St. steel 不锈钢 A2-70	70		
B4	GB279-88	双面带密封圈轴承 180208		4		40x80x18
B3	GB5783-86	Bolt螺栓 M12x35	St. steel 不锈钢 A2-70	26		
B2	GB889-86	Nut 螺母 M12	St. steel 不锈钢 A2-70	70		
B1	GB5782-86	Bolt 螺栓 M12x60	St. steel 不锈钢 A2-70	44		RH润滑螺栓

9	UL25030209	Roller 托辊	Welded 焊接件	2	44	88	
8	UL25030208	Bearing seat 轴承座板	Welded 焊接件	4	5.0	20.0	
7	UL25030207	Suppoert 支座	Q235	4	4.5	18.0	
6	UL25030206	Rubber shim 橡胶垫	Rubber 耐油橡胶	1		1.8	
5	UL25030205	Rubber plate 橡胶板 2	Oil-resistant rubber 耐油橡胶	2	47.8	95.6	
4	UL25030204	Rubber plate 橡胶板 1	Oil-resistant rubber 耐油橡胶	2	39.4	78.8	
3	UL25030203	Clamp 压板	Welded 焊接件	2	30	60	
2	UL25030202	Hood 罩壳	Welded 焊接件	1		172	
1	UL25030201	Seat 座圈	Welded 焊接件	1		33	

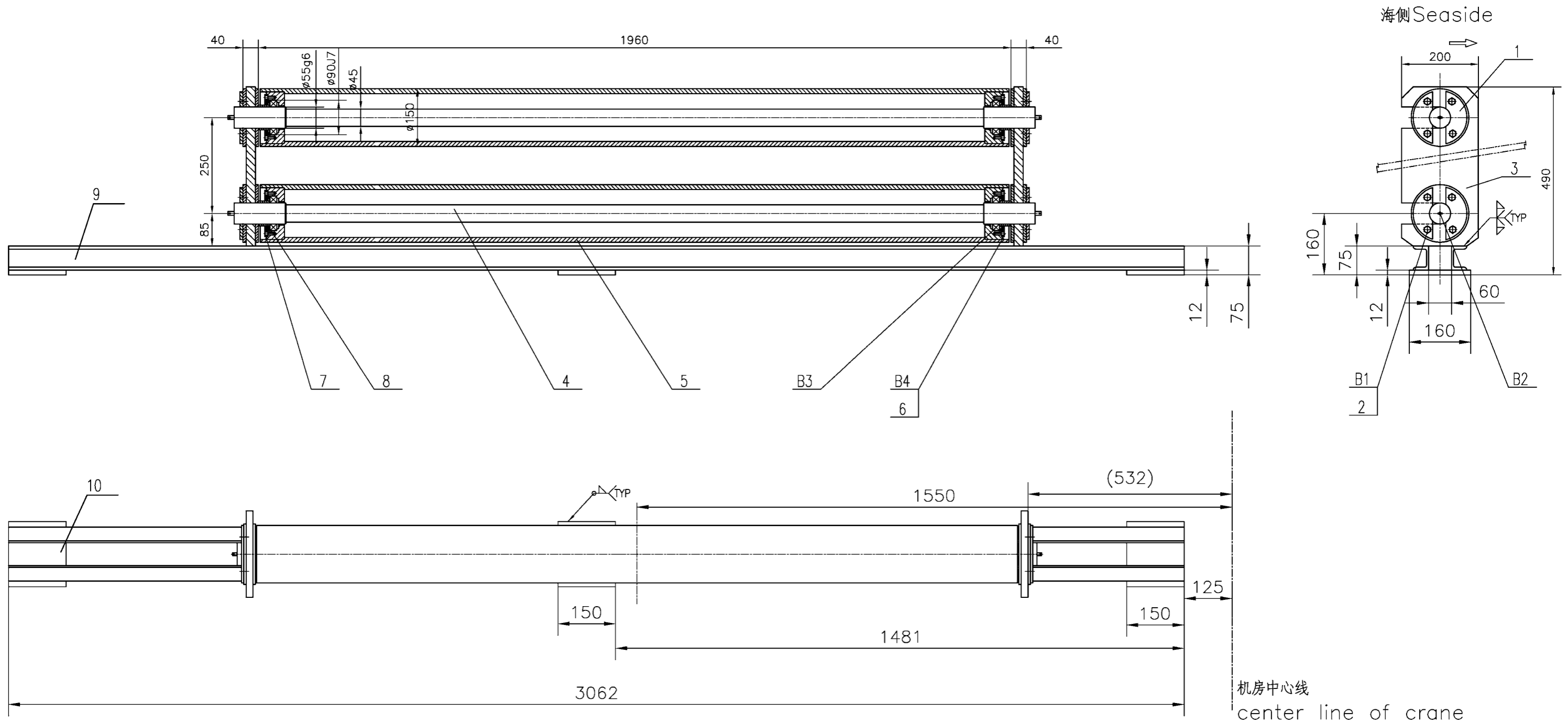
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
					WEIGHT		
PROJECT:Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:10		
ITEM NAME: Boom rope's hood 俯仰出绳罩			DRAW NO:		UL250302		
ZPMC	DSGN		TRACE			APP.	
	DRAW		CHCK			Q'TY/SET	
	CHCK		VER.			WEIGHT	530kg



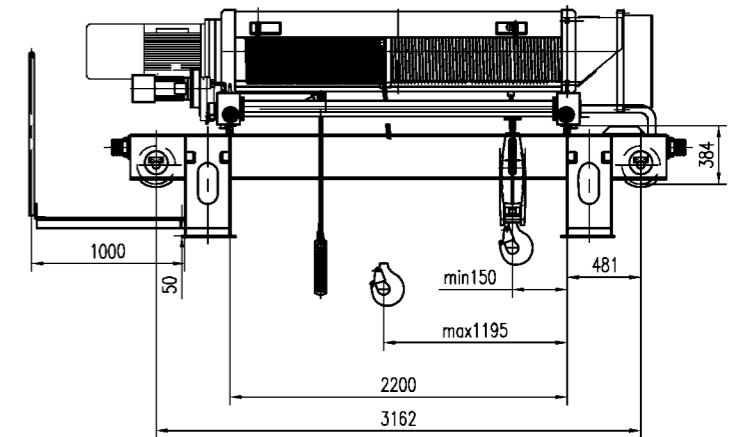
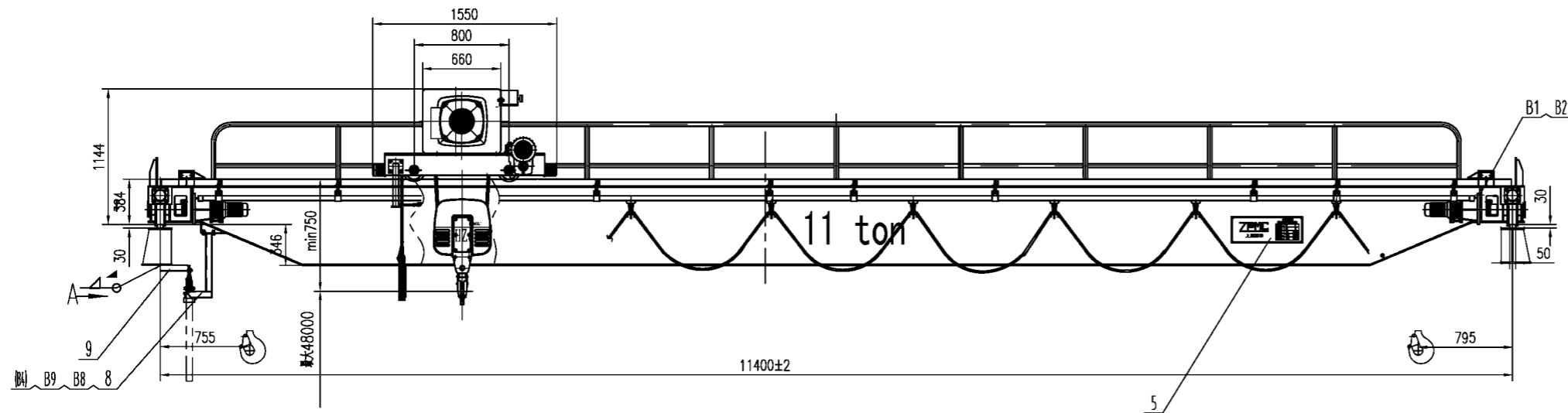
技术要求

1. 轨道安装中心距误差不得大于±3mm，轨顶的高度误差不得大于10mm。轨面的纵向倾斜和横向倾斜不得大于3/1000。轨道间若有接头，则接头处中心偏差小于0.5mm，轨顶偏差小于0.5mm。
The rail gauge error shall be not more than ±3mm, rail top height error not more than 10mm, longitudinal and transversal inclination of the tread surface not more than 3/1000, centerline & height deviation of the rail joint shall be not more than 0.5mm.
2. 焊缝均按AWS-D1.1标准或ZPMC焊接结构通用技术条件进行制造及检验。
Welding seams shall be made and inspected according to AWS-D1.1 or general technical condition of welded structure of ZPMC.
3. 件1和件3的位置现场根据电测支架调整。

件号	分型号或标准	名称及规格	材料或型号	每套数量	单重	共重	备注
10		-12x96x176	Q235	64	1.6	102.4	
9		-12x200x350	Q235	16	6.6	105.6	
8		-10x276x300	Q235	16	6.4	102.4	
7		-12x300x200	Q235	16	5.7	91.2	
6		-10x276x20350	Q235	2	447	894	
5		-10x60x276	Q235	142	1.3	190	
4		-12x200x20350	Q235	4	390	1560	
3		-12x325x120	Q235	4	3	12	
2		-30x50x19850	Q345	2	237	474	
1		-12x325x118	Q235	4	4.5	18	
			设计阶段:		比例: 1:20		
行承梁 rail beam			图号:		UL250306		
上海		设计	工艺	审核	材料		
振华港口机械公司		制图	标准	审核	数量	1	
		校对	制图	审定	总重	3741kg/套	



4	UL0612080103	托辊轴 shaft	45	1		39	借用 borrow
B4	GB32.1-88	螺栓 M8X30 bolt	A2-70	12			
B3	GB276-82	轴承 111 bearing	成品	2	1.6	3.2	
B2		PT1/4" 平头油嘴 oil fitting	成品	2			
B1	GB32.1-88	螺栓 M16X30 bolt	达克罗 Cacro	8			
10	12*150*160		Q235	3	0.2	0.6	
9	63X40X4.8-3062		Q235	2	20.3	40.6	
8	UL0612080106	轴套 sleeve	Q235	2	0.31	0.62	借用 borrow
7	UL0612080105	通盖 cover	Q235	2	1.1	2.2	借用 borrow
6		钢丝 φ1	Q235	2根			
5	UL0612080104	托辊 roller	焊接件 welded	1		105	借用 borrow
PROJECT: ASPA 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:5		
ITEM NAME: 托辊组2 Roller 2			DRAW NO: UL250312				
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	170kg	
	CHCK		VER.		SET/CRANE	2	

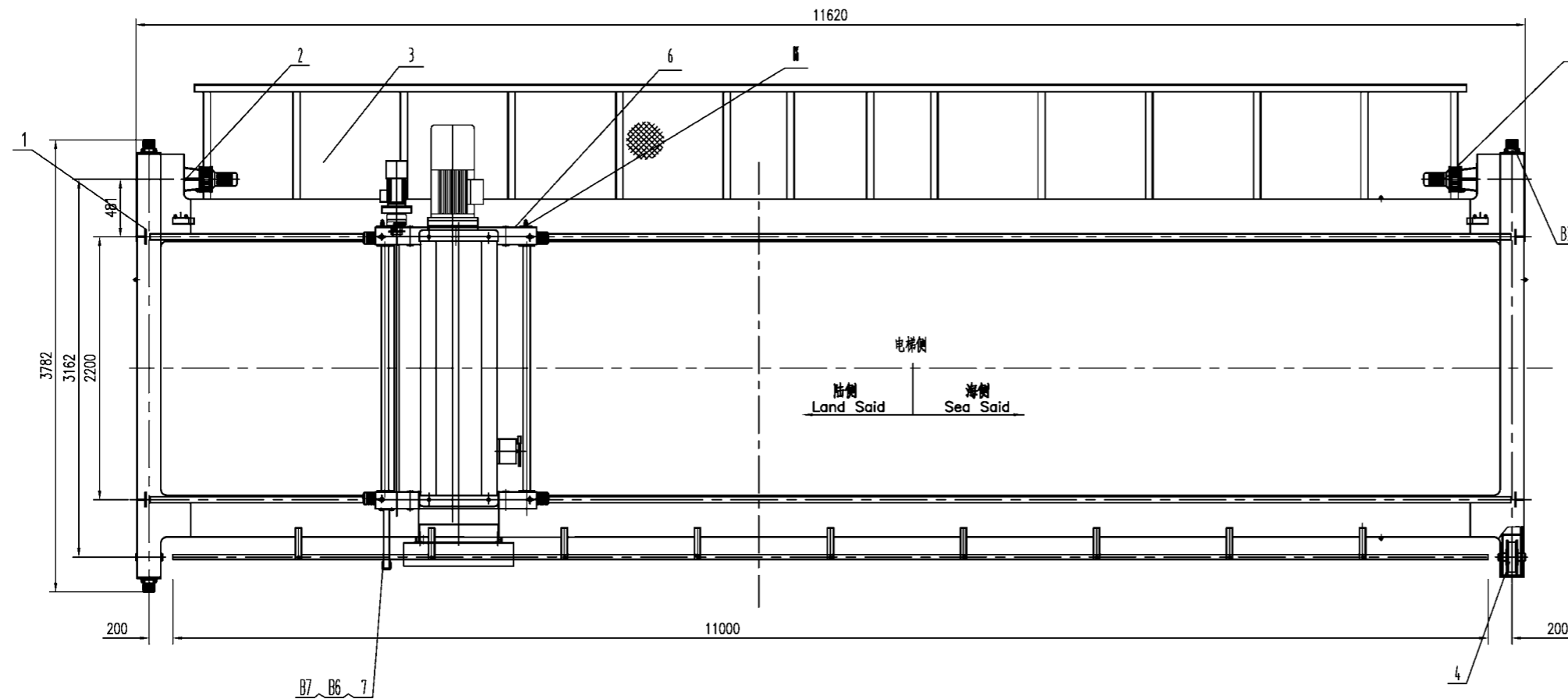


技术要求

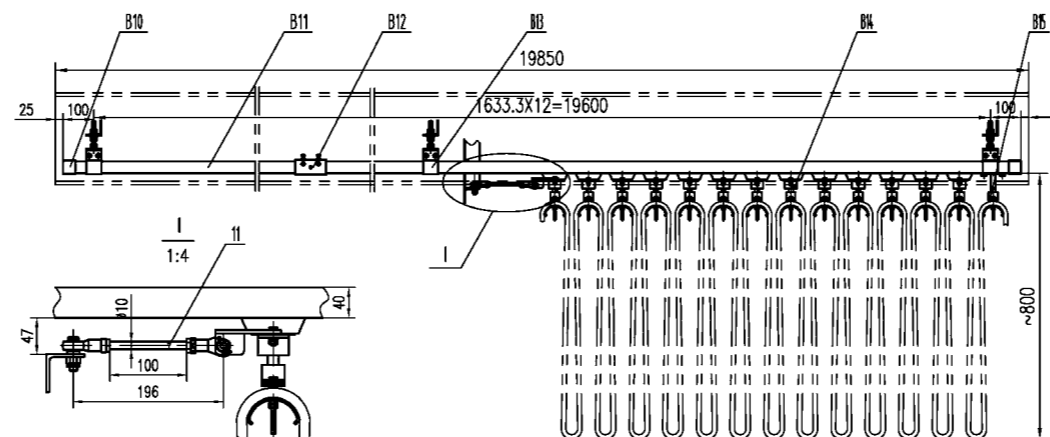
1. 本件中主要,大车运行机构,轨道及零件等为ZPMC 制造. 起重小车由供应商提供.
2. 在新架外侧的中央部位用醒目颜色写上"11 ton"字样.

TECHNICAL REQUIREMENT

- 1.The Main Girder, Cart moving frame, Plant and rail and Date plate and so on are made by ZPMC.The electric hoist is provided by other factory.
- 2.Mark "11 ton" in the middle of the main girder outside,using the color striking the eye.



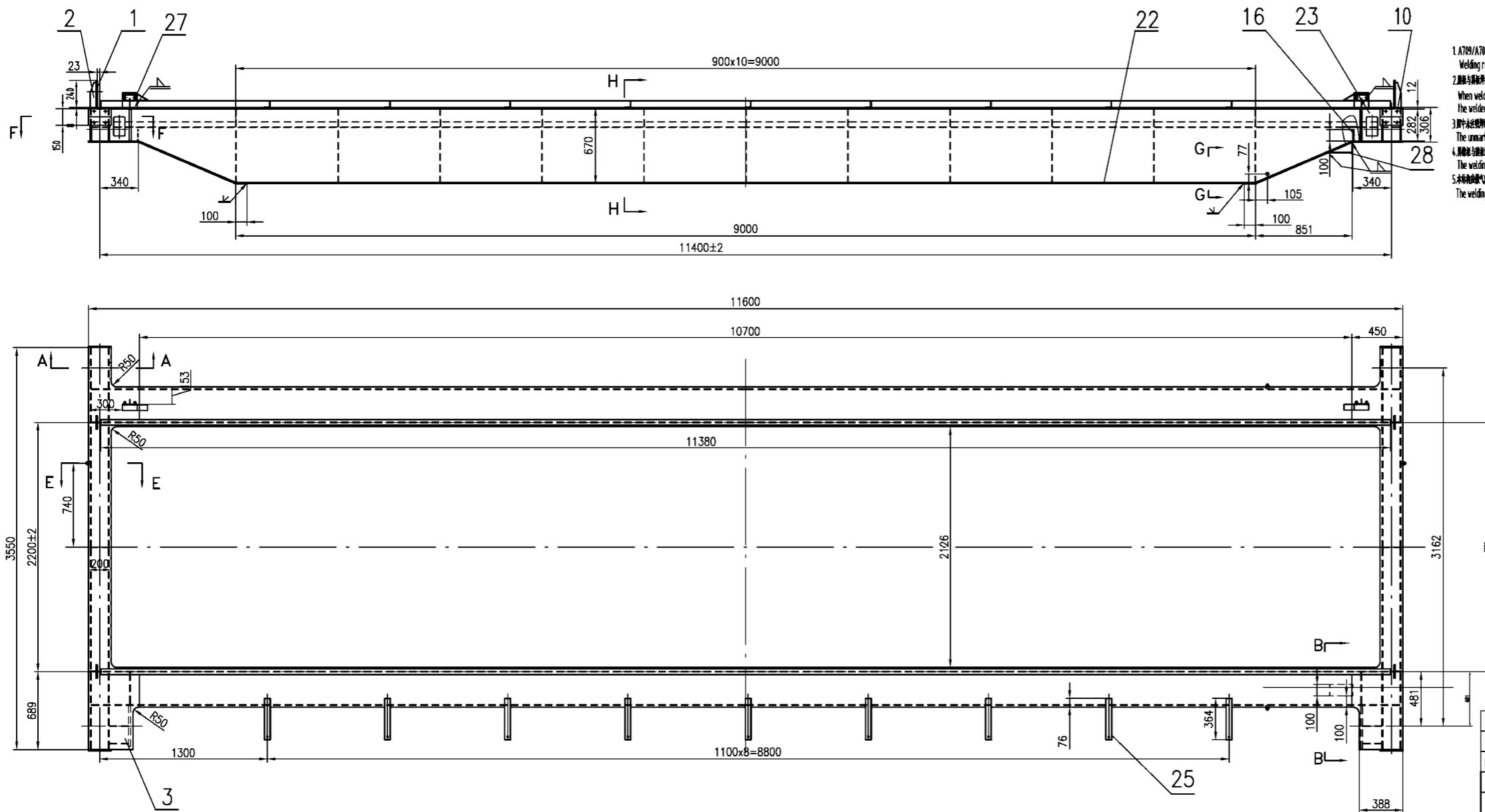
View A



主要参数表 MAIN DATA LIST

电源 POWER SUPPLY		480V,60Hz
起升机构 HOISTING MECHANISM	起重量 HOISTING CAPACITY	11ton
	起升速度 HOISTING SPEED	6.6 m/min
	起升高度 HOISTING HEIGHT	48 m
	电动机 功率 POWER	15kW
小车运行机构 TRAVERSE MECHANISM	MOTOR 转速 SPEED	1200 rpm
	运行速度 TRAVERSING SPEED	10.8 m/min
	电动机 功率 POWER	1.5 kW
大车运行机构 CRANE TRAVEL MECHANISM	MOTOR 转速 SPEED	1200 rpm
	运行速度 TRAVERSING SPEED	13.2m/min
	电动机 功率 POWER	0.63kW X 2
	MOTOR 转速 SPEED	1200 rpm
	减速器速比 REDUCTION RATIO	71
大车轨道	最大轮压 MAX WHEEL LOAD	109 kN
	矩形钢 HXW	30x50

B16	GHG-4-46/80-S	限位开关 Limited Switch	组件 Assembly	2				
B15	C-GDHC-40	固定缆车 Fixed tackle	其中大车1件	2				永大滑车电器
B14	C-DLHC-40	电缆缆车 Cable tackle	其中大车13件	21				永大滑车电器
B13	C-XD-40	悬吊夹 Hanger	其中大车13件	22				永大滑车电器
B12	C-L-40	连接器 Connector	其中大车2件	3				永大滑车电器
B11	C-40	轨道 Track	其中大车19.8m	31m	2.4	74.4		永大滑车电器
B10	C-M-40	端帽 End cap	其中大车2件	4				永大滑车电器
B9	GB95-85	垫圈 Washer 12	A2-70	4				
B8	GB5782-86	螺栓 Bolt M12X35	A2-70	4				
B7	GB855-88	垫圈 Washer 10	304	4				
B6	GB5782-86	螺栓 Bolt M10X35	A2-70	4				
B5	JHQ-C-5	缓冲器 Buffer	组件 Assembly	4	2	8		
B4	GB889-86	螺母 Nut M12	A2-70	20				
B3	GB5782-86	螺栓 Bolt M12X40	A2-70	16				
B2	GB855-88	垫圈 Washer 10	304	12				
B1	GB5783-86	螺栓 Bolt M10X45	A2-70	12				
11	HCH0700	钢丝绳 Guy rod unit	组件 Assembly	2	0.3	0.6		通用图
10	UL250504	电机直联减速机 Reducer		2				订货图
9	HCH06	电缆轨道支承 Support	Q235	13	0.8	10.4		通用图
8	HCH05	大车导缆行 Guide bar	Q235	1	2	2		通用图
7	UL250503	小车导缆行 Guide bar	Q235	1	5.1	5.1		通用图
6		起重小车 Hoist	组件 Assembly	1		2180		杭州电机厂
5	HCH03a-UL250500	铭牌 Date plate	不锈钢	2	2.1	4.2		通用图
4	HCH0200	从动轮 Driven Wheel unit	组件 Assembly	2	29.7	59.4		通用图
3	UL250502	平轨 Plant and rail	welded	1		457		
2	HCH0100	主从轮 Driving wheel unit	组件 Assembly	2	100	200		通用图
1	UL250501	主梁 Main Girder	焊接 Weldment	1	4469	4469		
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	WEIGHT	NOTE
PROJECT:Alabama2000t/h ship-unloader			DESIGN STAGE:	SCALE:		1:25		
ITEM NAME: Service Crane		DRAW NO: UL250500		PROJ.				
ZPMC		DSGN	TRACE	APP.				
		DRAW	CHCK	SET/CRANE		1		
		CHCK	VER.	WEIGHT		7474		



技术要求 Technical requirement

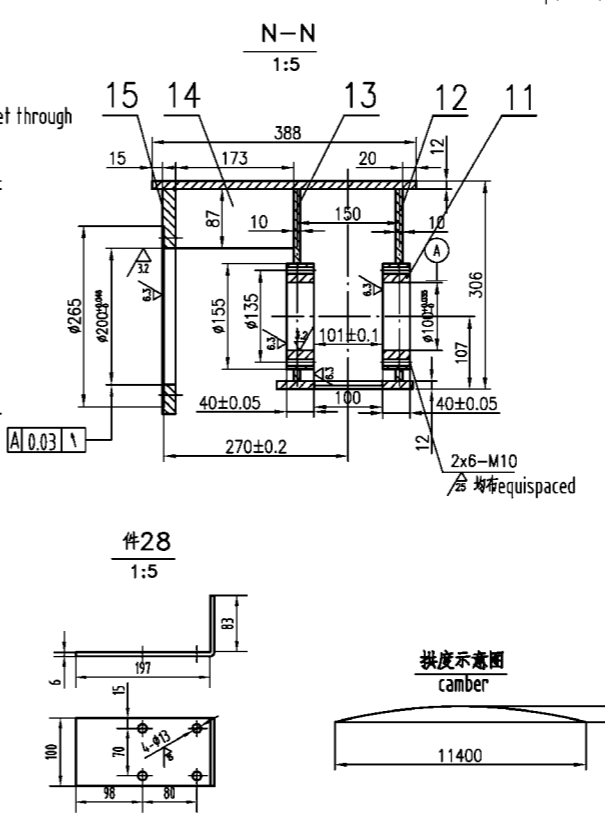
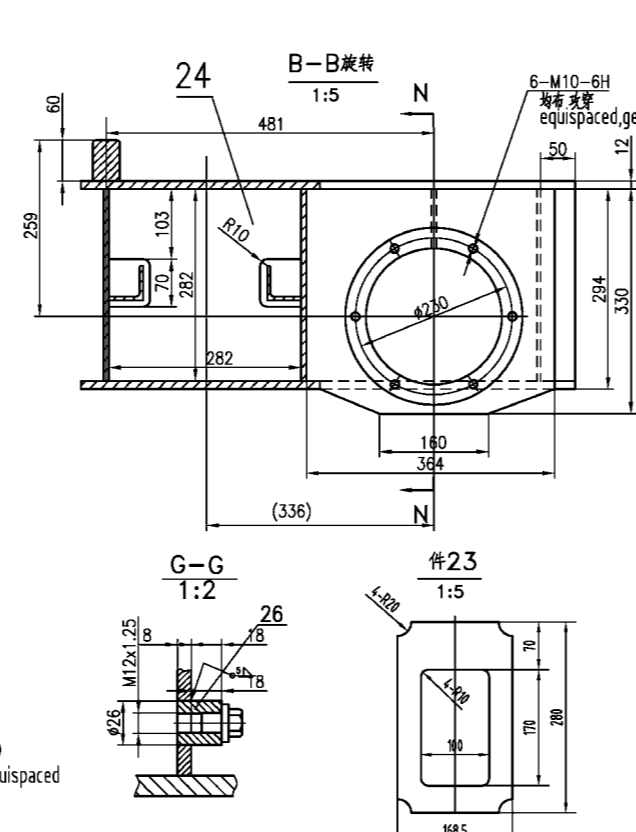
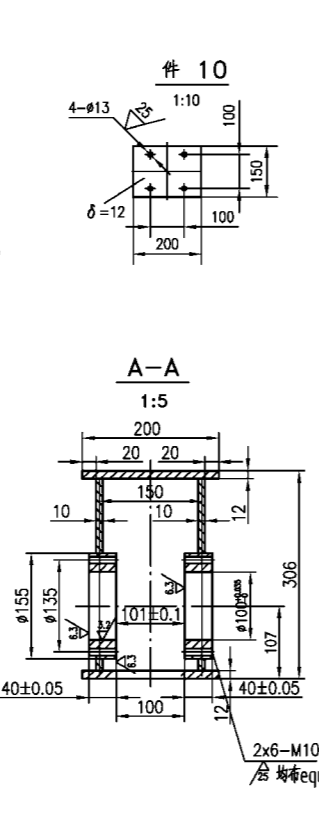
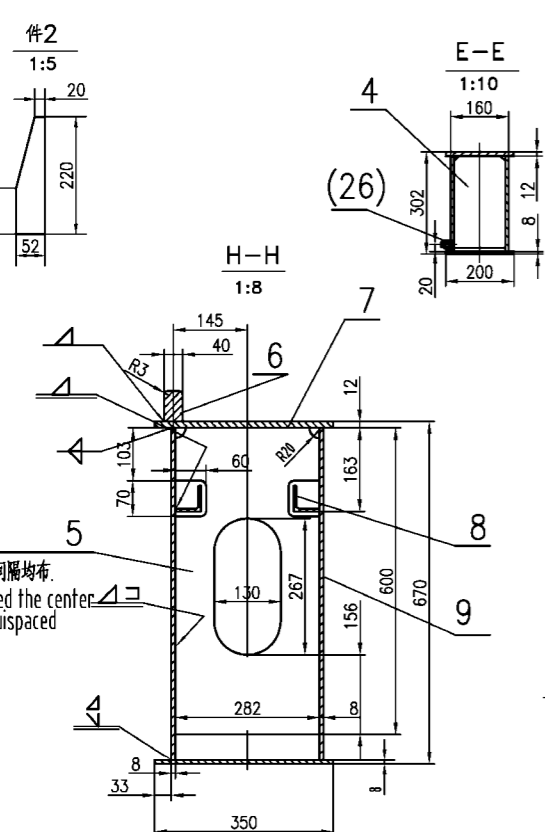
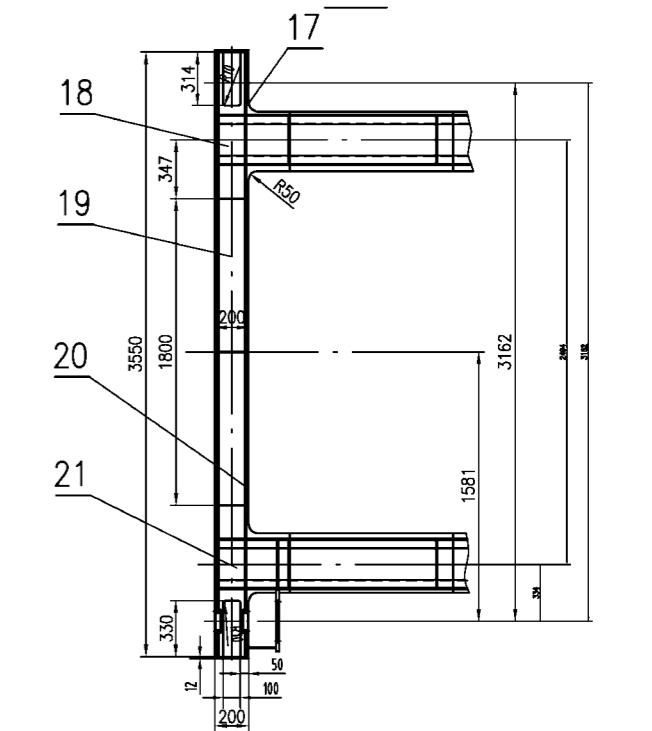
1. A709/A709M-50 埋弧焊用材料, 厚度 5~15, 屈服强度 435, 自熔性焊剂 H08Mn2, 焊丝 E70T1. Welding rods used between A709/50-2 are adopted from E70T1, other from E43T5. The welding wire of automatic welding is adopted from H08Mn2, the welding flux from HJ330.

2. 焊缝与钢板连接处采用自动焊, 手工补焊, 焊缝质量按 AWS D11 标准或 GB 50670 标准进行检验。 When welding web and wing plates, automatic welding should be used as far as practicable. Grooves refer to AWS D11 or the general technical condition of the welded structure of our factory.

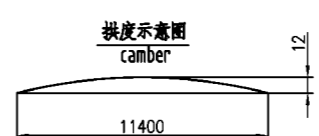
3. 图中未注焊缝均为埋弧焊, 焊缝质量按 AWS D11 标准或 GB 50670 标准进行检验。 The unmarked seams refer to the same sort. The height of the unmarked filler weld is the thickness of the thin sheet.

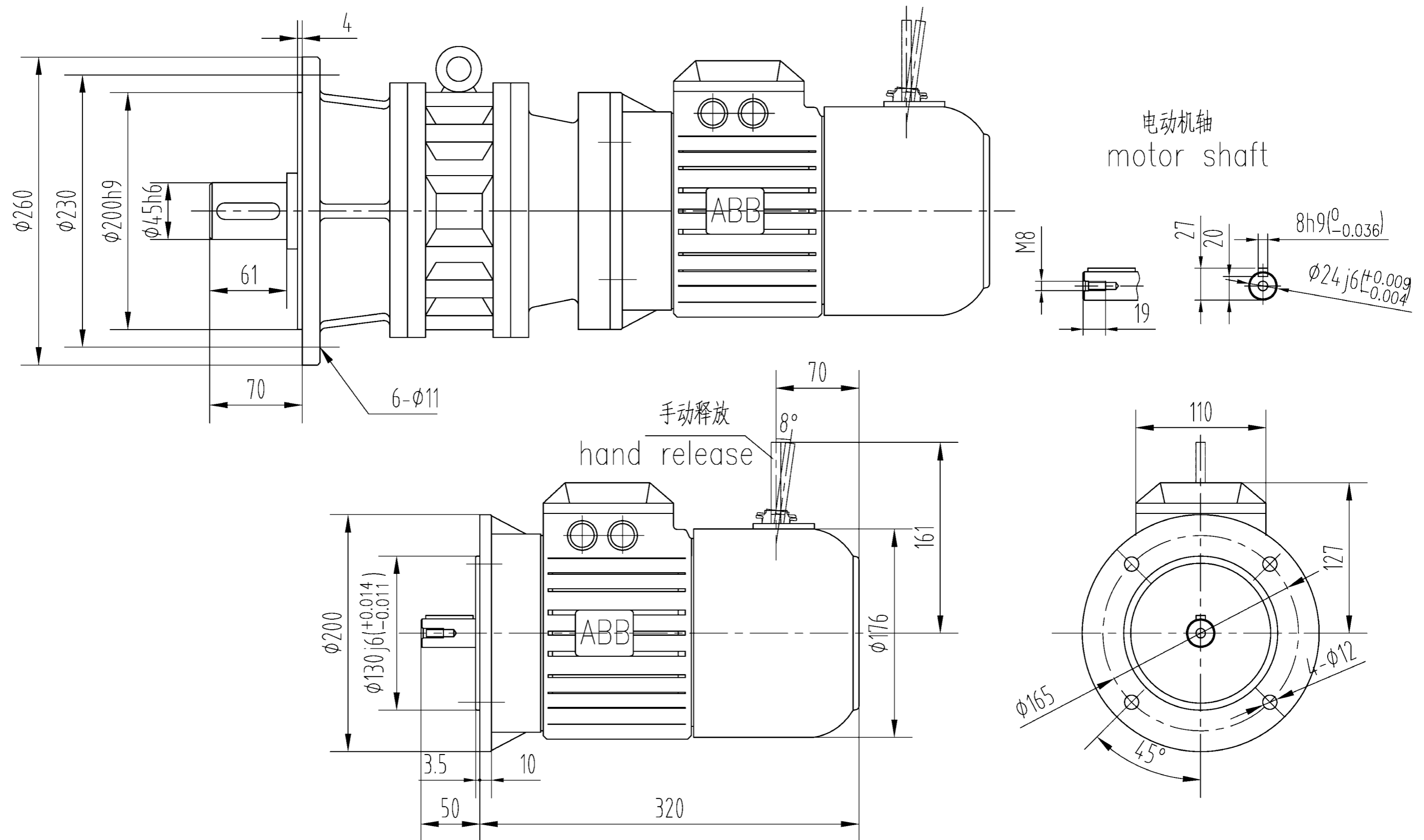
4. 翼缘与腹板的连接焊缝应错开 200mm。 The welding seam of web and wing plates should have a stagger up to 200mm.

5. 本构件应进行气密性试验, 试验压力 0.1MPa。 The welding member should be taken the air tight test, the air test pressure is 0.1MPa.

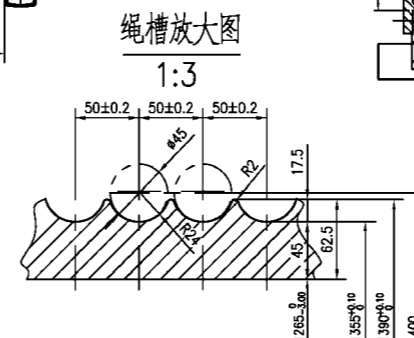
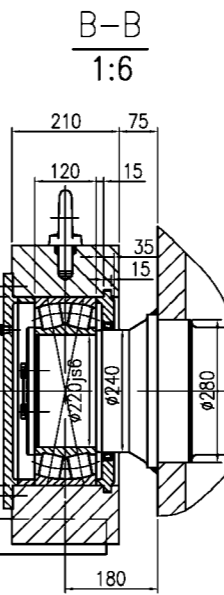
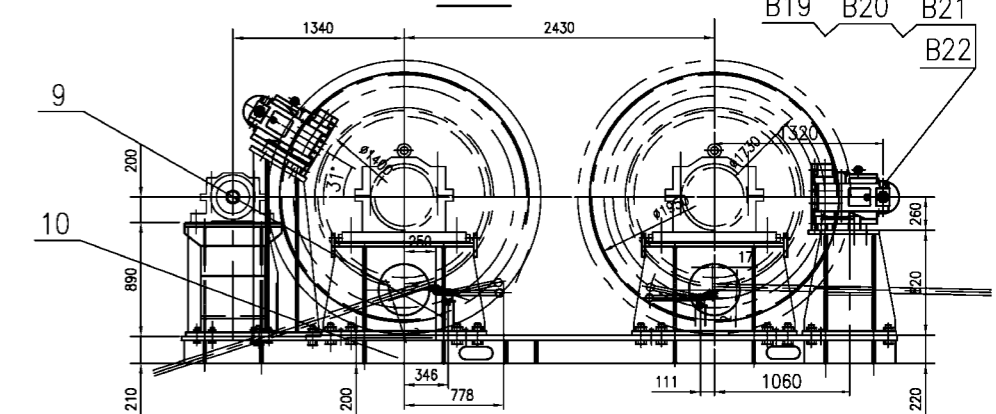
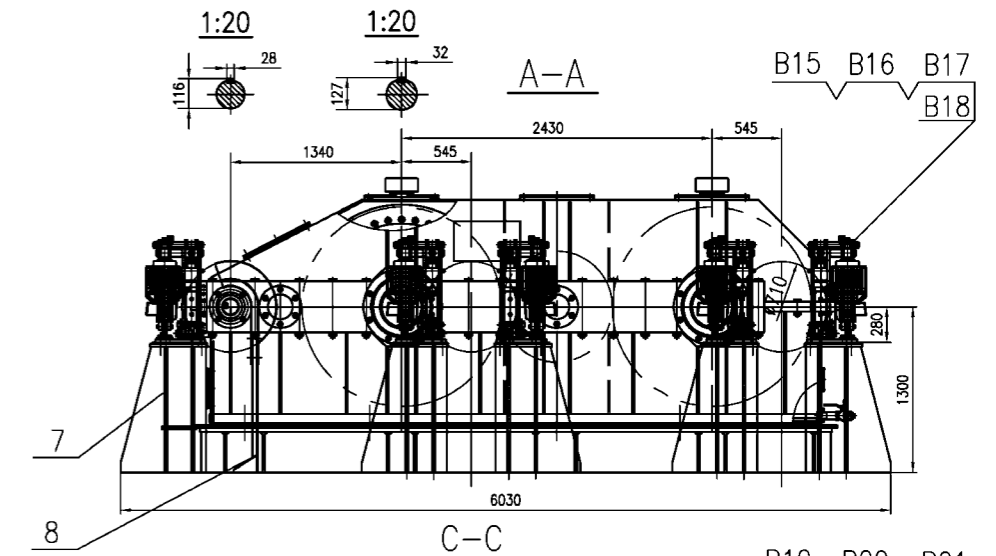
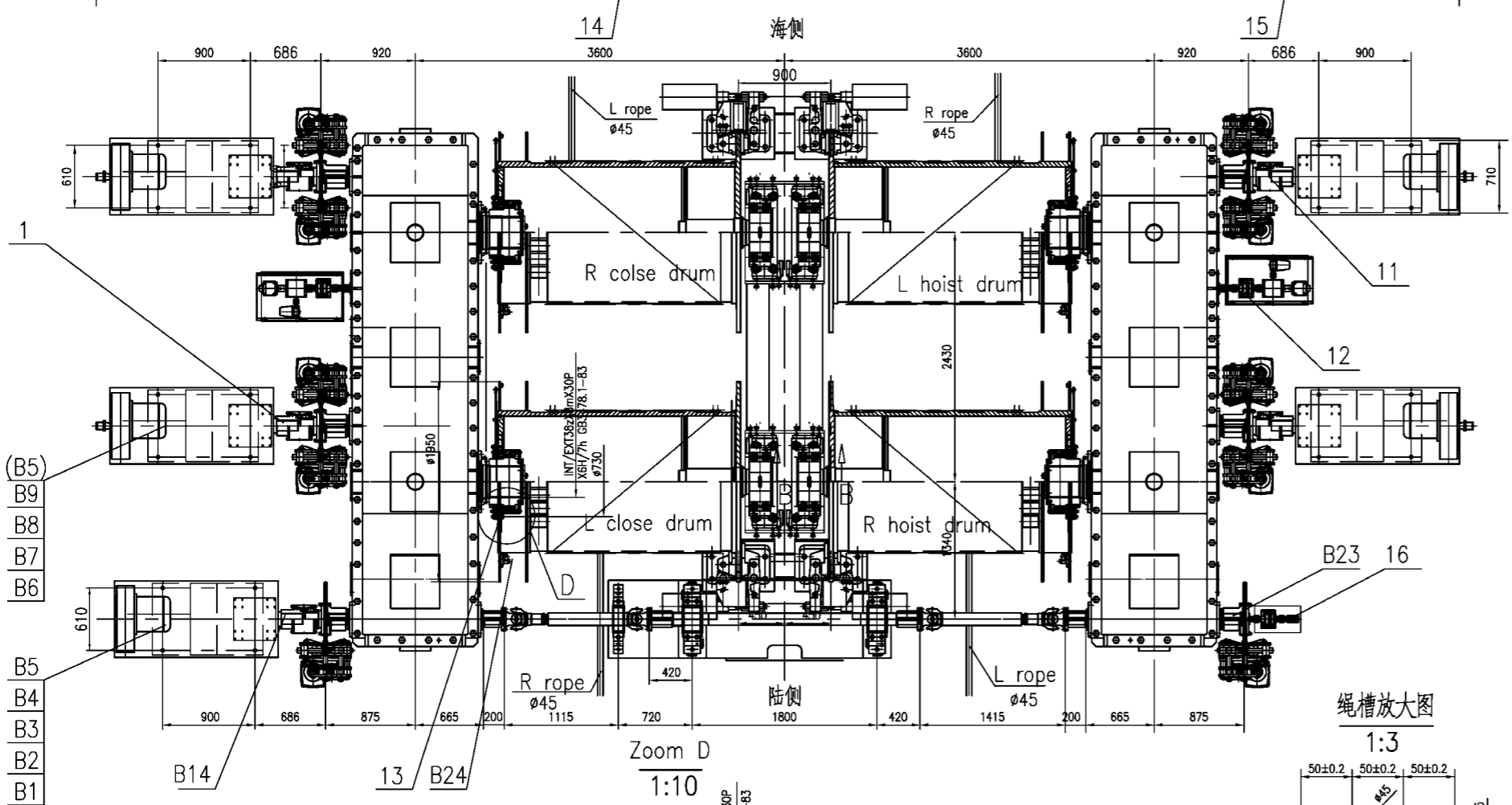
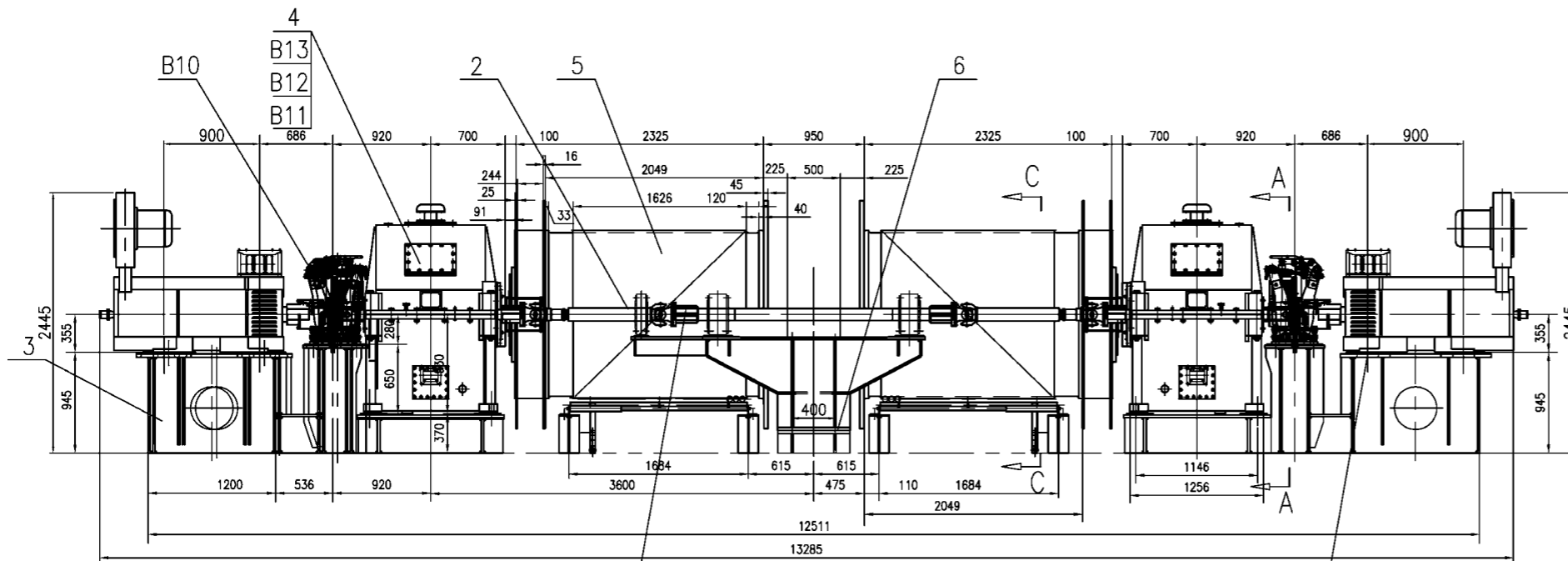


revision no.	Sub no.	description	date	sign		
01	D05		2005.02.23	xie		
28		-6x100x284 Q235	1 1.4	1.4		
27	UL25050104	Block Q235	2 1.55	3.1		
26	UL25050103	Plug screw assem. Q235	4 0.08	0.32		
25		L 50x50x5-364 Q235	9 1.4	12.6		
24		-10x282x282 A709/50-2	4 6	24		
23		-6x168.5x280 Q235	2 2.2	4.4		
22		-8x350x8800 A709/50-2	2 193.4	386.8		
21	UL25050102	翼缘板 wing plate II A709/50-2	2 57.5	115		
20		-10x282x2192 A709/50-2	2 48.5	97		
19		-8x200x1800 A709/50-2	2 22.8	45.6		
18	UL25050101	翼缘板 wing plate I A709/50-2	2 55.7	111.4		
17		-10x282x367 A709/50-2	2 8.83	17.66		
16		-6x282x100 Q235	4 1.3	5.2		
15		-20x330x364 A709/50-2	2 14	28		
14		-8x87x172.5 A709/50-2	2 2.07	4.14		
13		-10x282x391 A709/50-2	2 8	16		
12		-10x282x3550 A709/50-2	2 77.5	135		
11		-(40)xø155/ø100 A709/50-2	8 3.5	28		
10		-12x150x200 A709/50-2	4 2.8	11.2		
9		-8x650x11550 A709/50-2	4 431.5	1726		
8		-12x350x10700 Q235	4 56.9	227.6		
7		-12x350x10700 A709/50-2	2 35.3	706		
6		-30x50-11380 A709/50-2	2 215	430		
5		-6x282x600 Q235	22 6.3	138.6		
4		-8x150x282 A709/50-2	2 2.65	6.3		
3		-12x450x3550 A709/50-2	2 86.5	173		
2		-8x52x220 A709/50-2	4 0.72	2.9		
1		-10x120x240 A709/50-2	4 2.3	9.2		
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/SET	SET/CRANE	SCALE
	UL250501	Main Girder主梁	焊接件 welded	1	4469	1:20
ZPMC	DRAW/CHK		TECH./STDD		TRACE/CHK	





减速器型号		电动机型号		选项	零件号	分图号或标准	名称及规格	材料或型号	每台数量	单重	共重	比例
BLDC-0.75-4-71		天津减速机总厂自配国产电机										
BLK-0.75-4-71		天津减速机总厂自配进口电机										
BLJ-0.75-4-71		ZPMC提供的进口ABB电机		✓								
电源	380V50Hz	400V50Hz	440V60Hz	480V60Hz								
power	0.75kW	0.75kW	0.63kW	0.63kW								
speed	1500rpm	1500rpm	1200rpm	1200rpm								
reducer rate	71	71	71	71								
option				✓								
上海 振华港口机械公司					制图		工艺		描图			
					校对		标准		描校			



Technical Requirement

- The angle included between the axis of motor and that of reducer is less than 10°, the relative diametric position error of both axes is less than 0.120mm.
- The angle included between the axis of drum and the output axis of the reducer is less than 10°.
- The fastening moment connecting the support with the reducer and drum brake is 1500~2000Nm(1107~1476ft.lb).
- The fastening moment connecting the support with the brake and the motor is 700~800Nm(516~590ft.lb).
- The fastening moment connecting the drum with the brake disc is 2200Nm(1600ft.lb).
- The fastening moment connecting the drum with the drum coupling is 380Nm(280ft.lb).
- The fastening moment of part 8 (stud) is 1000~1100Nm(443ft.lb).
- The fastening moment connecting the high speed coupling with the brake disc is 510Nm(450ft.lb).
- Lithium based lubricants should be used in the oil rim of bearing and coupling,when assembling.

技术要求

- 件3,6,7机座分别按尺寸找正,并校准水平。
- 安装电动机时,采用件B5调整垫片进行对中调整,确保机构装配达到对中心要求。
- 减速机,制动器,电动机,轴承座等安装调整后,应将各定位块形状焊死。
- 应对各制动器的制动力矩进行调整并达到要求。
- 换绳装置(件14)具体的安装位置由现场定,安妥后将其底座焊牢在机房地板上。
- 护控(件8)具体位置由现场定。
- 接油盘(件10)具体位置由现场定。
- B24钢丝绳 250m 的安装在海侧卷筒上, 150 m 的安装在陆侧卷筒上。

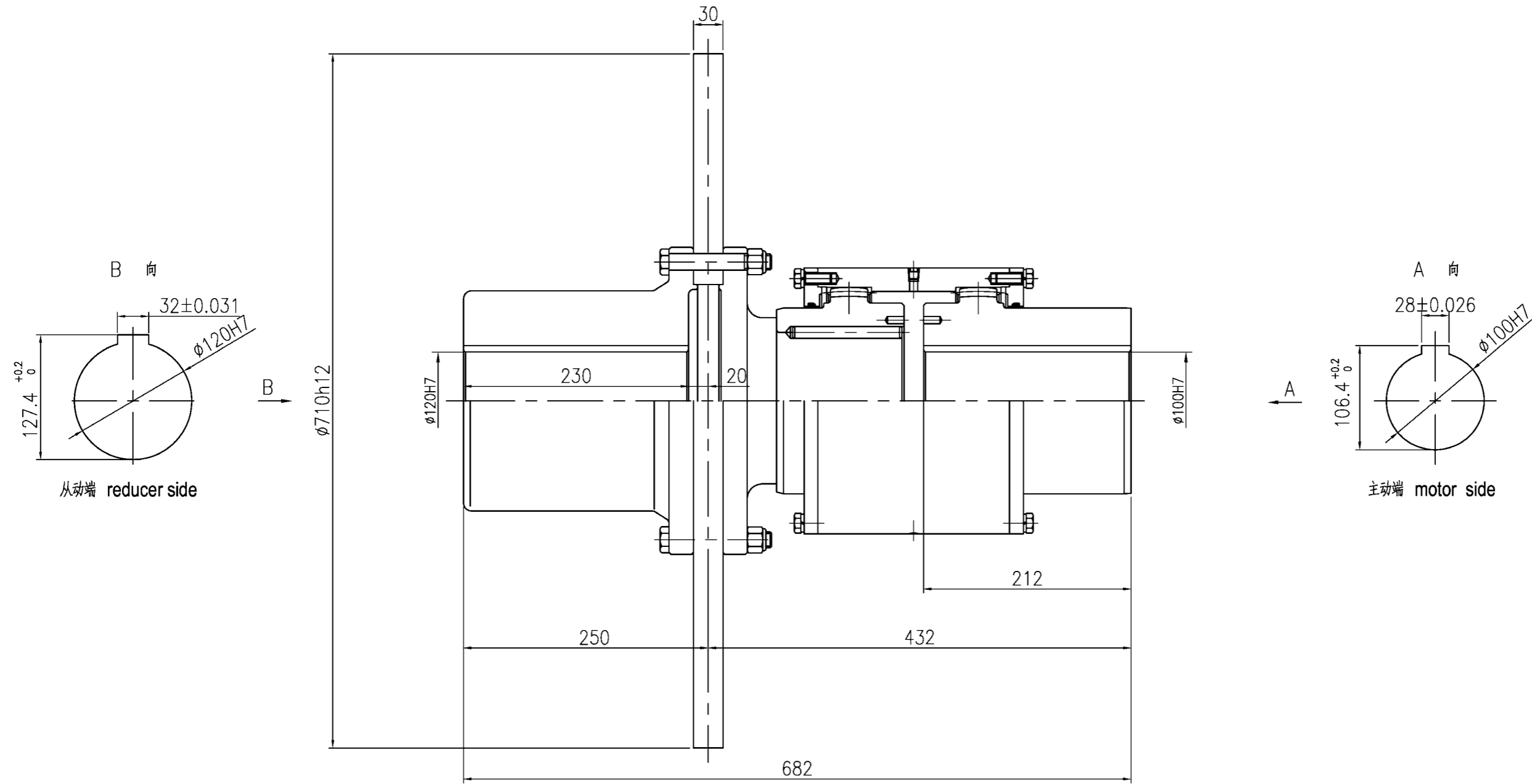
Technology parameters 技术参数表

	Type	型号	M3BP355LK86	M3BP355LKB6
Motor 电动机	Power 功率		4X390 kW	390 kW
	Speed 转速		1000/1125 r.p.m	1145 r.p.m
High speed shaft brake 高速轴制动力器	Type 型号		YP31-3000-710x30	YP31-2000-710x30
	Thruster Type 推动器型号		Ed3000-80	Ed2000-80
Low speed shaft brake 低速轴制动力器	Type 型号		SBB-365- $\phi 1950 \times 40$	
	Friction 总摩擦力		235 kN	
Reducer Box 减速机	Braking moment 制动力矩		202 kN.m	
	Type 型号		CXC468.27-00	
Drum 卷筒	Ratio 速比		27.47	20.985
	Power 功率		(780kW+195kW)X2	
	Nominal diameter 标称直径		$\phi 1400$ mm	
	Wire rope 钢丝绳	$\phi 45$ mm	IWRC 6X37- $\phi 45$	

B15	起升,开闭制动器 H.C brake	YP31-3000-710X30	8	236	1888	1.1 曲线安装形式	
B14	ZPMC (晋开贸易) 零轴减速机式联轴器	Y110x212 PGCLK 9	1	192.8	192.8	制动力 710	
B13	JB/ZQ4.335-86 垫圈	B42	100HV	24	0.183	4.39	
B12	GB889-86 螺母	M42	8 G	24	0.502	12.0	
B11	GB5782-86 螺栓	M42X220	8.8 G	24	3.54	84.9	
B10	小车牵引制动器 Trolley brake	YP31-2000-710x30	2	230	460	1.1 曲线安装形式	
B9	GB955-87 垫圈	30	65Mn	16	0.025	0.4	
B8	GB6170-86 螺母	M30	8 G	16	0.184	4.44	
B7	GB5782-86 螺栓	M30X120	8.8 G	16	0.866	20.8	
B6	ABB 起升,开闭电动机	H.C motor M3BP355LK86	4	2600	10400		
B5	AS-24 调整垫片	24	不锈钢(1Cr18Ni9)	20		块数及开闭轴位置由设计定	
B4	GB955-87 垫圈	30	65Mn	4	0.025	0.1	
B3	GB6170-86 螺母	M30	8 G	4	0.184	0.736	
B2	GB5782-86 螺栓	M30X120	8.8 G	4	0.866	3.464	
B1	ABB 小车牵引电动机	Trolley motor M3BP355LKB6	1	1000	1000		
17	UL250616 小梯子	chair	Welded	3			
16	UL25061500 小车限位装置	Limit device	Assembly	1	70	70	
15	UL250614 调整垫片	gaset	Assembly	1	34.2	34.2	
14	UL250613 万向联轴器罩壳	Propshaft cover	Assembly	1	99.8	99.8	
13	UL250612 卷筒联轴器	Coupling of drum	Assembly	4	570	2280	行货图
12	UL25061100 起升机构限位装置	Limit device	Assembly	2	180	360	
11	UL250610 起升机构限位罩壳	Coupling cover	Assembly	4	10.7	42.8	
10	UL250609 接油盘	Oil collect pan	Assembly	4	40	160	
9	UL25060800 脚踏限位器	safe device	Assembly	1	281	281	
8	UL250607 小车限位罩壳	safe enclosure	Assembly	2	41.9	41.9	
7	UL250606 轨道(2)	Base frame 2	Welded	1	8154	8154	
6	UL25060500 轴承座	Bearing seat	Assembly	1	6743	6743	
5	UL25060400 卷筒及支持	Drum and support	Assembly	4	11081	44324	
4	CXC468.27-00 减速机	Reducer	Assembly	2	24200	48400	
3	UL250603 轨道(1)	Base frame 1	Welded	1	8460	8460	
2	UL25060200 万向联轴器系统	Propshaft system	Assembly	1	1179	1179	
1	UL250601 起升,开闭零轴减速机式联轴器	H.C coupling	Assembly	4	192.8	771.2	行货图
PROJECT: Alabama 2000t/h ship unloader				DESIGN STAGE:		SCALE: 1:30	
ITEM NAME: 起升,开闭及小车牵引机构				DRAW NO: UL250600			
Hoisting/Closing/Trolley Traversing Machinery							
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHK		QTY/SET	1	
	CHK		VER.		SET/CRANE	13900kg	

联轴器工作参数表 parameter

公称转矩 normal torque	N.m	18000
最大转速 max. speed	r/min	1600

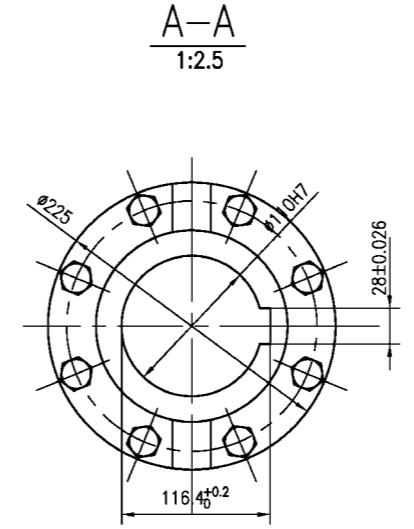
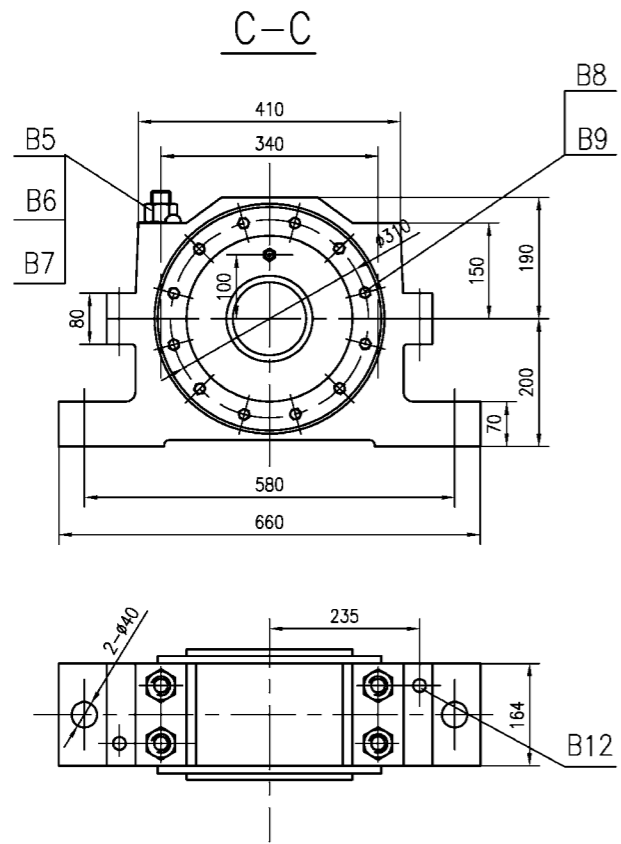
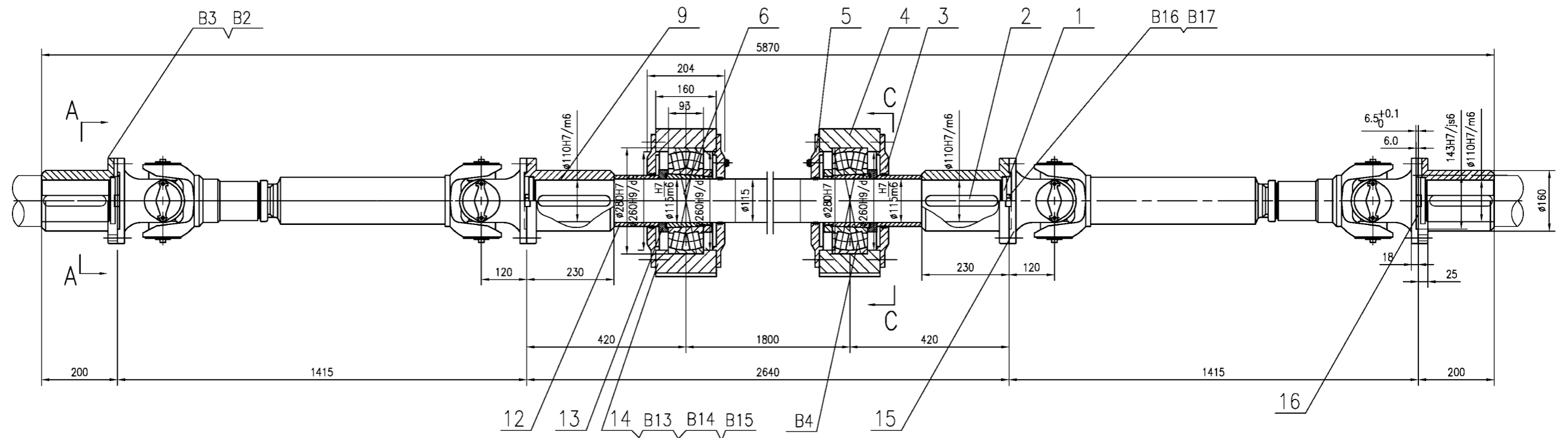


PGCLK9

Technical requirement

1. Marked dimensions of this coupling is made according to the drawing, unmarked dimensions according to ZPMC PGCLK9-710X30 catalogue.
2. Bores dimensions and fits should be matched with shafts dimensions are provided above.
3. Should be sure that the brake disc can be replaced without axial displacement of the coupled machines.
4. Nozzel should be made to Rc1.4".

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
					WEIGHT		
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:4		
ITEM NAME: 起升, 开闭带制动盘齿式联轴器 H.C coupling			DRAW NO: UL250601				
ZPMC	DSGN		TRACE		APP.	订货图	
	DRAW		CHCK		Q'TY/SET	192.8	
	CHCK		VER.		SET/CRANE	4台	



技术要求

1. 安装时, 轴承按实际位置轴向定位。
2. 为防止高速运转时漏油, 安装时件4, 14和3, 5之间结合面处应涂乐泰胶。
3. 防锈要求: 零件加工后涂防锈油, 装配时即洗即装, 除轴承盖和座内腔涂红色油漆, 其余零件外表面均涂黑色油漆, 加工面涂防锈油, 装配时彻底清洗。
4. 件15购回后与件9配校, 安装时用铰制螺栓件B2连接。
5. 轴承安装时, 涂1号锂基润滑脂, 但不得超过容腔的1/3。

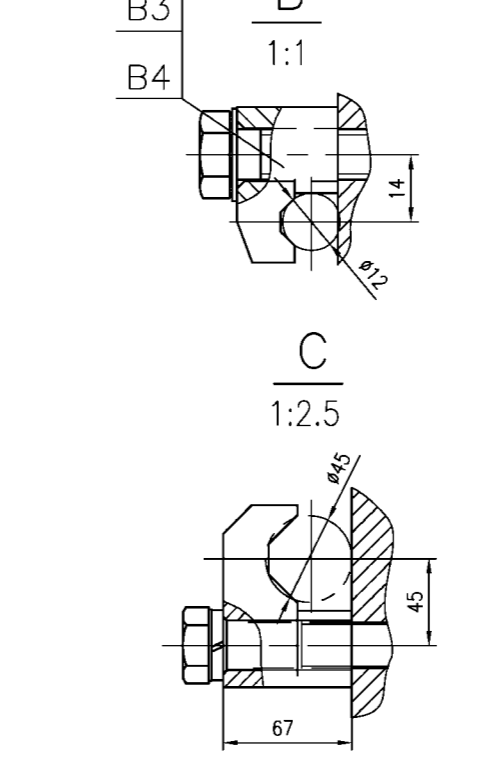
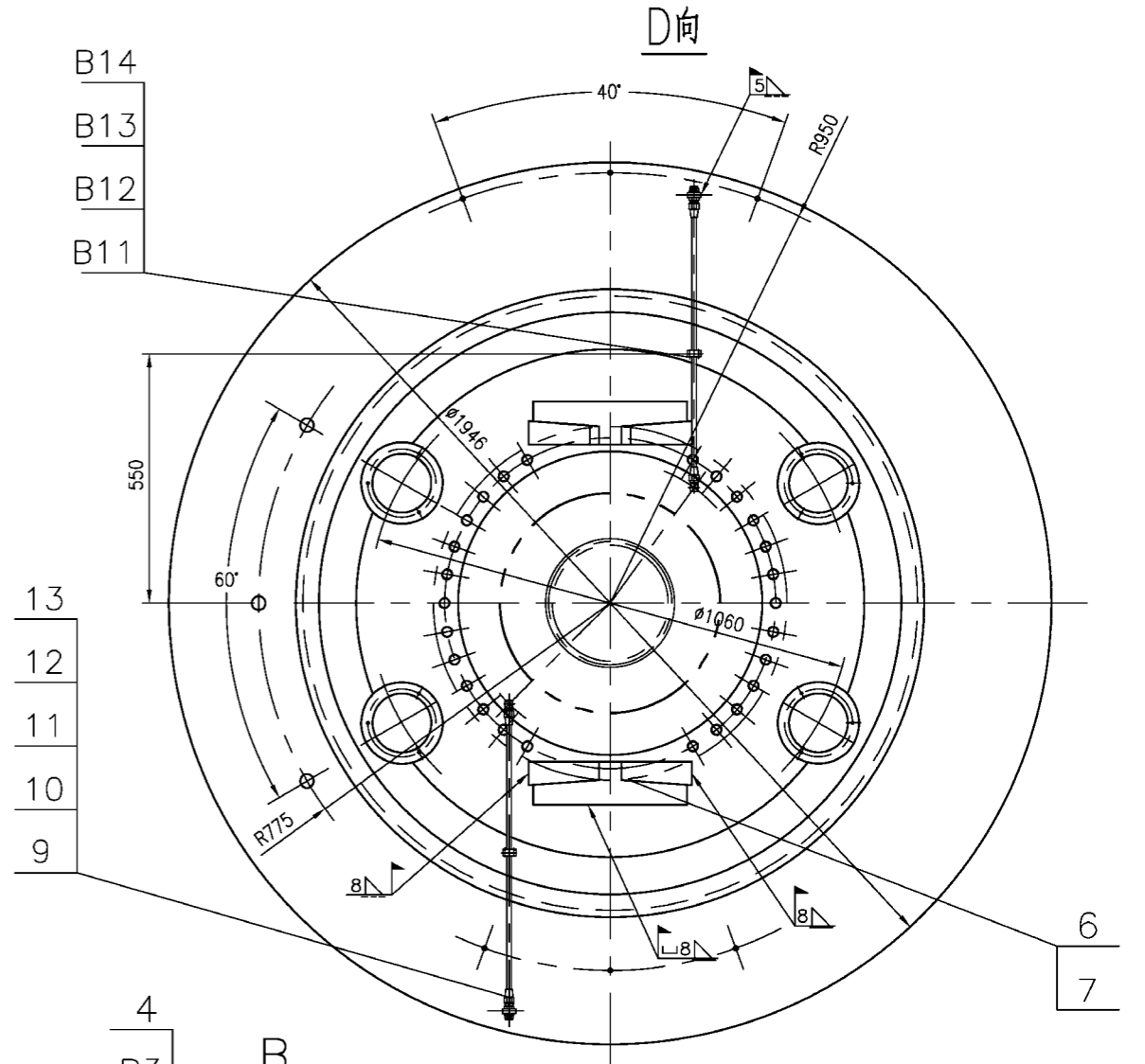
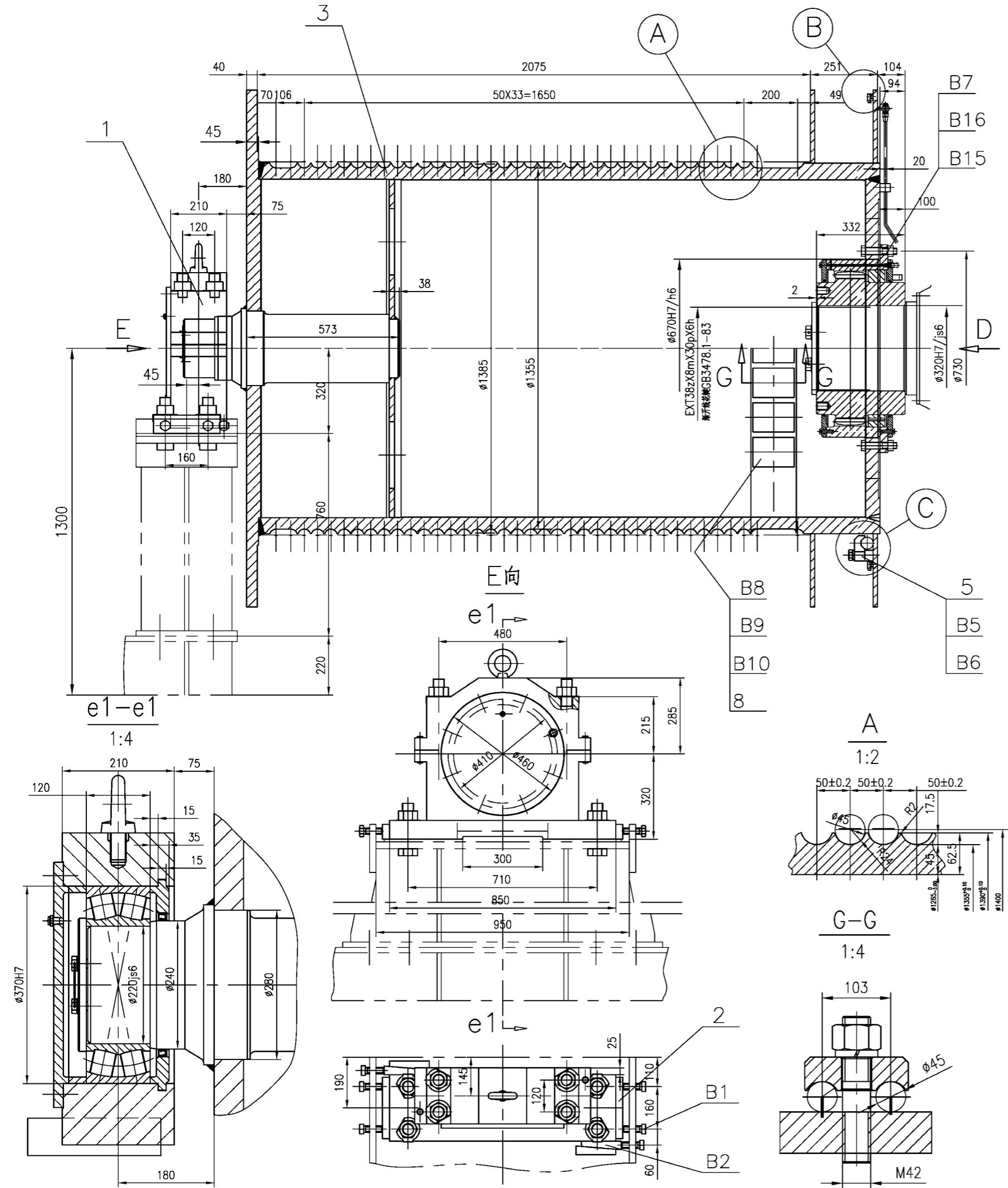
Technical Requirement

1. Pretightening static moment of bolt M16 is 150Nm, M24 is 690Nm, M36 is 1800Nm.
2. Adjusted just height of drum's center by adjust thickness of item3 to keep coupling's symmetry.
3. Add 1mm washer at open cross section when machining bearing and hole of end cover.
4. Dispose the oil inlet at the under section by way of oil outlet.

B19									
B18									
B17	GB861.1-87	垫圈 20	65Mn	2	0.004	0.008			washer
B16	GB5782-86	螺栓 M20X40	8.8级	2	0.12	0.24			bolt
B15	GB854-88.	垫圈 36	Q235	4	0.04	0.16			washer
B14	GB6170-86	螺母 M36	10级	4	0.32	1.28			nut
B13	GB5783-86	螺栓 M36X150	8.8级	4	1.5	6			bolt
B12	GB119-86	销 A20X60	35	6	0.05	0.3			pin
B11									
B10									
B9	GB861.1-87	垫圈 12	65Mn	48	0.001	0.05			washer
B8	GB5783-86	螺栓 M12X30	8.8级	48	0.03	1.44			bolt
B7	GB854-88.	垫圈 30	Q235	12	0.03	0.36			washer
B6	GB6170-86	螺母 M30	10级	12	0.18	2.16			nut
B5	GB899-88	螺栓 GM30-M30X200	8.8级	10	0.82	8.2			screw
B4	GB288-87	轴承 253623		2	32.6	65.2			bearing
B3	GB889-86	尼龙锁紧螺母 M18	10s	32	0.013	0.42			nut
B2	GB5782-86	螺栓 M18X70	10.9级	32	0.047	1.50			bolt
B1									

16	UL25060216	半联轴套(2)	coupling 2	45	2	25.8	51.6		
15	UL25060215	万向节传动轴 (兼万向节)	Propshaft	组合件	2	202	404		按图订货
14	UL25060214	轴承盖(1)	seat 1	Q235	2	59.6	119.2		
13	UL25060213	隔套	sleev	Q235	2	1.73	3.46		
12	UL25060212	轴套	sleev	Q235	2	4	8		

11									
10									
9	UL25060209	半联轴套(1)	coupling 1	45	2	25.8	51.6		
8									
7									
6	UL25060206	中间轴	middle shaft	45	1	204	204		
5	UL25060205	端盖(2)	end 2	Q235	2	10.8	21.6		
4	UL25060204	轴承盖(1)	cover1	Q235	2	54.7	109.3		
3	UL25060203	端盖(1)	end 1	Q235	2	10.1	20.2		
2	UL25060202	键 28X16-190	key	45	2	0.54	1.08		
1	UL25060201	挡架	plate	Q235	2	1.12	2.24		
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	WEIGHT		NOTE
PROJECT:			DESIGN STAGE:		SCALE: 1:6				
ITEM NAME: 浮动联系轴组 Propshaft system			DRAW NO: UL250602						
ZPMC	DSGN		TRACE		APP.				
	DRAW		CHCK		Q'TY/SET				1
	CHCK		VER.		SET/CRANE				1179kg



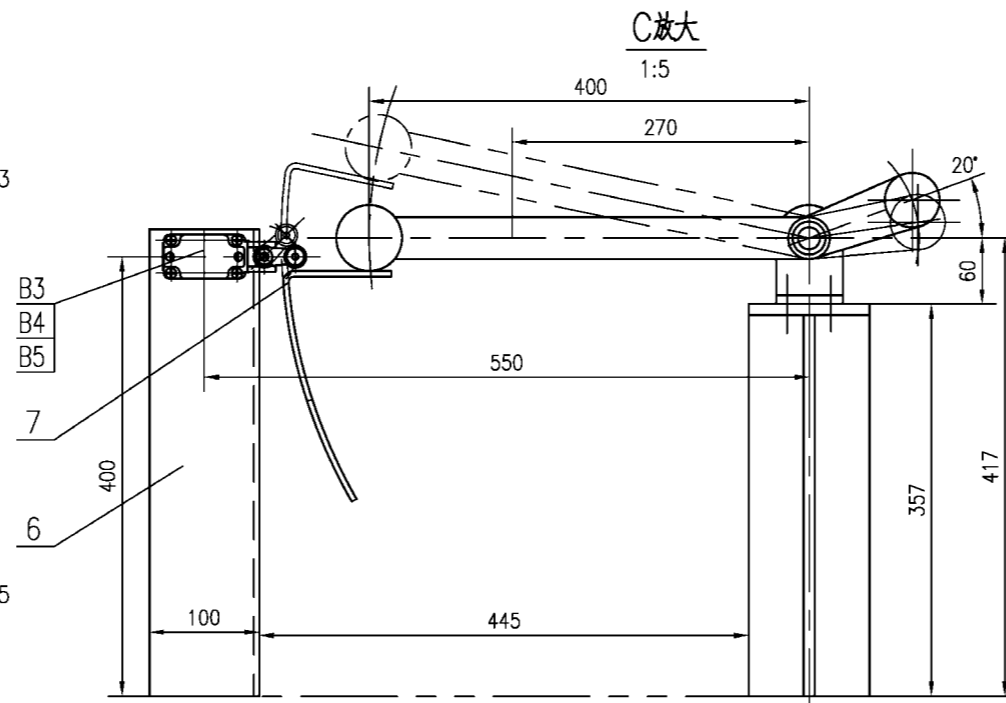
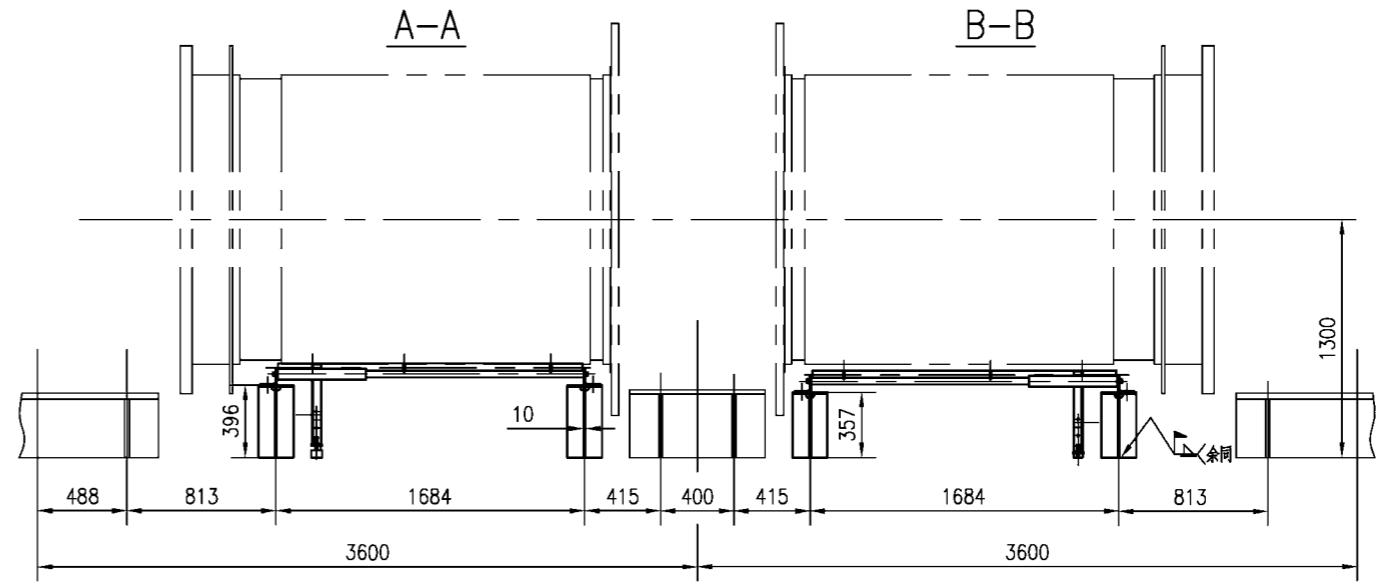
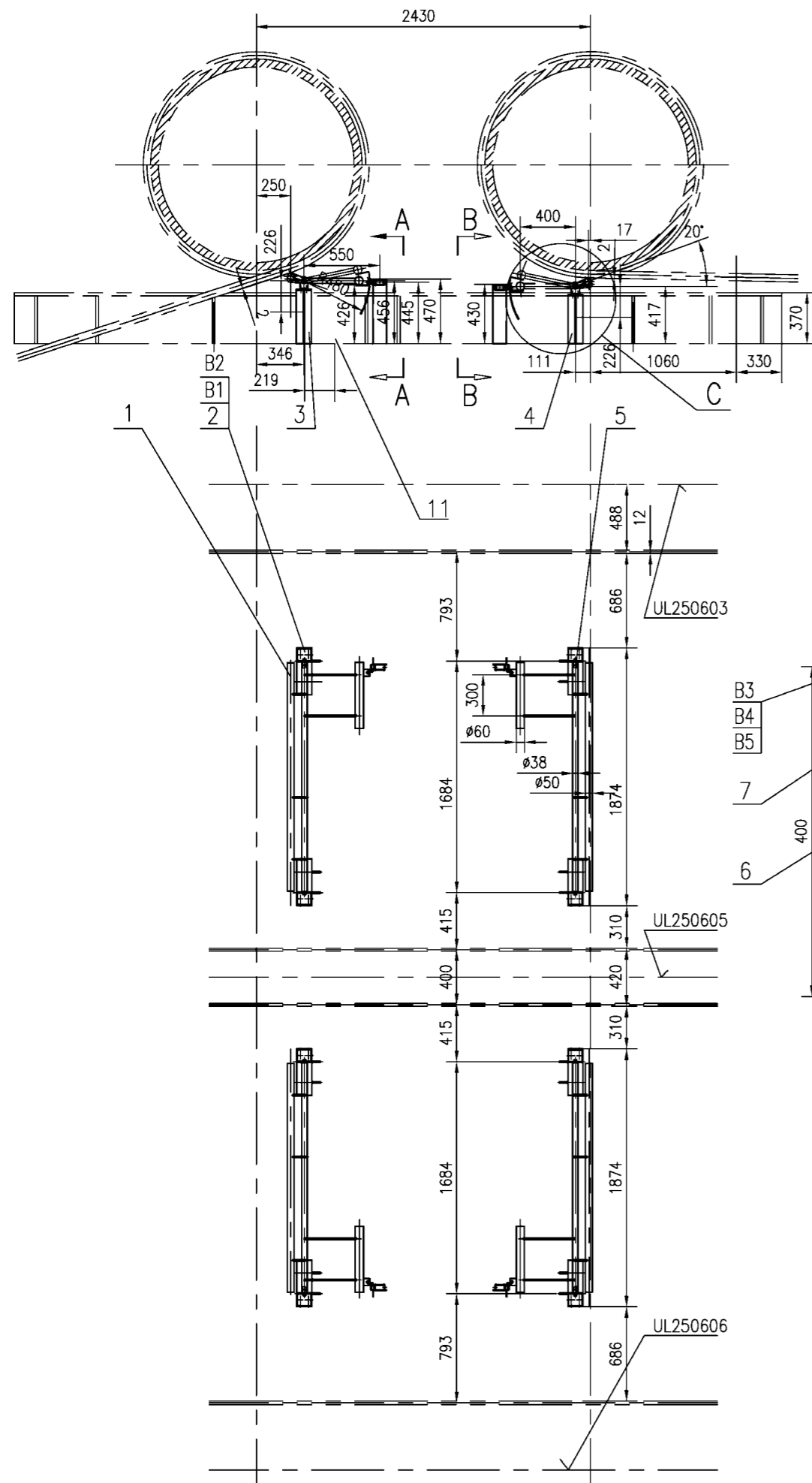
技术要求

1. 件3卷筒左右各两件, 安装要求相同。
2. 件5用于主钢丝绳绳端固定, 件4用于牵引钢丝绳的固定。

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	WEIGHT	NOTE
B16	GB889-86	螺母 M24	nut	8#	24	0.202	4.86	达克罗
B15	GB5782-86	螺母 M24X150	bolt	8.8级	24	0.653	15.66	达克罗
B14	GB861.1-87	垫圈 8	washer	65Mn	4	0.0007	0.003	
B13	GB5782-86	螺母 M8X60	bolt	A2-70	4	0.019	0.074	
B12	螺母 TOX1-700				2	0.146	0.29	
B11	JISB0203	管子 P11/4"	pipe	组件	2	0.01	0.02	
B10	GB955-87	垫圈 42	washer	65Mn	7	0.05	0.33	达克罗
B9	GB889-86	螺母 M42	nut	10#	7	0.5	3.52	达克罗
B8	GB899-88	螺栓 G42-M24X150-8.8-AD	bolt	8.8级	7	3.7	25.9	达克罗
B7	GB97.2-85	垫圈 24	washer	140Hv	24	0.056	.34	达克罗
B6	GB955-87	垫圈 24	washer	65Mn	3	0.009	0.026	达克罗
B5	GB5782-86	螺母 M24X110	bolt	8.8级	3	0.47	1.42	达克罗
B4	GB861.1-87	垫圈 10	washer	65Mn	6	0.001	0.007	
B3	GB5782-86	螺母 M10X35	bolt	A2-70	6	0.02	0.14	
B2	ZP2	2#双头块	block	ZPMC	8#	1.22	2.44	
B1	GB5783-86	螺母 M24X80	bolt	8.8级	6	0.004	0.021	达克罗

13	UL25060413	管帽	cap	Q235	4	0.033	0.132	
12	UL25060412	管夹	pipe Clamp	Q235	4	0.228	0.912	
11	UL25060411	螺母	nut	Q235	2	0.02	0.04	
10	UL25060410	接头	end	Q235	2	0.12	0.24	
9	UL25060409	垫板	plate	Q235	2	0.19	0.38	
8	UL25060408	钢丝绳夹	Rope Clamp	Q235	7	2.93	21	
7	UL25060407	垫块	block	35	4	1.5	6.0	
6	UL25060406	垫块	block	35	2	5.1	10.2	
5	UL25060405	钢丝绳夹	Rope Clamp	Q235	3	2.04	6.11	
4	UL25060404	钢丝绳夹	Rope Clamp	Q235	6	0.08	0.48	
3	UL25060403	管筒	drum	welded	1	6021	6021	
2	UL25060402	垫块	adj.block	Q235	2	2.58	5.16	
1	UL25060401	钢丝绳夹	bearing seat assembly		1	688	688	

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	WEIGHT	NOTE
PROJECT: Alabama 2000t/h ship unloader								SCALE: 1:8
DESIGN STAGE:								
ITEM NAME: 卷筒及支承 ROPE DRUM ASSEMBLY								DRAW NO: UL25060400
ZPMC	DESIGN	TRACE	APP.					
	DRAW	CHK	QTY/SET	4				
	CHK	VER.	SET/CRAVE	4X11081kg				

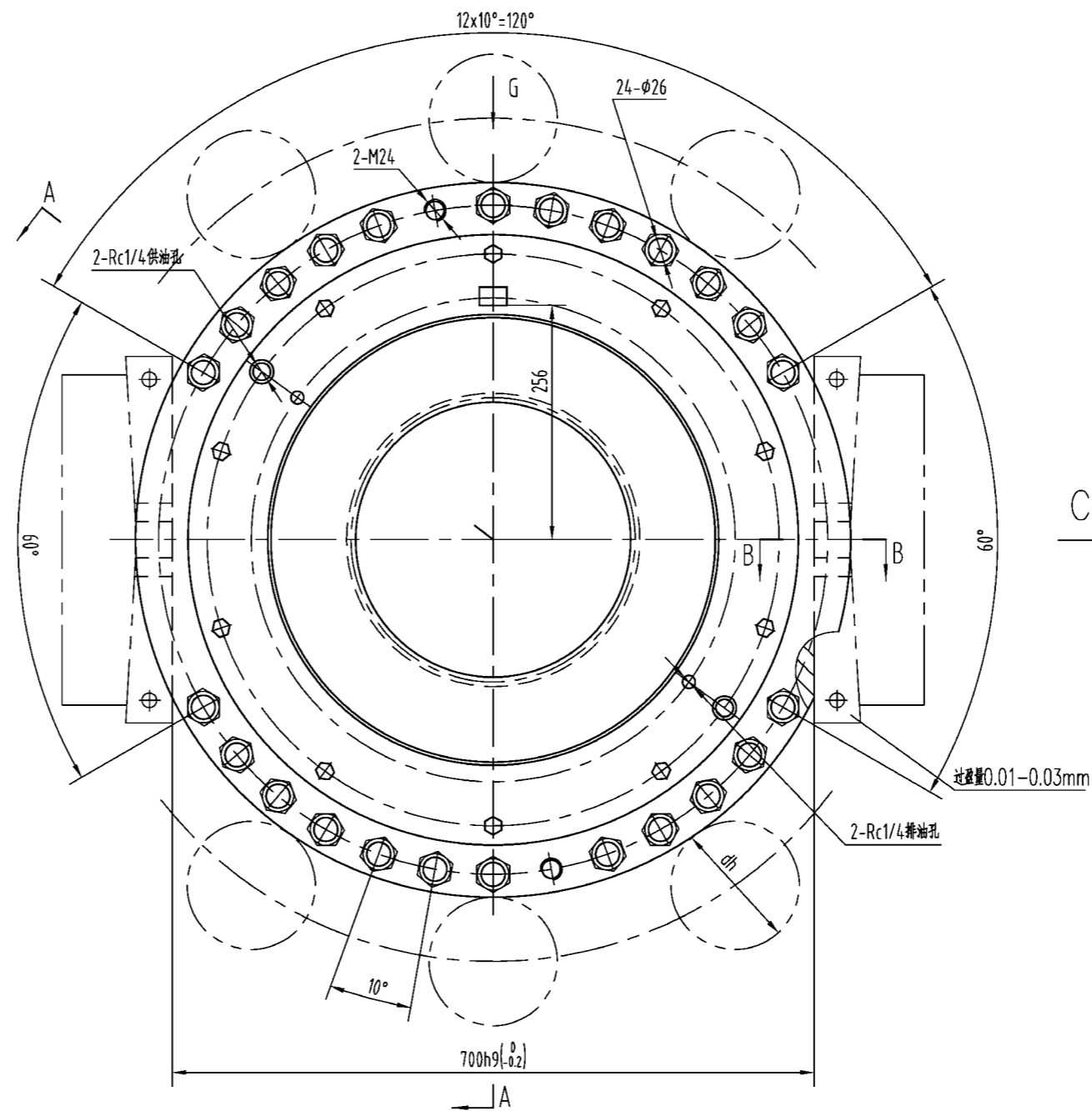
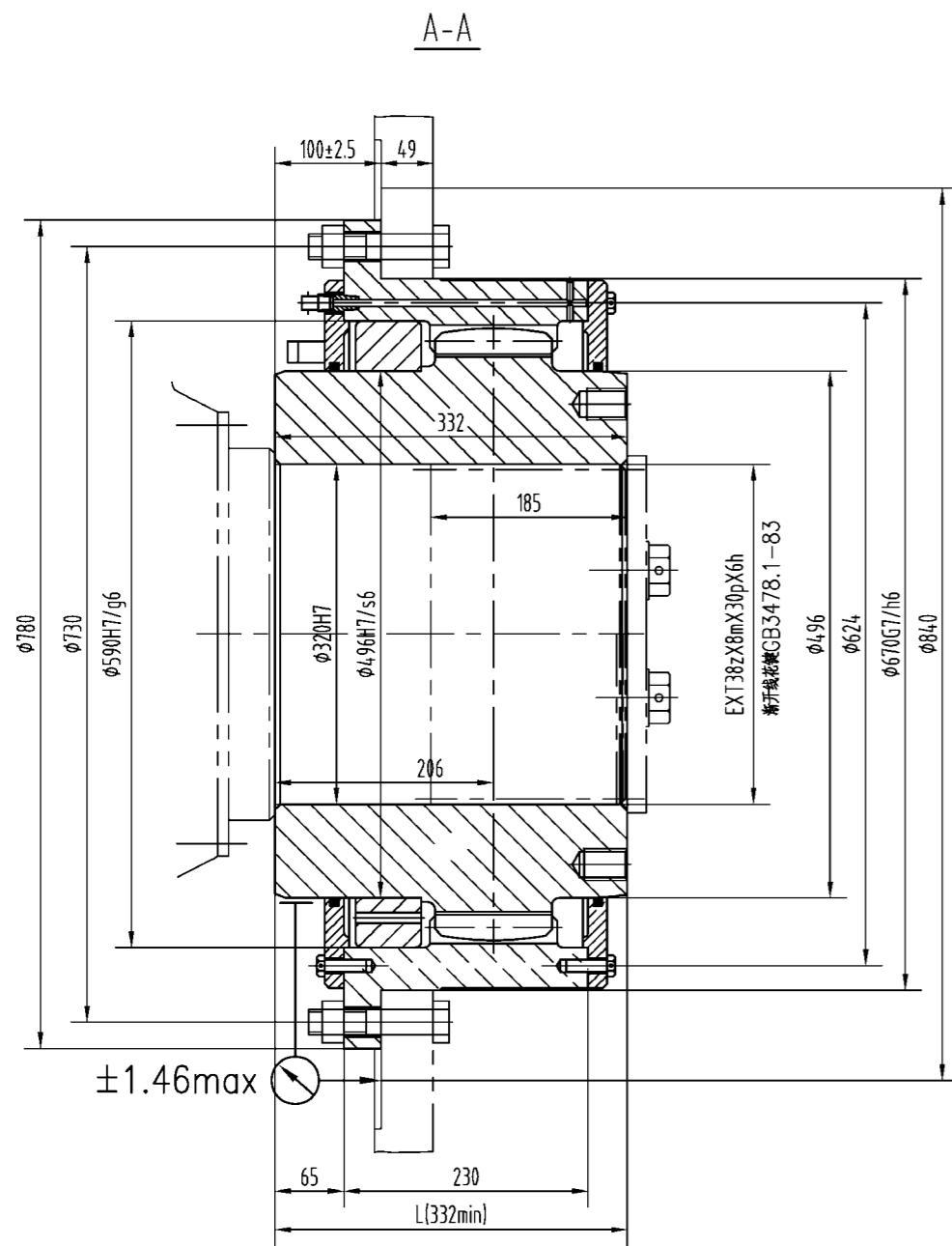


技术要求

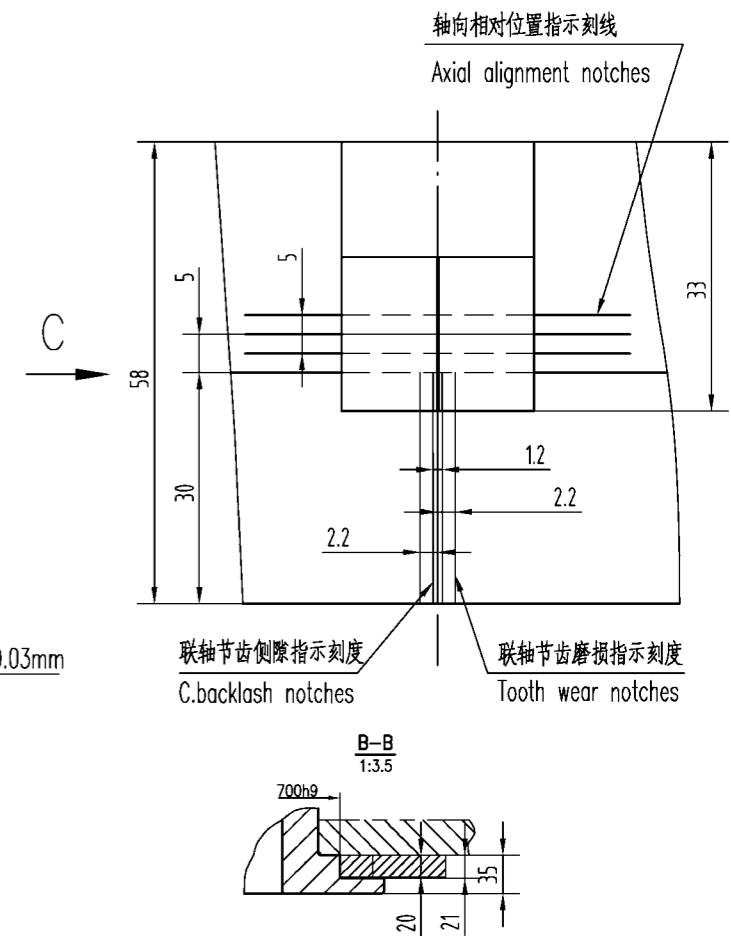
1. 将底架(1)和(2)件按图示尺寸拼装,并焊接固定.
2. 将行程开关和件8安装在件6上.
3. 将件7安装在件10上,并将件10套入件1或件5的杠杆上.
4. 套入导轨后并调整行程开关挡块件7位置.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
					WEIGHT		
B5	GB889-86	螺母 M4 nut	stainless	16			
B4	GB818-85	螺钉 M4X40 screw	stainless	16	0.04	0.60	
B3		行程开关 Z4VH335 swich		4			电气提供
B2	GB889-86	螺母 M12 nut	stainless	16	0.01	0.19	
B1	GB5782-86	螺栓 M12X40 bolt	stainless	16	0.04	0.60	
7	UL25060807	挡块 block	Q235	4	0.4	0.8	
6	UL25060806	限位器支架 supply	Q235	4	2.7	10.8	
5	UL25060805	杠杆架(2) frame 2	welded	2	38.8	77.5	
4	UL25060804	底架(2) seat 2	welded	4	12.4	49.6	
3	UL25060803	底架(1) seat 1	welded	4	13.8	55	
2	UL25060802	支架 frame	Q235	8	1.05	8.41	
1	UL25060801	杠杆架(1) frame 1	welded	2	38.8	77.5	

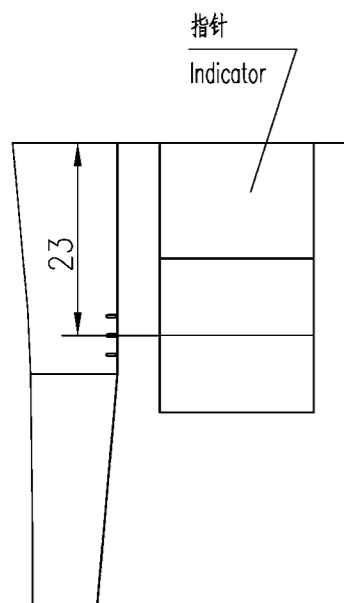
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
					WEIGHT		
PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE: 1:30			
ITEM NAME: 防跳槽装置		DRAW NO: UL25060800					
		safe device					
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	1	
	CHCK		VER.		SET/CRANE	281kg	



View G 向
1.4:1



View C 向

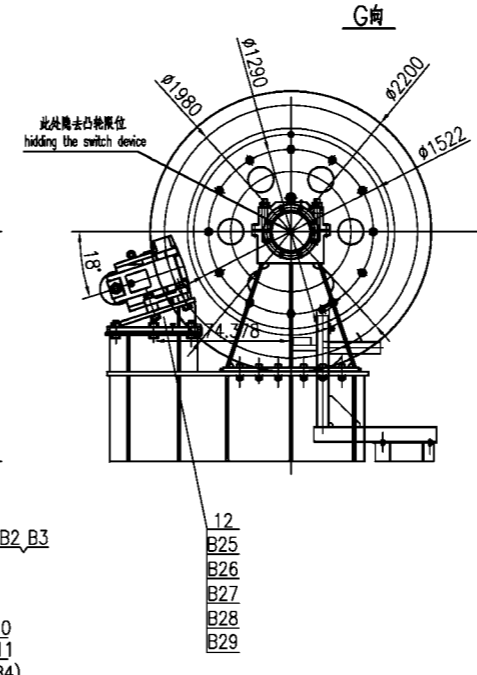
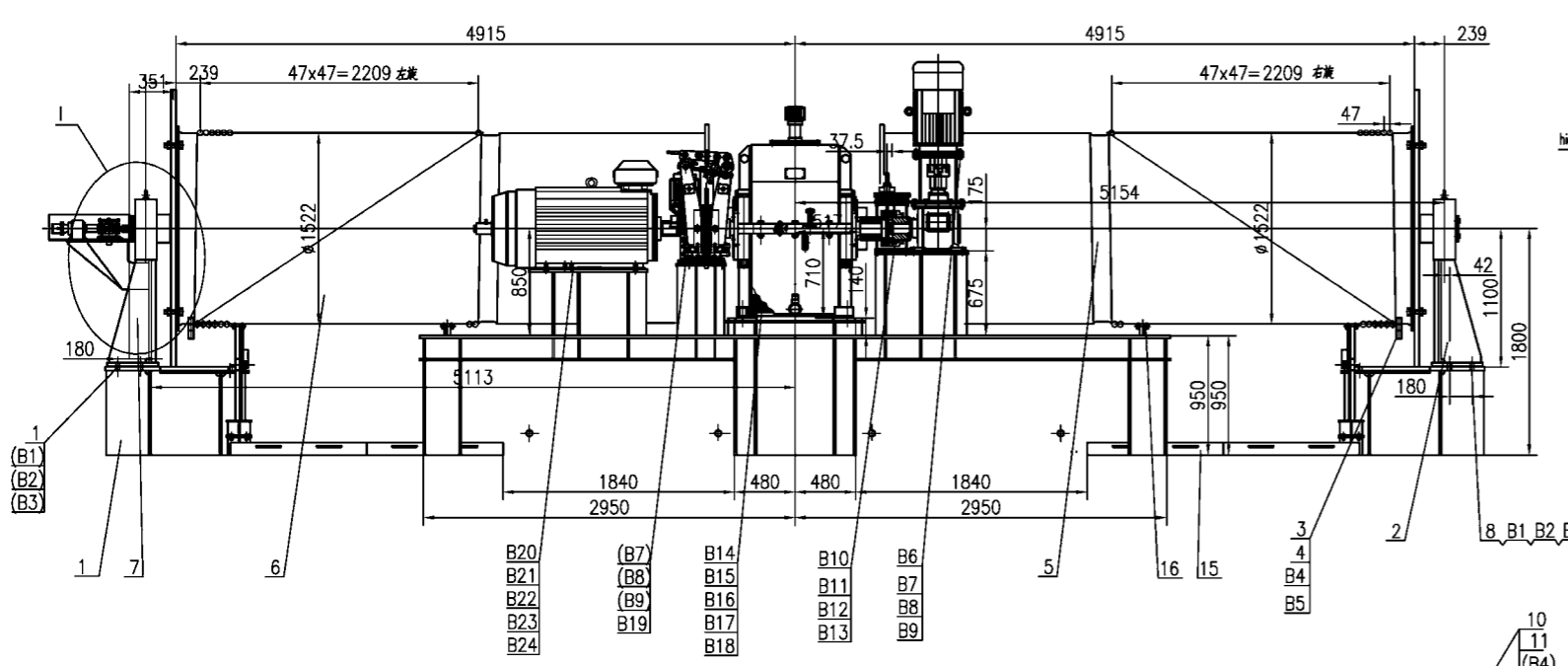


- 注: 1. 在件2, 件4上分别有两个加油孔和出油孔, 在运转时, 件4上的出油孔, 用件6(螺塞)旋上, 需加油时通过一侧油嘴加油, 将另一侧螺塞拧下, 作为出油口, 让黑油挤出, 至见新油为止。
 2. 安装时允许角偏差为12'; 内外齿宽度中心偏差为±2.5mm; 高低中心偏差由φ590H7/g6配合公差限定。
 3. 零件加工后涂防锈油, 装配时即洗即装, 装配后部件外表面均涂黑色油漆。
 4. 注意在使用本联轴器时, 卷筒上与之相连接的板应开手孔, 手孔直径d_H应满足: φ120mm < d_H < φ150mm, 尽可能大些, 以便手伸入拧螺栓。手孔表面应机加工光洁。如受卷筒直径限制而不能开手孔, 则采用焊接螺母的方法。
 5. 本联轴器轮齿的磨损极限折算到分度圆上为20%的齿厚。
 6. 指针件7的正面用于指示齿面磨损, 侧面则用于指示轴向相对位置。指针调整就位后, 用铜焊与件4相焊。装配时, 调整指针件7的磨损刻线, 使该刻线在件4的2条侧隙指示线范围以内, 并与中线对齐(使联轴器的两侧侧隙与该线保持对称)。在使用过程中, 当箭头指向超出左或右磨损刻线时, 表明齿面磨损超出允许范围, 需检查并考虑马上更换齿轮。
 7. 外齿轴套尺寸 d, L, L₁ 和 b 按DCC09 低速联轴器选型参数表。

Operating parameters of coupling(联轴器工作参数)

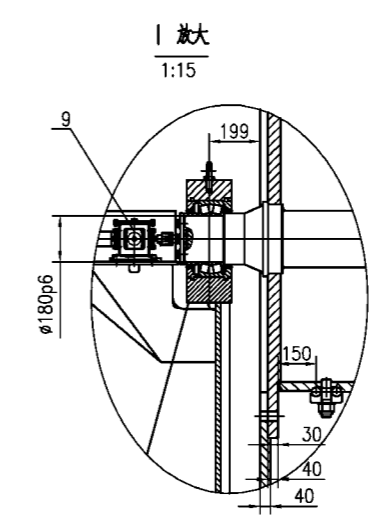
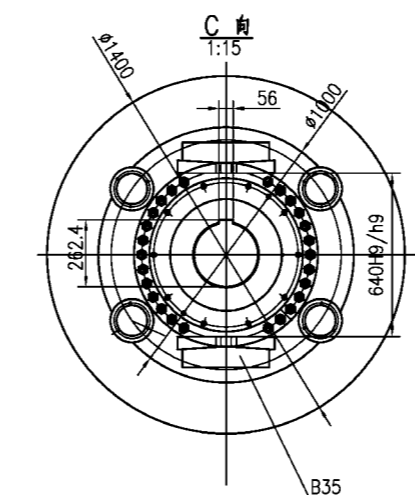
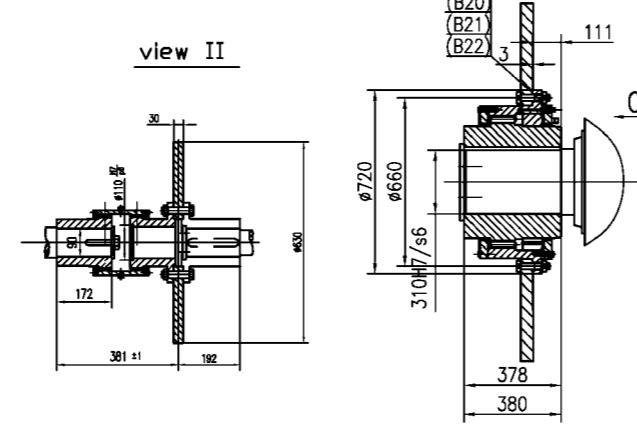
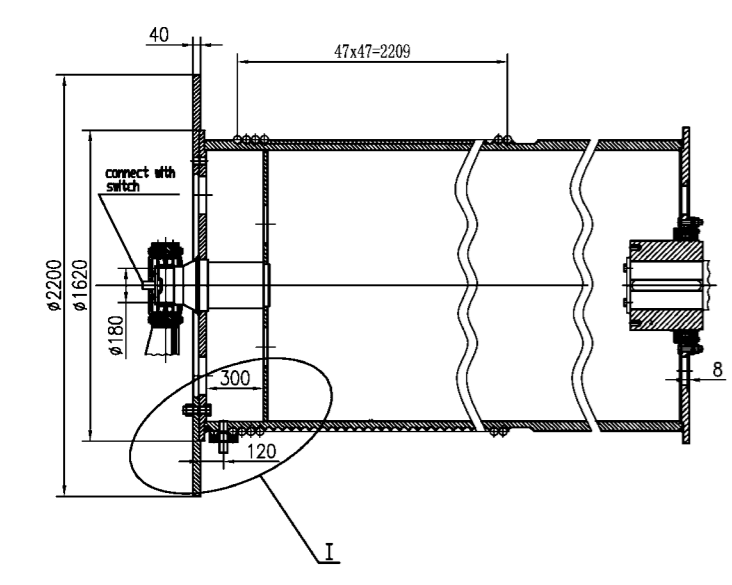
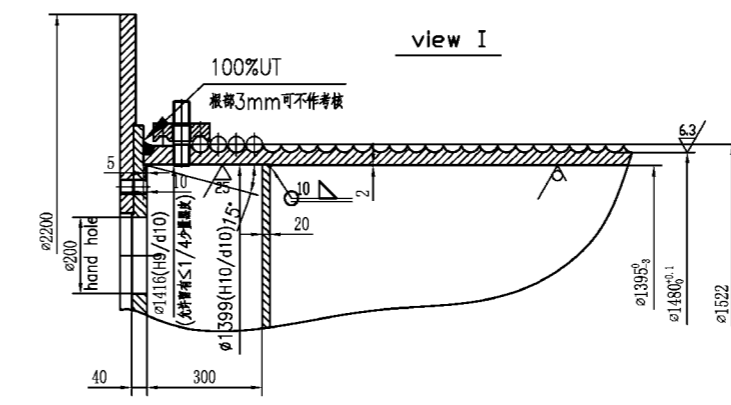
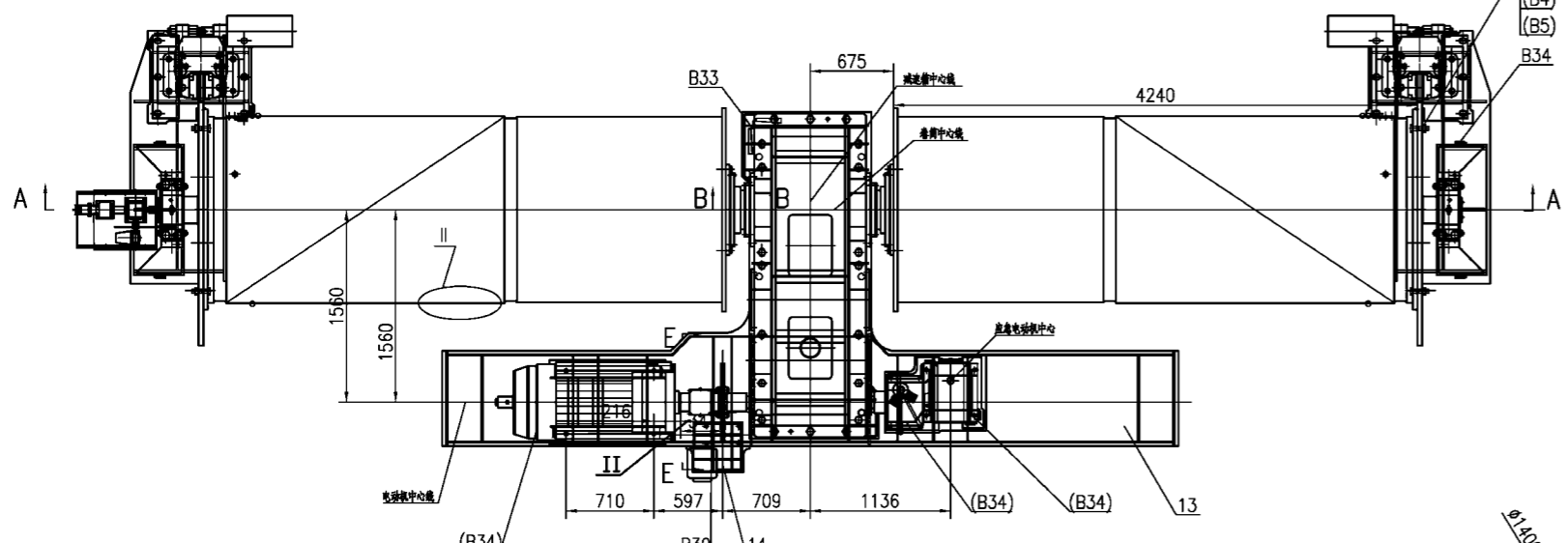
Transmitted torque (传递扭矩) T _{max} Nm	Overload torque (超载扭矩) T _{overload} Nm	Radial load (径向承载) F _{r max} N	Max. speed (最大转速) n _{max} r/min	Angular misalignment (角偏差) Δα (°)	Axial clearance (轴向浮动) Δx mm	C.backlash (圆周侧隙) jt min mm	Wear limiting on one flank (单侧齿面磨损极限) mm	Grease type (润滑脂型号)
450000	900000	300000	200	±12'	±2.5	1.2	1.9	一号锂基润滑脂 NLGI 1

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each WEIGHT	total WEIGHT	NOTE
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:5		
ITEM NAME: 卷筒联轴器 Drum coupling		DRAW NO: UL250612		PROJ. 			
ZPMC	DSGN		TRACE		APP.	订货图	
	DRAW		CHCK		SET/CRANE	4	
	CHCK		VER.		WEIGHT	570	



技术要求
 1. 电动机与减速机输入轴轴线的夹角小于 10° ,
 二轴线的径向相对位置误差小于 0.120mm .
 2. 卷筒轴线与减速机输出轴轴线的夹角小于 15° .
 3. 轴承, 联轴器等有油嘴处装配时加入适量锂基润滑油.

Technical Requirements
 1. The angle between the axis of motor and that of reducer is less than 10° , the relative diametric position error of both axes is less than 0.12mm .
 2. The angle between the axis of drum and the output axis of the reducer is less than 15° .
 7. Lithium based grease should opportunely used in the oil rim of bearing and coupling when assembling.



螺栓预紧力和拧紧力矩表

性能等级	预紧力(Pretightening force) (kN)	拧紧力矩(Mounting torque) (N.m)
M12	8.8S 34	60
M20	8.8S 86	252
M24	8.8S 121	420
M30	10.9S 196	848
M36	10.9S 286	1480
M39	10.9S 379	2040
M48	10.9S 487	2800

Item No.	Part Name	Material	Quantity	Unit	Manufacturer
B35	ZPDR08 楔形定位块 (Block)		35	4	ZPMC
B34	ZP3 3号定位块 (Block)		Q235	16	0.3 4.8 ZPMC
B33	ZP2 2号定位块 (Block)		Q235	4	1.1 4.4 ZPMC
B32	AS1-20 调整垫片 20 (Adjustshim)	不锈钢(Stastl)	4		ZPMC
B31	DC08B 卷筒联轴节 (Drum coupling)		2	550 1100	ZPMC
B30	PGCLK6 高速联轴节 (Motor coupling)		1	60	ZPMC
B29	GB95-85 垫圈 39 (Washer)	140HV	20		达克罗 (Dacra)
B28	GB6170-86 螺母 M39 (Nut)	10H	20		达克罗 (Dacra)
B27	GB5782-86 螺栓 M39x220 (Bolt)	10.9S	8		达克罗 (Dacra)
B26	SBB365-#220x40 (I) 低速制动盘 (DRUM BRAKE)		2	686 1372	ZPMC
B25	GB5782-86 螺栓 M39x120	10.9S	12		达克罗 (Dacra)
B24	AS1-24 调整垫片 24 (Adjustshim)	不锈钢(Stastl)	4		ZPMC
B23	1LG6 317-6PM6 电动机 (Motor)		1150	1	ABB
B22	GB95-85 垫圈 24 (Washer)	140HV	56		达克罗 (Dacra)
B21	GB889-86 螺母 M24 (Nut)	8H	56		达克罗 (Dacra)

Item No.	Part Name	Material	Quantity	Unit	Manufacturer
B20	GB5782-86 螺栓 M24x120 (Bolt)	8.8S	56		达克罗 (Dacra)
B19	YP2-630X30Ed1250/60 高速制动盘 (MOTOR BRAKE)		1	220	ZPMC
B18	AS1-48 调整垫片 48 (Adjustshim)	不锈钢(Stastl)	6		ZPMC
B17	GB95-85 垫圈 48 (Washer)	140HV	6		达克罗 (Dacra)
B16	GB6170-86 螺母 M48 (Nut)	10H	12		达克罗 (Dacra)
B15	GB5782-86 螺栓 M48x220 (Bolt)	10.9S	6		达克罗 (Dacra)
B14	FH1560.144M.B2B-00 减速机 (REDUCER)		1	6400	ZPMC
B13	GB95-85 垫圈 12 (Washer)	140HV	4		不锈钢 (Stastl)
B12	GB889-86 螺母 M12 (Nut)	8H	4		不锈钢 (Stastl)
B11	GB5782-86 螺栓 M12x50 (Bolt)	8.8S	4		不锈钢 (Stastl)
B10	GC1R 离合器 (Clutch)		1		ZPMC
B9	GB95-85 垫圈 18 (Washer)	140HV	8		不锈钢 (Stastl)
B8	GB889-86 螺母 M18 (Nut)	8H	8		不锈钢 (Stastl)
B7	GB5782-86 螺栓 M18x80 (Bolt)	8.8S	8		不锈钢 (Stastl)
B6	M3BP 180 应急电动机 (EMERGENCY MOTOR)		1	385	ABB
B5	GB95-85 垫圈 36 (Washer)	140HV	36		达克罗 (Dacra)
B4	GB889-86 螺母 M36 (Nut)	10H	36		达克罗 (Dacra)
B3	GB95-85 垫圈 30 (Washer)	140HV	24		达克罗 (Dacra)
B2	GB889-86 螺母 M30 (Nut)	10H	24		达克罗 (Dacra)
B1	GB5782-86 螺栓 M30x115 (Bolt)	10.9S	24		达克罗 (Dacra)

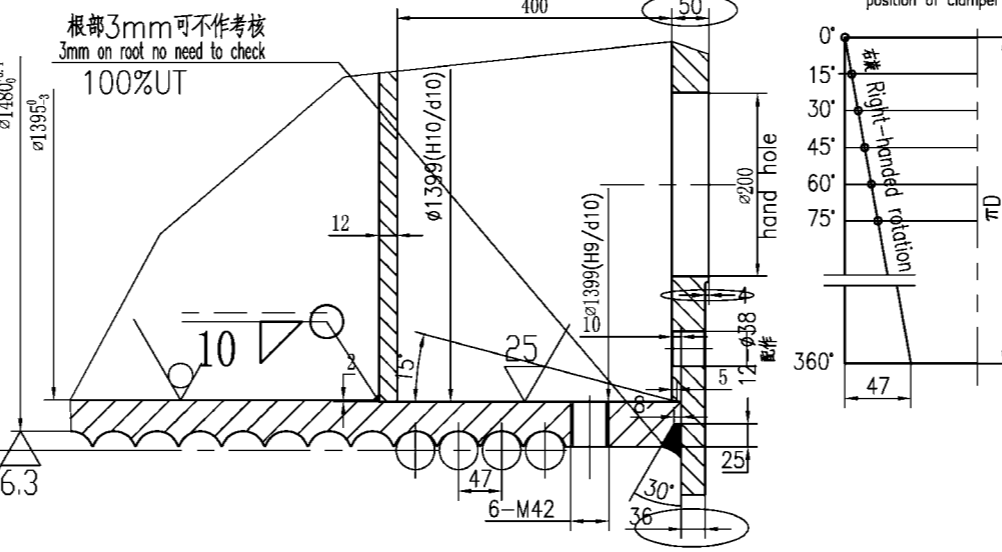
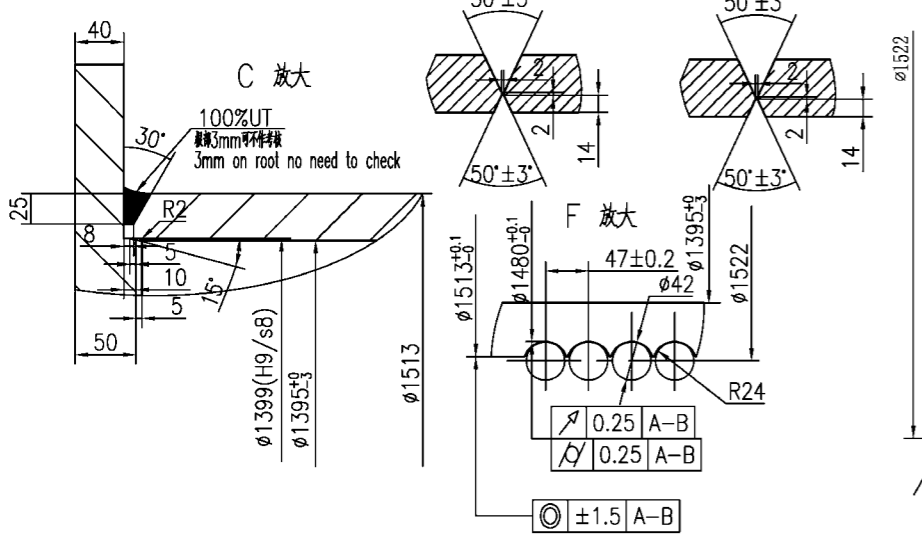
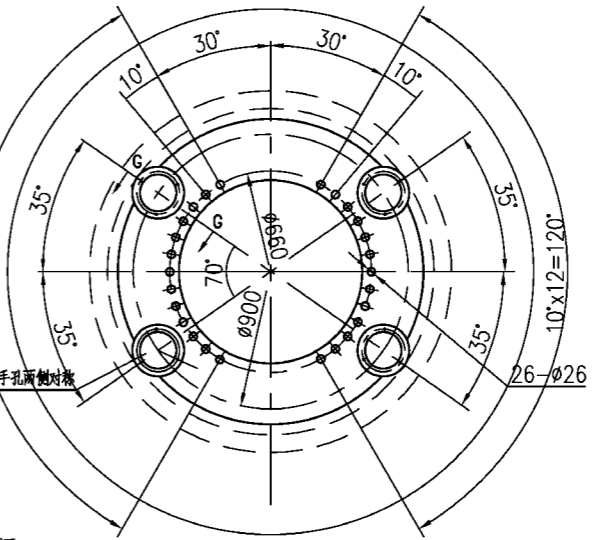
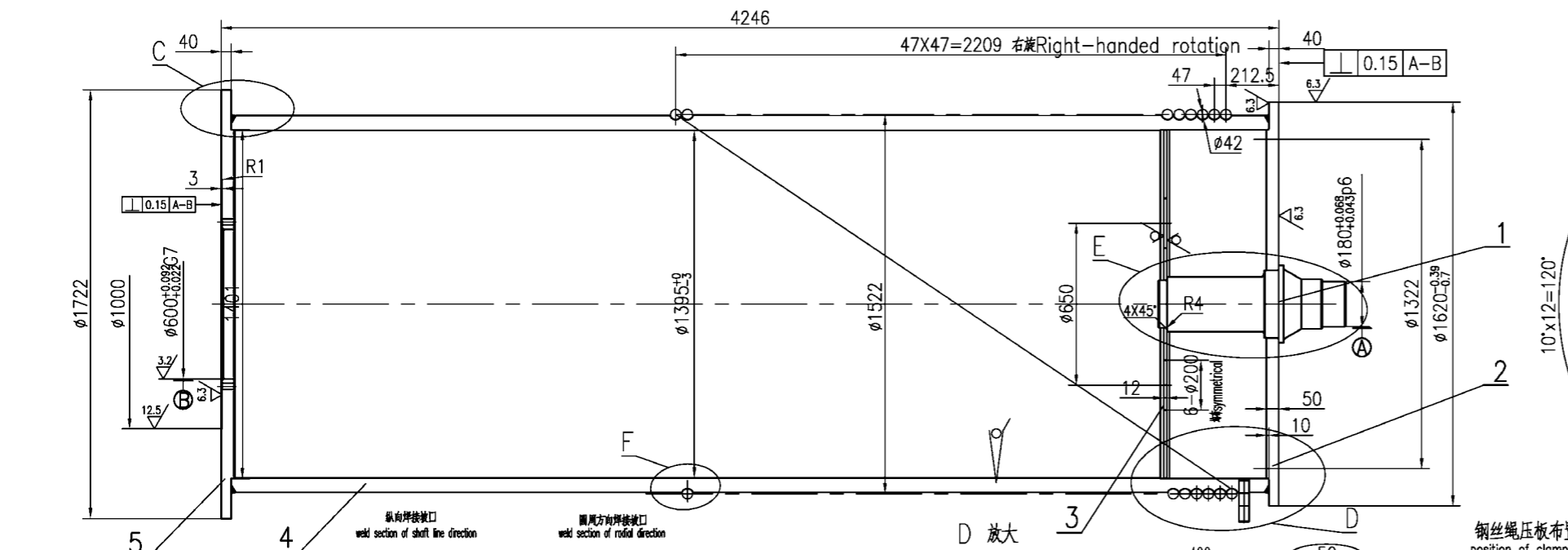
Item No.	Part Name	Material	Quantity	Unit	Manufacturer
17	UL25071700 应急机构 (Emergency mechanism)	组件 (Ass)	1	527 527	
16	UL25071600 防脱绳装置 (Rope guider)	组件 (Ass)	2	146 292	
15	UL250715 集尘盒 (Dust-collect pan)	组件 (Ass)	4	37.2 149	
14	UL250714 高速联轴节罩 (Coupling cover)	组件 (Ass)	1	17.4 17.4	
13	UL250713 联合底座 (Support)	焊接件 (Welded)	1	4149 4149	
12	UL250712 低速制动盘底座 (Support)	Q345B	2	235 470	
11	UL250711 制动盘 (Drum brake disk)	Q345B	2	938 1876	
10	UL250710 快制螺栓 (Bolt)	A5	32	1.2 38	
9	UL25070900 限位装置 (Rotating-type limit switch)	组件 (Ass)	1	60 60	
8	UL250708 底座2 (Support2)	组件 (Ass)	1	1005 1005	
7	UL25070700 卷筒轴承座 (Bearing pedestal)	组件 (Ass)	1	590 590	
6	UL250706 卷筒2 (DRUM2)	焊接件 (Welded)	1	9684 9684	
5	UL250705 卷筒1 (DRUM1)	焊接件 (Welded)	1	9684 9684	
4	UL250704 压绳板 (Rope clamp plate)	Q235	12	3.83 46	
3	UL250703 双头螺栓 (Stud)	A5	12	1.85 22	
2	UL25070200 卷筒轴承座 (Bearing pedestal)	组件 (Ass)	1	588 588	
1	UL250701 底座1 (Support1)	焊接件 (Welded)	1	1005 1005	

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/SET	each	total	NOTE
PROJECT: Alabama 200t/sh ship unloader			DESIGN STAGE:		SCALE: 1:30		
ITEM NAME: Boom hoist drive 大梁卷筒驱动			DRAW NO: UL250700				
DSGN	CHK	TRCE	APP.	组件			
DRAW	CHK	CHK	QTY/SET	1			
CHK	VER.	VER.	SET/CRANE	40857Kg			

revision no.	Sub no.	description	date	sign
01	D07		2005.01.06	song

其余others 2.5

件1未注表面粗糙度均为 12.5
not marked on piece 1 should be

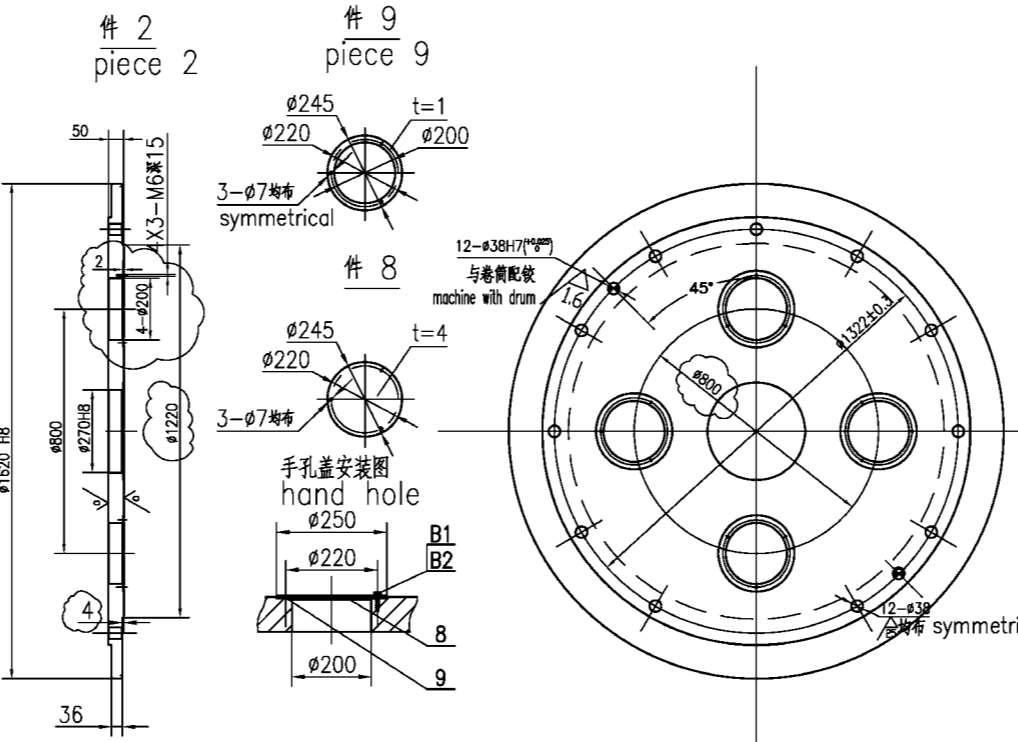
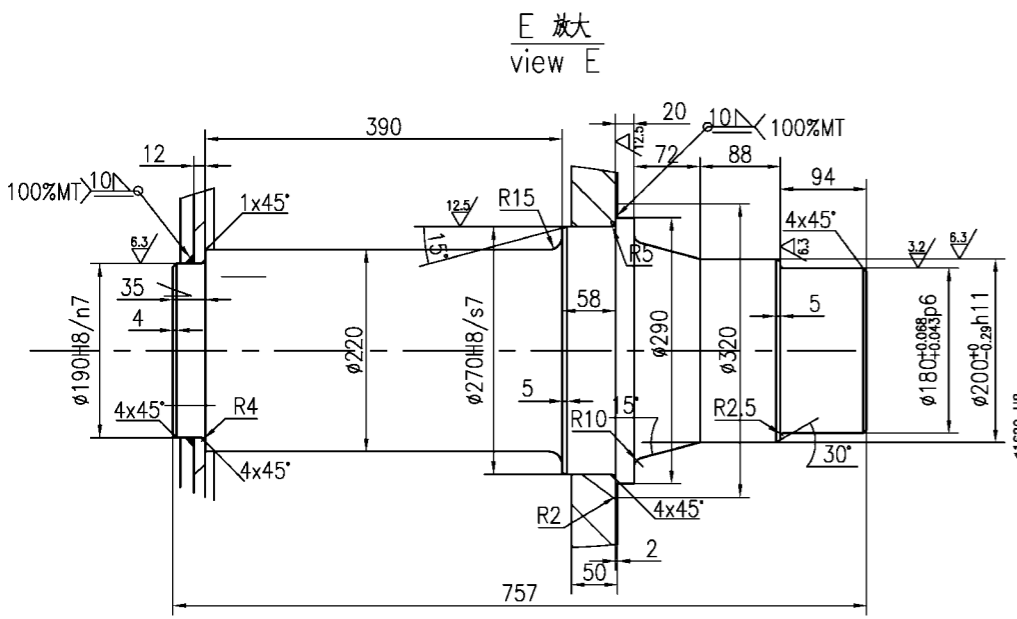


Technical requirements

- The drum have right and left types as drawing.
- The drum are cold rolled and welded with steel plate A709-50-2. Before cold roll, steel plate should be leveled according with general technology.
- The transverse and longitudinal weld of the drum should beveling of edge with the standard of factor and the drawing.
If subsection make, the distance between two endpoints of longitudinal weld is >200mm.
The splicing weld should be beveling and butt welding.
All butt weld should be inspected by 100%UT. Weldings are made and tested according to AWS. Welding rods are ES015.
- Welding of the drum be inspected by 100%UT or 100%MT according to drawing. This isn't any weld crack.
- After welding, local stress-eliminator should be made to release welding stress.
- After machine work, drum should be made static balancing test.
Offbalance grade is 6.3 grade, allowable eccentricity is $e=0.8mm$.
Allowable mass on drum wall is $M=1.6\sqrt{D} \cdot kg$ (C-drum weight, D=d-dw-46), material is Q235.
- Remove sharp edges.
- The surface of drum's rope groove will be hardened to HB300-380.
- The shaft of the drum be made with 35# forged steel, normalizing.
It should be inspected by 100%UT, chemical and harder HB=149-187 before welding.
- After welding the circular degree of drum should <3mm.
- Inside and outside of drum painted by the provision book, except drum shaft.

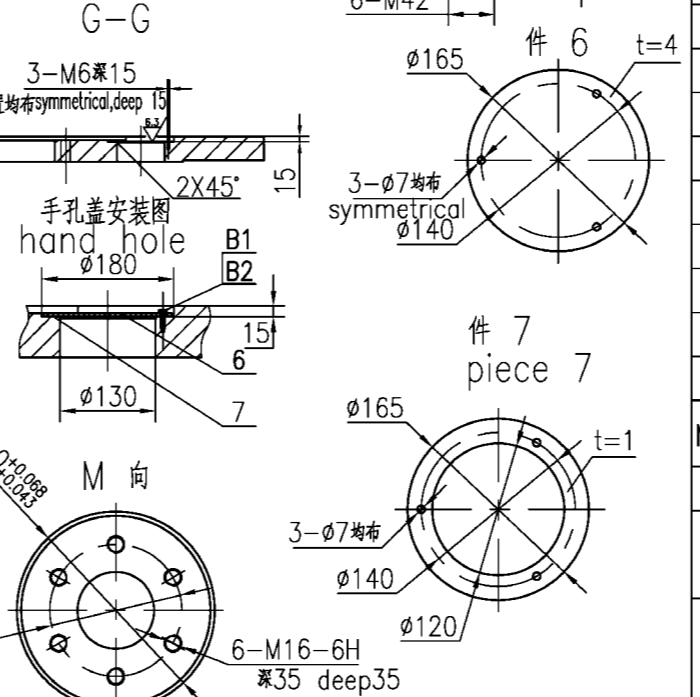
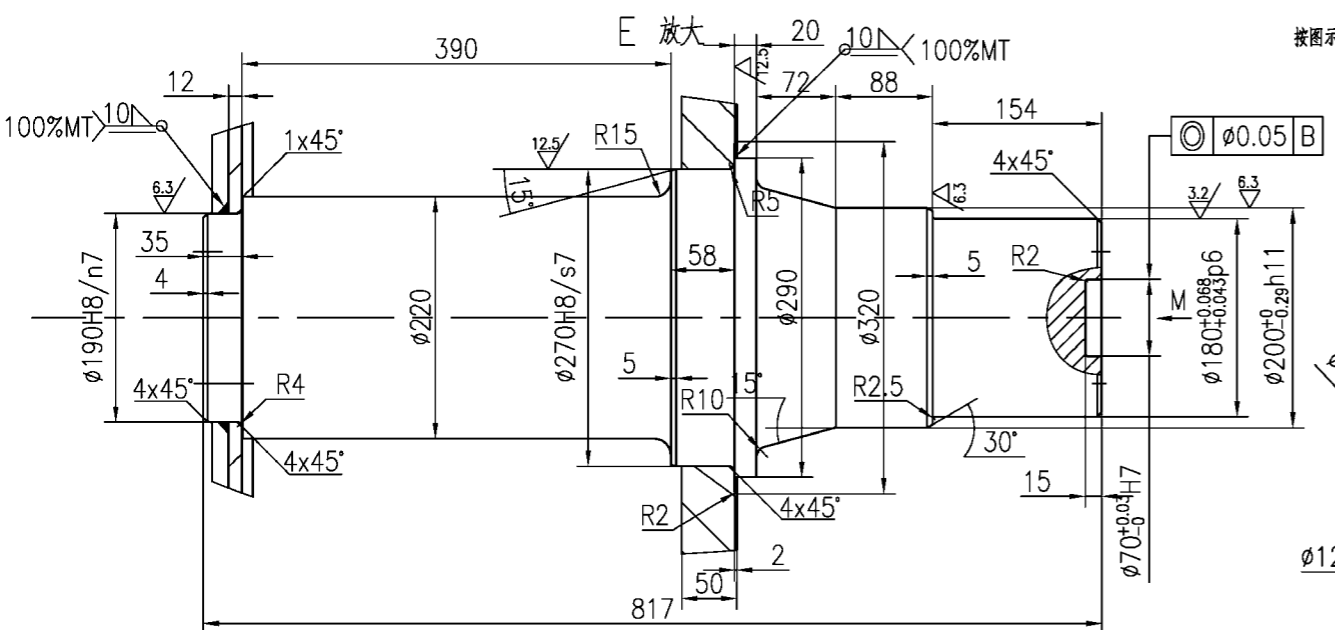
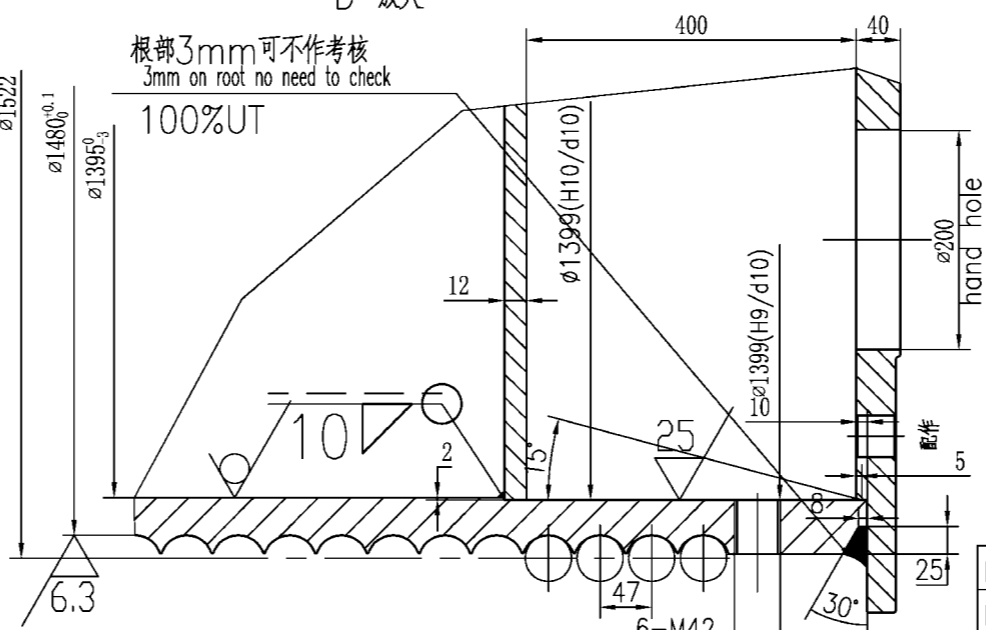
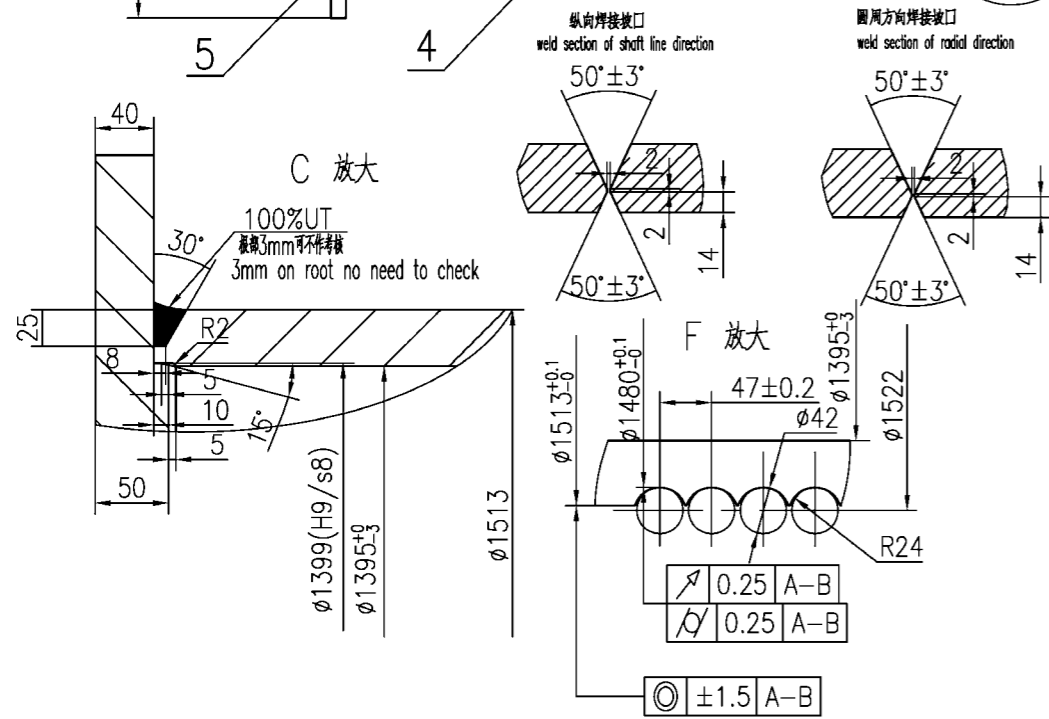
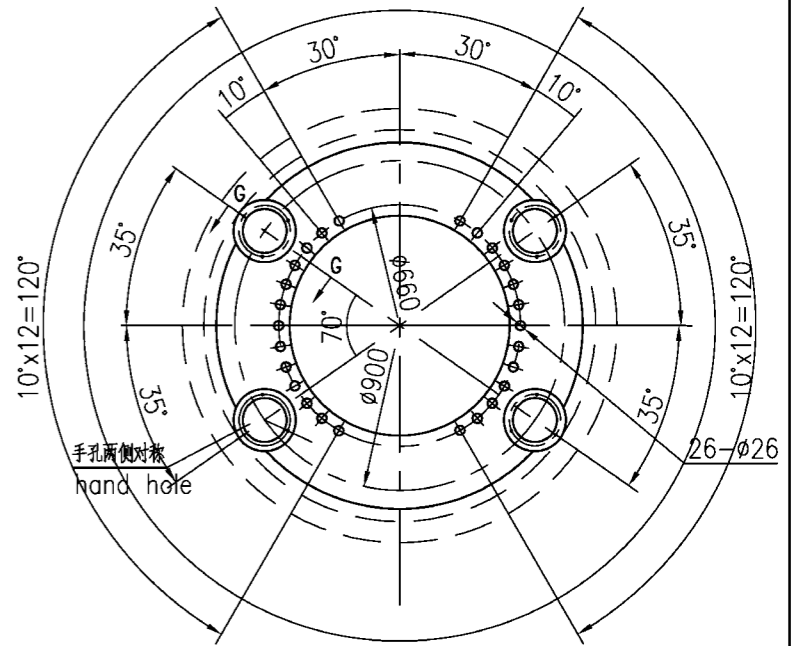
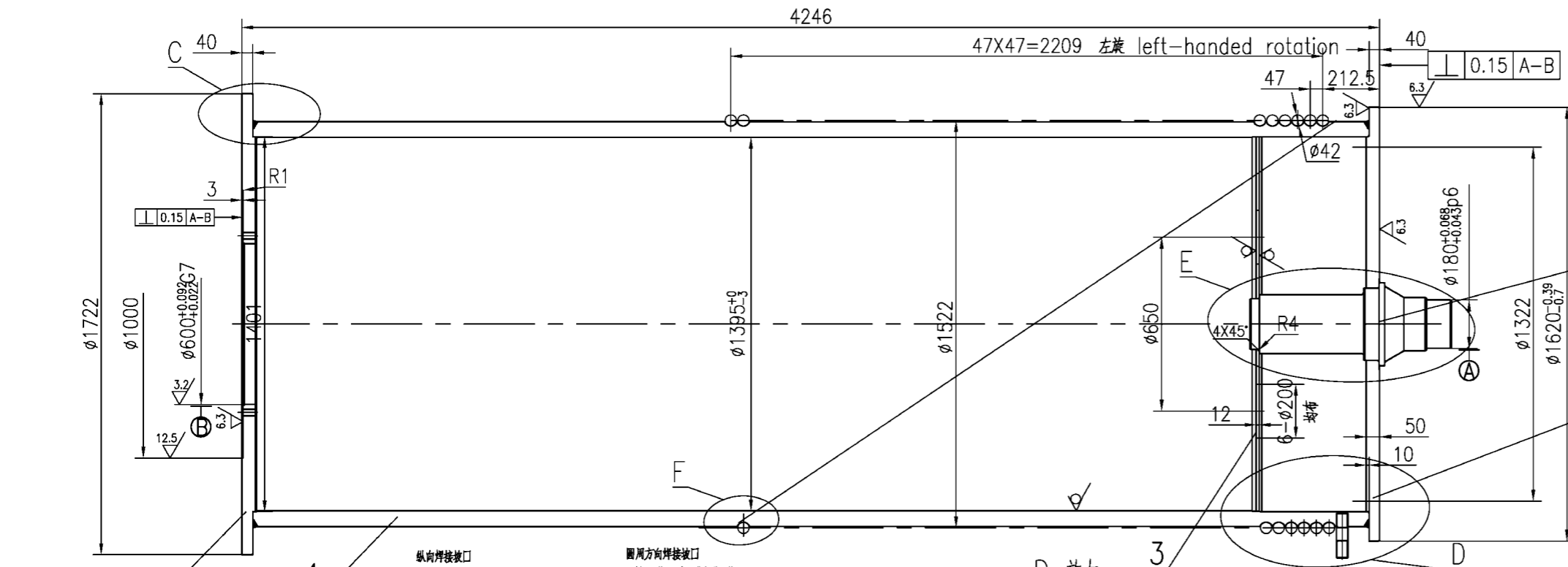
钢丝绳压板布置图
position of clamped plate

手孔盖安装图
hand hole



B2	GB955-87	垫圈 washer 6	65Mn	24		
B1	GB5783-86	螺栓 bolt M6X16	4.8级class	24		stainless steel
9		-1Xφ245/φ200	红纸板paper	4		
8		-4Xφ245	Q235	4	1.0	4
7		-1Xφ165/φ120	红纸板paper	4		
6		-4Xφ165	Q235	4	0.6	2.4
5		(-50)Xφ1722	A709-50-2	1	691	691
4		(-59)Xφ1454X4166	A709-50-2	1	7826	7826
3		-12Xφ1399/φ190	A709-50-2	1	140	140
2		(-50)Xφ1620	A709-50-2	1	700	700
1		φ290X757	35	1	325	325

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each WEIGHT	total WEIGHT	NOTE
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:	SCALE: 1:15			
ITEM NAME: 卷筒1 (Drum1)			DRAW NO:	UL250705			
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	9684	
	CHCK		VER.		SET/CRANE	1	



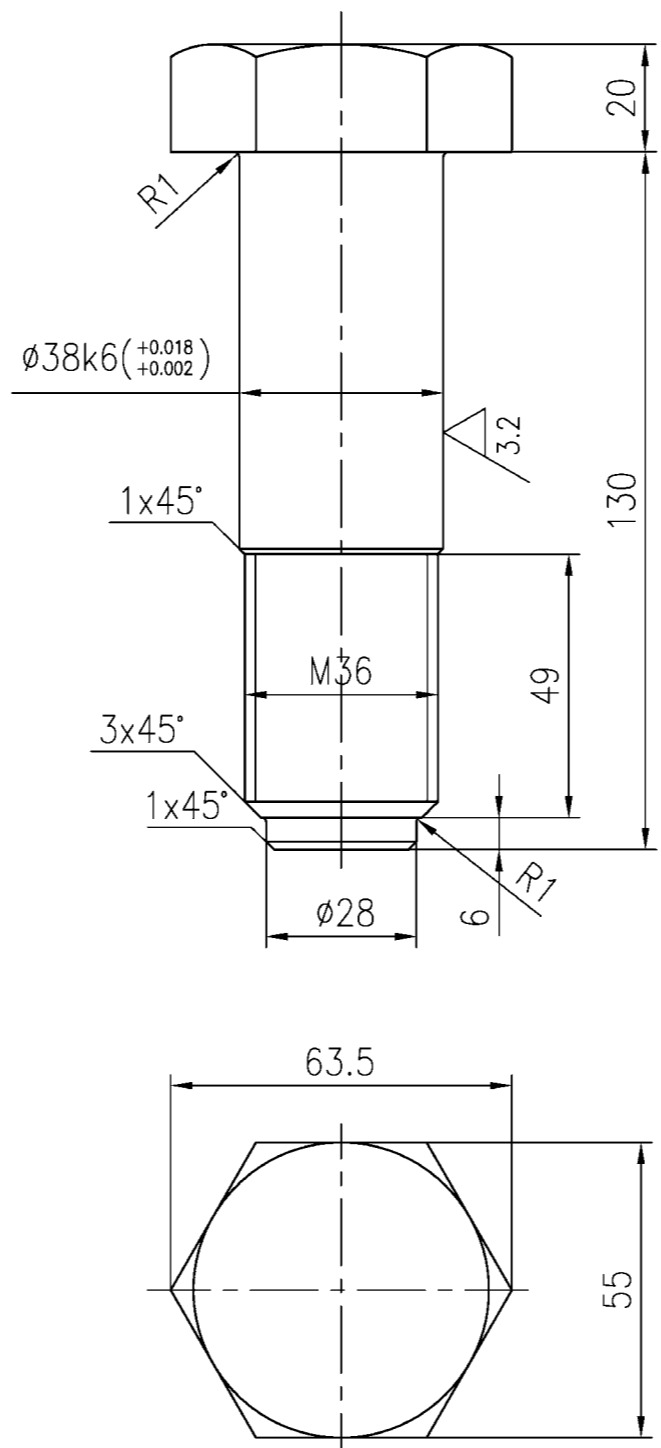
Technical requirements

- The drum have right and left types as drawing.
- The drum are cold rolled and welded with steel plate A709-50-2. Before cold roll, steel plate should be leveled according with general technology.
- The transverse and longitudinal weld of the drum should beveling of edge with the standard of factor and the drawing.
If subsection make, the distance between two endpoints of longitudinal weld is >200mm. The splicing place should be beving and butt welding.
- All butt weld should be inspected by 100%UT. Weldings are made and tested according to AWS .Welding rods are ES015.
- Welding of the drum be inspected by 100%UT or 100%MT according to drawing. This isn't any weld crack.
- After welding, local stress-eliminator should be made to release welding stress.
- After machine work, drum should be made static balancing test.
Offbalance grade is 6.3 grade, allowable eccentricity is e=0.8mm.
Allowable mass on drum wall is $M = \frac{1}{100} \cdot kg(G-drum\ weight, D_o=D-dwr-46)$, material is Q235.
- Remove sharp edges.
- The surface of drum's rope groove will be hardened to HB300~380.
- The shaft of the drum be made with 35# forged steel, normalizing.
It should be inspected by 100%UT, chemical and harder HB=149~187 before welding.
- After welding the circular degree of drum should <3mm.
- Inside and outside of drum pointed by the provision book, except drum shaft.

B2	GB955-87	垫圈 6	65Mn	24			不锈钢
B1	GB5783-86	螺栓M6X16	4.8级	24			不锈钢
9		-1Xφ245/φ200	红纸板	4			
8		-4Xφ245	Q235	4	1.0	4	
7		-1Xφ165/φ120	红纸板	4			
6		-4Xφ165	Q235	4	0.6	2.4	
5		(-50)Xφ1722	A709-50-2	1	691	691	
4		(-59)Xφ1454X4166	A709-50-2	1	7826	7826	
3		-12Xφ1399/φ190	A709-50-2	1	140	140	
2		(-50)Xφ1620	A709-50-2	1	700	700	
1		φ290X817		35	1	325	325

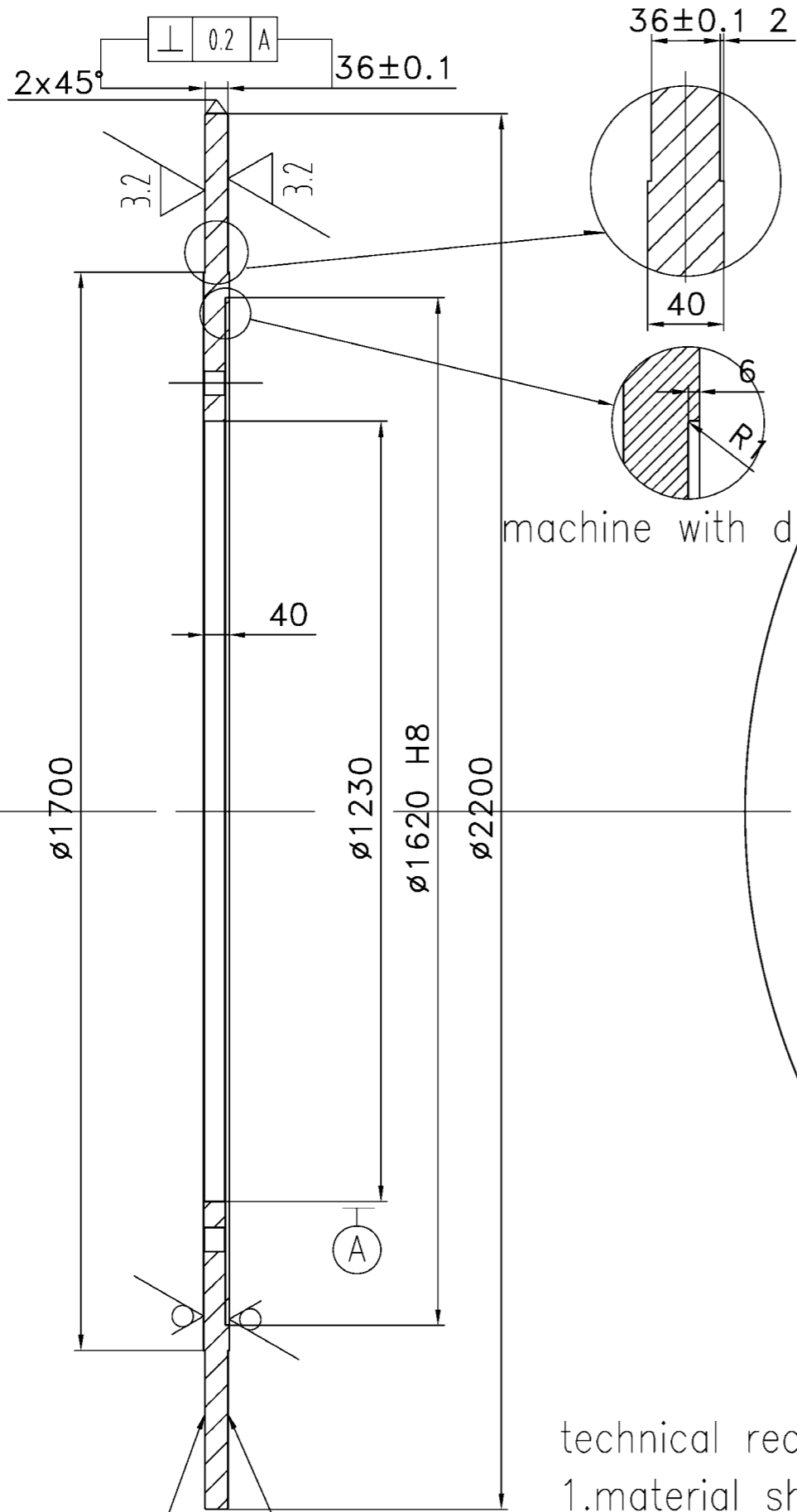
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total		NOTE
					WEIGHT		
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:15		
ITEM NAME: 卷筒2 (Drum2)			DRAW NO: UL250706				
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	9684	
	CHCK		VER.		SET/CRANE	1	

其余others $\sqrt{12.5}$

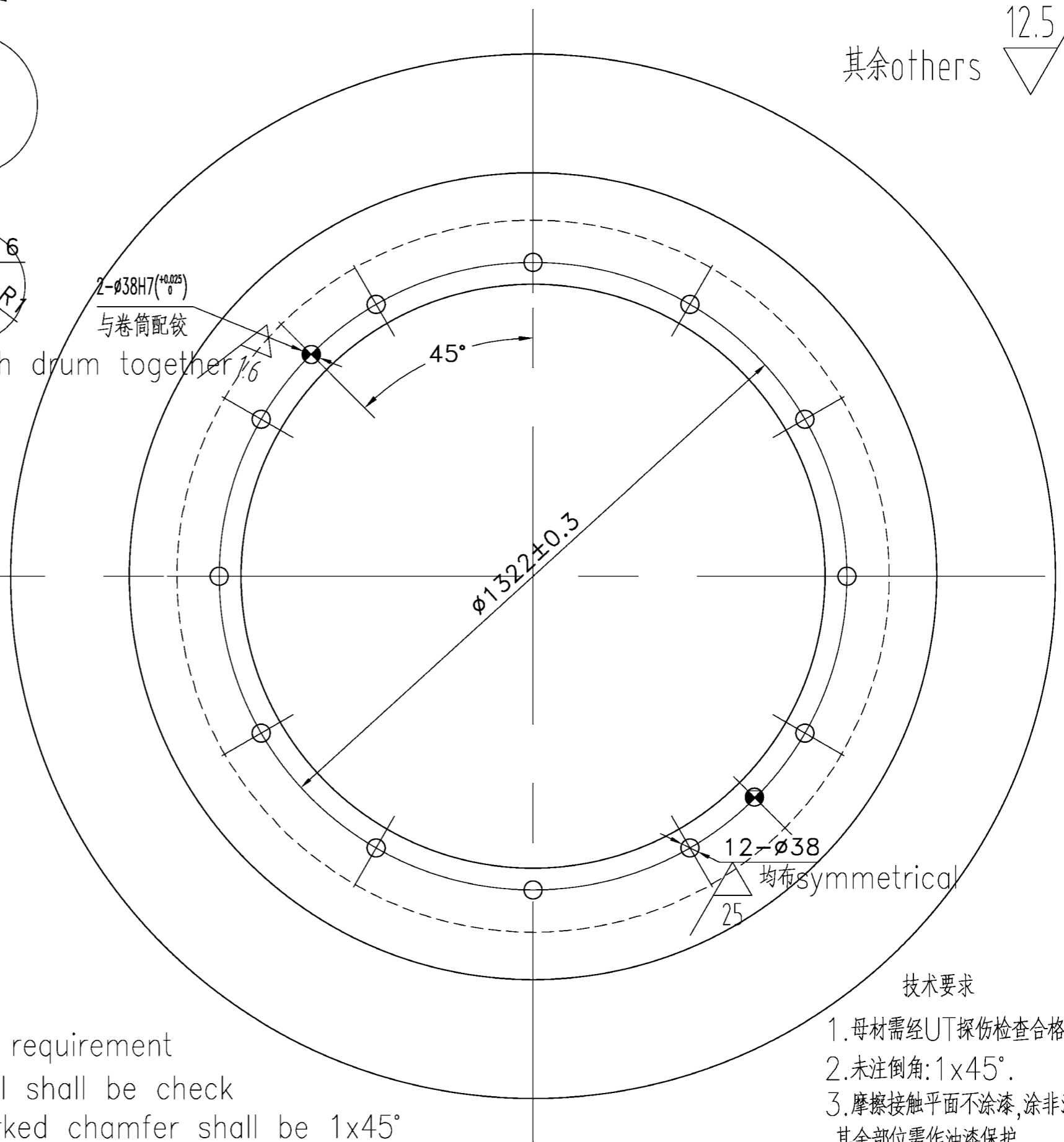


调质HB220~250
Adjusting Quality HB220~250

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
9	UL250710	铰制孔螺栓 bolt	45	1.2kg	32	1:1.5
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



其余others $\nabla 12.5$



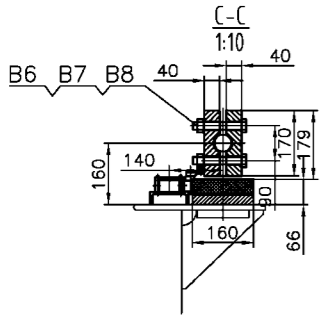
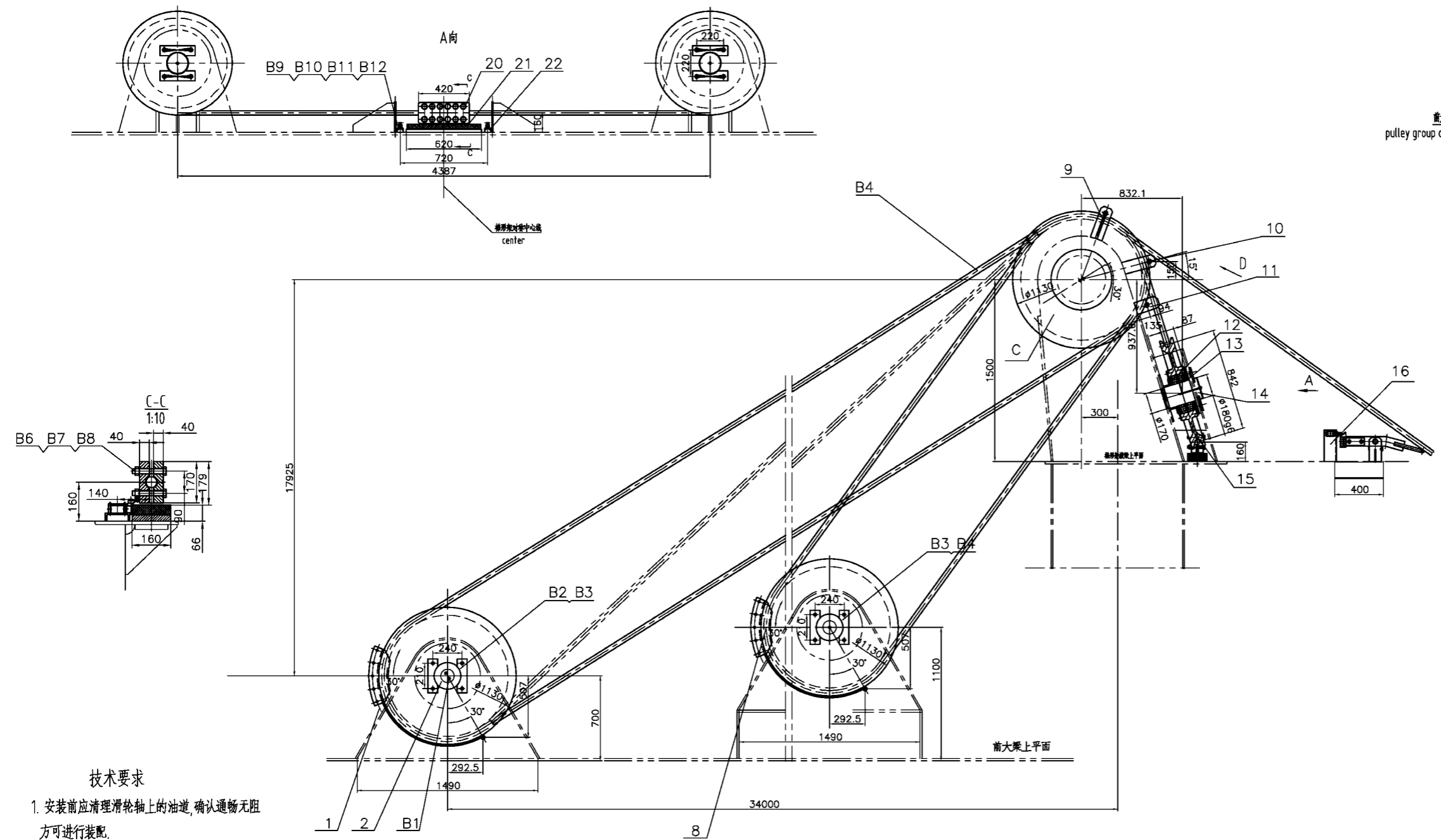
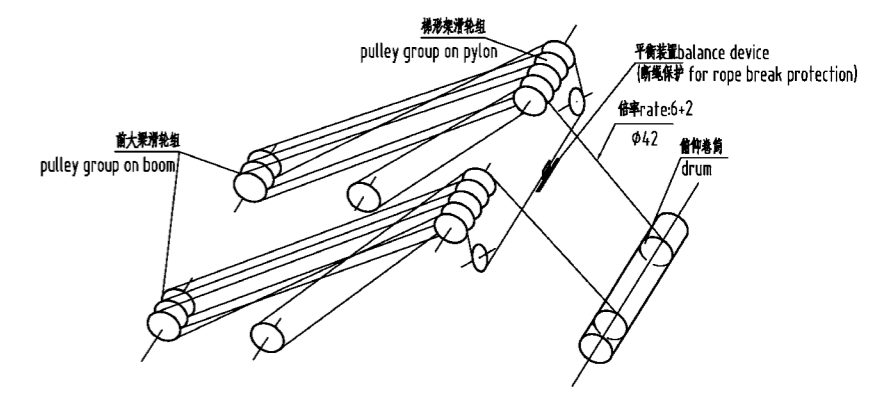
摩擦面
work surface

technical requirement
 1. material shall be check
 2. no marked chamfer shall be 1x45°
 3. work surface shall be clear other surface shall be paint

技术要求
 1. 母材需经UT探伤检查合格。
 2. 未注倒角: 1x45°。
 3. 摩擦接触平面不涂漆, 涂非油脂性防锈剂。
 其余部位需作油漆保护

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL250711	Drum brake disk 卷筒制动盘	Q345		7065	1:10
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

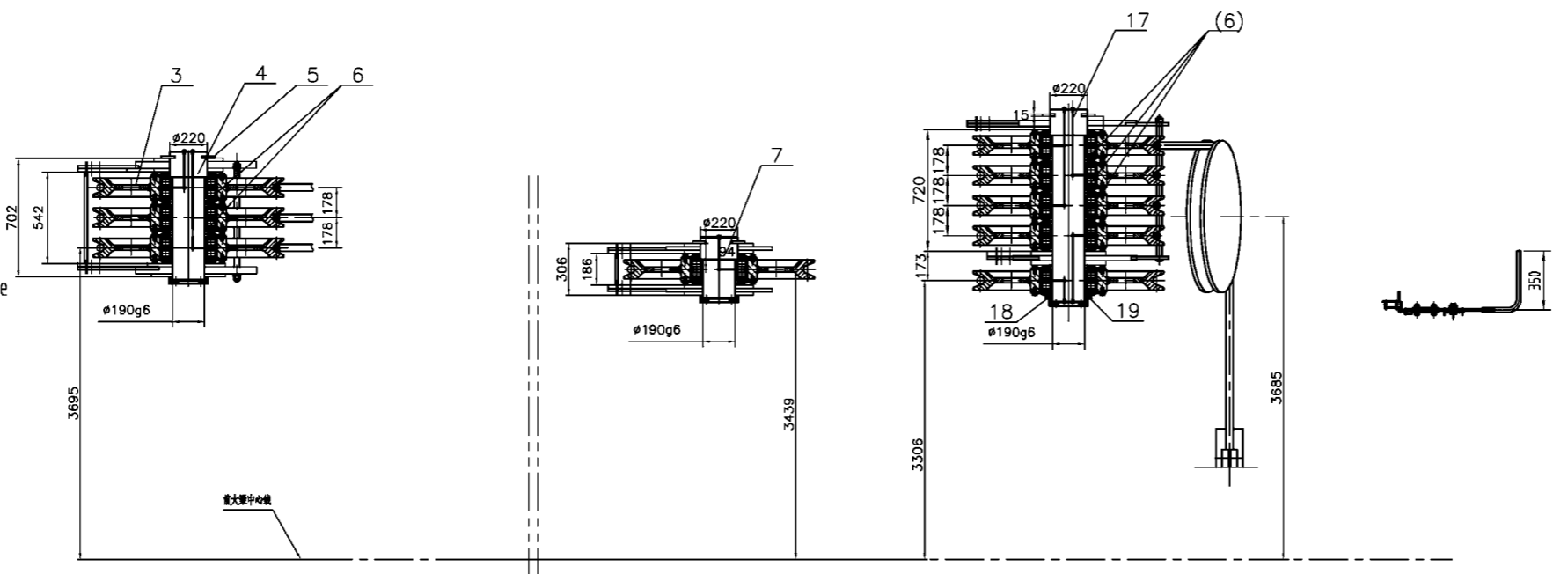
俯仰绕绳系统示意图
Boom hoist reeving system



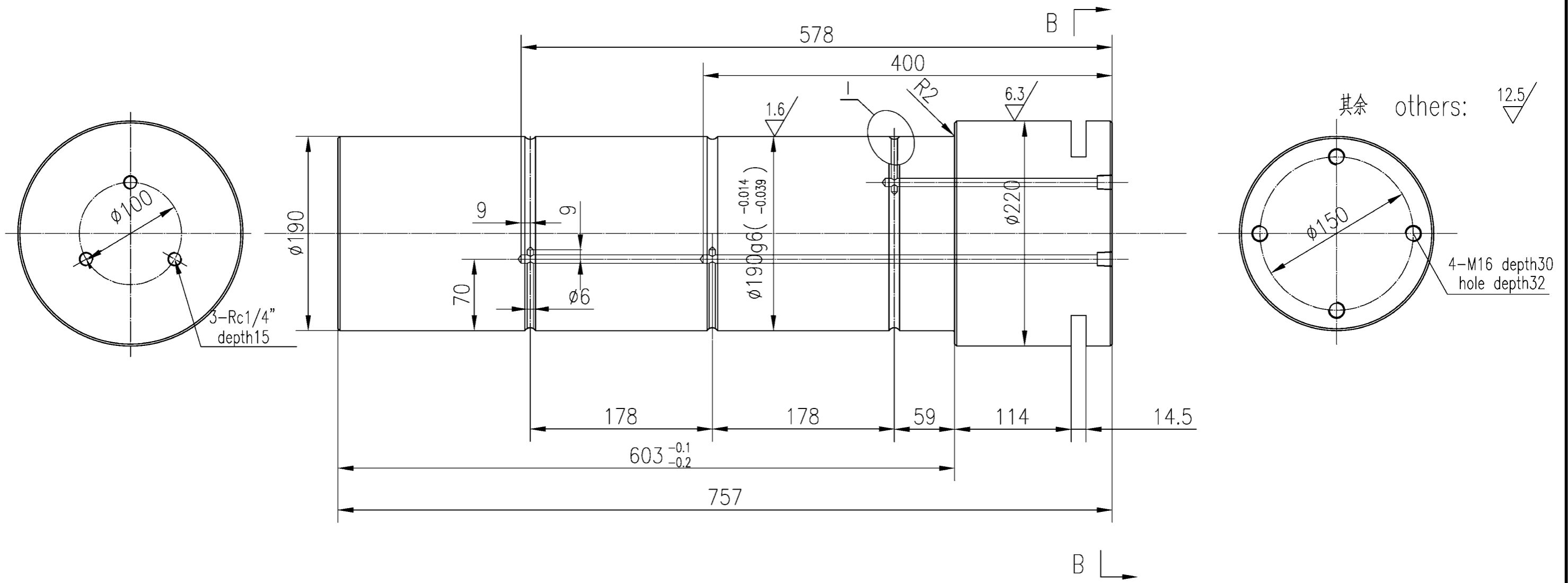
- 技术要求**
1. 安装前应清理滑轮轴上的油道, 确认通畅无阻方可进行装配.
 2. 安装后各滑轮应转动灵活, 无卡阻现象.
 3. 轴承加2#锂基润滑脂.
 4. 部件16(防松绳限位开关)的具体位置现场定.

technical requirement

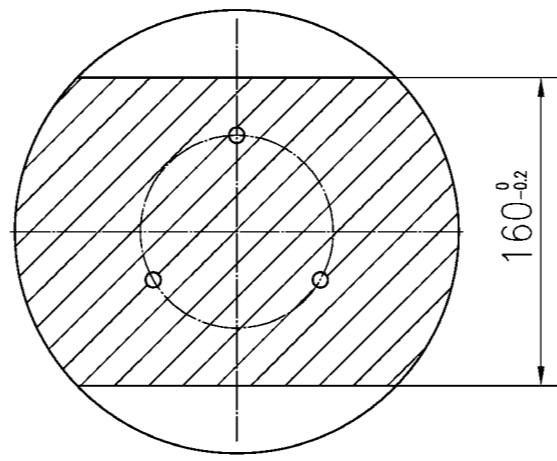
1. make sure clear the grease hole in shaft before installation
2. the pulley shall be smoothly work
3. grease type: 2#
3. piece 16 is used for limited switch and it shall be located on site



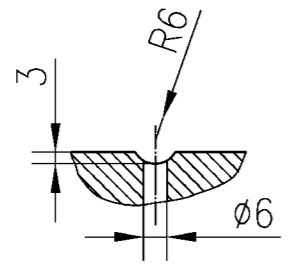
revision no.	Sub no.	description	quantity	date	sign		
02	D08			2005.02.28	xie		
B12		限位开关 limited switch ZLV7H335-11Z	2				
B11	GB889-86	螺母 nut M5	8		A2-7N(STA STL)		
B10	GB95-85	垫圈 washer 5	8		A2-7N(STA STL)		
B9	GB5782-86	螺栓 bolt M5X4.5	8		A2-7N(STA STL)		
B8	GB97.1-85	垫圈 20 washer	14.0Hv	12	热浸锌 HDG		
B7	GB889-86	尼龙锁紧螺母 M20 nut	8s	12	热浸锌 HDG		
B6	GB5782-86	螺栓 M20x130 bolt	8.8s	12	热浸锌 HDG		
B4	IWRC 6xFI(29)	钢丝绳 φ4.2 wire rope B级 L=750m	3260.4		进口		
B3		钢丝绳 wire φ3.5	4m		STA STL		
B2	GB32.1-88	螺栓 bolt M20x4.5	8.8S	24	热浸锌 HDG		
B1	JISB0203	油嘴 PT1/4"	20		STA STL		
23	UL250805	卡板2 clamp plate 2 Q235	4	2.5	10		
22	UL250822	限位支座 switch support 焊接件 welded	2	1	2		
21	UL25082100	抗磨块 anti-wear device 组件 packet	1	25	25		
20	UL250820	夹绳板 clip 焊接件 welded	2	21	42		
19	UL250819	轴套 4 sleeve Q235	10	2.5	25		
18	UL250818	挡板 plate Q235	2	3.7	7		
17	UL250817	轴 4 shaft 42CrMo	2	259	518		
16	UL25081600	防松绳限位装置 slack rope limiting device 组件 ass.	2	9.5	19		
15	UL25081500	滑轮架及 2 pulley assembly 组件 ass.	2	325	650		
14	UL250814	轴 3 shaft 42CrMo	2	62	124		
13	UL250813	轴套 3 sleeve Q235	2	3	6		
12	UL250812	轴套 2 sleeve Q235	2	1.5	3		
11	UL25081100	防绳槽罩5 peripheral guard 组件 ass.	2	11	22		
10	UL25081000	防绳槽罩4 peripheral guard 组件 ass.	2	10.6	21.2		
9	UL25080900	防绳槽罩3 peripheral guard 组件 ass.	2	7.3	14.6		
8	UL25080800	防绳槽罩2 peripheral guard 组件 ass.	2	71	14.2		
7	UL250807	轴 2 shaft 42CrMo	2	90	180		
6	UL250806	轴套 1 sleeve Q235	10	4.5	45		
5	UL250805	卡板1 clamp plate 1 Q235	12	2.5	30		
4	UL250804	轴 1 shaft 42CrMo	2	170	34.0		
3	UL25080300	滑轮架及 1 pulley assembly 组件 ass.	18	4.41	79.38		
2	UL250802	端盖 cover Q235	6	7.2	45.2		
1	UL25080100	防绳槽罩1 peripheral guard 组件 ass.	2	121.5	24.3		
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each weight	total weight	NOTE
PROJECT: Alabama2000t/h ship-unloader				DESIGN STAGE:	SCALE: 1:20		
ITEM NAME: 俯仰绕绳系统 Boom hoist reeving system				DRAW NO: UL250800			
ZPMC	DSGN	TRACE	APP.				
	DRAW	CHK	SET/CRANE		1		
	CHCK	VER.	WEIGHT		13710kg		



B-B



Detail I
1:2

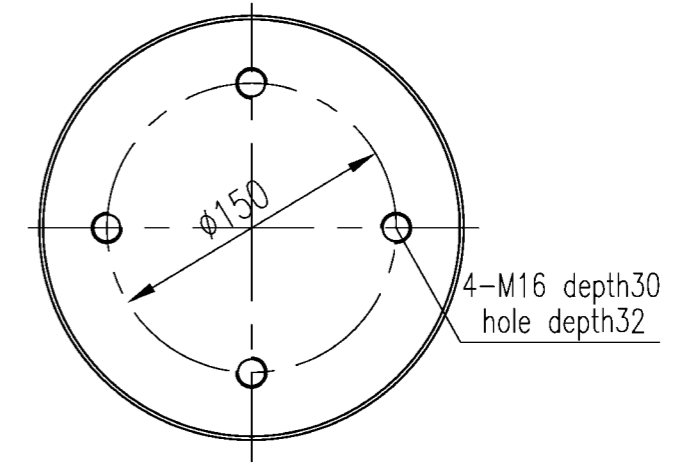
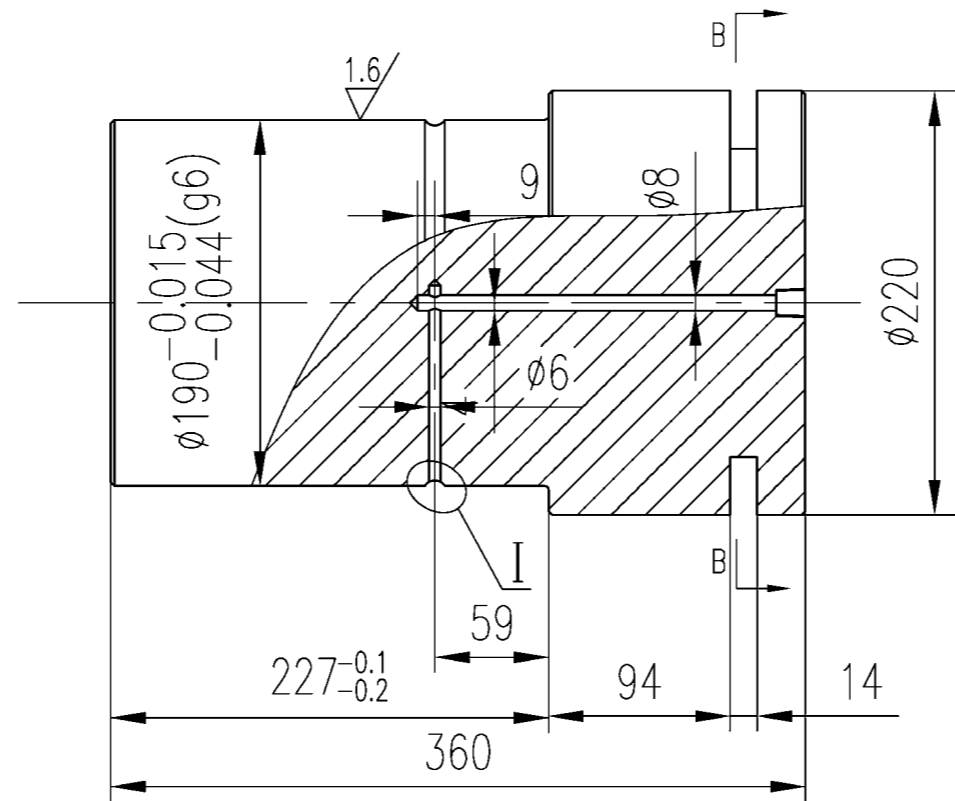
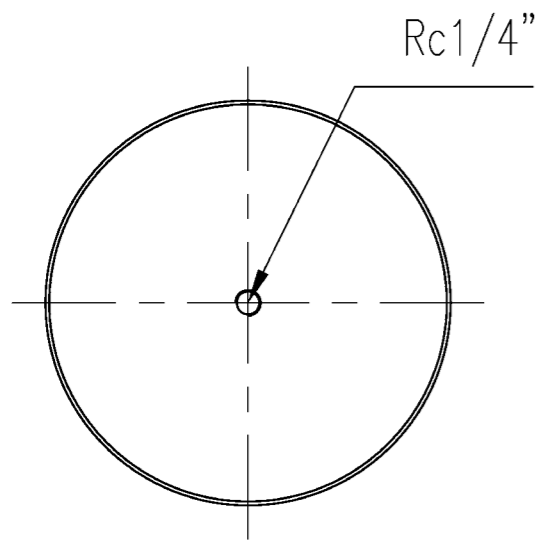


技术要求

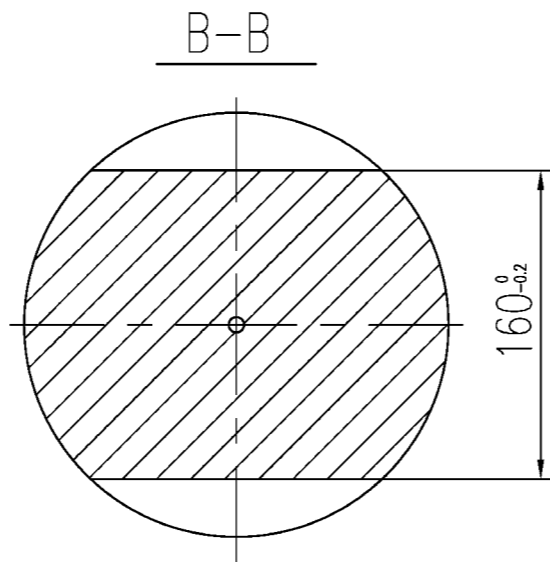
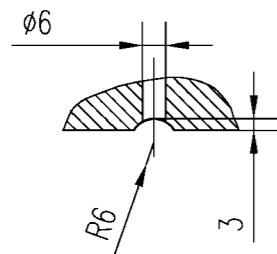
- 1. 倒角均为:2x45°.
 - 2. 调质:HB220~250.
- TECHNICAL REQUIREMENT
- 1. Chamfer:2x45°.
 - 2. Tempering and hardening:HB220~250.

01	D08			2005.02.28	xie	
revision no.	Sub no.	description		date	sign	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	WEIGHT	SCALE
4	UL250804	轴1 shaft1	42CrMo	2	2X170	1:4
ZPMC		DRAW	TECH.	TRACE		
		CHCK	STDD	CHCK		

其余 others: $\sqrt[12.5]{\quad}$



Detail I
1:2



技术要求

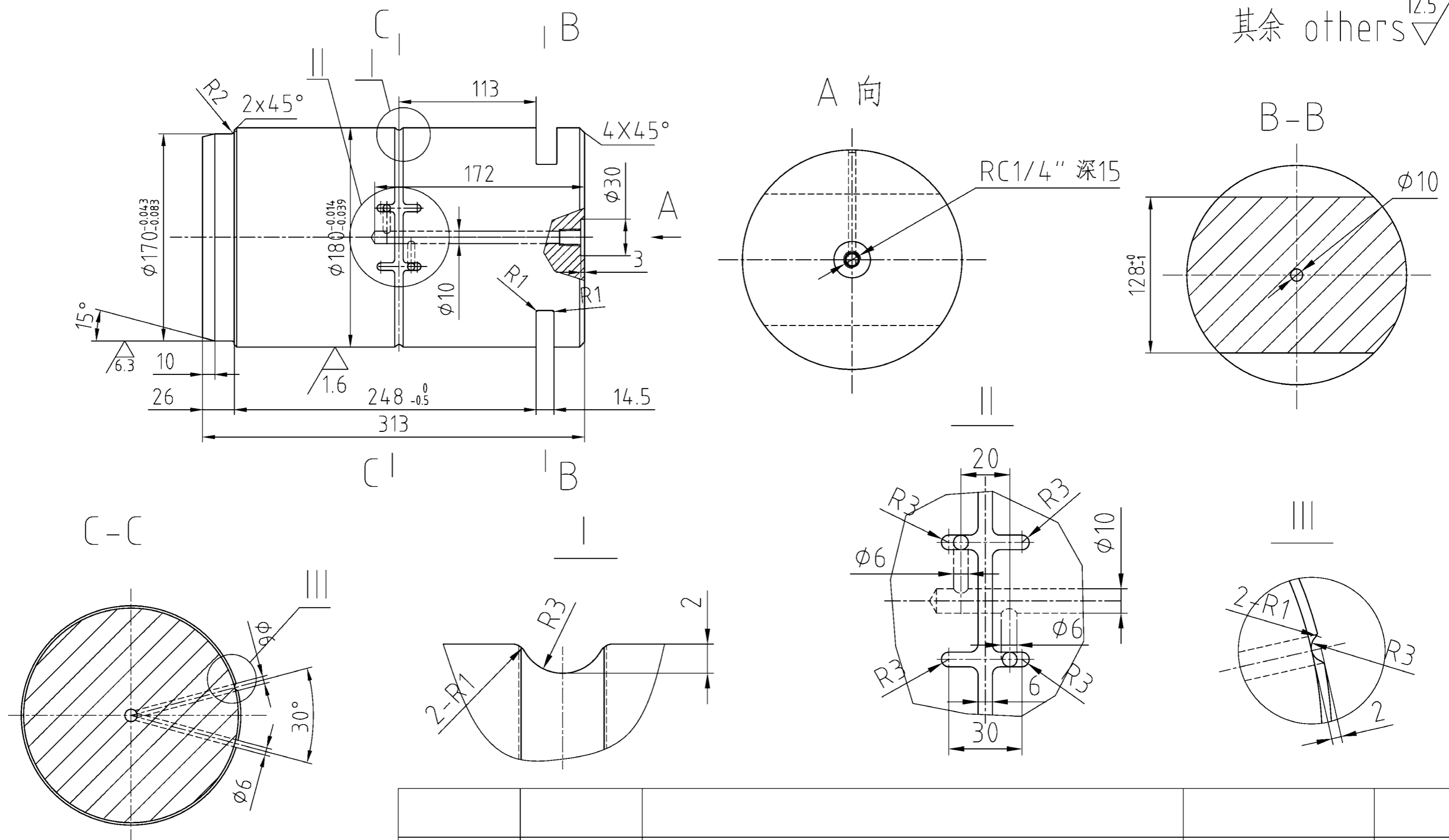
- 1.倒角均为: 2x45°.
- 2.圆角均为: R2.
- 3.调质: HB220~250.
- 4.去除油槽毛刺.

TECHNICAL REQUIREMENT

- 1.Chamfer: 2x45°.
- 2.Fillet: R2.
- 3.Tempering and hardening: HB220~250.
- 4.Remove the sharp edge of the oil grooves.

01	D08			2005.02.28	xie	
revision no.	Sub no.	description		date	sign	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	WEIGHT	SCALE
7	UL250807	轴2 shaft2	42CrMo	2	2X90	1:6
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

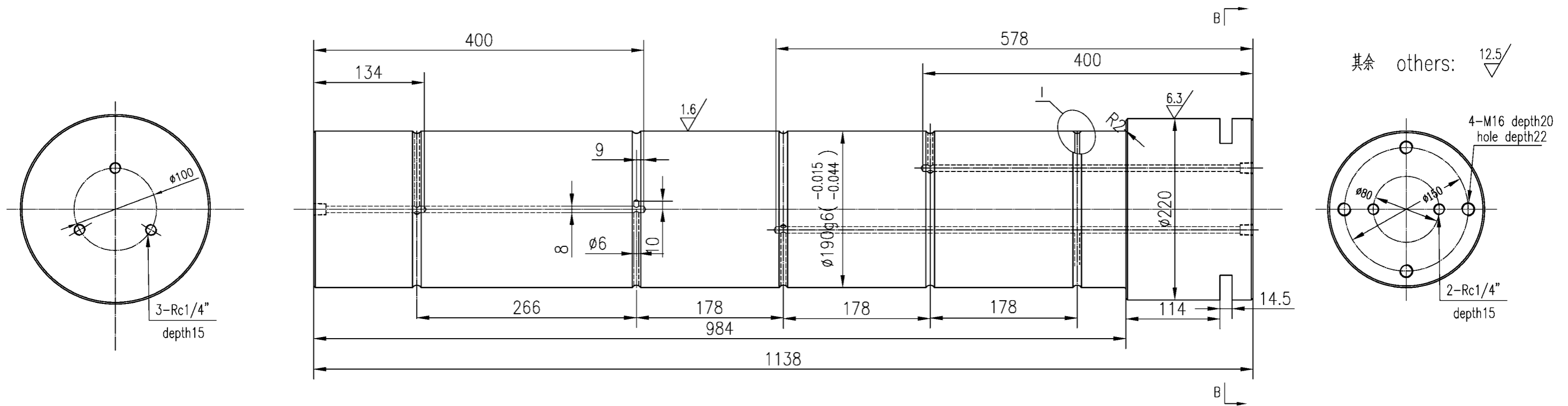
其余 others $\sqrt{12.5}$



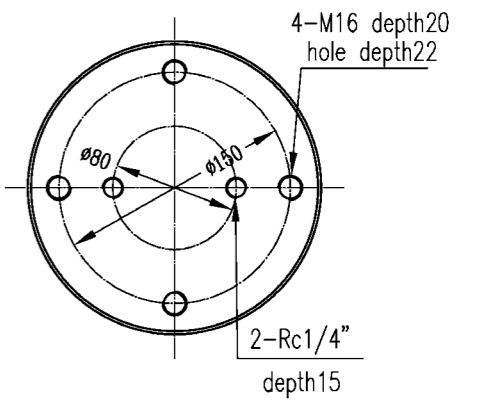
TECHNICAL REQUIREMENT
 1. Tempering and hardening: HB220 ~ 250.
 2. Remove the sharp edge, get through the oil grooves and daub antirust oil.

技术要求
 1. 调质处理 HB220 ~ 250
 2. 加工后去毛刺, 通油孔, 涂防锈油.

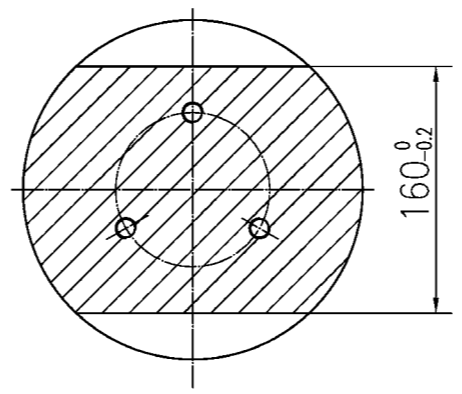
01	D08			2005.02.28	xie	
revision no.	Sub no.	description		date	sign	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	W'ONE W'TAL	SCALE
14	UL250814	轴 3 shaft 3	42CrMo	2	2x62	1:5
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



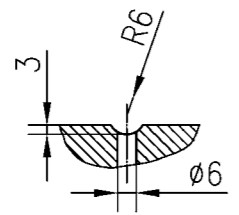
其余 others: $\nabla 12.5$



B-B

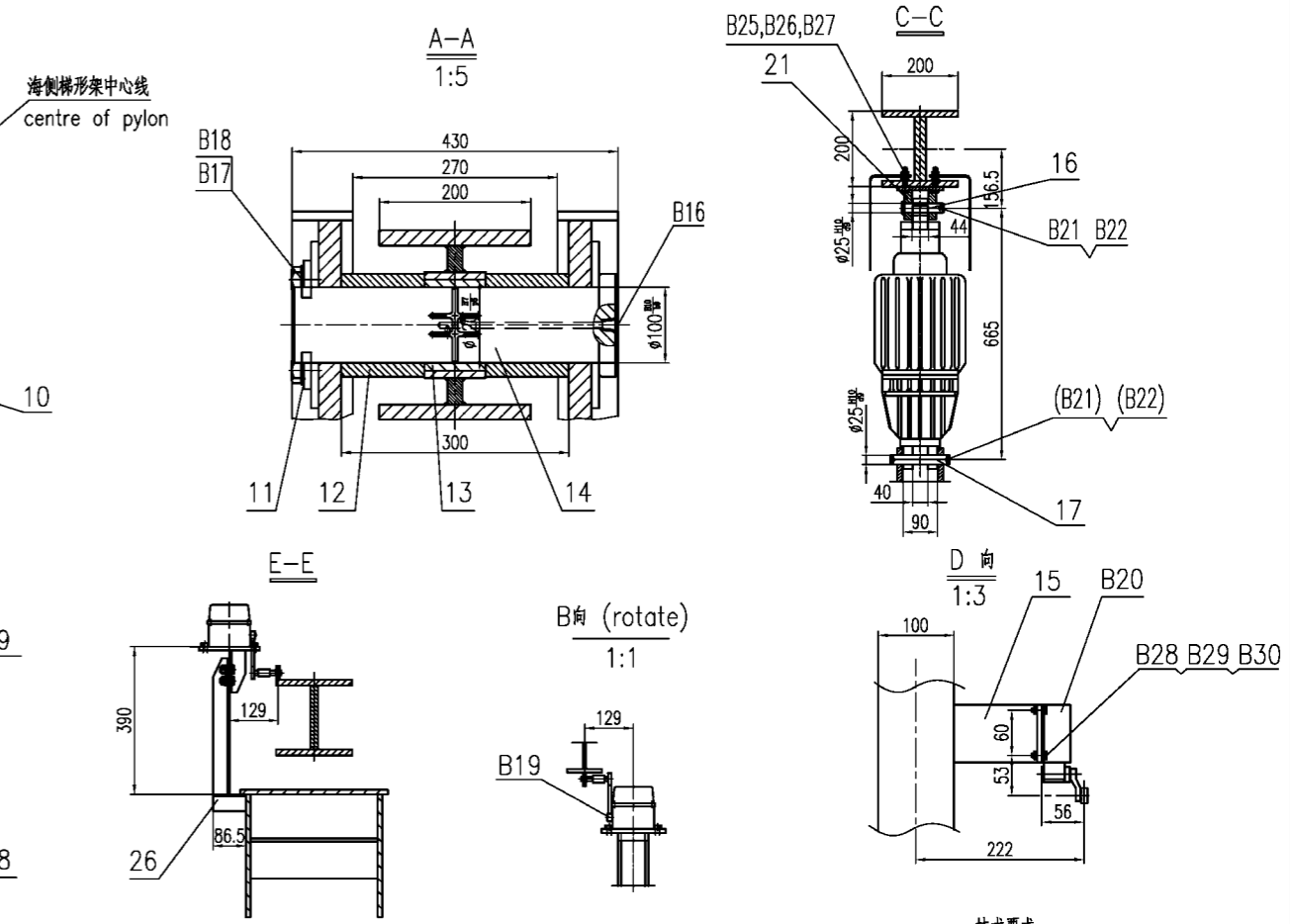
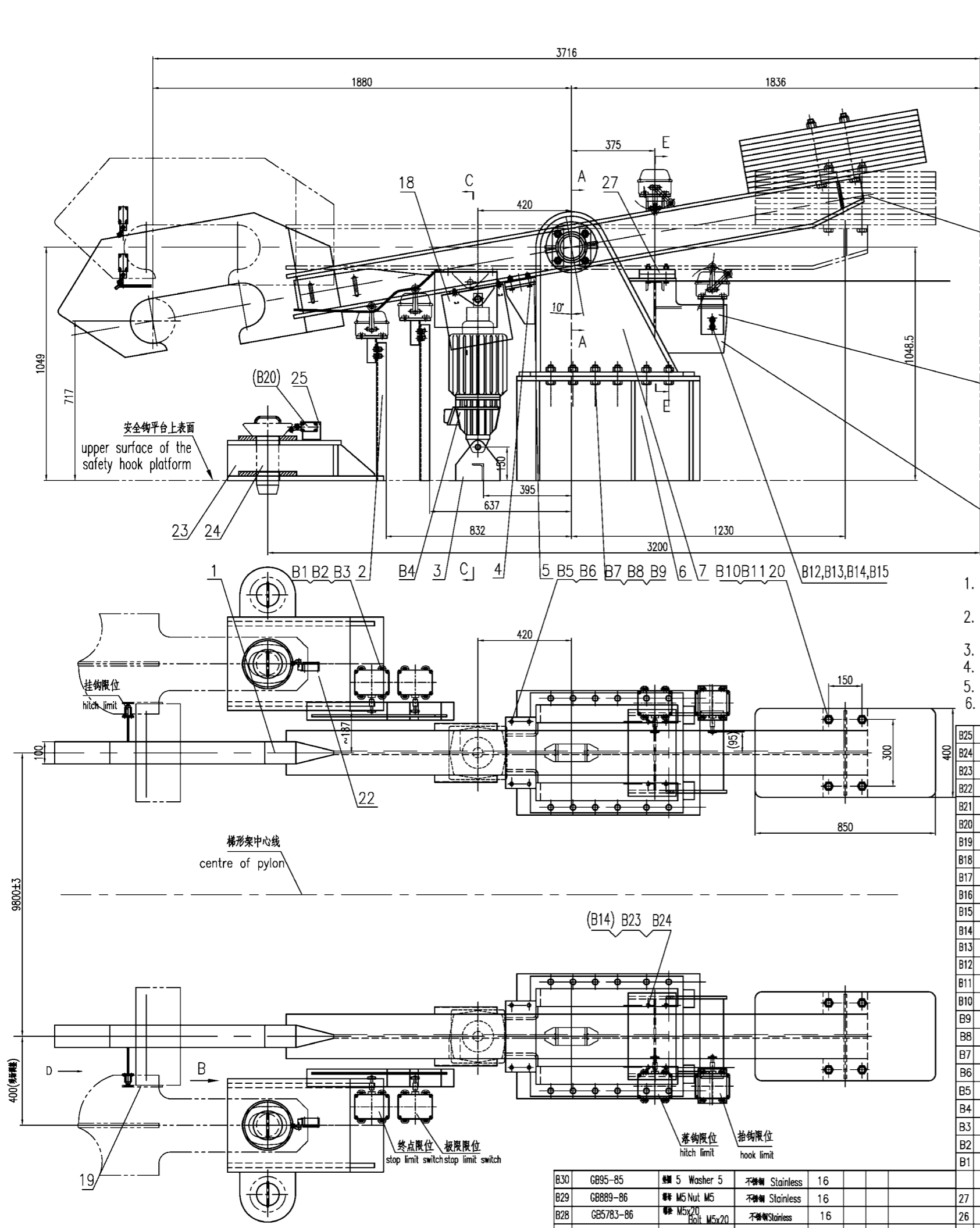


Detail I
1:2



技术要求
 1.倒角均为:2x45°.
 2.调质:HB220~250.
 TECHNICAL REQUIREMENT
 1.Chamfer:2x45°.
 2.Tempering and hardening:HB220~250.

01	D08			2005.02.28	xie	
revision no.	Sub no.	description		date	sign	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	WEIGHT	SCALE
17	UL250817	轴4 shaft2	42CrMo	2	2X259	1:4
ZPMC		DRAW	TECH.	TRACE		
		CHCK	STDD	CHCK		



TECHNICAL REQUIREMENT

- Before assembly, all rotational parts should be cleaned, then, apply lubrication grease to them.
- By way of adjusting the counterweight, make the centre of gravity of the boom latch be in front of the centre of gyration.
- When installation, all limit switches should be located and adjusted on site.
- The second and the eighth components should be adjusted and installed on site.
- There are two boom latches in total, they are symmetrical.
- B7 bolt's screwed down moment is 160N.m, screwed down on the cross.
- 装配前各运动关节应清除垃圾,并涂上润滑油。
- 调整配重,使物体综合重心落在支座支承点前方。
- 各行程开关应在现场调试对准位置时安装。
- 件2,8现场调试安装。
- 挂钩共2件,左右对称制作。

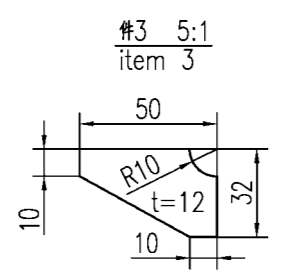
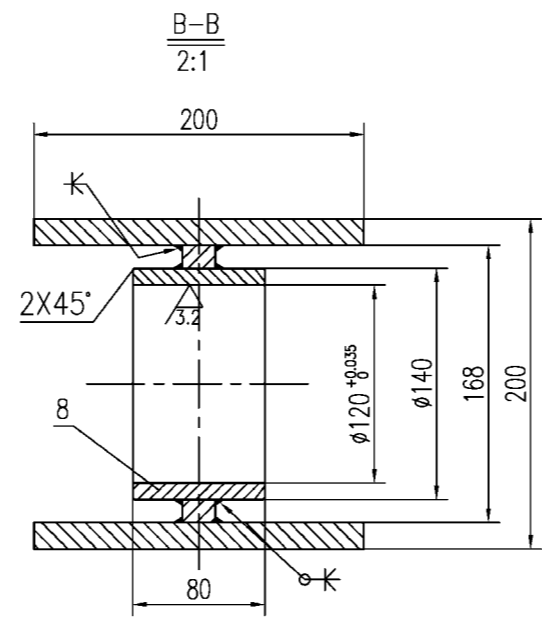
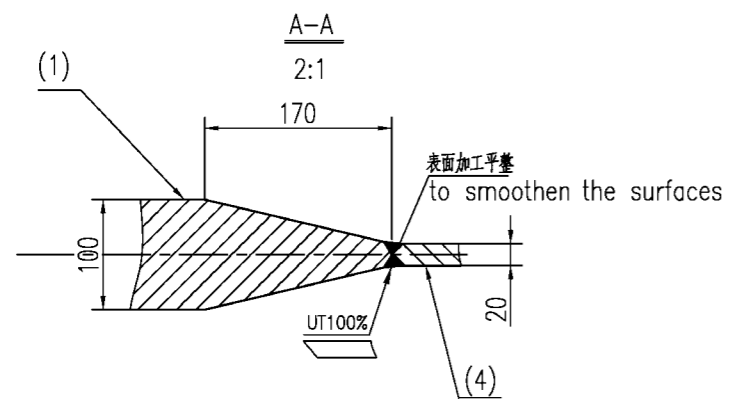
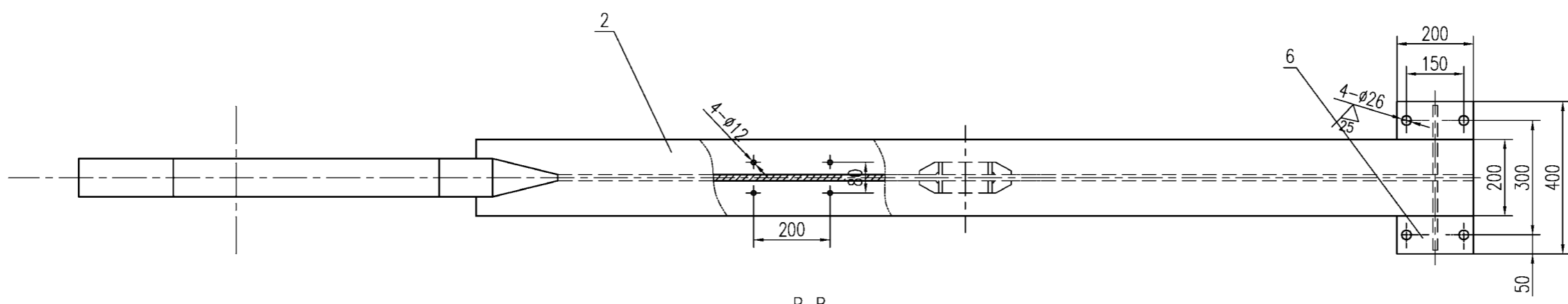
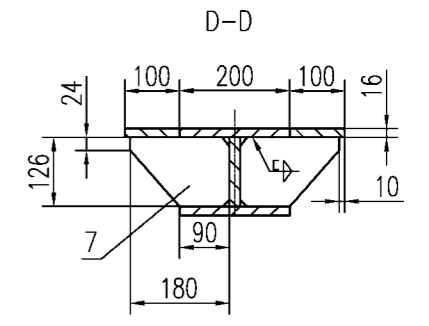
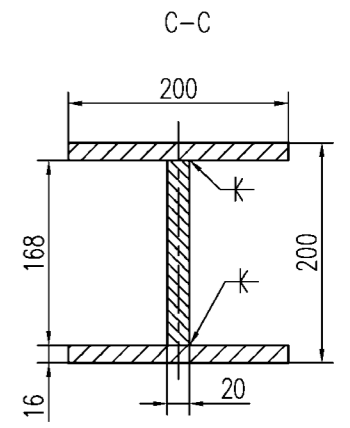
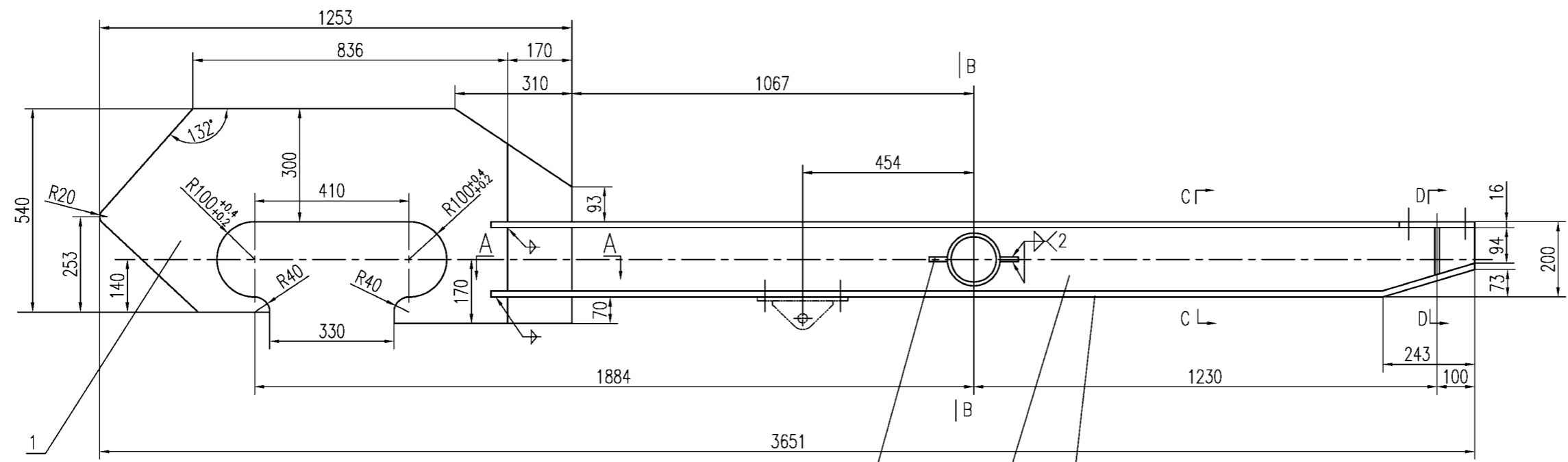
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
B25	GB5783-86	螺栓 M10x60 bolt	不锈钢 stainless steel	8			
B24	GB889-86	螺母 M12 nut	不锈钢 stainless steel	8		8	
B23	GB5780-86	螺栓 M12x75 bolt	不锈钢 stainless steel	8		8.8	
B22	GB91-76	开口销 φ6x40 split pin	不锈钢 stainless steel	4			
B21	GB95-85	垫圈 25 washer	达克罗 Dacro	6			
B20	ABB	限位开关 Z47H 335-112 limit switch	ABB	4			
B19	ABB	限位开关 TA064 12Y GB-985 range switch	ABB	8			
B18	GB97.1-85	垫圈 20 washer	达克罗 Dacro	8			
B17	GB32.1-88	螺栓 M20x30 bolt	达克罗 Dacro	8		8.8	
B16	PT1/4"	平头螺接管 nipple	不锈钢 stainless steel	2			
B15	GB97.1-85	垫圈 12 washer	不锈钢 stainless steel	4			
B14	GB95-85	垫圈 12 washer	不锈钢 stainless steel	12			
B13	GB5782-86	螺栓 M12x55 bolt	不锈钢 stainless steel	4			
B12	GB6170-86	螺母 M12 nut	不锈钢 stainless steel	4		8	
B11	GB95-85	垫圈 24 washer	达克罗 Dacro	8		200HV	
B10	GB889-86	螺母 M24 nut	达克罗 Dacro	8		8	
B9	GB/T1230-91	垫圈 24 washer	达克罗 Dacro	48		8	
B8	GB/T1229-91	螺母 M24 nut	达克罗 Dacro	24		8	
B7	GB/T1228-91	螺栓 M24x80 bolt	达克罗 Dacro	24		8.8	
B6	GB889-86	螺母 M12 nut	不锈钢 stainless steel	8		8	
B5	GB5780-86	螺栓 M12x55 bolt	不锈钢 stainless steel	8		8.8	
B4	YTD2000-80	推进器 thruster		2		ZPMC	
B3	GB95-85	垫圈 8 washer	不锈钢 stainless steel	64			
B2	GB889-86	螺母 M8 nut	不锈钢 stainless steel	32		8	
B1	GB5780-86	螺栓 M8x35 bolt	不锈钢 stainless steel	32		8.8	
B23	UL250923	底座 underframe	焊接件 weldment	2	139.6	279.2	
B22	UL250922	垫块 push block	焊接件 weldment	2	7.6	15.2	
B21	UL250921	连接块 connect support	焊接件 weldment	2	5.8	11.6	
B20	UL250920	螺栓 bolt M24x220	45	8	1.1	8.8	达克罗 Dacro
B19	UL250919	垫块 1 push block	焊接件 weldment	2	0.1	0.2	
B18	UL250918	罩盖 cover	1Cr18Ni9Ti	4	2.3	9.2	
B17	UL250917	销 pin	45	2	0.6	1.2	
B16	UL250916	销 1 pin 1	45	2	0.4	0.8	
B15	UL250915	底座 support	焊接件 weldment	2	0.47	0.94	
B14	UL250914	轴 shaft	42CrMo	2	27	54	
B13	UL250913	导向套 guide sleeve	ZQAL 9-4	2	2.2	4.4	
B12	UL250912	轴套 shaft sleeve	Q235	4	3.8	15.2	
B11	UL250911	衬板 plate	Q235	4	0.62	2.48	
B10	UL250910	配重 counterweight	Q235	14	5.8	81.2	
B9	UL250909	底座 support	焊接件 weldment	2	2.5	5	
B8	UL250908	底座 block support	焊接件 weldment	2	35.2	70.4	
B7	UL250907	底座 support	焊接件 weldment	2	308	616	
B6	UL250906	底座 underframe	焊接件 weldment	2	347.4	694.8	
B5	UL250905	衬块 flexible block	工业橡胶 rubber	2	0.8	1.6	
B4	UL250904	垫块 baking plate	Q235	2	1.4	2.8	
B3	UL250903	底座 motor underframe	焊接件 weldment	2	13.5	27	
B2	UL250902	底座 switch support	焊接件 weldment	2	17	34	
B1	UL250901	钩 hook	焊接件 weldment	2	570	1140	
B30	GB95-85	垫圈 5 Washer 5	不锈钢 Stainless	16			
B29	GB889-86	螺母 M5 Nut M5	不锈钢 Stainless	16			
B28	GB5783-86	螺栓 M5x20 Bolt M5x20	不锈钢 Stainless	16			
B27	GB95-85	垫圈 10 washer	不锈钢 stainless steel	16			
B26	GB6170-86	螺母 M10 nut	不锈钢 stainless steel	16			可派派派派派派派派
B25	UL250925	垫块 flexible block	工业橡胶 rubber	4	0.8	3.2	
B24	UL250924	底座 switch support	焊接件 weldment	2	5	10	
B23	UL250923	底座 switch support	焊接件 weldment	2	3.3	6.6	
B22	UL250922	销 pin	45	2	27	54	

PROJECT: Alabama 2000t/h shipunloader DESIGN STAGE: SCALE: 1:10

ITEM NAME: Boom Latch (安全钩) DRAW NO: UL250900

ZPMC DSGN TRACE APP. assmbly
DRAW CHCK VER. SET/CRANE 1
WEIGHT 3882Kg

others

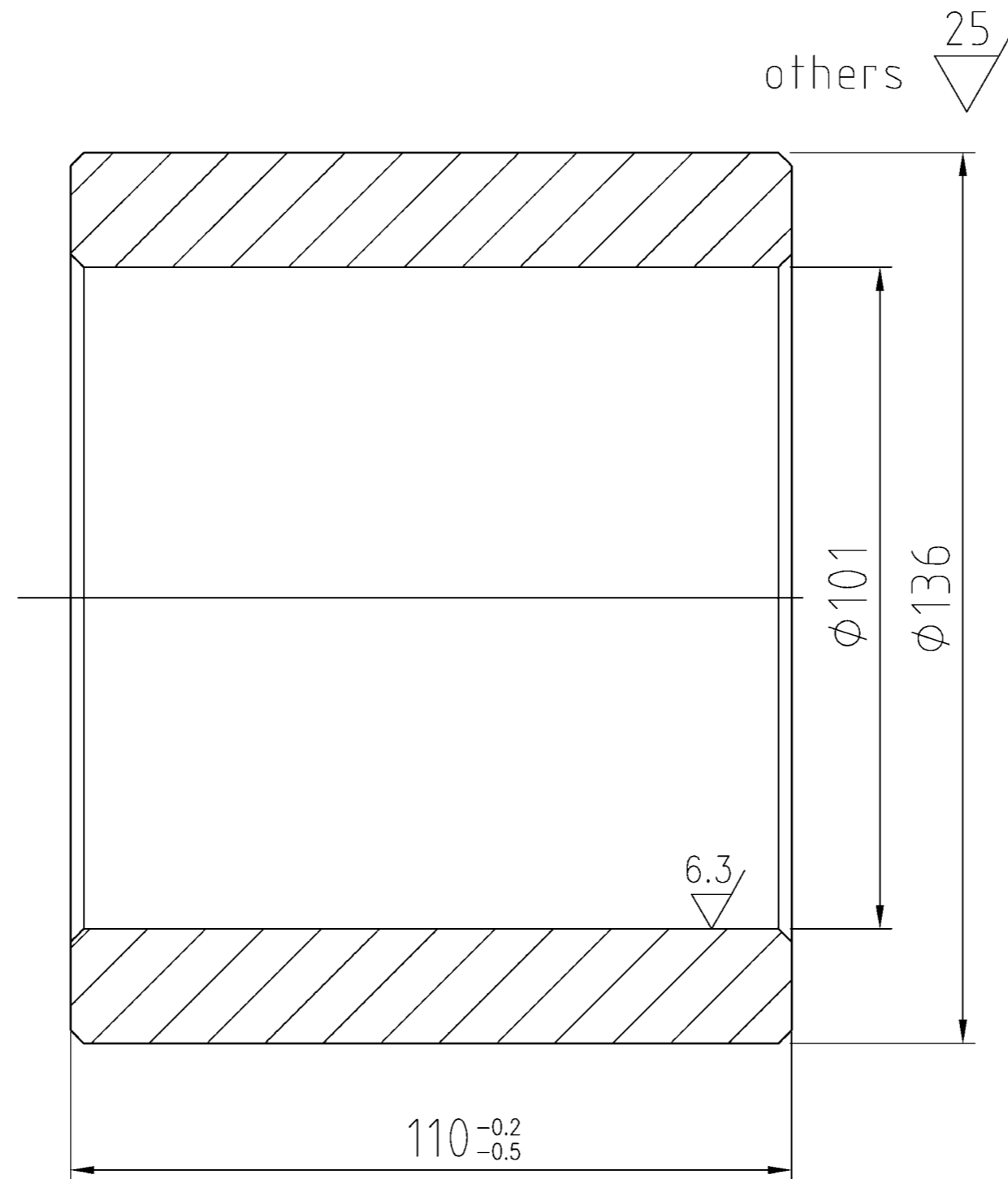


技术要求
 1. 焊条采用E4315, 对接焊缝均需开坡口焊缝, 并进行探伤, 其质量应不低于国标二级标准。
 2. 共二件, 左右对称各一件。
 3. 焊缝交汇处的筋板需倒角。

TECHNICAL REQUIREMENT
 1. Welding rod is E4315.
 At the interjunction of weld joints, the stiffening plate should be chamfered.
 2. There are two hooks in total, they are symmetrical.
 3. All butt weld should be grooved, penetrated completely and inspected.

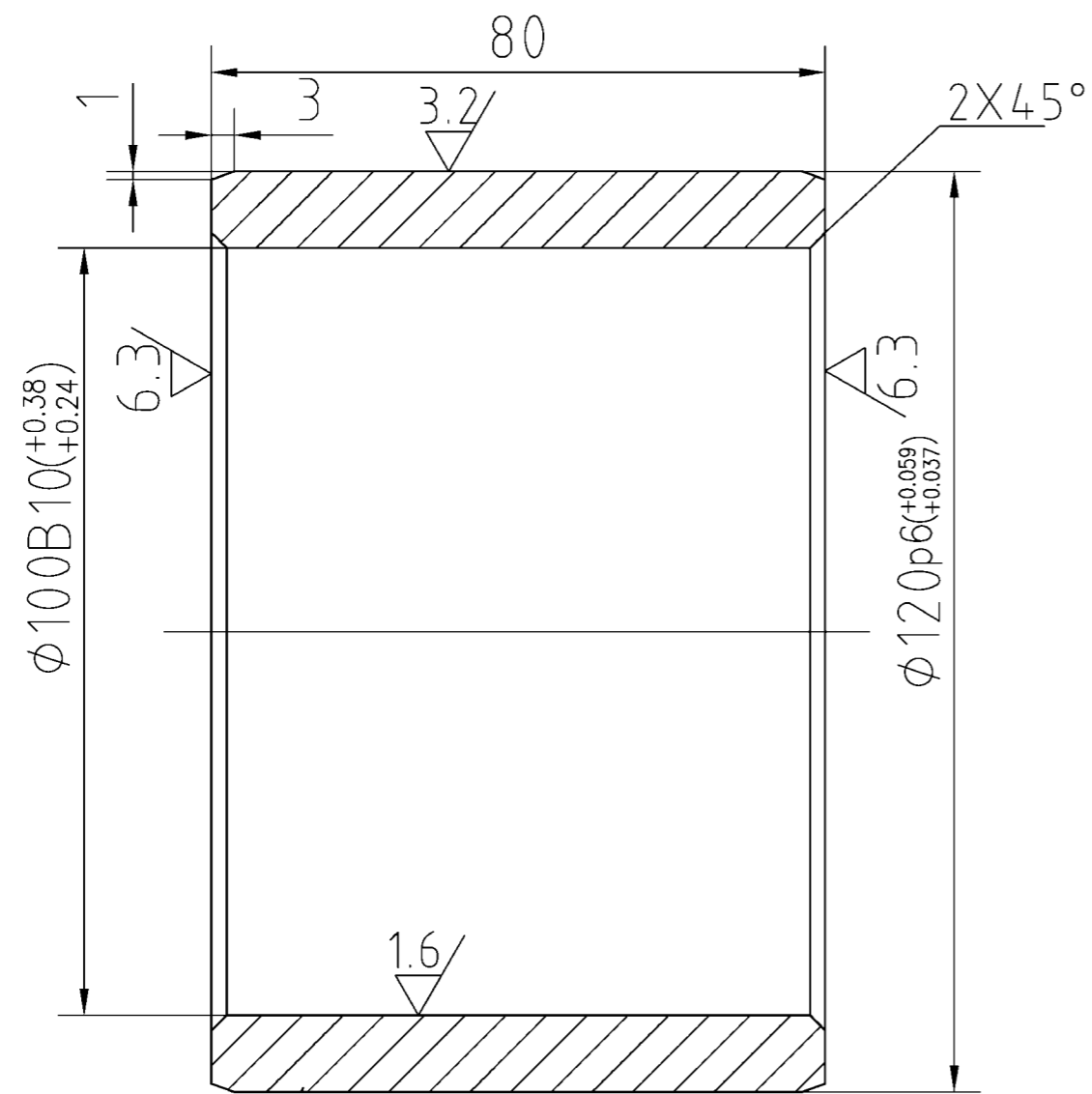
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each WEIGHT	total WEIGHT	NOTE
8		steel tube	无缝钢管 φ140X12X80	20	1	2.6	
7			-12x126x180	Q235	2	2.8	5.6
6			-16x100x200	Q235	2	3.7	7.4
5			-16x200x2623	A709/50-2	1		65.8
4			-20x168x2397	A709/50-2	1		63.2
3			-12x32x50	Q235	4	0.1	0.4
2			-16x200x2611	A709/50-2	1		65.5
1			-100x570x1260	A709/50-2	1		340

PROJECT: Alabama 2000t/h shipunloader		DESIGN STAGE:		SCALE: 1:10		
ITEM NAME: hook 挂钩		DRAW NO: UL250901				
ZPMC	DSGN		TRACE		APP.	weldment
	DRAW		CHCK		Q'TY/SET	2
	CHCK		VER.		SET/CRANE	570/1140



棱边倒角 $2 \times 45^\circ$.
the chamfers are $2 \times 45^\circ$.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	W'ONE	W'TAL	SCALE
12	UL250912	shaft sleeve 轴套	Q235	4	3.8	15.2	1:1
ZPMC	DRAW		TECH.		TRACE		
	CHCK		STDD		CHCK		

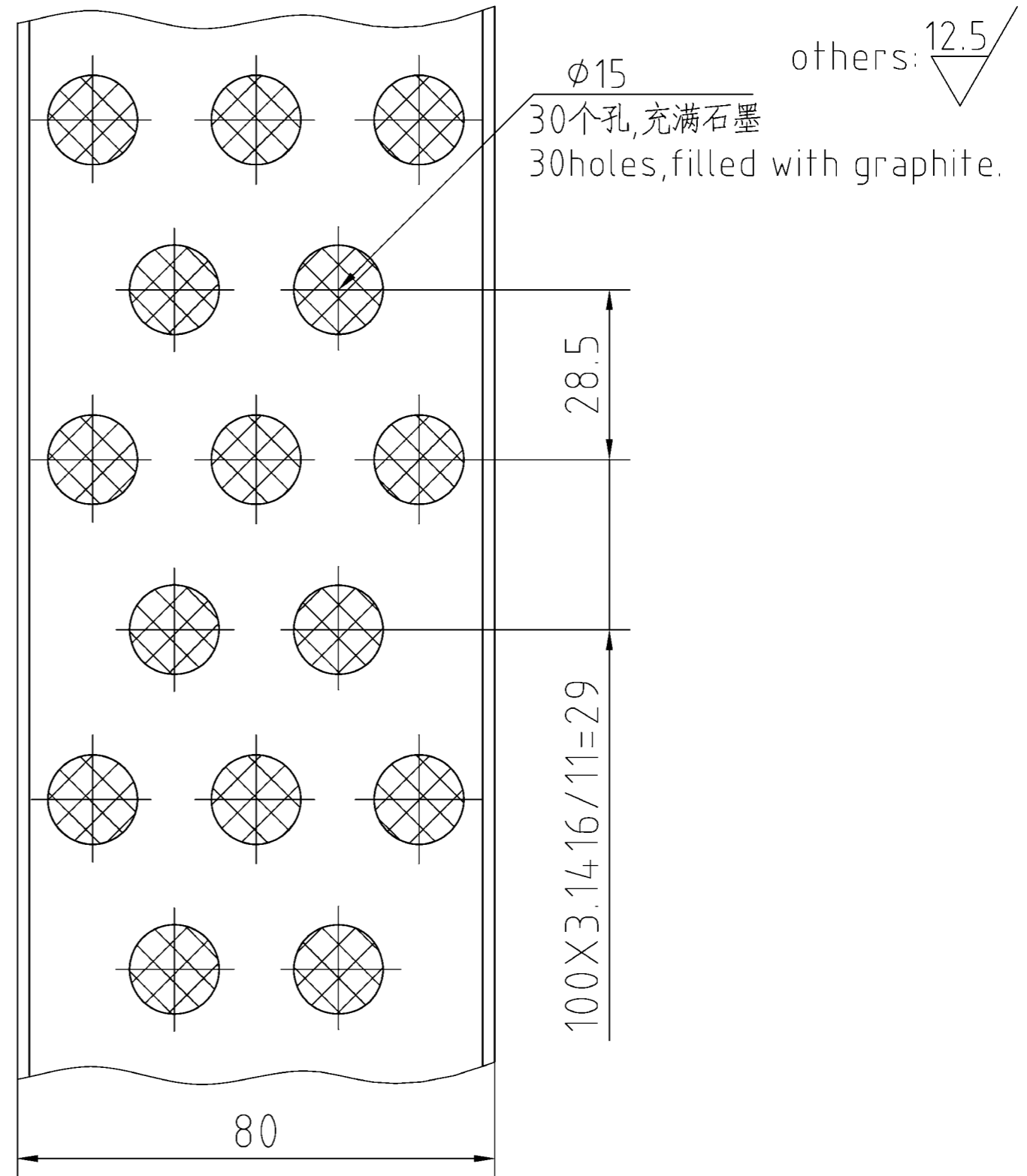


技术条件

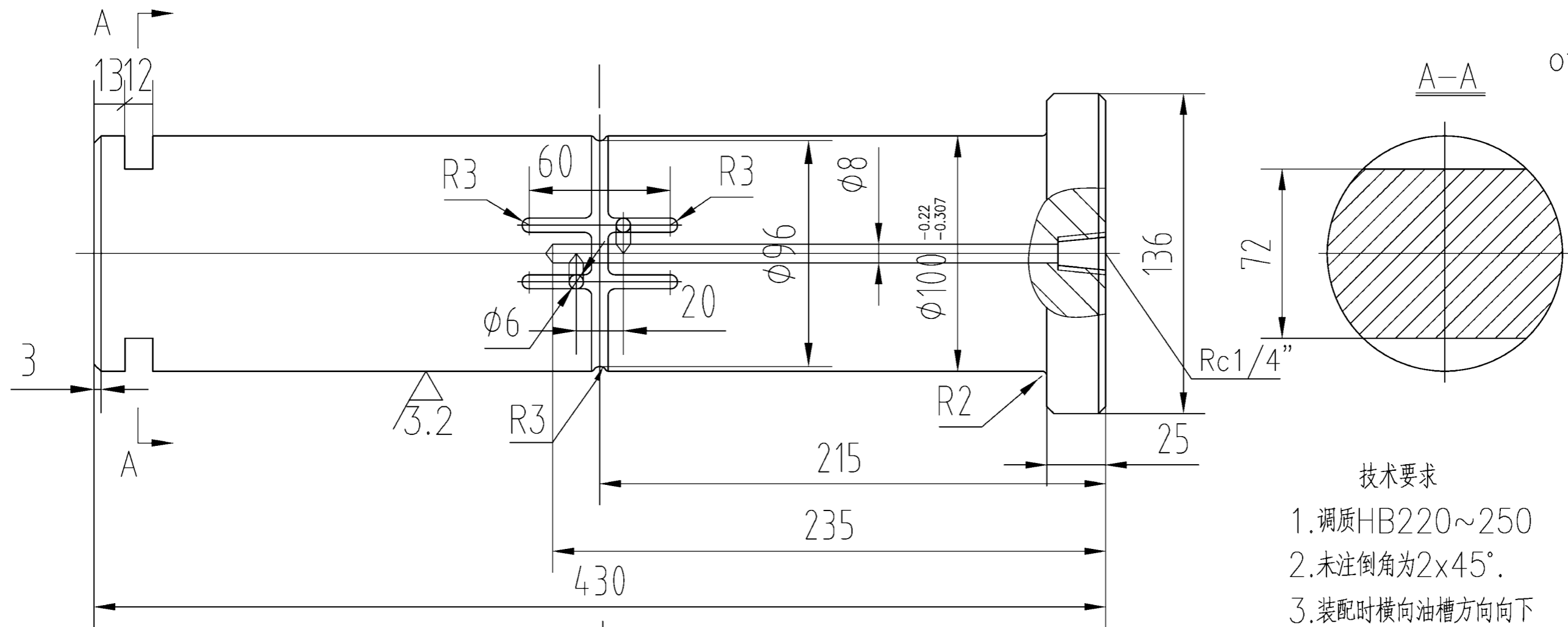
该轴承不给油时的许用比压P应大于每平方厘米650公斤;

Technical Requirement

When not adding oil the admitted unit pressure P should be more than 650kg/cm.



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
13	UL 250913	guide sleeve 滑动轴承	ZHA166-6-3-2	2	2.2 4.4	1:1
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

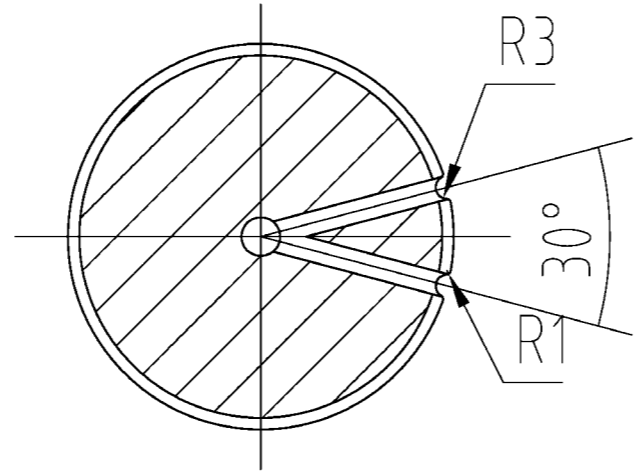


others $\sqrt{12.5}$

技术要求

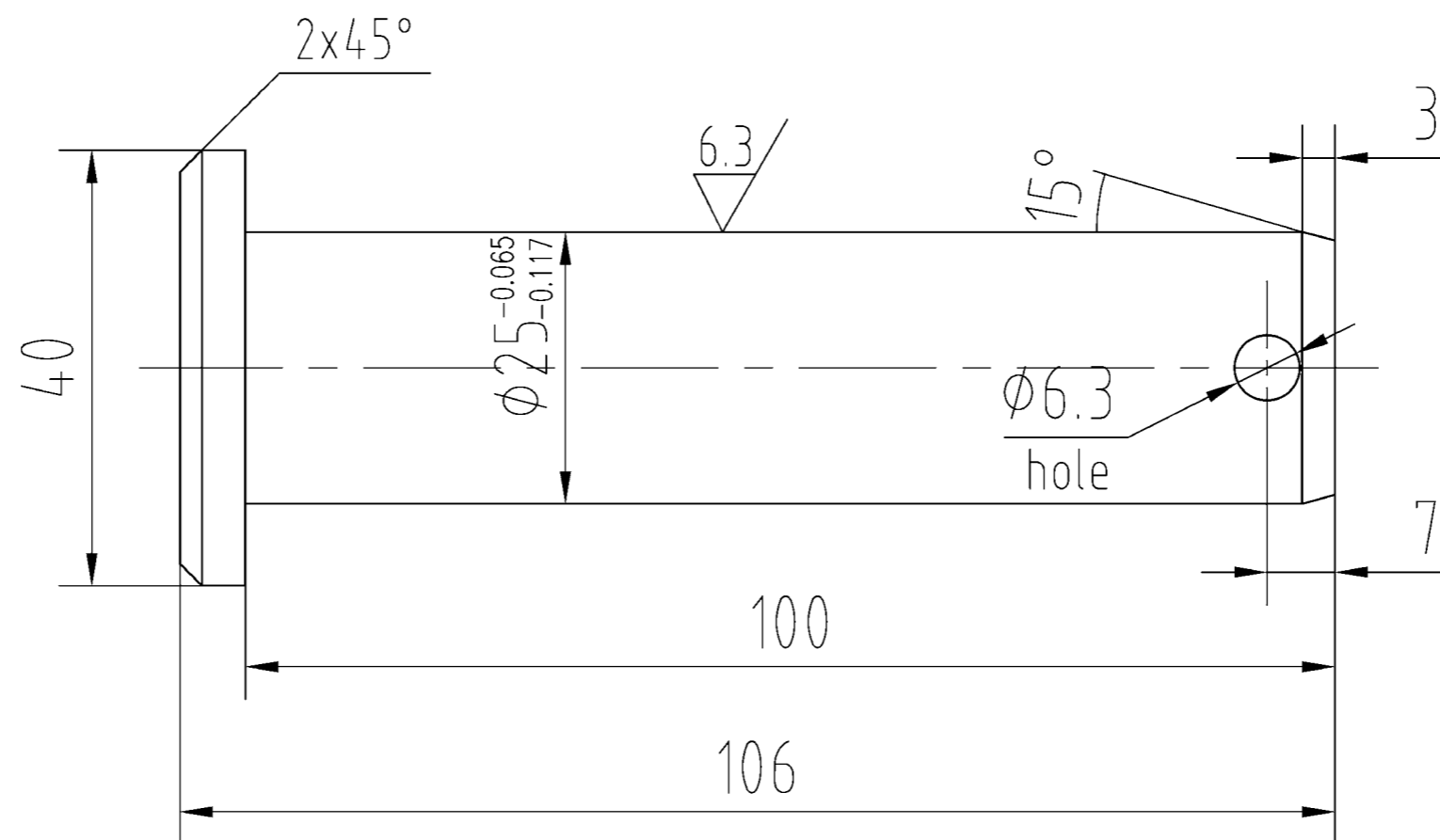
1. 调质HB220~250
2. 未注倒角为2x45°.
3. 装配时横向油槽方向向下

- Technical requirement
1. Hardening and tempering 220~250
 2. Unnoted chamfering: 2x45°.
 3. Transverse groove is adown when assemble.



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	W'ONE	W'TAL	SCALE
14	UL250914	shaft 轴	42CrMo	2	27	54	1:3
ZPMC	DRAW		TECH.		TRACE		
	CHCK		STDD		CHCK		

others $\frac{12.5}{\nabla}$

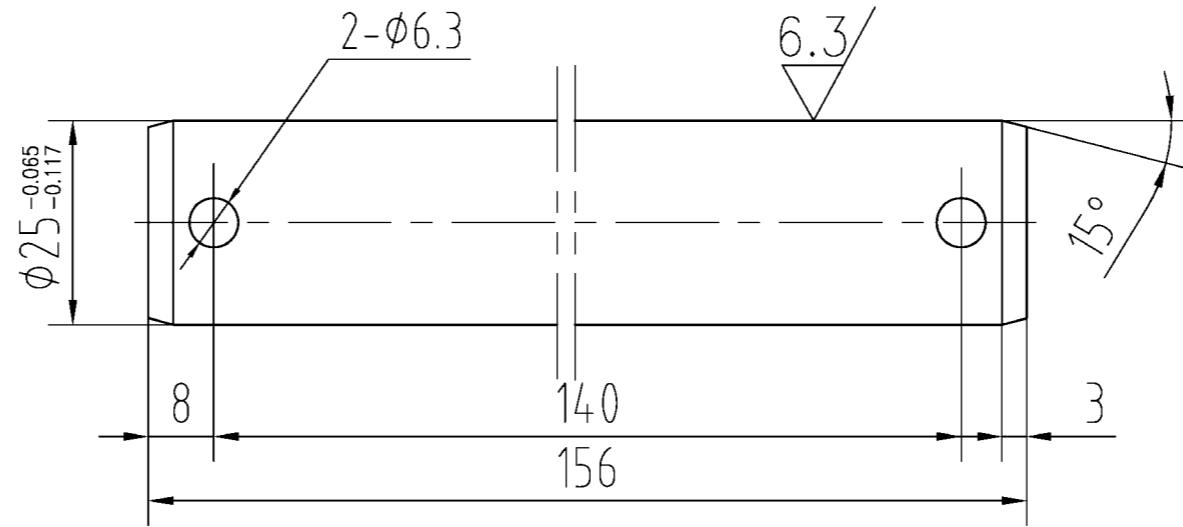


调质处理:HB220~255.

Hardening and tempering 220~250

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	W'ONE	W'TAL	SCALE
16	UL250916	pin 1 销1	45	2	0.4	0.8	1:1
ZPMC	DRAW		TECH.		TRACE		
	CHCK		STDD		CHCK		

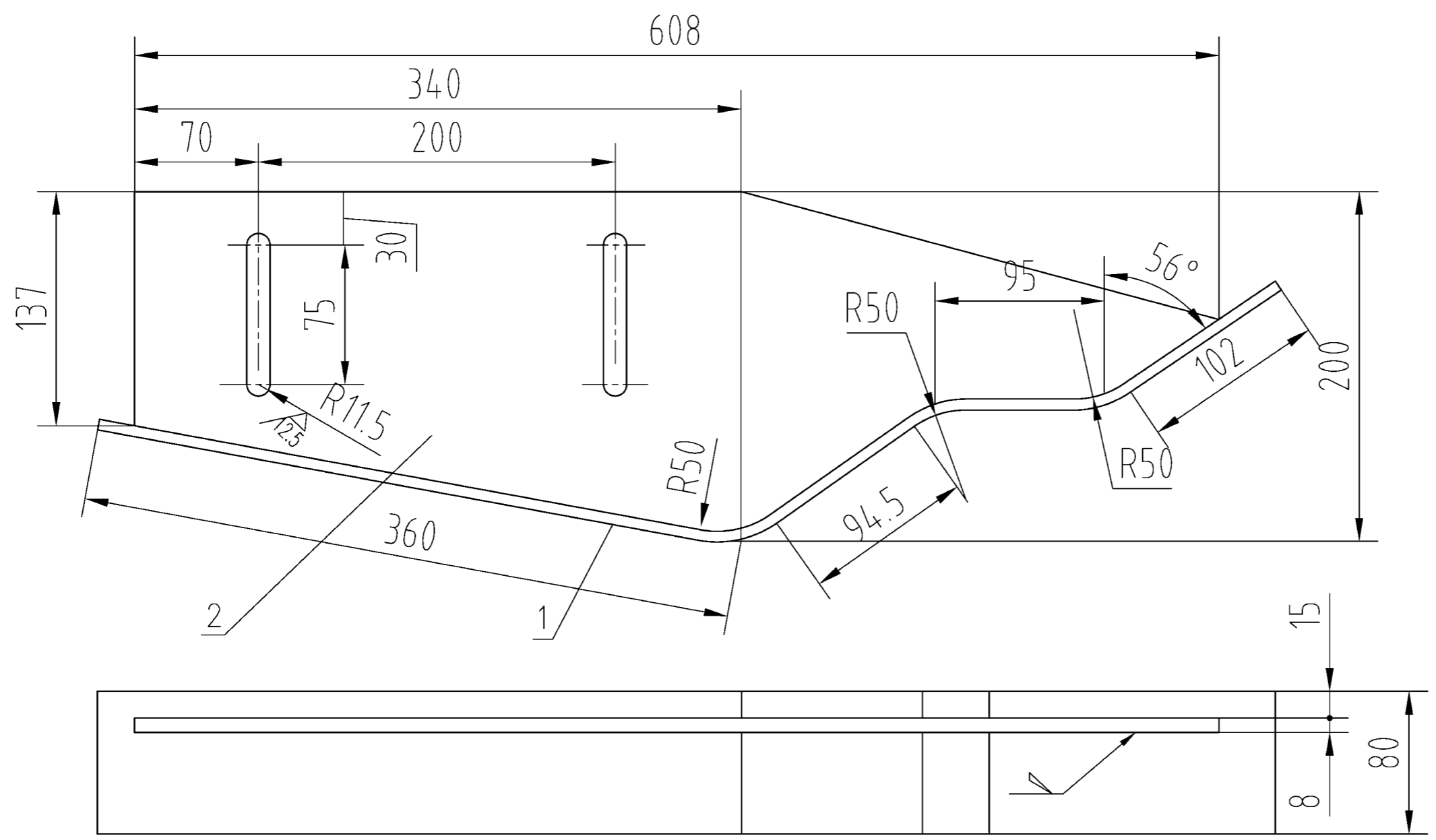
others $\frac{12.5}{\nabla}$



调质:HB220~250.
Hardening and tempering 220~250

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	W'ONE	NEW'TAL	SCALE
17	UL250917	pin 销	45	2	0.6	1.2	1:1
ZPMC	DRAW		TECH.		TRACE		
	CHCK		STDD		CHCK		

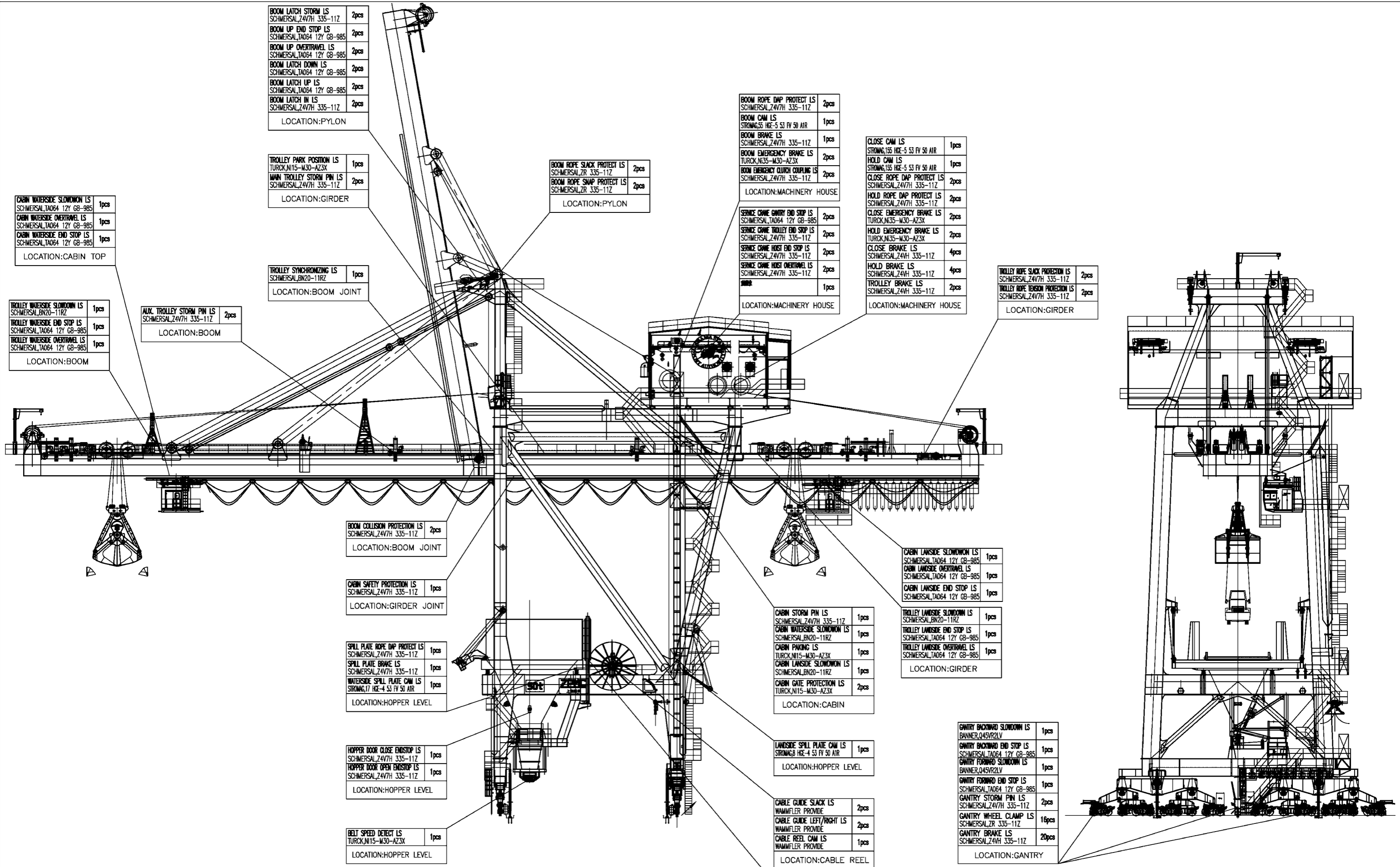
others:



本件共两件,对称制作

Two items in total, made symmetrically

2		-8x191x604	Q235	1	4.9	4.9	
1		-8x80x710	Q235	1	2.7	2.7	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	W'ONE	NEW'TAL	SCALE
22	UL250922	push block 撞块	Q235	2	7.6	15.2	1:3
ZPMC		DRAW	TECH.	TRACE			
		CHCK	STDD	CHCK			



BOOM LATCH STORM LS SCHMERSAL_Z4V7H 335-11Z	2pcs
BOOM UP END STOP LS SCHMERSAL_TA064 12Y GB-985	2pcs
BOOM UP OVERTRAVEL LS SCHMERSAL_TA064 12Y GB-985	2pcs
BOOM LATCH DOWN LS SCHMERSAL_TA064 12Y GB-985	2pcs
BOOM LATCH UP LS SCHMERSAL_TA064 12Y GB-985	2pcs
BOOM LATCH IN LS SCHMERSAL_Z4V7H 335-11Z	2pcs
LOCATION:PYLON	

CABIN WATERSIDE SLOWDOWN LS SCHMERSAL_TA064 12Y GB-985	1pcs
CABIN WATERSIDE OVERTRAVEL LS SCHMERSAL_TA064 12Y GB-985	1pcs
CABIN WATERSIDE END STOP LS SCHMERSAL_TA064 12Y GB-985	1pcs
LOCATION:CABIN TOP	

TROLLEY WATERSIDE SLOWDOWN LS SCHMERSAL_BN20-11RZ	1pcs
TROLLEY WATERSIDE END STOP LS SCHMERSAL_TA064 12Y GB-985	1pcs
TROLLEY WATERSIDE OVERTRAVEL LS SCHMERSAL_TA064 12Y GB-985	1pcs
LOCATION:BOOM	

TROLLEY PARK POSITION LS TURCK_N15-M30-AZ3X	1pcs
MAIN TROLLEY STORM PIN LS SCHMERSAL_Z4V7H 335-11Z	2pcs
LOCATION:GIRDER	

TROLLEY SYNCHRONIZING LS SCHMERSAL_BN20-11RZ	1pcs
LOCATION:BOOM JOINT	

AUX. TROLLEY STORM PIN LS SCHMERSAL_Z4V7H 335-11Z	2pcs
LOCATION:BOOM	

BOOM ROPE SLACK PROTECT LS SCHMERSAL_ZR 335-11Z	2pcs
BOOM ROPE SNAP PROTECT LS SCHMERSAL_ZR 335-11Z	2pcs
LOCATION:PYLON	

BOOM ROPE DAP PROTECT LS SCHMERSAL_Z4V7H 335-11Z	2pcs
BOOM CAM LS STROMAG.8 HEE-5 53 FV 50 AIR	1pcs
BOOM BRAKE LS SCHMERSAL_Z4V7H 335-11Z	1pcs
BOOM EMERGENCY BRAKE LS TURCK_N15-M30-AZ3X	2pcs
BOOM EMERGENCY OVRCH COUPLING LS SCHMERSAL_Z4V7H 335-11Z	2pcs
LOCATION:MACHINERY HOUSE	

SERVICE CRANE GENTRY END STOP LS SCHMERSAL_TA064 12Y GB-985	2pcs
SERVICE CRANE TROLLEY END STOP LS SCHMERSAL_Z4V7H 335-11Z	2pcs
SERVICE CRANE HOST END STOP LS SCHMERSAL_Z4V7H 335-11Z	2pcs
SERVICE CRANE HOST OVERTRAVEL LS SCHMERSAL_Z4V7H 335-11Z	2pcs
STOP	1pcs
LOCATION:MACHINERY HOUSE	

CLOSE CAM LS STROMAG.155 HEE-5 53 FV 50 AIR	1pcs
HOLD CAM LS STROMAG.155 HEE-5 53 FV 50 AIR	1pcs
CLOSE ROPE DAP PROTECT LS SCHMERSAL_Z4V7H 335-11Z	2pcs
HOLD ROPE DAP PROTECT LS SCHMERSAL_Z4V7H 335-11Z	2pcs
CLOSE EMERGENCY BRAKE LS TURCK_N15-M30-AZ3X	2pcs
HOLD EMERGENCY BRAKE LS TURCK_N15-M30-AZ3X	2pcs
CLOSE BRAKE LS SCHMERSAL_Z4VH 335-11Z	4pcs
HOLD BRAKE LS SCHMERSAL_Z4VH 335-11Z	4pcs
TROLLEY BRAKE LS SCHMERSAL_Z4VH 335-11Z	2pcs
LOCATION:MACHINERY HOUSE	

TROLLEY ROPE SLACK PROTECTION LS SCHMERSAL_Z4V7H 335-11Z	2pcs
TROLLEY ROPE TENSION PROTECTION LS SCHMERSAL_Z4V7H 335-11Z	2pcs
LOCATION:GIRDER	

BOOM COLLISION PROTECTION LS SCHMERSAL_Z4V7H 335-11Z	2pcs
LOCATION:BOOM JOINT	

CABIN SAFETY PROTECTION LS SCHMERSAL_Z4V7H 335-11Z	1pcs
LOCATION:GIRDER JOINT	

SPILL PLATE ROPE DAP PROTECT LS SCHMERSAL_Z4V7H 335-11Z	1pcs
SPILL PLATE BRAKE LS SCHMERSAL_Z4V7H 335-11Z	1pcs
WATERSIDE SPILL PLATE CAM LS STROMAG.17 HEE-4 53 FV 50 AIR	1pcs
LOCATION:HOPPER LEVEL	

HOPPER DOOR CLOSE ENDSTOP LS SCHMERSAL_Z4V7H 335-11Z	1pcs
HOPPER DOOR OPEN ENDSTOP LS SCHMERSAL_Z4V7H 335-11Z	1pcs
LOCATION:HOPPER LEVEL	

BELT SPEED DETECT LS TURCK_N15-M30-AZ3X	1pcs
LOCATION:HOPPER LEVEL	

CABIN STORM PIN LS SCHMERSAL_Z4V7H 335-11Z	1pcs
CABIN WATERSIDE SLOWDOWN LS SCHMERSAL_BN20-11RZ	1pcs
CABIN PARKING LS TURCK_N15-M30-AZ3X	1pcs
CABIN LANESIDE SLOWDOWN LS SCHMERSAL_BN20-11RZ	1pcs
CABIN GATE PROTECTION LS TURCK_N15-M30-AZ3X	2pcs
LOCATION:CABIN	

CABIN LANESIDE SLOWDOWN LS SCHMERSAL_TA064 12Y GB-985	1pcs
CABIN LANESIDE OVERTRAVEL LS SCHMERSAL_TA064 12Y GB-985	1pcs
CABIN LANESIDE END STOP LS SCHMERSAL_TA064 12Y GB-985	1pcs
TROLLEY LANESIDE SLOWDOWN LS SCHMERSAL_BN20-11RZ	1pcs
TROLLEY LANESIDE END STOP LS SCHMERSAL_TA064 12Y GB-985	1pcs
TROLLEY LANESIDE OVERTRAVEL LS SCHMERSAL_TA064 12Y GB-985	1pcs
LOCATION:GIRDER	

LANESIDE SPILL PLATE CAM LS STROMAG.8 HEE-4 53 FV 50 AIR	1pcs
LOCATION:HOPPER LEVEL	

CABLE GUIDE SLACK LS WAMFLER PROVIDE	2pcs
CABLE GUIDE LEFT/RIGHT LS WAMFLER PROVIDE	2pcs
CABLE REEL CAM LS WAMFLER PROVIDE	1pcs
LOCATION:CABLE REEL	

HOPPER WINDOWALL CAM LS STROMAG.8 HEE-4 53 FV 50 AIR	1pcs
LOCATION:HOPPER LEVEL	

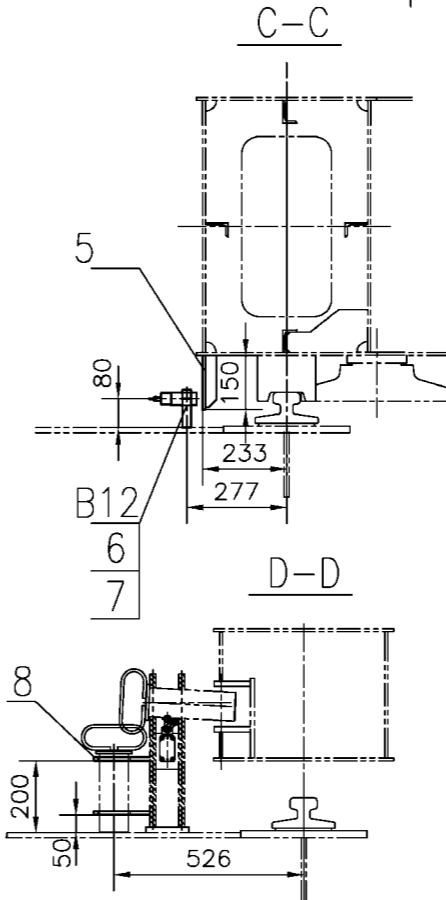
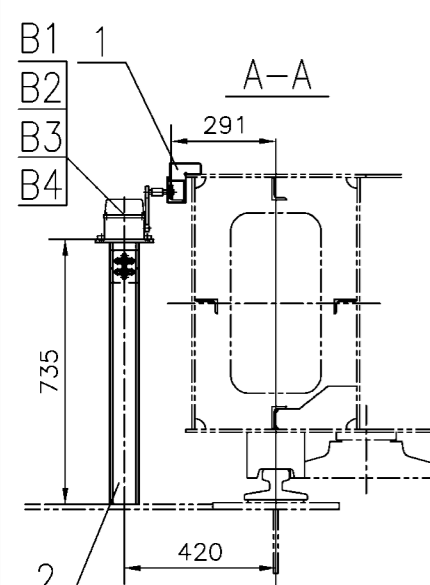
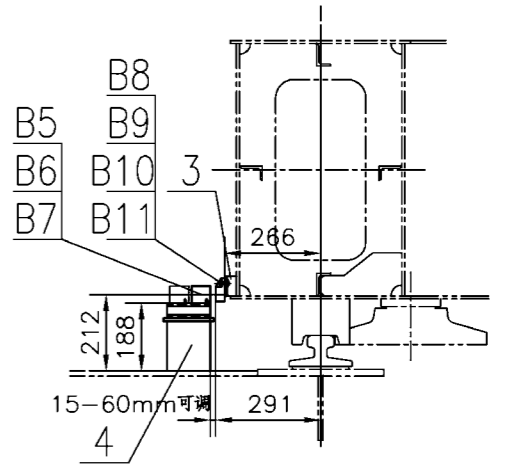
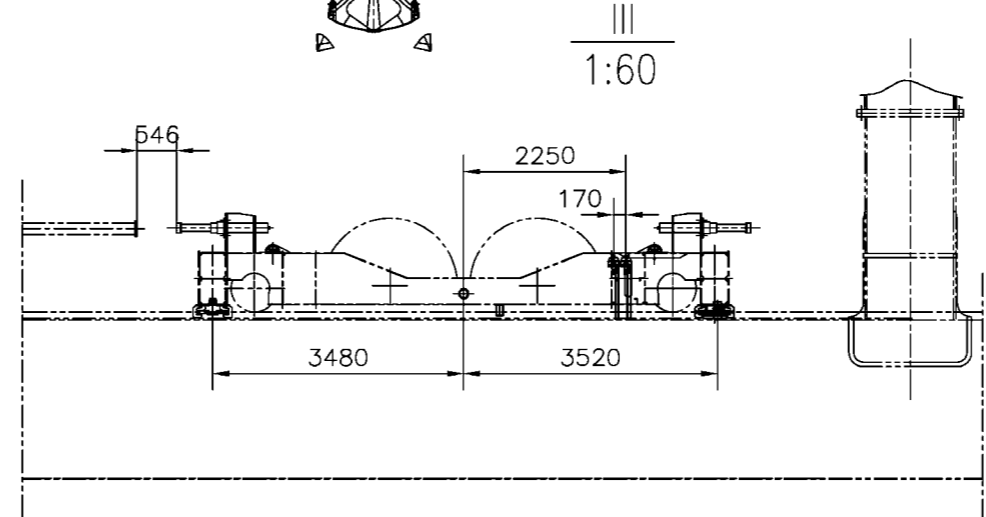
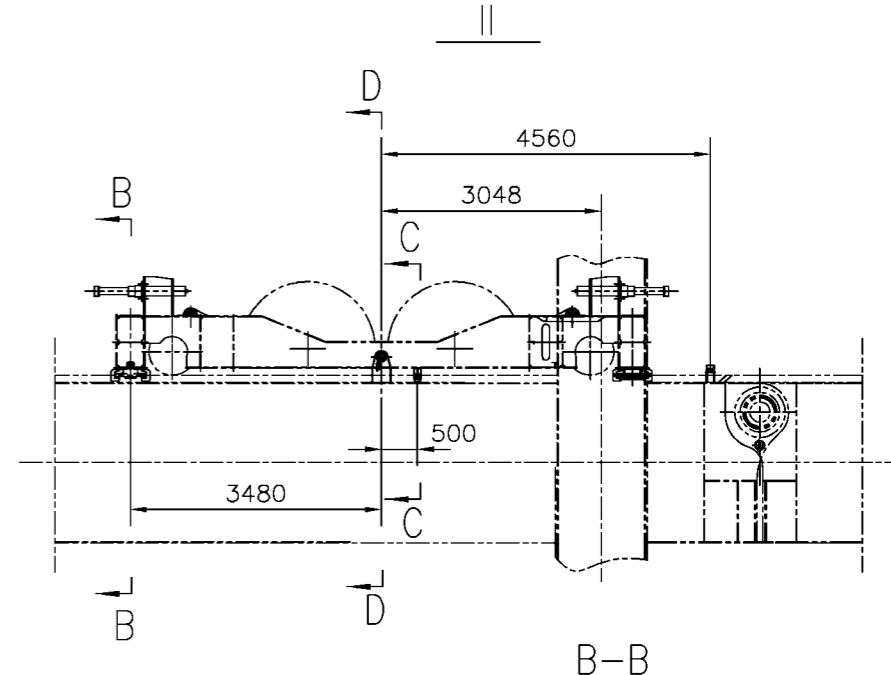
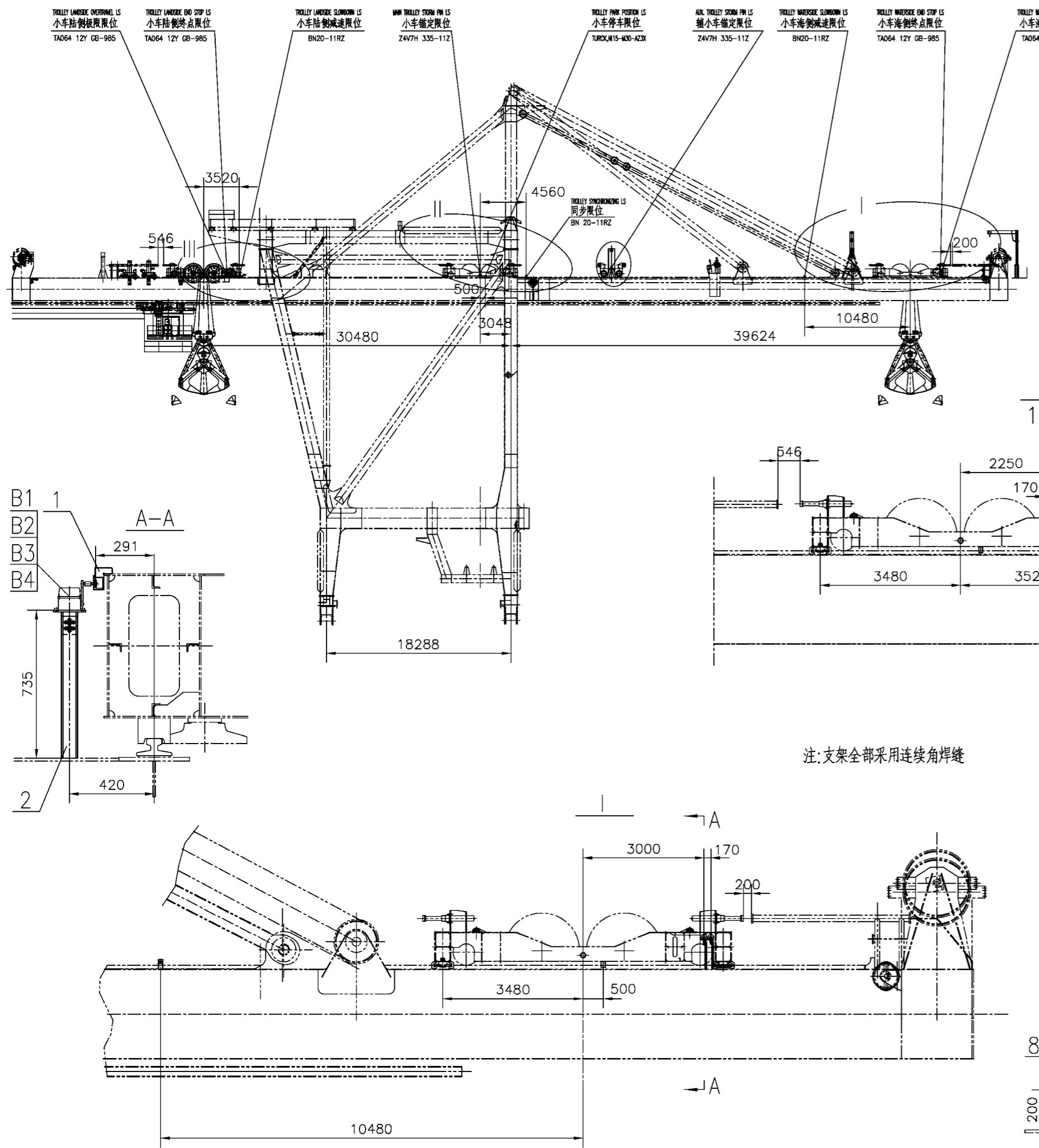
GANTRY BACKWARD SLOWDOWN LS BANNER_Q45VR2LV	1pcs
GANTRY BACKWARD END STOP LS SCHMERSAL_TA064 12Y GB-985	1pcs
GANTRY FORWARD SLOWDOWN LS BANNER_Q45VR2LV	1pcs
GANTRY FORWARD END STOP LS SCHMERSAL_TA064 12Y GB-985	1pcs
GANTRY STORM PIN LS SCHMERSAL_Z4V7H 335-11Z	2pcs
GANTRY WHEEL CLAMP LS SCHMERSAL_ZR 335-11Z	16pcs
GANTRY BRAKE LS SCHMERSAL_Z4VH 335-11Z	20pcs
LOCATION:GANTRY	

TURCK_N15-M30-AZ3X	
SCHMERSAL_BN20-11RZ	
SCHMERSAL_Z4V7H 335-11Z	
T 422	

3	UL251103	皮带速度检测器皮带 conveyor belt detect device	1	53
2	UL251102	司机室限位布置 cabin travel limited switch arrangement	1	85

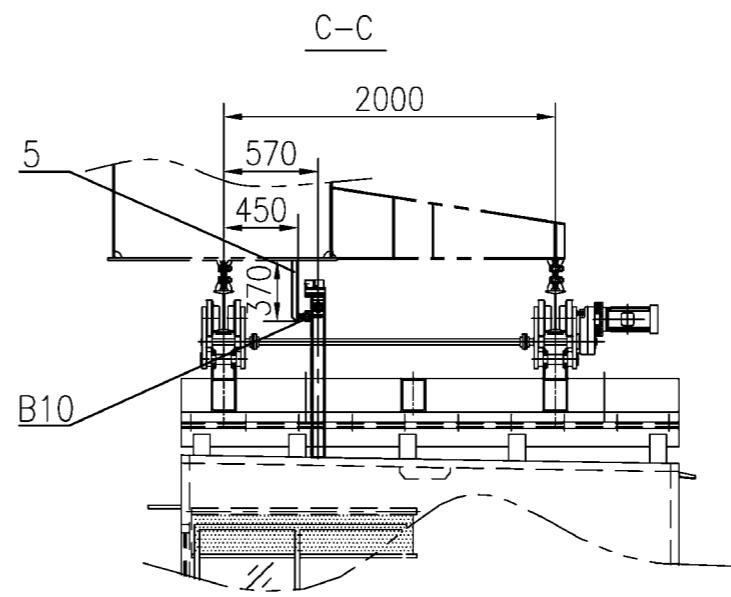
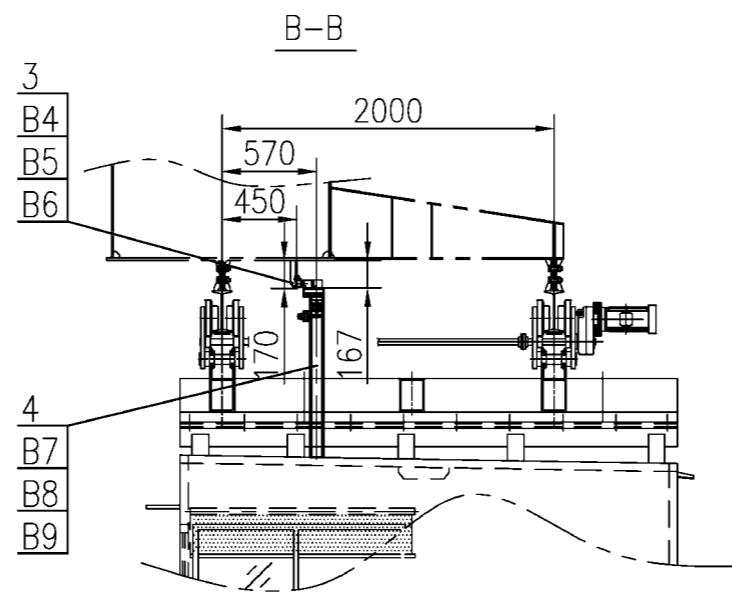
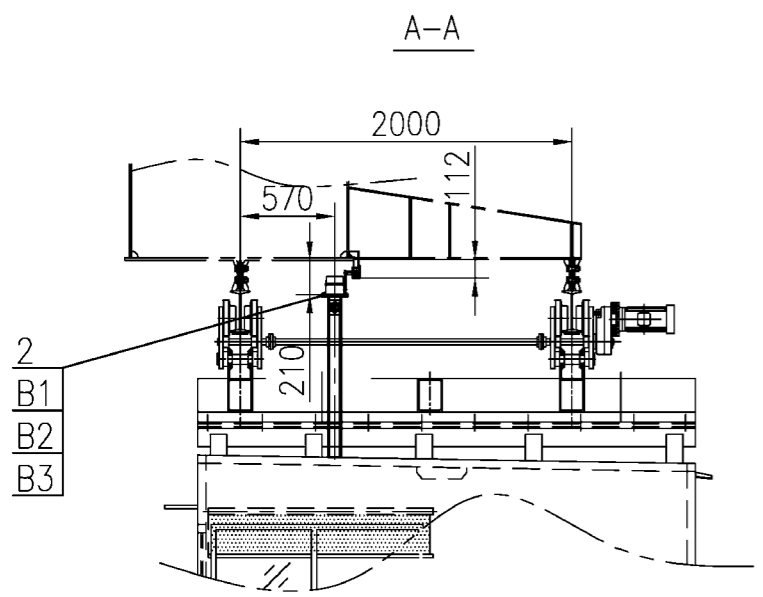
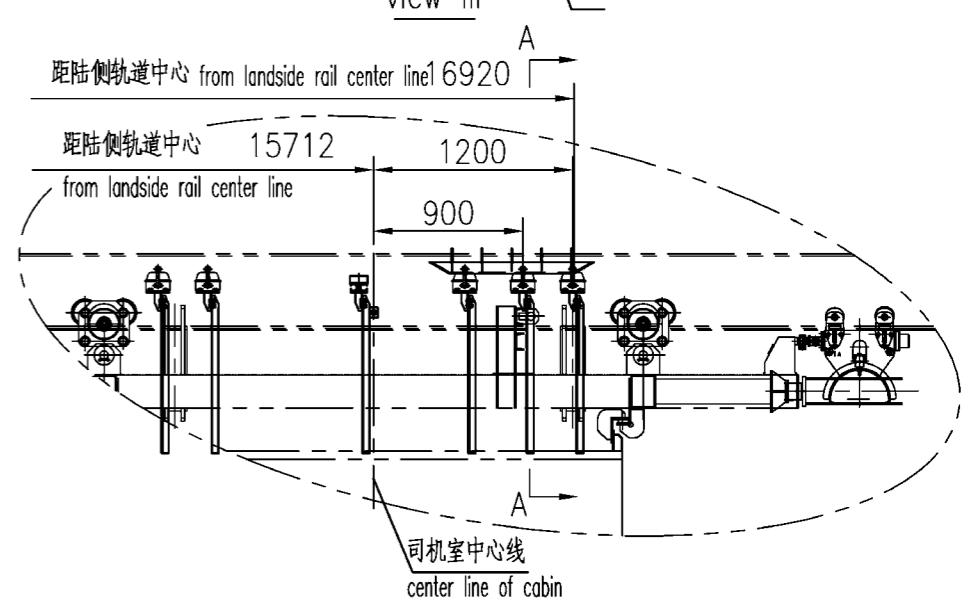
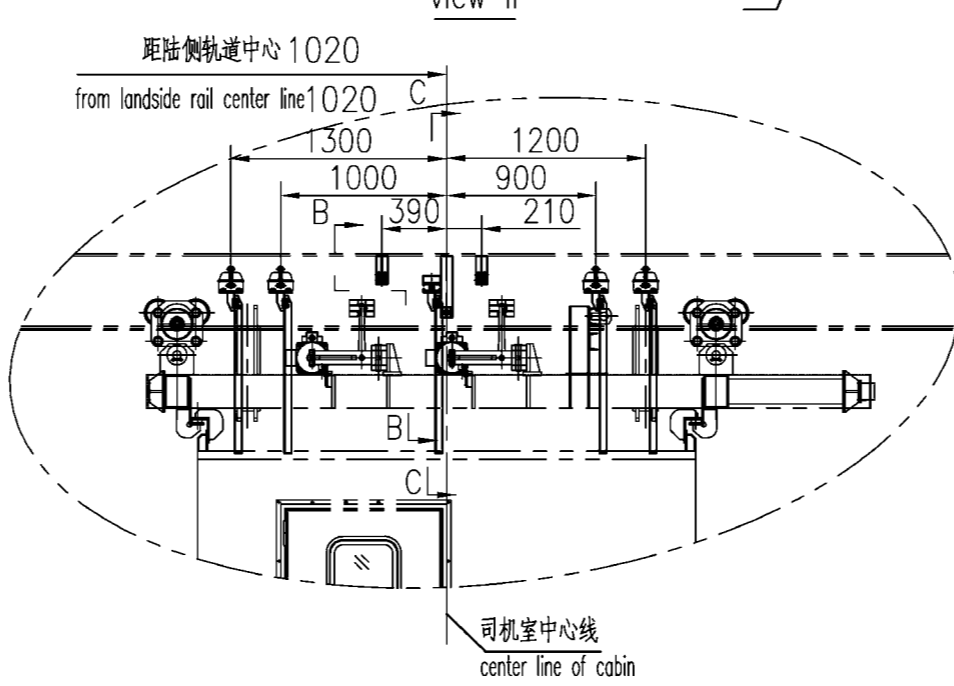
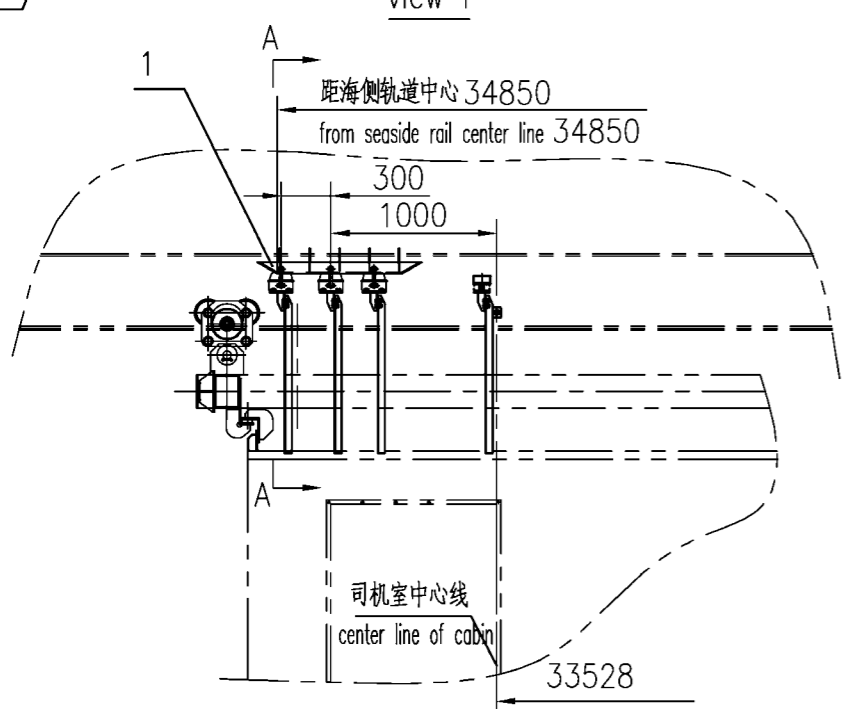
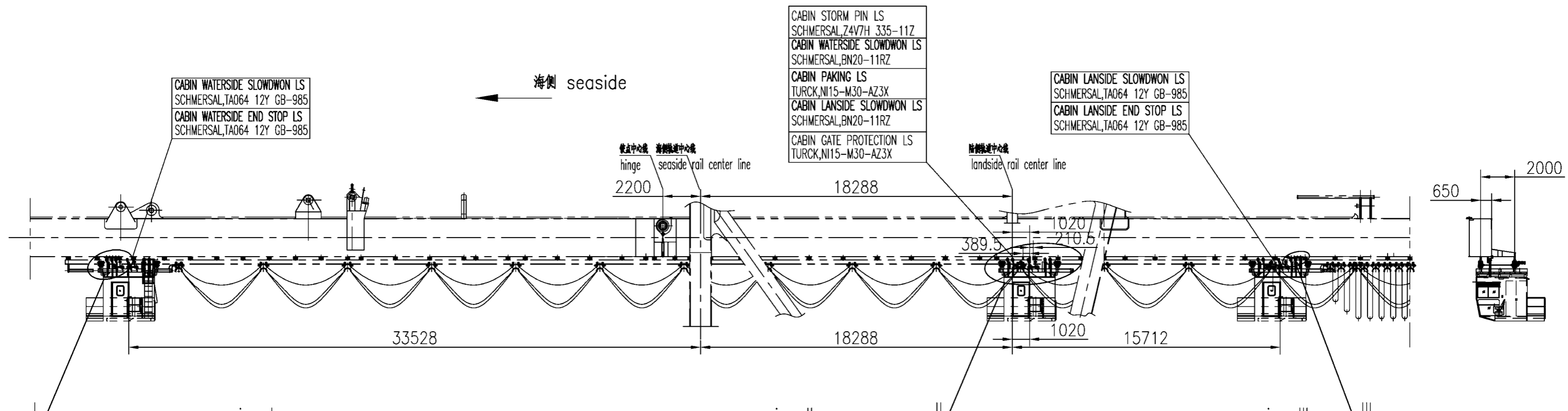
1	UL251101	小车限位开关布置图 trolley travel limited switch arrangement	1	77		
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total WEIGHT	NOTE
PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE:		
ITEM NAME: 司机室限位布置图 limited switch arrangement		DRAW NO: UL251100				
DSGN		TRACE		APP.		
DRAW		CHK		Q'TY/SET	1	
CHK		VER.		SET/CRAVE	215	

ZPMC

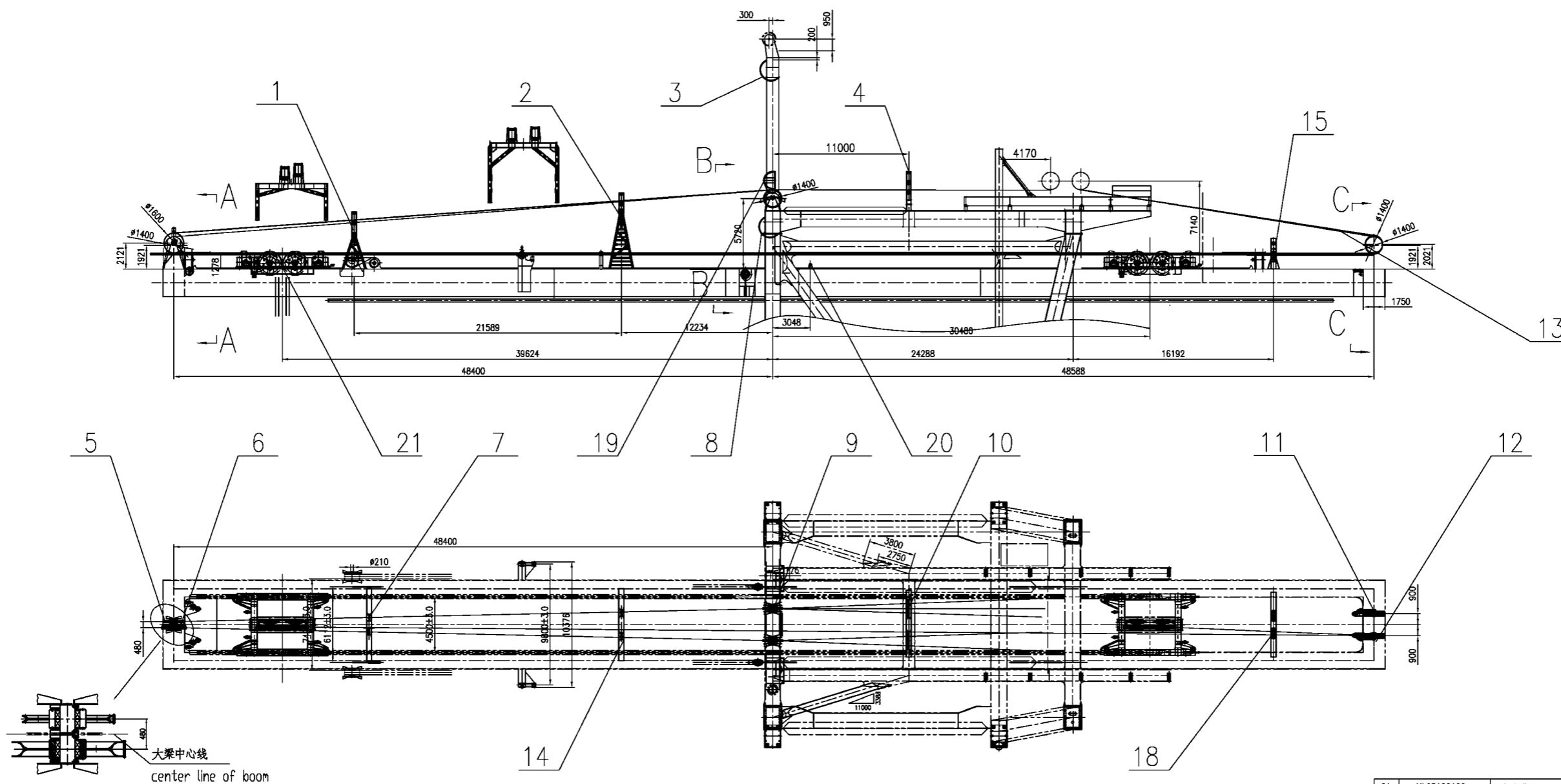


注: 支架全部采用连续角焊缝

B12	TURCK,NI15-M30-AZ3X	行程开关	成品	1			ABB
B11	GB95-85	垫圈5	不锈钢stainless steel	2			
B10	GB889-86	螺母M5	不锈钢stainless steel	2			
B9	GB5780-86	螺栓M5X30	不锈钢stainless steel	2			
B8	B9 21 N (S)	磁性开关B	成品	2			ABB
B7	GB889-86	螺母5	不锈钢stainless steel	6			
B6	GB5780-86	螺栓M5X10	不锈钢stainless steel	6			
B5	BN 20-11RZ	磁性开关A	成品	3			ABB
B4	GB95-85	垫圈 8 washer	不锈钢stainless steel	16			
B3	GB889-86	螺母 M8 nut	不锈钢stainless steel	16			
B2	GB5780-86	螺栓 M8x35bolt	不锈钢stainless steel	16			
B1	TA064 12Y GB-985	行程开关	成品	4			ABB
8	UL25110107	小车销轴支架	组合件	4	0.9	3.6	
7		橡胶垫	厚度1mm,30x60	1			
6	UL25110106	大梁支架3	组合件	1	1.4	1.4	
5	UL25110105	小车支架3	组合件	1	1.8	1.8	
4	UL25110104	大梁支架2	组合件	3	3.64	10.92	
3	UL25110103	小车支架2	组合件	1	0.49	0.49	
2	UL25110102	大梁支架1	组合件	4	12.8	51.2	
1	UL25110101	小车支架1	组合件	1	7.1	7.1	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
PROJECT:Alabama 2000t/h ship unloader			DESIGN STAGE:	SCALE: 1:250			
ITEM NAME: 小车限位开关布置图 trolley travel limited switch arrangement			DRAW NO: UL251101				
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHK		Q'TY/SET	77	
	CHK		VER.		SET/CRANE	1	



B10	TURCK,N15-M30-AZ3X	限位开关 limited switch	成品	1		ABB	
B9	GB889-86	螺母5 nut		2		不锈钢 stainless steel	
B8	GB5780-86	螺栓M5X10 bolt		2		不锈钢 stainless steel	
B7	BN 20-11RZ	磁性开关A limited switch	成品	1		ABB	
B6	GB889-86	螺母M5 nut		4		不锈钢 stainless steel	
B5	GB5780-86	螺栓M5X30 bolt		4		不锈钢 stainless steel	
B4	B9 21 N (S)	磁性开关B limited switch	成品	4		ABB	
B3	GB889-86	螺母M8 nut		16		不锈钢 stainless steel	
B2	GB5780-86	螺栓 M8x35 bolt		16		不锈钢 stainless steel	
B1	T 422	限位开关 limited switch	成品	4		ABB	
5	UL25110205	支座4 support4	Q235	1		2.3	
4	UL25110204	支座3 support3	组件 ass.	1		18	
3	UL25110203	支座2 support2	Q235	2	1	2	
2	UL25110202	支座1 support1	组件 ass.	4	12.4	49.6	
1	UL25110201	螺栓 bolck	焊接件 welded	2	6.58	13.16	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total WEIGHT	NOTE
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:	SCALE: 1:100			
ITEM NAME: 司机室限位布置 cabin limited switch arrangement			DRAW NO: UL251102				
ZPMC	DSGN	TRACE	APP.				
	DRAW	CHCK	Q'TY/SET	1			
	CHCK	VER.	SET/CRANE	85			

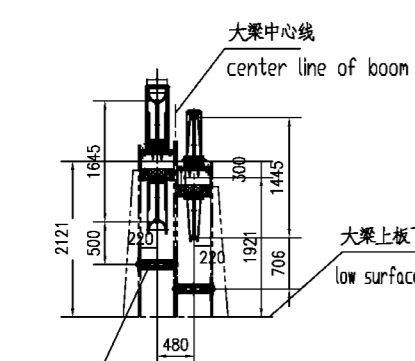


center line of boom

A-A

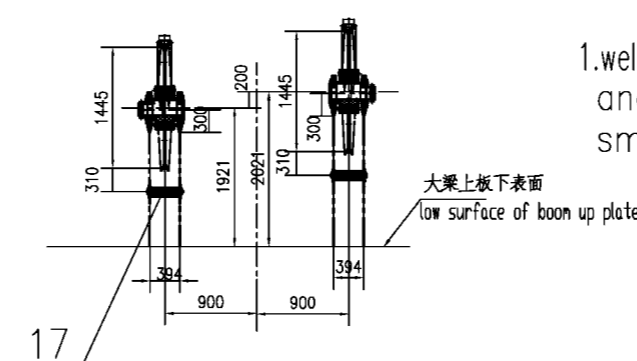
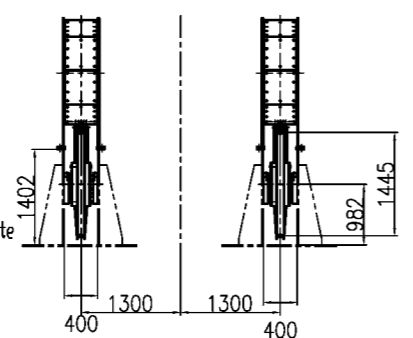
B-B

C-C



大梁中心线
center line of boom

大梁上板下表面
low surface of boom up plate



大梁上板下表面
low surface of boom up plate

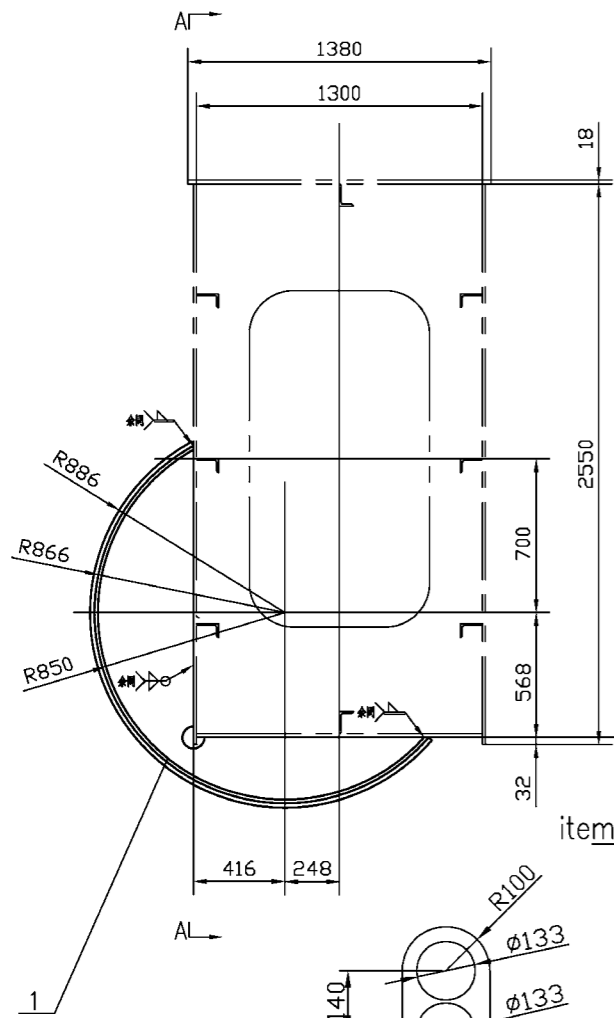
技术要求

1. 所有支座焊接时不得出咬边, 夹渣, 焊后磨去毛刺.

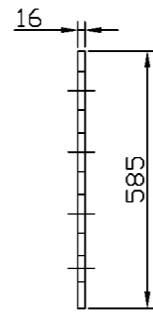
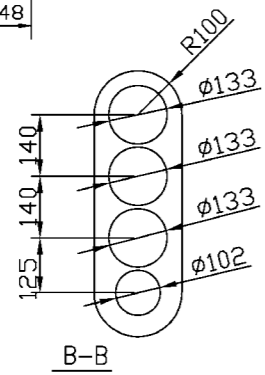
Technology Requirement

1. welding of All brackets were not bited off, and the dregs can't be involved. smoothed after it be welded.

21	UL25122100	main trolley	Assembly	组合件	1	20541	20541	主小车
20	UL25122000	trolley anchor-hold equipment	Assembly	组合件	2	40	80	小吊钩装置
19	UL25121900	oriented safety panel	Assembly	组合件	2	478	478	导向防护板
18	UL25121800	idler6	Assembly	组合件	1	461.7	461.7	托辊组6
17	UL25121700	idler5	Assembly	组合件	2	45	90	托辊组5
16	UL25121600	idler4	Assembly	组合件	2	45	90	托辊组4
15	UL251215	bracket4	Assembly	组合件	1	1445.6	1445.6	托架4
14	UL25121400	idler3	Assembly	组合件	1	461	461	托辊组3
13	UL25121300	Min trolley reeving system	Assembly	组合件	1	11540	11540	小吊钩, 钢丝绳
12	UL25121200	ergometer pulley2	Assembly	组合件	1	1189.8	1189.8	测力滑轮组2
11	UL25121100	ergometer pulley1	Assembly	组合件	1	1189.8	1189.8	测力滑轮组1
10	UL25121000	idler2	Assembly	组合件	1	483	483	托辊组2
9	UL25120900	pulley #1400	Assembly	组合件	2	872	1744	托辊组#1400
8	UL25120800	guard ring2	welding	焊接件	1	2085	2085	护圈2
7	UL25120700	idler1	Assembly	组合件	1	477.8	477.3	托辊组1
6	UL25120600	pulley #1600	Assembly	组合件	1	1480	1480	大吊钩#1600
5	UL25120500	pulley #1400	Assembly	组合件	1	998.3	998.3	大吊钩#1400
4	UL251204	bracket3	welding	焊接件	1	1111.8	1111.8	托架3
3	UL251203	guard ring1	welding	焊接件	1	1801	1801	护圈1
2	UL251202	bracket2	welding	焊接件	1	2156.6	2156.6	托架2
1	UL251201	bracket1	welding	焊接件	1	1281	1281	托架1
NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	each	total	WEIGHT	NOTE
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:	SCALE: 1:200				
ITEM NAME: 起升缠绕系统 Hoist & Trolley reeving			DRAW NO: UL251200		PROJ.			
ZPMC	DSGN		TRACE		APP.			
	DRAW		CHK		Q'TY/SET	51075Kg		
	CHK		VER.		SET/CRANE	1		

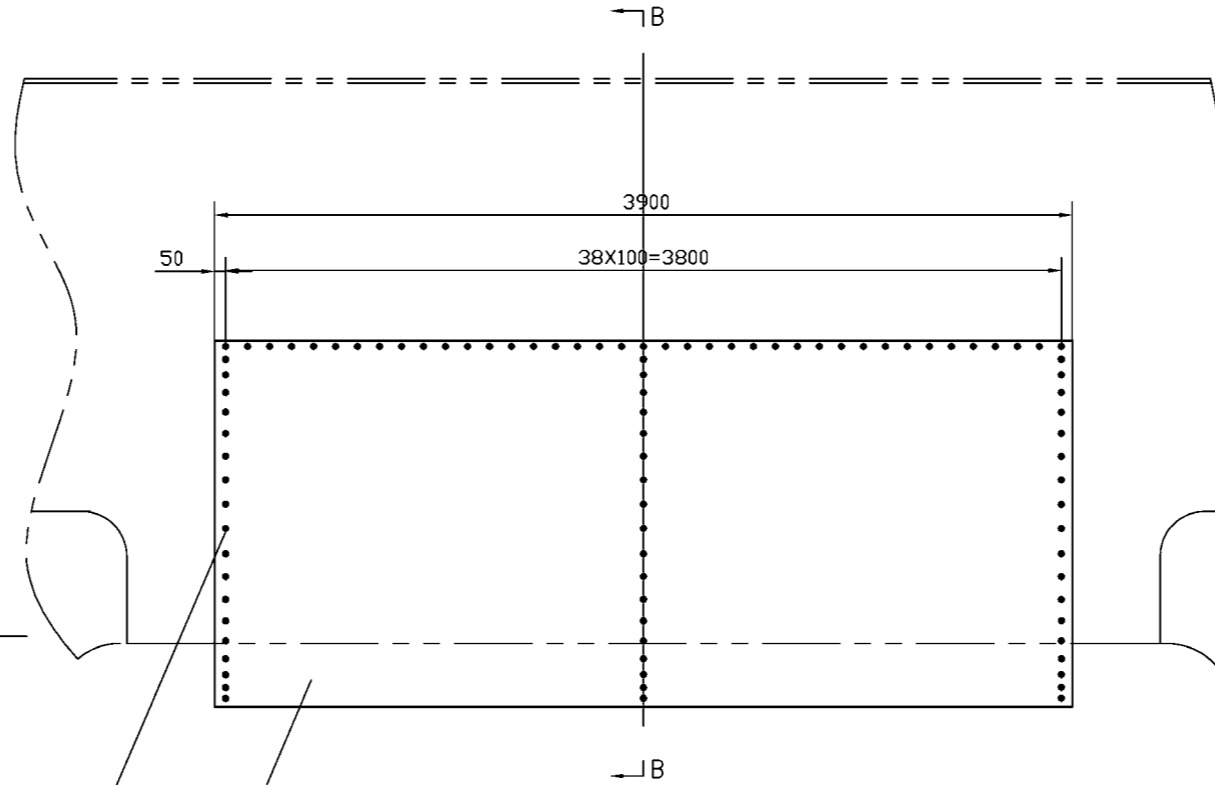
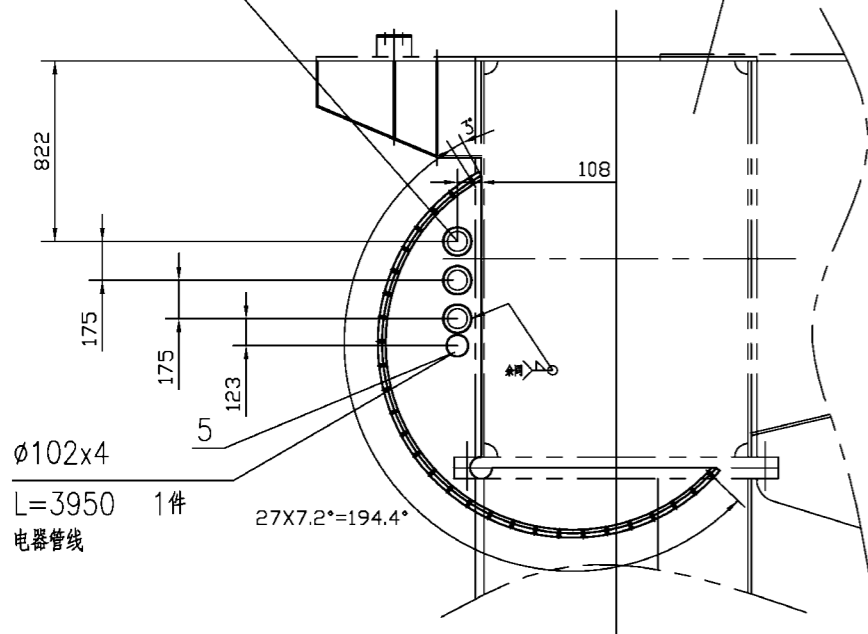


item 5

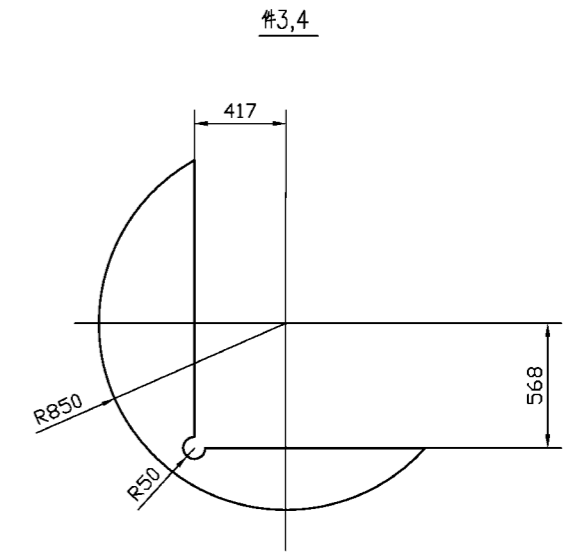
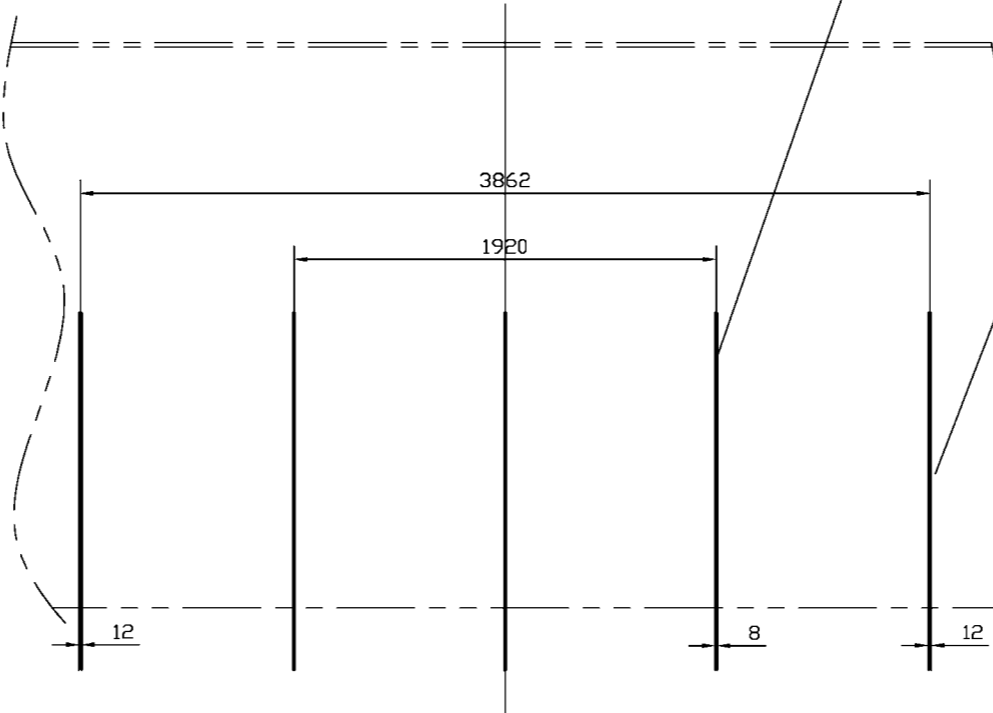


海侧上横梁

$\phi 133 \times 4.5$
L=3950 3件
电器管线

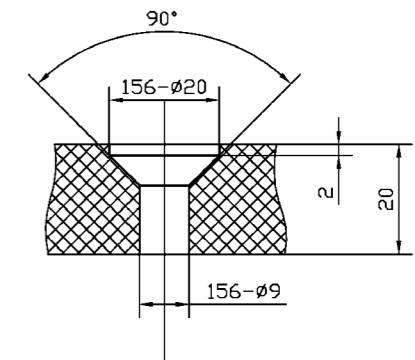


A-A



件3,4

件2螺孔尺寸
1:1



技术要求

件1应在与件3,件4焊接好后与件2按图示尺寸同时配钻156-M10.

Technology Requirement

item1 was match drill for 156-M10with item2 after welded item 3and 4

B1	GB819-85	螺钉M10X35	Q235	540			
5		-16X200X585	Q235	2	66	132	
4		-12X1482X1591	Q235	2	66	132	
3		-8X1482X1591	Q235	3	44	132	
2	UL25120801	复合尼龙 nylon		54	338	338	
1		-16X3027X3900	Q235	1	1483	1483	

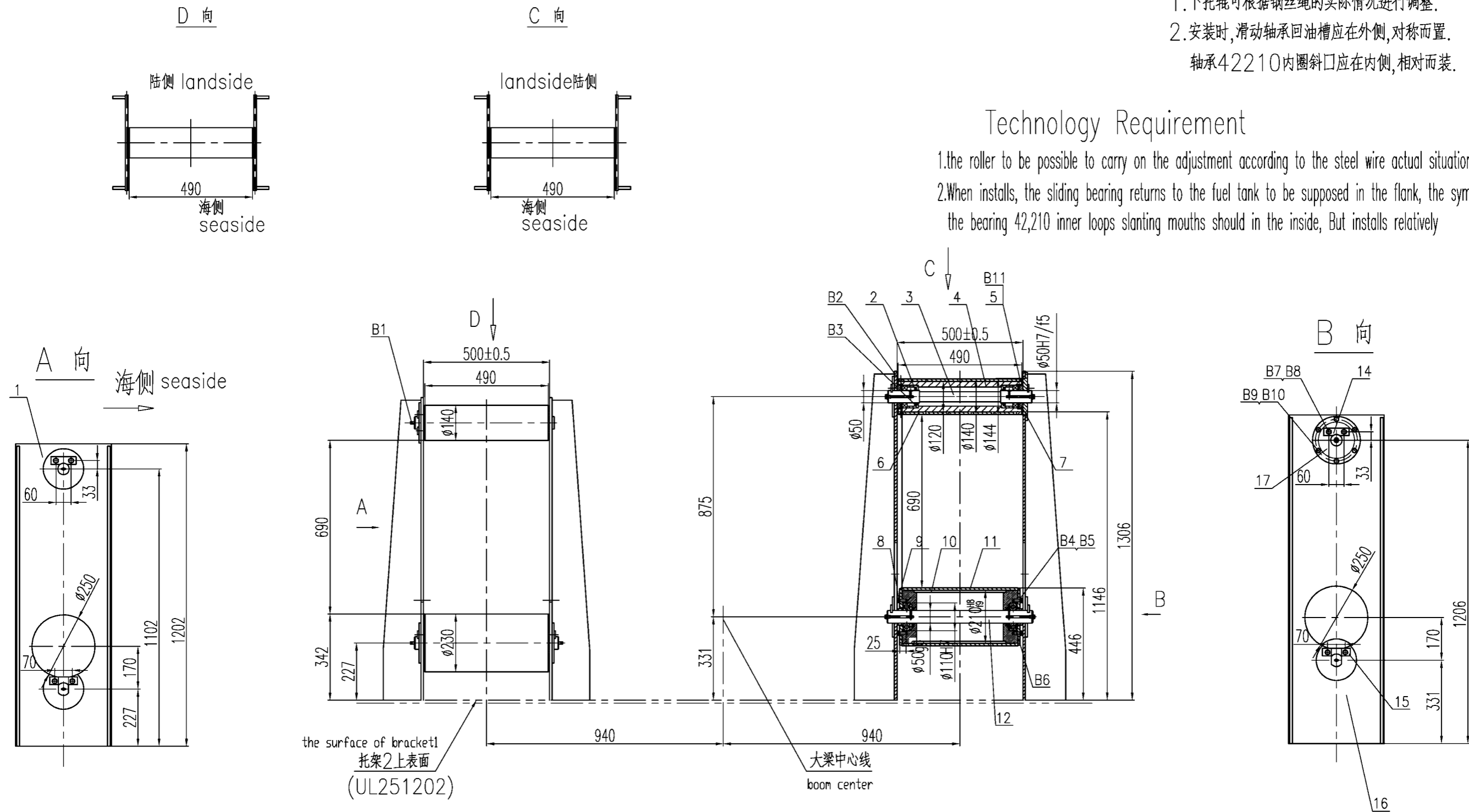
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total		NOTE
					WEIGHT		
PROJECT:			DESIGN STAGE:		SCALE: 1:25		
ITEM NAME: 护圈2 guard ring 2			DRAW NO: UL251208				
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	2085	
	CHCK		VER.		SET/CRANE	1	

技术要求

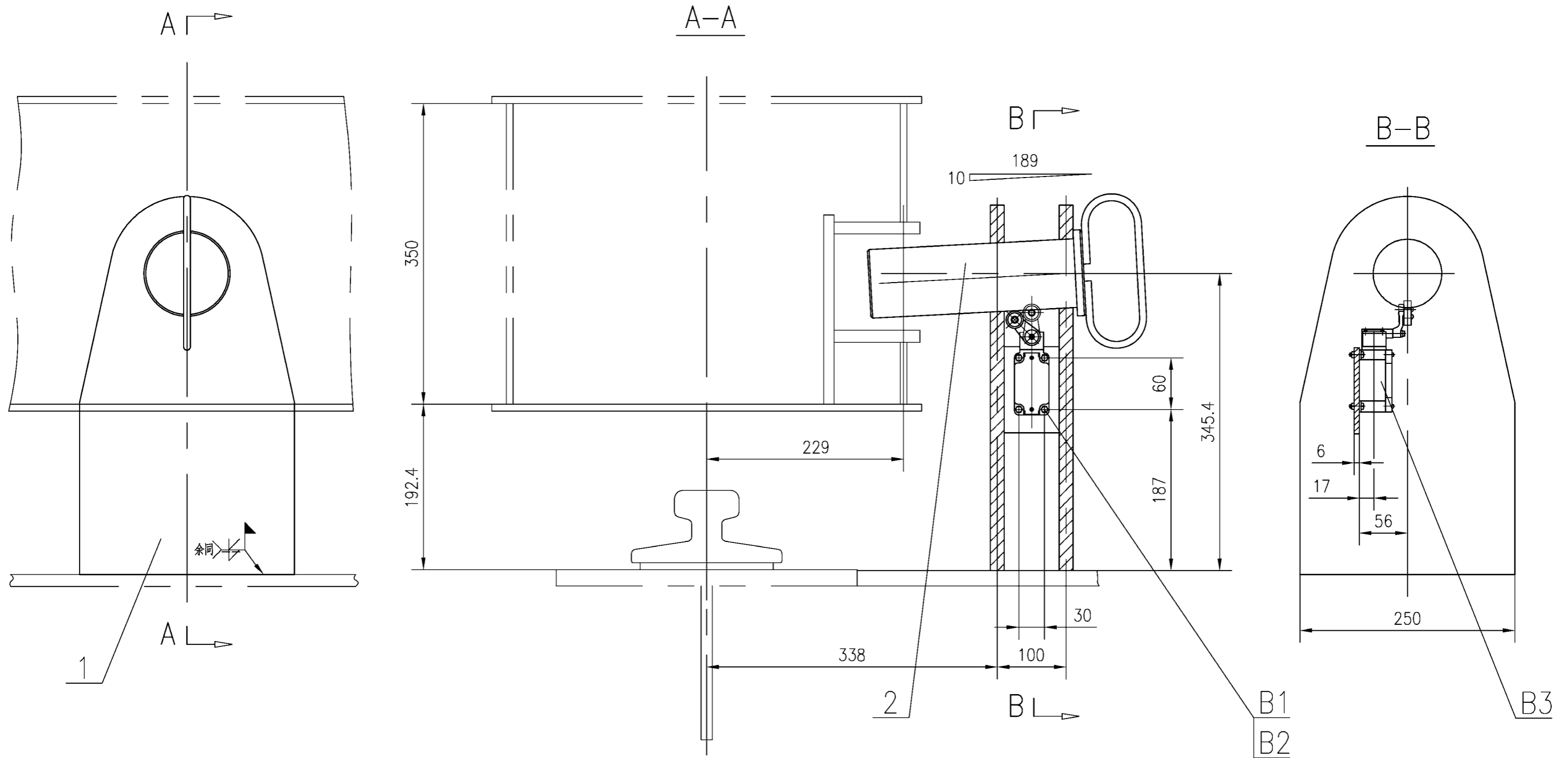
1. 下托辊可根据钢丝绳的实际情况进行调整。
2. 安装时, 滑动轴承回油槽应在外侧, 对称而置。
轴承42210内圈斜口应在内侧, 相对而装。

Technology Requirement

1. the roller to be possible to carry on the adjustment according to the steel wire actual situation
2. When installs, the sliding bearing returns to the fuel tank to be supposed in the flank, the symmetry but sets the bearing 42,210 inner loops slanting mouths should in the inside, But installs relatively



B11	GB79-85	bolt	螺栓10x15	16		螺栓端Z=5.3														
B10	GB862.1-87	washer	垫圈10	12																
B9	GB5782-86	bolt	螺栓110X20	12																
B8	GB862.1-87	washer	垫圈12	16																
B7	GB5782-86	bolt	螺栓112X25	16																
B6	GB276-82	bearing	轴承310	4																
B5	GB862.2-87	washer	外圈带锁紧垫圈10	24																
B4	GB5781-86	bolt	全螺纹六角头螺栓110X25	24																
B3	GB9877.1-88	seal	内包骨架油封155*72*8	8																
B2	GB283-87	bearing	轴承42210	4	0.31	1.24														
B1		nozzle	油嘴PT1/4"	8																
17																				
16	UL25121416	支承盖	supporting cover	Q235	2	2.7	5.4													
15	UL25121415	托辊架2	roller pedestal2	焊接件	1	110	110													
14	UL25121414	轴端挡板2	shaft end Baffle2	Q235	4	0.13	0.52													
13	UL25121413	轴端挡板1	shaft end Baffle1	Q235	4	0.13	0.52													
12	UL25121412	轴	shaft	45	2	9	18													
11	UL25121411	托辊轴衬层2	wearable sleeve2	40Cr	4	12.5	50													
10	UL25121410	托辊	roller	焊接件	2	22.9	45.8													
9	UL25121409	端盖	end cover	Q235	4	1.2	4.8													
8	UL25121408	轴套	shaft cover	Q235	4	0.35	1.4													
7	UL25121407	防尘罩	dustproof Cover	Q235B	4	0.58	2.32													
6	UL25121406	托辊轴衬层1	wearable sleeve1	40Cr	10	2.9	29													
5	UL25121405	挡圈	block ring	20	4	0.64	2.56													
4	UL25121404	上托辊	up roller		20															
3	UL25121403	上托辊轴	up roller shaft		45															
2	UL25121402	挡油圈	oil block ring	Q235B	4	0.93	3.72													
1	UL25121401	托辊架1	roller pedestal1	焊接件	1	117.4	117.4													
NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	WEIGHT		NOTE		PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE: 1:12							
					each		total		ITEM NAME: 托辊组3 roller group3		DRAW NO: UL25121400		PROJ.							
					ZPMC		DSGN		TRACE		APP.		461kg							
					DRAW		CHCK		Q'TY/SET		SET/CRANE		1							
					CHCK		VER.													



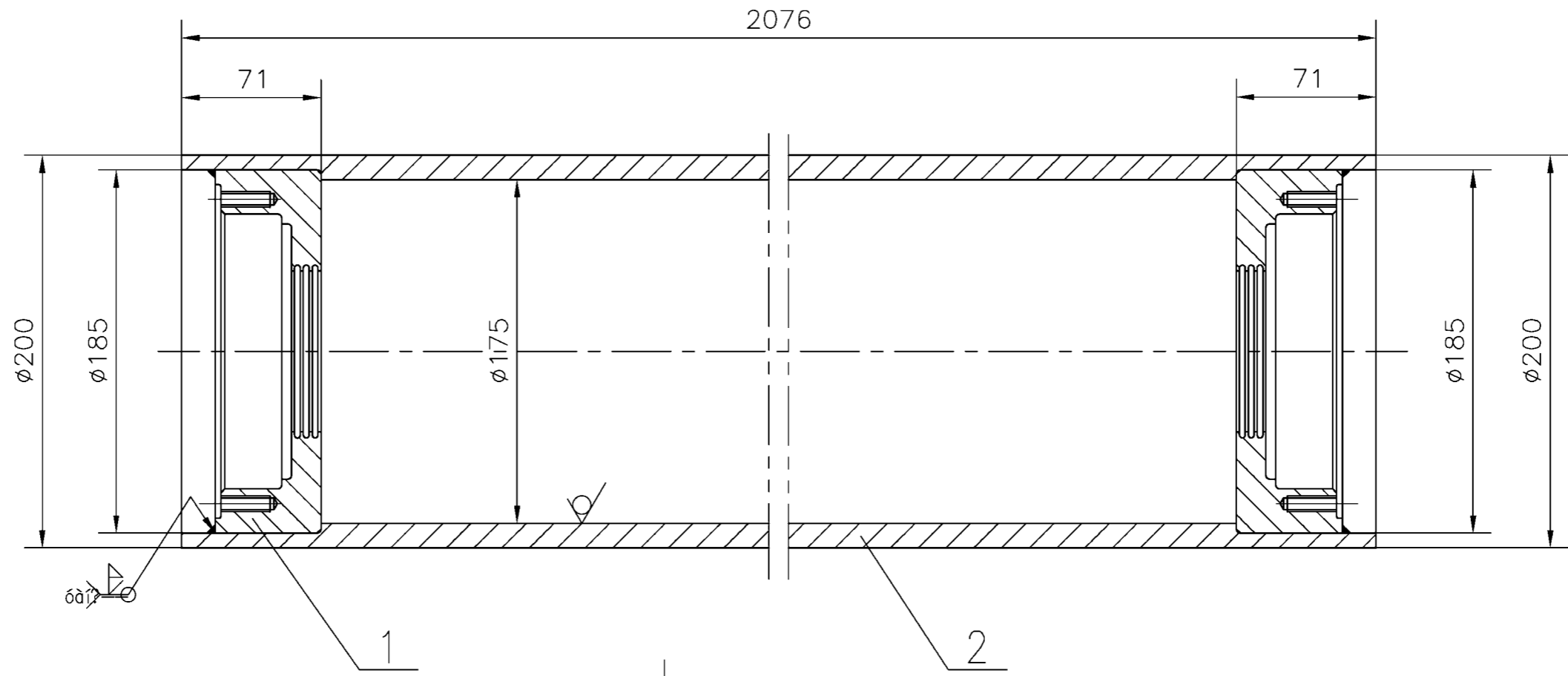
Technology Requirement

1. pin should be bunched by chain, and fixed on the trolley bracket
2. when trolley was running, pin should be inserted in the hold of the pin on the trolley bracket
3. This item was at each side, being symmetric with the center of the boom

技术要求

1. 销轴应用链条串住,并设法固定在小车架。
2. 在小车运行时,销轴应插在小车架的销轴孔内。
3. 此部件左右各一,对称大梁中心线安装。

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	
2	UL25122002	pin	45	1	9.46	9.46	销轴
1	UL25122001	anchor-hold bracket	Q235B	1	27.5	27.5	锚定支架
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:5		
ITEM NAME: 小车锚定装置 trolley anchor-hold equipment			DRAW NO: UL25122000				
B3		Cam Locating Installation Z4VH335-11Z	成品 product	1			限位开关 Z4VH335-11Z
B2		GB889-86 Nut M5	级8 8 H	4			螺母 M5
B1		GB5780-86 Bolt M5X15	级4.8 4.8 S	4			螺栓 M5X15
ZPMC		DSGN			TRACE		APP.
		DRAW			CHCK		Q'TY/SET 39.96
		CHCK			VER.		SET/CRANE 2



1/4t1

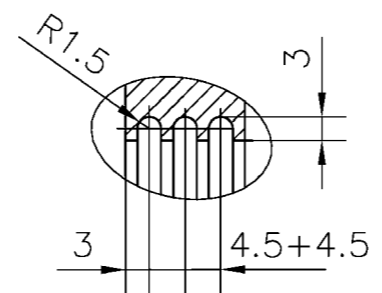
1:1

技术要求

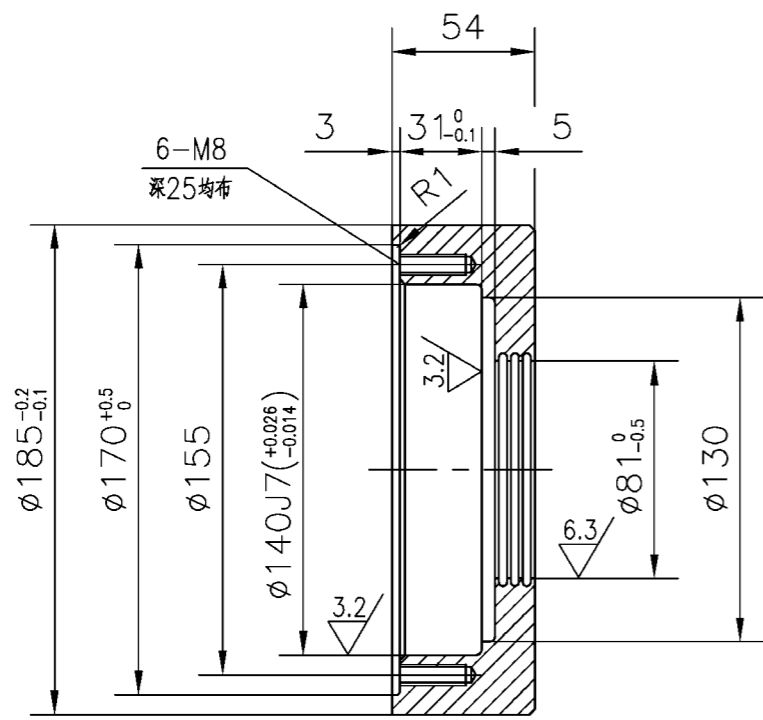
1. 未注倒角2X45°, 未注圆角R2.
2. 调质处理: HB262-286.
3. 表面高频淬火: HRC48-59, 深度不小于1.5mm.

Technology Requirement

1. All the non-noted fillets are 2x45°.
2. All the non-noted round angles are R2.
3. Adjusting Quality HB262-286.
4. Superficial high-frequency quenching: HRC48-59, The depth is not smaller than 1.5mm.



1/009

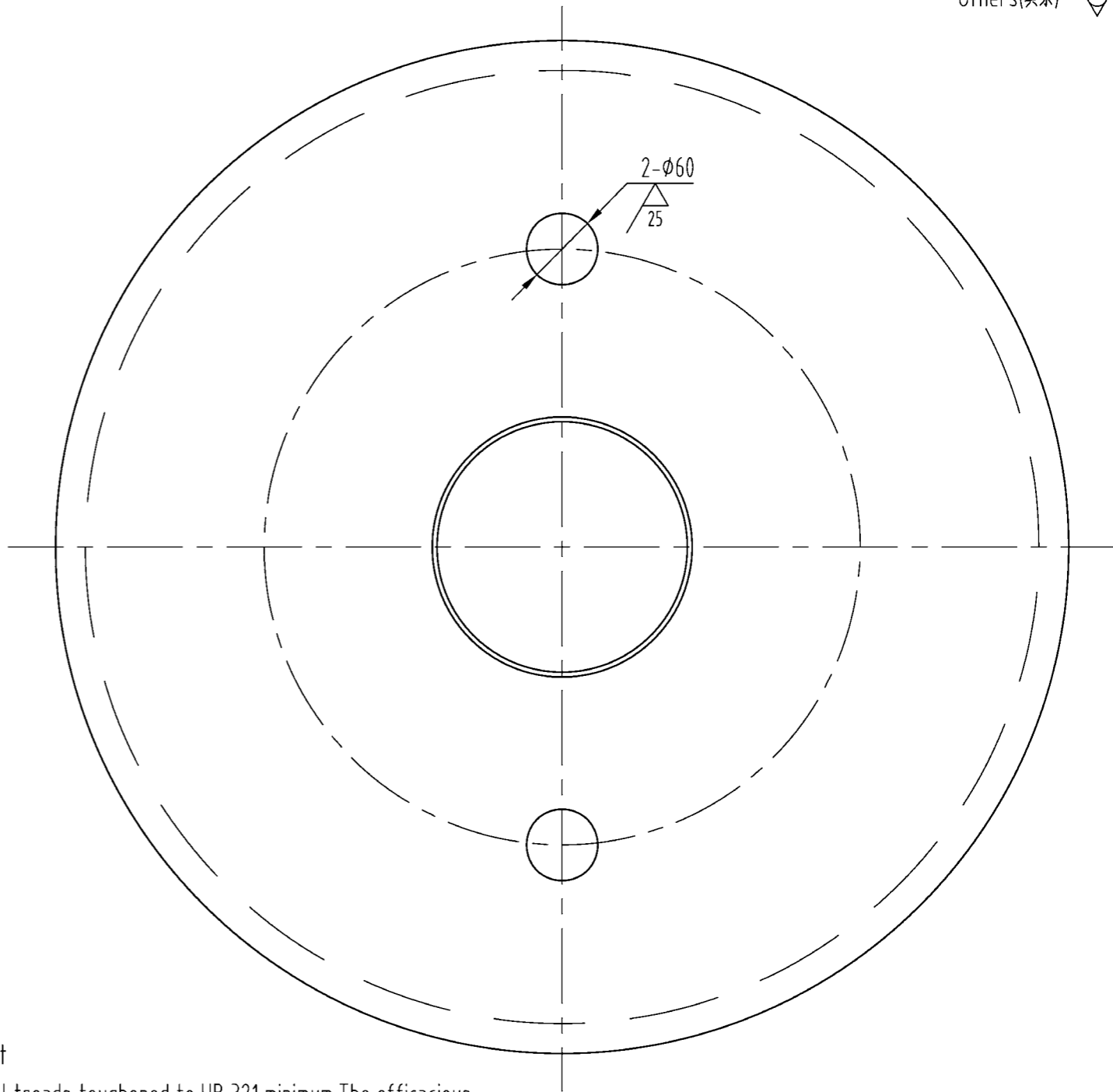
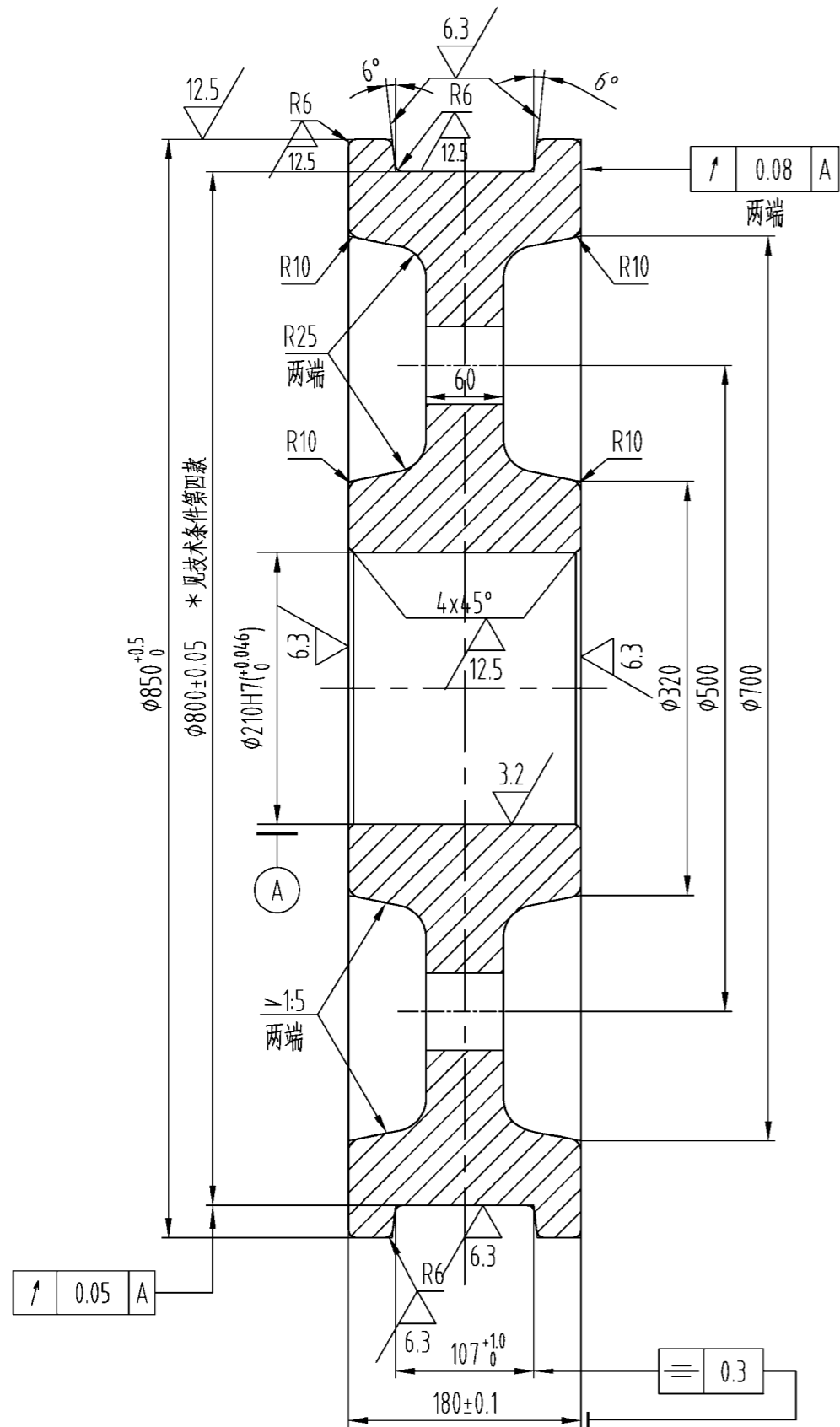


2		φ203X14	45	1	116.7	233.4	
1		φ185	Q235	2	5.9	11.8	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	

PROJECT:	DESIGN STAGE:	SCALE:
ITEM NAME: 托辊	DRAW NO: UL06121204	

1	02.06.07	009
版本号	竣工图日期	修改通知单号
Version	Date of finish graph	Revisions

ZPMC	DSGN		TRACE		APP.	
	DRAW		CHCK		Q'TY/SET	245.2
	CHCK		VER.		SET/CRANE	



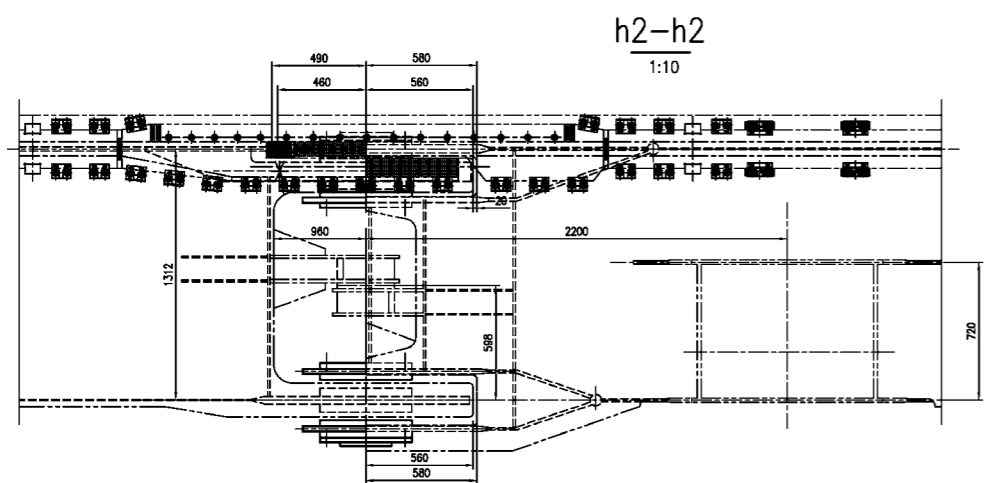
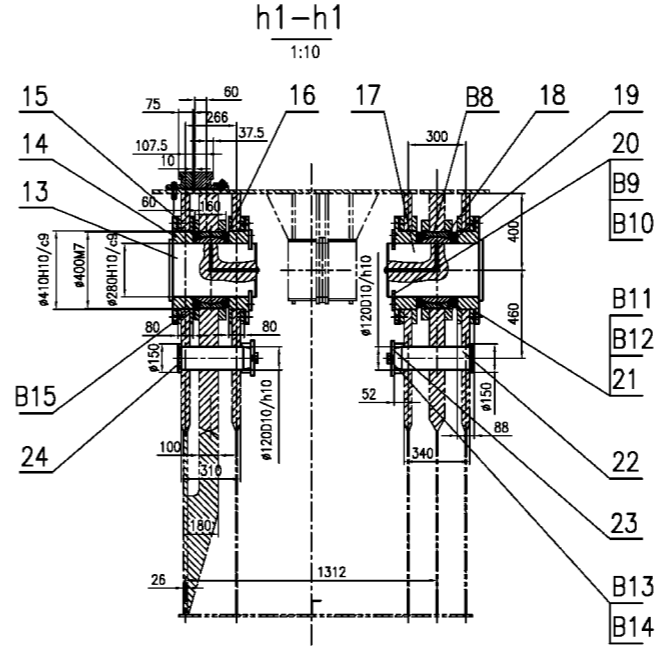
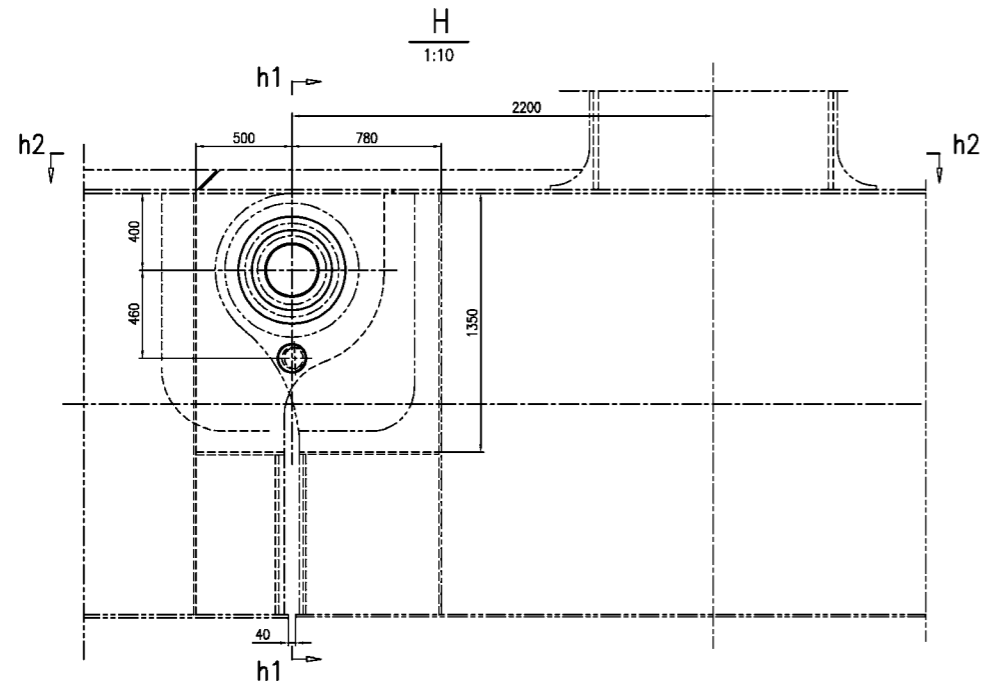
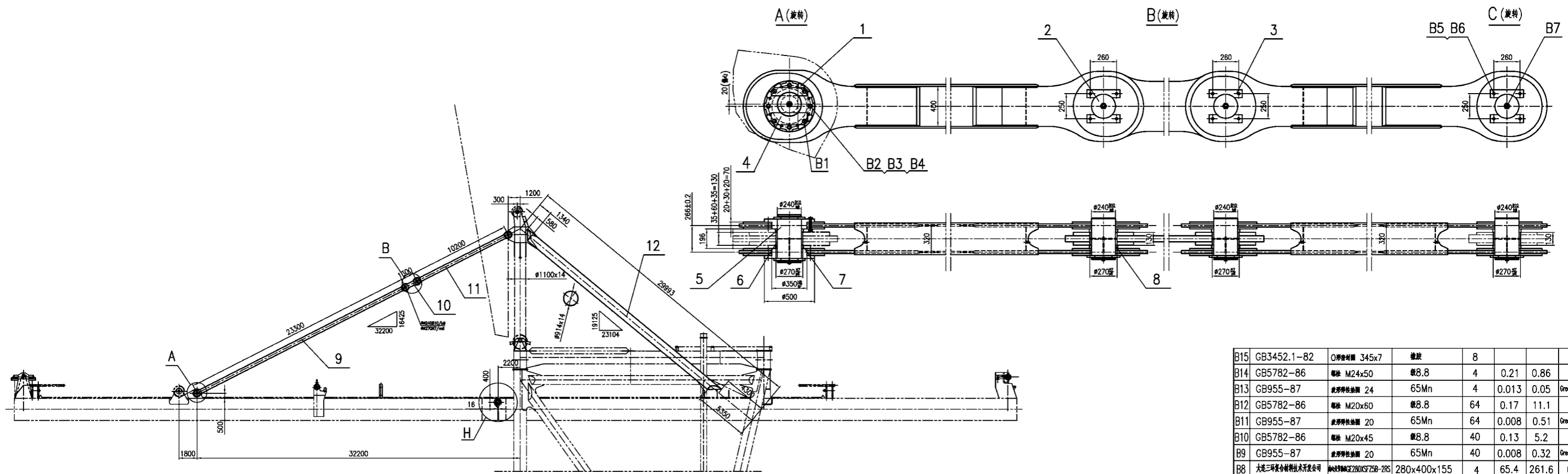
技术要求

1. 向买方保证值: 路面硬度>HB321, 硬化层有效深度>10mm, 10mm深处硬度>HB257.
2. 制作时按公司内控标准(高于ASTM A504标准)制作: 路面硬度HRC50-56, 硬化层有效深度>15mm, 15mm深处硬度>HRC35.
3. 车轮锻件按GB12361-90和GB12362-90技术条件验收.
4. 被动轮的车轮踏面尺寸公差为 $\phi 800 \pm 0.1$, 本图为主动车轮.
5. 加工时, 应在侧面上作好主从动车轮记号.

Technical Requirement

1. Promised parameter: Wheel treads toughened to HB 321 minimum. The efficacious depth of hardness layer is 10mm minimum. The depth of 10mm toughened to HB 257 minimum.
2. According to ZPMC's standard during making. (higher than ASTM A504): Wheel treads toughened to HRC50-56. The efficacious depth of hardness layer is 15mm minimum. The depth of 15mm toughened to HRC35 minimum.
3. The wheel forging's check conform to GB12361-90 and GB12362-90.
4. Driven wheel treads' tolerance is $\phi 800 \pm 0.1$. This drawing is driving wheels.
5. It should mark the spot on driven wheels and driving wheels when making

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET*WEIGHT	SCALE
	UL25011802	Wheel(走轮) $\phi 800$	42CrMo	40	40x430	1:5
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



技术要求

1. 调整垫片(件15), 轴端挡板(件20)按实际需要尺寸修制;
2. 件22, 23, 24在平时(工作状态)不需安装;
3. 前拉杆铰轴上的加油嘴应安装在大梁内侧.

Technical Condition

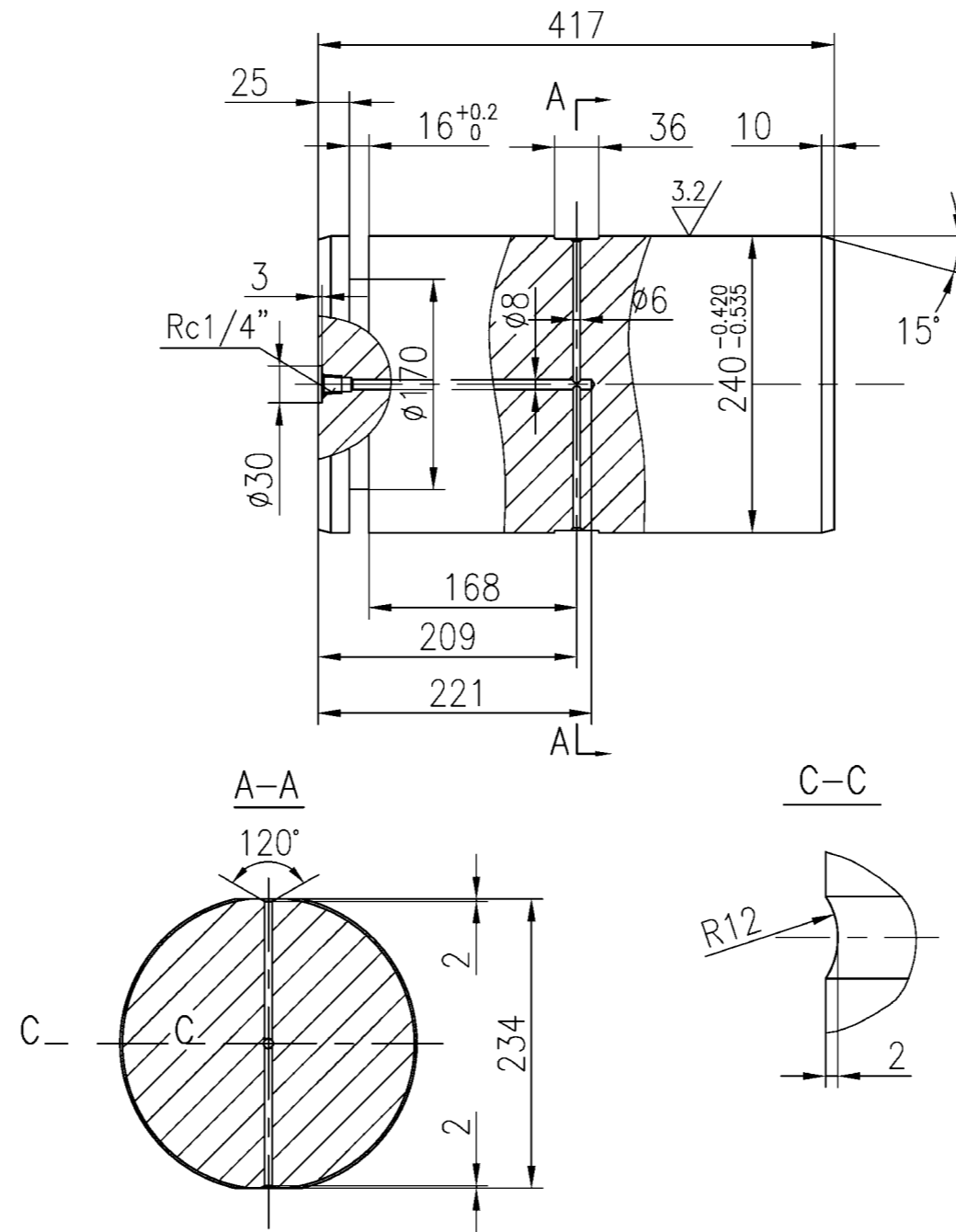
1. Adjusted plate (item 15) and (item 20) will be cut according to installing;
2. Item 22, 23 and 24 only be used for maintaining;
3. The grease cup of the pin of the fore stay must be installed inside of boom.

B15	GB3452.1-82	O形密封圈 345x7	橡胶	8				Seal
B14	GB5782-86	螺栓 M24x50	钢8.8	4	0.21	0.86		Bolt
B13	GB955-87	螺母 M20x60	钢65Mn	4	0.013	0.05		Grease fitting
B12	GB5782-86	螺栓 M20x60	钢8.8	64	0.17	11.1		Bolt
B11	GB955-87	螺母 M20x45	钢65Mn	64	0.008	0.51		Grease fitting
B10	GB5782-86	螺栓 M20x45	钢8.8	40	0.13	5.2		Bolt
B9	GB955-87	螺母 M20x45	钢65Mn	40	0.008	0.32		Grease fitting
B8	大连三环复合材料有限公司	轴衬 280x400x155	280x400x155	4	65.4	261.6		Bearing
B7	JIS B0203	平头螺栓 PT1/4"		16				Grease fitting
B6	GB955-87	螺母 M24x50	钢65Mn	24	0.013	0.3		Washer
B5	GB5782-86	螺栓 M24x50	钢8.8	24	0.22	5.2		Bolt
B4	GB/T1230-91	高强度螺栓 M20	HRC35~45	64	0.03	1.9		H.S.Washer
B3	GB/T1229-91	高强度螺母 M20	钢10.9	32	0.12	3.8		H.S.Nut
B2	GB/T1228-91	高强度螺栓 M20x130	钢10.9	16	0.43	6.9		H.S.Bolt
B1	GB/T1228-91	高强度螺栓 M20x150	钢10.9	16	0.5	8		H.S.Bolt

25	UL25020225	调整偏心套用扳手	A709-50-2	2	23.6	47.2		Wrench
24	UL25020224	大梁维修铰轴(2)		45	2	34.2	68.4	Main Shaft (2)
23	UL25020223	焊接端盖	焊接件	4	2.6	10.4		Weld Sleeve
22	UL25020222	大梁维修铰轴(1)		45	2	36.9	73.7	Main Shaft (1)
21	UL25020221	大梁轴端盖(2)	Q235	4	80.4	321.7		Baffle(2)
20	UL25020220	轴端卡板	Q235	4	9.2	36.8		briffle
19	UL25020219	大梁轴套(2)	Q235	4	14.2	56.9		Shaft sleeve(2)
18	UL25020218	弹性隔圈	65Mn	8	1	7.7		Elastic Ring
17	UL25020217	大梁主铰轴(2)	35CrMo	2	241.6	483.3		Main shaft(2)
16	UL25020216	大梁轴套(1)	Q235	4	9.8	39		Shaft sleeve(1)
15	UL25020215	调整垫片	Q235	8	4.5	35.7		Adjust wash
14	UL25020214	大梁轴端盖(1)	Q235	4	76	304		Baffle(1)
13	UL25020213	大梁主铰轴(1)	35CrMo	2	220	440		Main shaft(1)
12	UL25020212	后拉杆	组合件	2	7947	15894		Back Stay
11	UL25020211	前拉杆(2)-10200	组合件	2	2986	5971		Fore stay(1)-10200
10	UL25020210	挂板	焊接件	2	894	1788		Tie plate
9	UL25020209	前拉杆(1)-23300	组合件	2	5236	10472		Fore stay(1)-23300
8	UL25020208	轴套(2)	20	12	4.1	49.2		sleeve(2)
7	UL25020207	轴套(1)	20	4	4.1	16.5		sleeve(1)
6	UL25020206	自润滑轴承	ZQAL9-4	8	10.5	84		Plain
5	UL25020205	前拉杆铰轴(2)	42CrMo	2	163	327		Shaft(2)
4	UL25020204	偏心轴端挡板	Q235	8	3.5	43.2		Baffle
3	UL25020203	轴端挡板	Q235	12	3.3	39.6		Baffle
2	UL25020202	前拉杆铰轴(1)	42CrMo	6	145	869.4		Shaft(1)
1	UL25020201	调整偏心套	35	4	62	248		Eccentric sleeve

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	WEIGHT	NOTE
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:200			
ITEM NAME: Stay bar system 拉杆与销轴系统			DRAW NO:		UL25020200			
ZPMC	DSGN		TRACE		APP.	组合件		
	DRAW		CHK		Q'TY/SET	39444kg		
	CHK		VER.		SET/CRANE	1套/台		

其余 $\frac{12.5}{\nabla}$



技术条件

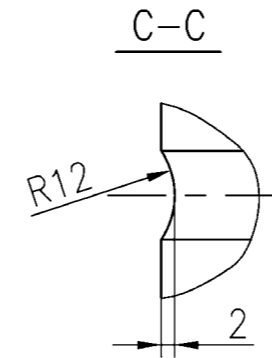
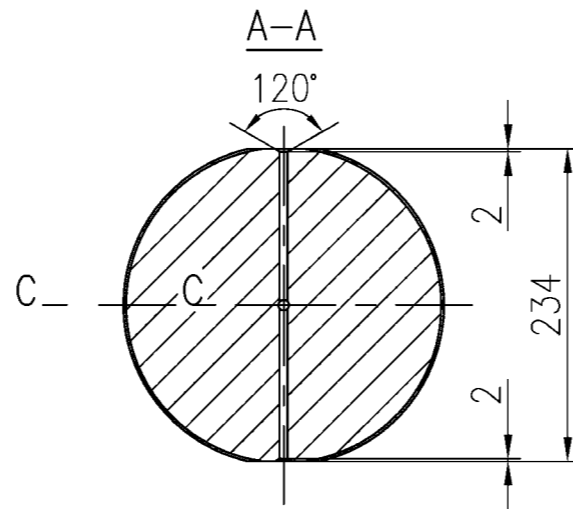
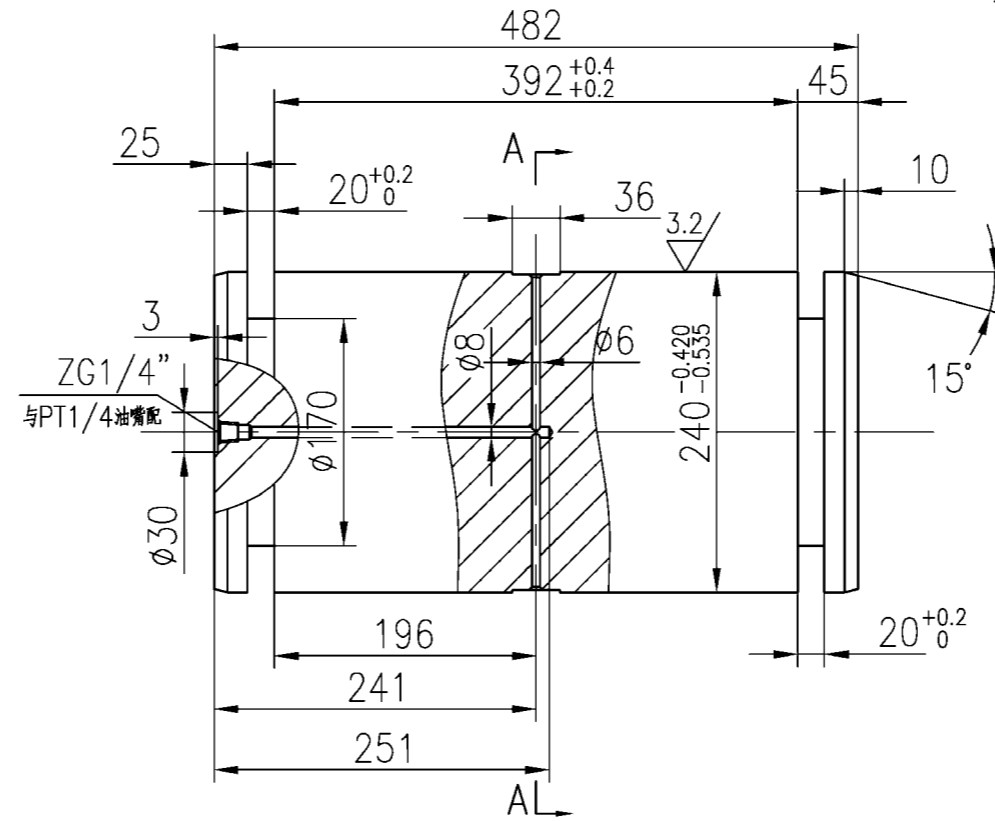
Technical condition

1. Temper and quench to HB 240~270.
2. remove sharp angle.
3. Unmarked chamfer 1x45°, fillet R1 .

1. 热处理: 调质HB240~270
2. 锐边倒钝
3. 未注圆角均为R1
4. 未注倒角均为1x45°.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
2	UL25020202	前拉杆铰轴(1) Shaft(1)	42CrMo	145kg	6/台	1:6
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

其余 $\sqrt[12.5]{}$



Technical condition

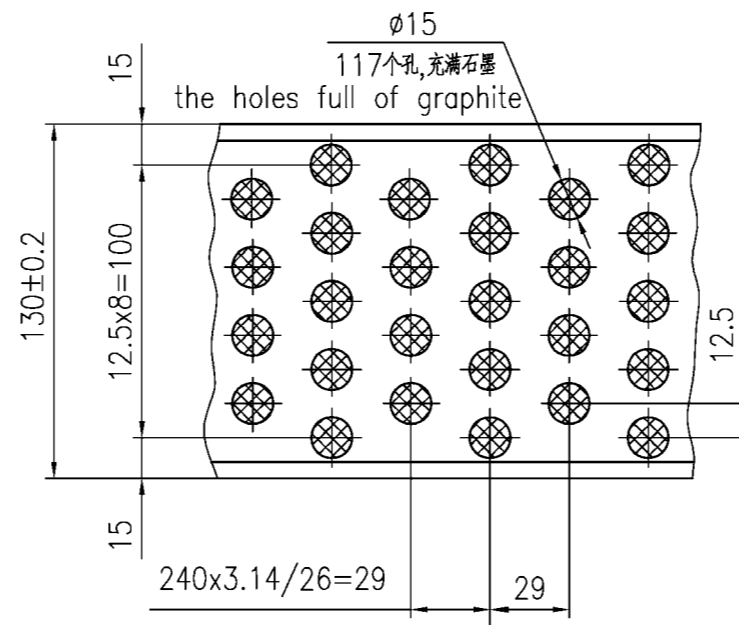
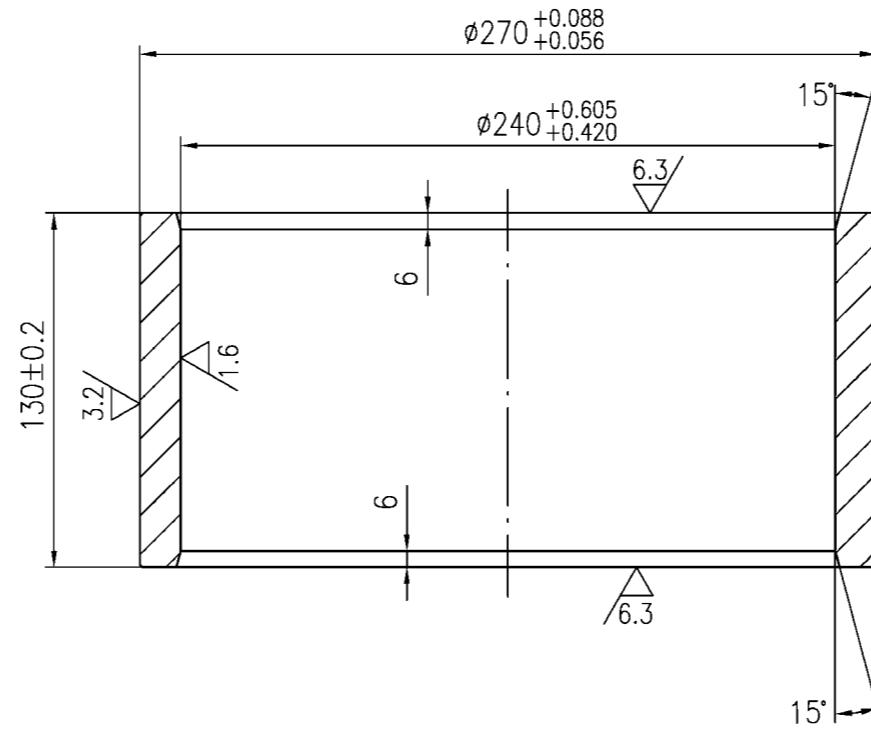
1. Temper and quench to HB 240~270.
2. remove sharp angle.
3. Unmarked chamfer 1x45°, fillet R1 .

技术条件

1. 热处理: 调质HB240~270
2. 锐边倒钝
3. 未注圆角均为R1
4. 未注倒角均为1X45°.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
5	UL25020205	前拉杆铰轴(2)Shaft(2)	42CrMo	163kg	2/台	1:6
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

其余 $\frac{12.5}{\nabla}$



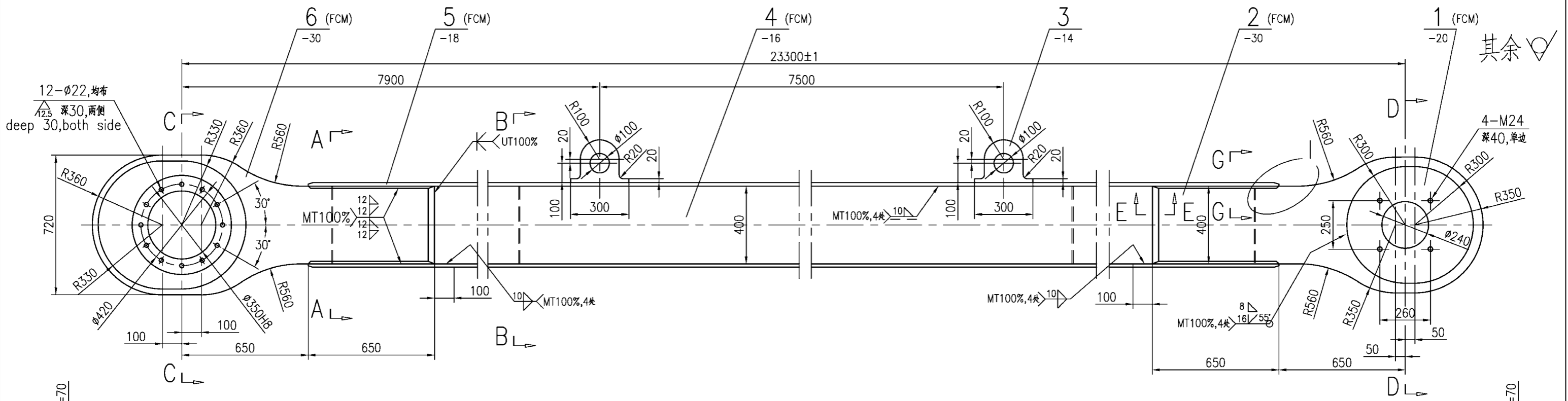
Technical condition

1. Allowable specific pressure $p > 500 \text{ kg/cm.cm}$
2. Unmarked chamfer $1 \times 45^\circ$

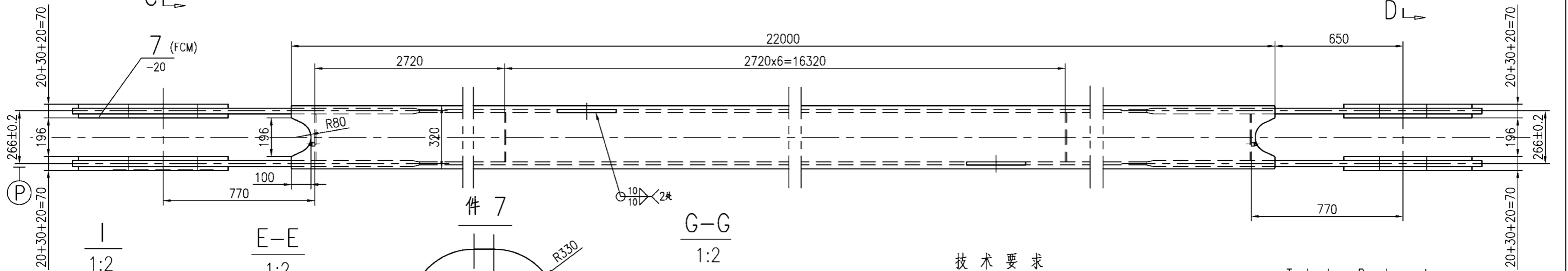
技术条件

1. 该轴承的许用比压 p 应大于每平方米 500 公斤;
2. 未注倒角 $1 \times 45^\circ$

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
6	UL25020206	自润滑轴承 Plain	ZQAL9-4	10.5kg	8/台	1:3
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



其余 ∇

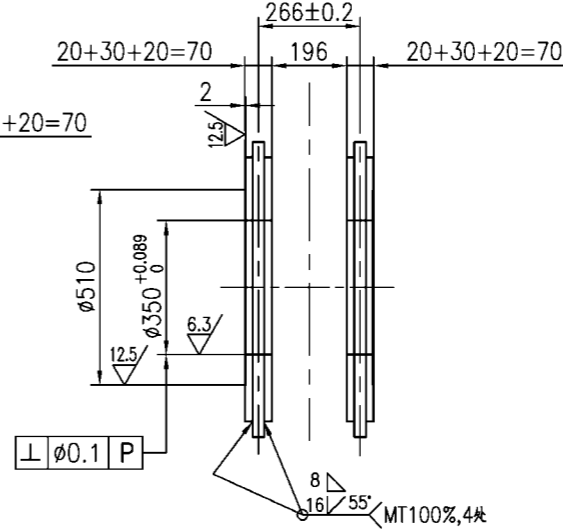
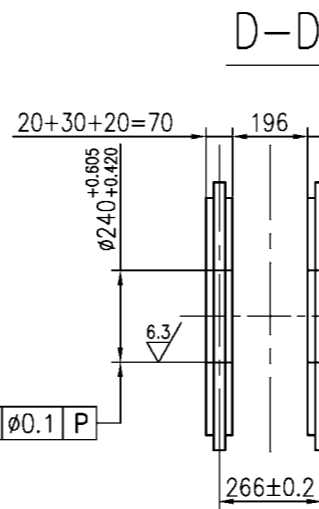
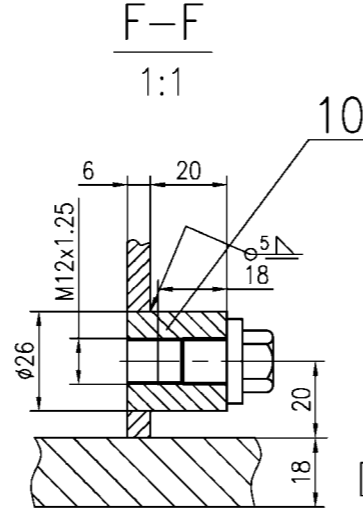
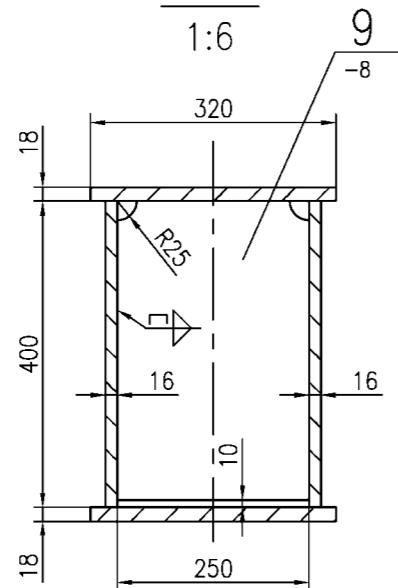
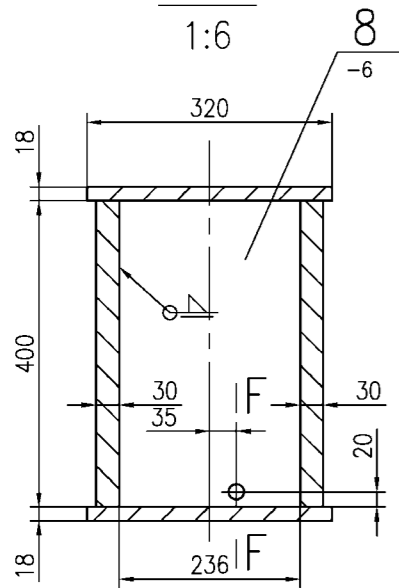
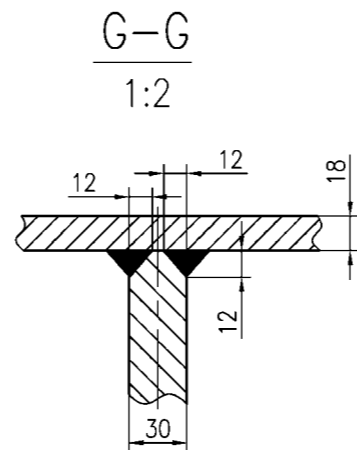
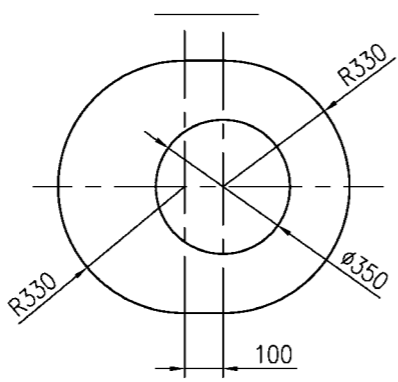
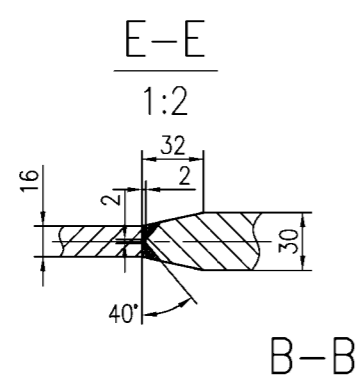
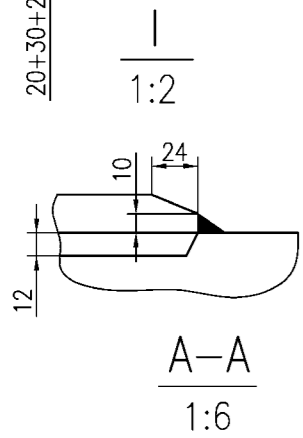


技术要求

Technology Requirement

1. 原材料和焊接材料应符合JQ/GJD03.01-92的要求;焊条采用E5015,焊缝要包角;
2. 两端耳板和杆件的焊缝以及翼板和腹板的工艺拼接焊缝需作100%超声波探伤,抽10%作X光拍片检验,焊缝质量需达到厂标一级;
3. 翼板和腹板边缘需做无损专项检测,腹板的检测工作需在和翼板施焊前进行;
4. 拉杆要平直,其不平度要为2mm/m;
5. 本构件应做气密性试验,试验压力10Kpa.
6. 锐角倒圆R5

1. The original material and welding material should be according to the JQ/GJD03.01-92 standard; the type of welding stick adopted is E5015, the welding line should be enveloped.
2. The welding lines of two ear-plates with the bars and all flanges and all webs should be 100%UT, and pick 10% for photograph, the quality should be reach ZPMC standard the first class;
3. The border of flanges and webs should be taken the special items tests of UT, the webs tests should be done before welding with flanges;
4. The tie bar should be flat and straight, the planeness should be 2mm/m;
5. The welding member should be taken the airtight test, the air test pressure is 10Kpa.

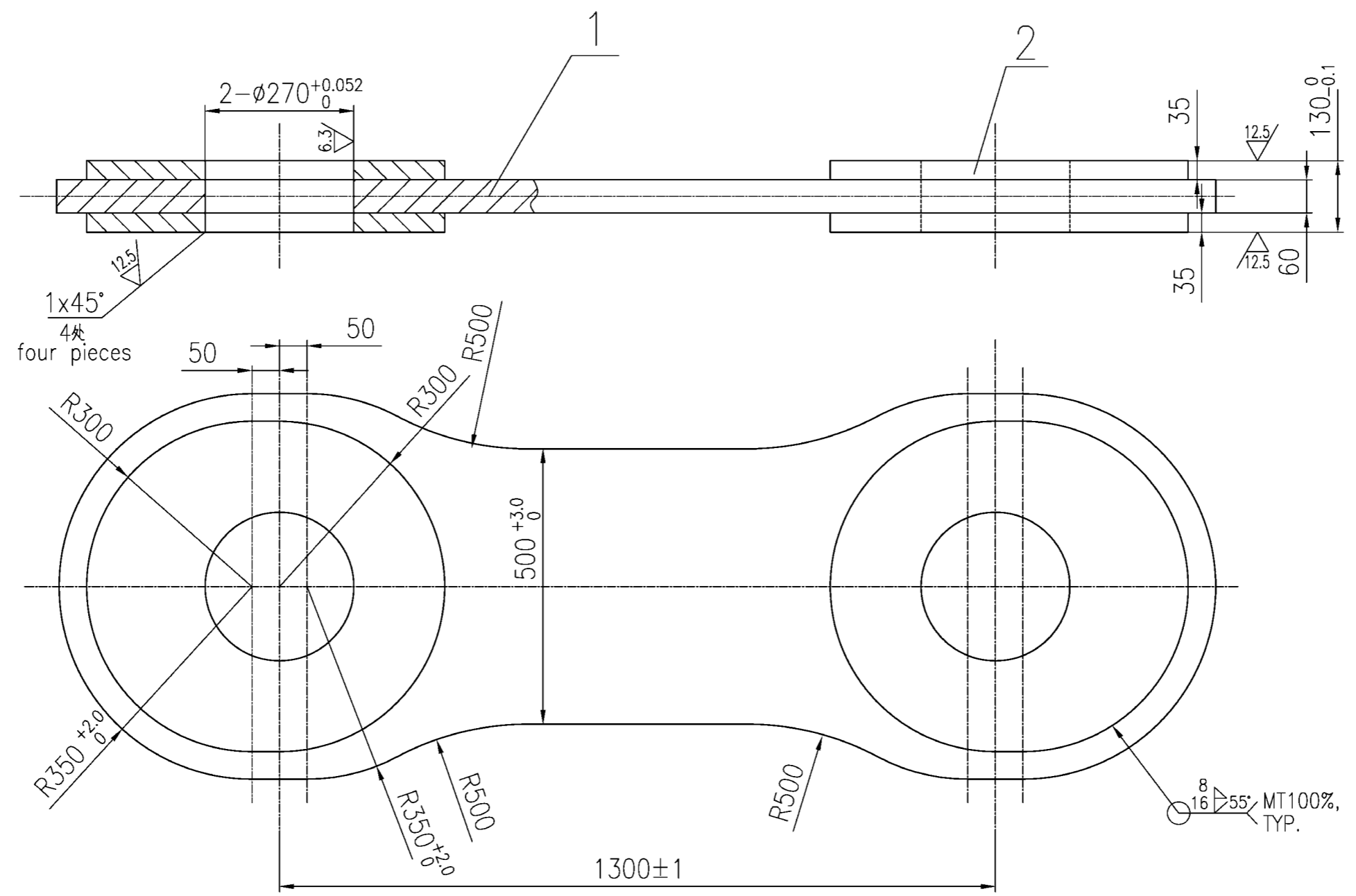


NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	WEIGHT	NOTE
10	UL2502020901	螺栓附件 Plug screw assen.		2	0.08	0.16		
9		-8x250x390	Q235	7	6.1	42.9		
8		-6x236x400	Q235	2	4.4	8.9		
7		-20x660x760	A709-50-2	4	49	195.9	FCM	
6		-30x720x1760	A709-50-2	2	190	380	FCM	
5		-18x320x22000	A709-50-2	2	991	1981.9	FCM	
4		-16x400x20700	A709-50-2	2	1040	2080	FCM	
3		-14x220x300	Q235	2	3.7	7.4		
2		-30x700x1700	A709-50-2	2	185	370	FCM	
1		-20x600x650	A709-50-2	4	42	168	FCM	

PROJECT: Alabama 2000t/h ship unloader DESIGN STAGE: SCALE: 1:10

ITEM NAME: 拉杆(1)-23300 DRAW NO: UL25020209
 Drawbar(1) 23300

ZPMC	DSGN	TRACE	APP.	总件数
	DRAW	CHK	QTY/SET	5236kg
	CHK	VER.	SET/Crane	2

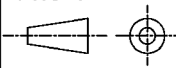


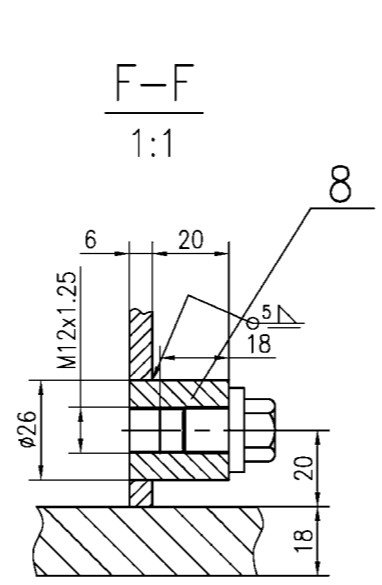
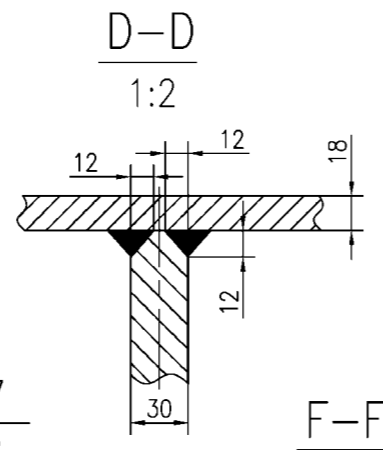
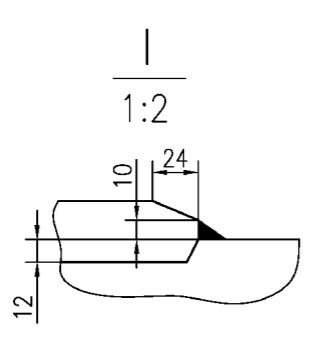
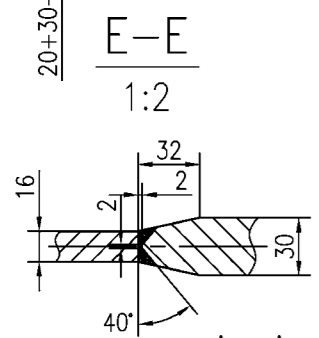
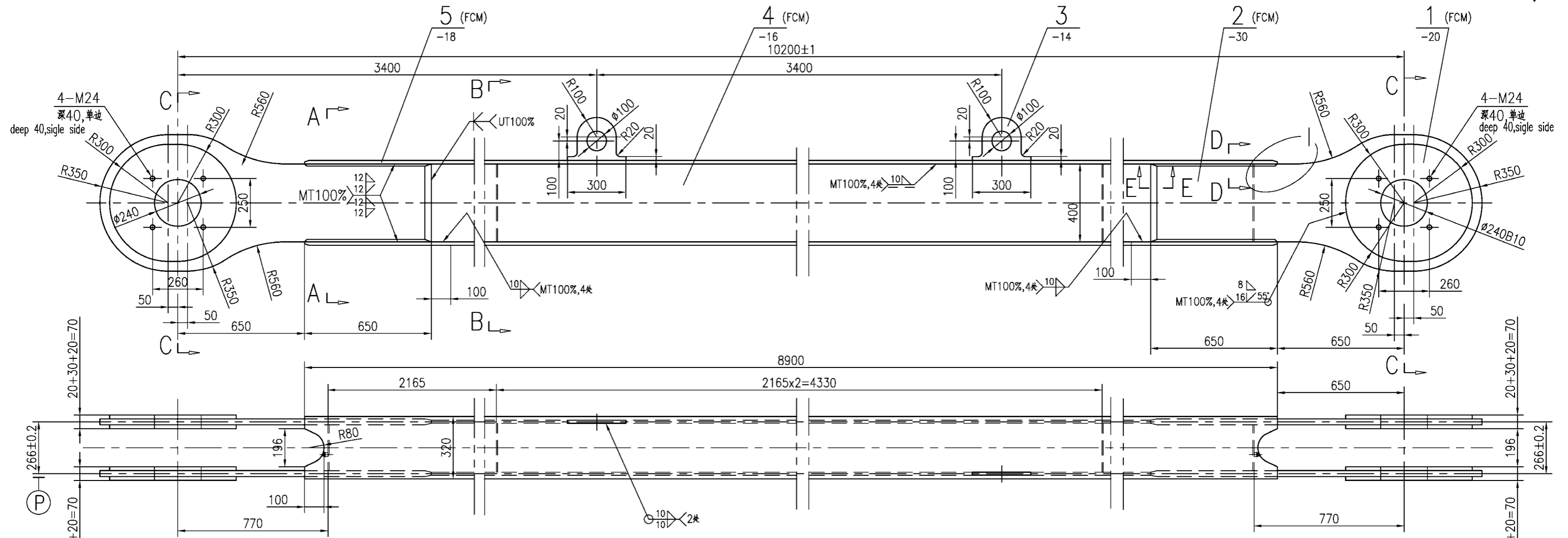
Technical Condition

1. Welding rod is E5015.
2. The quality standard should attain to AWS.
3. Match made in laying out and hole boring.
4. The round of plate should be smoothly grinded R1.5.

技术要求

1. 焊条采用E5015.
2. 焊缝质量均达到AWS规定的要求.
3. 应成对划线, 镗孔.
4. 板的周边应磨光, 边缘打磨圆角R1.5.

2		-35x600x650	A709-50-2	4	70.1	280.6	FCM
1		-60x700x2100	A709-50-2	1	513	513	FCM
NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	WEIGHT		NOTE
					each	total	
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:10		
ITEM NAME: 拉板 Tie plate			DRAW NO: UL25020210			PROJ. 	
ZPMC	DSGN		TRACE		APP.	焊接件	
	DRAW		CHCK		Q'TY/SET	794kg	
	CHCK		VER.		SET/CRANE	2	

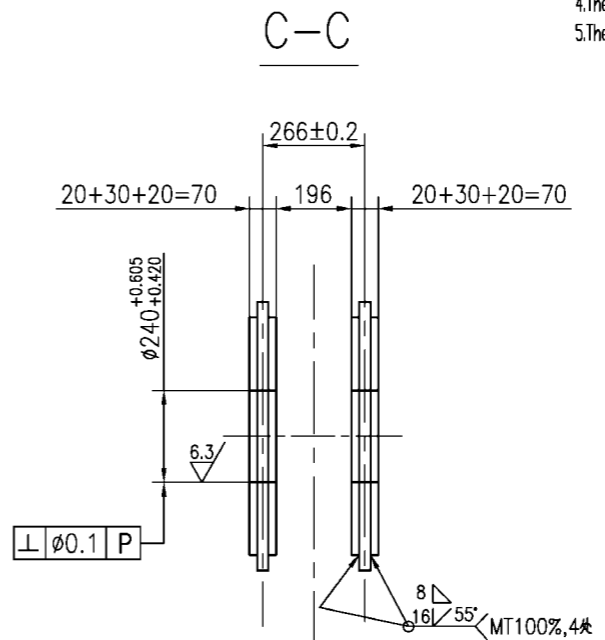
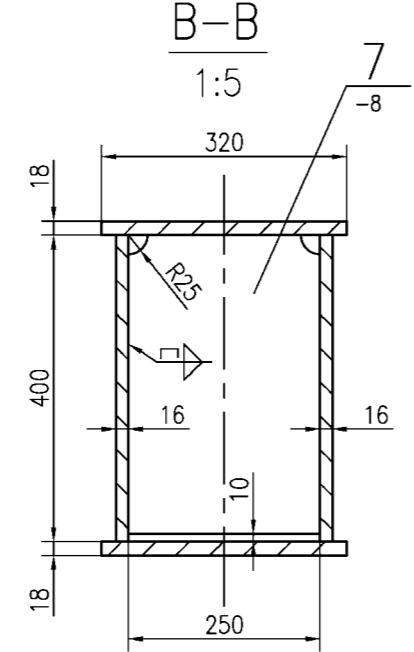
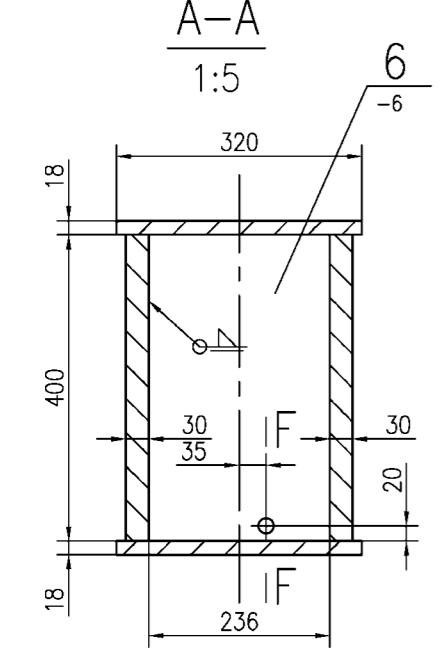


技术要求

1. 原材料和焊接材料需符合JQ/GJD03.01-92的要求;焊条采用E5015,焊缝要包角;
2. 两端耳板和杆件的焊缝以及翼板和腹板的工艺拼接焊缝需作100%超声波探伤,抽10%作X光拍片检验,焊缝质量需达到厂标一级;
3. 翼板和腹板边缘需做无损专项检测,腹板的检测工作需在和翼板施焊前进行;
4. 拉杆要平直,其不平度要为2mm/m;
5. 本构件应做气密性试验,试验压力10Kpa.

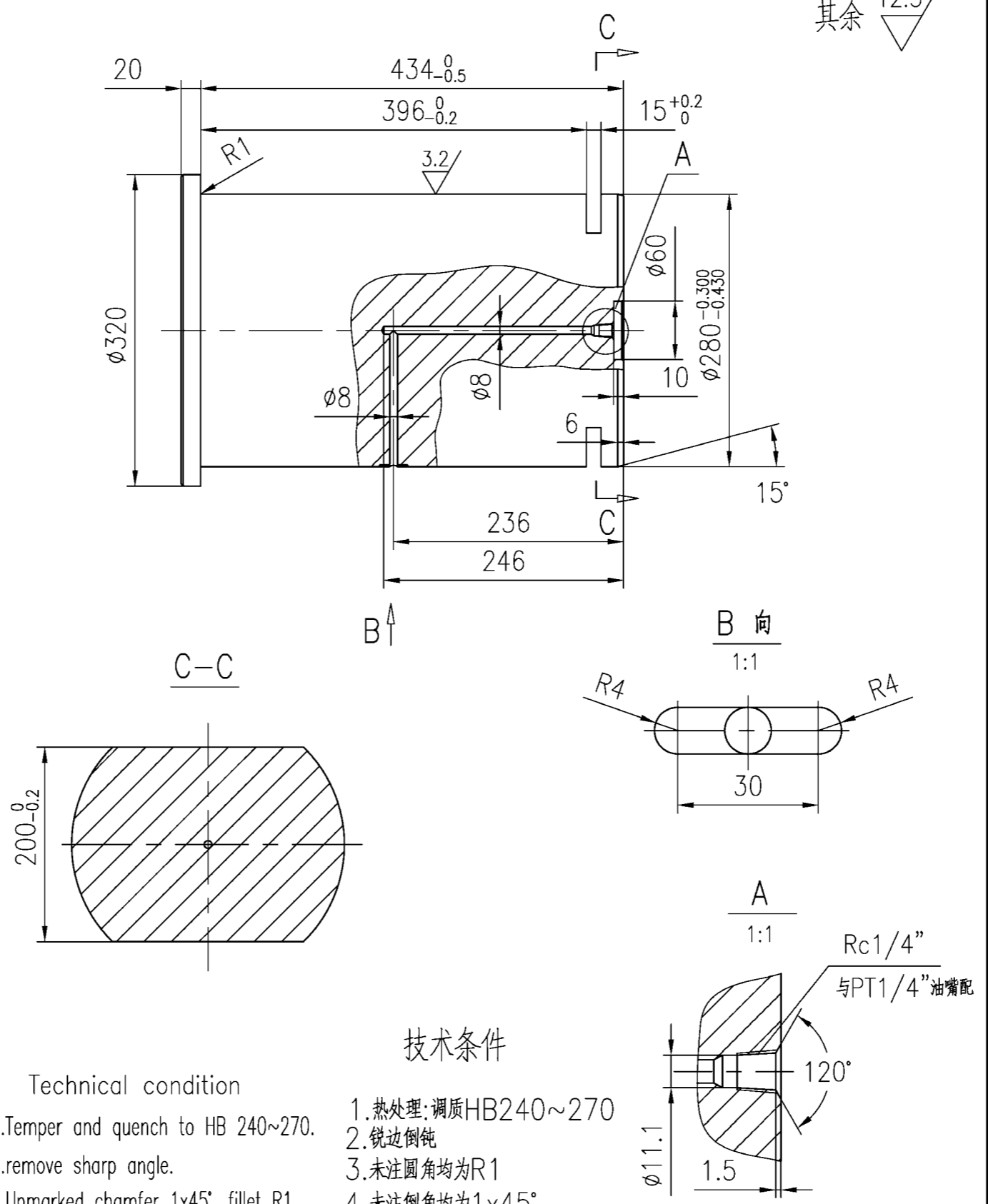
Technology Requirement

- 1.The original material and welding material should be according to the JQ/GJD03.01-92 standard; the type of welding stick adopted is E5015,the welding line should be envelopd.
- 2.The welding lines of two ear-plates with the bars and all flanges and all webs should be 100%UT, and pick 10% for photograph, the quality should be reach ZPMC standard the first class;
- 3.The border of flanges and webs should be taken the special items tests of UT, the webs tests should be done before welding with flanges;
- 4.The tie bar should be flat and straight, the planeness should be 2mm/m;
- 5.The welding member should be taken the airtight test, the air test pressure is 10Kpa.



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	WEIGHT	NOTE
8	UL2502020901	螺栓组件 Plug screw assm.	组件	2	0.08	0.16		管附件
7		-8x250x390	Q235	3	6.1	18.3		
6		-6x236x400	Q235	2	4.4	8.9		
5		-18x320x8900	A709-50-2	2	398.5	796.9		FCM
4		-16x400x7600	A709-50-2	2	381.8	763.6		FCM
3		-14x220x300	Q235	2	3.7	7.4		
2		-30x700x1700	A709-50-2	4	185	740		FCM
1		-20x600x650	A709-50-2	8	42	336		FCM
PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE: 1:10				
ITEM NAME: 前拉杆(2)-10200		DRAW NO: UL25020211						
Drawbar(2) 10200								
DSGN		TRACE		APP.	总合件			
DRAW		CHCK		Q'TY/SET	2672kg			
CHCK		VER.		SET/CRANE	2			

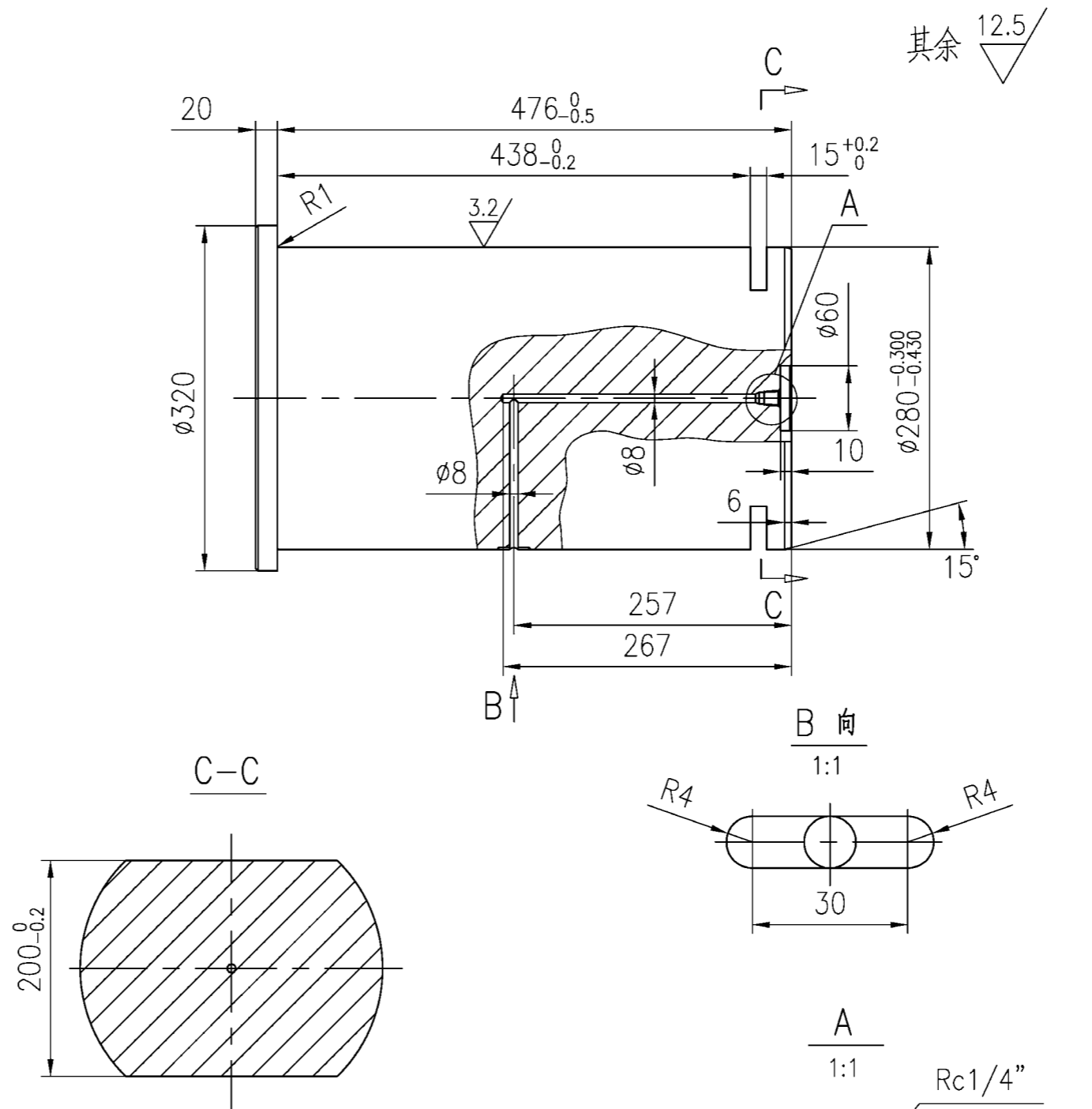
其余 $\sqrt{12.5}$



Technical condition
 1. Temper and quench to HB 240~270.
 2. remove sharp angle.
 3. Unmarked chamfer 1x45', fillet R1 .

技术条件
 1. 热处理:调质HB240~270
 2. 锐边倒钝
 3. 未注圆角均为R1
 4. 未注倒角均为1x45'.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
13	UL25020213	大梁主铰轴(1) Main shaft(1)	35CrMo	220kg	2	1:6
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

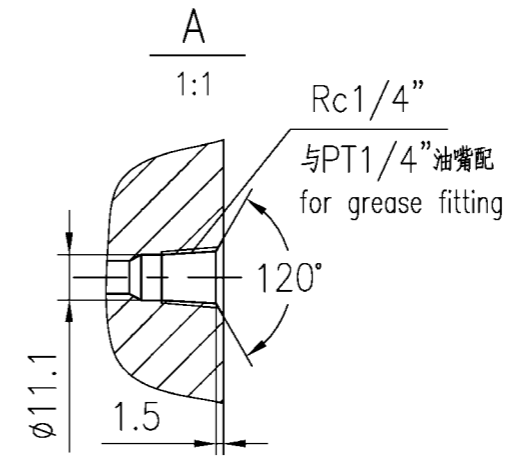


Technical condition

1. Temper and quench to HB 240~270.
 2. remove sharp angle.
 3. Unmarked chamfer 1x45°, fillet R1 .

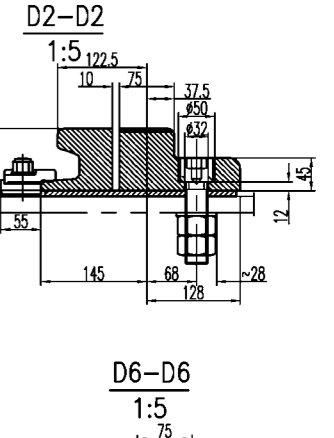
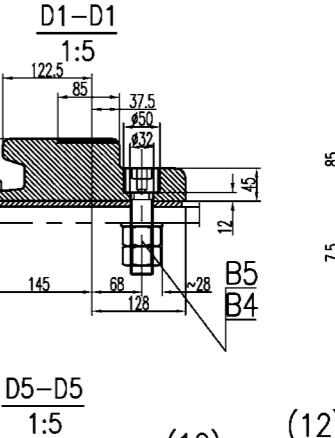
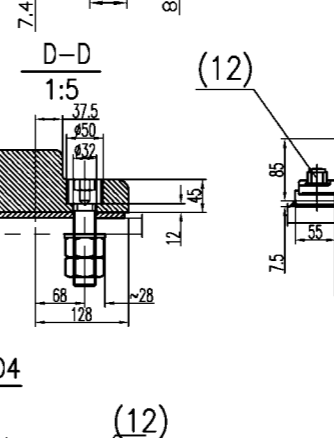
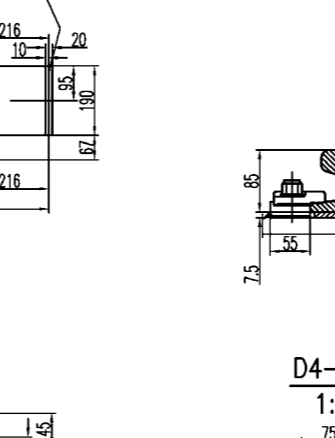
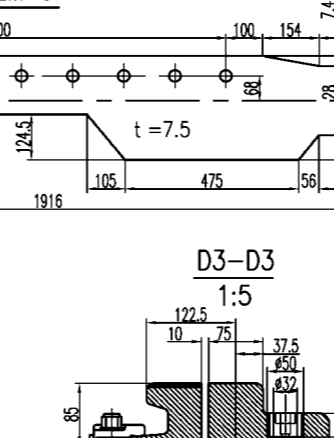
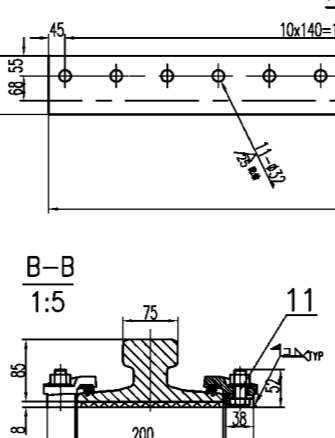
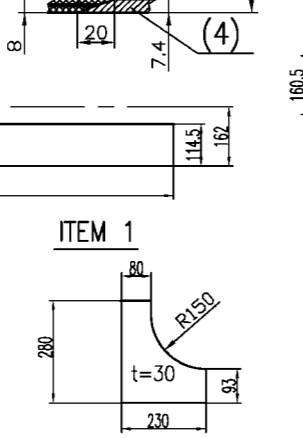
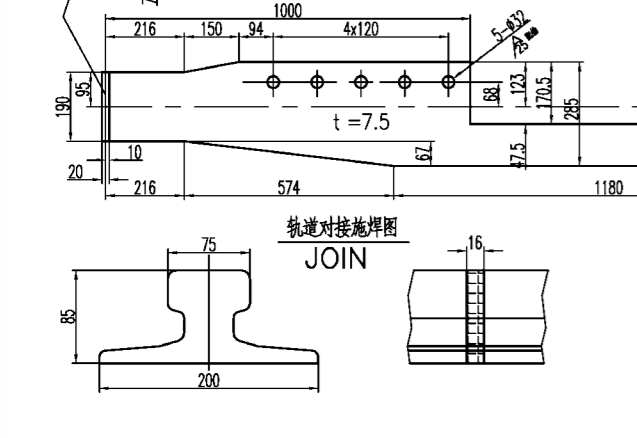
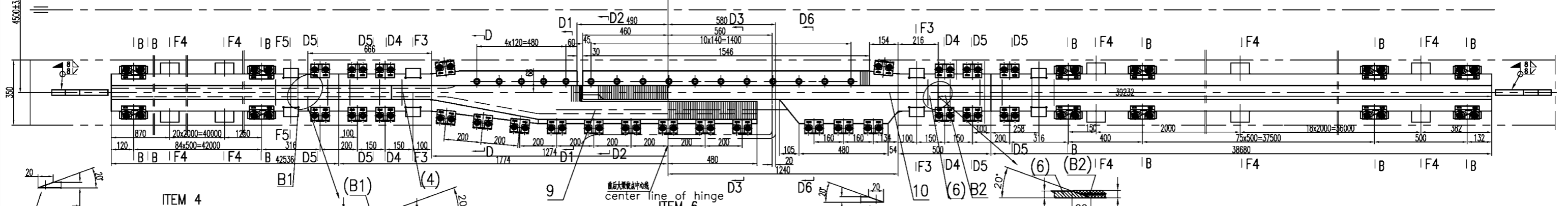
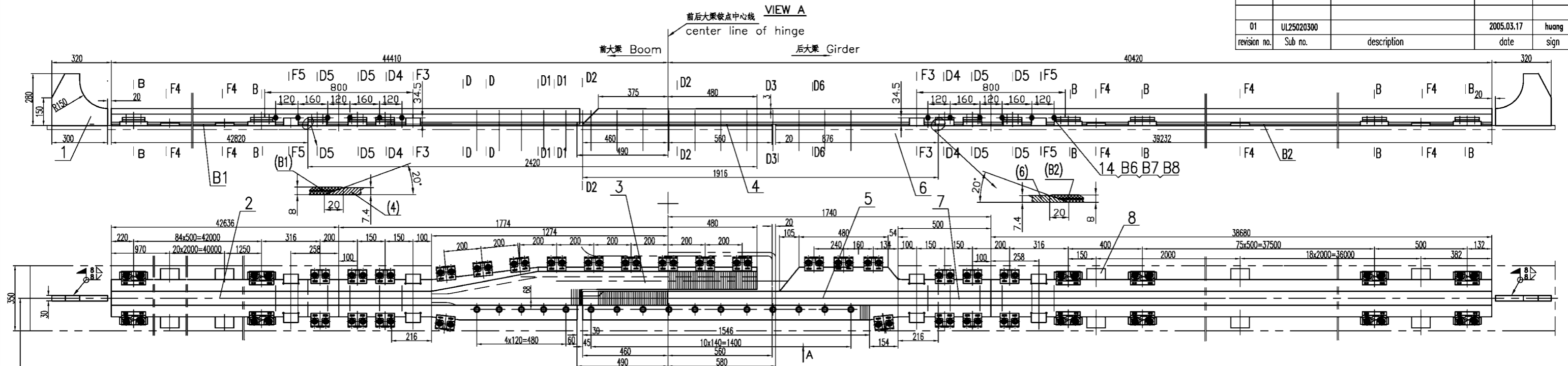
技术条件

1. 热处理:调质HB240~270
 2. 锐边倒钝
 3. 未注圆角均为R1
 4. 未注倒角均为1x45°.



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
17	UL25020217	大梁主铰轴(2) Main shaft(2)	35CrMo	241.6kg	2	1:6
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

01	UL25020300		2005.03.17	huang
revision no.	Sub no.	description	date	sign



	小车轮中心线中心距中心线偏差不超过±3mm。(FEM 8.2.2.4) The trolley rail centre distance must not differ from the nominal dimensions by more than ±3 mm.(FEM 8.2.2.4)
	在同一垂直于小车轮运行方向上,左右侧轨道顶面与中心线的偏差不超过±0.15%,最大不超过10mm。(FEM 8.2.2.5) In a plane perpendicular to the travel direction of the trolley, the difference in height of two opposite points of the trolley track shall not exceed 0.15% of the trolley rail centre distance, with a maximum of 10mm.(FEM 8.2.2.5)
	小车轮中心线中心距中心线偏差不超过±3mm,最大不超过±3mm;车轮中心距中心线偏差不超过±0.1%。(FEM 8.2.2.6) Trolley rails shall be laid in such a way that the running surface is horizontal and that the greatest unevenness of the bearing surface is no more than ±3 mm for rail centres up to 3m and no more than ±0% of the trolley wheel centre distance if it exceeds 3m. (FEM 8.2.2.6)
	小车轮中心线中心距中心线偏差不超过±1mm;车轮中心距中心线偏差不超过±1mm。(FEM 8.2.2.7) The vertical axis of the trolley rail must not diverge from the vertical axis of the rail girder web by more than half the thickness of the rail girder web.(FEM 8.2.2.7)
	小车轮中心线中心距中心线偏差不超过±1mm;车轮中心距中心线偏差不超过±10mm。(FEM 8.2.3) The axis of the trolley rails must not diverge from their theoretical axis by more than ±1mm in a rail length of 2m. There should be no misalignments of rail joints.(8.2.2.8) The maximum permissible lateral deviation of each rail in a horizontal plane is ±10mm. (8.2.3)
	小车轮中心线中心距中心线偏差不超过±0.3%。(FEM 8.2.3) The inclination of the trolley rail rolling surface must not exceed the following values as compared with the theoretical position: (FEM 8.2.3) Longitudinally: 0.3% Laterally: 0.3%

Technical Requirement

- During rail track laying center line and both side lines of the rail should be marked on the rail support girder first, then rails will be laid along these lines. Rails should be laid starting from the boom hinge point, then extended towards both ends.
- All length of rail should be welded and should be finished on the ground.
- The connectors of rail are requested to weld fully through the process. They must be whetted smoothly and checked by MT, make selective check the part by UT. If discovers surface crack and internal fatal blemish, should return to fix on time. The same connector is returned to fix to disallow to exceed 3 times.
- Detailed welding process according to GTC-18B <The General Welding Procedure Specification of the Rail>.
- Welding rods used in base plates of clip and boom are adopted from E4315, grooves refer to JQ/GJ003.01~02~92.
- Clearance and misalignment of the rail sections should not exceed 0.5 mm.
- Rail assembly should be accorded with various demands at drawing.
- The clip and rail mat should be referred to 0302.
- The locking plate of the clip should be folded after tightening the bolt in order to keep tightening.

技术要求

- 铺设轨道时在梁上划出轨道中心线,沿中心线按两线铺设轨道;铺设轨道时应从后大梁的铰点处向两端铺设。
- 轨道全长焊接完成,并应尽量在地面完成。
- 焊接接头要求焊缝,通过工艺手段未达到,焊后打磨光滑,并作磁粉探伤,抽查部分接头作UT检查,如发现表面裂纹及内部致命缺陷,应及时按返修工艺返修,同一接头返修不允许超过3次。
- 详细焊接工艺参照《轨道焊接通用工艺规程》进行,该规程编号为GTC-18B。
- 压板底座与梁焊接用E4315焊条,底板需开6毫米坡口,焊缝按JQ/GJ003.01~02~92要求执行。
- 接口处错位和间隙偏差不得大于0.5mm;
- 轨道安装零件应符合说明的各项要求。
- 轨道压板与衬垫符合<图号 0302号>的各项要求。
- 轨道压板零件在螺栓拧紧后应将压板零件中的垫片折起,以防松动,轨道压板零件螺栓的拧紧力矩为250Nm。

NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	each	total	NOTE
PROJECT:		Alabama 2000t/h ship unloader	DESIGN STAGE:		SCALE: 1:10		
ITEM NAME:		小车轨道 Trolley rail	DRAW NO:		UL25020300		
DSGN		TRACE		APP.	Assembly		
DRAW		CHCK		QTY/SET	12205 Kg		
CHK		VER.		SET/CRANE	1		

明 细 表

* 这表的数量和重量是对每一套

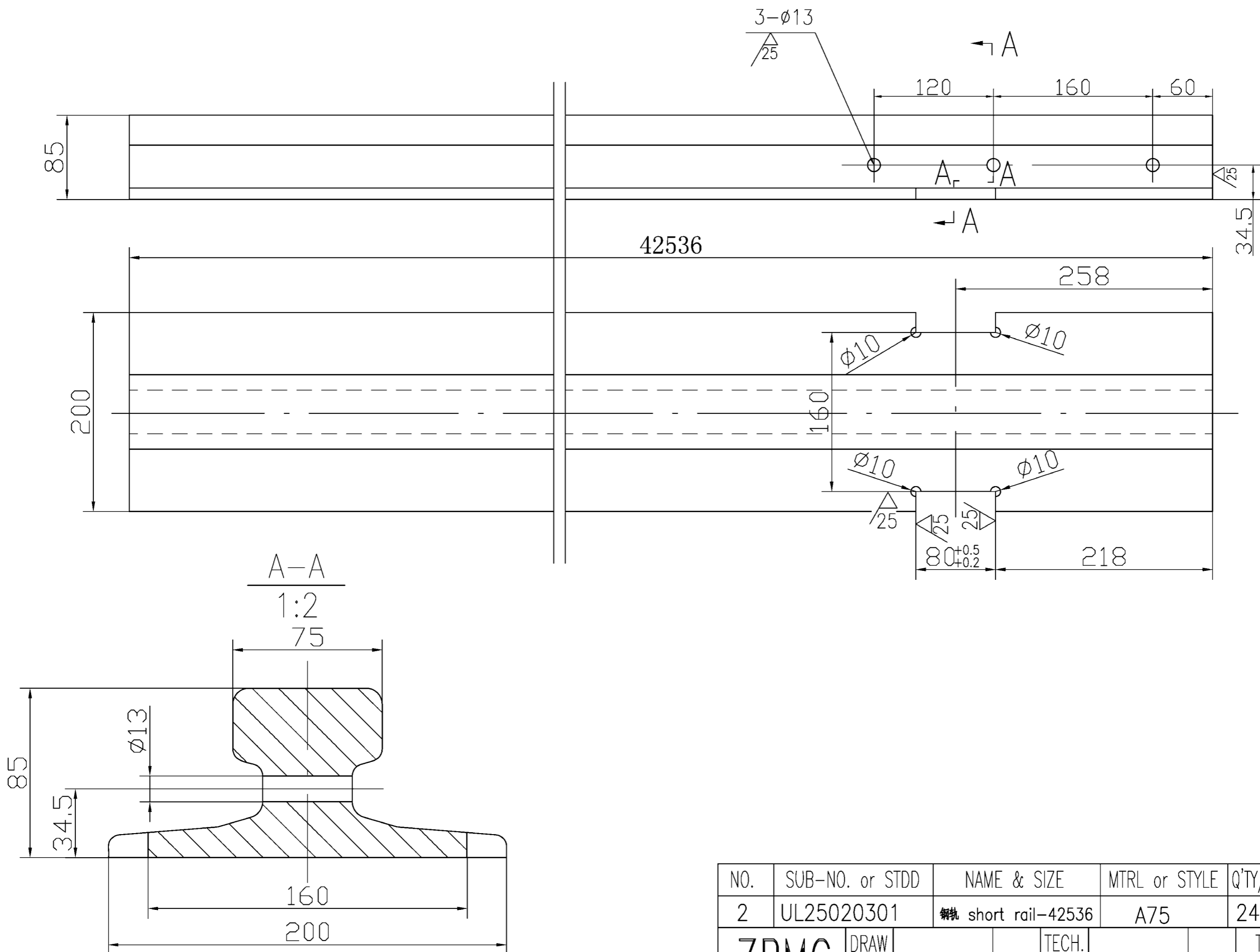
1 套/台, 12205 公斤/套, 12205 公斤/台

第 1 页
共 1 页

工程名称或代号: Alabama 2000t/h ship unloader		部件名称: 小车轨道 Trolley rail		部件图号: UL25020300		
零件号	分图号或标准	名称及规格	材料或型号	每套数量	单重	总重
1		-30x280x300	Q235B	4	13.5	54
2	UL25020301	钢轨 rail -42536	A75	2	2406	4812
3	UL25020302	短轨 short rail-I	42CrMo4V	1	191.5	191.5
4		-7.4x285x1980	Q235	2	20.8	41.6
5	UL25020303	短轨 short rail-II	42CrMo4V	1	192.5	192.5
6		-7.4x285x1926	Q235	2	22.6	45.2
7	UL25020304	钢轨 rail -38948	A75	2	2203	4406
8		-16X60X100	Q235B	164	0.75	123
9	UL25020305	短轨 short rail-III	42CrMo4V	1	191.5	191.5
10	UL25020306	短轨 short rail-IV	42CrMo4V	1	192.5	192.5
11	GANTREX	22/130/BQ clip	Assembly	652	2.1	1369.2
12	ZPMC-YB55b	压板组件 clip	Assembly	52	1.5	78
13	UL25020307	挡块 fix block	Q235B	16	1.25	20
14	UL25020308	鱼尾板 rail joint bar	Q235B	8	1.25	10
B1	MK6-RB-200	轨道衬垫-42830	MK6-RB-200	2	124	248
B2	MK6-RB-200	轨道衬垫-39242	MK6-RB-200	2	115	230
B3	GB70-85	内六角圆柱头螺钉M30x110 bolt	8.8s	32		
B4	GB95-85	垫圈 30 washer	100HV	32		
B5	GB6170-86	螺母 M30 nut	10s	64		
B6	ASTM	螺栓 M12X110 bolt	45	24		
B7	ASTM	螺母 M12 nut	45	24		
B8	ASTM	垫圈 12 washer	45	48		
上海振华港机公司		制图		工艺		描图
		校对		标准		描校

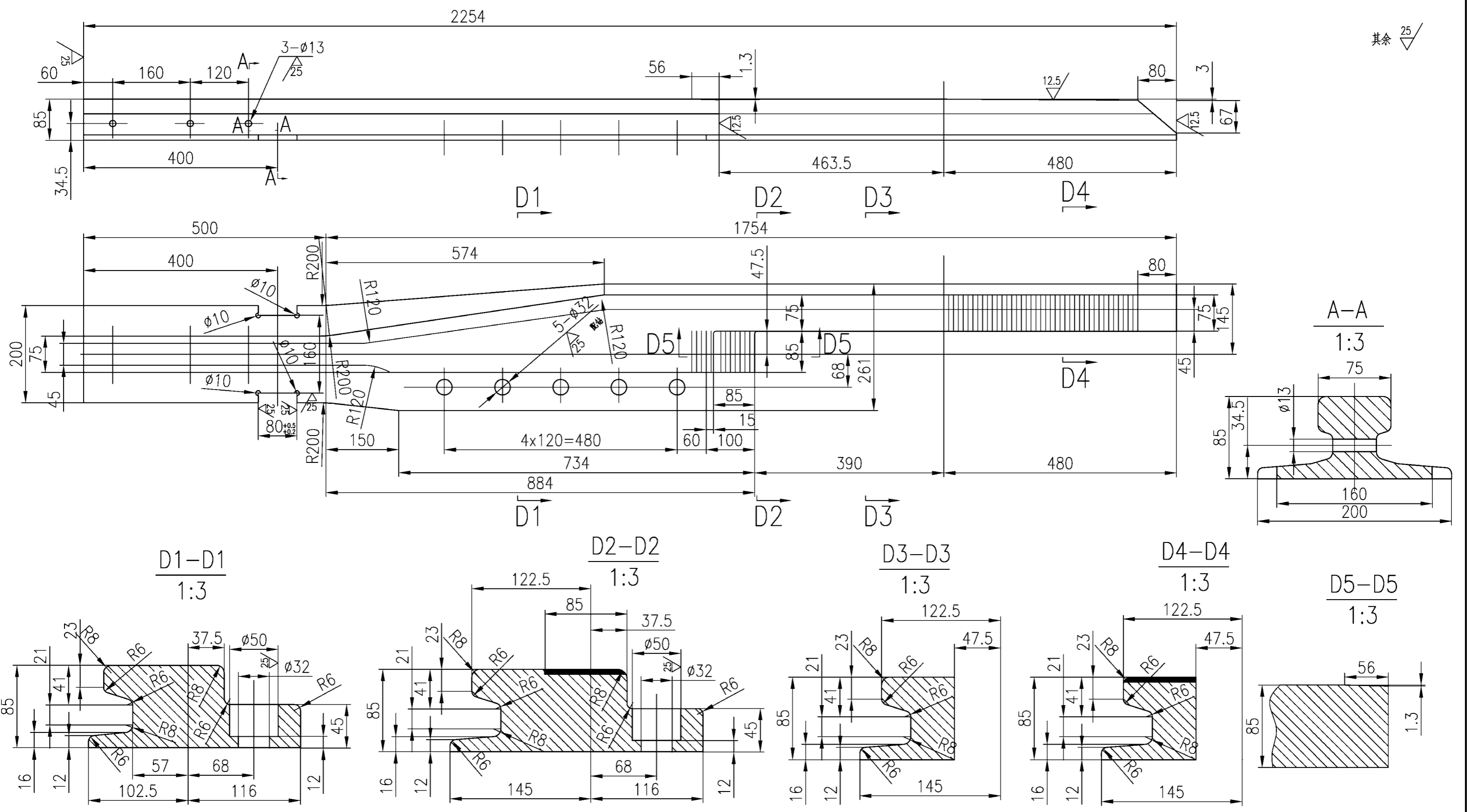
01	UL25020301		2005.03.17	huang
revision no.	Sub no.	description	date	sign

其余 ✓



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
2	UL25020301	钢轨 short rail-42536	A75	2406	2	1:4
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

01	UL25020302		2005.03.17	huang
revision no.	Sub no.	description	date	sign



其余 25

Technical Condition

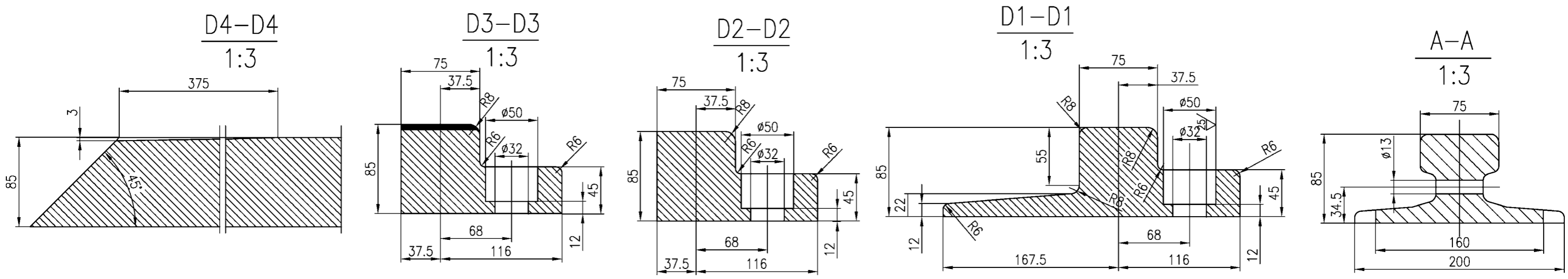
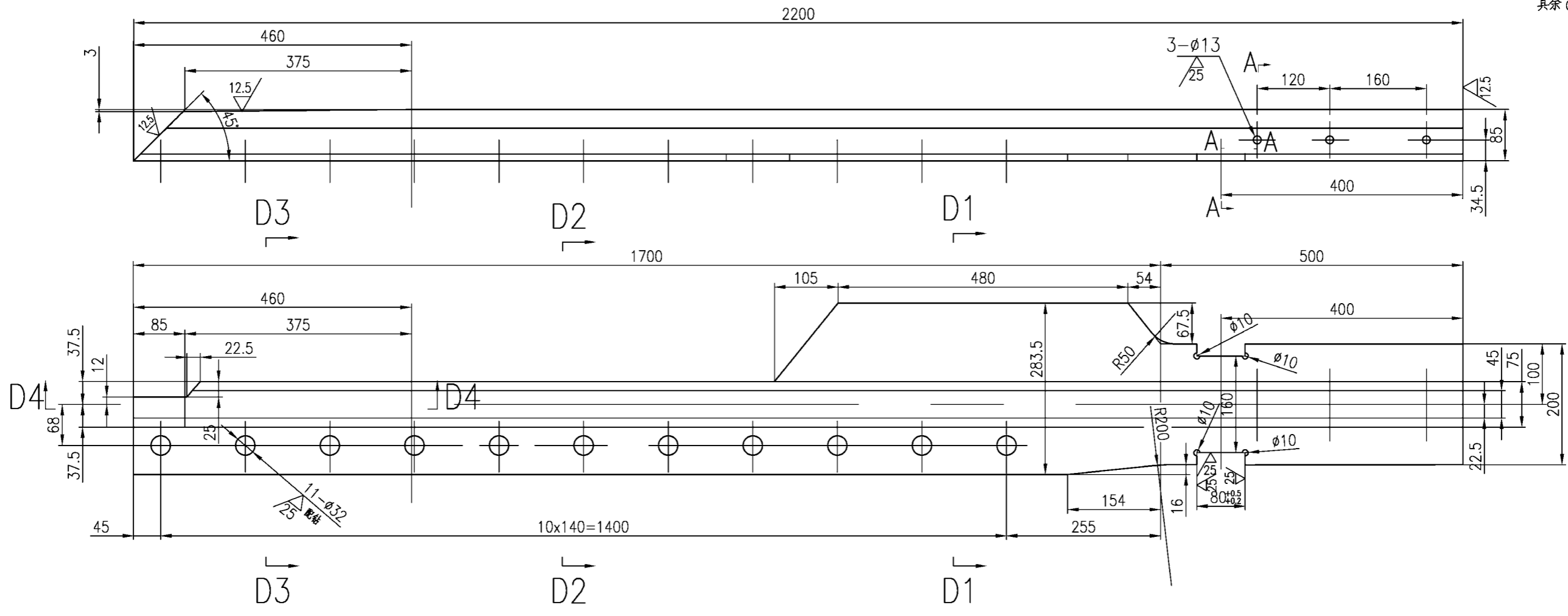
技术要求

- The welding rods should be E5015, ground smooth and inspected 100%MT. 1. 焊接时采用E5015焊条,焊后将焊缝磨光,并100%MT检验
- Hardened and tempered: HB250-280, treads of rail and horizontal wheel HB370-420. 2. 调质HB250-280,轨道车轮踏面,水平轮踏面淬火HB370-420.
- Chamfer 1x45°, Fillet R2. 3. 未注倒角1x45°,未注圆角R2.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
3	UL25020302	短轨 rail-I	42CrMo4V	191.5kg	1	1:6
ZPMC		DRAW	TECH.	TRACE		
		CHCK	STDD	CHCK		

01	UL25020303		2005.03.17	huang
revision no.	Sub no.	description	date	sign

其余 others 25/



Technical Condition

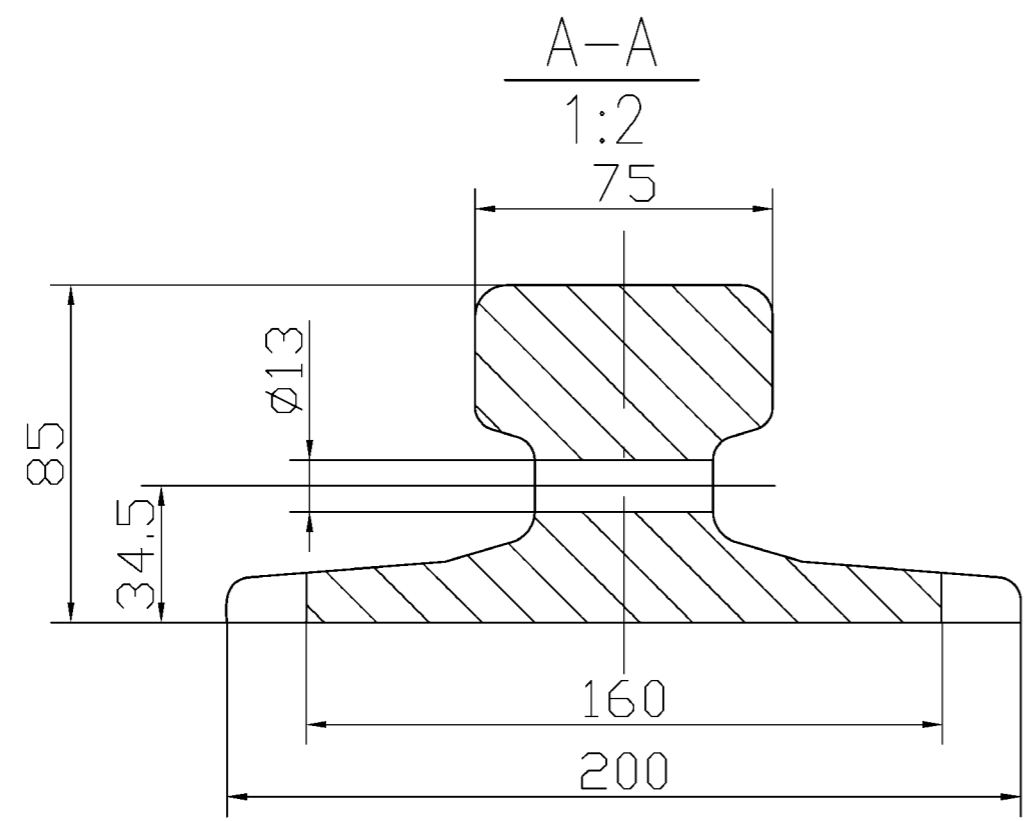
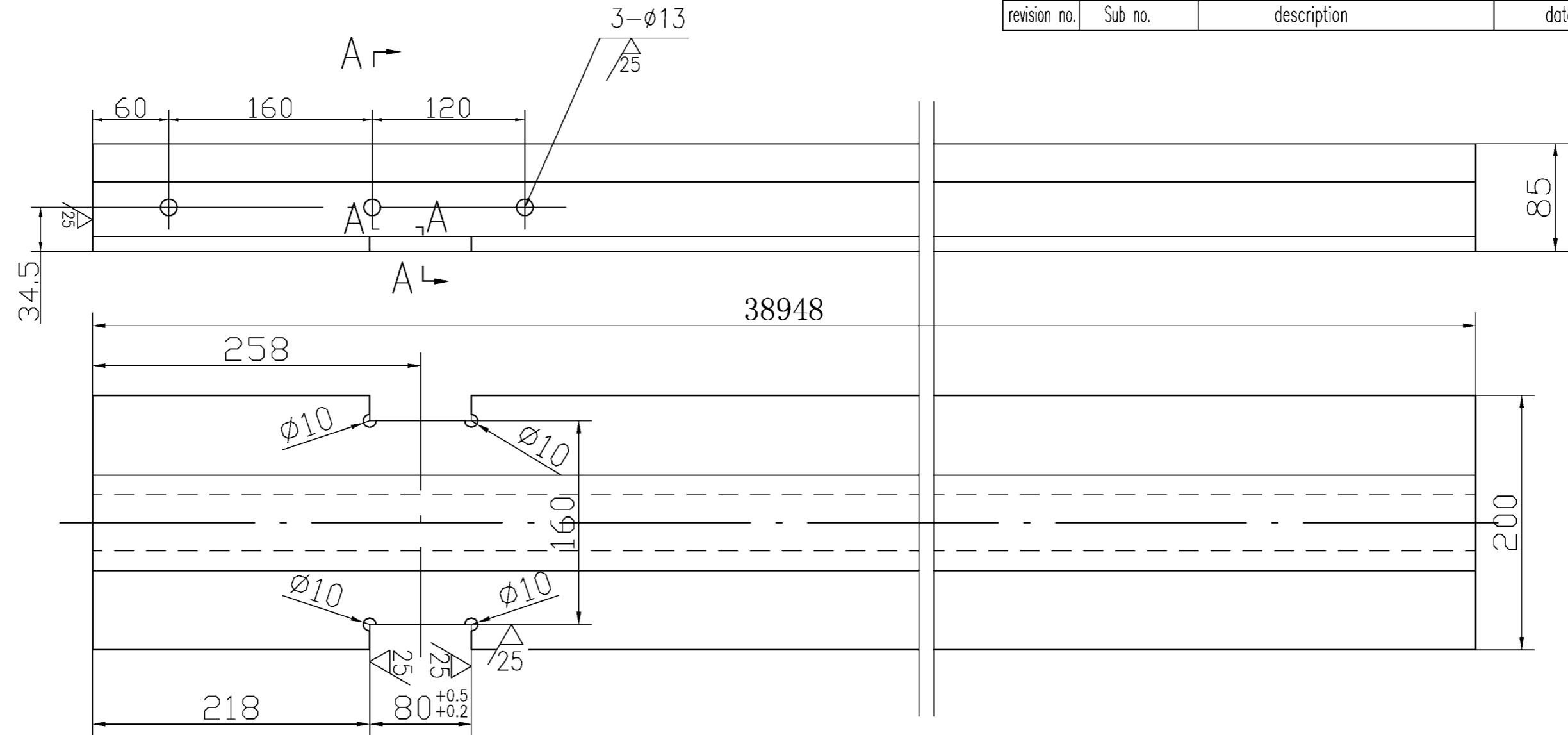
- The welding rods should be E5015, ground smooth and inspected 100%MT.
- Hardened and tempered: HB250-280, treads of rail and horizontal wheel HB370-420.
- Chamfer 1x45°, Fillet R2.

技术要求

- 焊接时采用E5015焊条,焊后将焊缝磨光,并100%MT检验
- 调质HB250-280,轨道车轮踏面,水平轮踏面淬火HB370-420.
- 未注倒角1x45°,未注圆角R2.

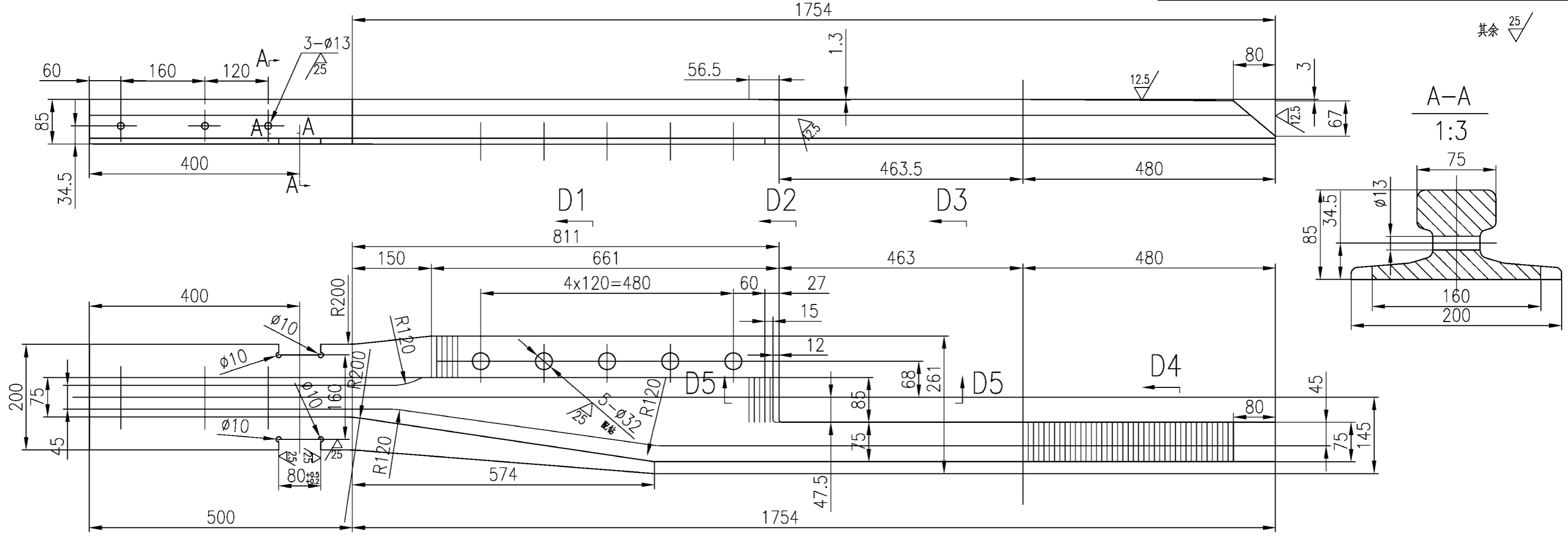
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
5	UL25020303	短轨 short-II	42CrMo4V	192.5kg	1	1:6
ZPMC		DRAW	TECH.	TRACE		
		CHCK	STDD	CHCK		

01	UL25020304		2005.03.17	huang
revision no.	Sub no.	description	date	sign



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
7	UL25020304	钢轨 rail-38948	A75	2203	2	1:4
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

01	UL25020305		2005.03.17	huang
revision no.	Sub no.	description	date	sign



其余 25°

A-A
1:3

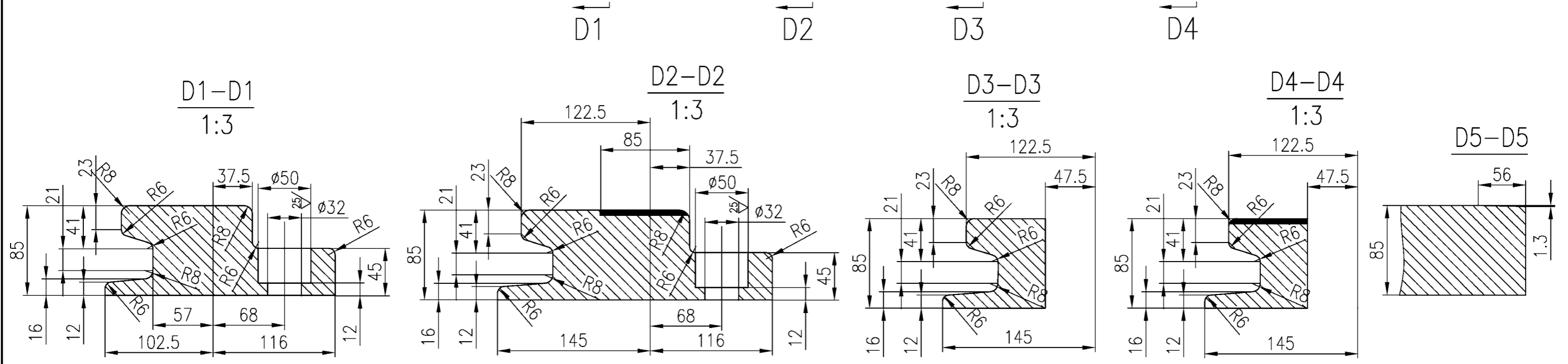
D1-D1
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D2-D2
1:3

D3-D3
1:3

D4-D4
1:3

D5-D5



Technical Condition

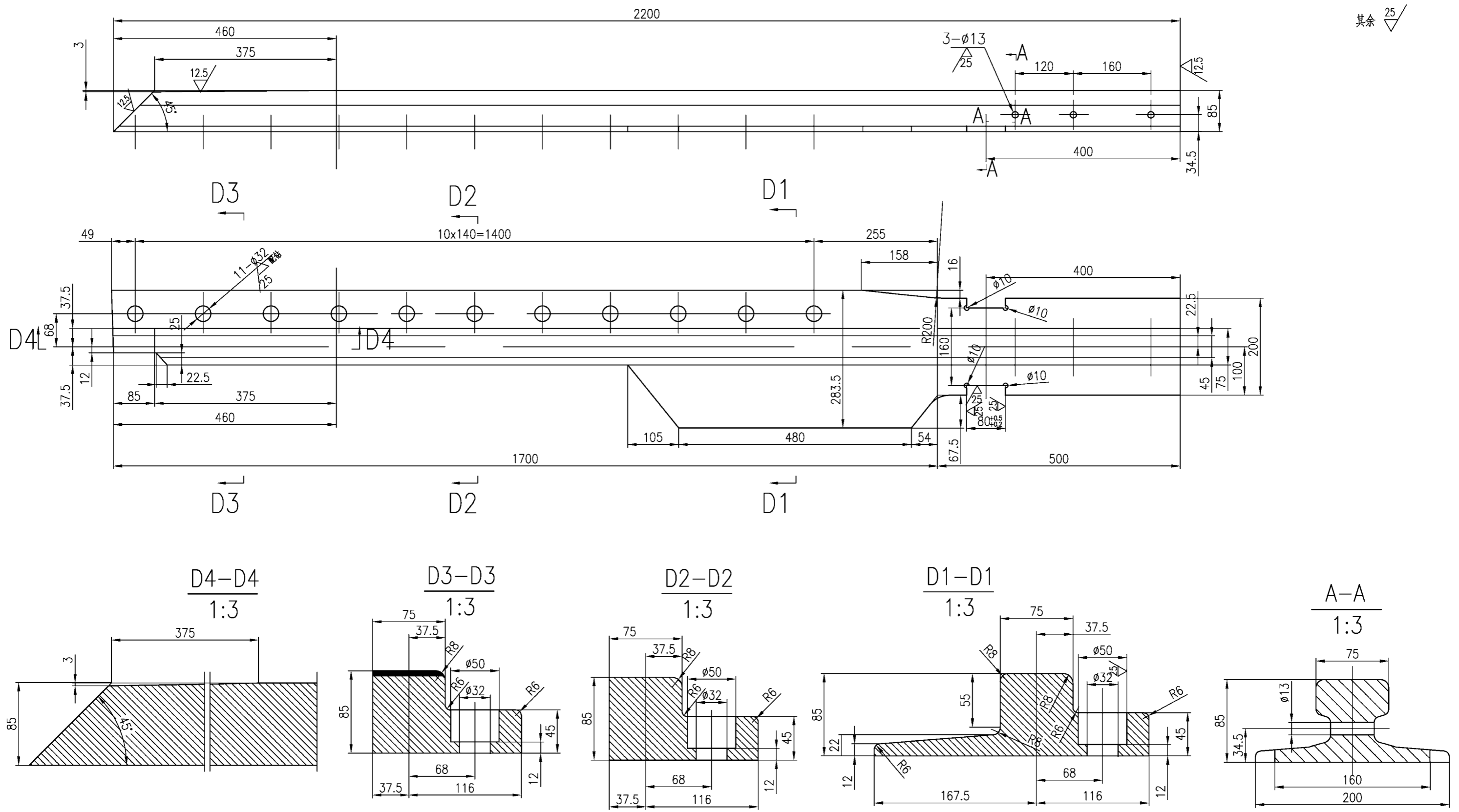
- The welding rods should be E5015, ground smooth and inspected 100%MT.
- Hardened and tempered: HB250-280, treads of rail and horizontal wheel HB370-420.
- Chamfer 1x45°, Fillet R2.

技术要求

- 焊接时采用E5015焊条,焊后将焊缝磨光,并100%MT检验
- 调质HB250-280,轨道车轮踏面,水平轮踏面淬火HB370-420.
- 未注倒角1x45°,未注圆角R2.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
9	UL25020305	短轨 rail-III	42CrMo4V	191.5kg	1	1:6
ZPMC		DRAW	TECH.	TRACE		
		CHCK	STDD	CHCK		

01	UL25020306		2005.03.17	huang
revision no.	Sub no.	description	date	sign



其余 25

Technical Condition

- The welding rods should be E5015, ground smooth and inspected 100%MT.
- Hardened and tempered: HB250-280, treads of rail and horizontal wheel HB370-420.
- Chamfer 1x45°, Fillet R2.

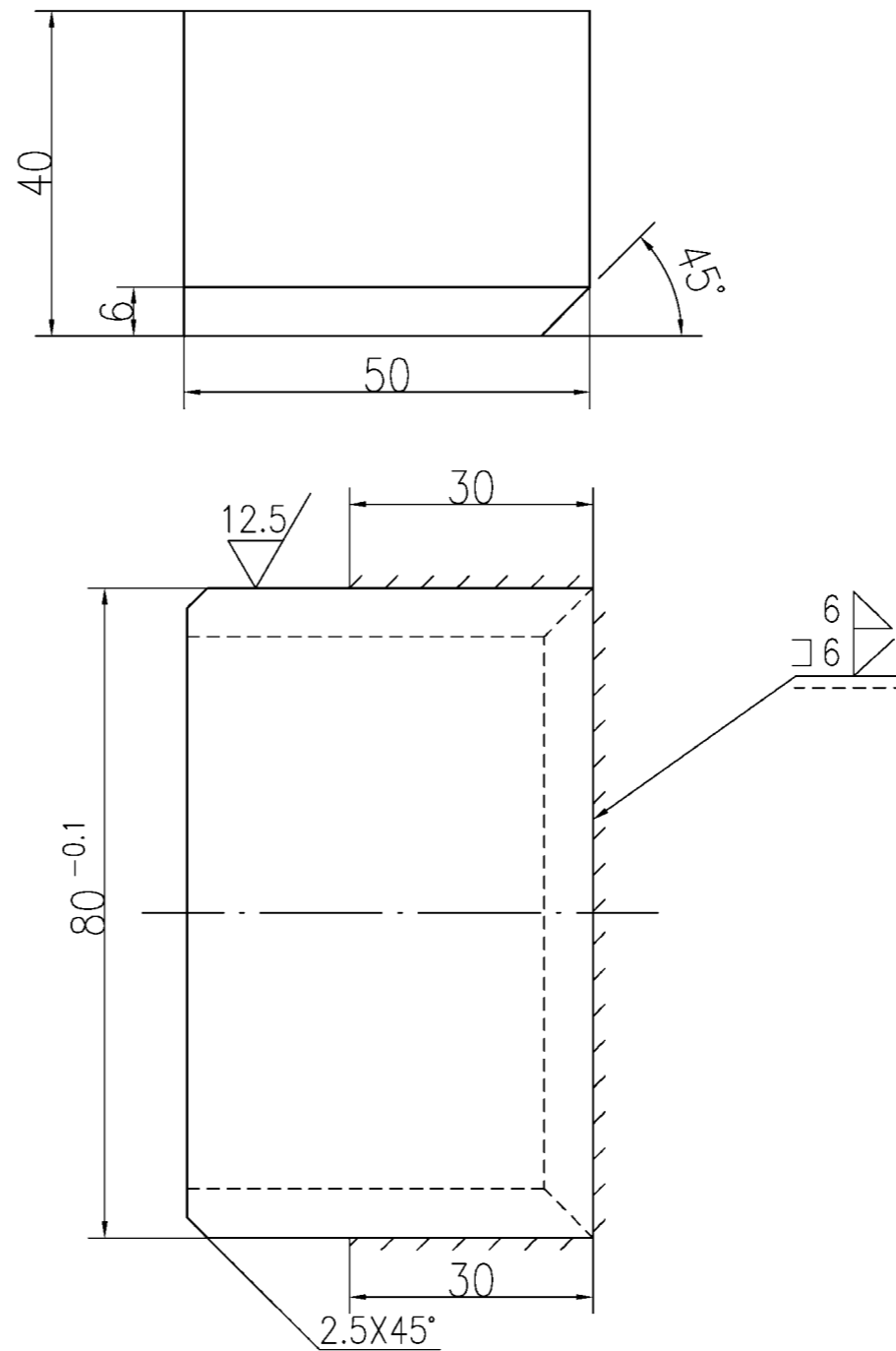
技术要求

- 焊接时采用E5015焊条,焊后将焊缝磨光,并100%MT检验
- 调质HB250-280,轨道车轮踏面,水平轮踏面淬火HB370-420.
- 未注倒角1x45°,未注圆角R2.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
10	UL25020306	短轨 short-IV	42CrMo4V	192.5kg	1	1:6
ZPMC		DRAW	TECH.	TRACE		
		CHCK	STDD	CHCK		

01	UL25020307		2005.03.17	huang
revision no.	Sub no.	description	date	sign

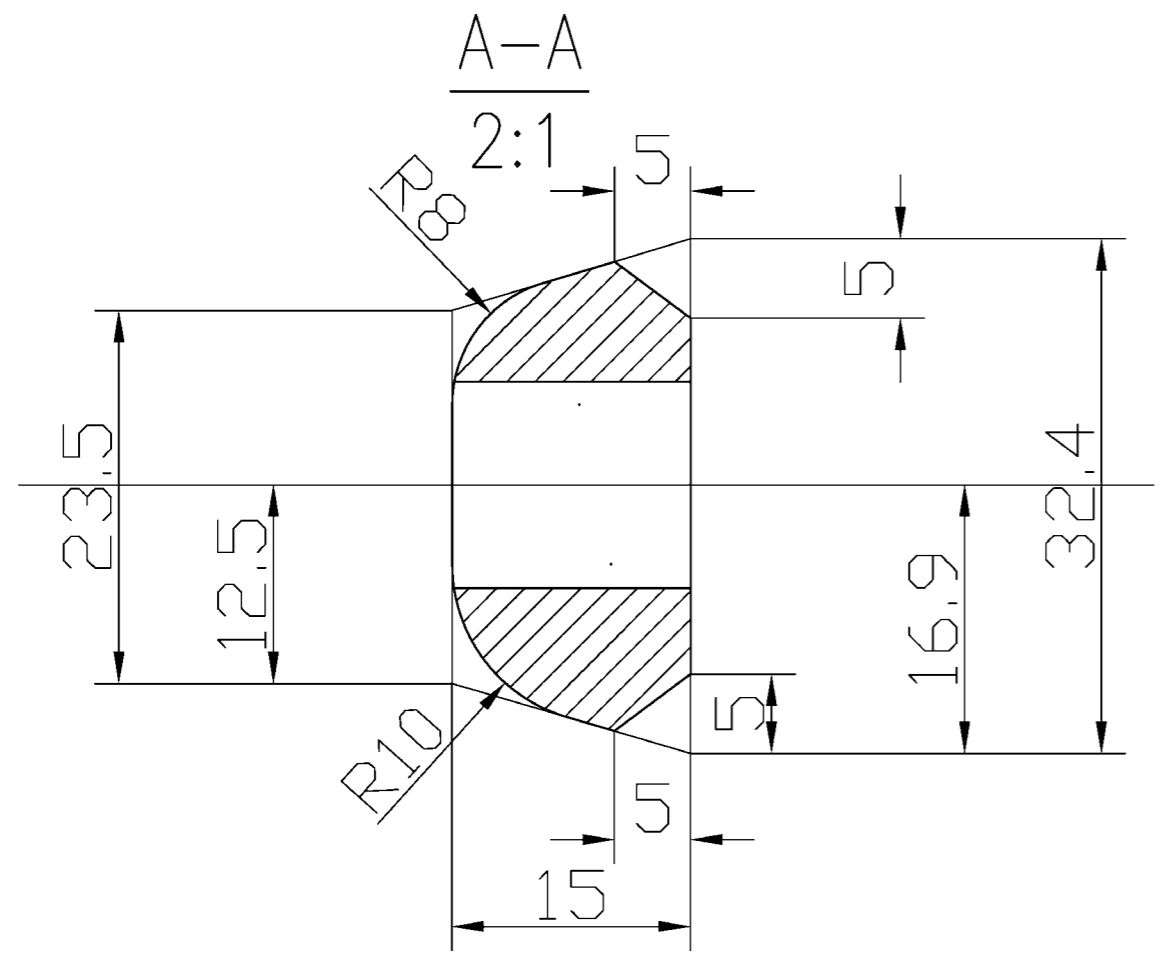
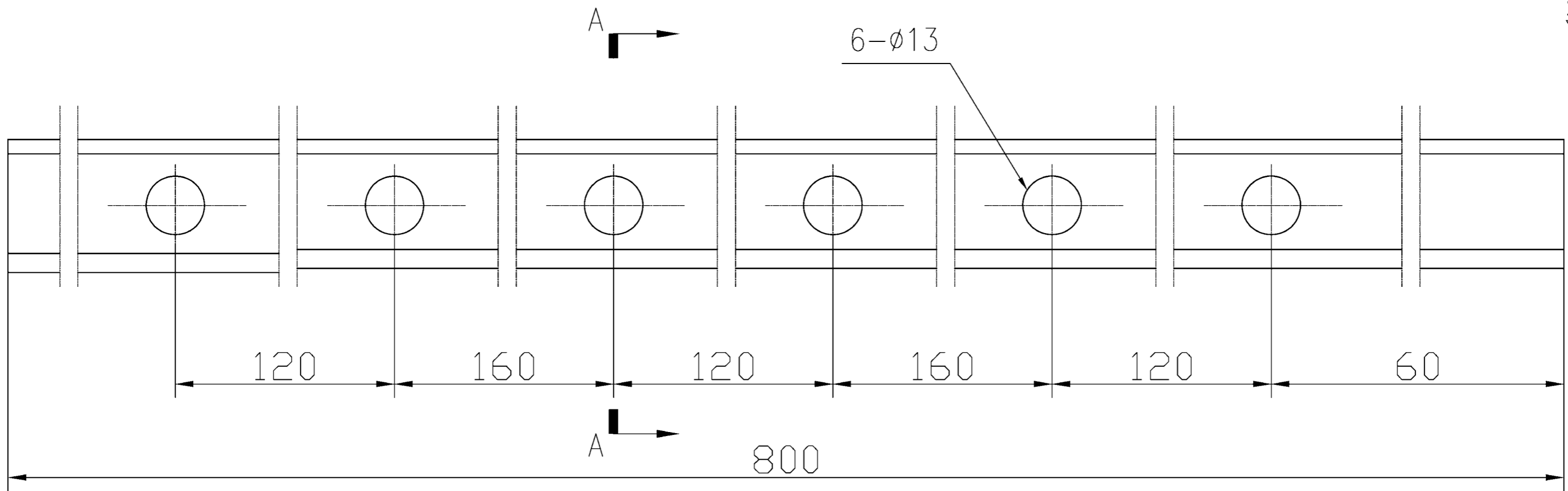
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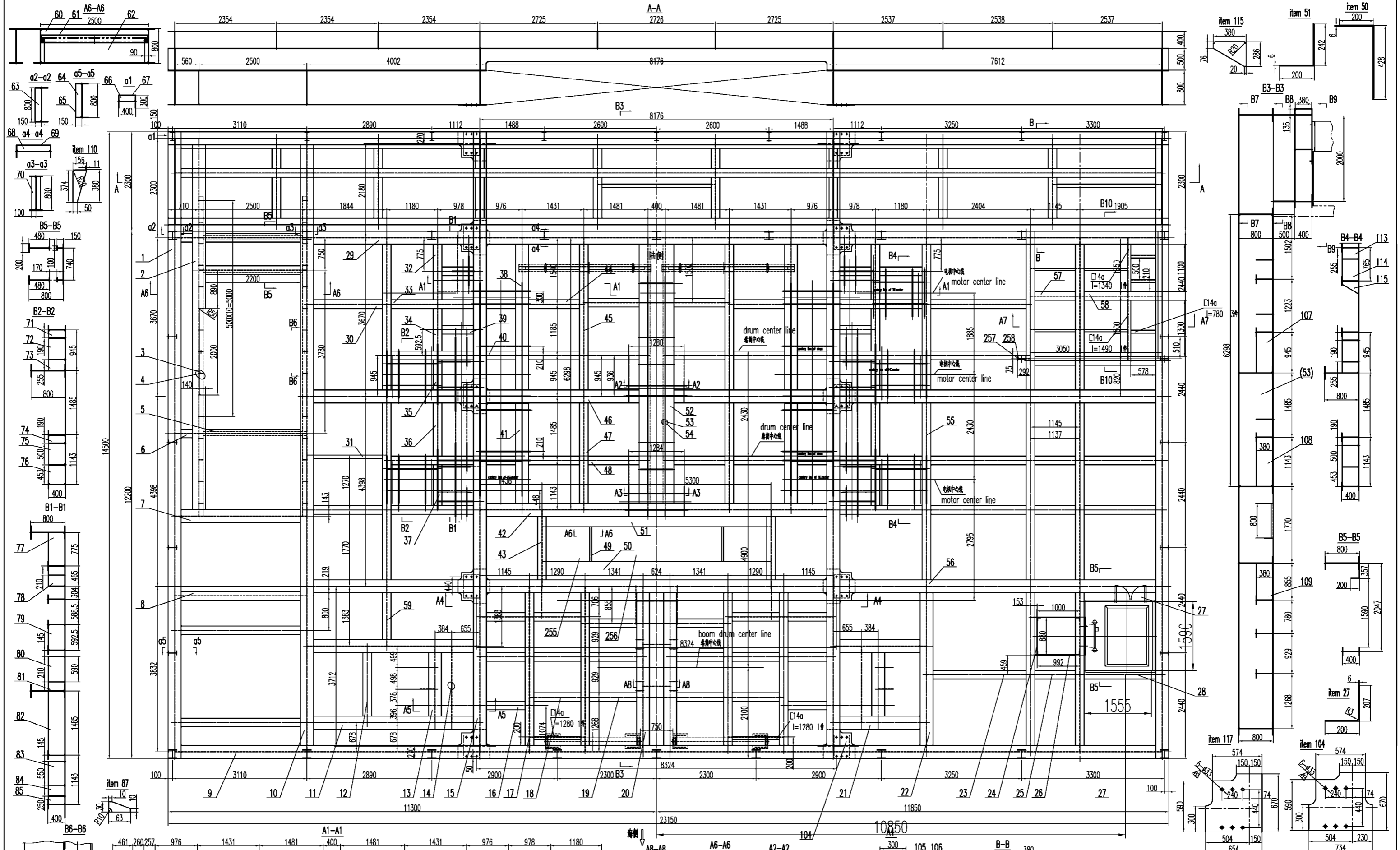
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
13	UL25020307	挡块 fix block	Q235B	24	1.25 30	1:1
ZPMC	DRAW	黄国昌	TECH.		TRACE	
	CHCK	王悦民	STDD		CHCK	

01	UL25020306		2005.03.17	huang
revision no.	Sub no.	description	date	sign

25/



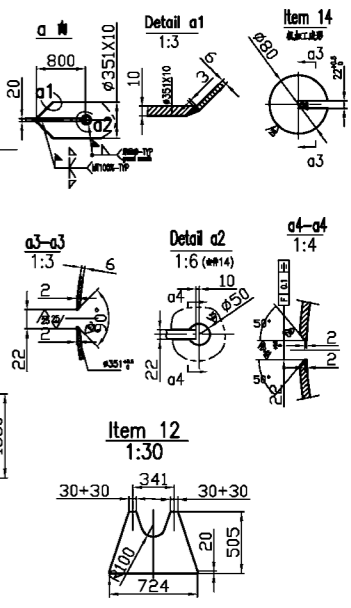
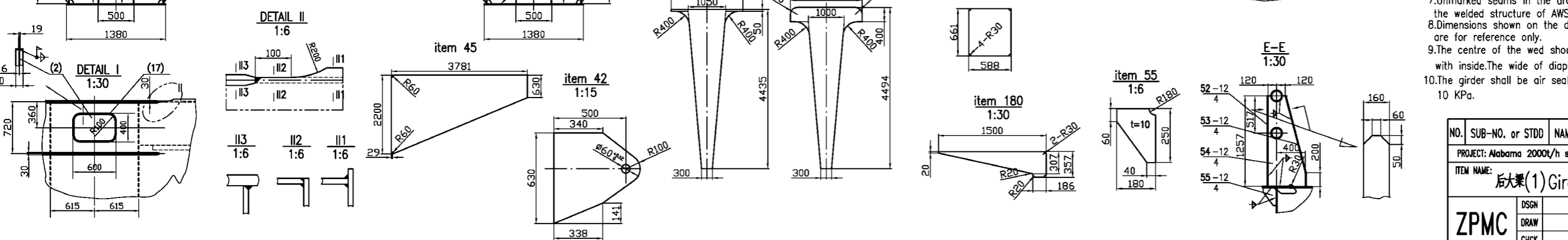
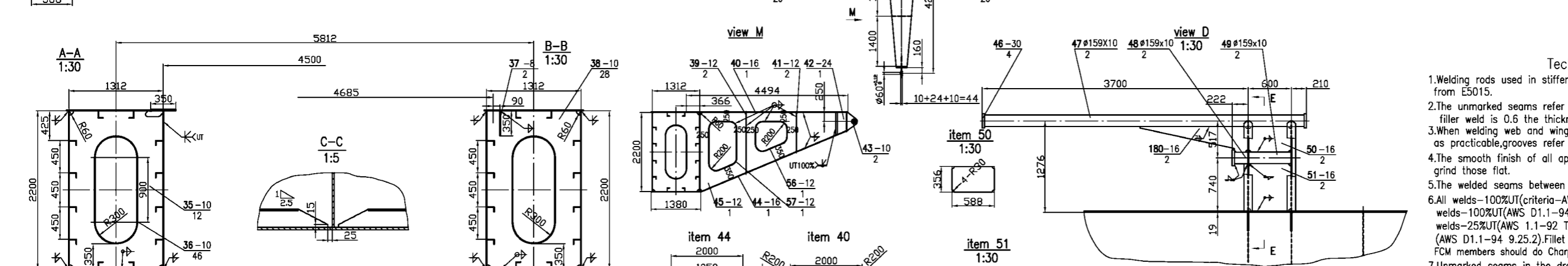
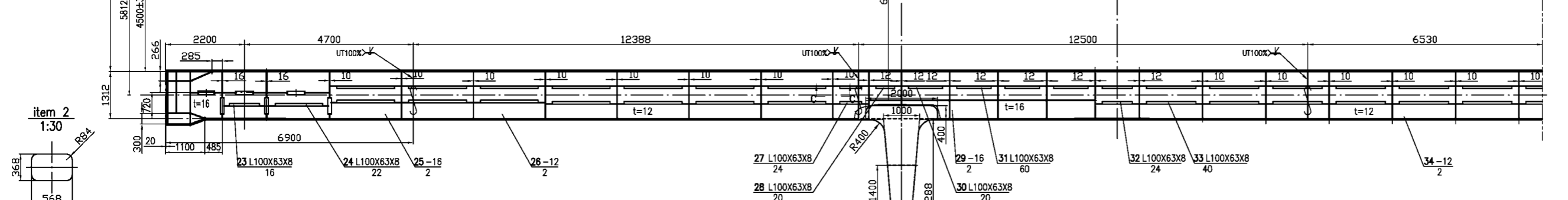
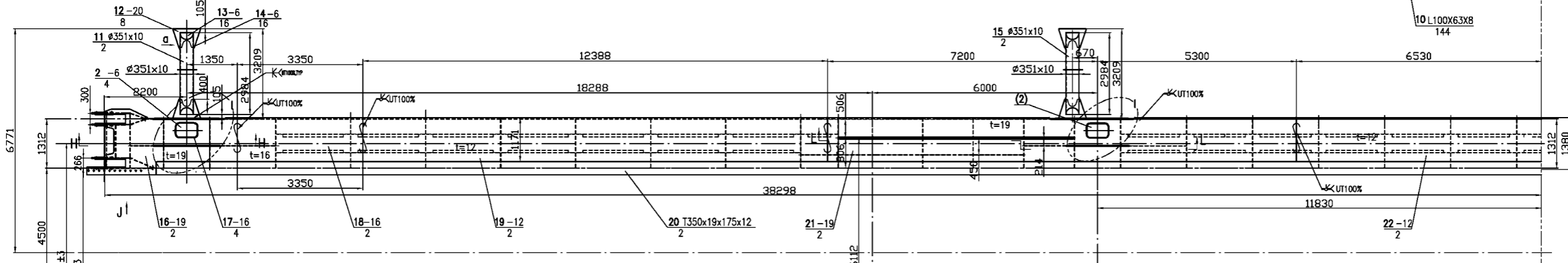
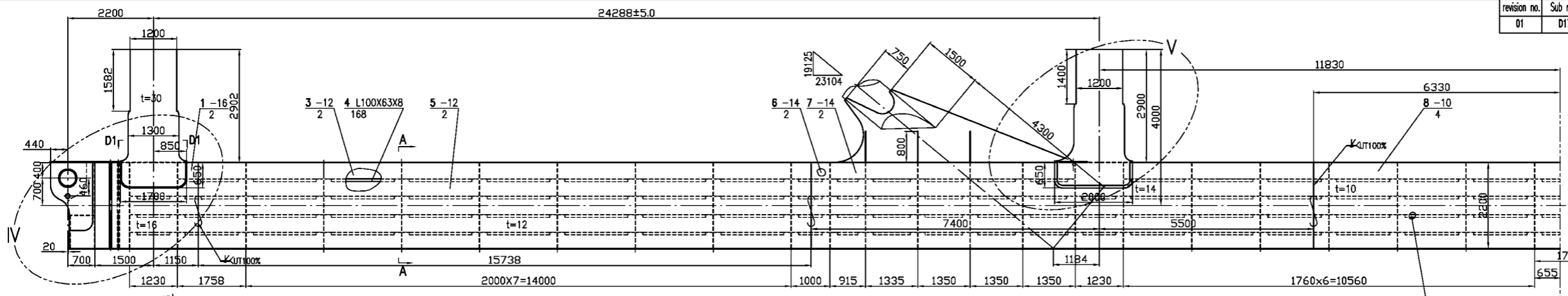
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
14	UL25020308	鱼尾板 rail joint bar	Q235B	2.2Kg	8	1:1
ZPMC		DRAW		TECH.		TRACE
		CHCK		STDD		CHCK



02	D02			2005.03.04	ZHAO
revision no.	Sub no.	description		date	sign
NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	each total WEIGHT
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:	SCALE: 1:40	
ITEM NAME:		Machinery Deck 机房底座		DRAW NO: UL25020500-1/5	PROJ.
DSGN	赵联斌	TRAC		APP.	
DRAW	赵联斌	CHCK		Q'TY/SET	69815Kg
CHCK	陈自强	VER.		SET/CRANE	1

revision no.	Sub no.	description	date	sign
01	D17		2005.03.18	Zhongyong

The Table of Welding Symbols	

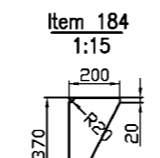
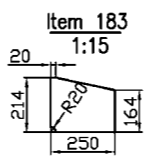
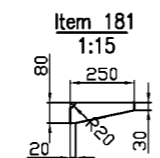
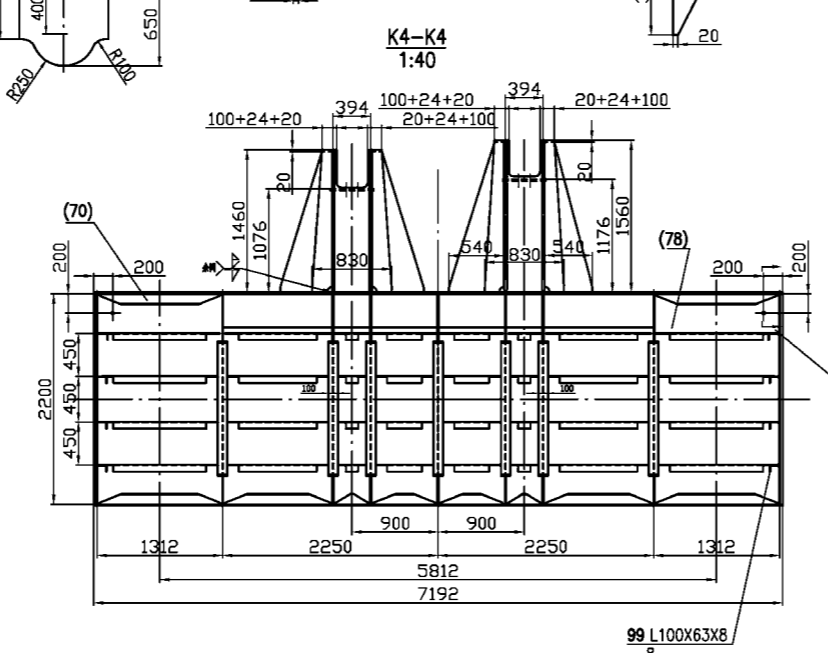
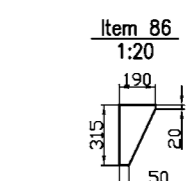
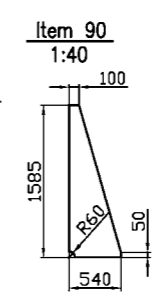
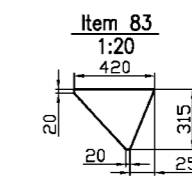
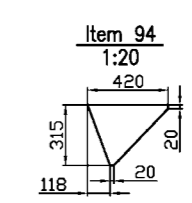
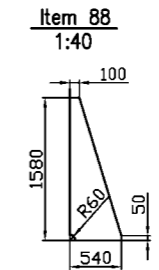
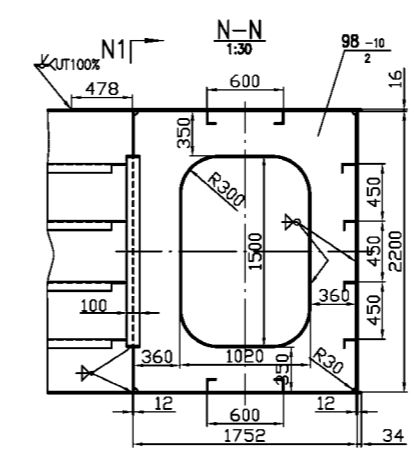
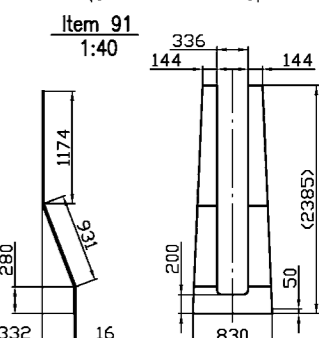
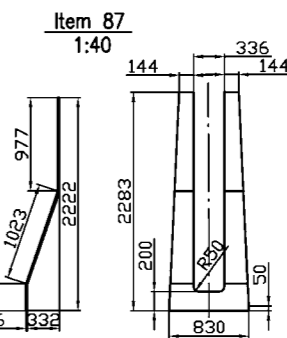
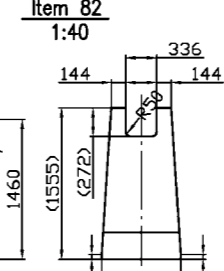
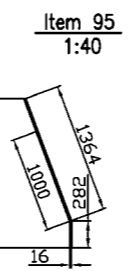
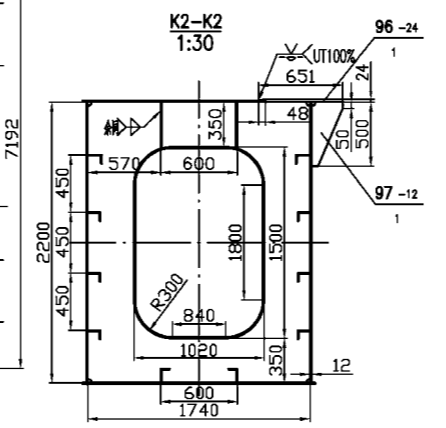
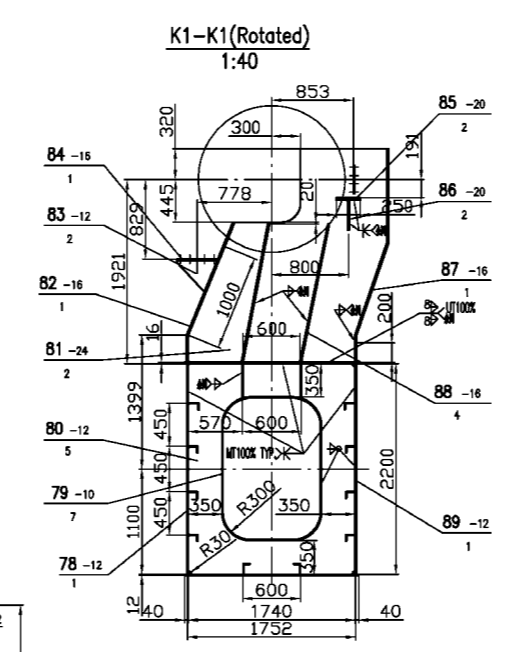
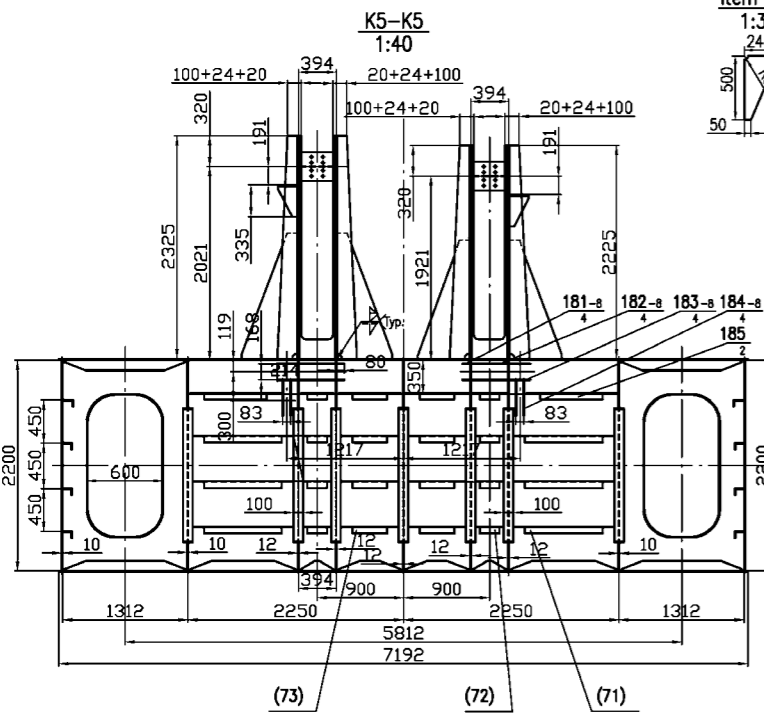
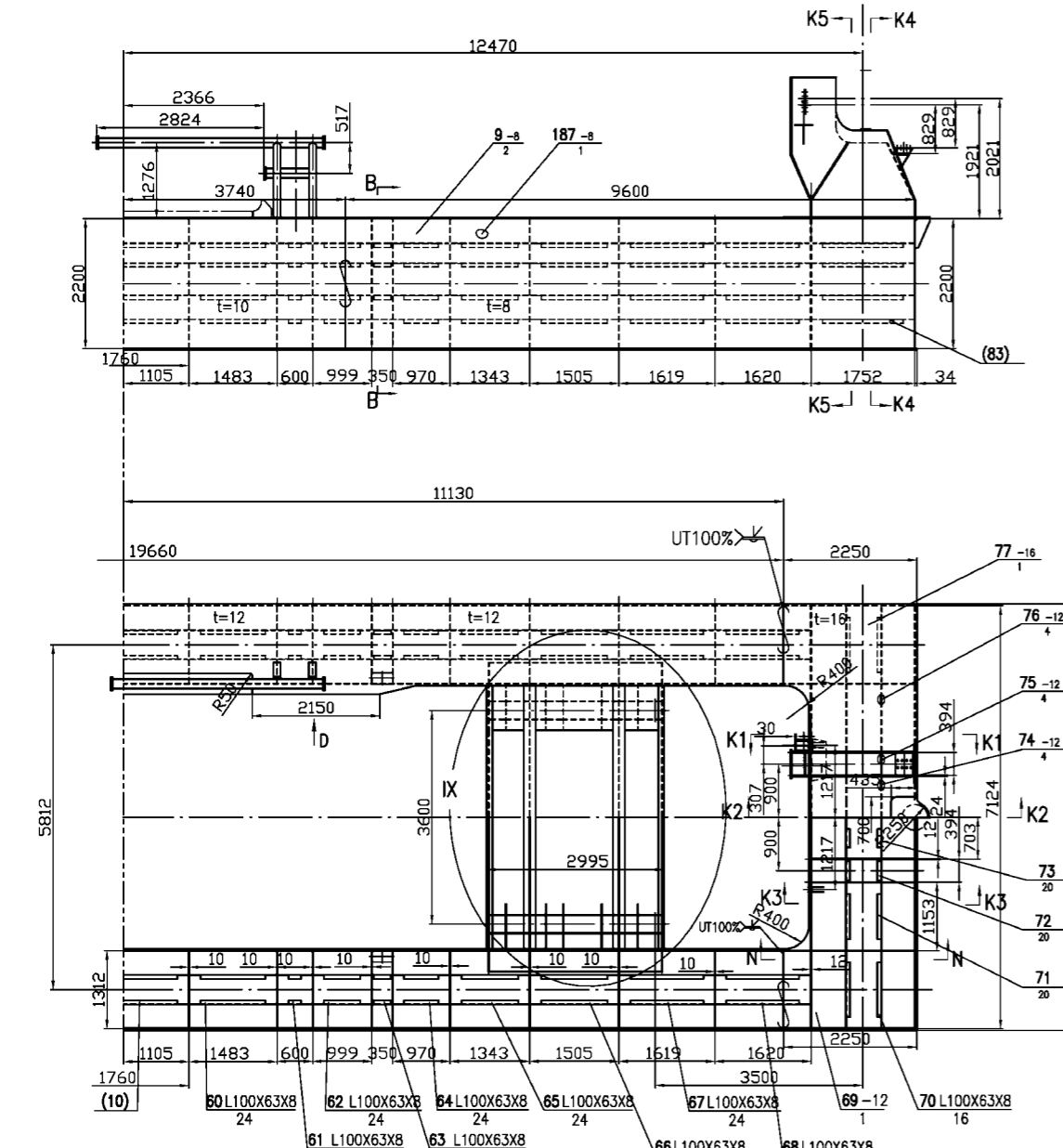


- 技术条件
1. A709-50之间的焊接采用E5015焊条, 其余采用E4315焊条;
 2. 未注明焊缝按同类焊缝施焊, 未注明贴角焊缝高度取就连接的薄板厚度0.7~0.8倍;
 3. 腹板与翼板焊接尽量采用自动焊, 手工补焊, 坡口4. 所有外露的气割边缘, 切割断面光洁度均要达到优
 5. 凡有厚薄板对接, 都应有1:3的斜度;
 6. 对接焊缝按100%进行探伤, 并按5%-10%进行拍片, 质量达到JQ/GJ03.02.04-92规定的Ⅱ级;
 7. 图中未注明的按AWS D1.1标准或ZPMC焊接结构通用技术条件进行施焊及检验;
 8. 明细表中尺寸供参考, 准确尺寸按图定;
 9. 所有腹板均以中对中焊接, 所有翼板均以内侧对齐焊接, 横隔板的宽度尺寸应按所在截面作相应调整;
 10. 装配后应进行气密性检验, 气压为10KPa.

- Technical Condition
1. Welding rods used in stiffening rib in box are adopted from E5015, other from E5015.
 2. The unmarked seams refer to the same sort. The height of the unmarked filler weld is 0.6 the thickness of the thin sheet.
 3. When welding web and wing plates, automatic welding should be used as far as practicable, grooves refer to ZPMC.
 4. The smooth finish of all appearance face of gas cutting must be excellent, grind those flat.
 5. The welded seams between thick and thin should be diagonal according to 1:3.
 6. All welds-100%UT(criteria-AWS D1.1-94 9.25.1). Tension complete penetration welds-100%UT(AWS D1.1-94 9.25.3). Compression complete penetration welds-25%UT(AWS 1.1-92 Table 8.15.3). Fillet welds on FCM-100%MT (AWS D1.1-94 9.25.2). Fillet welds on NFCM-10%MT(AWS D1.1-94 9.25.2). FCM members should do Charpy V-notch test. At 0°C, impact work is no less than 37J.
 7. Unmarked seams in the drawing refer to the general technical condition of the welded structure of AWS, D1.1 or ZPMC.
 8. Dimensions shown on the drawing are prior to those shown in table which are for reference only.
 9. The centre of the web should be conformed and the flange must be aligned with inside. The wide of diaphragm will be adjusted according to the section.
 10. The girder shall be air sealed after assemblage. The pressure of air test is 10 KPa.

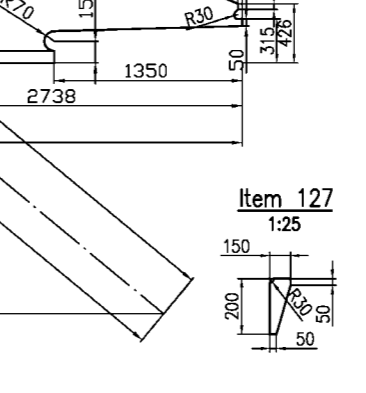
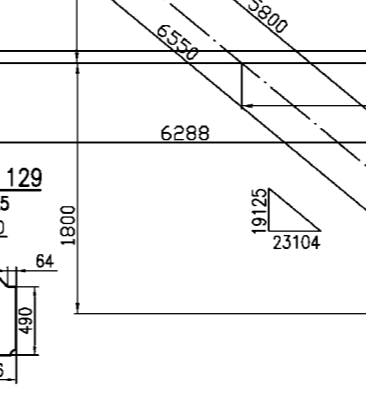
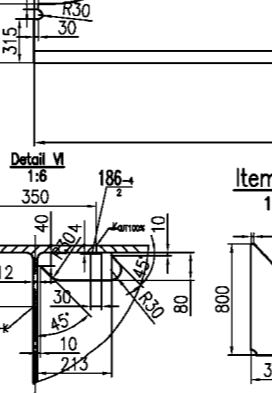
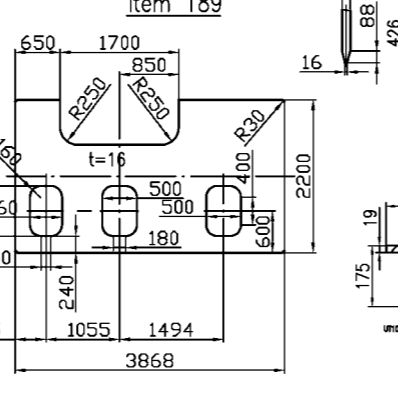
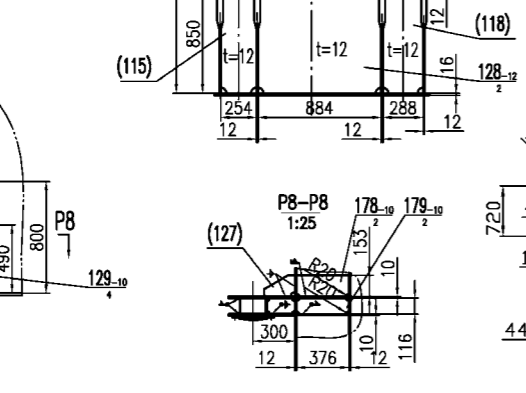
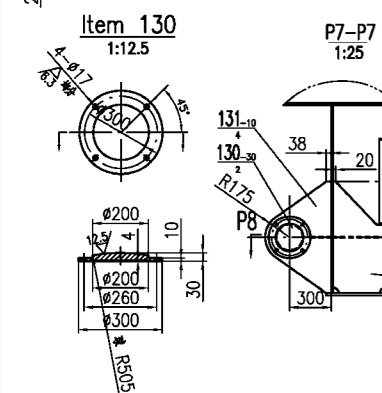
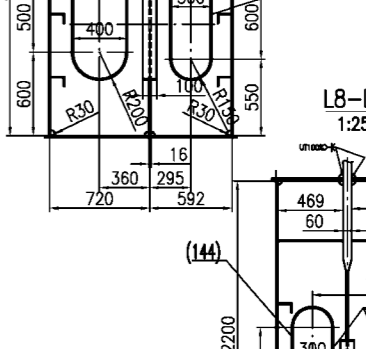
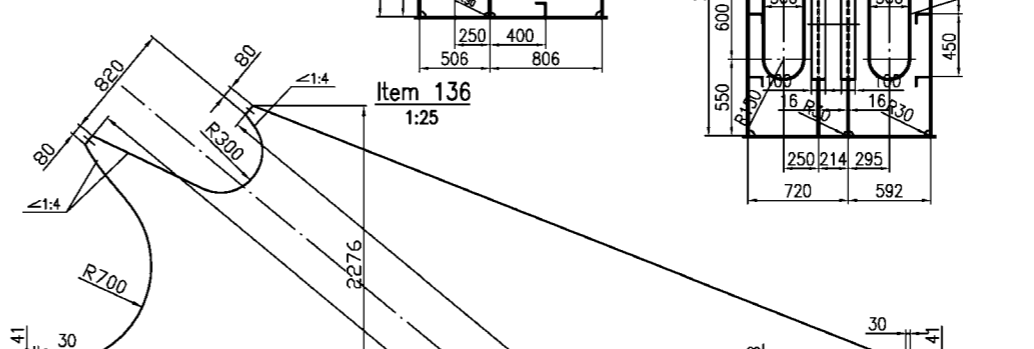
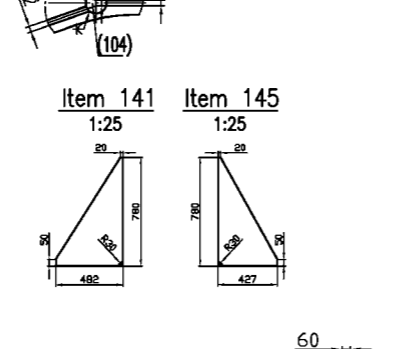
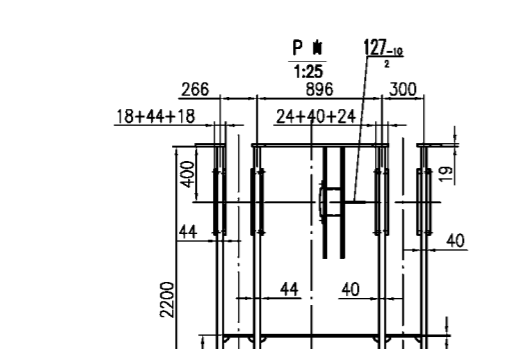
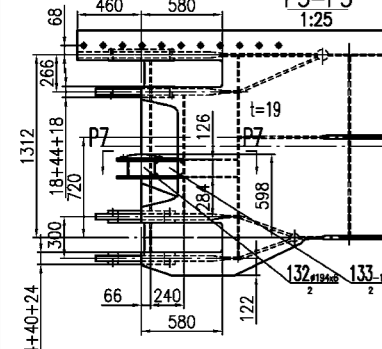
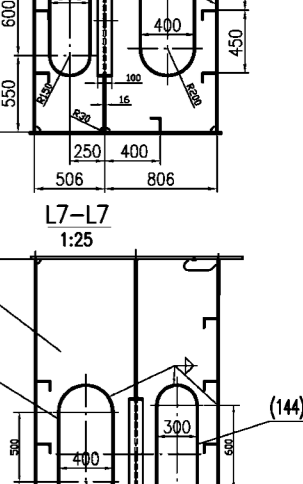
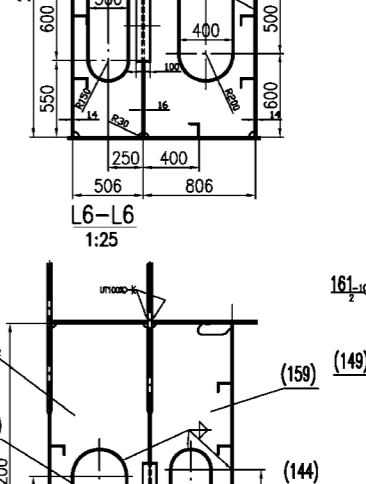
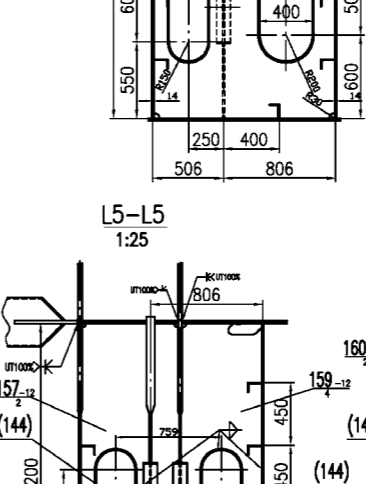
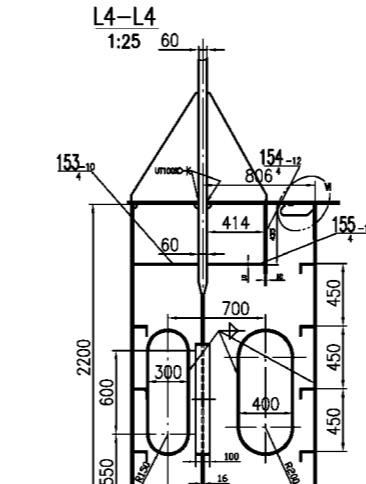
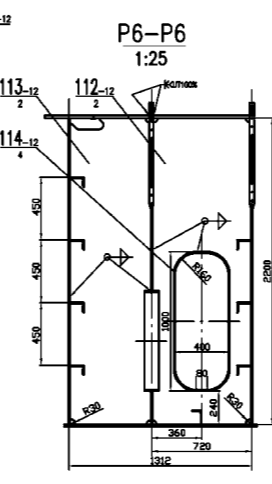
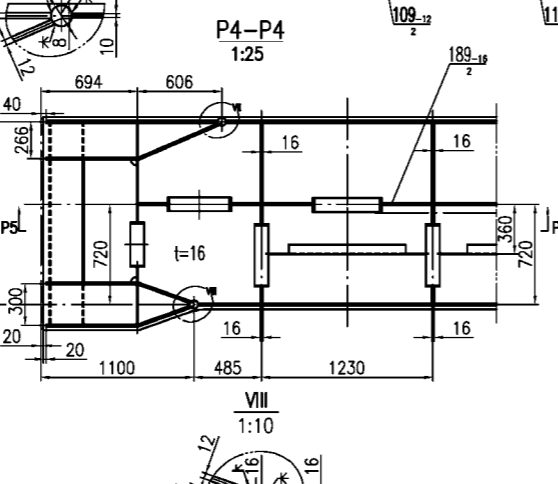
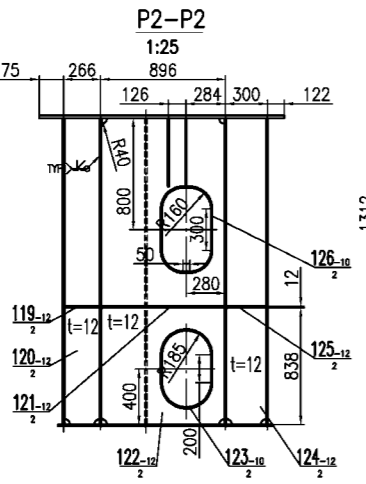
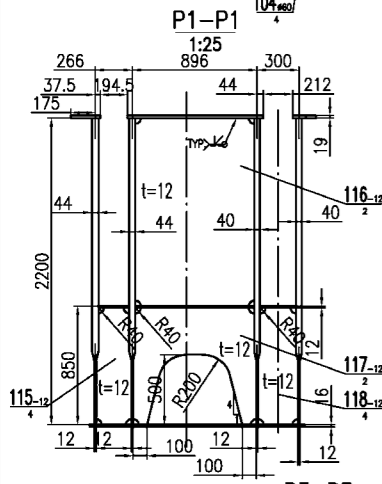
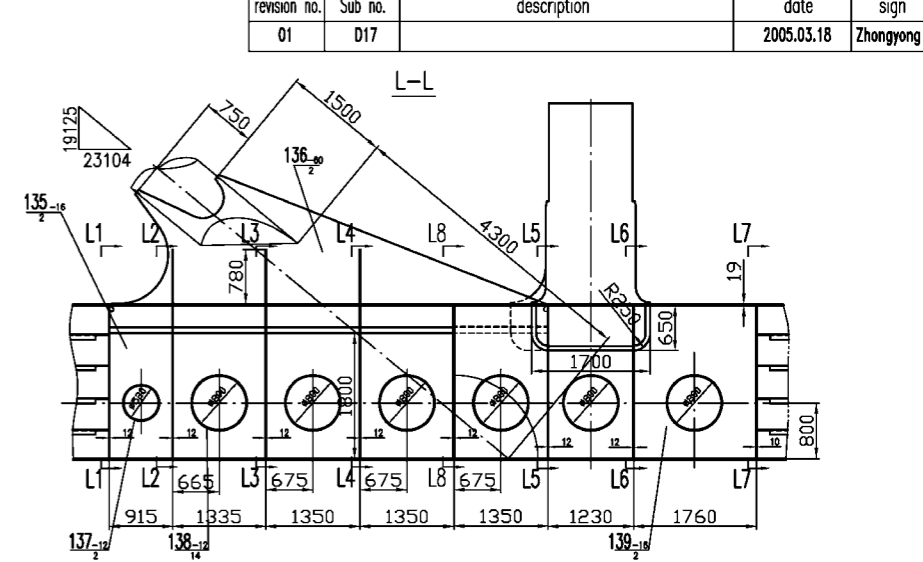
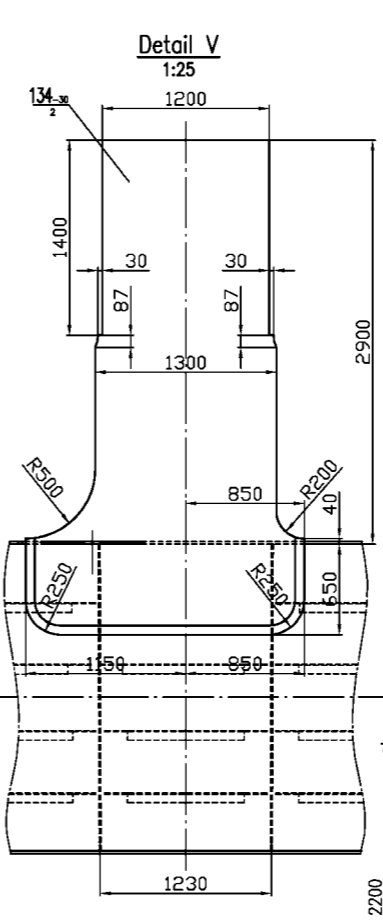
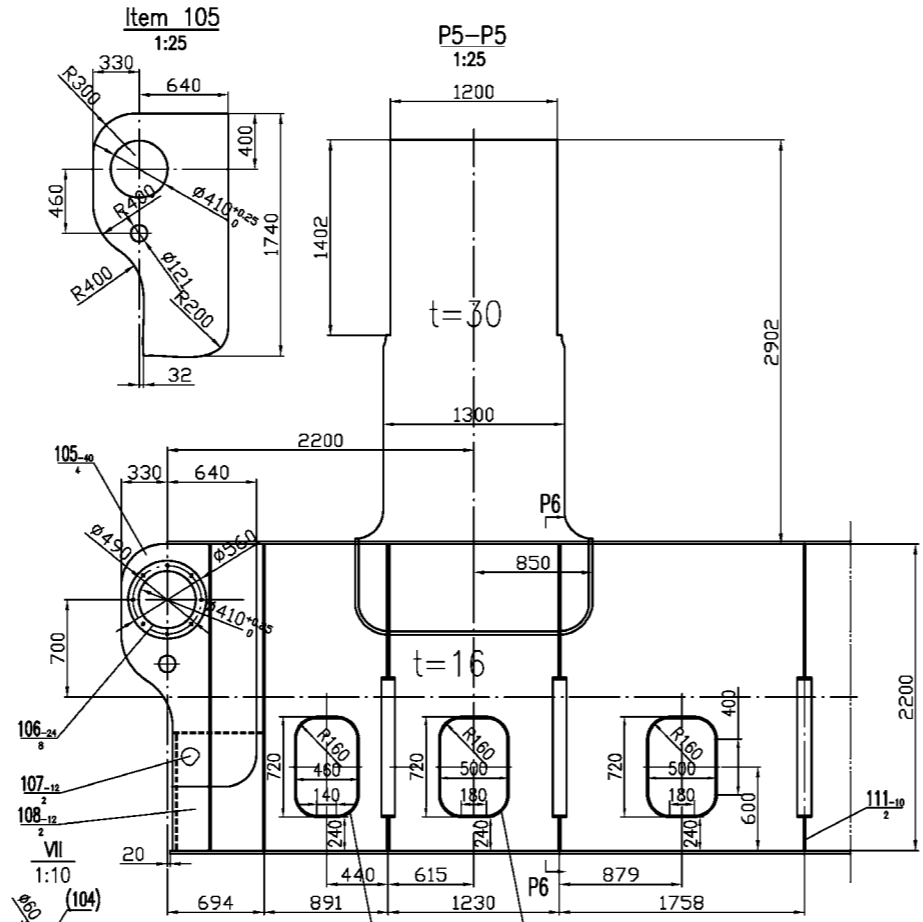
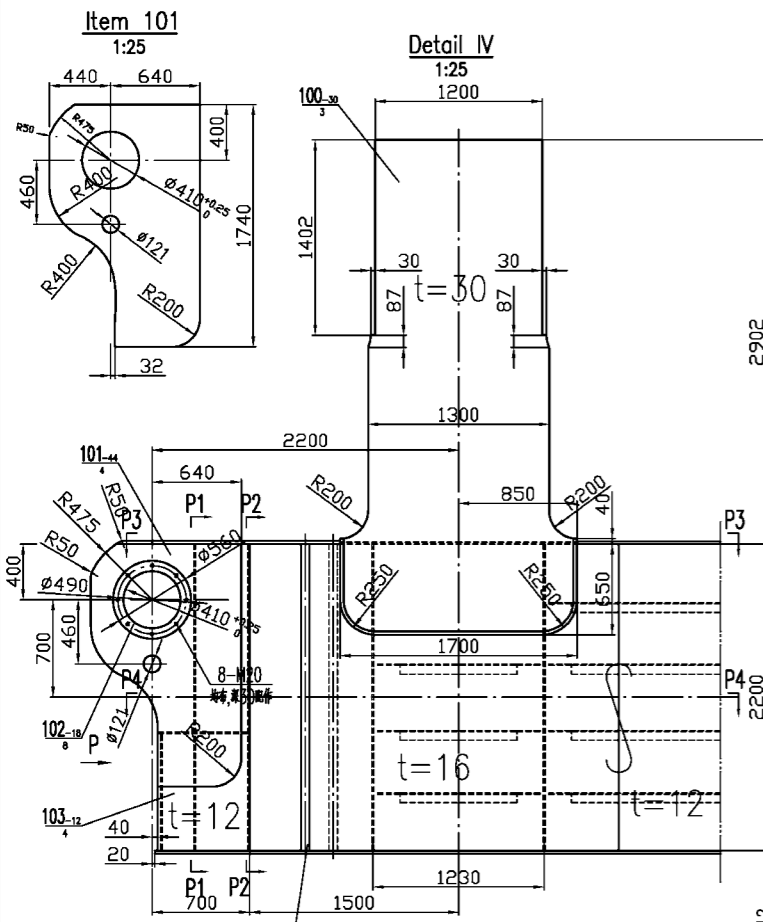
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PROJECT: Alabama 2000T/h ship unloader						
ITEM NAME: 后大梁(1) Girder(1)			DESIGN STAGE:		SCALE: 1:60	
DRAW NO: UL25020600(1/4)			TRACE		APP.	
ZPMC			CHK		Q'TY/SET 143802	
			VER.		SET/CRANE 1	

revision no.	Sub no.	description	date	sign
01	017		2005.03.18	Zhongyong



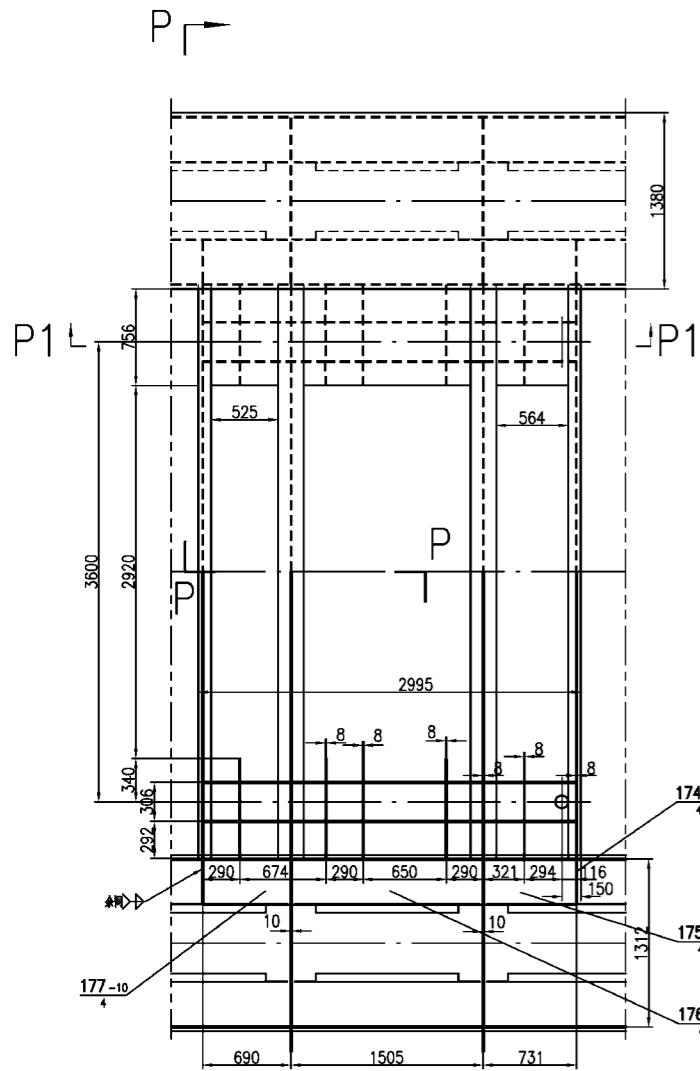
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PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:	SCALE: 1:60		
ITEM NAME: 后大梁(2) Girder(2)			DRAW NO: UL25020600(2/4)	PROJ.		
ZPMC	DSGN	TRACE	APP.			
	DRAW	CHCK	Q'TY/SET			
	CHK	VER.	SET/CRANE	1		

revision no.	Sub no.	description	date	sign
01	017		2005.03.18	Zhongyong

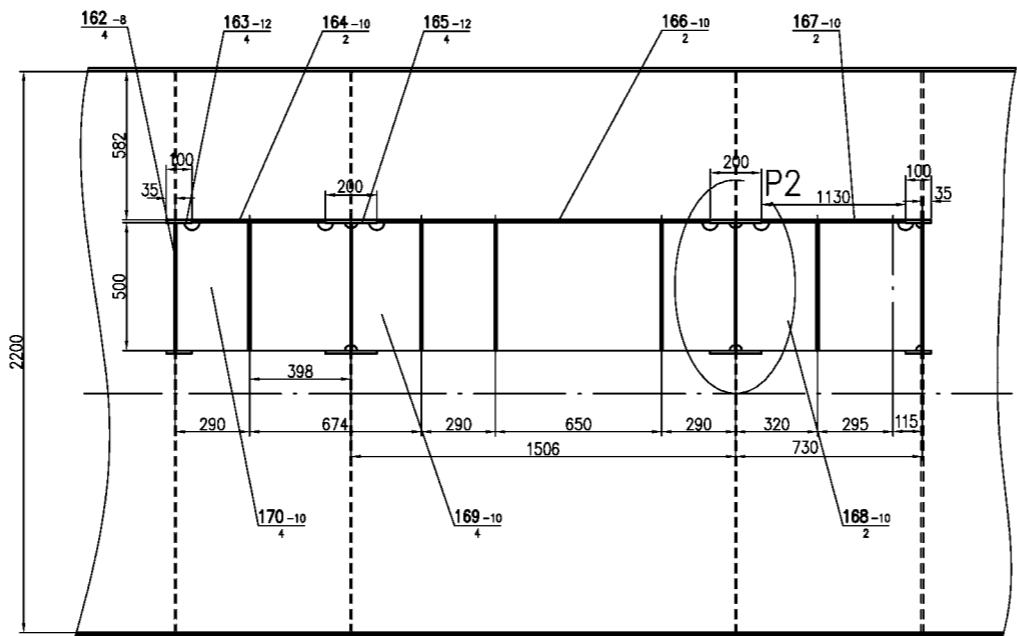


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ITEM NAME:		后大梁(3) Girder(3)	DRAW NO:	UL25020600(3/4)		APP. 组合件
DSGN		TRACE		APP.		
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CHK		VER.		SET/CRANE		1

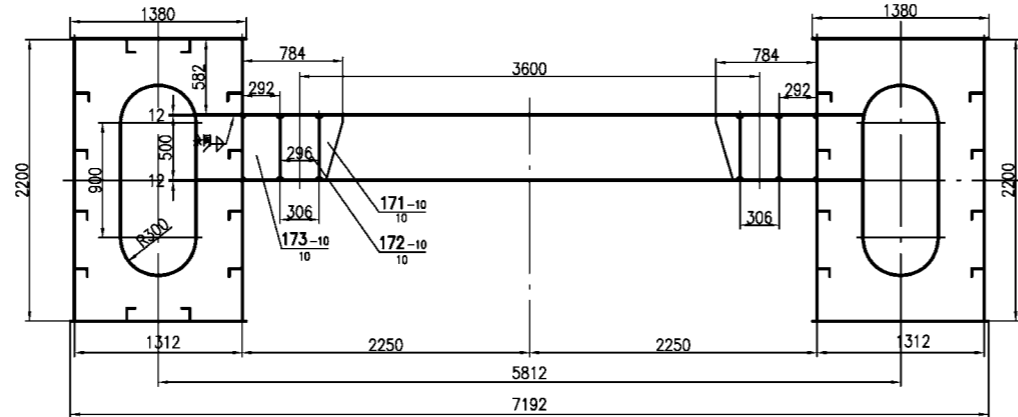
DETAIL IX



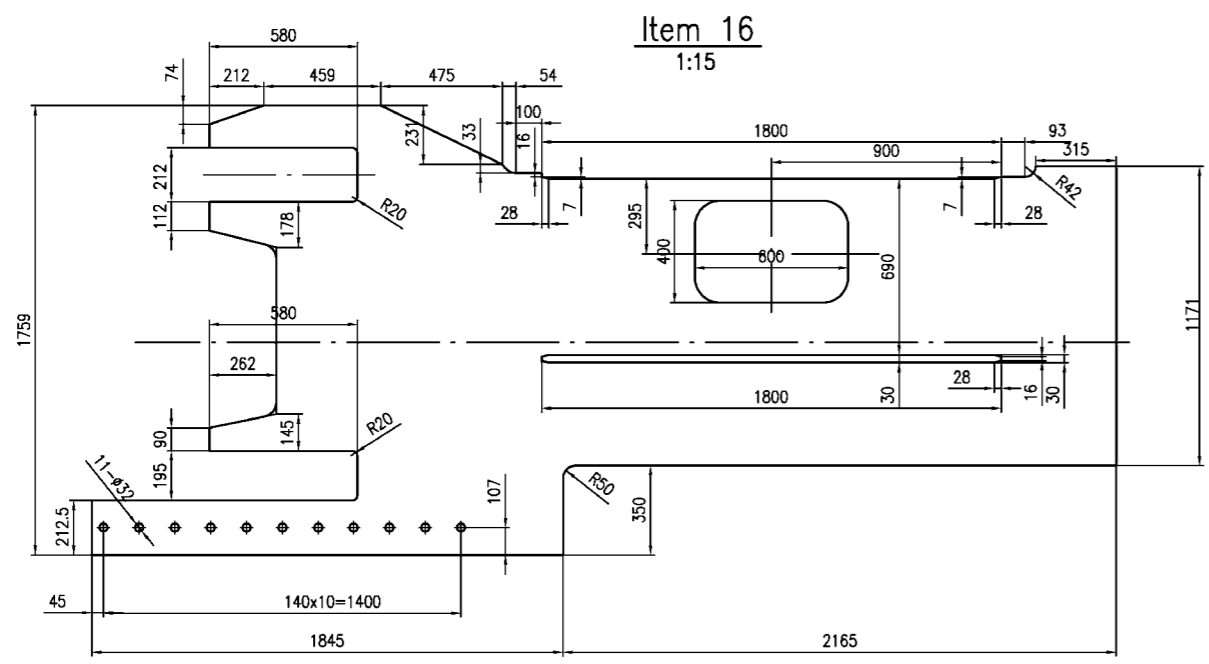
P1-P1
1:15



P-P

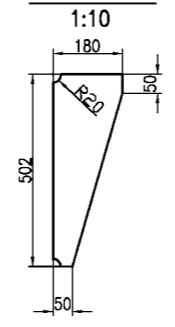


P-L



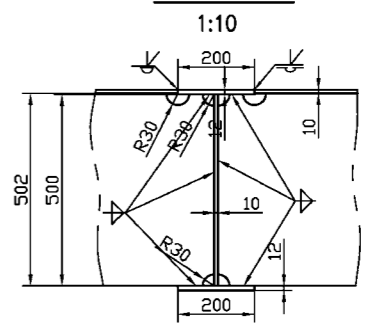
Item 16
1:15

Item 171



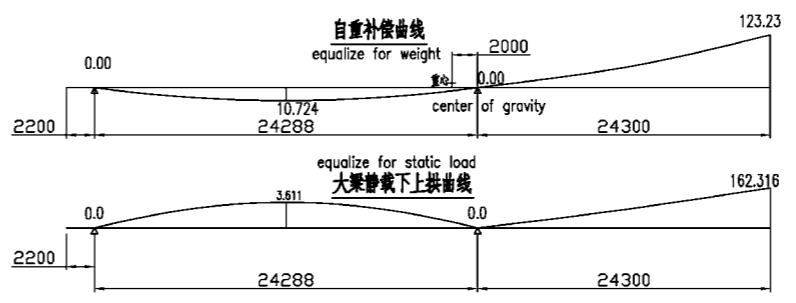
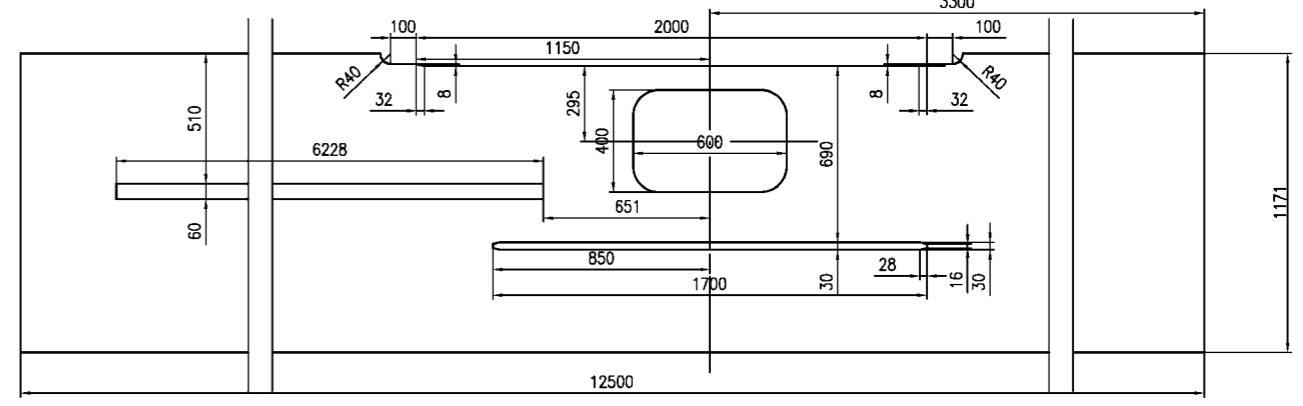
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P2



1:10

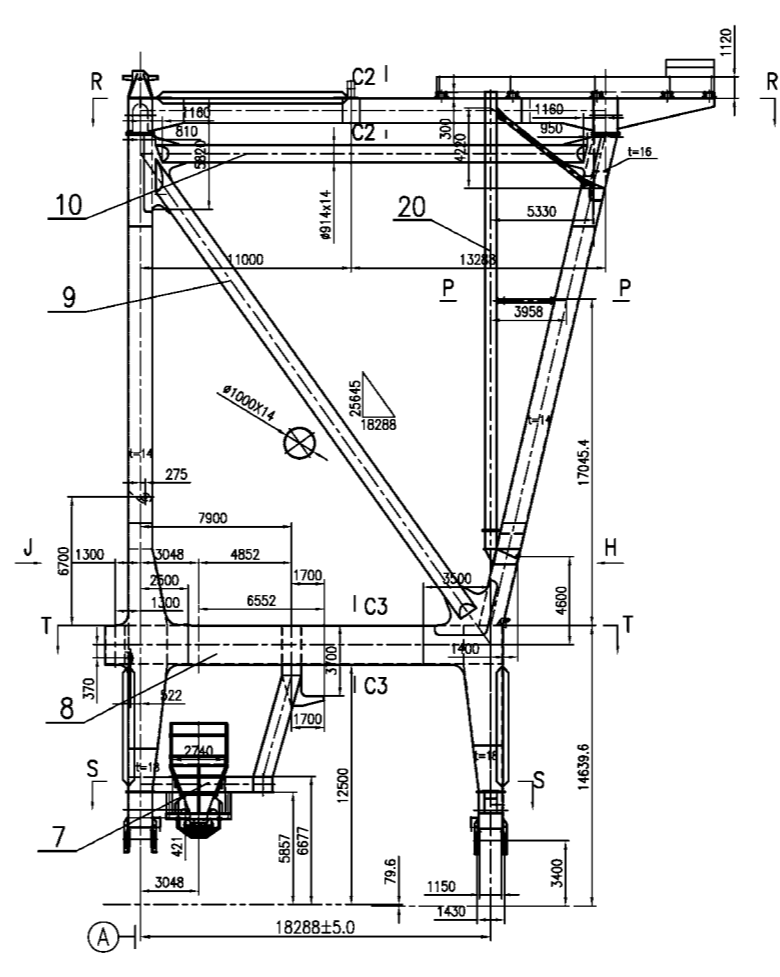
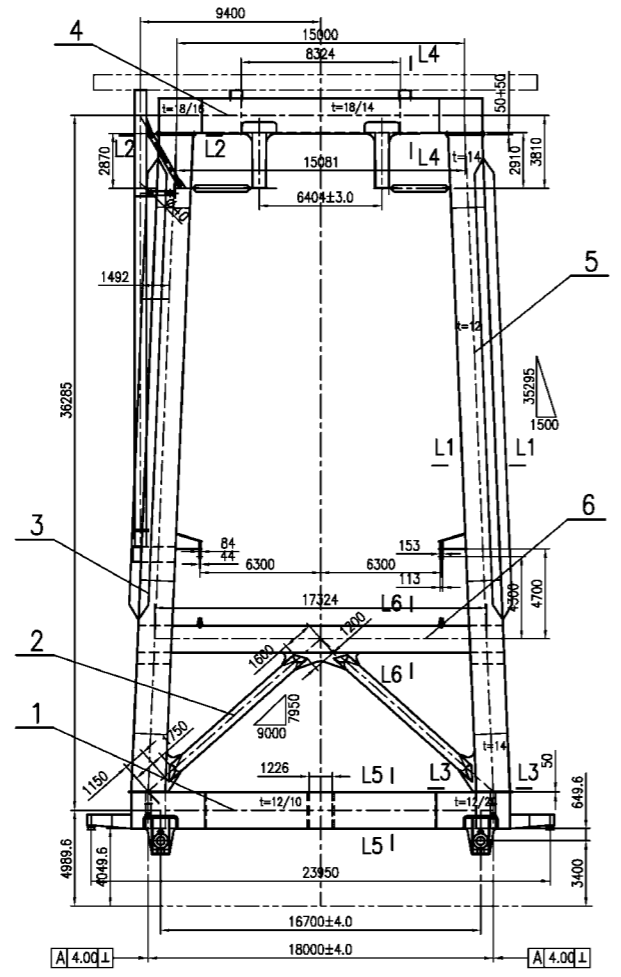
Item 21
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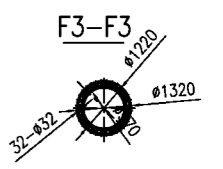
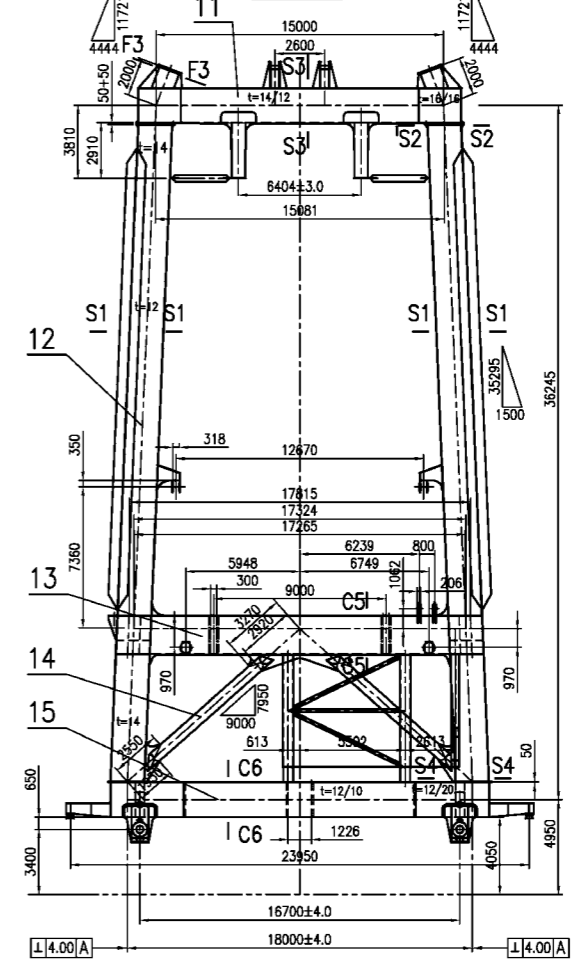
revision no.	Sub no.	description	date	sign
01	D17		2005.03.18	Zhongyong

NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	each WEIGHT	total WEIGHT	NOTE
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:30		
ITEM NAME: 后大梁(4) Girder(4)			DRAW NO: UL25020600(4/4)		PROJ.		
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHK		Q'TY/SET		
	CHK		VER.		SET/CRANE	1	

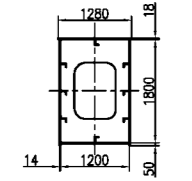
VIEW H



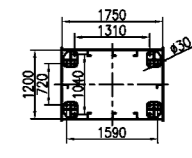
VIEW J



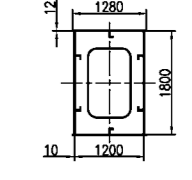
S3-S3



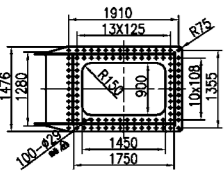
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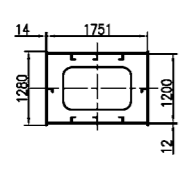
C6-C6



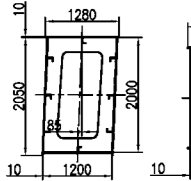
S2-S2



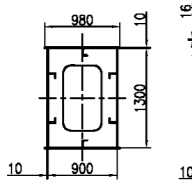
S1-S1



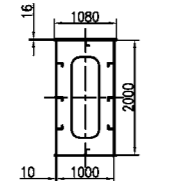
C3-C3



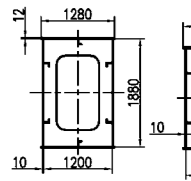
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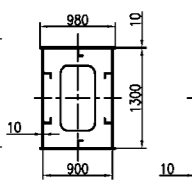
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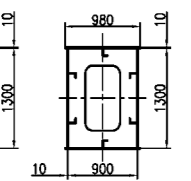
L5-L5



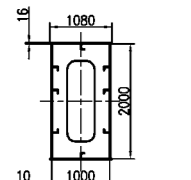
C2-C2



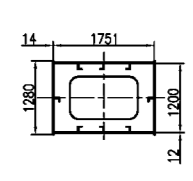
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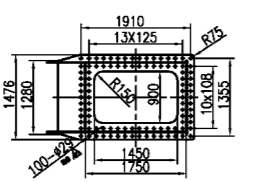
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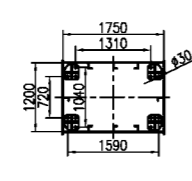
L1-L1



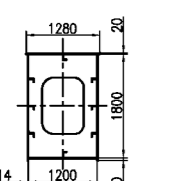
L2-L2



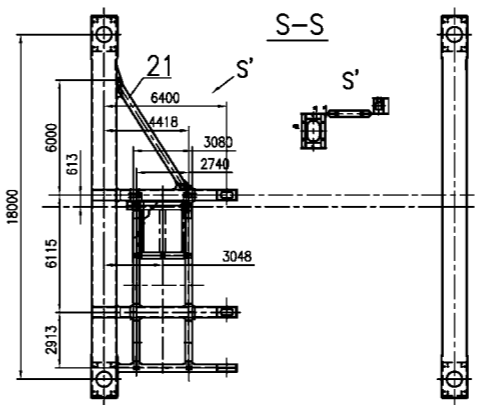
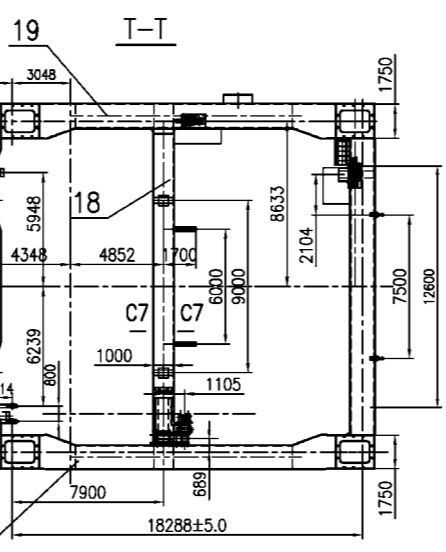
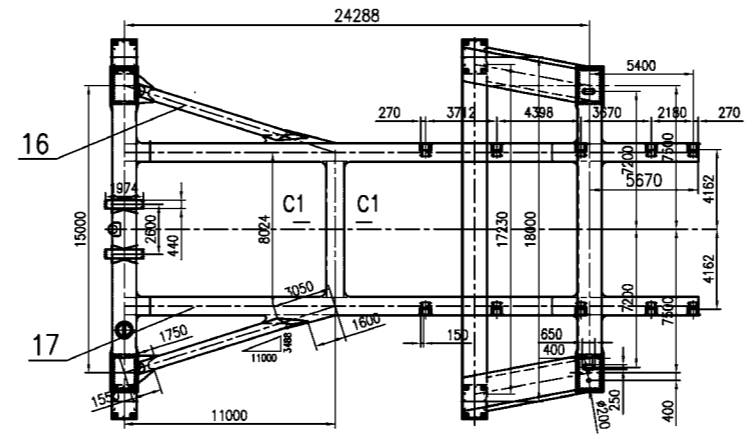
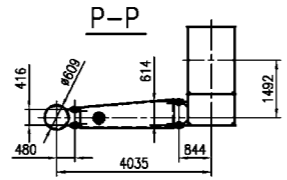
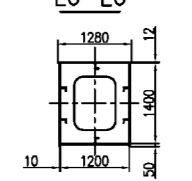
L3-L3



L4-L4



L6-L6



Technology Requirement

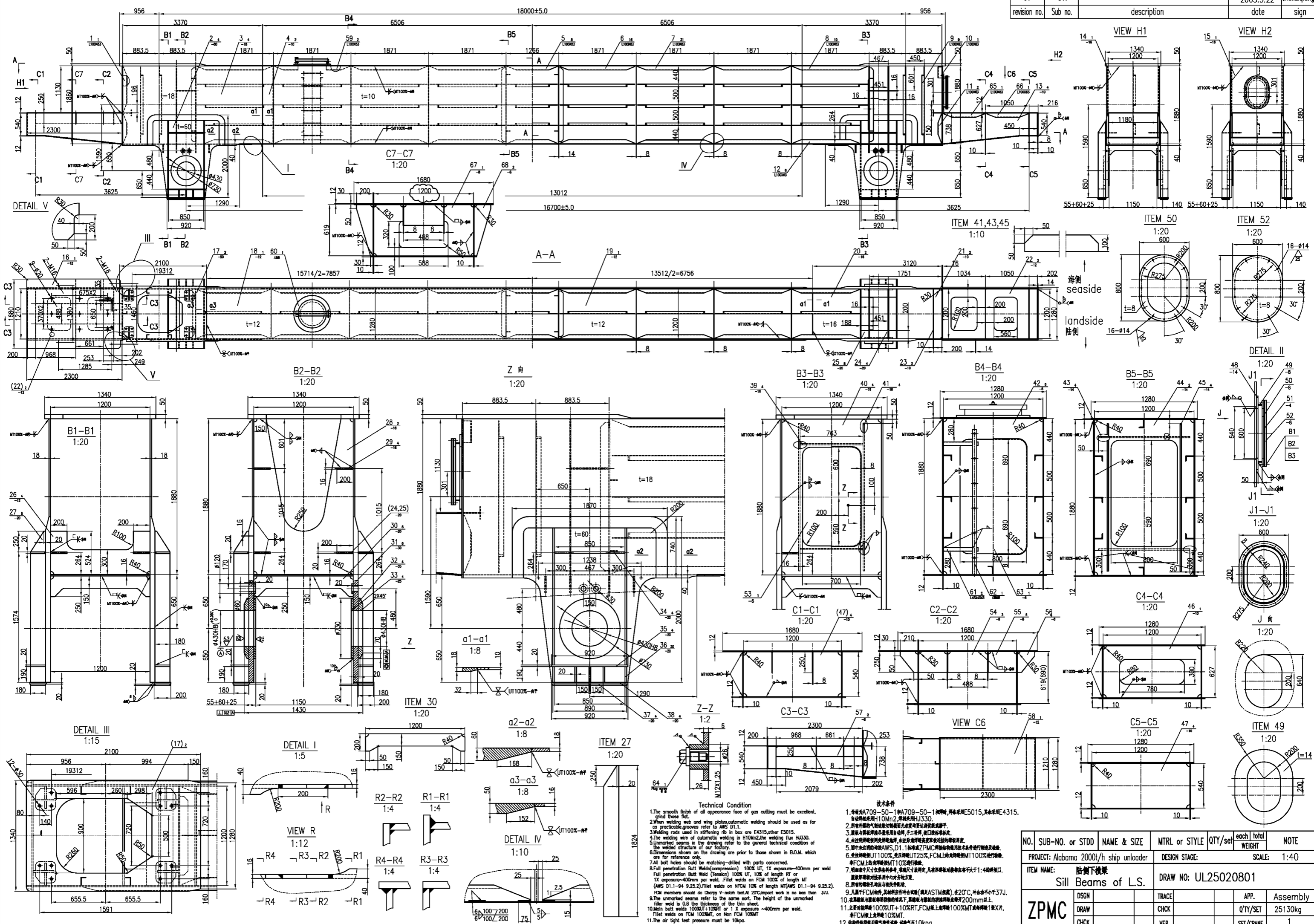
- The welding rods are E5015.
- The smooth finish of all appearance face of gas cutting must be excellent, grind those flat.
- When welding web and wing plates, automatic welding should be used as far as practicable, grooves refer to the standard.
- The unmarked seams refer to the same sort. The height of the unmarked filler weld is 0.7 the thickness of the thin sheet.
- Unmarked seams in the drawing refer to the general technical condition of the welded structure of ZPMC.
- All welds—100%VT, Tension complete penetration welds—100%UT, Compression complete penetration welds—25%UT, Fillet welds on FCM—100%MT, NFCM—10%MT.
- Dimensions shown on the drawing are prior to those shown in B.O.M. which are for reference only.
- All bolt holes should be matching-drilled with parts concerned.
- There are National Quality Specification for FCM members and they should do Charpy V-notch test.

技术要求

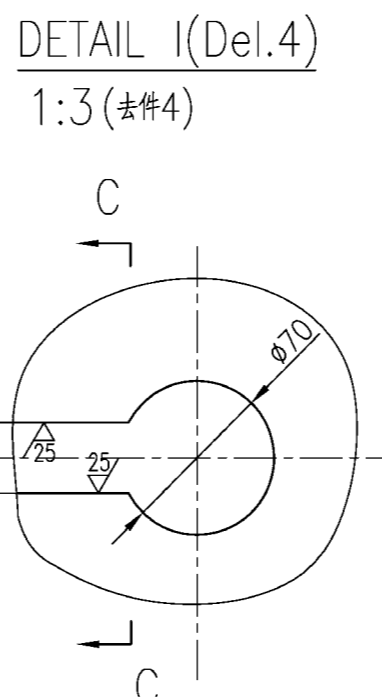
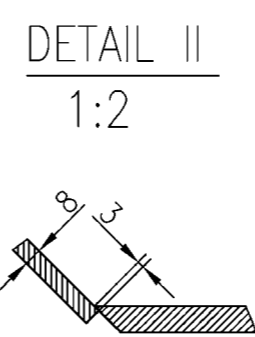
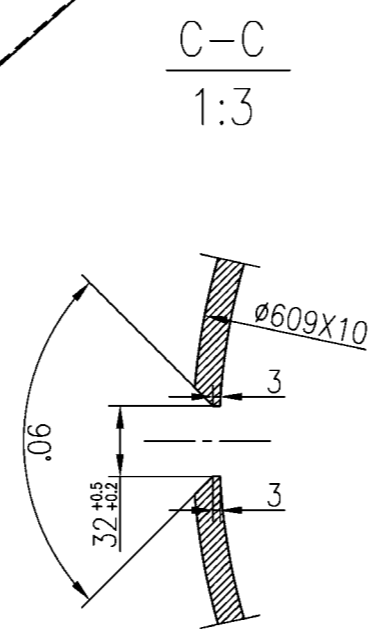
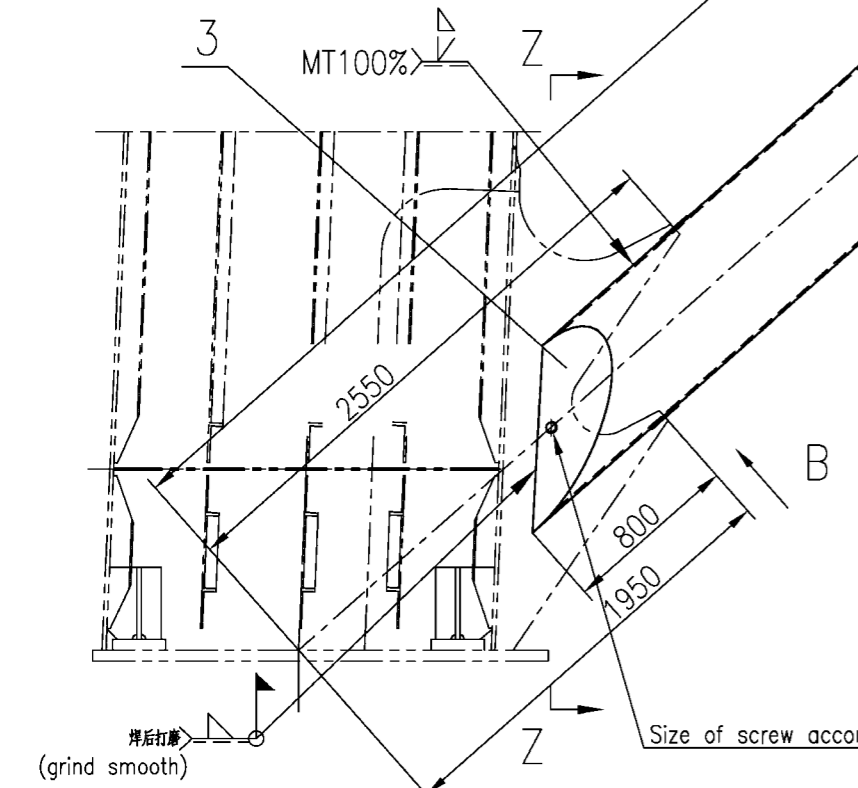
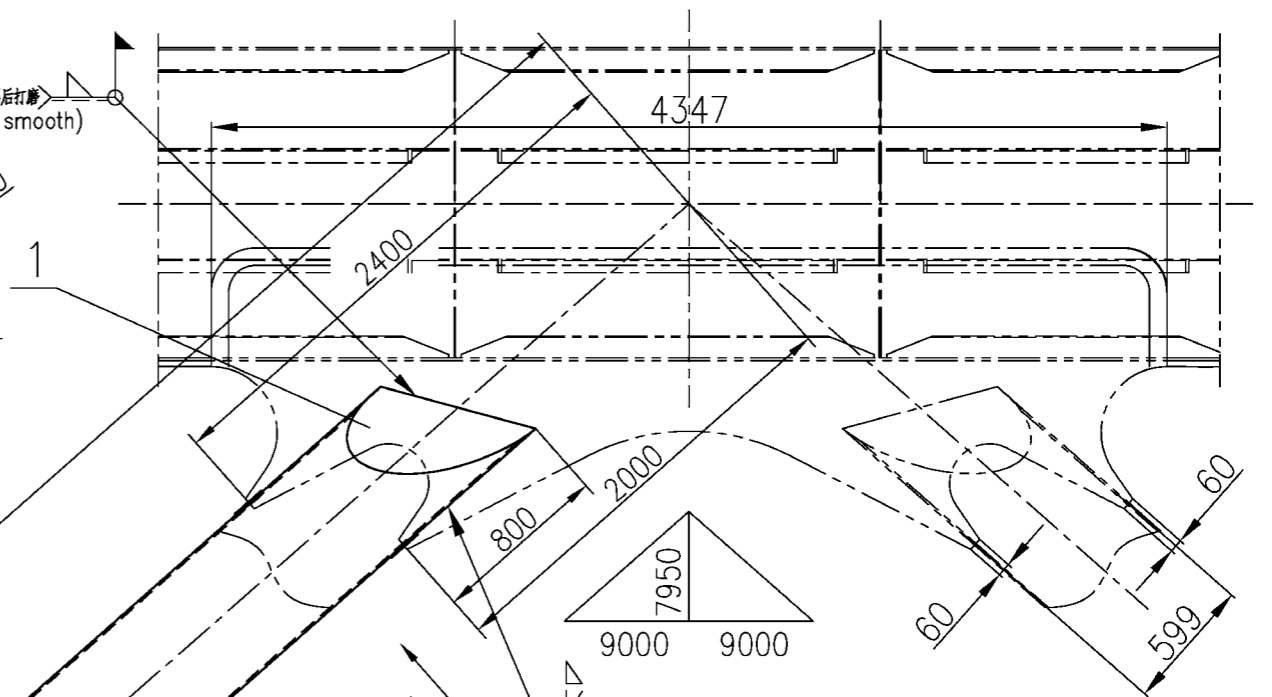
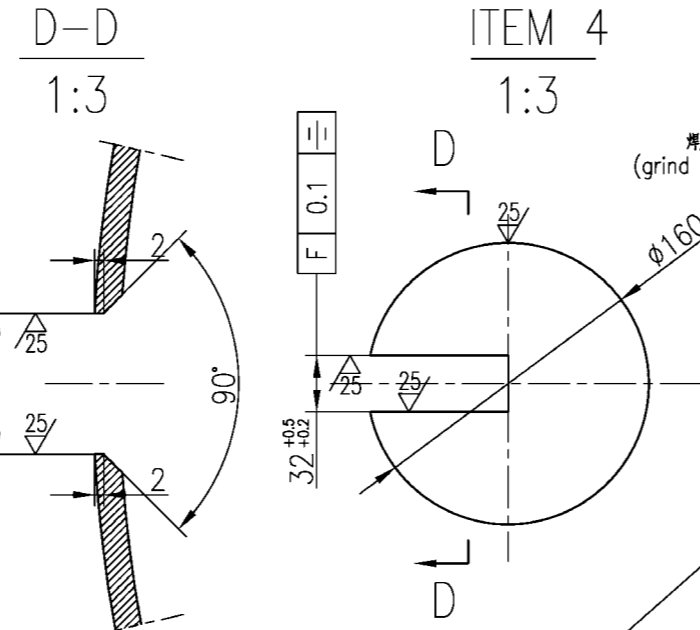
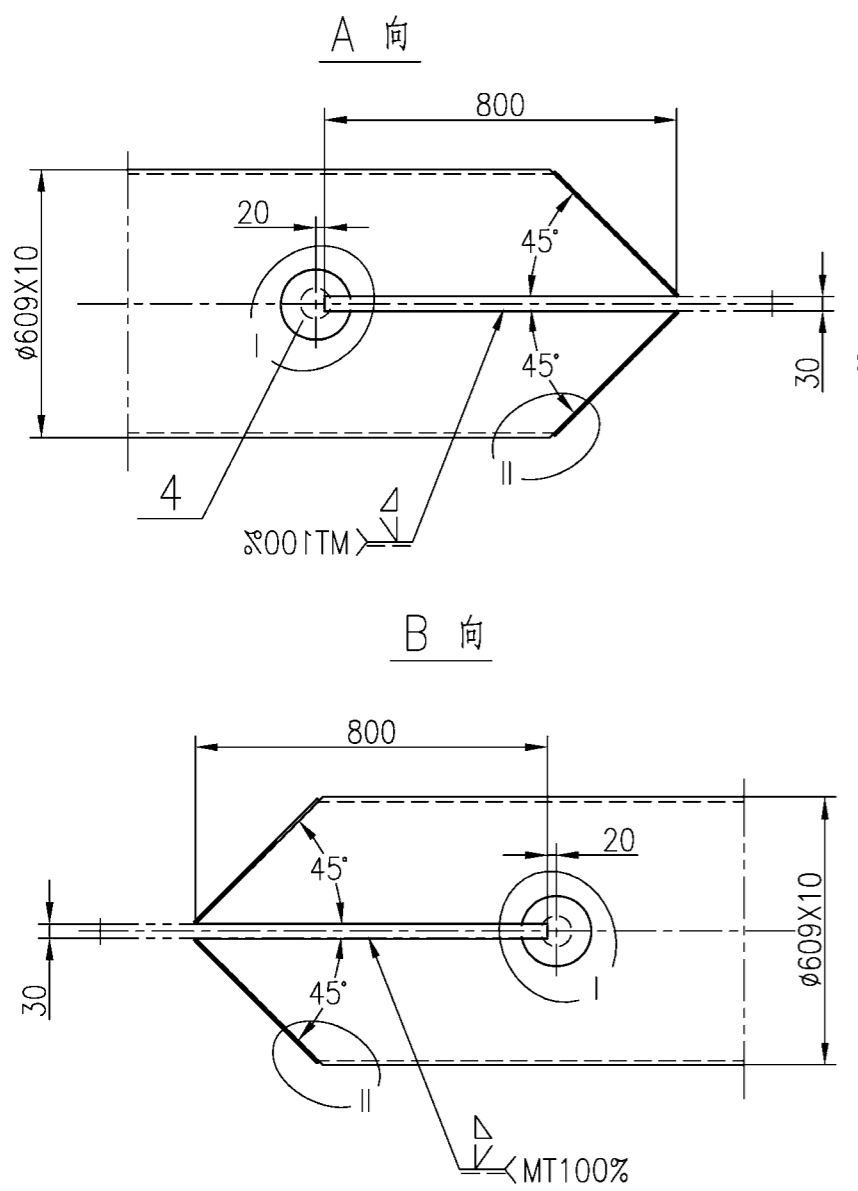
- 焊条采用E5015.
- 所有外露的气割面切割面应光滑且无毛刺,所有焊缝均光滑,没有缺陷,没有夹渣.
- 腹板与翼缘焊接应采用自动焊,手工补焊,切口按标准规定.
- 未注明焊缝类型均按埋弧焊,未注明焊缝高度均按连接板的厚度0.7倍.
- 图中未注明的均按ZPMC焊接结构技术条件.
- 所有焊缝VT100%,受拉焊缝UT100%,受压焊缝UT25%,FCM上的角焊缝按MT100%进行检测,非FCM上的角焊缝按MT10%进行检测.
- 图中未注明的均按ZPMC焊接结构技术条件.
- 所有焊缝VT100%,受拉焊缝UT100%,受压焊缝UT25%,FCM上的角焊缝按MT100%进行检测,非FCM上的角焊缝按MT10%进行检测.
- 所有螺栓孔均应与零件配套.
- 凡属于FCM物件,其材料应作冲击试验,无缺陷,并有符合国家标准质量证明书.
- 侧翼支座在第一台车上安装在下轨道面向左侧,在第四台车上安装在下轨道面向右侧.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	WEIGHT	NOTE
B3	ASTM	Wash Nut	27	800	0.07	56		Dacro
B2	ASTM	Nut	M27	400	0.29	116		Dacro
B1	ASTM	Bolt	M27X150	400	1	400		Dacro
20	UL25020821	新制门架横梁	焊接件	1	775	775		Side of BS
20	UL25020820	门架立柱	焊接件	1	4513	4513		Side by
19	UL25020819	门架横梁-2(面海右侧)	焊接件	1	7836	7836		Inside face of legway I
18	UL25020818	门架横梁 2	焊接件	1	11961	11961		Inside face of BS I
17	UL25020817	门架横梁上横梁 I	焊接件	1	23339	23339		Horizontal beam I
16	UL25020816	水平横梁 I	焊接件	2	1303	2606		Horizontal beam I
15	UL25020815	海侧下横梁	焊接件	1	19382	19382		Side beam of BS
14	UL25020814	海侧门架斜撑杆	焊接件	2	1415	2830		Fixed Tie Links of BS
13	UL25020813	漏斗横梁 1	焊接件	1	10144	10144		Fixed beam of BS I
12	UL25020812	海侧立柱	焊接件	1	60899	60899		Vertical Leg
11	UL25020811	海侧上横梁	焊接件	1	32004	32004		Vertical beam
10	UL25020810	水平横梁 II	焊接件	2	7044	14088		Horizontal beam II
9	UL25020809	门架斜撑	焊接件	2	10915	21830		Fixed Tie Links
8	UL25020808	门架横梁-1(面海左侧)	焊接件	1	8568	8568		Inside face of legway I
7	UL25020807	漏斗支架	焊接件	1	10492	10492		Support
6	UL25020806	陆侧门架横梁	焊接件	1	6888	6888		Horizontal beam of LS
5	UL25020805	陆侧立柱 2(面海右侧)	焊接件	1	38922	38922		Vertical Leg 2
4	UL25020804	陆侧上横梁	焊接件	1	22360	22360		Vertical beam
3	UL25020803	陆侧立柱 1(面海左侧)	焊接件	1	40624	40624		Vertical Leg 1
2	UL25020802	陆侧门架斜撑杆	焊接件	2	1419	2838		Fixed Tie Links of LS
1	UL25020801	陆侧下横梁	焊接件	1	25016	25016		Side beam of LS
PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:	SCALE: 1:200					
ITEM NAME: 门架系统 Frame		DRAW NO: UL25020800						
ZPMC	DSGN	TRACE	APP.					
	DRAW	CHK	Q'TY/SET	367148kg				
	CHK	VER.	SET/CRANE	1x367148kg				

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revision no.	Sub no.	description	date	sign



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total WEIGHT	NOTE
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:40	
ITEM NAME: 陆侧下横梁 Sill Beams of L.S.			DRAW NO: UL25020801			
DSGN	TRACE	APP.	APP.	QTY/SET	Assembly	
DRAW	CHCK	VER.	SET/CRANE	25130kg	1	
CHCK	VER.					

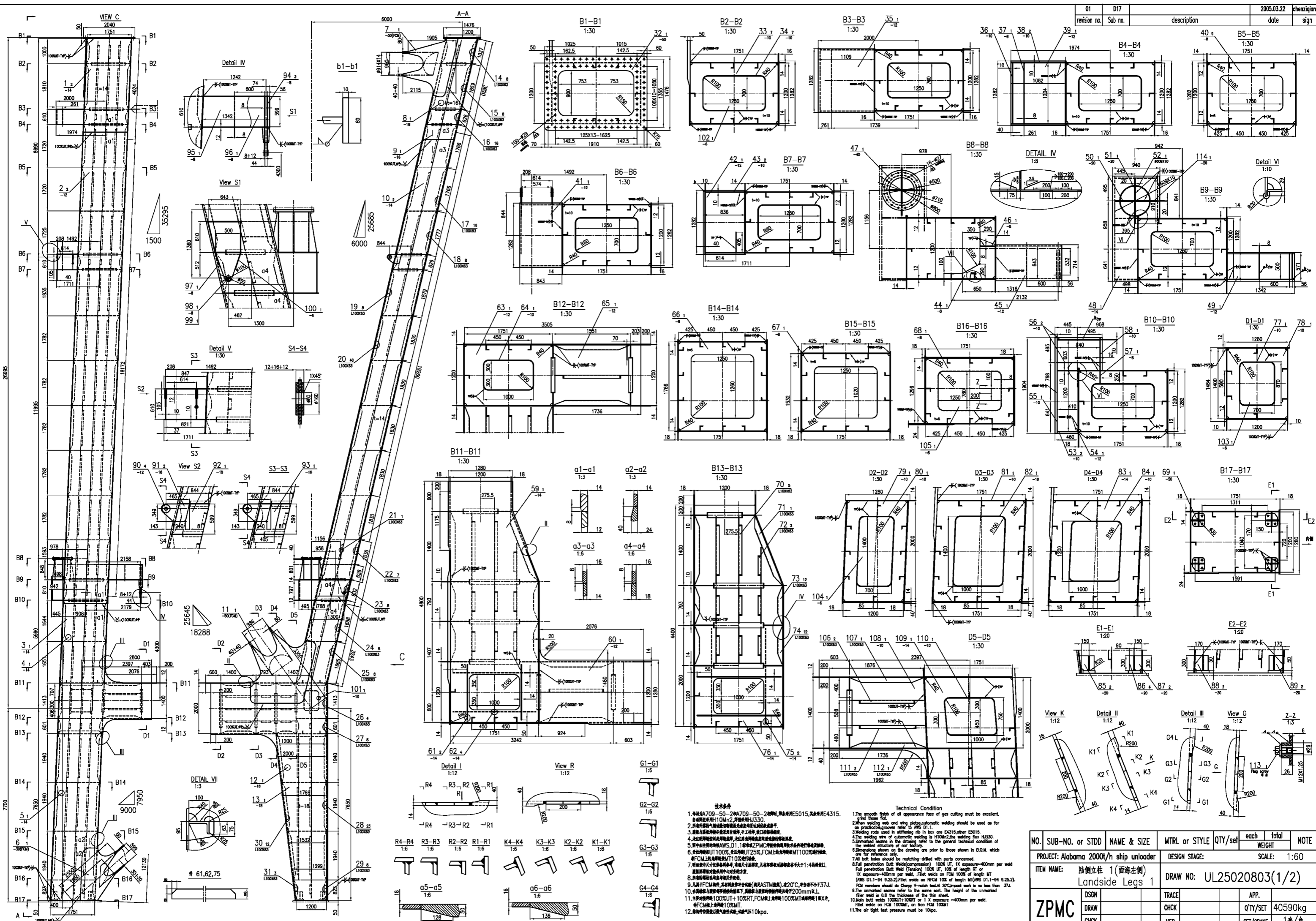


- 技术条件
1. 焊条采用E4315.
 2. 未注明焊缝按同类焊缝施焊, 未注明贴角焊缝高度取被连接的薄板厚度.
 3. 件3圆管需经检验合格或有合格证书时方可使用.
 4. 所有外露的气割边缘, 切割断面光洁度均要达到优级或磨平.
 5. 图中未注明的均按厂焊接构件通用技术条件进行制造与检验.
 6. 明细表中尺寸供参考, 准确尺寸按样定.
 7. 结构件待拼装后做气密性试验, 试验气压10kpa.

- Technology Requirement
1. The welding rods are E5015,
 2. The smooth finish of all appearance face of gas cutting must be excellent, grind those flat.
 3. The unmarked seams refer to the same sort. The height of the unmarked filler weld is 0.7 the thickness of the thin sheet.
 4. Unmarked seams in the drawing refer to the general technical condition of the welded structure of ZPMC.
 5. All welds-100%VT, Tension complete penetration welds-100%UT.
 6. Dimensions shown on the drawing are prior to those shown in B.O.M. which are for reference only.
 7. The air tight test pressure must be 10kpa.

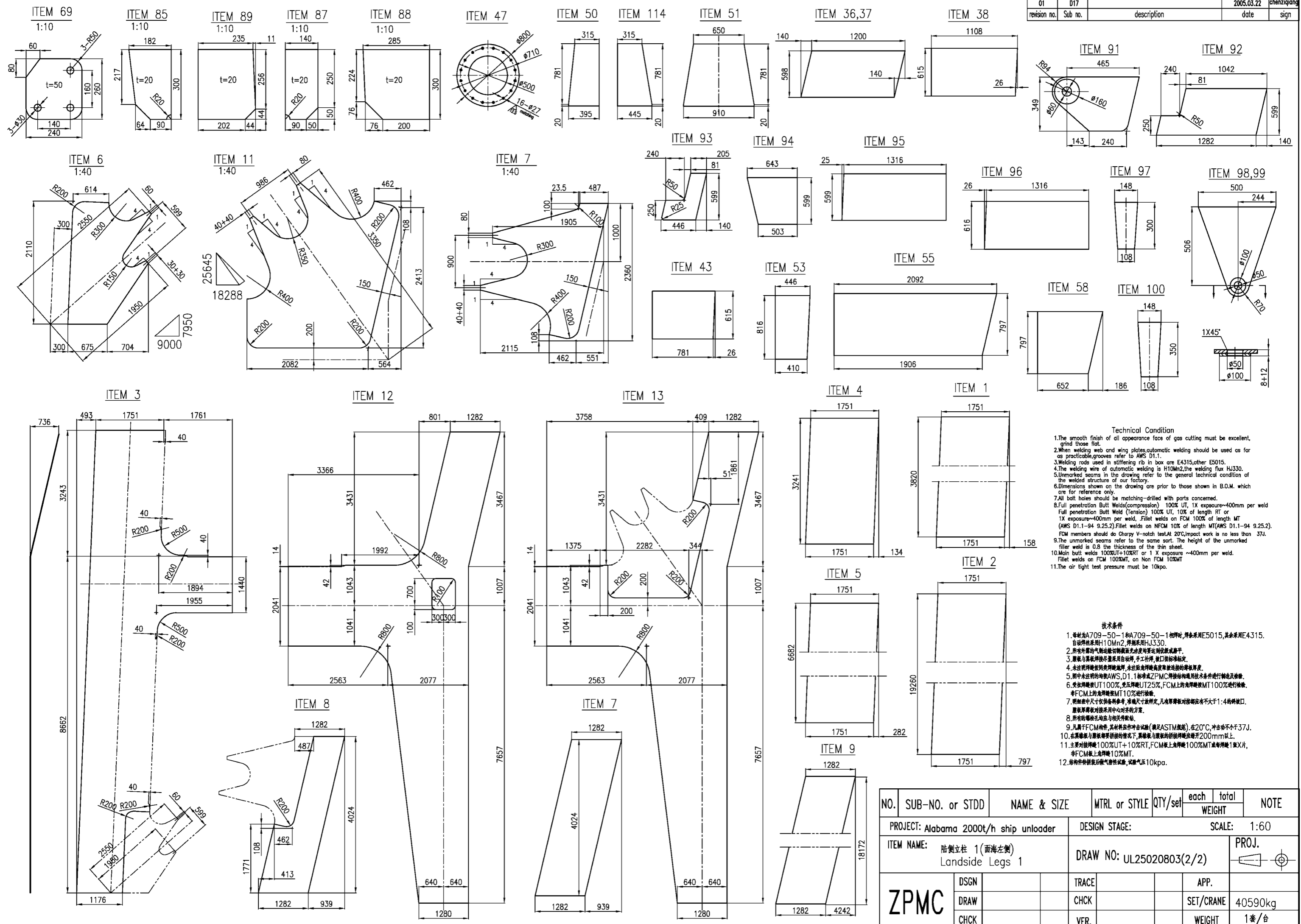
5	借用UL2502020901	Plug screw 螺塞	组合件	1	0.08	0.08
4		-6X160	Q235B	4	1	4
3		-8X397X850	Q235B	2	17.5	35
2		609X10-9659	A709-50-2	1	1353	1353
1		-8X397X723	Q235B	2	13.6	27.2

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total		NOTE
					each	total	
PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE: 1:25			
ITEM NAME: Fixed Tie Links of L.s. 陆侧门框斜撑杆		DRAW NO: UL25020802		PROJ.			
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		SET/CRANE	1419kg	
	CHCK		VER.		WEIGHT	2套/台	



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
PROJECT: Alabama 2000/h ship unloader			DESIGN STAGE:	SCALE: 1:60			
ITEM NAME: 陆侧立柱 1 (西海左側) Landside Legs 1			DRAW NO: UL25020803(1/2)				
ZPMC	DSGN	TRACE	CHK	APP.	QTY/SET	40590kg	
	CHK	VER.			SET/CRANE	1套/台	

01	D17		2005.03.22	chenziqiang
revision no.	Sub no.	description	date	sign



Technical Condition

- The smooth finish of all appearance face of gas cutting must be excellent, grind those flat.
- When welding web and wing plates automatic welding should be used as far as practicable, grooves refer to AWS D1.1.
- Welding rods used in stiffening ribs in box are E4315, other E5015.
- The welding wire of automatic welding is H10Mn2, the welding flux HJ330.
- Unmarked seams in the drawing refer to the general technical condition of the welded structure of our factory.
- Dimensions shown on the drawing are prior to those shown in B.O.M. which are for reference only.
- All bolt holes should be matching-drilled with parts concerned.
- Full penetration Butt Welds (compression) 100% UT, 1X exposure ~400mm per weld. Full penetration Butt Weld (Tension) 100% UT, 10% of length RT or 1X exposure ~400mm per weld. Fillet welds on FCM 100% of length MT (AWS D1.1-94 9.25.2). Fillet welds on NFM 10% of length MT (AWS D1.1-94 9.25.2). FCM members should do Charpy V-notch test at 20°C, impact work is no less than 37J. The unmarked seams refer to the same sort. The height of the unmarked filler weld is 0.8 the thickness of the thin sheet.
- Main butt welds 100%UT+10%RT or 1 X exposure ~400mm per weld. Fillet welds on FCM 100%MT, on Non FCM 10%MT.
- The air tight test pressure must be 10kpa.

技术条件

- 钢材为A709-50-1和A709-50-1相焊时,焊条采用E5015,其余采用E4315. 自动焊丝采用H10Mn2,焊剂采用HJ330.
- 所有外露的气割边缘切割面光滑度均要达到优良或磨平.
- 腹板与翼板焊接尽量采用自动焊,手工补焊,接口按标准规定.
- 未注明焊缝按埋弧焊施焊,未注转角焊缝按高度取坡口施焊.
- 图中未注明的均按AWS,D1.1标准或ZPMC焊接结构通用技术条件进行施焊及检验.
- 受拉焊缝UT100%,受压焊缝UT25%,FCM上的角焊缝MT100%进行检验. 非FCM上的角焊缝MT10%进行检验.
- 明细图中尺寸仅供参考,最终以放样为准,凡有焊缝对接处应有不大于1:4的坡接口. 腹板厚板对接采用中心对开的方案.
- 所有的螺栓孔均应与相关件匹配.
- 凡属于FCM构件,其材料应作冲击试验(满足ASTM规范),在20°C,冲击功不小于37J.
- 在焊缝板与腹板对接的情况下,其腹板与腹板的对接焊缝应开200mm以上.
- 主要对接焊缝100%UT+10%RT,FCM板上角焊缝100%MT,非FCM板上角焊缝10%MT.
- 结构件拼装后做气密性试验,试验气压10kpa.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
					WEIGHT	WEIGHT	
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:60		
ITEM NAME: 陆侧立柱 1(面海左侧) Landside Legs 1			DRAW NO: UL25020803(2/2)		PROJ.		
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		SET/CRANE	40590kg	
	CHCK		VER.		WEIGHT	1套/台	

SUBSIDIARY LIST 明细表

* The quantity and weight of this list is to one set
1 set/crane, 40590 kg/set, 40590 kg/crane 第 1/6 页

PROJECT NAME or CODE: Alabama 2000t/h ship unloader		SUB-PART NAME: 陆侧立柱 1		SUB DRAW NO: UL25020803	
序号 NO.	图号或标准 SUB-NO. or STD.	名称与规格 NAME & SIZE	材料或型号 MTRL or STYLE	数量 QTY/SET	重量 PECE WGT TOTAL WGT
1		-14X1751X3896	A709-50-2	2	735 1470
2		-12X1751X19349	A709-50-2	2	3176 6352
3		-14X4005X12027	A709-50-2	1	2481 2481
4		-14X1751X3386	A709-50-2	1	623 623
5		-14X1751X6382	A709-50-2	1	1285 1285
6	FCM	-30X1393X2110	A709-50-2	1	481 481
7	FCM	-50X2195X2360	A709-50-2	1	1175 1175
8		-16X1282X4591	A709-50-2	1	648 648
9		-16X1282X4591	A709-50-2	1	505 505
10		-14X1282X18952	A709-50-2	2	2560 5120
11	FCM	-50X2837X2646	A709-50-2	1	1945 1945
12		-18X5450X12131	A709-50-2	1	3510 3510
13		-18X5450X12131	A709-50-2	1	3209 3209
14		L100X63X8-894	Q235B	8	8.8 70.4
15		L100X63X8-1799	Q235B	8	17.8 142.4
16		L100X63X8-566	Q235B	16	5.6 89.6
17		L100X63X8-1708	Q235B	16	16.8 268.8
18		L100X63X8-1718	Q235B	8	17 136
19		L100X63X8-1820	Q235B	8	18 144
20		L100X63X8-1772	Q235B	40	17.5 700
21		L100X63X8-948	Q235B	1	9.3 9.3
22		L100X63X8-1577	Q235B	7	15.5 108.5
ZPMC		DSGN	TECH	MTRL	
CHECK		STDD	CHECK		

SUBSIDIARY LIST 明细表

* The quantity and weight of this list is to one set
1 set/crane, 40590 kg/set, 40590 kg/crane 第 2/6 页

PROJECT NAME or CODE: Alabama 2000t/h ship unloader		SUB-PART NAME: 陆侧立柱 1		SUB DRAW NO: UL25020803	
序号 NO.	图号或标准 SUB-NO. or STD.	名称与规格 NAME & SIZE	材料或型号 MTRL or STYLE	数量 QTY/SET	重量 PECE WGT TOTAL WGT
23		L100X63X8-772	Q235B	8	7.6 60.8
24		L100X63X8-1629	Q235B	8	16.1 128.8
25		L100X63X8-1634	Q235B	8	16.1 128.8
26		L100X63X8-1351	Q235B	4	13.3 53.2
27		L100X63X8-539	Q235B	8	5.3 42.4
28		L100X63X8-1882	Q235B	23	18.5 425.5
29		L100X63X8-694	Q235B	8	6.8 54.4
30		L100X63X8-1896	Q235B	12	18.7 224.4
31		L100X63X8-699	Q235B	3	6.9 20.7
32		-50X1476X2030	A709-50-2	1	670 670
33		-10X1200X1751	A709-50-2	7	97 582
34		-10X100X3697	A709-50-2	7	29 174
35		-12X1109X1282	A709-50-2	1	133.7 133.7
36		-10X598X1340	A709-50-2	1	56.3 56.3
37		-8X598X1340	A709-50-2	1	45 45
38		-10X615X1108	A709-50-2	2	52.8 105.6
39		-12X1083X1282	A709-50-2	1	130.7 130.7
40		-8X1200X1751	A709-50-2	9	77.6 698.4
41		-12X843X1282	A709-50-2	1	102 102
42		-12X836X1282	A709-50-2	1	100 100
43		-10X615X807	A709-50-2	2	38.3 76.6
44		-8X650X1200	A709-50-2	1	26 26
ZPMC		DSGN	TECH	MTRL	
CHECK		STDD	CHECK		

SUBSIDIARY LIST 明细表

* The quantity and weight of this list is to one set
1 set/crane, 40590 kg/set, 40590 kg/crane 第 3/6 页

PROJECT NAME or CODE: Alabama 2000t/h ship unloader		SUB-PART NAME: 陆侧立柱 1		SUB DRAW NO: UL25020803	
序号 NO.	图号或标准 SUB-NO. or STD.	名称与规格 NAME & SIZE	材料或型号 MTRL or STYLE	数量 QTY/SET	重量 PECE WGT TOTAL WGT
45		-12X714X1316	A709-50-2	1	88.5 88.5
46		-8X290X598	A709-50-2	1	11 11
47		-40X#800/#500	A709-50-2	1	96.2 96.2
48		-14X940X2094	A709-50-2	1	155 155
49		-12X571X1342	A709-50-2	1	72.2 72.2
50		-20X395X781	A709-50-2	1	45 45
51		-20X781X910	A709-50-2	1	98.5 98.5
52		#609X10-801	Q235B	1	118 118
53		-10X446X816	A709-50-2	2	27.6 55.2
54		-12X940X1904	A709-50-2	1	120.6 120.6
55		-10X797X2092	A709-50-2	1	125 125
56		-10X797X840	A709-50-2	2	52.6 105.2
57		-8X250X600	A709-50-2	1	9.4 9.4
58		-10X838X797	A709-50-2	1	46.6 46.6
59		-14X1751X4800	A709-50-2	1	780 780
60		-12X1480X2076	A709-50-2	1	250 250
61		-14X100X1100	A709-50-2	2	11 22
62		-14X100X1651	A709-50-2	4	17 68
63		-12X1200X1751	A709-50-2	1	141.8 141.8
64		-10X100X2997	A709-50-2	1	23.5 23.5
65		-12X1200X1736	A709-50-2	1	196 196
66		-8X1751X1766	A709-50-2	1	95 95
ZPMC		DSGN	TECH	MTRL	
CHECK		STDD	CHECK		

SUBSIDIARY LIST 明细表

* The quantity and weight of this list is to one set
1 set/crane, 40590 kg/set, 40590 kg/crane 第 4/6 页

PROJECT NAME or CODE: Alabama 2000t/h ship unloader		SUB-PART NAME: 陆侧立柱 1		SUB DRAW NO: UL25020803	
序号 NO.	图号或标准 SUB-NO. or STD.	名称与规格 NAME & SIZE	材料或型号 MTRL or STYLE	数量 QTY/SET	重量 PECE WGT TOTAL WGT
67		-8X1751X1532	A709-50-2	1	89 89
68		-8X1299X1751	A709-50-2	1	81.8 81.8
69		-50X240X260	A709-50-2	4	22.8 91.2
70		L100X63X8-1340	Q235B	5	13.2 66
71		L100X63X8-1444	Q235B	1	14.2 66
72		L100X63X8-730	Q235B	2	7.2 14.4
73		L100X63X8-731	Q235B	12	7.2 86.4
74		L100X63X8-736	Q235B	12	7.3 87.6
75		-14X100X1900	A709-50-2	2	20 40
76		-14X1751X4400	A709-50-2	1	792 792
77		-10X100X2937	A709-50-2	1	23 23
78		-10X1200X1400	A709-50-2	1	84.7 84.7
79		-10X1285X2000	A709-50-2	1	112.3 112.3
80		-10X100X4001	A709-50-2	1	31 31
81		-10X1836X2000	A709-50-2	1	165.7 165.7
82		-10X100X4600	A709-50-2	1	36 36
83		-14X1836X2000	A709-50-2	1	253 253
84		-10X100X4200	A709-50-2	1	33 33
85		-20X182X300	A709-50-2	2	7.6 15.2
86		-20X90X300	A709-50-2	4	4.2 16.8
87		-20X140X300	A709-50-2	2	6.3 12.6
88		-20X285X300	A709-50-2	2	12.6 25.2
ZPMC		DSGN	TECH	MTRL	
CHECK		STDD	CHECK		

SUBSIDIARY LIST 明细表

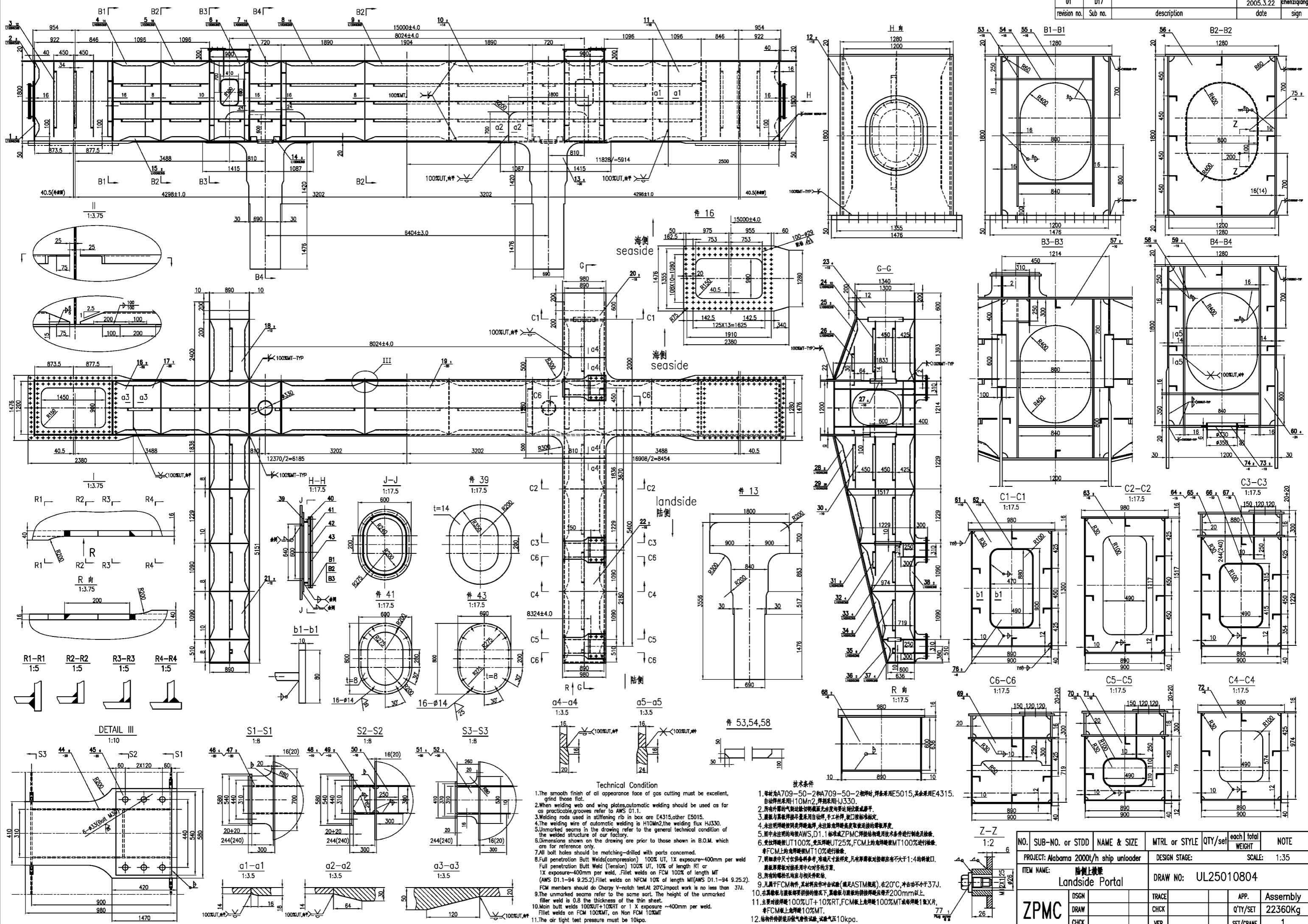
* The quantity and weight of this list is to one set
1 set/crane, 40590 kg/set, 40590 kg/crane 第 5/6 页

PROJECT NAME or CODE: Alabama 2000t/h ship unloader		SUB-PART NAME: 陆侧立柱 1		SUB DRAW NO: UL25020803	
序号 NO.	图号或标准 SUB-NO. or STD.	名称与规格 NAME & SIZE	材料或型号 MTRL or STYLE	数量 QTY/SET	重量 PECE WGT TOTAL WGT
89		-20X246X300	A709-50-2	2	11.2 22.4
90		-12X#160/#60	A709-50-2	4	1.6 6.4
91		-16X349X465	A709-50-2	2	19.4 38.8
92		-10X599X1422	A709-50-2	1	53.7 53.7
93		-10X586X599	A709-50-2	1	14.4 14.4
94		-8X599X643	A709-50-2	3	21.5 64.5
95		-8X599X1341	A709-50-2	1	50 50
96		-8X616X1342	A709-50-2	1	51.3 51.3
97		-8X148X300	A709-50-2	1	2.4 2.4
98		-8X#100/#50	A709-50-2	2	0.4 0.8
99		-12X500X576	A709-50-2	2	15.5 31
100		-8X148X350	A709-50-2	1	2.8 2.8
101		-10X100X2597	A709-50-2	1	20.4 20.4
102		-6X680X1230	Q235	1	37 37
103		-6X680X850	Q235	1	25 25
104		-6X743X1380	Q235	1	45 45
105		-6X796X1266	Q235	1	45 45
106		L100X63X8-1437	Q235B	2	11.5 23
107		L100X63X8-1420	Q235B	1	11.4 11.4
108		-10X2000X1962	A709-50-2	1	219 219
109		-10X100X3302	A709-50-2	1	25.9 25.9
110		-14X1751X2077	A709-50-2	1	303.4 303.4
ZPMC		DSGN	TECH	MTRL	
CHECK		STDD	CHECK		

SUBSIDIARY LIST 明细表

* The quantity and weight of this list is to one set
1 set/crane, 40590 kg/set, 40590 kg/crane 第 6/6 页

PROJECT NAME or CODE: Alabama 2000t/h ship unloader		SUB-PART NAME: 陆侧立柱 1		SUB DRAW NO: UL25020803	
序号 NO.	图号或标准 SUB-NO. or STD.	名称与规格 NAME & SIZE	材料或型号 MTRL or STYLE	数量 QTY/SET	重量 PECE WGT TOTAL WGT
111		L100X63X8-1463	Q235B	2	14.4 28.8
112		L100X63X8-1480	Q235B	1	14.6 14.6
113	参照UL2502020901	Plug screw 螺塞	螺塞件	1	0.08 0.08
113		-20X445X781	A709-50-2	1	48 48
ZPMC		DSGN	TECH	MTRL	
CHECK		STDD	CHECK		



Technical Condition

- The smooth finish of all appearance face of gas cutting must be excellent, grind those flat.
- When welding web and wing plates, automatic welding should be used as far as practicable, grooves refer to AWS D1.1.
- Welding rods used in stiffening rib in box are E4315, other E5015.
- The welding wire of automatic welding is H70Mn2, the welding flux HJ330.
- Unmarked seams in the drawing refer to the general technical condition of the welded structure of our factory.
- Dimensions shown on the drawing are prior to those shown in B.O.M. which are for reference only.
- All bolt holes should be matching-drilled with parts concerned.
- Full penetration Butt Welds (compression): 100% UT, 1X exposure=400mm per weld. Full penetration Butt Weld (tension) 100% UT, 10% of length RT or 1X exposure=400mm per weld. Fillet welds on FCM 100% of length MT (AWS D1.1-94 9.25.2). Fillet welds on NFCM 10% of length MT (AWS D1.1-94 9.25.2). FCM members should do Cherry V-notch test! At 20°C, impact work is no less than 37J.
- The unmarked seams refer to the same sort. The height of the unmarked fillet weld is 0.8 the thickness of the thin sheet.
- Main butt welds 100%UT+10%RT or 1 X exposure ~400mm per weld. Fillet welds on FCM 100%UT, on Non FCM 10%MT.
- The air tight test pressure must be 10kpa.

技术条件

- 钢材为A709-50-2和A709-50-2材料, 焊条采用E5015, 其余采用E4315. 自动焊丝采用H70Mn2, 焊剂采用HJ330.
- 所有外部的气割面应达到光洁度, 磨光处理.
- 腹板与翼缘焊接不能采用自动焊, 手工补焊, 接口按标准标注.
- 未注明焊缝的焊接材料, 未注明角焊缝高度取连接板的厚度.
- 图中未注明的焊缝, 参照本厂的一般技术条件.
- 角焊缝按UT100%, 承压焊缝UT25%, FCM上的角焊缝按MT100%进行检测. 非FCM上的角焊缝按MT10%进行检测.
- 所有焊缝尺寸在供货单中注明, 准确尺寸标注, 凡有焊缝对接处应不大于1:4的斜接口. 腹板厚度和对接采用中心对称对接.
- 所有螺栓孔均应与零件匹配.
- 凡属于FCM构件, 其材料应按冲击试验(满足ASTM规范), 在20°C, 冲击功不小于37J.
- 在腹板与翼缘焊接的情况下, 翼缘板与腹板的角焊缝应每200mm做1.
- 主要对接焊缝100%UT+10%RT, FCM板上角焊缝100%MT或每焊缝1英寸, 非FCM板上角焊缝10%MT.
- 与物件焊接后应做气密性试验, 试验压力10kpa.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each WEIGHT	total WEIGHT	NOTE
PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE: 1:35			
ITEM NAME: 陆侧上横梁		DRAW NO: UL25010804		APP. Assembly		QTY/SET 22360Kg	
ZPMC	DSGN	TRACE	APP.	SET/CRANE	1		
	DRAW	CHCK	VER.				

SUBSIDIARY LIST 明细表

* The quantity and weight of this list is to one set
1 set/crane, 38902 kg/set, 38902 kg/crane 第 1/1 页

PROJECT NAME or CODE: Alabama 2000t/h ship unloader		SUB-PART NAME: Landside Legs 2		SUB DRAW NO: UL25010805		
序号 NO.	图号或标准 SUB-NO. or STDD	名称与规格 NAME & SIZE	材料或型号 MTRL or STYLE	数量 QTY/SET	重量 PIECE WT	总重 TOTAL WT
1		-14X1751X3896	A709-50-2	2	735	1470
2		-12X1751X19349	A709-50-2	2	3176	6352
3		-14X4613X12027	A709-50-2	1	2582	2582
4		-14X1751X3386	A709-50-2	1	623	623
5		-14X1751X6382	A709-50-2	1	1285	1285
6	FCM	-30X1393X2110	A709-50-2	1	481	481
7		-16X1282X4591	A709-50-2	1	648	648
8		-16X1282X4591	A709-50-2	1	505	505
9		-14X1282X18952	A709-50-2	2	2560	5120
10		-18X5450X12131	A709-50-2	1	3510	3510
11		-18X5450X12131	A709-50-2	1	3209	3209
12		L100X63X8-894	Q235B	8	8.8	70.4
13		L100X63X8-1799	Q235B	8	17.8	142.4
14		L100X63X8-1891	Q235B	72	18.6	1339.2
15		L100X63X8-1923	Q235B	8	19	152
16		L100X63X8-1351	Q235B	4	13.3	53.2
17		L100X63X8-539	Q235B	8	5.3	42.4
18		L100X63X8-1882	Q235B	23	18.5	425.5
19		L100X63X8-694	Q235B	8	6.8	54.4
20		L100X63X8-1896	Q235B	12	18.7	224.4
21		L100X63X8-699	Q235B	3	6.9	20.7
22		-50X1476X2030	A709-50-2	1	670	670
ZPMC	DSGN		TECH		MTRL	
	CHK		STDD		CHK	

SUBSIDIARY LIST 明细表

* The quantity and weight of this list is to one set
1 set/crane, 38902 kg/set, 38902 kg/crane 第 1/2 页

PROJECT NAME or CODE: Alabama 2000t/h ship unloader		SUB-PART NAME: Landside Legs 2		SUB DRAW NO: UL25010805		
序号 NO.	图号或标准 SUB-NO. or STDD	名称与规格 NAME & SIZE	材料或型号 MTRL or STYLE	数量 QTY/SET	重量 PIECE WT	总重 TOTAL WT
23		-10X1200X1751	A709-50-2	2	97	194
24		-10X100X3697	A709-50-2	2	29	58
25		-8X1200X1751	A709-50-2	11	77.6	853.6
26		-14X1751X4800	A709-50-2	1	780	780
27		L100X63X8-1340	Q235B	5	13.2	66
28		L100X63X8-1444	Q235B	1	14.2	66
29		L100X63X8-730	Q235B	2	7.2	14.4
30		L100X63X8-731	Q235B	12	7.2	86.4
31		L100X63X8-736	Q235B	12	7.3	87.6
32		-12X1880X2676	A709-50-2	1	360	360
33		-14X100X1100	A709-50-2	2	11	22
34		-14X100X1651	A709-50-2	4	17	68
35		-12X1200X2336	A709-50-2	1	264	265
36		-10X100X2997	A709-50-2	1	23.5	23.5
37		-12X1200X1751	A709-50-2	1	141.8	141.8
38		-14X100X1900	A709-50-2	2	20	40
39		-14X1751X4400	A709-50-2	1	792	792
40		-8X1751X1766	A709-50-2	1	95	95
41		-8X1751X1532	A709-50-2	1	89	89
42		L100X63X8-1367	Q235B	2	13.5	27
43		L100X63X8-1350	Q235B	1	13.3	13.3
44		-10X2000X2562	A709-50-2	1	288	288
ZPMC	DSGN		TECH		MTRL	
	CHK		STDD		CHK	

SUBSIDIARY LIST 明细表

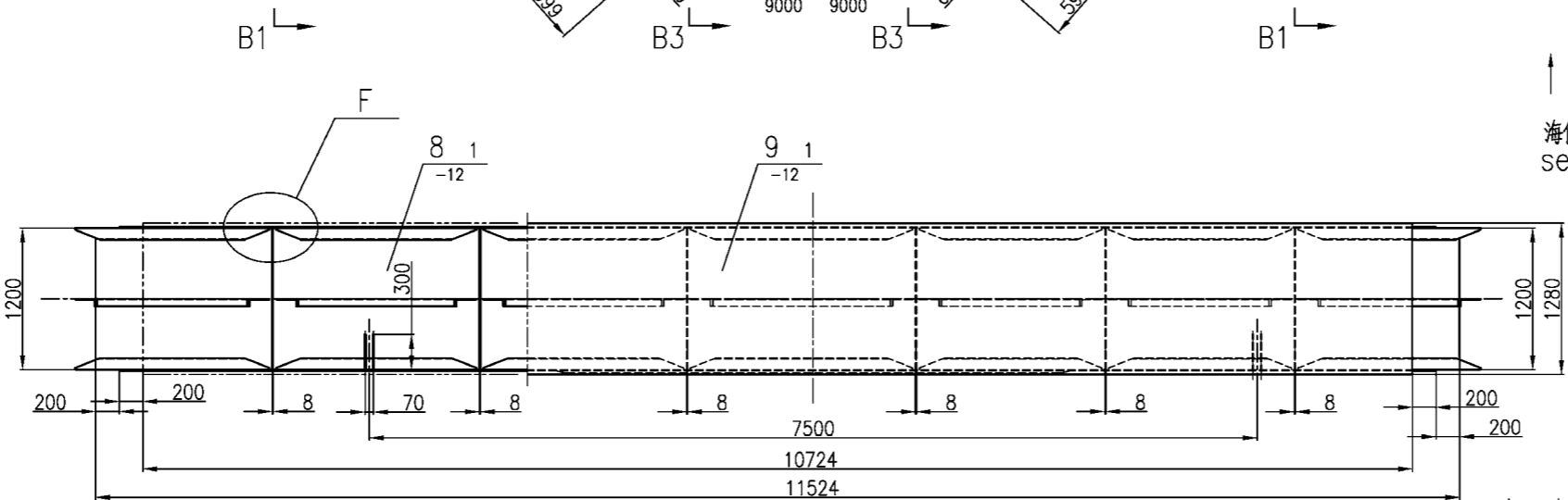
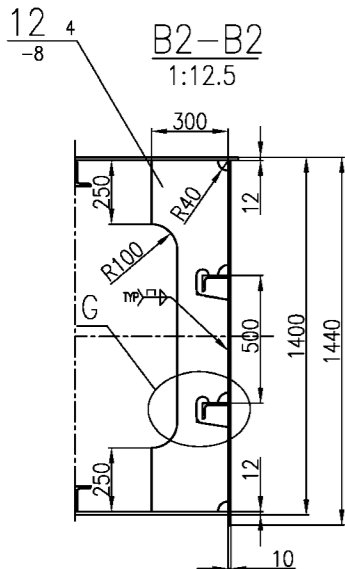
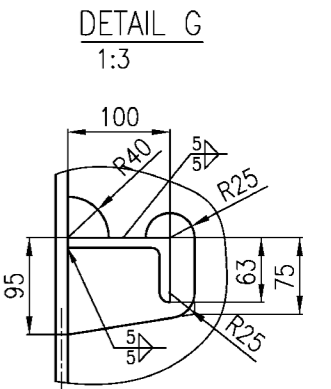
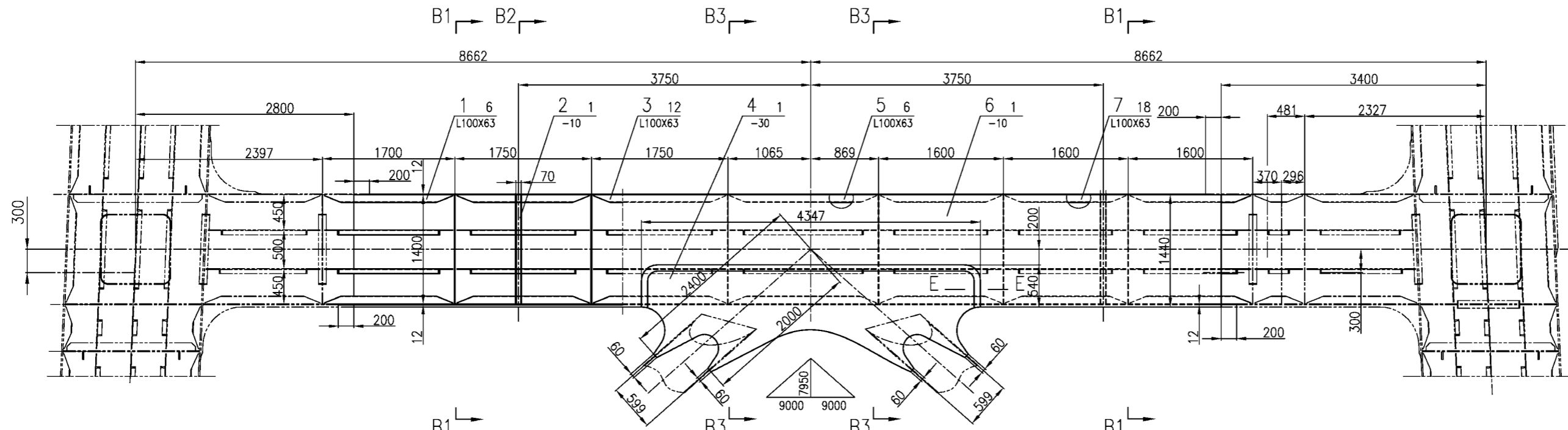
* The quantity and weight of this list is to one set
1 set/crane, 38902 kg/set, 38902 kg/crane 第 1/3 页

PROJECT NAME or CODE: Alabama 2000t/h ship unloader		SUB-PART NAME: Landside Legs 2		SUB DRAW NO: UL25010805		
序号 NO.	图号或标准 SUB-NO. or STDD	名称与规格 NAME & SIZE	材料或型号 MTRL or STYLE	数量 QTY/SET	重量 PIECE WT	总重 TOTAL WT
45		-10X100X3302	A709-50-2	1	25.9	25.9
46		-14X1751X2077	A709-50-2	1	303.4	303.4
47		L100X63X8-1393	Q235B	2	13.7	27.4
48		L100X63X8-1410	Q235B	1	13.9	13.9
49		-8X1299X1751	A709-50-2	1	81.8	81.8
50		-50X240X260	A709-50-2	4	22.8	91.2
51		-20X182X300	A709-50-2	2	7.6	15.2
52		-20X90X300	A709-50-2	4	4.2	16.8
53		-20X140X300	A709-50-2	2	6.3	12.6
54		-20X285X300	A709-50-2	2	12.6	25.2
55		-20X246X300	A709-50-2	2	11.2	22.4
56	FCM	-50X2837X2646	A709-50-2	1	1945	1945
57	FCM	-50X2195X2360	A709-50-2	1	1175	1175
58		-10X100X2937	A709-50-2	1	23	23
59		-10X1200X1400	A709-50-2	1	84.7	84.7
60		-10X100X4001	A709-50-2	1	31	31
61		-10X1285X2000	A709-50-2	1	112.3	112.3
62		-10X100X4600	A709-50-2	1	36	36
63		-10X1836X2000	A709-50-2	1	165.7	165.7
64		-14X1836X2000	A709-50-2	1	253	253
65		-10X100X4200	A709-50-2	1	33	33
66		-10X100X2597	A709-50-2	1	20.4	20.4
ZPMC	DSGN		TECH		MTRL	
	CHK		STDD		CHK	

SUBSIDIARY LIST 明细表

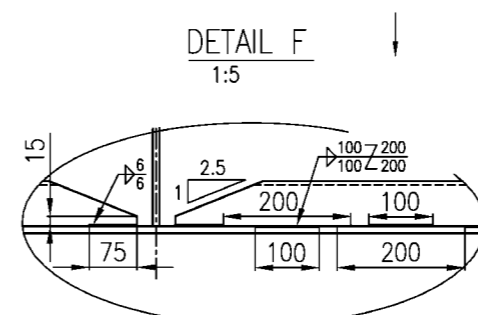
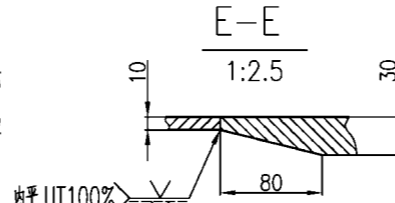
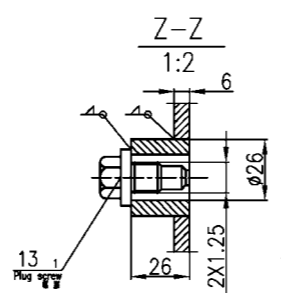
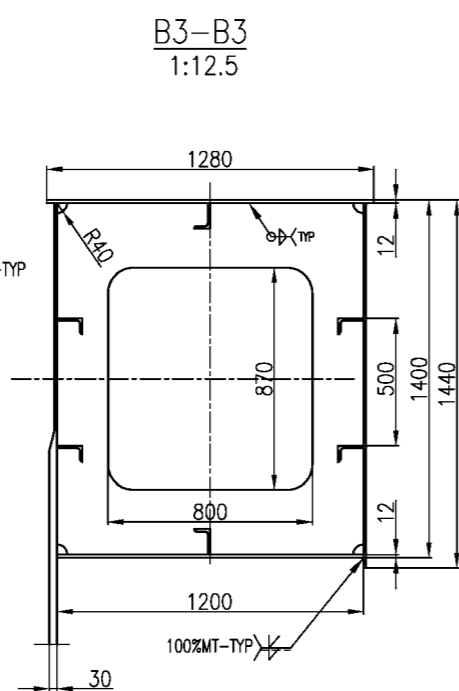
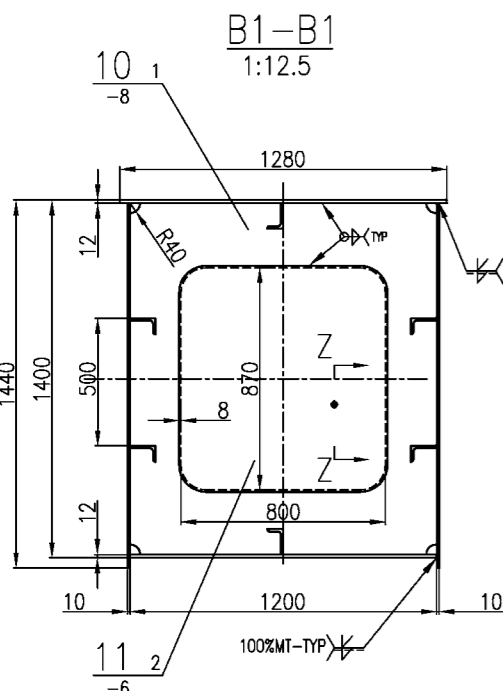
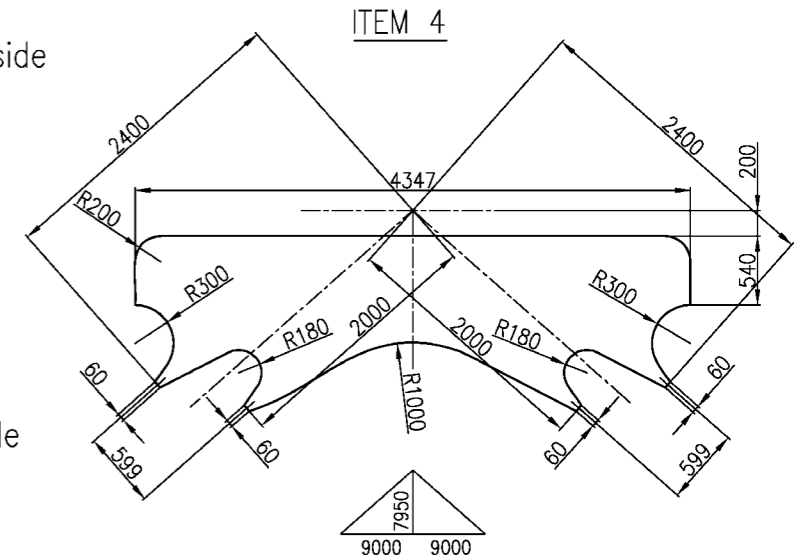
* The quantity and weight of this list is to one set
1 set/crane, 38902 kg/set, 38902 kg/crane 第 1/4 页

PROJECT NAME or CODE: Alabama 2000t/h ship unloader		SUB-PART NAME: Landside Legs 2		SUB DRAW NO: UL25010805		
序号 NO.	图号或标准 SUB-NO. or STDD	名称与规格 NAME & SIZE	材料或型号 MTRL or STYLE	数量 QTY/SET	重量 PIECE WT	总重 TOTAL WT
67		-6X680X1230	Q235	1	37	37
68		-6X680X850	Q235	1	25	25
69		-6X743X1380	Q235	1	45	45
70		-6X796X1266	Q235	1	45	45
71		-8X620X1400	A709-50-2	2	24.6	49.2
72		-8X1200X1400	A709-50-2	1	43.1	43.1
73		-8X225X591	A709-50-2	1	7.8	7.8
74		-8X200X362	A709-50-2	1	4.5	4.5
75		-8X200X151	A709-50-2	2	1.1	2.2
76		-10X263X1258	A709-50-2	1	12.5	12.5
77		-12X711X1354	A709-50-2	1	90.6	90.6
78		-12X571X1379	A709-50-2	1	74.2	74.2
79		-10X602X1379	A709-50-2	1	64.5	64.5
80		-10X588X1379	A709-50-2	1	63	63
81		-10X588X640	A709-50-2	3	21	63
82		-8Xφ190/φ95	A709-50-2	2	1.3	2.6
83		-12X500X529	A709-50-2	2	17	34
84		L100X63X8-1726	Q235B	7	17	119
85		L100X63X8-1993	Q235B	8	19.6	156.8
86		L100X63X8-1106	Q235B	1	10.9	10.9
87		L100X63X8-608	Q235B	6	6	36
88	UL2502020901	Plug screw 螺塞	螺塞件	1	0.08	0.08
ZPMC	DSGN		TECH		MTRL	
	CHK		STDD		CHK	



海侧
seaside

陆侧
landside

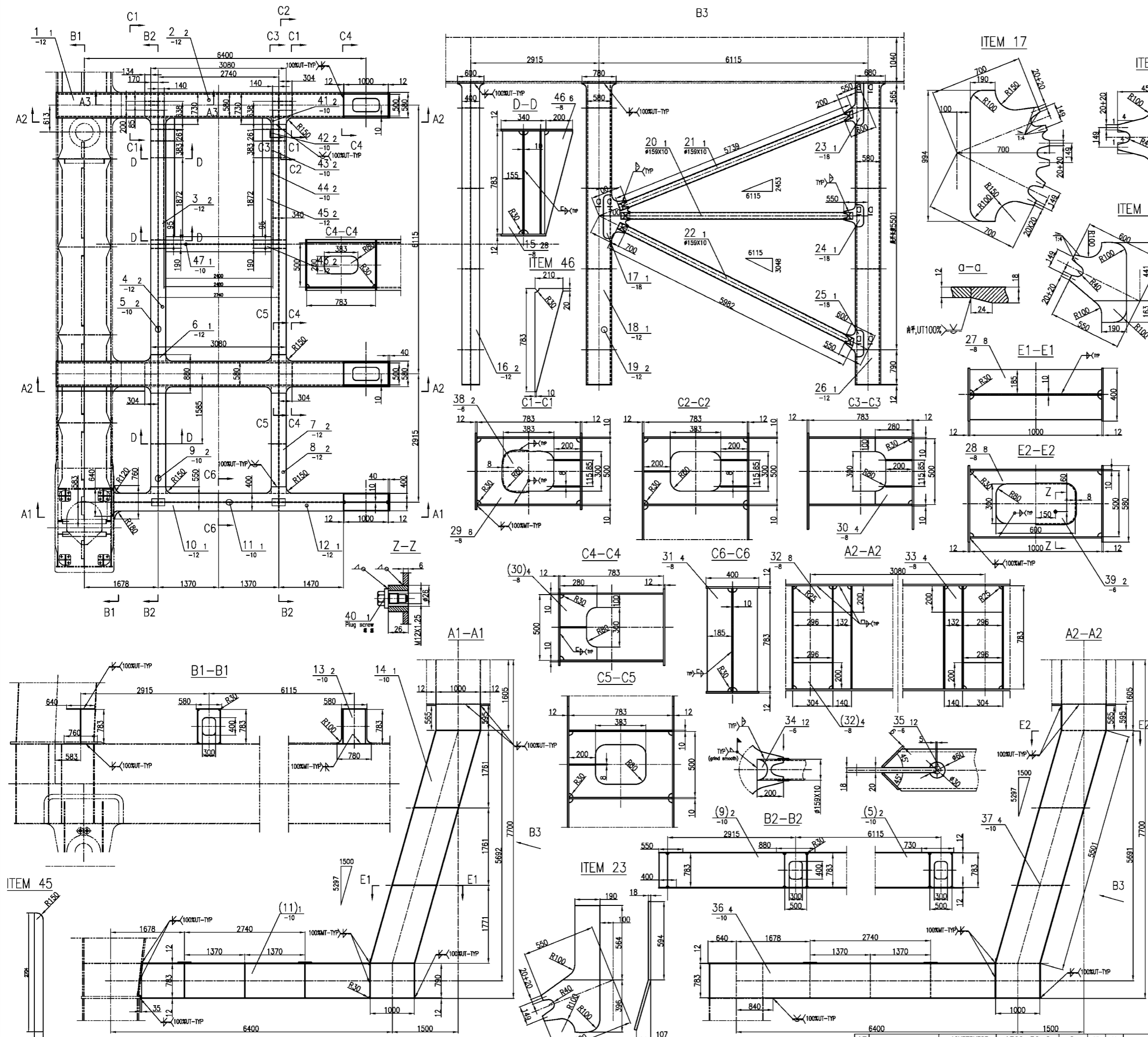


技术条件

1. 母材为A709-50-2和A709-50-2相焊时, 焊条采用E5015, 其余采用E4315.
2. 自动焊丝采用H10Mn2, 焊剂采用HJ330.
3. 所有外置的气割过线切割面光滑度均要达到优良或磨平.
4. 腹板与翼板焊接尽量采用自动焊, 手工补焊, 按口按标准定.
5. 未注明焊缝同类型埋弧焊, 未注贴角焊缝高度取被连接板的厚度.
6. 受拉焊缝UT100%, 受压焊缝UT25%, FCM上的角焊缝MT100%进行检验, 非FCM上的角焊缝MT10%进行检验.
7. 明细表中尺寸仅供参考, 准确尺寸按详图, 凡有厚板对接时应有不大于1:4的斜坡口, 腹板厚板对接采用中心对中的方案.
8. 凡属于FCM物件, 其材料应作冲击试验(满足ASTM规范), 在20°C, 冲击功不小于37J.
9. 在翼板与腹板对接的情况下, 翼板与腹板的对接焊缝应错开200mm以上.
10. 主要对接焊缝100%UT+10%RT, FCM板上角焊缝100%MT或每焊缝1张X片, 非FCM板上角焊缝10%MT.
11. 结构件待拼装后做气密性试验, 试验气压10kpa.

1. The smooth finish of all appearance face of gas cutting must be excellent, grind those flat.
2. When welding web and wing plates, automatic welding should be used as far as practicable, grooves refer to AWS D1.1.
3. Welding rods used in stiffening rib in box are E4315, other E5015.
4. The welding wire of automatic welding is H10Mn2, the welding flux HJ330.
5. Unmarked seams in the drawing refer to the general technical condition of the welded structure of our factory.
6. Dimensions shown on the drawing are prior to those shown in B.O.M. which are for reference only.
7. Full penetration Butt Welds (compression) 100% UT, 1X exposure ~400mm per weld Full penetration Butt Weld (Tension) 100% UT, 10% of length RT or 1X exposure ~400mm per weld. Fillet welds on FCM 100% of length MT (AWS D1.1-94 9.25.2). Fillet welds on NFCM 10% of length MT (AWS D1.1-94 9.25.2). FCM members should do Charpy V-notch test. At 20°C, impact work is no less than 37J.
8. The unmarked seams refer to the same sort. The height of the unmarked fillet weld is 0.8 the thickness of the thin sheet.
9. Main butt welds 100%UT+10%RT or 1 X exposure ~400mm per weld. Fillet welds on FCM 100%MT, on Non FCM 10%MT.
10. The air tight test pressure must be 10kpa.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
13		Plug screw 螺塞	无材料	1	0.08	0.08	
12		-8X300X1400	A709-50-2	4	19	76	
11		-6X816X886	Q235B	2	31.5	63	
10		-8X1200X1400	A709-50-2	6	62.3	373.8	
9		-12X1280X10724	A709-50-2	1	1293	1293	
8		-12X1200X11524	A709-50-2	1	1302	1302	
7		L100x63x8-1542	Q235B	18	15.2	273.6	
6		-10X1440X11124	A709-50-2	1	926	926	
5		L100x63x8-1876	Q235B	6	18.5	111	
4	FCM	-30X1371X4347	A709-50-2	1	990.6	990.6	
3		L100x63x8-1692	Q235B	12	16.7	200.4	
2		-10X1440X11124	A709-50-2	1	1257.5	1257.5	
1		L100x63x8-1641	Q235B	6	16.2	97.2	
PROJECT: Alabama 2000t/h ship unloader				DESIGN STAGE:		SCALE: 1:25	
ITEM NAME: Horizontal beam of L.S. 后侧门架连接梁				DRAW NO: UL25010806		PROJ.	
ZPMC		DSGN	TRACE	APP.			
		DRAW	CHK	Q'TY/SET		6964kg	
		CHK	VER.	SET/CRANE		1	



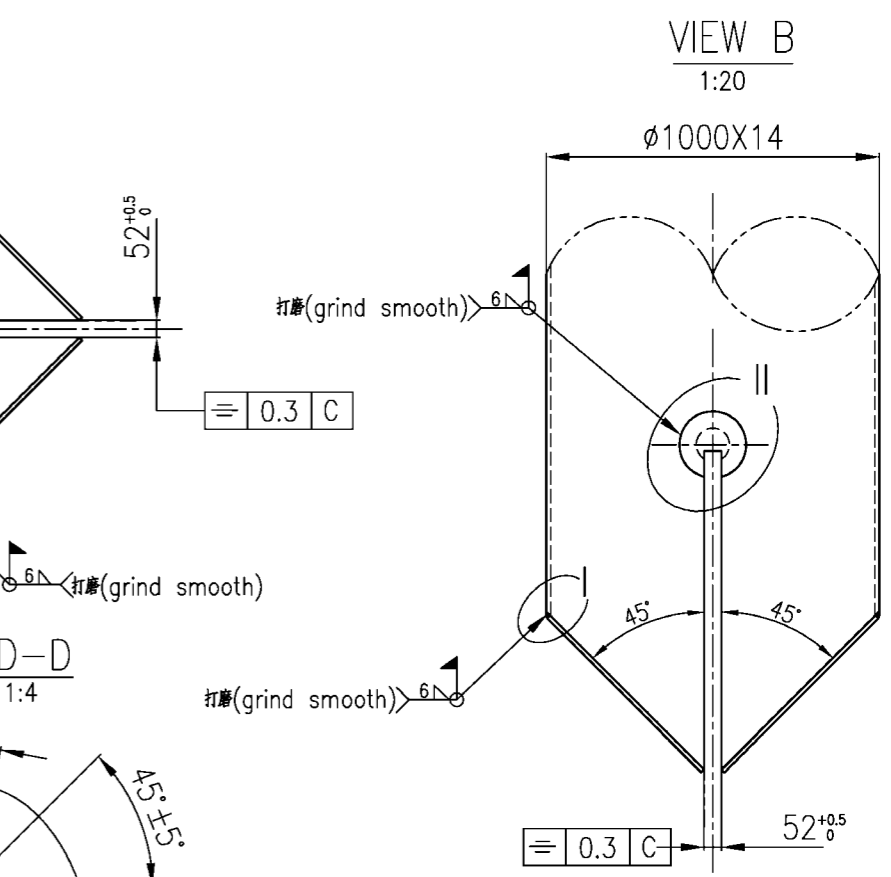
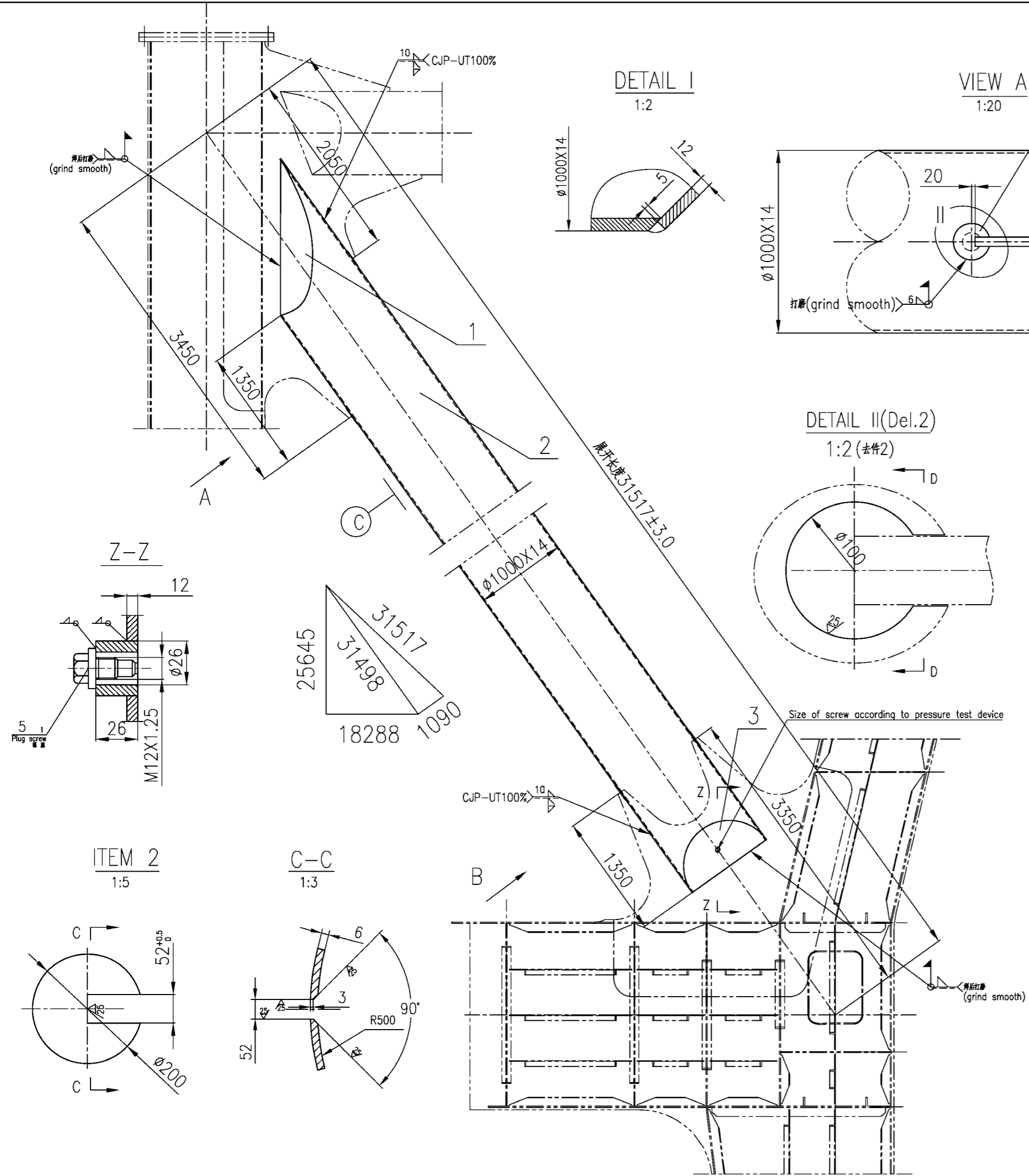
- 技术条件
1. 母材为A709-50-2和A709-50-2相焊时,焊条采用E5015,其余采用E4315.
 2. 自动焊丝采用H10Mn2,焊剂采用HJ330.
 3. 所有外露的气割切口表面无油度均要打磨或磨平.
 4. 翼板与翼板焊接时,应采用自动焊,手工补焊,出口按标准定.
 5. 未注焊缝按同类型处理,未注焊缝高度按连接板厚度.
 6. 中未注焊缝按AWS D1.1标准或ZPMC焊接结构通用技术条件进行制造及检验.
 7. 在翼板与翼板焊接的情况下,翼板与翼板的焊接应避开200mm以上.
 8. 凡属于FCM构件,其材料应作冲击试验(满足ASTM规范),在20°C,冲击功不小于37J.
 9. 主要对接焊缝100%UT+10%RT,FCM板上角焊缝100%MT或每焊缝1英寸,非FCM板上角焊缝10%MT.
 10. 主要对接焊缝100%UT+10%RT,FCM板上角焊缝100%MT或每焊缝1英寸,非FCM板上角焊缝10%MT.
 11. 结构件焊接后做气密性试验,试验气压10kpa.

- Technical Condition
1. The smooth finish of all appearance face of gas cutting must be excellent, grind those flat.
 2. When welding web and wing plates, automatic welding should be used as far as practicable, grooves refer to AWS D1.1.
 3. Welding rods used in stiffening rib in box are E4315, other E5015.
 4. The welding wire of automatic welding is H10Mn2, the welding flux HJ330.
 5. Unmarked seams in the drawing refer to the general technical condition of the welded structure of our factory.
 6. Dimensions shown on the drawing are prior to those shown in B.O.M. which are for reference only.
 7. Full penetration Butt Welds (compression) 100% UT, 1X exposure ~400mm per weld. Full penetration Butt Weld (Tension) 100% UT, 10% of length RT or 1X exposure ~400mm per weld. Fillet welds on FCM 100% of length MT (AWS D1.1-94 9.2.5.2). Fillet welds on NFCM 10% of length MT (AWS D1.1-94 9.2.5.2). FCM members should do Charpy V-notch test at 20°C, impact work is no less than 37J.
 8. The unmarked seams refer to the same sort. The height of the unmarked fillet weld is 0.8 the thickness of the thin sheet.
 9. Main butt welds 100%UT+10%RT or 1 X exposure ~400mm per weld. Fillet welds on FCM 100%MT, on Non FCM 10%MT.
 10. The air tight test pressure must be 10kpa.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	WEIGHT	NOTE
40	常用	UL2502020901	Plug screw 螺塞	螺件	2	0.08	0.16	
39		-6X316X616	Q235B	2	8.8	17.6		
38		-6X316X400	Q235B	2	5.6	11.2		
37		-10X2500X6678	A709-50-2	4	523.8	2095		
36		-10X783X6488	A709-50-2	4	42.2	168.8		
35		-6X#60	Q235B	12	0.2	2.4		
34		-6X155X86	Q235B	12	0.4	4.8		
33		-8X200X132	A709-50-2	4	1.6	6.4		
32		-8X200X296	A709-50-2	8	3.7	29.6		
31		-8X185X783	A709-50-2	4	9	36		
30		-8X280X500	A709-50-2	4	7.4	29.6		
29		-8X500X783	A709-50-2	8	17.6	140.8		
28		-8X500X1000	A709-50-2	8	20.4	163.2		
27		-8X185X1000	A709-50-2	8	11.6	92.8		
26		-12X680X6856	A709-50-2	1	340	340		
25		-18X434X604	A709-50-2	1	24.2	24.2		
24		-18X450X500	A709-50-2	1	21.4	21.4		
23		-18X446X960	A709-50-2	1	35.1	35.1		
22		#159X10-5982	Q235B	1	219.7	219.7		
21		#159X10-5739	Q235B	1	210.9	210.9		
20		#159X10-5265	Q235B	1	193.4	193.4		
19		-12X780X6856	A709-50-2	2	376.2	752.4		
18		-12X780X6856	A709-50-2	1	359.2	359.2		
17		-18X994X600	A709-50-2	1	61.1	61.1		
16		-12X600X6856	A709-50-2	2	259.5	519		
15		-8X155X783	A709-50-2	28	7.6	212.8		
14		-10X2500X6678	A709-50-2	1	523.8	523.8		
13		-10X780X783	A709-50-2	2	36.3	72.6		
12		-12X760X6270	A709-50-2	1	235.7	235.7		
11		-10X783X5274	A709-50-2	1	321	321		
10		-12X640X5183	A709-50-2	1	205.5	205.5		
9		-10X783X2650	A709-50-2	2	162.8	325.6		
8		-12X340X2425	A709-50-2	2	77.6	155.2		
7		-12X340X2125	A709-50-2	2	68	136		
6		-12X880X6528	A709-50-2	1	379.5	379.5		
5		-10X783X5595	A709-50-2	2	343.8	687.6		
4		-12X340X5535	A709-50-2	2	177.3	354.6		
3		-12X340X5235	A709-50-2	2	167.6	335.2		
2		-12X580X6100	A709-50-2	2	333.2	666.4		
1		-12X730X6528	A709-50-2	1	368.2	368.2		

PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE: 1:35	
ITEM NAME: HOPPER TIE STAND		DRAW NO: UL25020807		PROJ.	
料斗支架					
DSGN		TRACE		APP.	
DRAW		CHK		Q'TY/SET	10520kg
CHK		VER.		SET/CRANE	1

47	-10X2730X783	A709-50-2	1	167	167	45	-12X200X2704	A709-50-2	2	51	102	43	-10X375X783	A709-50-2	2	23	46
46	-12X340X2400	A709-50-2	1	76	75	44	-10X1958X783	A709-50-2	2	100	200	42	-10X253X783	A709-50-2	2	15.5	31
												41	-10X289X783	A709-50-2	2	17.7	35.4

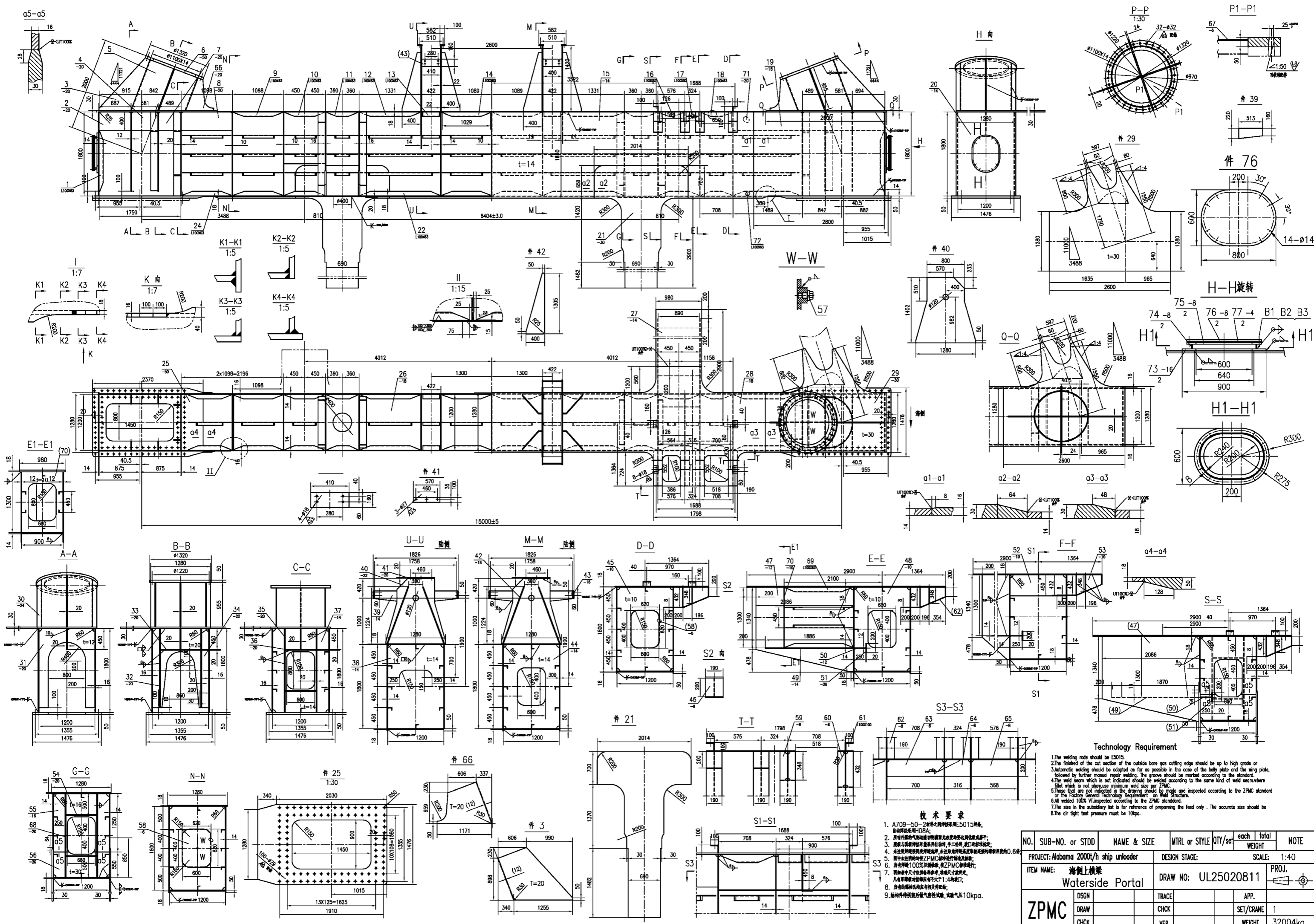


- 技术要求
1. 焊条采用E5015,
 2. 所有外露的气割边缘切割截面光洁度均要达到优级或磨平,所有焊缝均光滑,没有缺陷,没有突变.
 3. 未注明焊缝按同类焊缝施焊,未注贴角焊缝高度取被连接的薄板厚度0.7倍.
 4. 图中未注明的均按ZPMC焊接结构技术条件.
 5. 所有焊缝VT100%,受拉焊缝UT100%.
 6. 明细表中尺寸仅供备料参考,准确尺寸放样定,凡有厚薄板对接都应有不大于1:4的斜坡口.
 7. 结构件待拼装后做气密性试验,试验气压10kpa.

- Technology Requirement
1. The welding rods are E5015,
 2. The smooth finish of all appearance face of gas cutting must be excellent, grind those flat.
 3. The unmarked seams refer to the same sort. The height of the unmarked filler weld is 0.7 the thickness of the thin sheet.
 4. Unmarked seams in the drawing refer to the general technical condition of the welded structure of ZPMC.
 5. All welds-100%VT, Tension complete penetration welds-100%UT.
 6. Dimensions shown on the drawing are prior to those shown in B.O.M. which are for reference only.
 7. The air tight test pressure must be 10kpa.

5	常用UL2502020901	Plug screw 螺塞	组合件	1	0.08	0.08	
4		-6xφ200	Q235B	4	1.4	5.6	
3		-12X654X990	Q235B	2	36.8	73.6	
2		φ1000X14-31517	A709-50-2	1	10370	10730	
1		-12X654X1710	Q235B	2	53	106	

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total		NOTE
					WEIGHT	WEIGHT	
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:30		
ITEM NAME: 门框斜撑 Fixed Tie Links			DRAW NO: UL25020809				
ZPMC		DSGN		TRACE		APP.	
		DRAW		CHCK		Q'TY/SET	2x10915Kg
		CHCK		VER.		SET/CRANE	2套/台

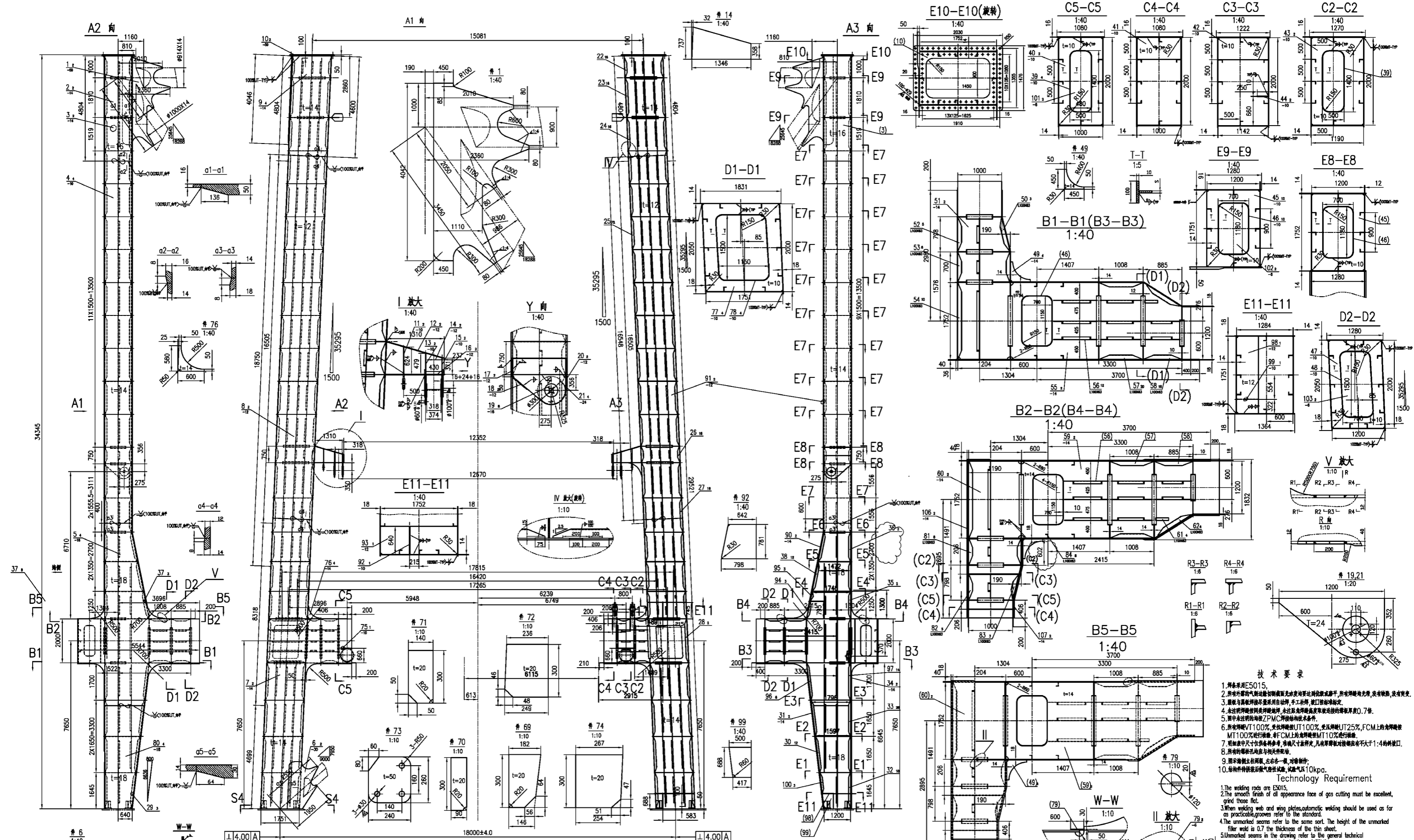


技术要求

1. A709-S0-2材料之鋼材應採用E5015焊條, 鋼絲應採用H0BA;
2. 所有外圍氣動設備之鋼材應採用A3鋼材, 鋼材應採用A3鋼材;
3. 鋼材與鋼材之接合處應採用A3鋼材, 鋼材應採用A3鋼材;
4. 未註明之鋼材應採用A3鋼材, 鋼材應採用A3鋼材;
5. 鋼材之接合處應採用A3鋼材, 鋼材應採用A3鋼材;
6. 所有鋼材應採用A3鋼材, 鋼材應採用A3鋼材;
7. 鋼材之接合處應採用A3鋼材, 鋼材應採用A3鋼材;
8. 鋼材之接合處應採用A3鋼材, 鋼材應採用A3鋼材;
9. 結構件接合後應進行氣密性試驗, 試驗壓力10kpa。

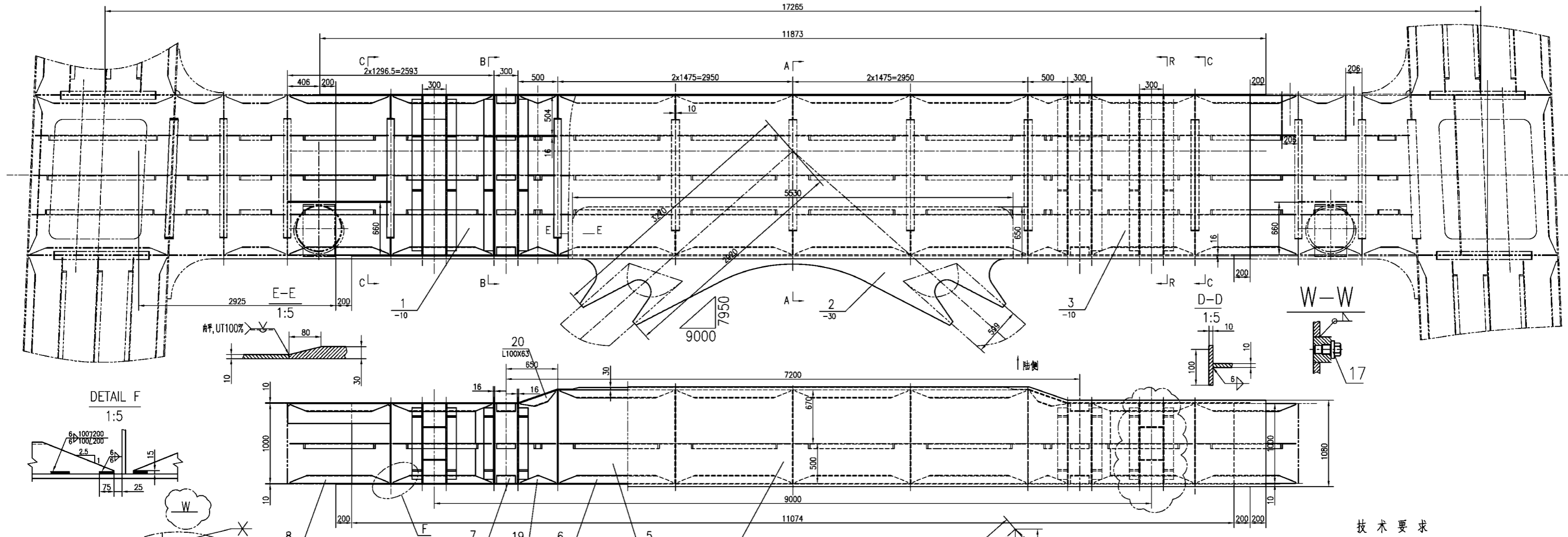
- Technology Requirement**
- 1.The welding rods should be E5015.
 - 2.The finished of the cut section of the outside bare gas cutting edge should be up to high grade or
 - 3.Automatic welding should be adopted as far as possible in the case of the belly plate and the wing plate, followed by further manual repair welding. The groove should be marked according to the standard.
 - 4.The weld seam which is not indicated should be welded according to the same kind of weld seam where flat which is not show less minimum weld size per ZPMC.
 - 5.Those that are not indicated in the drawing should be made and inspected according to the ZPMC standard or the Factory General Technology Requirement on Weld Structure.
 - 6.All welded 100% V.I inspected according to the ZPMC standard.
 - 7.The size in the subsidiary list is for reference of preparing the feed only. The accurate size should be
 - 8.The air tight test pressure must be 10kpa.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE: 1:40		PROJ.	
ITEM NAME: 海側上橫梁 Waterside Portal		DRAW NO: UL25020811		APP.		1	
ZPMC	DSGN	TRACE	APP.	WEIGHT		32004kg	
	DRAW	CHK	SET/CRANE				
	CHK	VER.	WEIGHT				



- 技术要求**
1. 所有焊缝E5015.
 2. 所有外表面气割切割面应光滑平整, 所有焊缝光滑, 没有缺陷, 没有咬边.
 3. 腹板与翼缘焊接应采用自动焊, 手工补焊. 坡口按标准.
 4. 所有焊缝按图例焊接, 尖角应圆滑过渡, 焊缝厚度0.7倍.
 5. 图中未注的均按ZPMC焊接技术标准.
 6. 所有焊缝VT100%, 受压焊缝UT25%, FCM上的角焊缝按MT100%进行检验, 非FCM上的角焊缝按MT10%进行检验.
 7. 明接头尺寸应按标准, 准确尺寸按图, 凡有焊缝对接处应有不大于1:4的斜接口.
 8. 所有的螺栓应与图相符.
 9. 图示螺栓连接, 左右各一, 对称制作.
 10. 结构件焊接后做气密性试验, 试验气压10kpa.
- Technology Requirement**
1. The welding rods are E5015.
 2. The smooth finish of all appearance face of gas cutting must be excellent, grind those flat.
 3. When welding web and wing plates, automatic welding should be used as far as practicable, grooves refer to the standard.
 4. The unmarked seams refer to the same sort. The height of the unmarked fillet weld is 0.7 the thickness of the thin sheet.
 5. Unmarked seams in the drawing refer to the general technical condition of the welded structure of ZPMC.
 6. All welds—100%VT, Tension complete penetration welds—100%UT, Compression complete penetration welds—25%UT, Fillet welds on FCM—100%MT, NFCM—10%MT.
 7. Dimensions shown on the drawing are prior to those shown in B.O.M. which are for reference only.
 8. All bolt holes should be matching drilled with parts concerned.
 9. Total 2 pieces, made symmetrically.
 10. The air tight test pressure must be 10kpa.

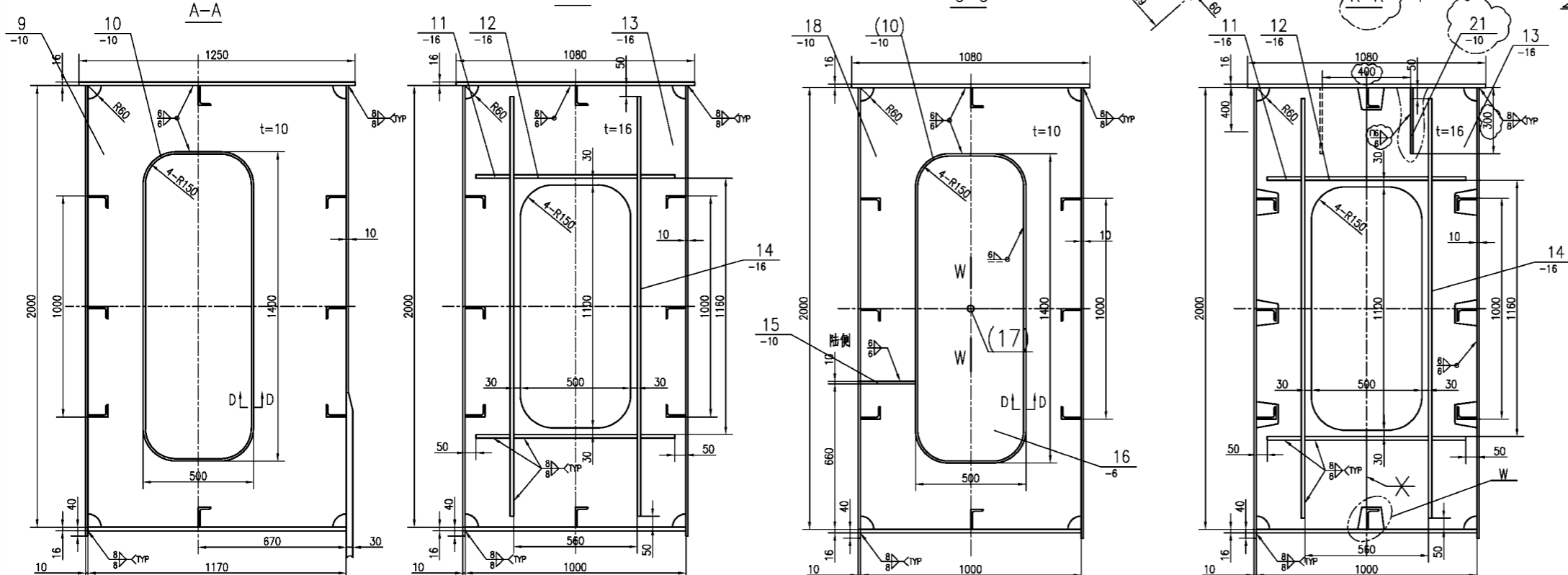
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
PROJECT: Alabama 2000/h ship unloader		DESIGN STAGE:		SCALE: 1:80		PROJ.	
ITEM NAME: 海侧立柱		DRAW NO: UL25020812		WEIGHT		1	
ZPMC		DSGN	TRACE	APP.		1	
		DRAW	CHK	SET/CRANE		1	
		CHK	VER.	WEIGHT		60899kg	



1. The welding rods are E5015,
2. The smooth finish of all appearance face of gas cutting must be excellent, grind those flat.
3. The unmarked seams refer to the same sort. The height of the unmarked filler weld is 0.7 the thickness of the thin sheet.
4. Unmarked seams in the drawing refer to the general technical condition of the welded structure of ZPMC.
5. All welds-100%VT, Tension complete penetration welds-100%UT.
6. Dimensions shown on the drawing are prior to those shown in B.O.M. which are for reference only.
7. The air tight test pressure must be 10kpa.

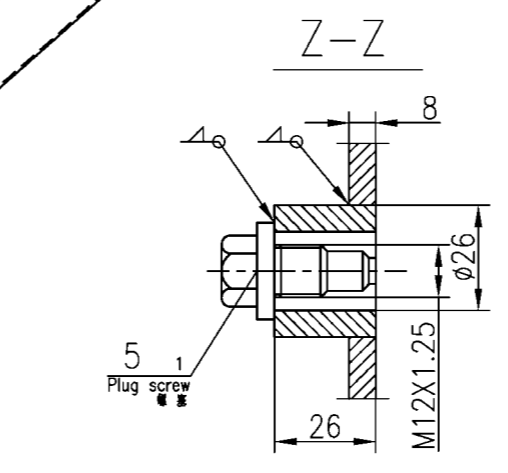
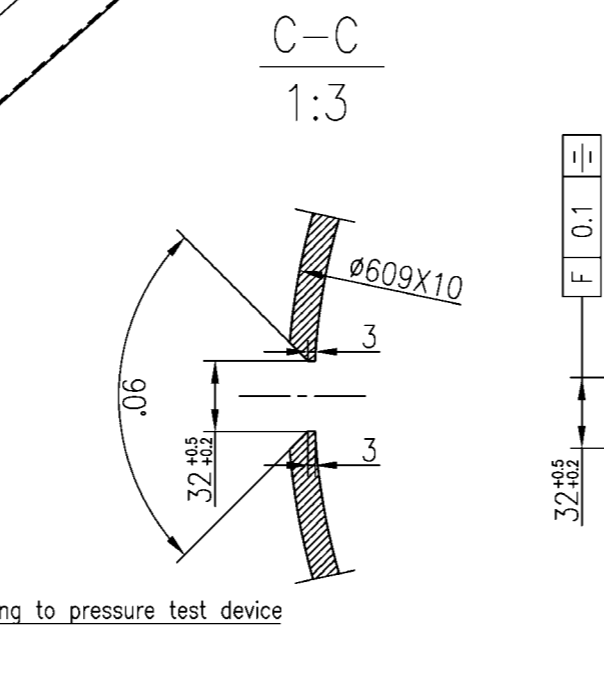
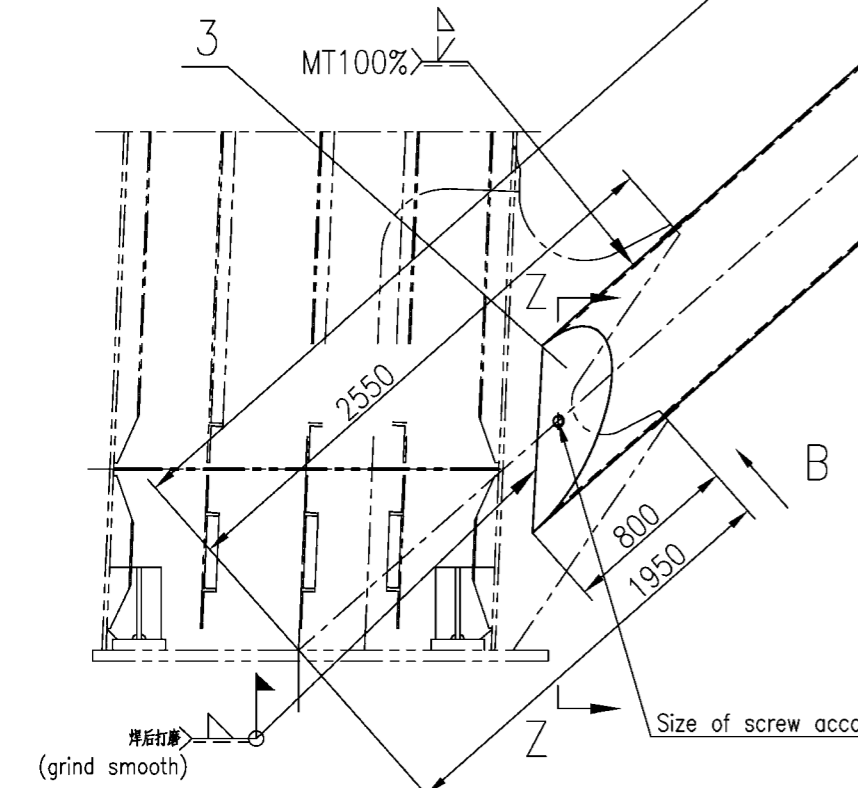
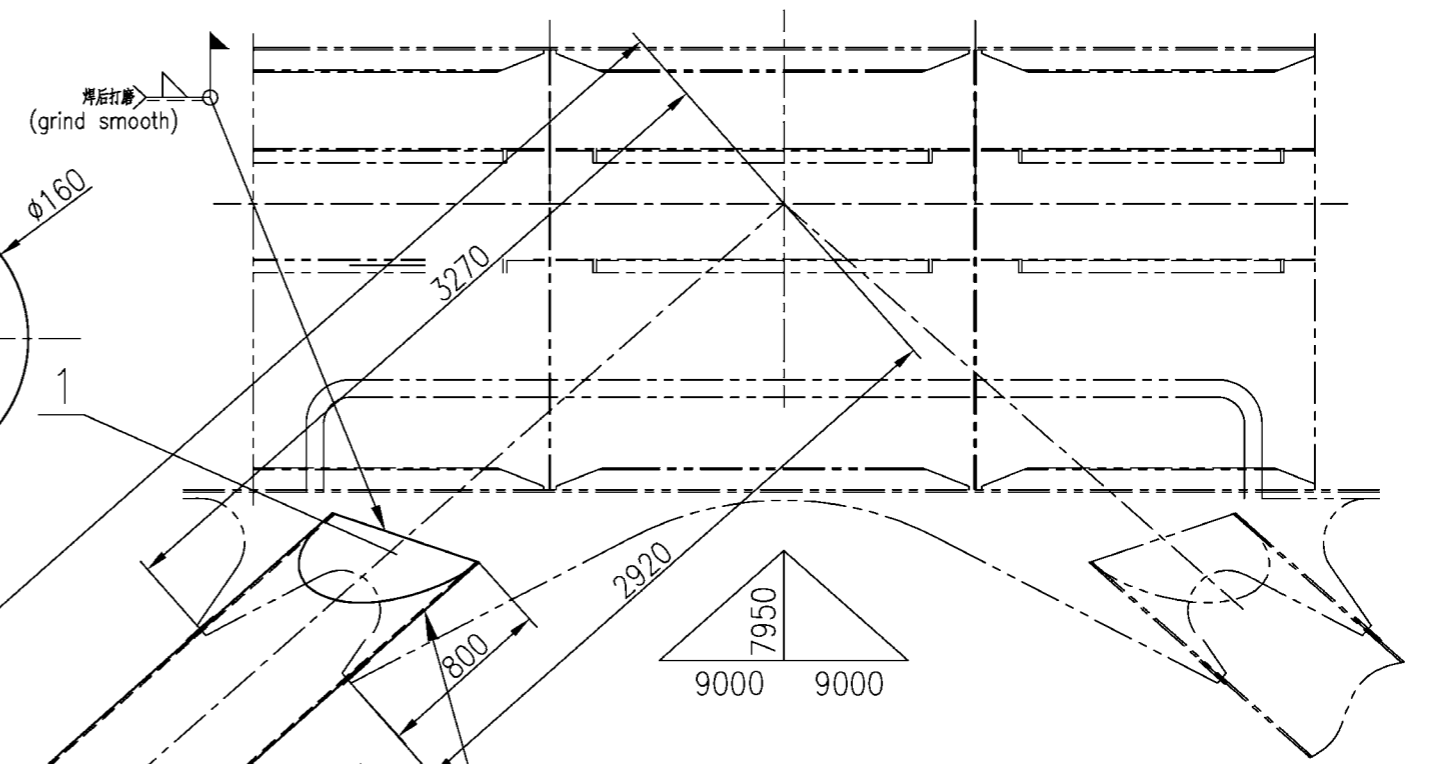
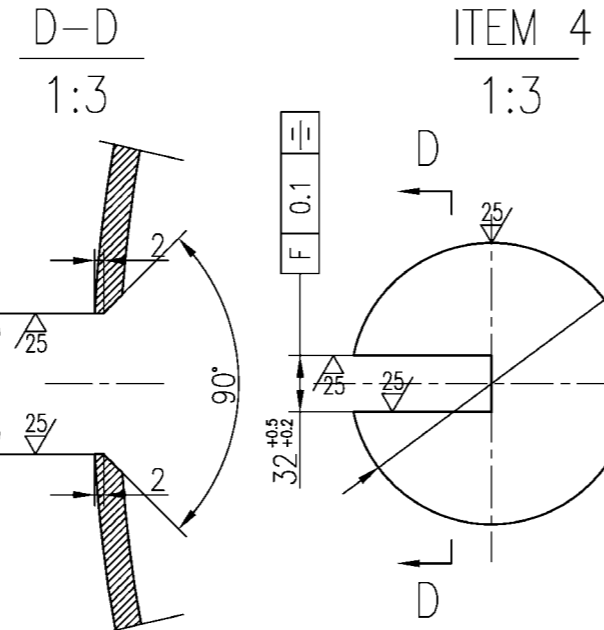
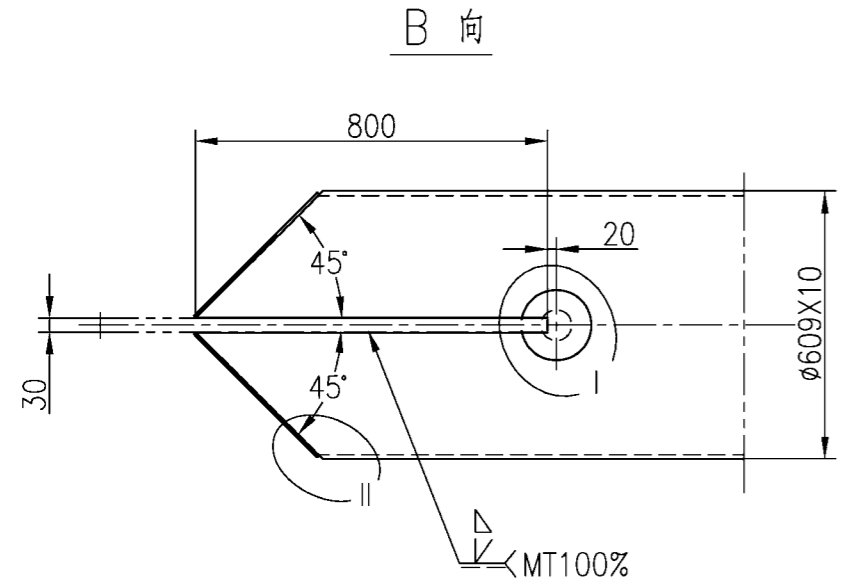
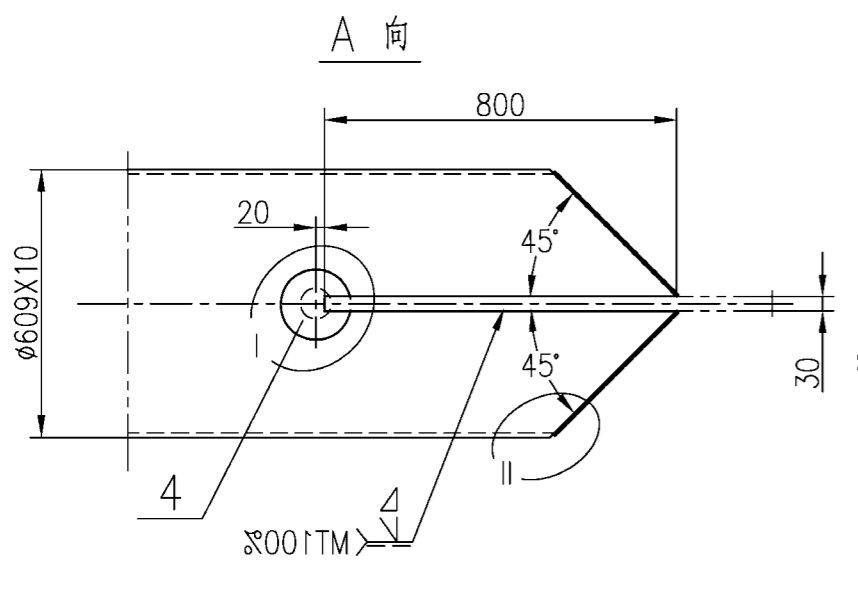
技术要求

1. 焊条采用E5015;
2. 所有外露的气割边缘切割面光洁度均要达到优级或磨平;
3. 腹板与翼板焊接尽量采用自动焊, 手工补焊, 坡口近标准标定;
4. 未注明焊缝按同类焊缝施焊, 未注贴角焊缝高度取0.7倍的被连接的薄板厚度;
5. 图中未注明的均按ZPMC标准进行制造及检验;
6. 所有焊缝100%目测检验, 对接焊缝UT100%;
7. 明细表中尺寸仅供参考, 准确尺寸按样定, 凡有厚板对接都应有不大于1:4的坡口;
8. 构件待拼装后做气密性试验, 试验气压10kpa.



21	-10X284X300	A907-50-2	4	6.7	26.8
20	L100X63X8-463	Q235B	6	4.6	27.6
19	L100X63X8-437	Q235B	10	4.3	43
18	-10X1000X2000	A907-50-2	2	102	204
17	UL2502020901	螺栓 Plug screw	1	0.08	0.08
16	-6X500X1400	A907-50-2	2	32	64
15	-10X250X1288	A907-50-2	1	25	25
14	-16X120X1900	A907-50-2	16	28.6	457.6
13	-16X1000X2000	A907-50-2	8	182	1456
12	-16X120X560	A907-50-2	16	8.4	134.4
11	-16X120X308	A907-50-2	32	4.6	147.2
10	-10X100X3542	A907-50-2	7	28	196
9	-10X1170X2000	A907-50-2	5	128	640
8	L100X63X8-1233	Q235B	16	12.2	195.2
7	L100X63X8-234	Q235B	16	2.3	36.8
6	L100X63X8-1412	Q235B	32	14	448
5	-16X1170(1000)X11073	A907-50-2	1	1536	1536
4	-16X1250(1080)X11873	A907-50-2	1	1756	1756
3	-10X2000X11473	A907-50-2	1	1801	1801
2	-30X11483X5530	A907-50-2	1	1292	1292
1	-10X2000X11531	A907-50-2	1	1528	1528

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total WEIGHT	NOTE
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:25	
ITEM NAME: 漏斗横梁 1 Funnel Beam of W.S. I			DRAW NO: UL25020813A		PROJ.	
ZPMC	DSGN	TRACE	APP.			
	DRAW	CHK	Q'TY/SET	1		
	CHK	VER.	SET/CRANE	10897kg		

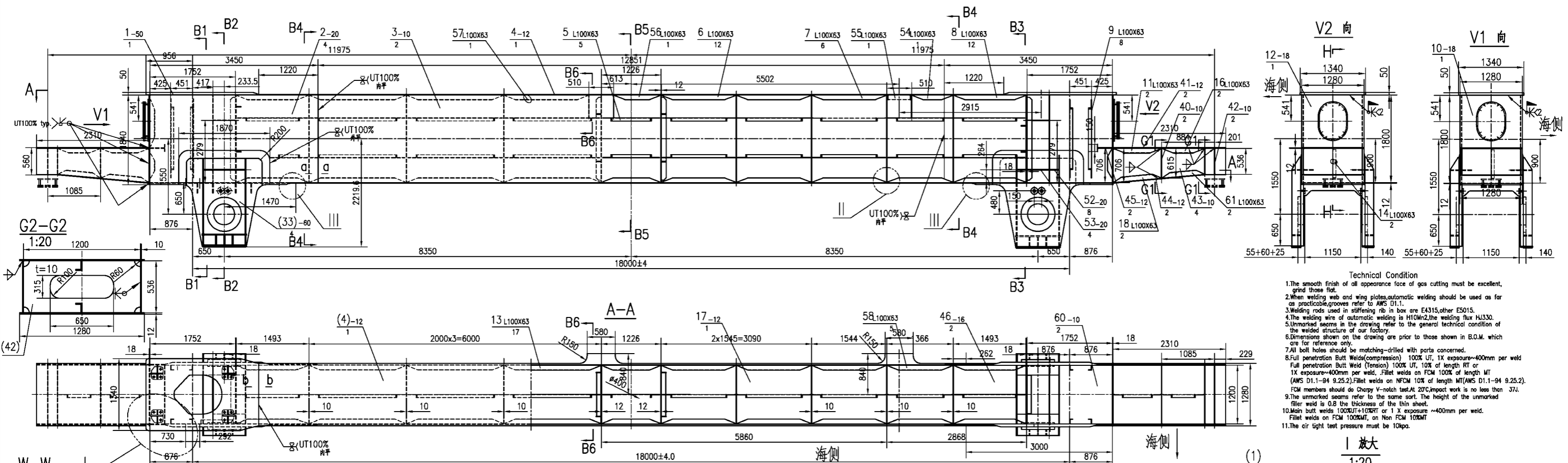


- 技术条件
1. 焊条采用E4315.
 2. 未注明焊缝按同类焊缝施焊, 未注明贴角焊缝高度取被连接的薄板厚度.
 3. 件3圆管需经检验合格或有合格证书时方可使用.
 4. 所有外露的气割边缘, 切割断面光洁度均要达到优级或磨平.
 5. 图中未注明的均按厂焊接构件通用技术条件进行制造与检验.
 6. 明细表中尺寸供参考, 准确尺寸放样定.
 7. 结构件待拼装后做气密性试验, 试验气压10kpa.

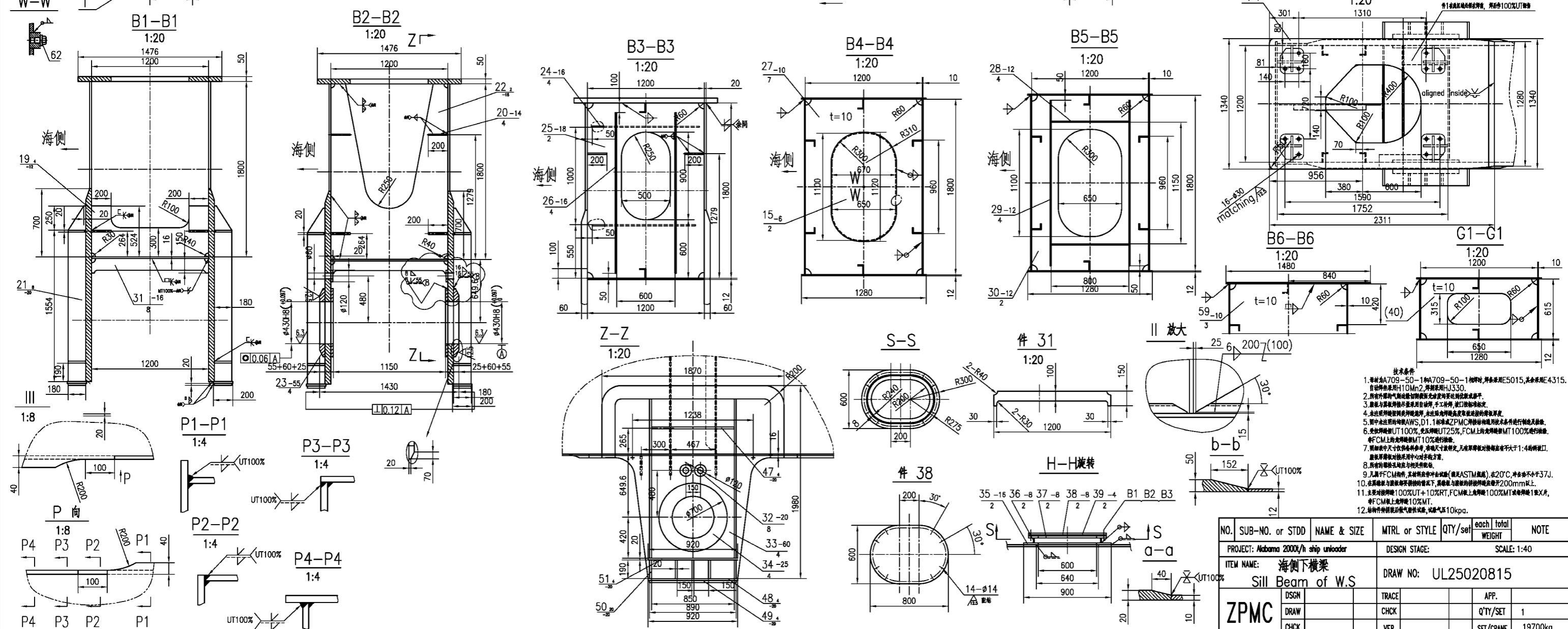
- Technology Requirement
1. The welding rods are E5015,
 2. The smooth finish of all appearance face of gas cutting must be excellent, grind those flat.
 3. The unmarked seams refer to the same sort. The height of the unmarked filler weld is 0.7 the thickness of the thin sheet.
 4. Unmarked seams in the drawing refer to the general technical condition of the welded structure of ZPMC.
 5. All welds-100%VT, Tension complete penetration welds-100%UT.
 6. Dimensions shown on the drawing are prior to those shown in B.O.M. which are for reference only.
 7. The air tight test pressure must be 10kpa.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each WEIGHT	total WEIGHT	NOTE
5	备用UL2502020901	Plug screw 螺塞	组合件	1	0.08	0.08	
4		-6X160	Q235B	4	1	4	
3		-8X397X850	Q235B	2	17.5	35	
2		609X10-8739	A709-50-2	1	1224	1224	
1		-8X397X723	Q235B	2	13.6	27.2	

PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE: 1:25	
ITEM NAME: Fixed Tie Links of W.s. 海侧门框斜短撑杆		DRAW NO: UL25020814		PROJ.	
ZPMC	DSGN	TRACE	APP.		
	DRAW	CHCK	SET/CRANE	1290kg	
	CHCK	VER.	WEIGHT	2套/台	

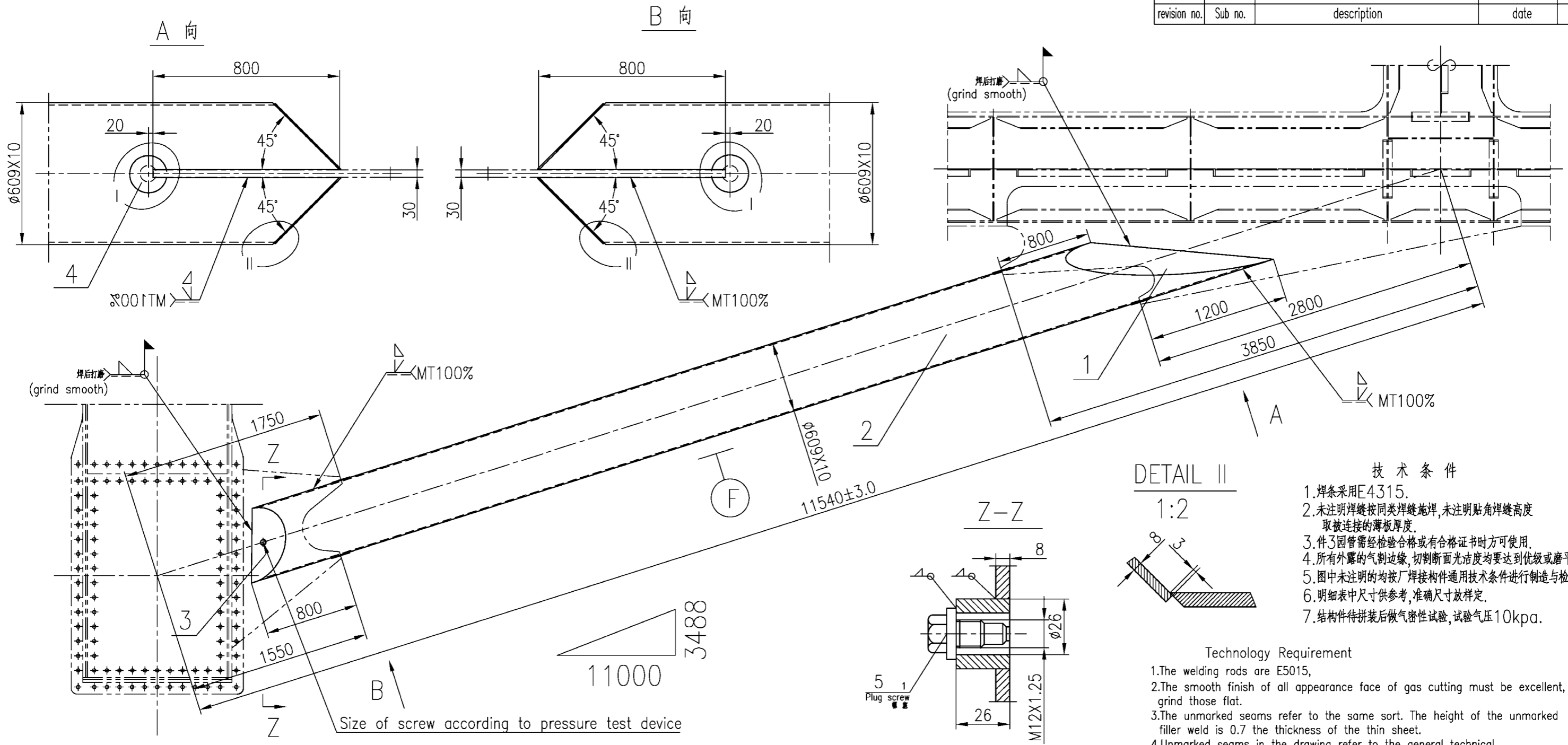


- Technical Condition
- The smooth finish of all appearance face of gas cutting must be used, grind those flat.
 - When welding web and wing plates, automatic welding should be used as far as practicable. Grooves refer to AWS D1.1.
 - Welding rods used in stiffening ribs in box are E4315, other E5015.
 - The welding wire of automatic welding is H10Mn2, the welding flux HJ330.
 - Unmarked seams in the drawing refer to the general technical condition of the welded structure of our factory.
 - Dimensions shown on the drawing are prior to those shown in B.O.M. which are for reference only.
 - All bolt holes should be matching-drilled with parts concerned.
 - Full penetration Butt Welds (compression) 100% UT, 1X exposure ~400mm per weld. Full penetration Butt Weld (Tension) 100% UT, 10% of length RT or 1X exposure ~400mm per weld. Fillet welds on FCM 100% of length MT (AWS D1.1-94 9.25.2). Fillet welds on NFM 10% of length MT (AWS D1.1-94 9.25.2). FCM members should do Charpy V-notch test. At 20°C, impact work is no less than 37J.
 - The unmarked seams refer to the same sort. The height of the unmarked fillet weld is 0.8 the thickness of the thin sheet.
 - Main butt welds 100% UT + 10% RT or 1 X exposure ~400mm per weld. Fillet welds on FCM 100% MT, on Non FCM 10% MT.
 - The air tight test pressure must be 10kpa.



- 技术条件
- 船体为A709-50-1和A709-50-1材料, 焊条用E5015, 其余用E4315. 船舶用H10Mn2, 焊剂用HJ330.
 - 所有外部的焊缝应经打磨, 焊缝表面应无飞溅物, 手工焊缝, 坡口应经打磨.
 - 船体与附件的焊缝应采用自动焊, 手工焊缝, 坡口应经打磨.
 - 未注焊缝的焊缝应经打磨, 未注焊缝的焊缝应经打磨.
 - 图中未注焊缝的焊缝, 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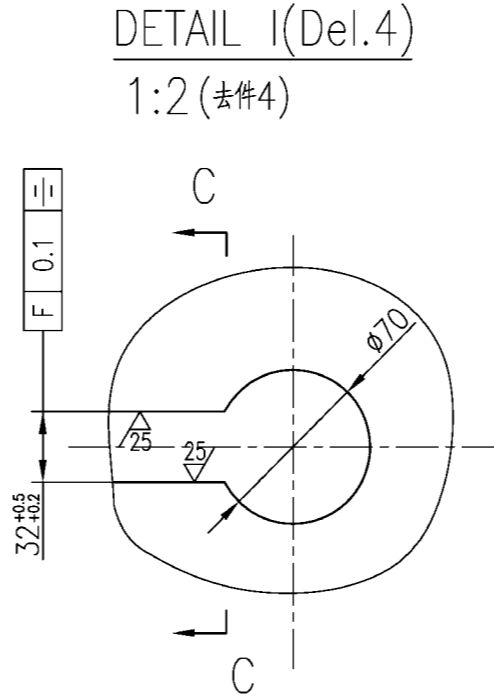
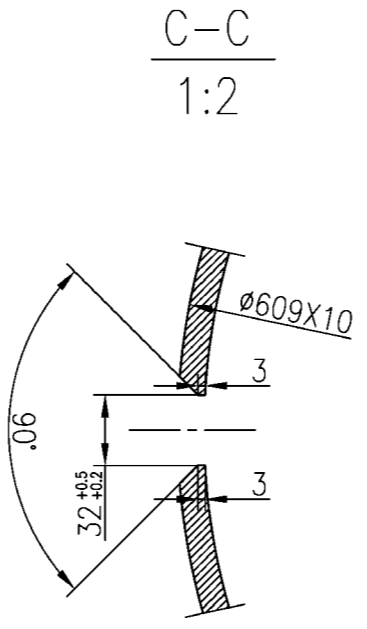
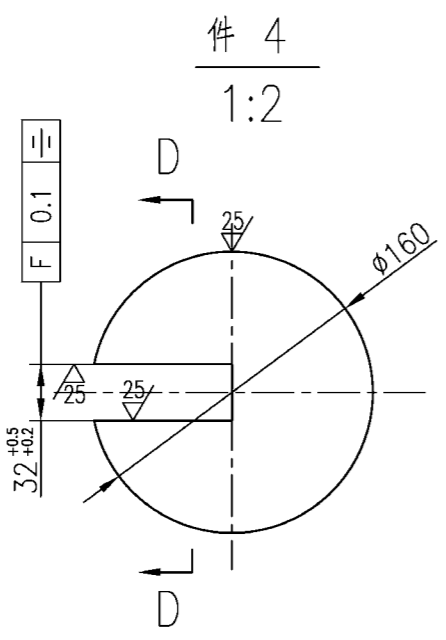
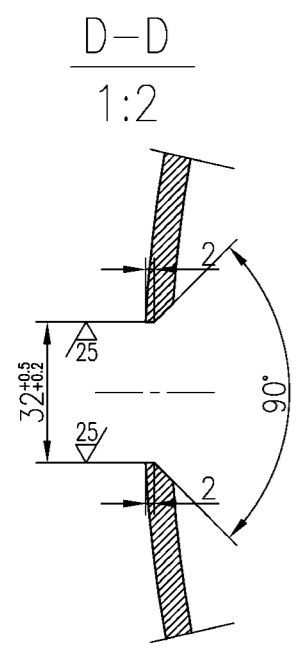
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revision no.	Sub no.	description	date	sign



DETAIL II
1:2

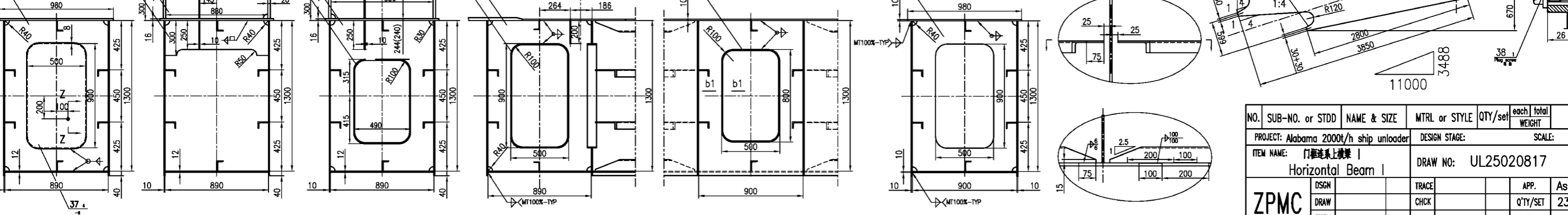
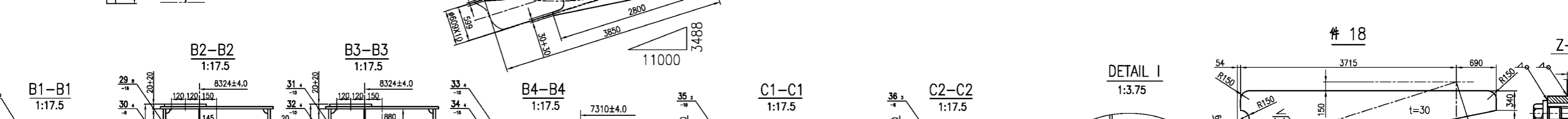
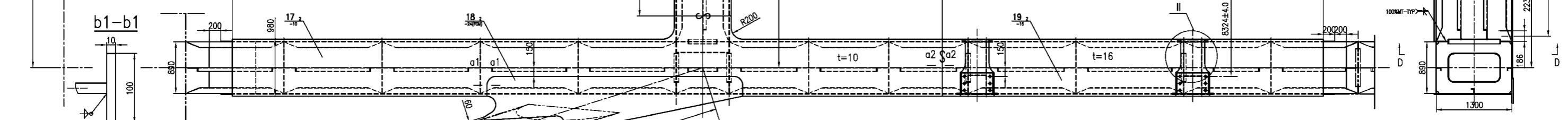
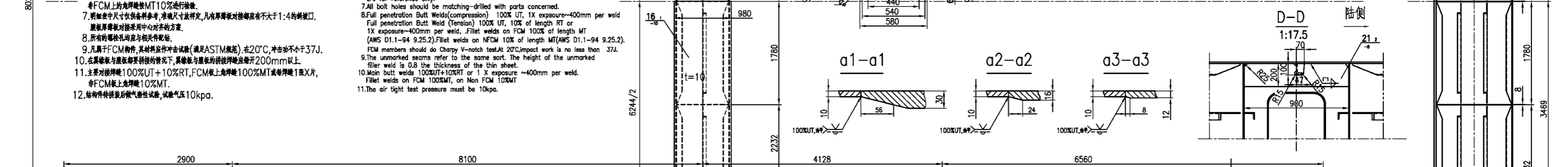
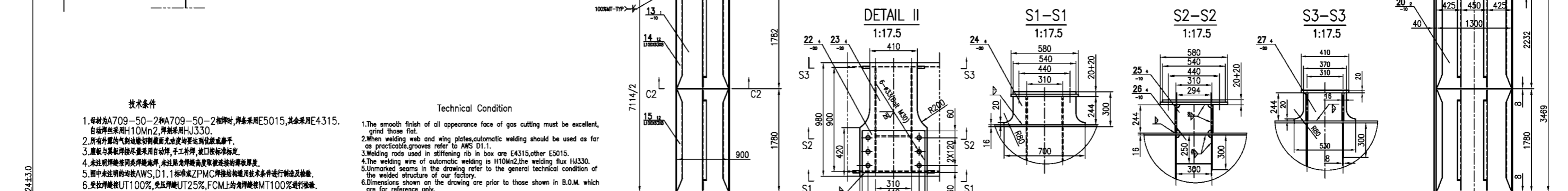
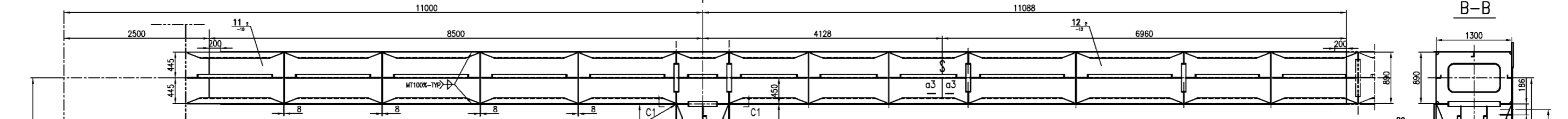
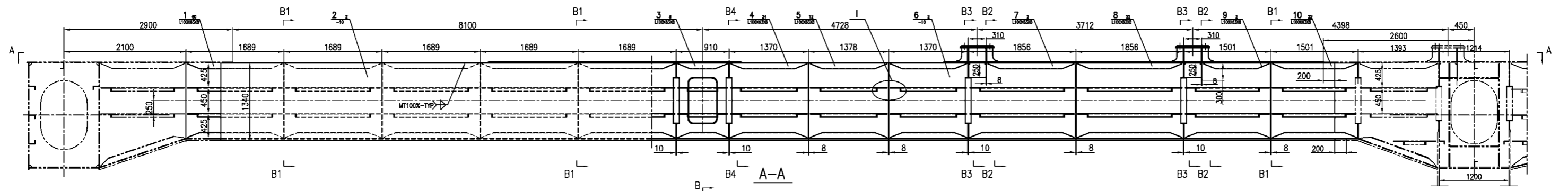
- 技术条件
1. 焊条采用E4315.
 2. 未注明焊缝按同类焊缝施焊, 未注明贴角焊缝高度取被连接的薄板厚度.
 3. 件3圆管需经检验合格或有合格证书时方可使用.
 4. 所有外露的气割边缘, 切割断面光洁度均要达到优级或磨平.
 5. 图中未注明的均按厂焊接构件通用技术条件进行制造与检验.
 6. 明细表中尺寸供参考, 准确尺寸按样定.
 7. 结构件待拼装后做气密性试验, 试验气压10kpa.

- Technology Requirement
1. The welding rods are E5015,
 2. The smooth finish of all appearance face of gas cutting must be excellent, grind those flat.
 3. The unmarked seams refer to the same sort. The height of the unmarked filler weld is 0.7 the thickness of the thin sheet.
 4. Unmarked seams in the drawing refer to the general technical condition of the welded structure of ZPMC.
 5. All welds-100%VT, Tension complete penetration welds-100%UT.
 6. Dimensions shown on the drawing are prior to those shown in B.O.M. which are for reference only.
 7. The air tight test pressure must be 10kpa.



5	备用UL2502020901	Plug screw 螺塞	组合件	1	0.08	0.08
4		-6X160	Q235B	4	1	4
3		-8X397X1567	Q235B	2	18.4	36.8
2		609X10-9190	A709-50-2	1	1236	1236
1		-8X397X635	Q235B	2	13	26

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each WEIGHT	total WEIGHT	NOTE
PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE: 1:25			
ITEM NAME: Horizontal Bar I 水平撑杆 I		DRAW NO: UL25020816		PROJ.			
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		SET/CRANE	1303kg	
	CHCK		VER.		WEIGHT	2套/台	



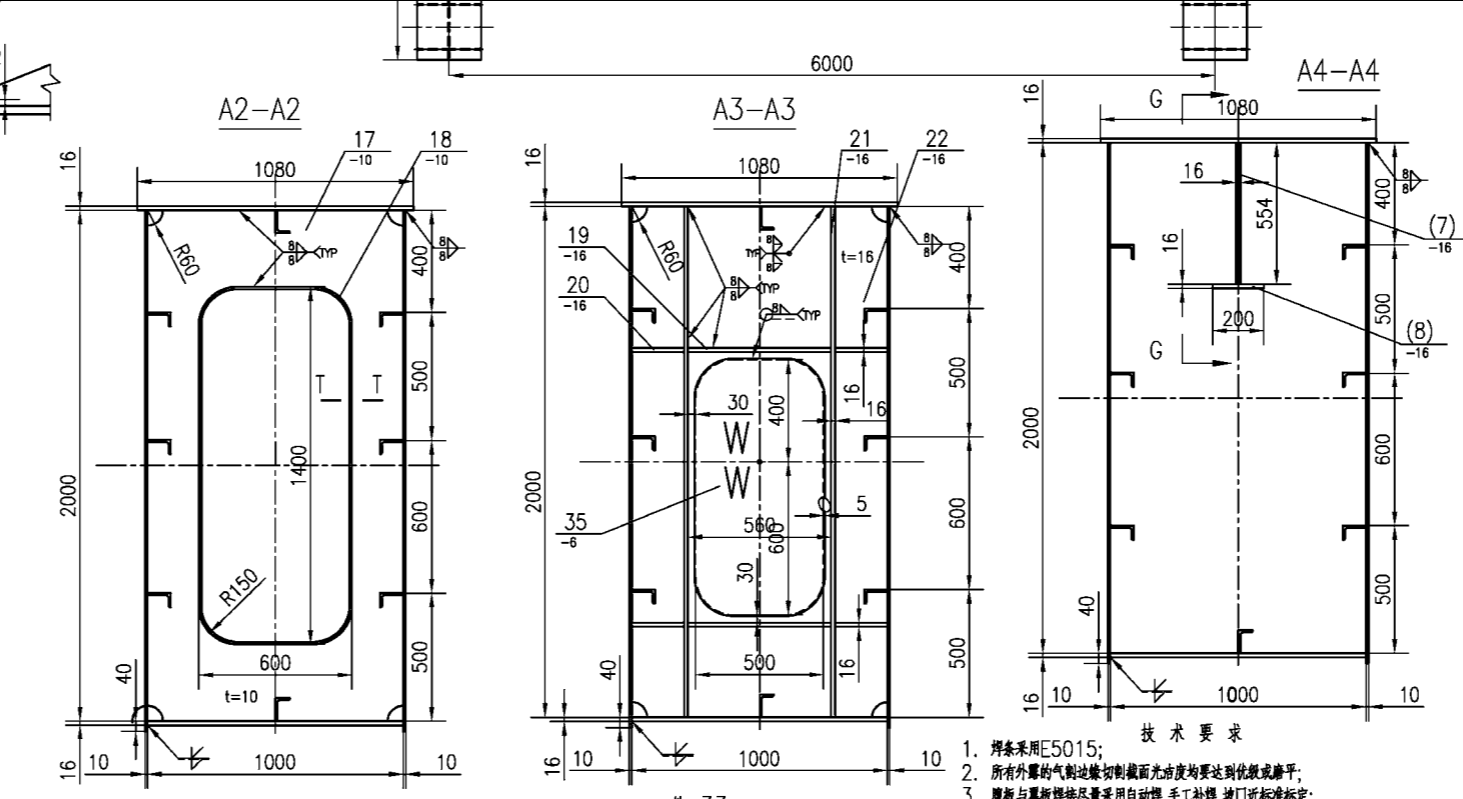
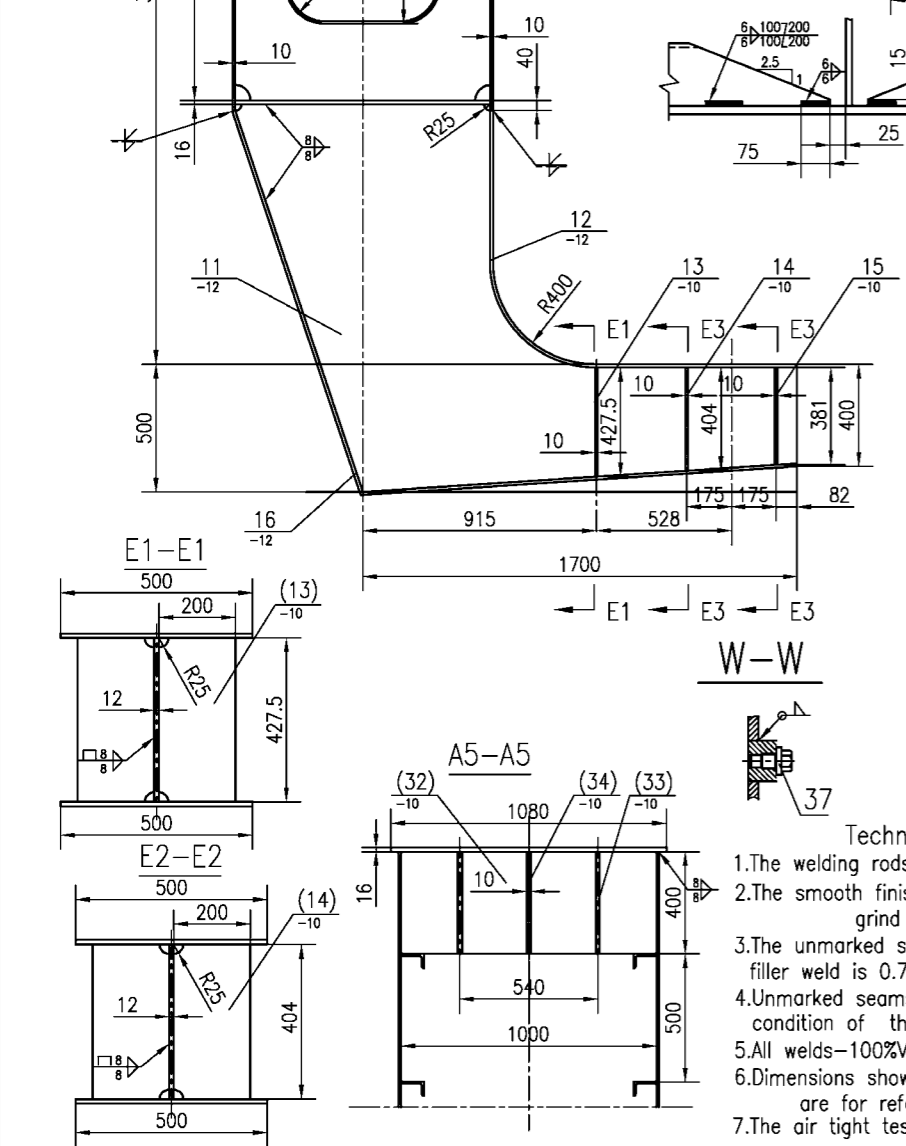
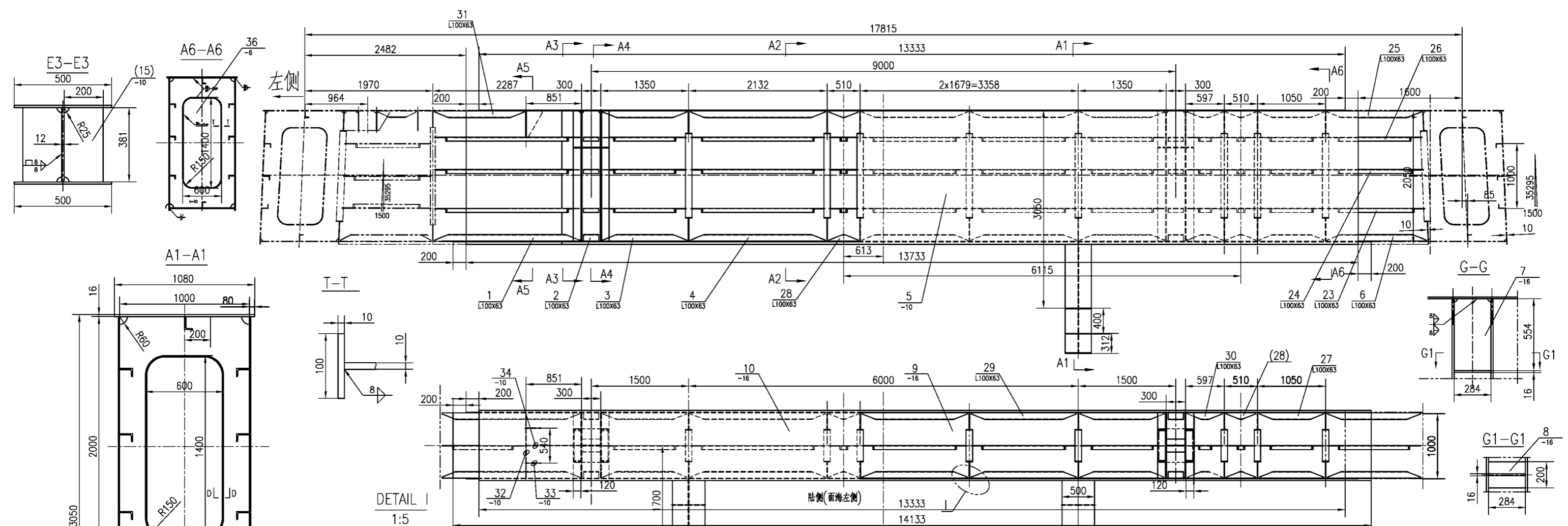
技术条件

1. 钢材为A709-50-2和A709-50-2相焊时, 焊条采用E5015, 其余采用E4315. 自动焊丝采用H10Mn2, 焊剂采用HJ330.
2. 所有外置的气割切口表面光滑度均要达到优良或晾干.
3. 腹板与翼缘焊接尽量采用自动焊, 手工补焊, 坡口按标准定.
4. 未注明焊缝按同类焊缝处理, 未注明角焊缝高度取被连接板的厚度.
5. 图中未注明的均按AWS, D1.1标准或ZPMC焊接结构通用技术条件进行制造及检验.
6. 受拉焊缝按100%UT, 受压焊缝按25%FCM, 角焊缝按100%MT进行检验. 非FCM上的角焊缝按10%进行检验.
7. 明细表中尺寸仅供参考, 准确尺寸以详图为准. 凡有厚板对接连接不大于1:4的斜坡口. 腹板厚板对接采用中心对齐的方式.
8. 所有焊缝除与相关件配合.
9. 凡属于FCM物件, 其材料应作冲击试验(满足ASTM规范), 在20°C, 冲击功不小于37J.
10. 在翼缘板与腹板对接的情况下, 翼缘板与腹板的对接焊缝应每200mm以上.
11. 主要对接焊缝100%UT+10%RT, FCM板上角焊缝100%MT或每焊缝1张X片, 非FCM板上角焊缝10%MT.
12. 结构件拼装后做气密性试验, 试验气压10kpa.

Technical Condition

1. The smooth finish of all appearance face of gas cutting must be excellent, grind those flat.
2. When welding web and wing plates, automatic welding should be used as far as practicable, grooves refer to AWS D1.1.
3. Welding rods used in stiffening rib in box are E4315, other E5015.
4. The welding wire of automatic welding is H10Mn2, the welding flux HJ330.
5. Unmarked seams in the drawing refer to the general technical condition of the welded structure of our factory.
6. Dimensions shown on the drawing are prior to those shown in B.O.M. which are for reference only.
7. All bolt holes should be matching-drilled with parts concerned.
8. Full penetration Butt Welds (compression) 100% UT, 1X exposure ~400mm per weld. Full penetration Butt Weld (Tension) 100% UT, 10% of length RT or 1X exposure ~400mm per weld. Fillet welds on FCM 100% of length MT (AWS D1.1-94 9.25.2). Fillet welds on Non FCM 10% of length MT (AWS D1.1-94 9.25.2). FCM members should do Charpy V-notch test at 20°C, impact work is no less than 37J.
9. The unmarked seams refer to the same sort. The height of the unmarked fillet weld is 0.8 the thickness of the thin sheet.
10. Main butt welds 100%UT+10%RT or 1 X exposure ~400mm per weld. Fillet welds on FCM 100%MT, on Non FCM 10%MT.
11. The air tight test pressure must be 10kpa.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total WEIGHT	NOTE
PROJECT:		Alabama 2000t/h ship unloader	DESIGN STAGE:	SCALE: 1:35		
ITEM NAME:		门框横梁上横梁 I	DRAW NO: UL25020817			
ZPMC		DSGN	TRACE	APP.	Assembly	
		DRAW	CHCK	Q'TY/SET	23339Kg	
		CHK	VER.	SET/CRANE	1	



Technology Requirement

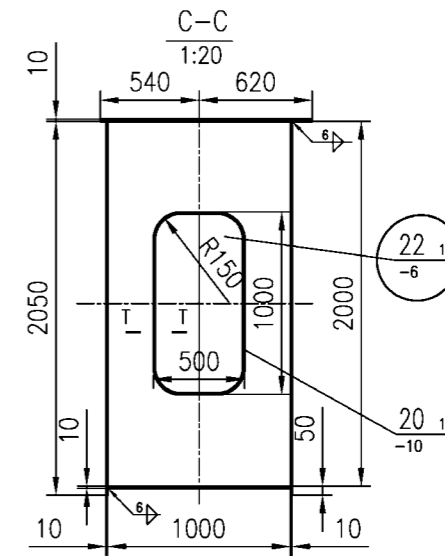
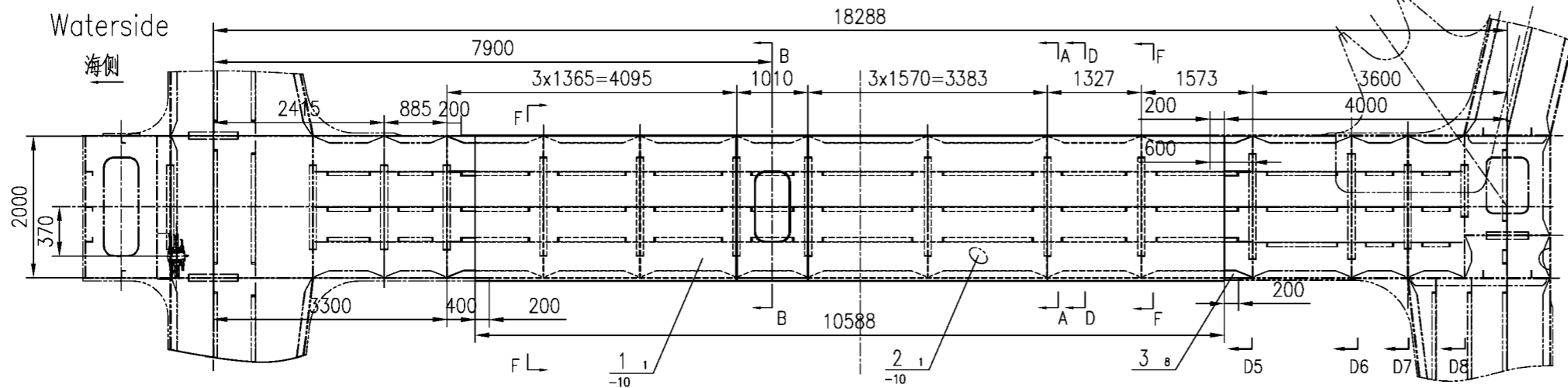
- The welding rods are E5015,
- The smooth finish of all appearance face of gas cutting must be excellent, grind those flat.
- The unmarked seams refer to the same sort. The height of the unmarked filler weld is 0.7 the thickness of the thin sheet.
- Unmarked seams in the drawing refer to the general technical condition of the welded structure of ZPMC.
- All welds-100%VT, Tension complete penetration welds-100%UT.
- Dimensions shown on the drawing are prior to those shown in B.O.M. which are for reference only.
- The air tight test pressure must be 10kpa.

- 技术要求**
- 焊条采用E5015;
 - 所有外露的气割边缘切割面光滑度均要达到优良或磨平;
 - 腹板与翼板焊接尽量采用自动焊, 手工补焊, 接口近标准;
 - 未注明焊缝按同类焊缝施焊, 未注贴角焊缝高度取0.7倍的被连接板的厚度;
 - 图中未注明的均按ZPMC标准进行制造及检验;
 - 所有焊缝100%目视检验, 对接焊缝UT100%;
 - 明细表中尺寸仅供参考, 准确尺寸按样定, 凡有厚薄板对接部应有不大于1:2.5的坡口;
 - 构件拼装后做气密性试验, 试验气压10kpa.

30	L100X63X8-534	Q235B	8	9.8	78.4
29	L100X63X8-1619	Q235B	16	14.4	230.4
28	L100X63X8-450	Q235B	16	14.3	228.8
27	L100X63X8-990	Q235B	8	9.8	78.4
26	L100X63X8-1457	Q235B	2	14.4	28.8
25	L100X63X8-1440	Q235B	2	14.3	28.6
24	L100X63X8-1478	Q235B	2	14.6	29.2
23	L100X63X8-1503	Q235B	2	14.9	29.8
22	-16X1000X2000	A709-50-2	4	191	764
21	-16X120X2000	A709-50-2	8	30	240
20	-16X120X204	A709-50-2	16	3.7	59.2
19	-16X120X560	A709-50-2	8	8.4	67.2
18	-10X100X3742	A709-50-2	8	29	232
17	-10X1000X2000	A709-50-2	8	92.5	740
16	-12X500X3313	A709-50-2	2	156	312
15	-10X200X381	A709-50-2	4	6	24
14	-10X200X404	A709-50-2	4	6.3	25.2
13	-10X200X427.5	A709-50-2	4	6.7	26.8
12	-12X500X2031	A709-50-2	2	95.5	191
11	-12X1518X2200	A709-50-2	2	158	316
10	-16X1080X13333	A709-50-2	1	1917	1917
9	-16X1000X14133	Q235B	1	1775	1775
8	-16X200X284	A709-50-2	2	7.1	14.2
7	-16X284X554	A709-50-2	2	19.8	39.6
6	L100X63X8-1523	Q235B	1	15	15
5	-10X2040X13733	A709-50-2	2	2199	4398
4	L100X63X8-2072	Q235B	8	20.5	164
3	L100X63X8-1290	Q235B	8	12.8	102.4
2	L100X63X8-234	Q235B	14	2.3	32.2
1	L100X63X8-2224	Q235B	7	2.1	14.7

37	UL2502020901	螺塞 Plug screw	螺帽帽(帽)	1	0.08	0.08
36		-6X580X1380	Q235B	1	37.5	37.5
35		-6X510X1010	Q235B	1	24	24
34		-10X400X846	Q235B	1	26.6	26.6
33		-10X245X400	Q235B	2	4	8
32		-10X400X1000	Q235B	1	31.4	31.4
31		L100X63X8-1376	Q235B	1	9.8	9.8

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total WEIGHT	NOTE
PROJECT: Alabama 2000/h ship unloader		DESIGN STAGE:		SCALE: 1:30		PROJ.
ITEM NAME: 漏斗横梁 2		DRAW NO: UL25020818		QTY/SET		1
Funnel Beam of W.S. II		ZPMC		SET/CRANE		12280kg
DSGN	TRACE	APP.				
DRAW	CHK	QTY/SET				
CHK	VER.	SET/CRANE				

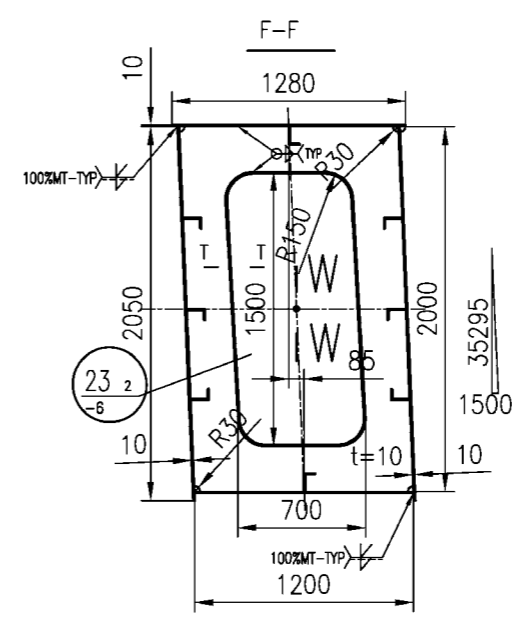
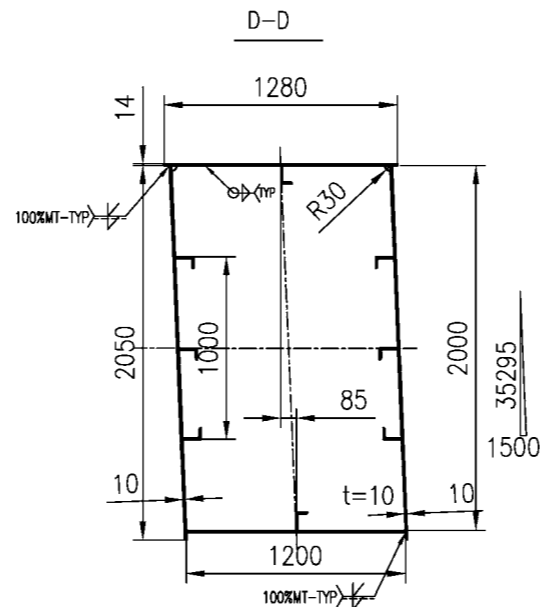
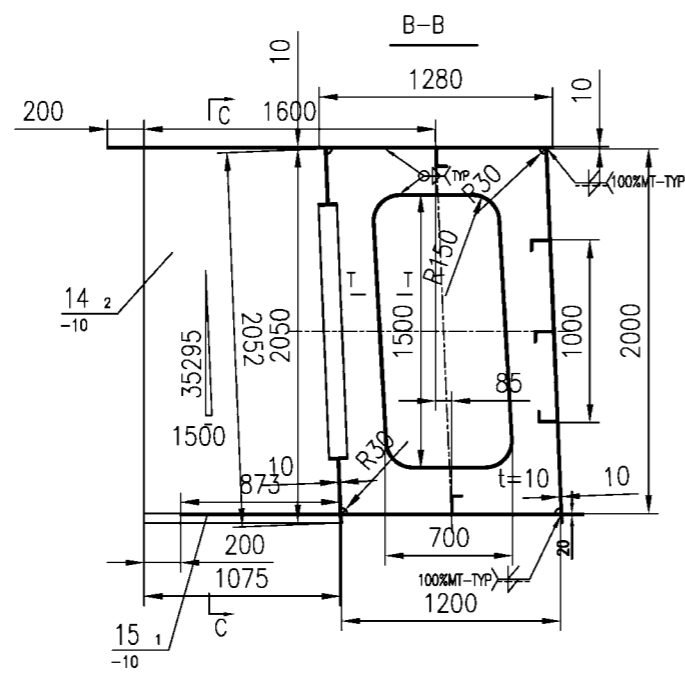
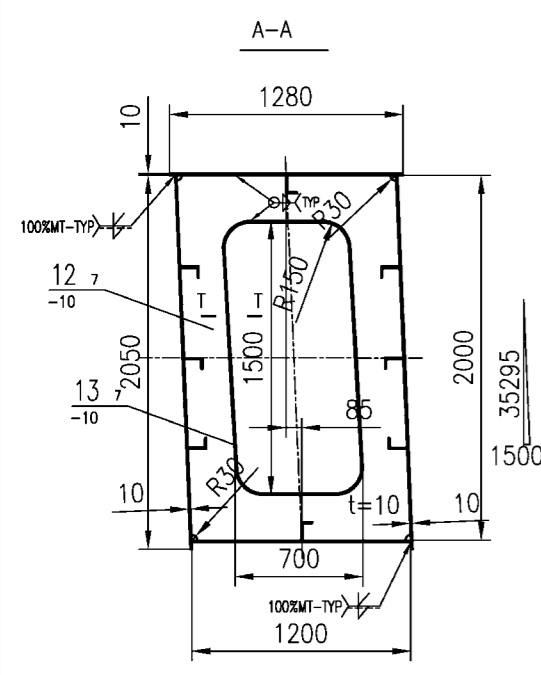
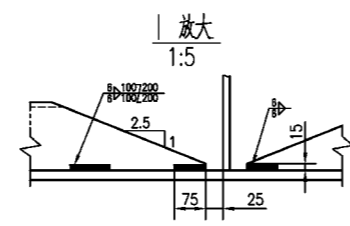
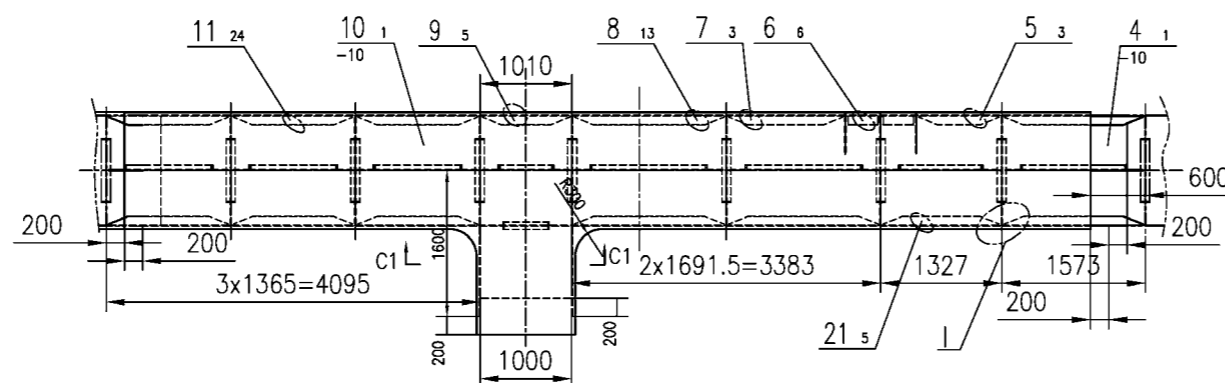


技术要求

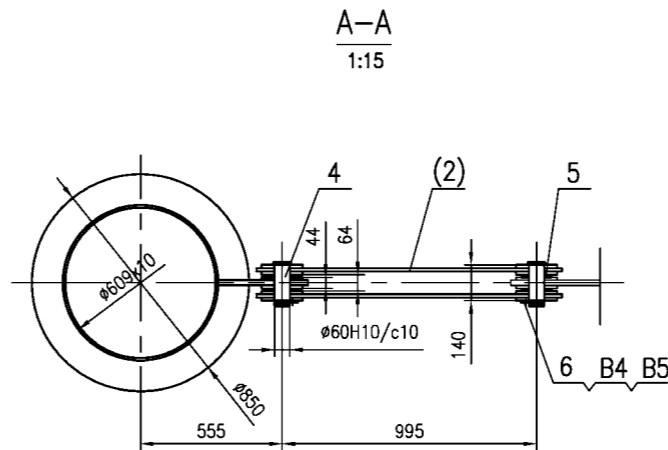
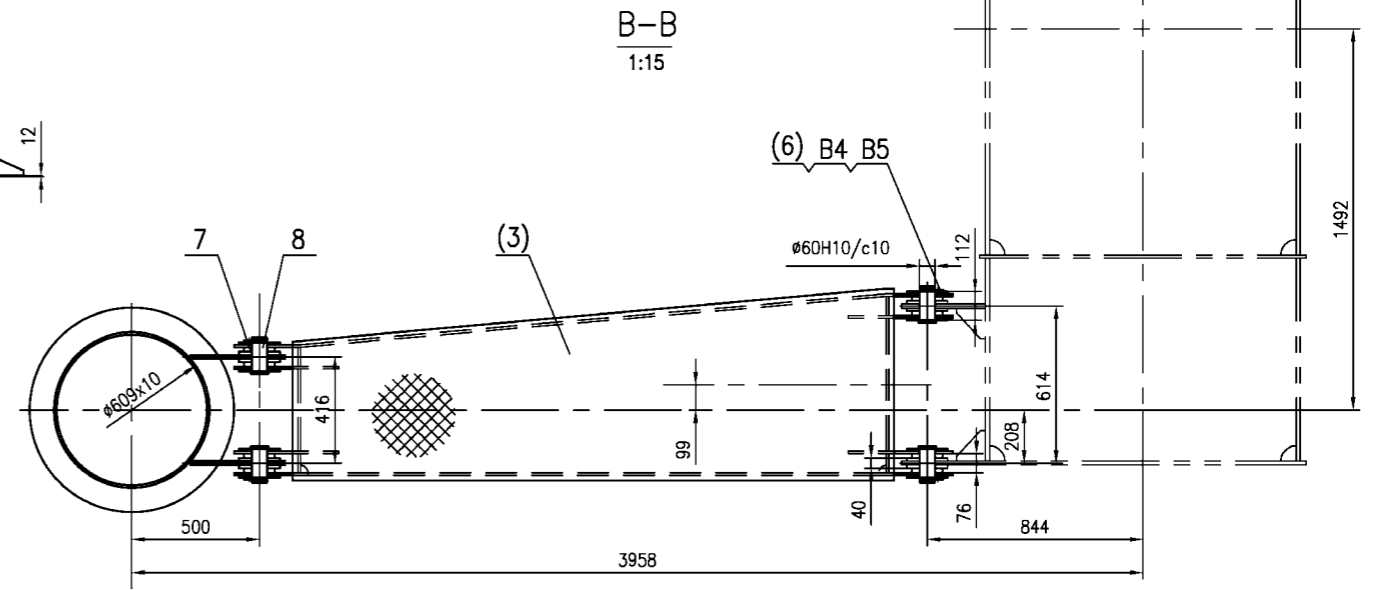
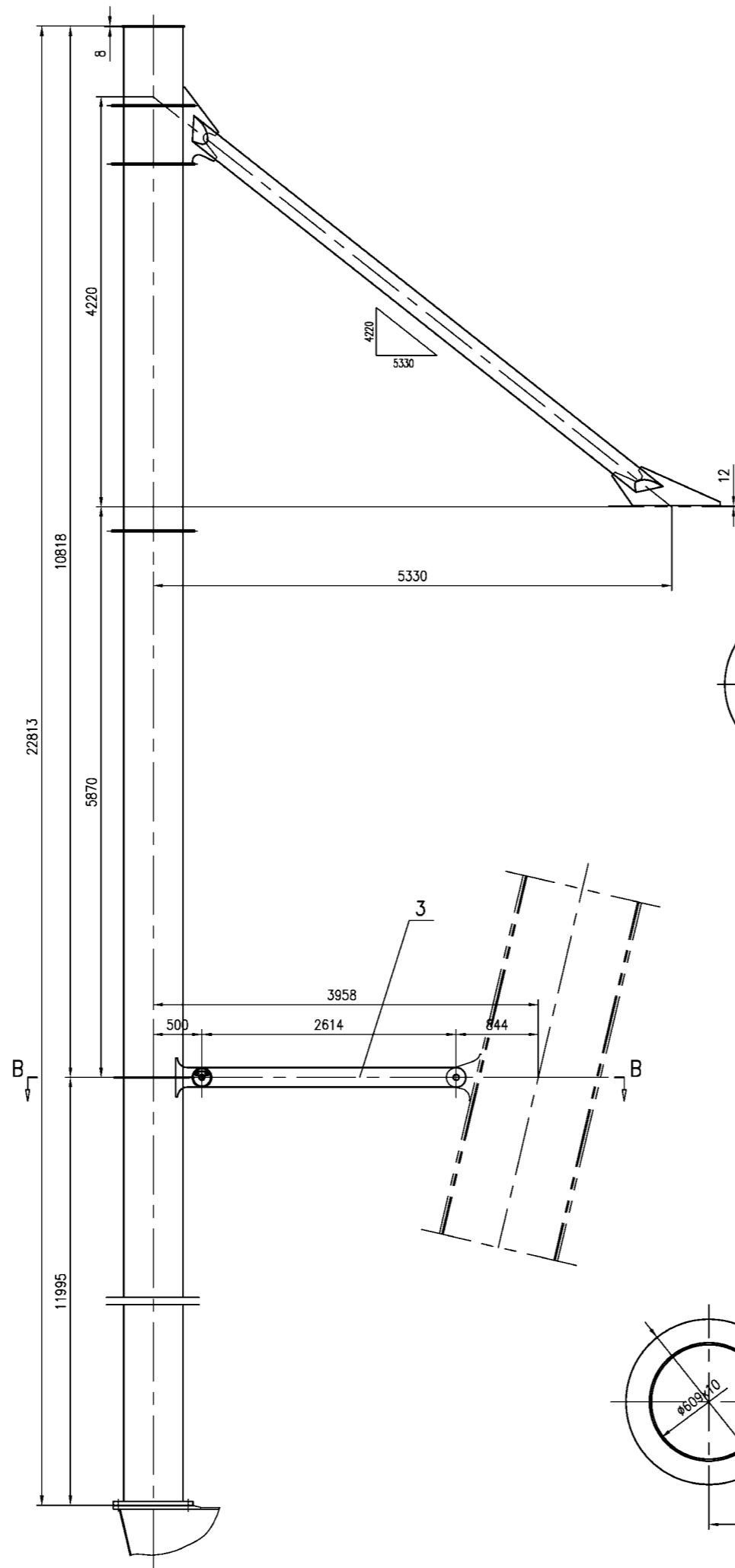
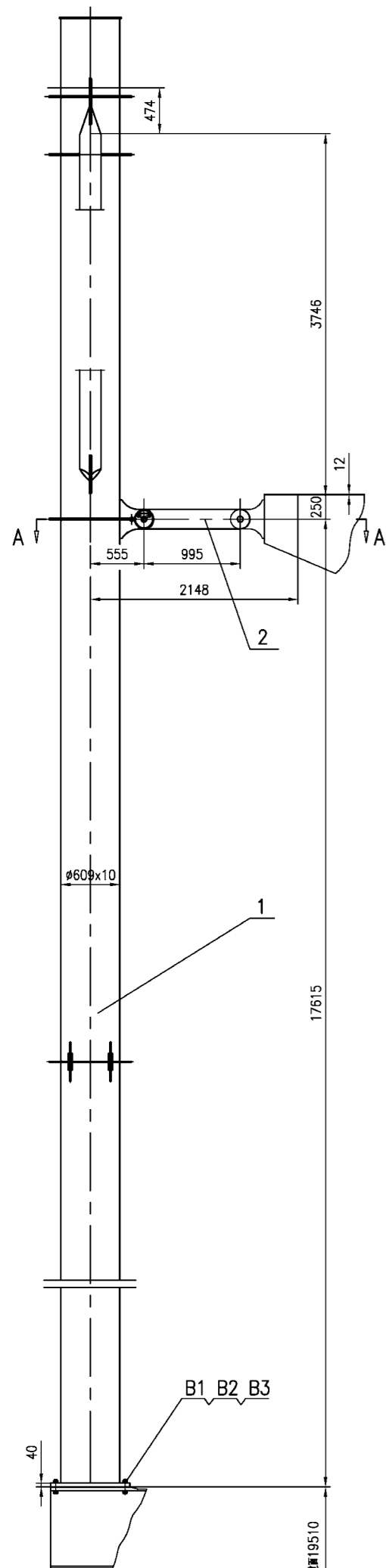
1. 焊条采用E5015;
2. 所有外廓的气割边缘切割面光洁度均要达到优良或磨平;
3. 腹板与翼板焊接尽量采用自动焊,手工补焊,坡口近标准制定;
4. 未注明焊缝按同类焊缝处理,未注明焊缝高度取0.7倍的被连接板的厚度;
5. 图中未注明的均按ZPMC标准进行制造及检验;
6. 所有焊缝100%目测检验,对接焊缝UT100%;
7. 明细表中尺寸仅供参考,准确尺寸按详图,凡有焊缝对接处应有不大于1:2.5的坡口;
8. 结构件拼装后做气密性试验,试验气压10kpa.

Technology Requirement

1. The welding rods are E5015,
2. The smooth finish of all appearance face of gas cutting must be excellent, grind those flat.
3. The unmarked seams refer to the same sort. The height of the unmarked filler weld is 0.7 the thickness of the thin sheet.
4. Unmarked seams in the drawing refer to the general technical condition of the welded structure of ZPMC.
5. All welds-100%VT, Tension complete penetration welds-100%UT.
6. Dimensions shown on the drawing are prior to those shown in B.O.M. which are for reference only.
7. The air tight test pressure must be 10kpa.

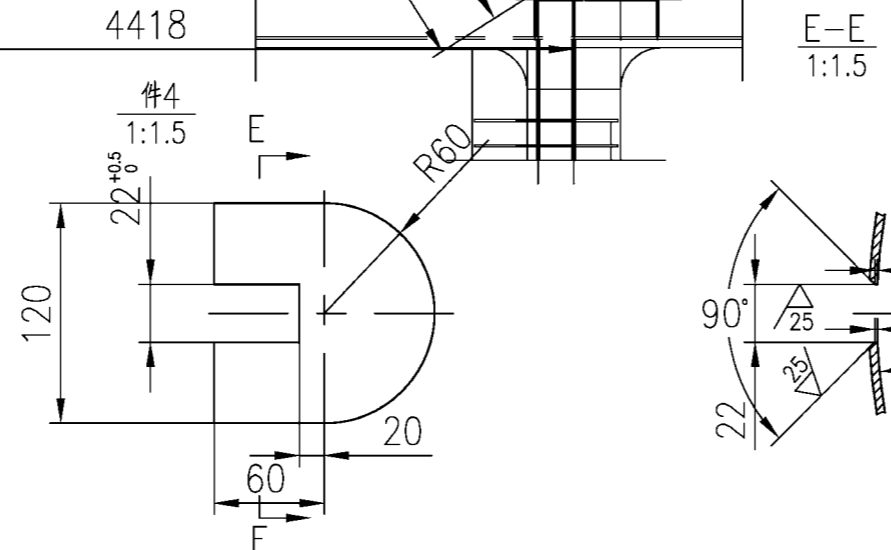
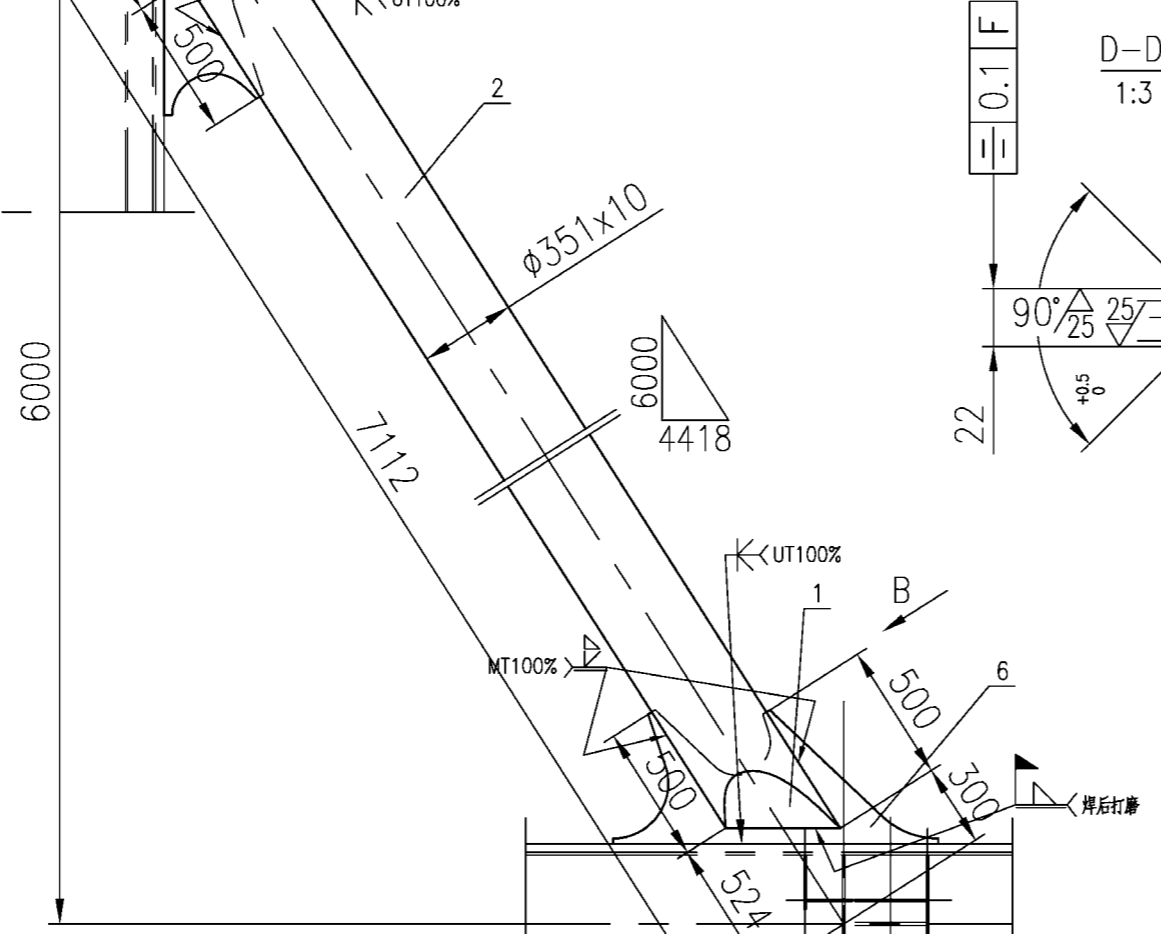
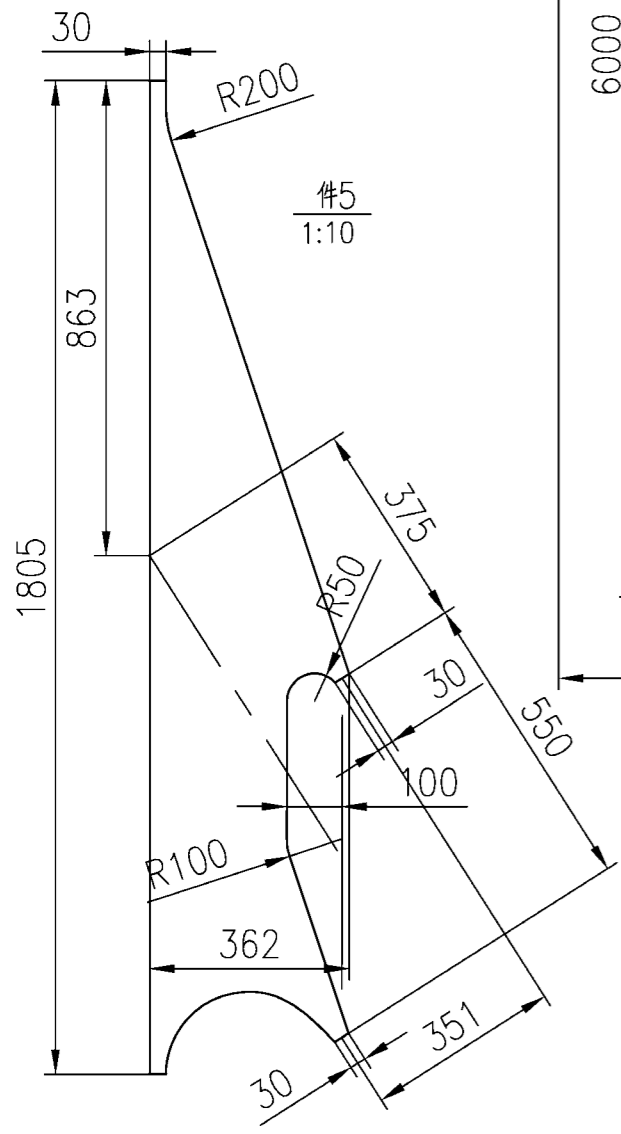
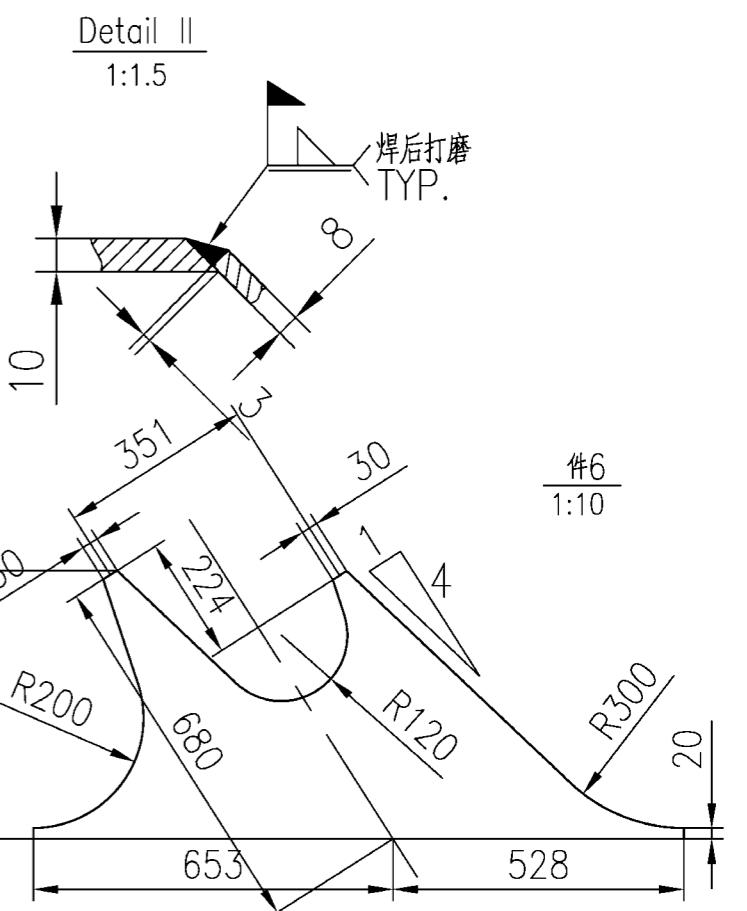
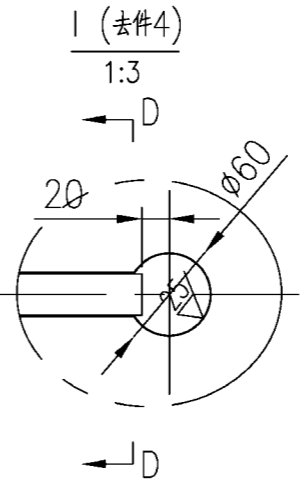
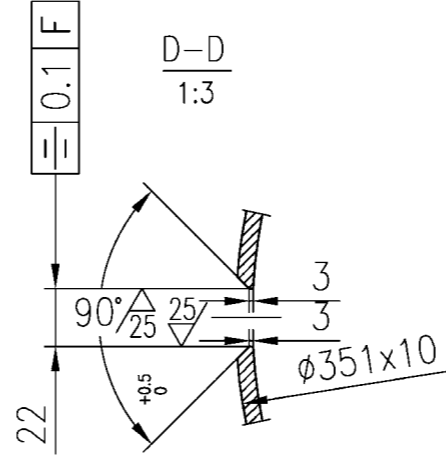
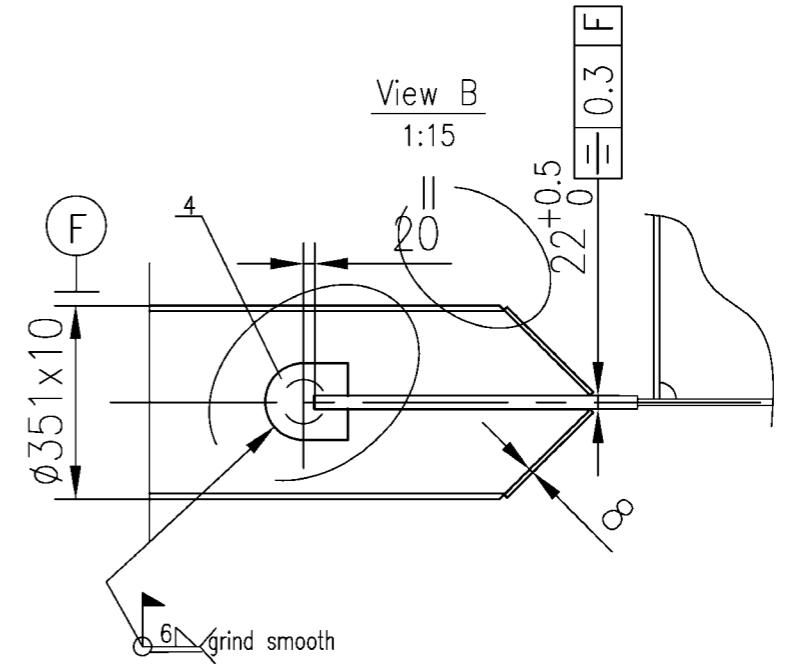
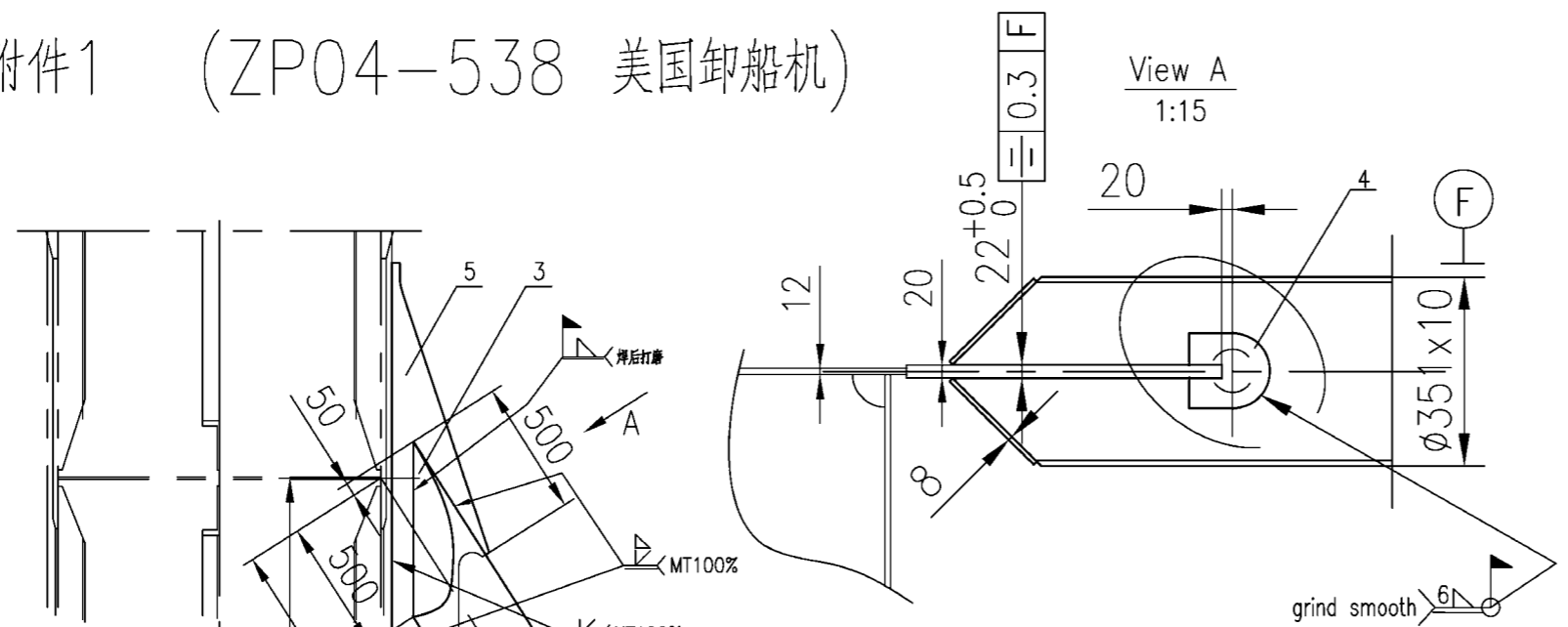


NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	Total WEIGHT	NOTE
24	UL2502020901	螺塞 Plug screw		1	0.08	0.08	
23		-6X680X1480	A709-50-2	2	47	94	
22		-6X480X980	A709-50-2	1	22	22	
21		L100x63x8-1267	Q235B	5	12.5	62.5	
20		-10X100X2342	A709-50-2	1	24.5	24.5	
19		-10X379X400	A709-50-2	2	12	24	
18		-10X111X400	A709-50-2	4	1.8	7.2	
17		-10X314X400	A709-50-2	3	9.8	29.4	
16		-10X400X1200	A709-50-2	2	37.7	75.4	
15		-10X1000X873	A709-50-2	1	68.5	68.5	
14		-10X1075X2050	A709-50-2	2	173	346	
13		-10X100X4147	A709-50-2	7	32	224	
12		-10X1200X2000	A709-50-2	7	106	742	
11		L100x63x8-1305	Q235B	24	13	312	
10		-10X2440X10588	A709-50-2	1	1166	1166	
9		L100x63x8-950	Q235B	5	9.5	47.5	
8		L100x63x8-1631	Q235B	13	16	208	
7		L100x63x8-1243	Q235B	3	12.3	36.9	
6		L100x63x8-329	Q235B	6	3.3	19.8	
5		L100x63x8-878	Q235B	3	8.7	26.1	
4		-10X1200X10588	A709-50-2	1	997	997	
3		L100x63x8-1513	Q235B	8	15.1	120.8	
2		-10x2052x10588	A709-50-2	1	1662	1662	
1		-10x2052x10588	A709-50-2	1	1585	1585	
NO. SUB-NO. or STDD		NAME & SIZE	MTRL or STYLE	QTY/set	each	Total WEIGHT	NOTE
PROJECT:		Alabama 2000t/h ship unloader	DESIGN STAGE:	SCALE: 1:40			
ITEM NAME:		门架连接横梁-2 (右侧连接梁)	DRAW NO:	UL25020819			
		Horizontal Beam of Lengthways II	PROJ.				
ZPMC	DSGN		TRACE	APP.			
	DRAW		CHCK	Q'TY/SET 1			
	CHKC		VER.	SET/CRANE 7836kg			



B5	GB861.1-87	Dacro	垫圈 16	65Mn	12	0.002	0.025	washer
B4	GB5783-86	Dacro	螺栓 M16x30	8.8s	12	0.05	0.6	bolt
B3	GB/T1230-91	Dacro	垫圈 24	45	32	0.05	1.8	H.S.washer
B2	GB/T1229-91	Dacro	螺母 M24	10s	16	0.2	3.2	H.S.nut
B1	GB/T1228-91	Dacro	螺栓 M24x120	10.9s	16	0.6	9.6	H.S.bolt
8	UL2502082008	轴 II	40Cr	4	3.2	12.8		shaft 2
7	UL2502082007	套 II	Q235B	8	1.1	9.1		sleeve 2
6	UL2502082006	隔板	Q235B	6	0.3	1.7		barrier
5	UL2502082005	套 I	Q235B	4	0.6	2.4		sleeve 1
4	UL2502082004	轴 I	40Cr	2	3.8	7.7		shaft 1
3	UL2502082003	支撑平台	钢板	1	269	269		platform
2	UL2502082002	支撑板	钢板	1	65.5	65.5		plate
1	UL2502082001	圆管	钢板	1	3931	3931		tube
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	WEIGHT	NOTE
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:	SCALE: 1:30				
ITEM NAME: 电梯立柱支架 Elevator Legs frame			DRAW NO: UL2502082000					
ZPMC	DSGN		TRACE		APP.			
	DRAW		CHK		Q'TY/SET		4315kg	
	CHK		VER.		SET/CRANE		1套/台	

修改单020附件1 (ZP04-538 美国卸船机)

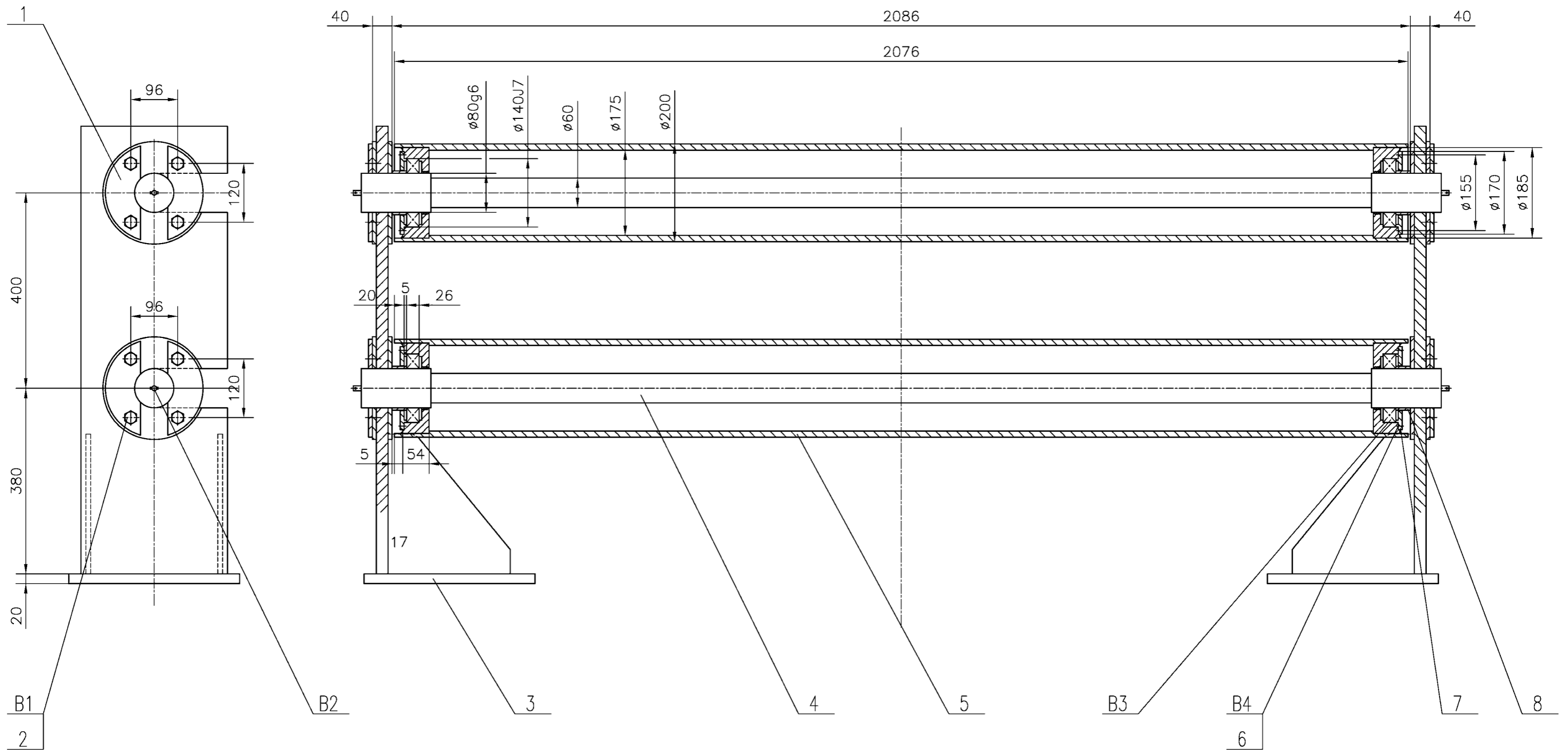


NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	
6		-20x488x1181	A709/50-2	1	42	42	
5		-20x362x1805	A709/50-2	1	58	58	
4		-6x160x160	A709/50-2	4	0.95	3.8	
3		-8x223x402	A709/50-2	2	20.7	41.4	
2		φ351x10-6862	A709/50-2	1	577	577	
1		-8x223x638	A709/50-2	2	16.2	32.4	

PROJECT: Alabama 2000t/h ship unloader DESIGN STAGE: SCALE: 1:15

ITEM NAME: Sill Beam of W.S
海侧下横梁水平撑 DRAW NO: UL25020821

ZPMC	DSGN	陈自强	TRACE		APP.	
	DRAW		CHCK		Q'TY/SET	775kg
	CHCK		VER.		SET/CRANE	1

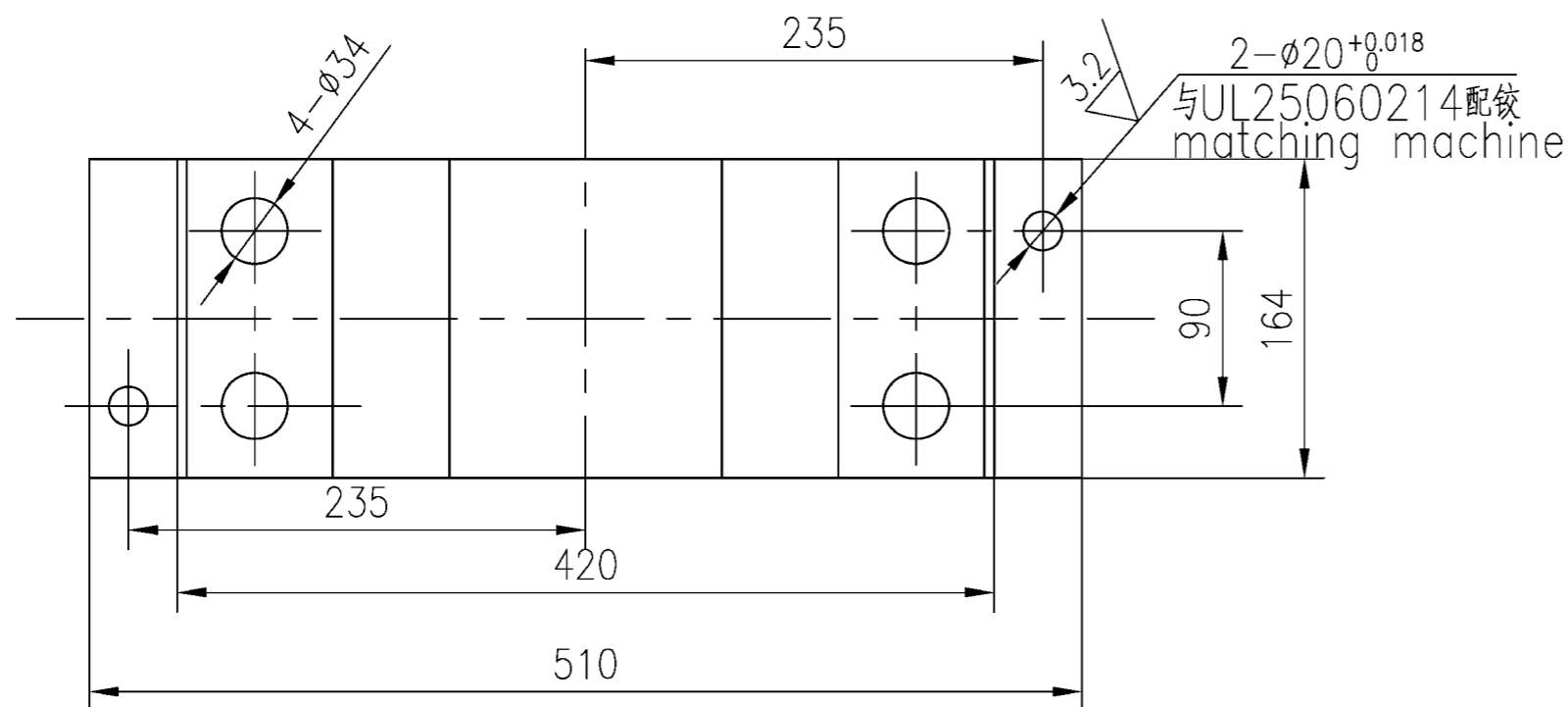
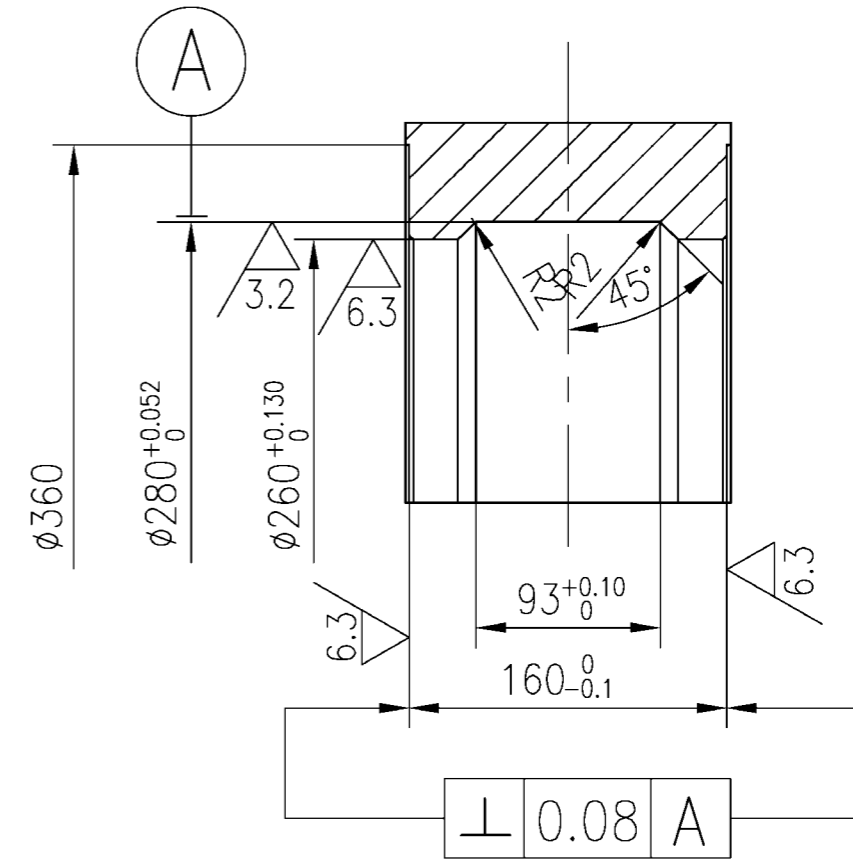
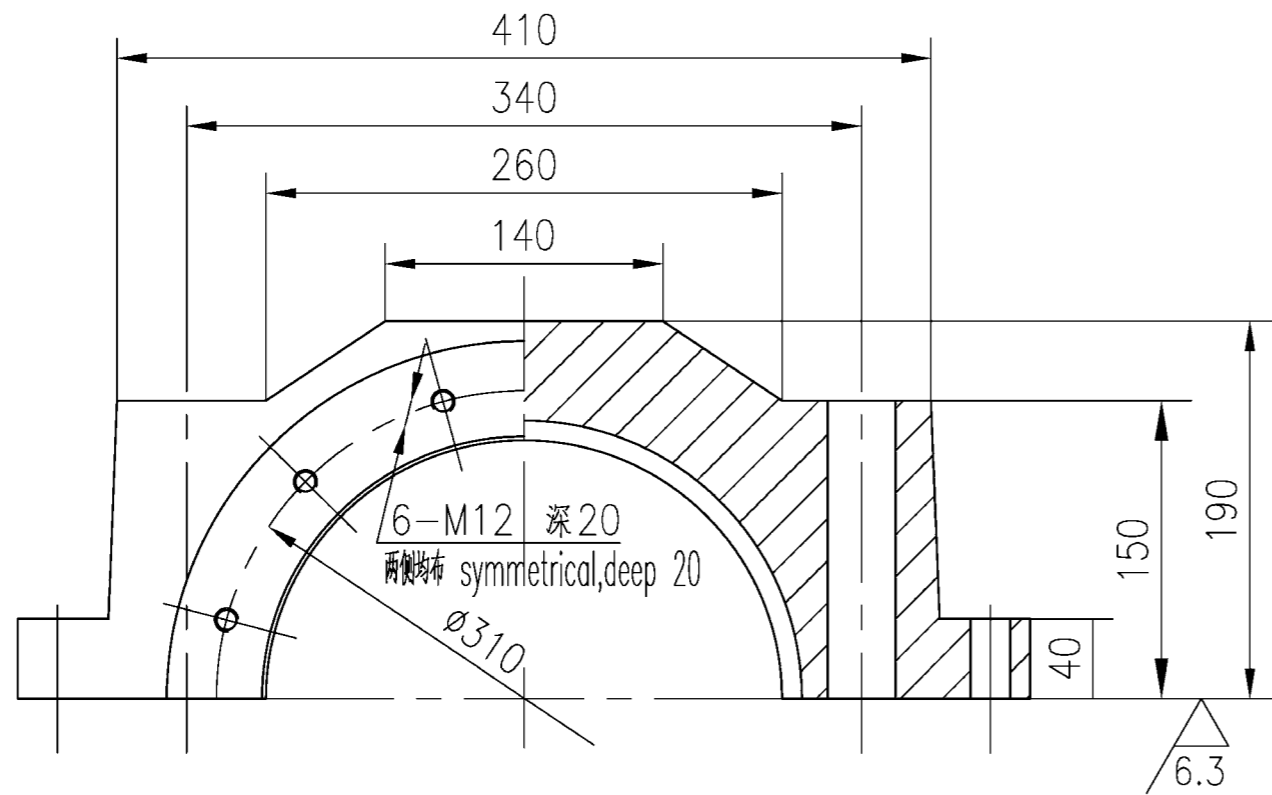


B4	GB32.1-88	螺栓 M8X30 bolt	A2-70	24			
B3	GB276-82	轴承 216 bearing	成品	4	1.6	6.4	
B2		PT1/4" 平头油嘴 oil fitting	成品	4			
B1	GB32.1-88	螺栓 M16X30 bolt	达克罗 Cacro	16			
8	UL06121206	轴套 sleeve	Q235	4	0.31	1.24	借用 borrow
7	UL06121205	通盖 cover	Q235	4	1.1	4.4	借用 borrow
6		钢丝绳 1 wire rope	Q235	4根			
5	UL06121204	托辊 roller	焊接件 welded	2	245.2	490.2	借用 borrow

4	UL06121203	托辊轴 shaft	45	2	54	108	借用 borrow
3	UL25030701	机架 frame	焊接件 welded	1	130.4	130.4	
2		钢丝绳 3 wire rope	Q235	8根			
1	UL06121201	轴端挡板 block	Q235	8	0.4	3.2	借用 borrow

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total		NOTE
					WEIGHT	WEIGHT	
PROJECT: ASPA 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:6		
ITEM NAME: 托辊组 1 Roller 1			DRAW NO: UL25030700				
ZPMC	DSGN		TRACE			APP.	
	DRAW		CHCK			Q'TY/SET	742.2
	CHCK		VER.			SET/CRANE	

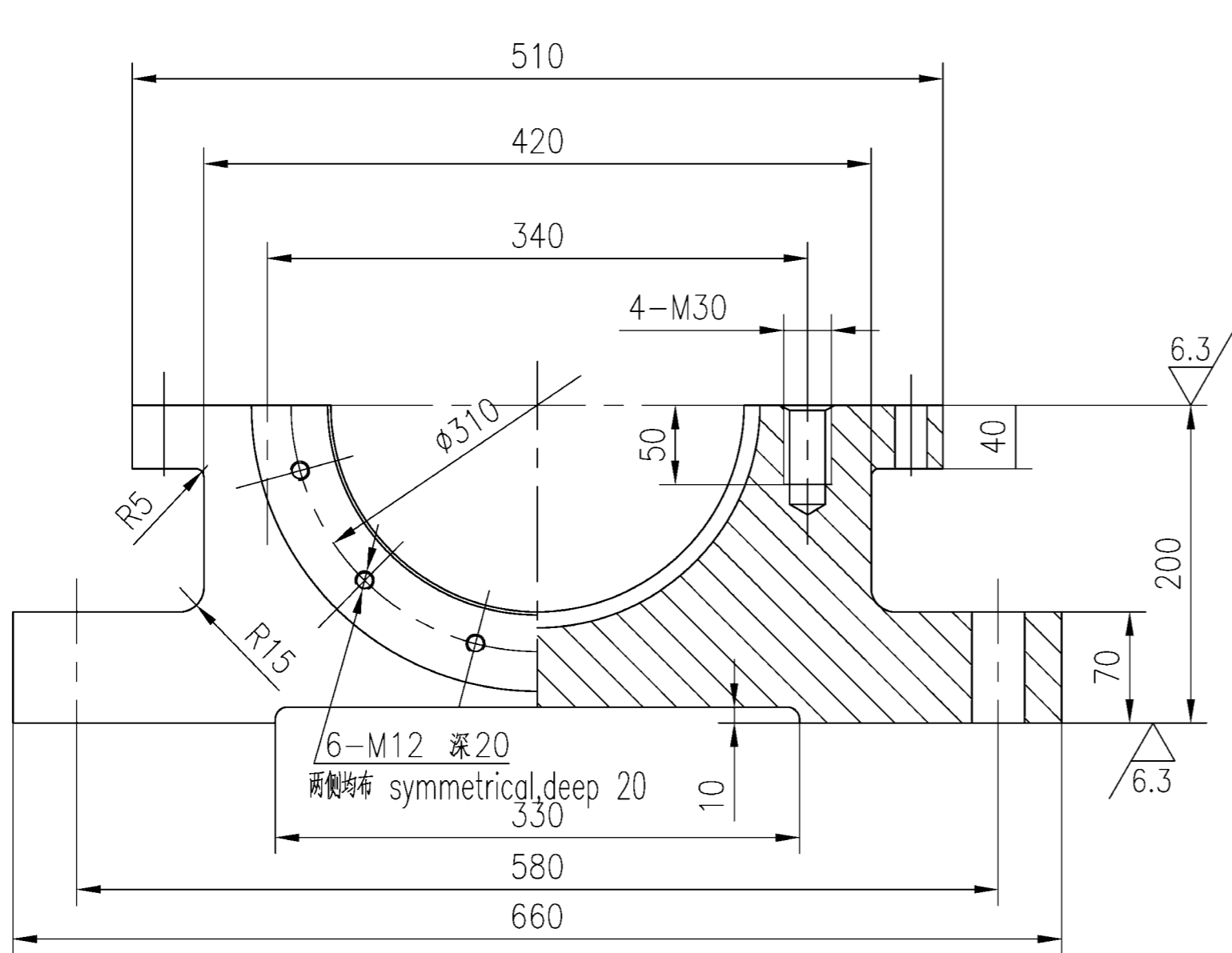
其余other $\frac{12.5}{\nabla}$



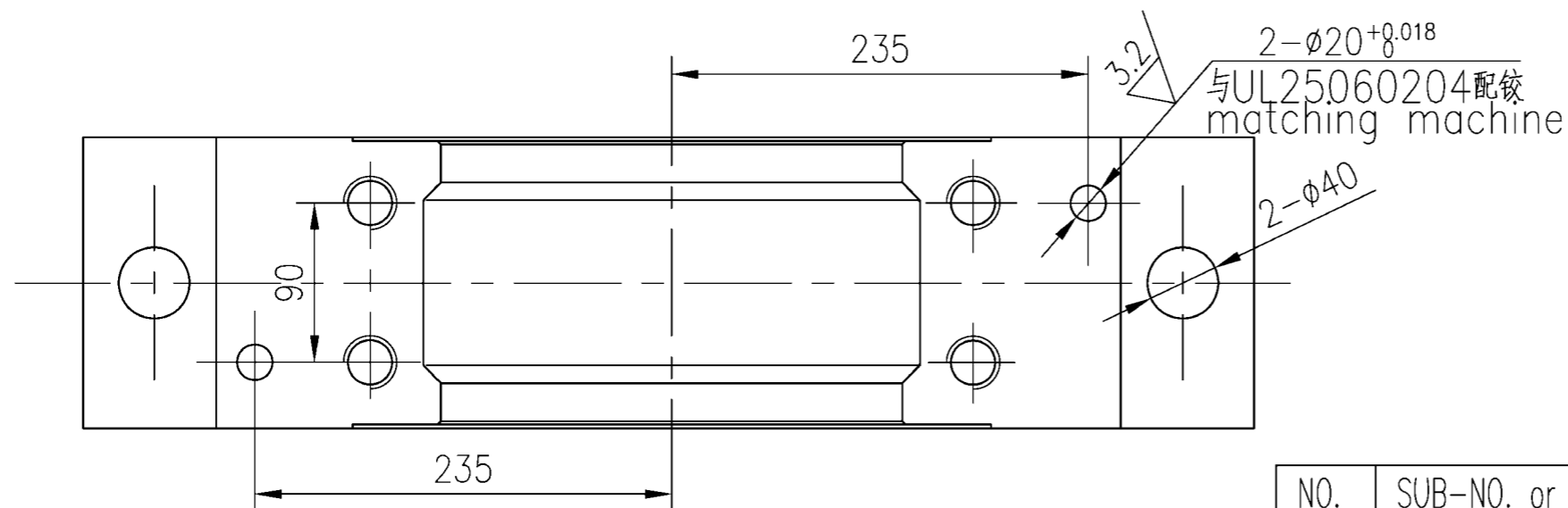
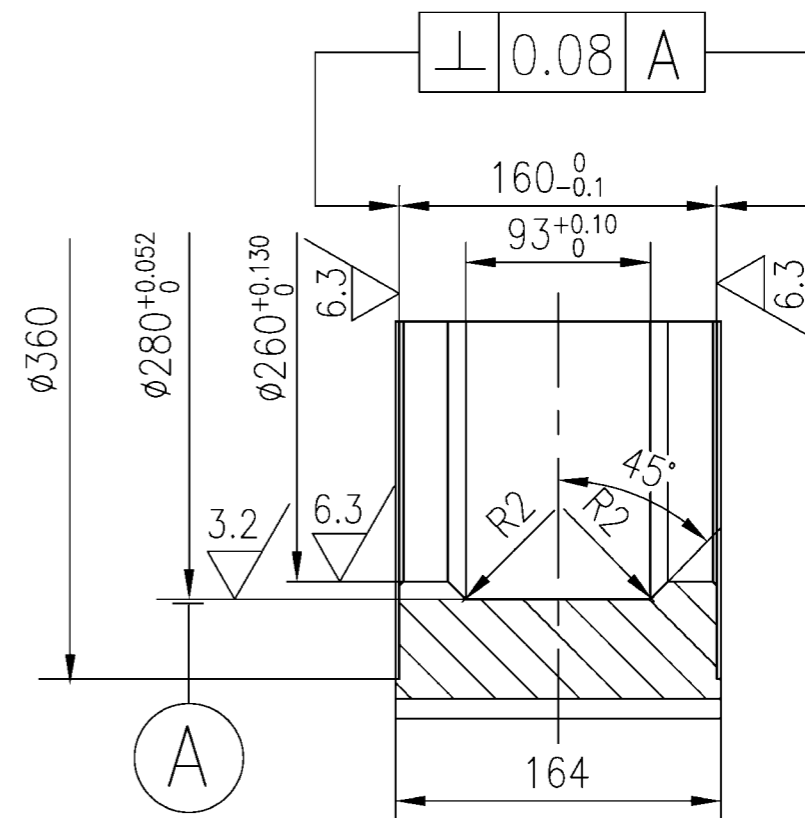
技术要求

1. $\phi 280^{+0.052}$, $\phi 260^{+0.130}$ 和 $160_{-0.1}$ 两端面及螺孔与件UL25060214一起制作。
matching machine the hole
2. 其余倒角 $2 \times 45^\circ$ 。
chamfer $2 \times 45^\circ$

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
4	UL25060204	轴承盖(1) bearing support 1	Q235	2	2X54.7kg	1:4
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

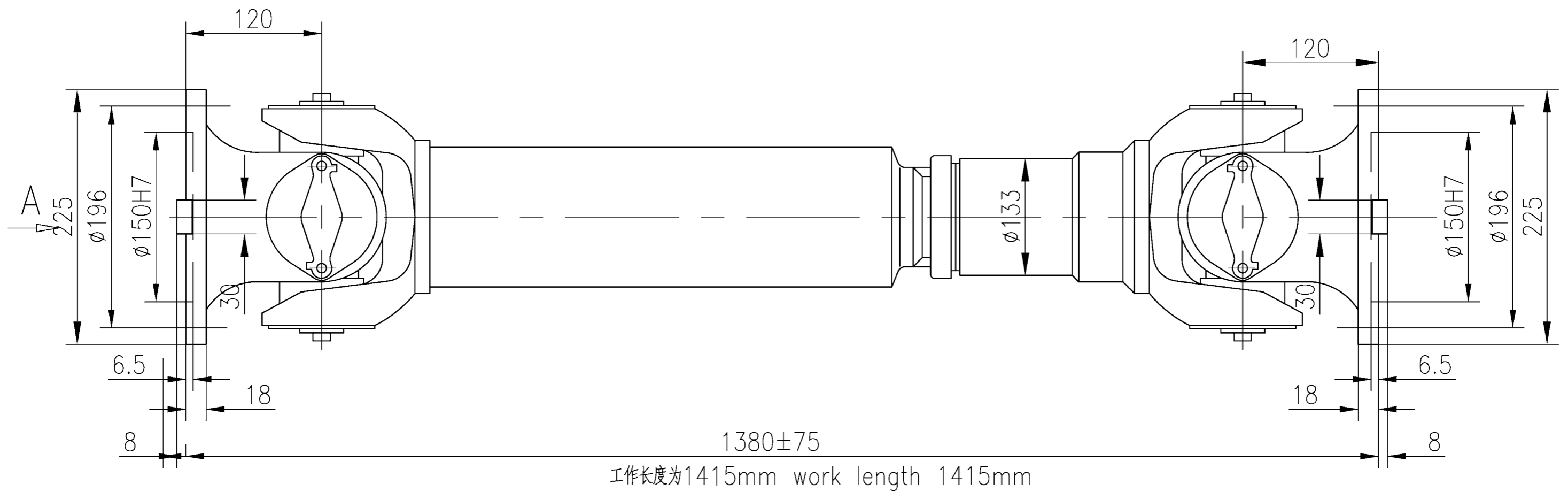


其余 other $\sqrt{12.5}$



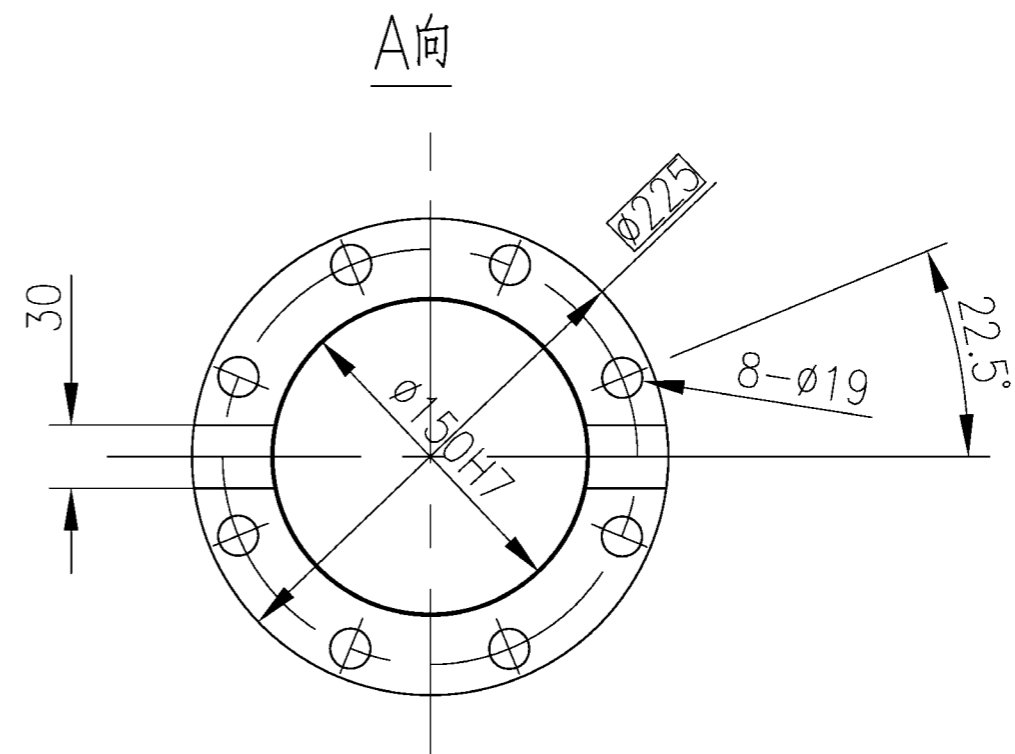
技术要求 technical requirement
 1. $\phi 280^{+0.052}$, $\phi 260^{+0.130}$ 和 $160_{-0.1}^0$ 两端面及螺孔与件UL25060204一起制作。
 matching machine the hole
 2. 其余倒角 $2 \times 45^\circ$ 。
 chamfer $2 \times 45^\circ$

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
14	UL25060214	轴承座(1)	Q235	2	2X59.6kg	1:4
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



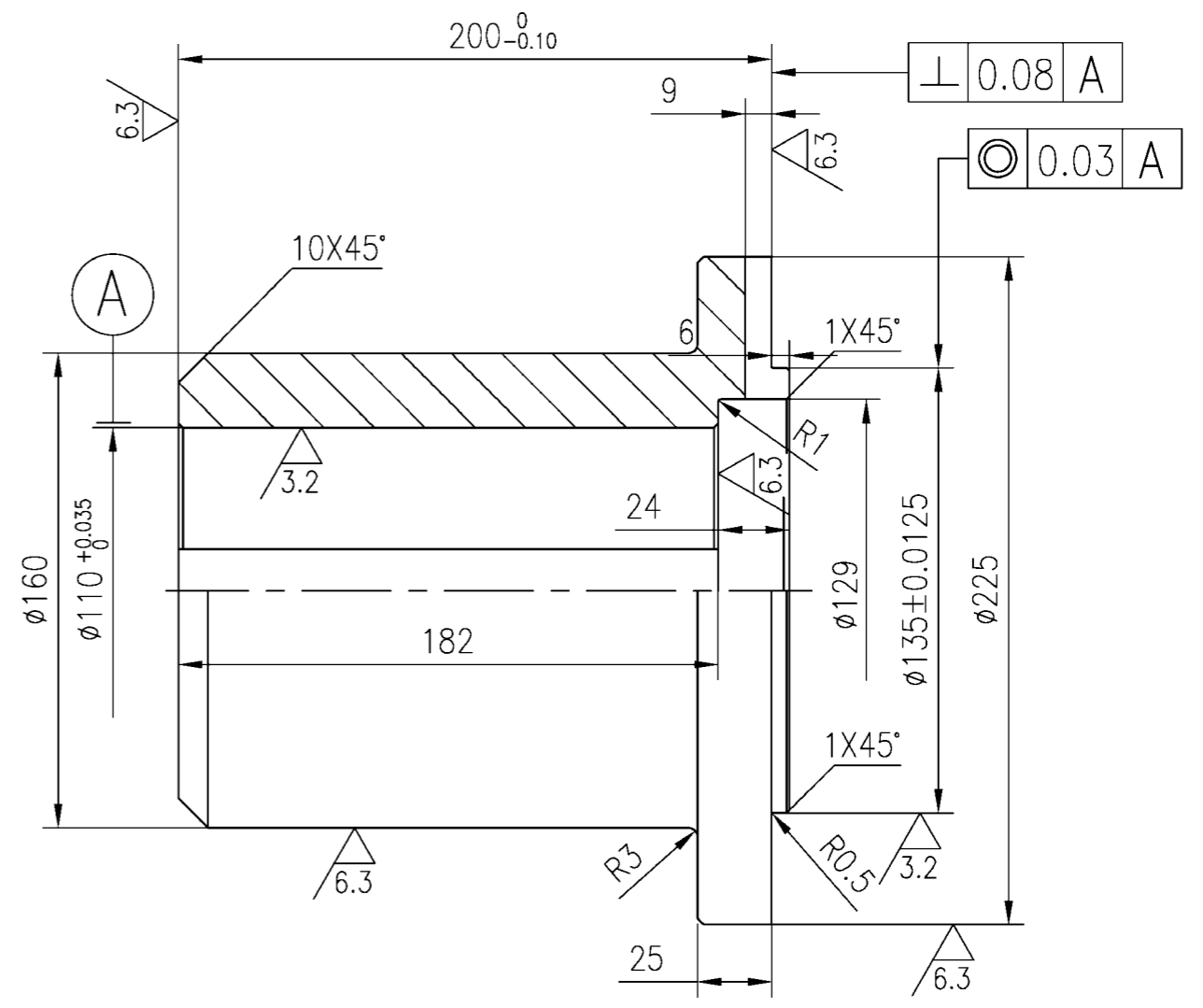
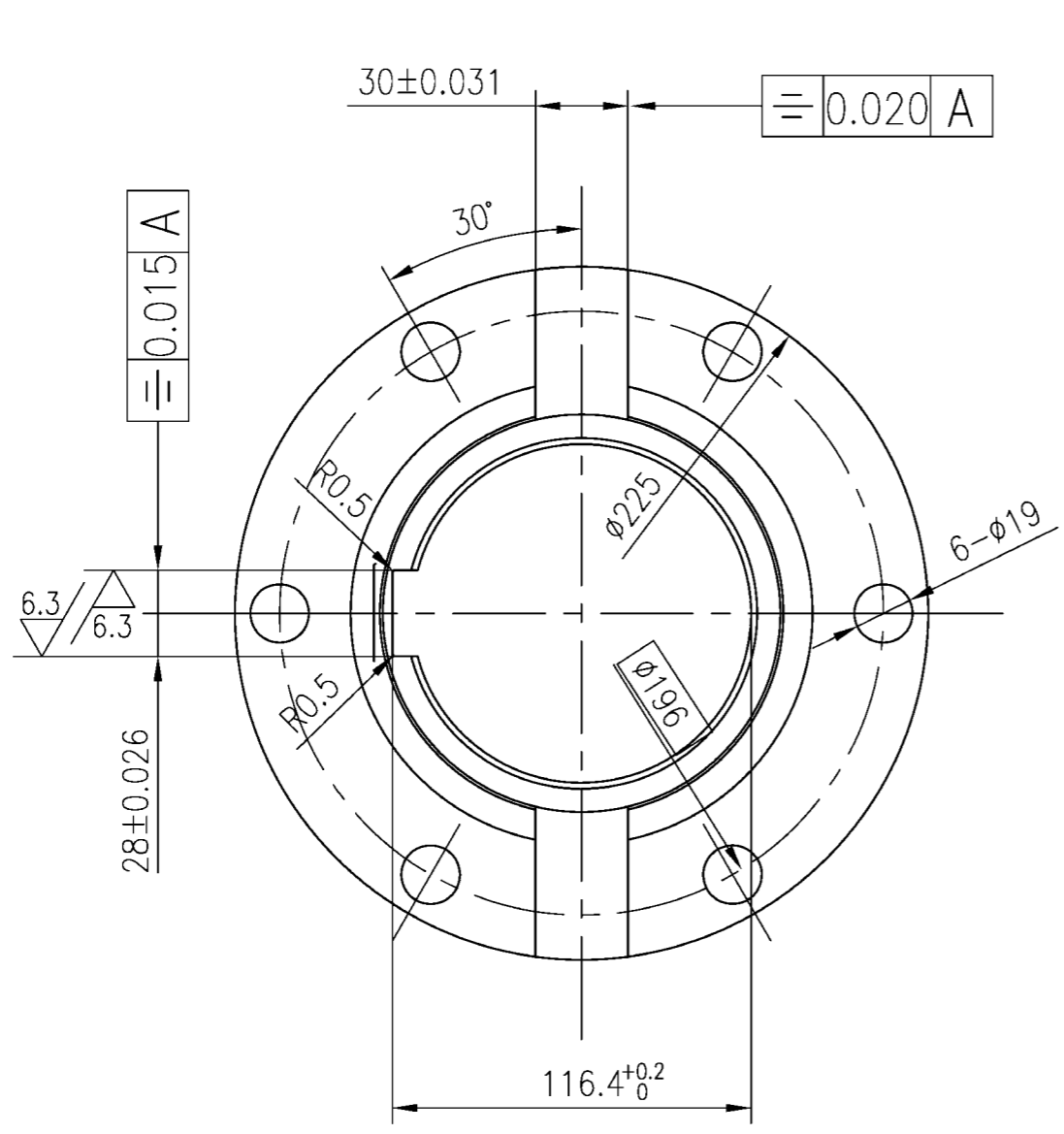
技术要求 technical requirement

1. 型号: 重型传动轴 5-1A. Type: 5-1A
Type: 5-1A
2. 极限扭矩35kNm, 额定动态扭矩22kNm.
max. torque 35Knm, rated torque 22Knm
3. 工作转速1000rpm.
work speed: 1000rpm
4. 工作长度1415mm, 最大长度为1380+75mm.
work length 1415mm, max. length 1380+75mm
5. 作动平衡和静平衡试验.
static balancing test and dynamic balancing test shall be made



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
15	UL25060215	万向传动轴(重型) Propshaft 5-1A-1380	订货图 for order	202kg	2	1:3
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

其余 $\sqrt{12.5}$

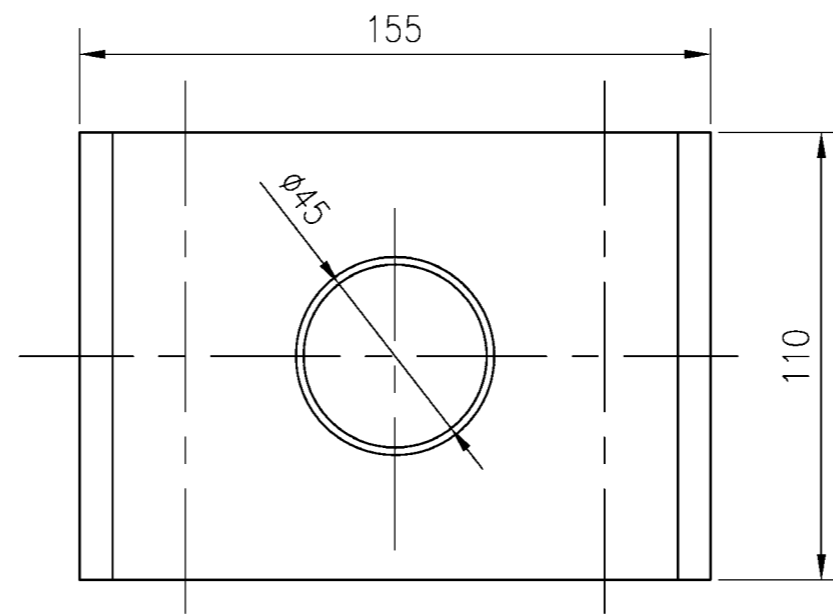
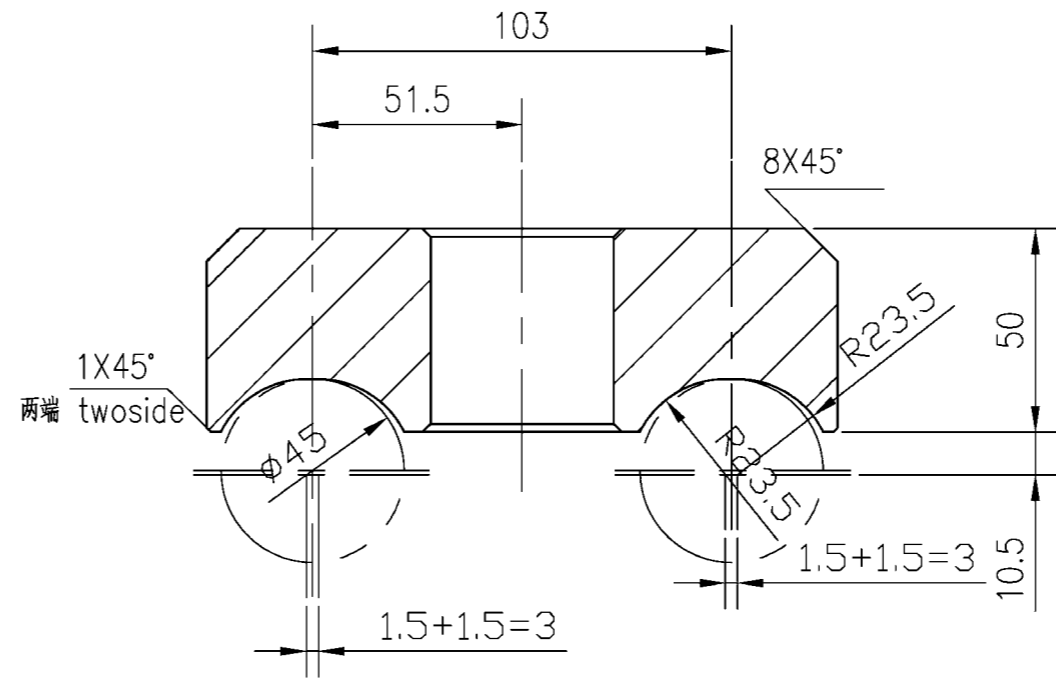


技术要求

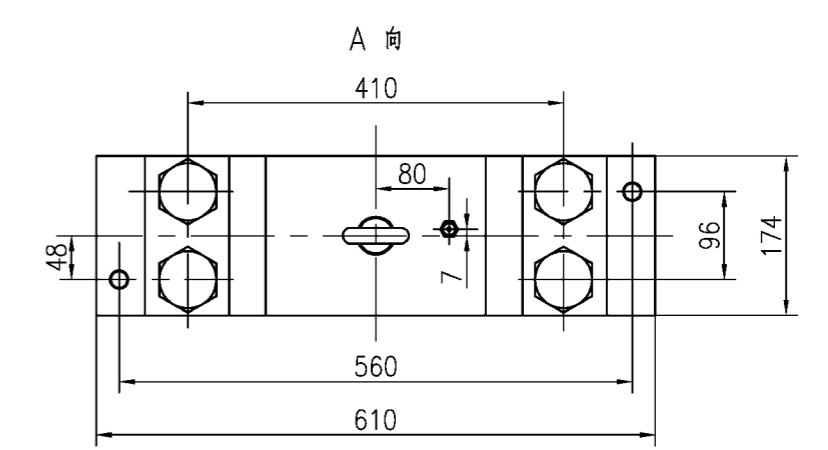
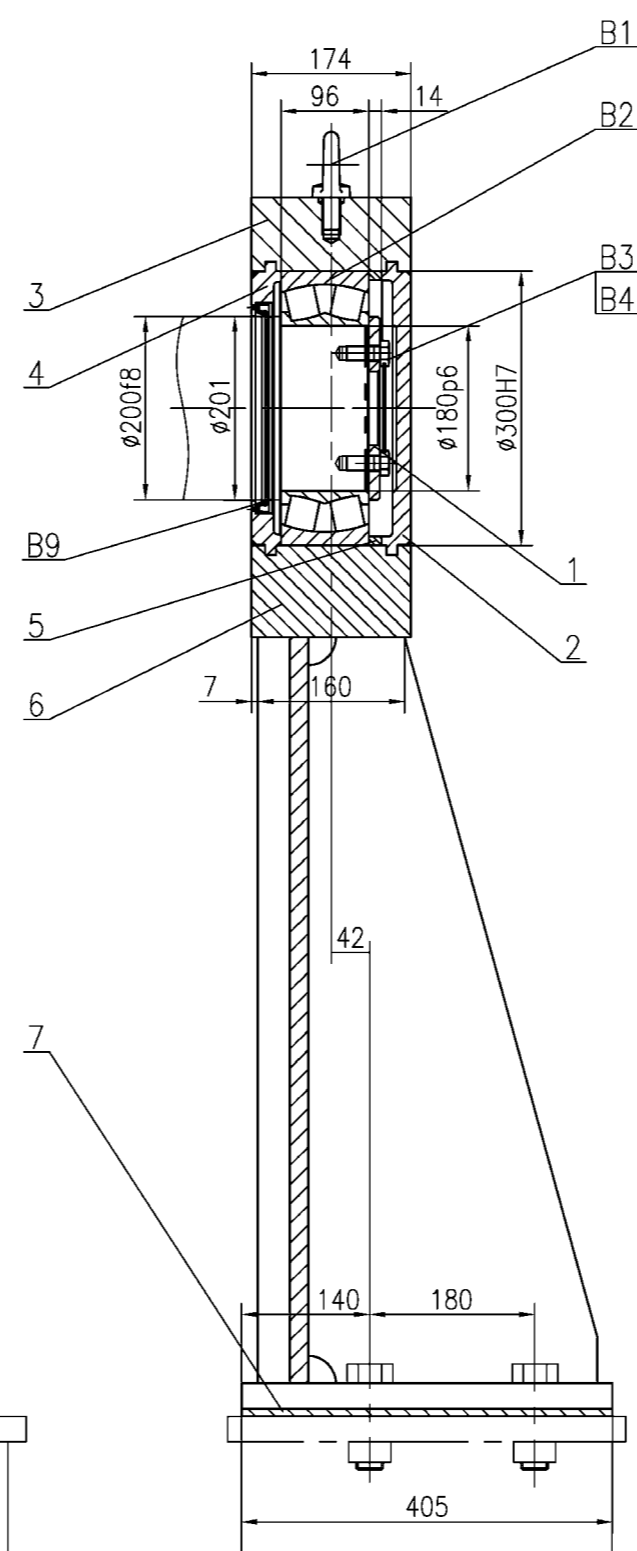
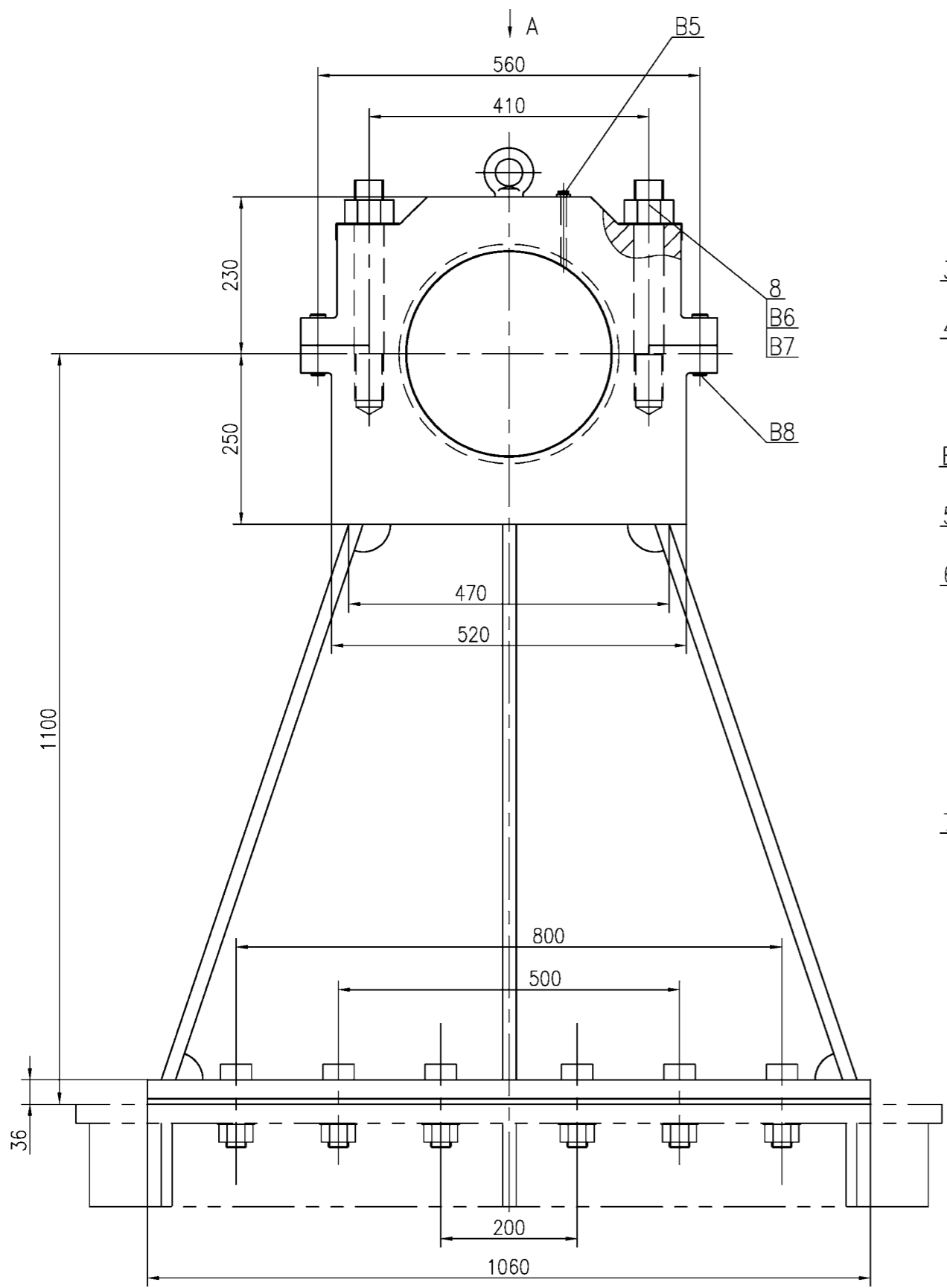
- | | |
|-----------------------------|--------------------------------|
| 1. 调质 HB240~270. | 1. Adjusting Quality HB240~270 |
| 2. 其余倒角 $2 \times 45^\circ$ | 2. chamfer $2 \times 45^\circ$ |

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
16	UL25060216	半联轴器(2)shaft 2	45	2	2X26.9kg	1:2
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

全部 all $\frac{12.5}{\nabla}$
未注倒角 chamfer 2X45°



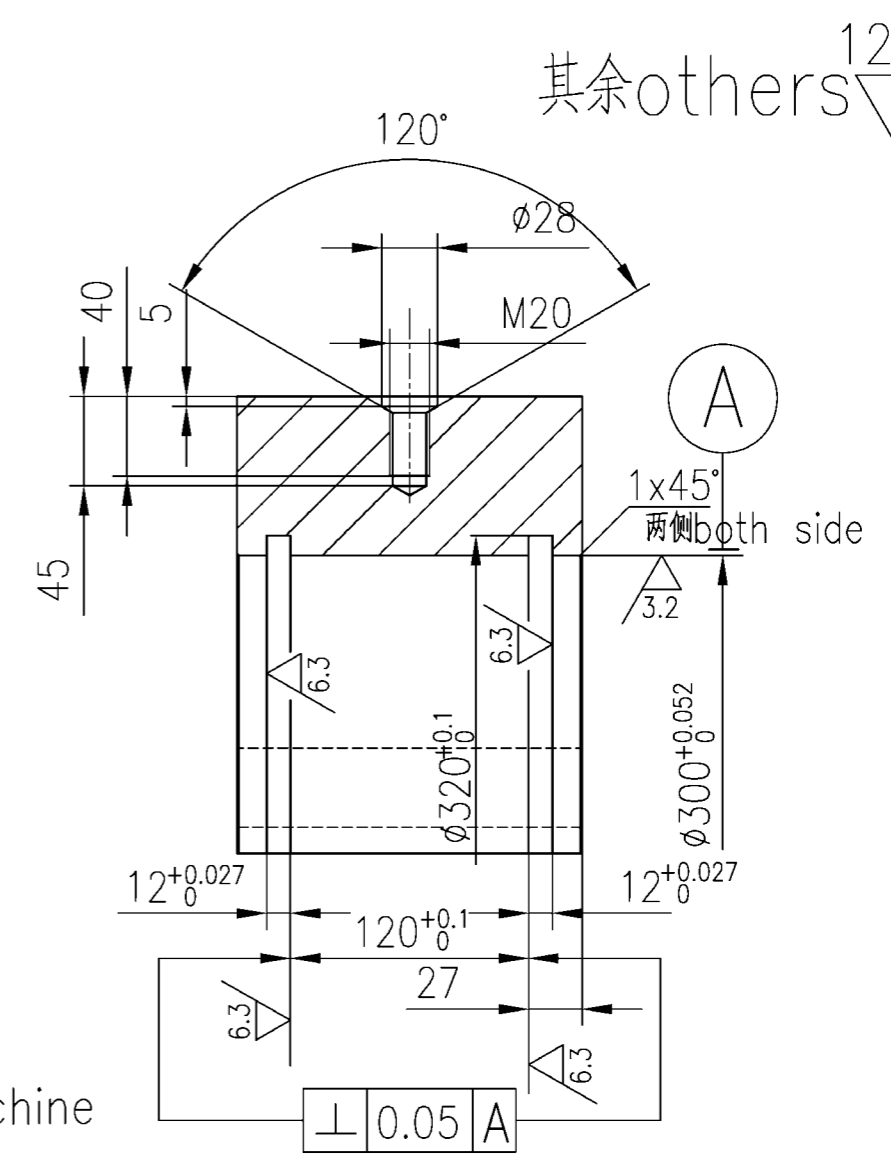
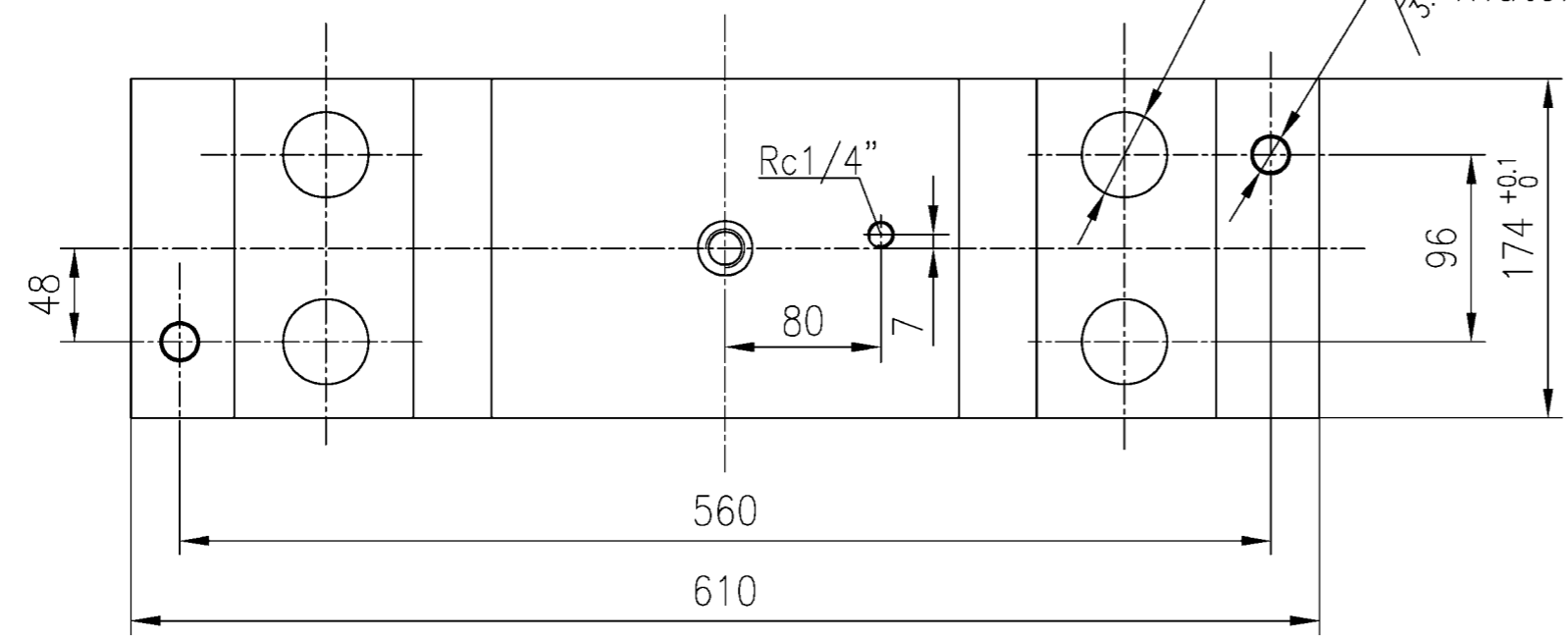
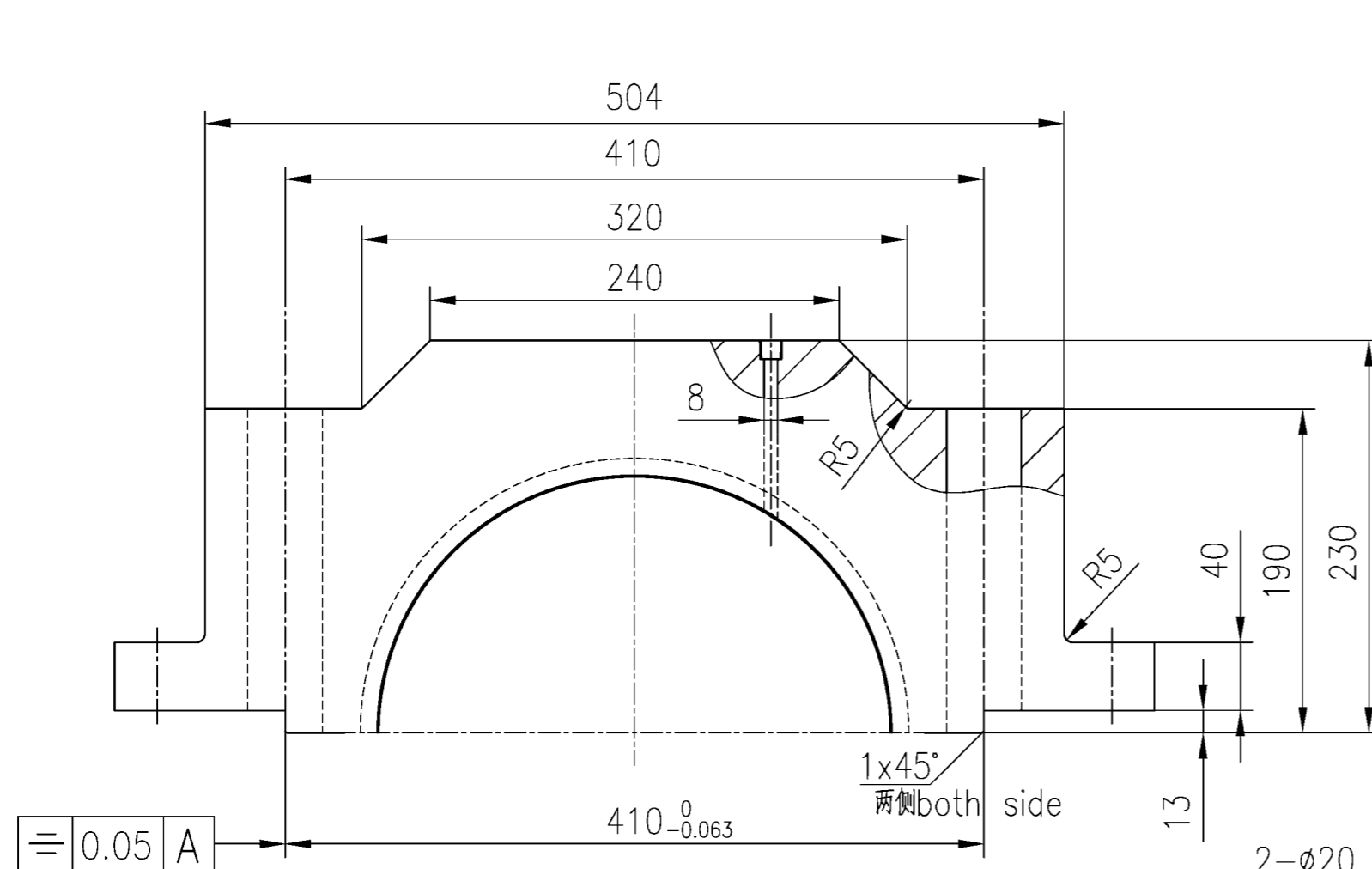
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
8	UL25060408	钢丝绳压板clammer	Q235	28	28X5.25kg	1:2
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



技术要求 technical requirement

1. 轴承即洗即装, 加锂基润滑脂。
make the bearing clear and fill grease
2. 通过调整件7(调节板)的厚度调整轴承中心高度。
adjust the height of bearing with adjust plate
3. 轴承盖和轴承座在结合平面加工后, 用定位销联接, 再一起加工轴承孔。
make the bearing hole with bearing support and cover together

B9	GB117-86	pin 销 A20x90	35	2	0.2	0.4	达克罗Dacr.
B8	GB9877.1-88	seal 密封圈 B200-230-15	橡胶rubber	1			
B7	GB854-88	washer 垫圈 42	Q235	4			达克罗Dacr.
B6	GB6170-86	nut 螺母 M42	10H	4	0.5	2.0	达克罗Dacr.
B5	JIS B0203	grease fitting 油嘴 PT1/4"		1	0.1	0.1	黄铜制brass
B4	GB343-82	wire rope 钢丝绳 1.6		1m			不锈钢stainless steel
B3	GB32.1-88	bolt 螺栓 M16X35	8.8S	3			达克罗Dacr.
B2	GB288-87	bearing 轴承 3053736	中心带油槽 with grease groove	1	27.1	27.1	φ180Xφ300X96
B1	GB825-88	bolt 吊环螺钉 M20	20	1	0.4	0.4	
8	UL25070208	stud 螺柱 M42	45	4	3.7	14.8	
7	UL25070207	adjust plate 调节板	Q235	1	25	25	
6	UL25070206	bearing support 轴承座	焊接件	1	415	415	
5	UL25070205	adjust sleeve 调整套	Q235	1	0.9	0.9	
4	UL25070204	cover 密封端盖	Q235	1	7.8	7.8	
3	UL25070203	bearing support cover 轴承座盖	Q345B	1	82.5	82.5	
2	UL25070202	end cover 闷盖	Q235	1	10.6	10.6	
1	UL25070201	plate 挡板	Q235	1	2.5	2.5	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:				SCALE: 1:6
ITEM NAME: 卷筒轴承座1 bearing support 1			DRAW NO: UL25070200				
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	589	
	CHCK		VER.		SET/CRANE	1	

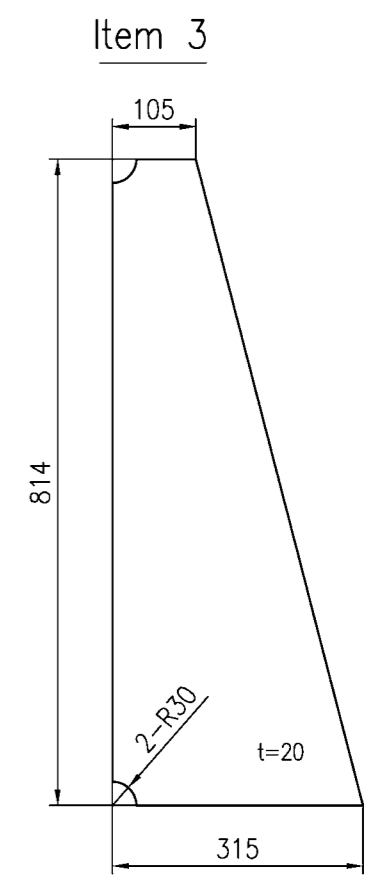
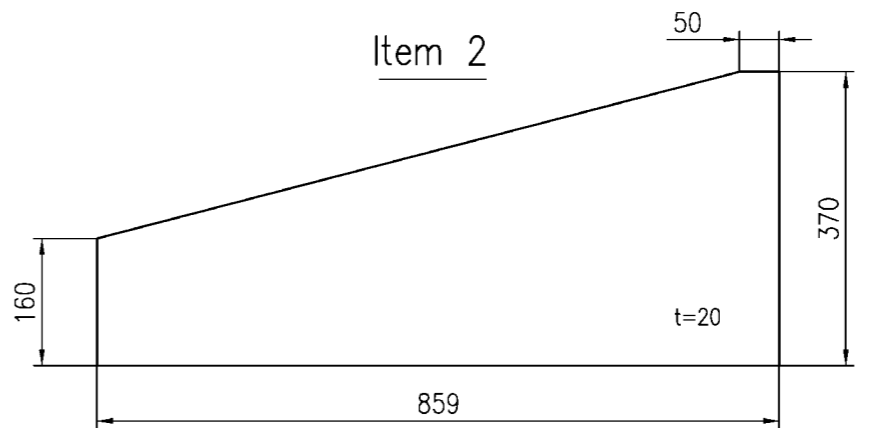
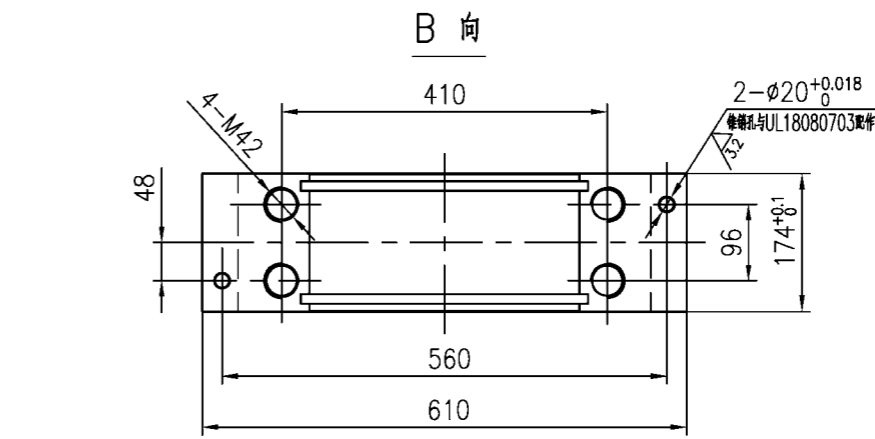
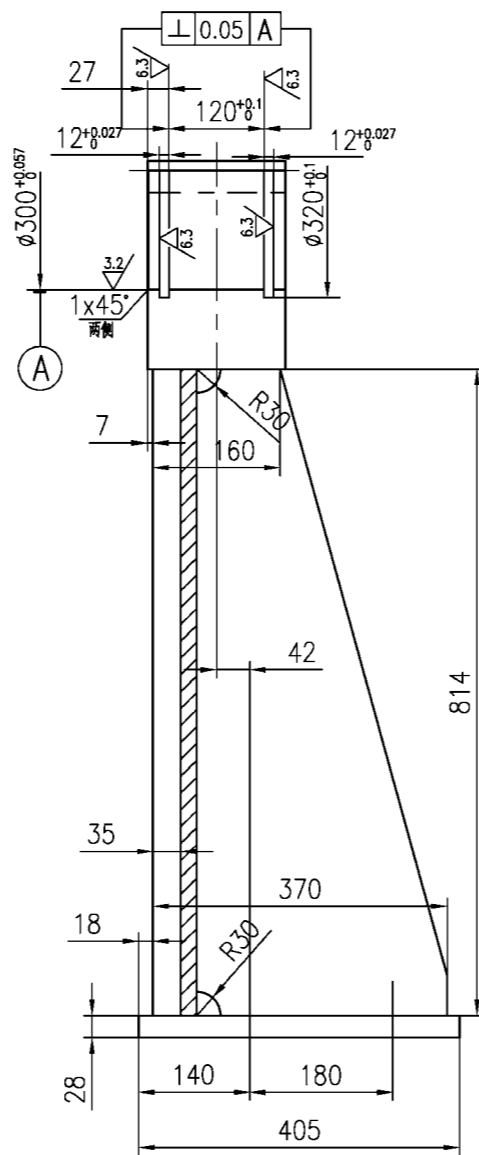
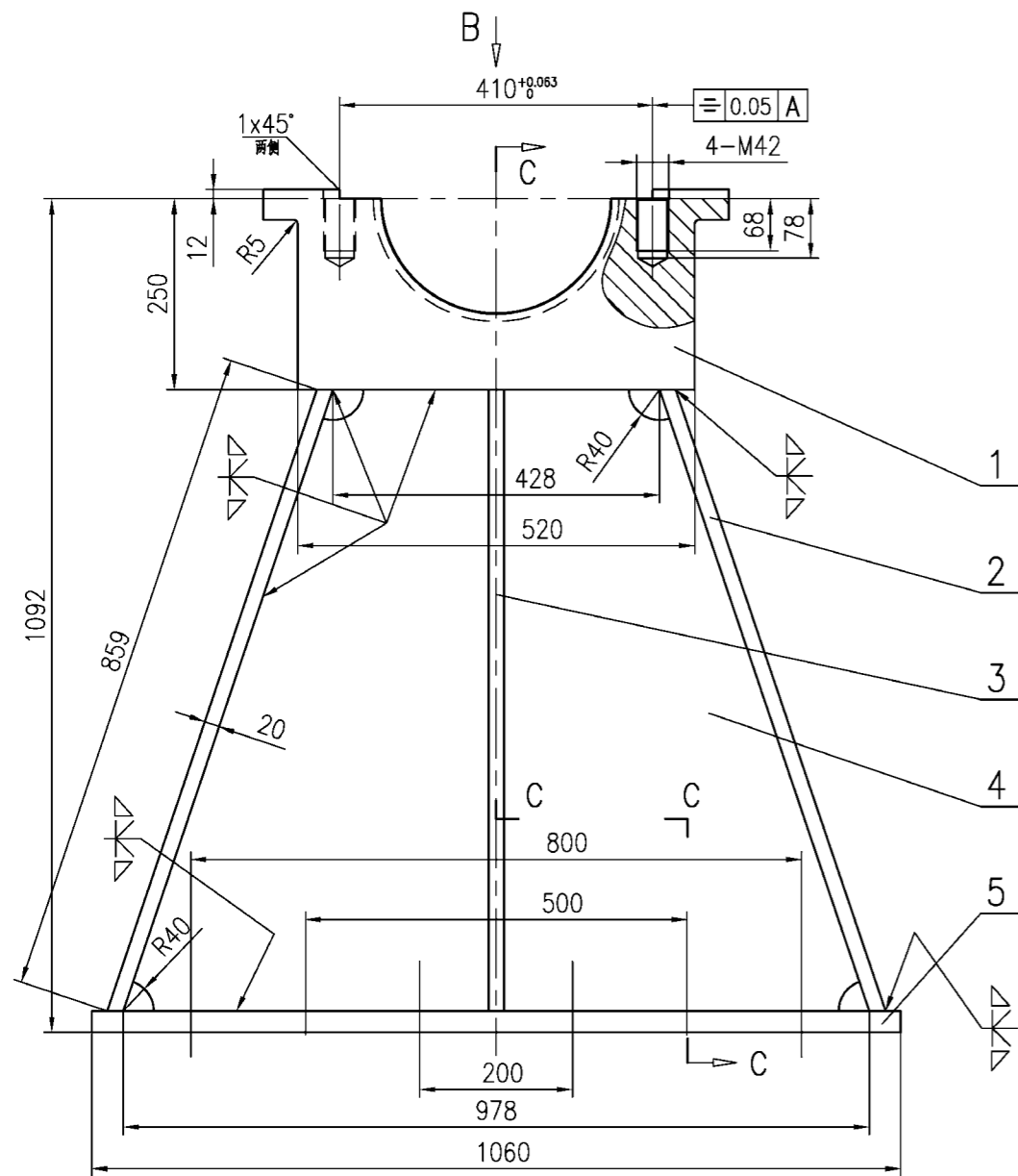


其余others $\frac{12.5}{\nabla}$

技术要求

1. $\phi 300_{+0.057}^0$, $\phi 322$ 和 $120_{+0.1}^0$ 两端面及螺孔与件UL25070206一起制作.
matching machine the hole
2. 其余倒角 $1.5 \times 45^\circ$.
chamfer $1.5 \times 45^\circ$

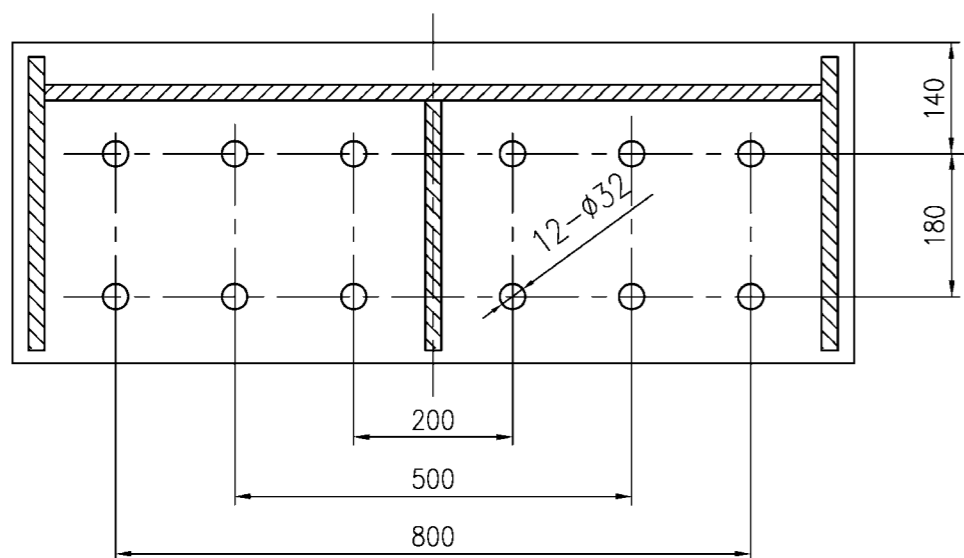
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL25070203	轴承盖bearing support cover	Q345B	82.5	82.5x1	1:4
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



50/
 12.5/
 切表面cut surface
 正常表面normal surface
 其他others

技术要求 technical requirement

1. $\phi 300^{+0.057}$, $\phi 322^{+0.1}$ 和 $120^{+0.1}$ 两端面及螺孔与件UL25070203一起制作。
matching machine the hole
2. 其余倒角1.5x45°。
chamfer 1.5x45°
3. 未注焊缝均为双面连续贴角焊, 焊条为E4315。
welding rod type:E4315,welding line shall be continue
4. 明细栏中尺寸仅供参考, 具体尺寸由放样定。dimension shown in sheet just for reference



2		-20X370X859	Q345B	2	36.6	73.1	
1		-174x262x610	Q345B	1	132	132	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	

PROJECT: DESIGN STAGE: SCALE: 1:10
 ITEM NAME: 轴承座 DRAW NO: UL25070206

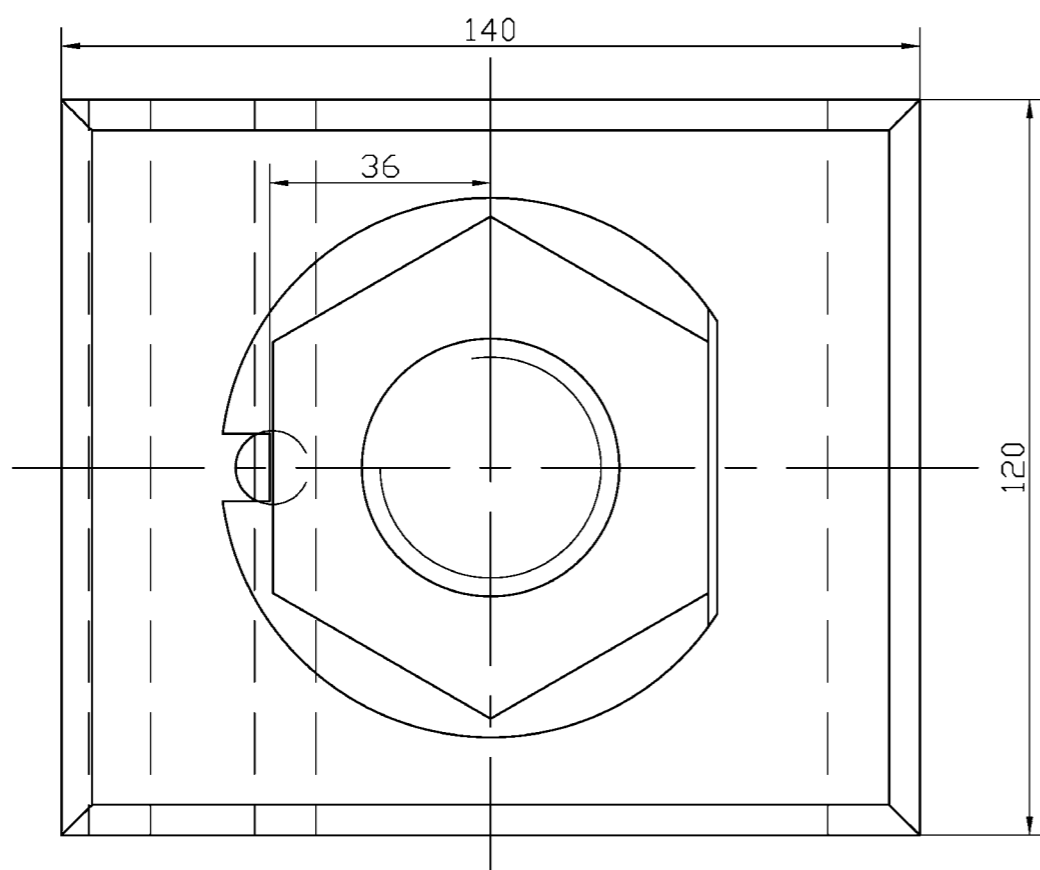
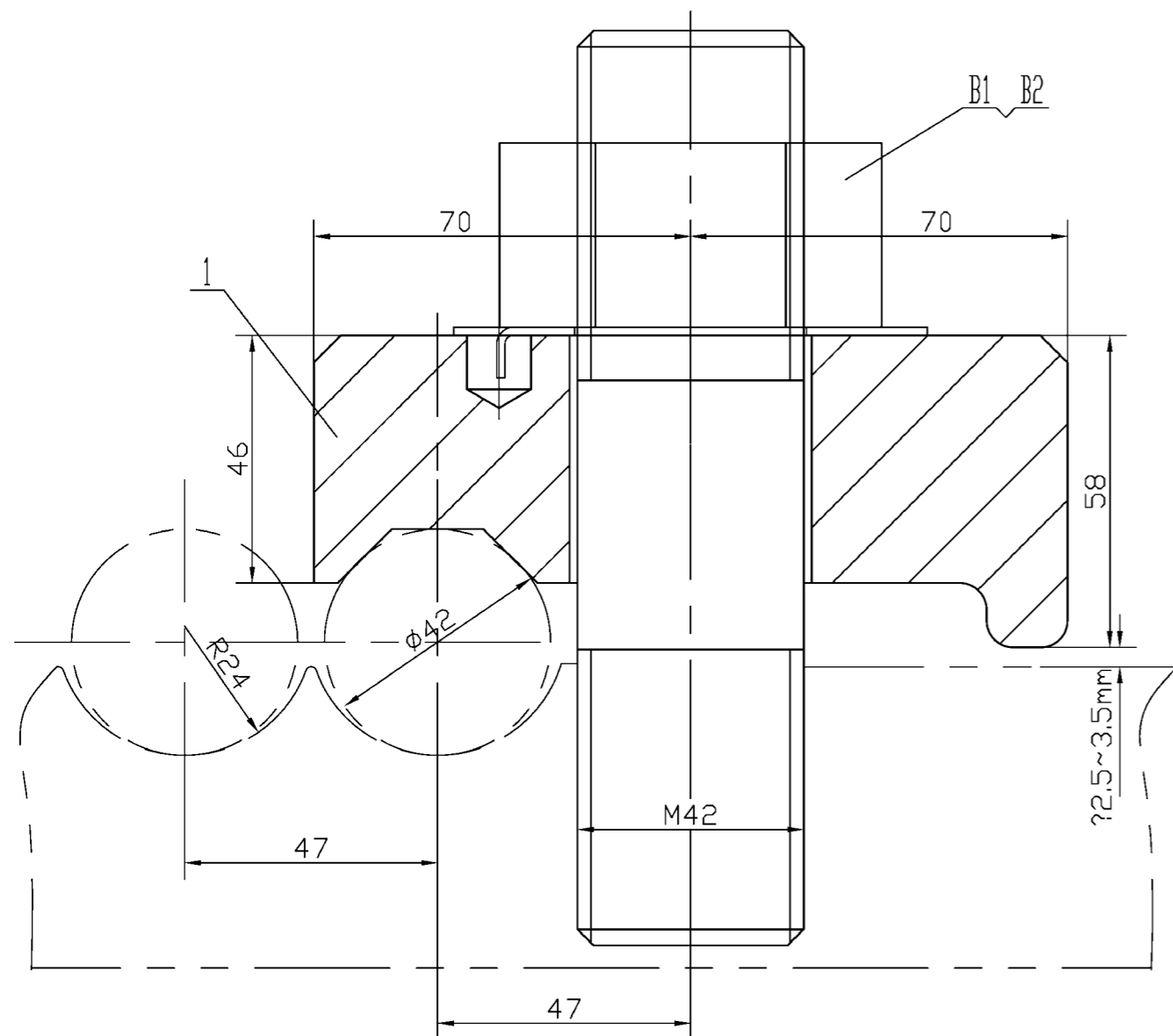
5		-28X405X1060	Q345B	1	94.4	94.4	
4		-20X814X978	Q345B	1	89.1	89.1	
3		-20X315X814	Q345B	1	26.6	26.6	

ZPMC	DSGN		TRACE		APP.	
	DRAW		CHCK		Q'TY/SET	415
	CHCK		VER.		SET/CRANE	1

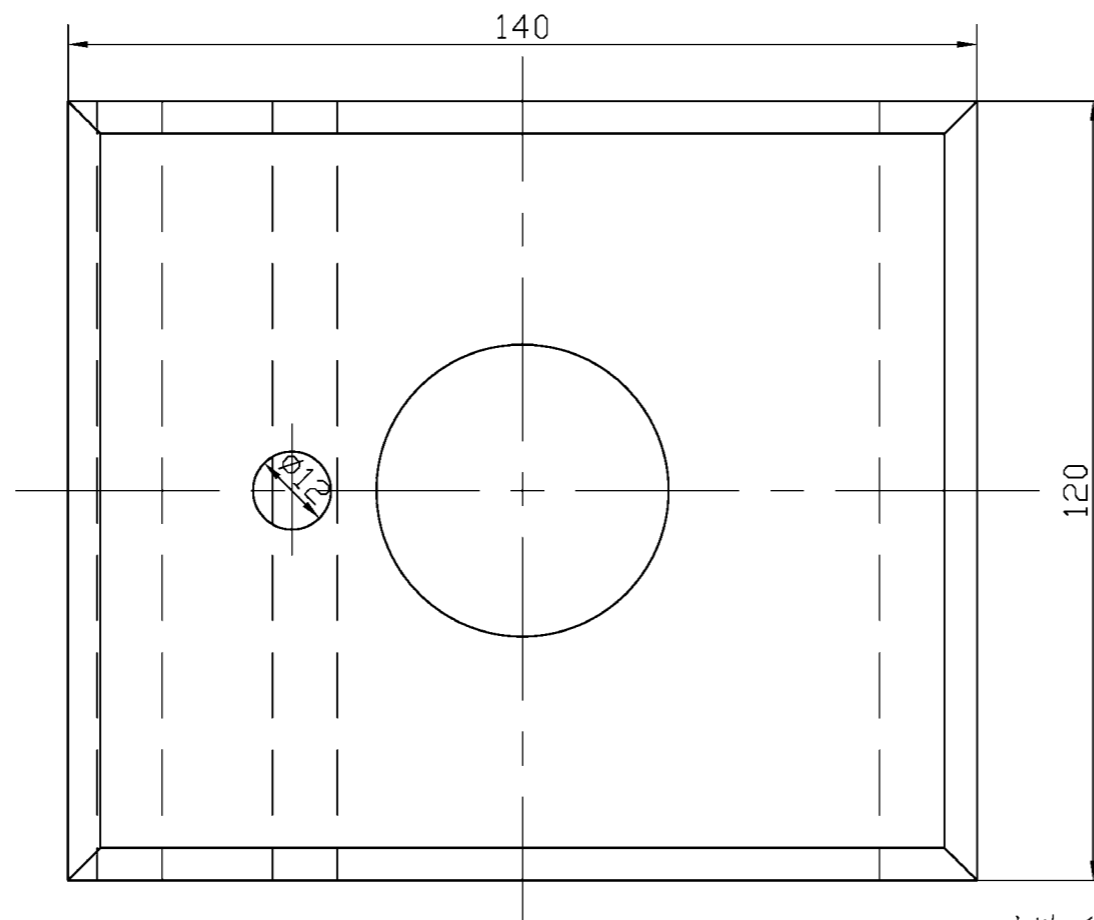
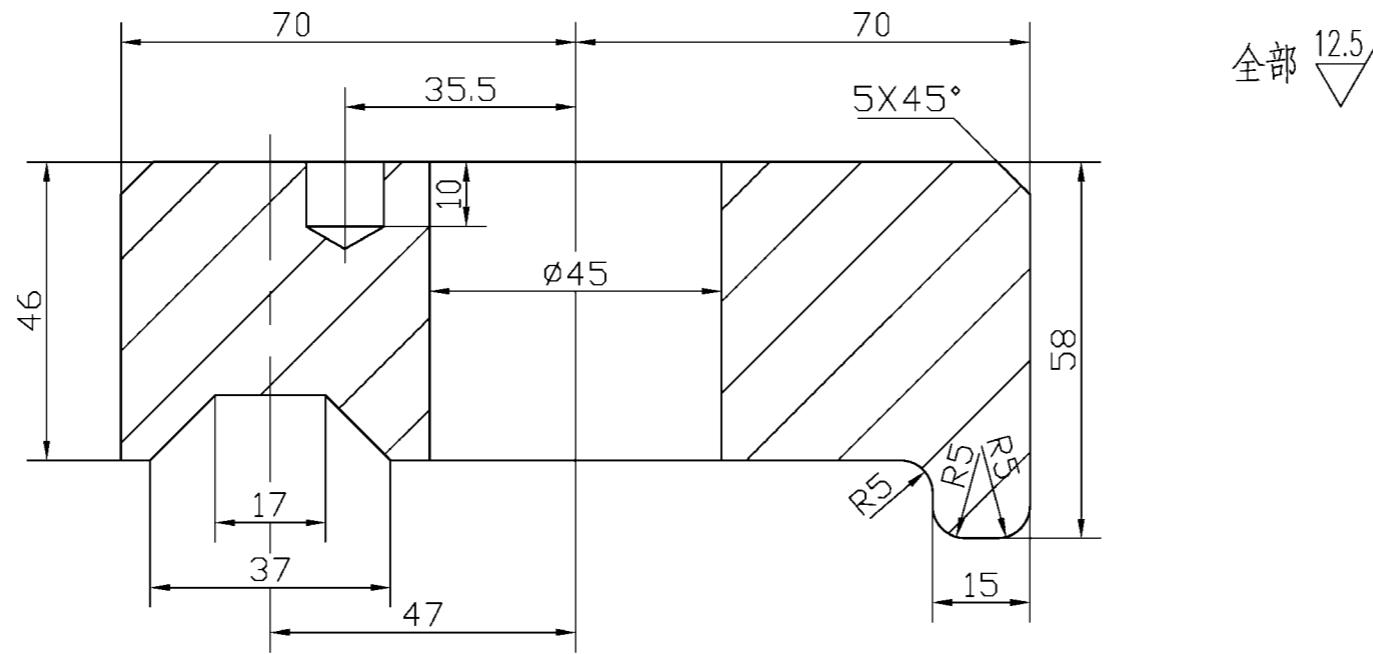
Alabama 2000t/h ship unloader

UL250704 压板

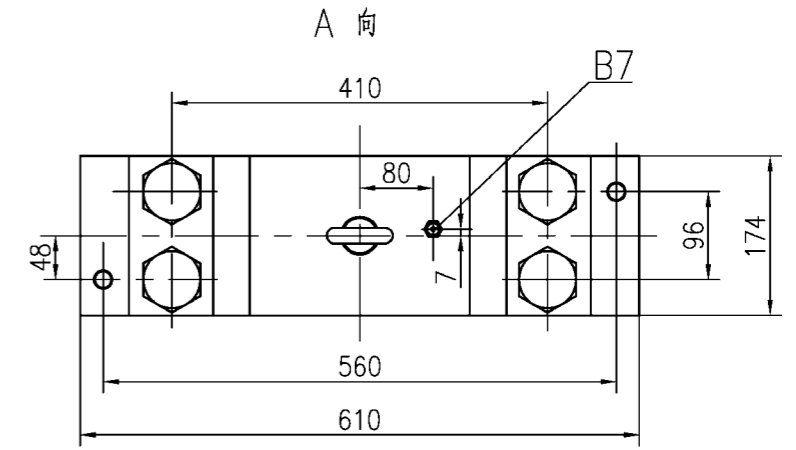
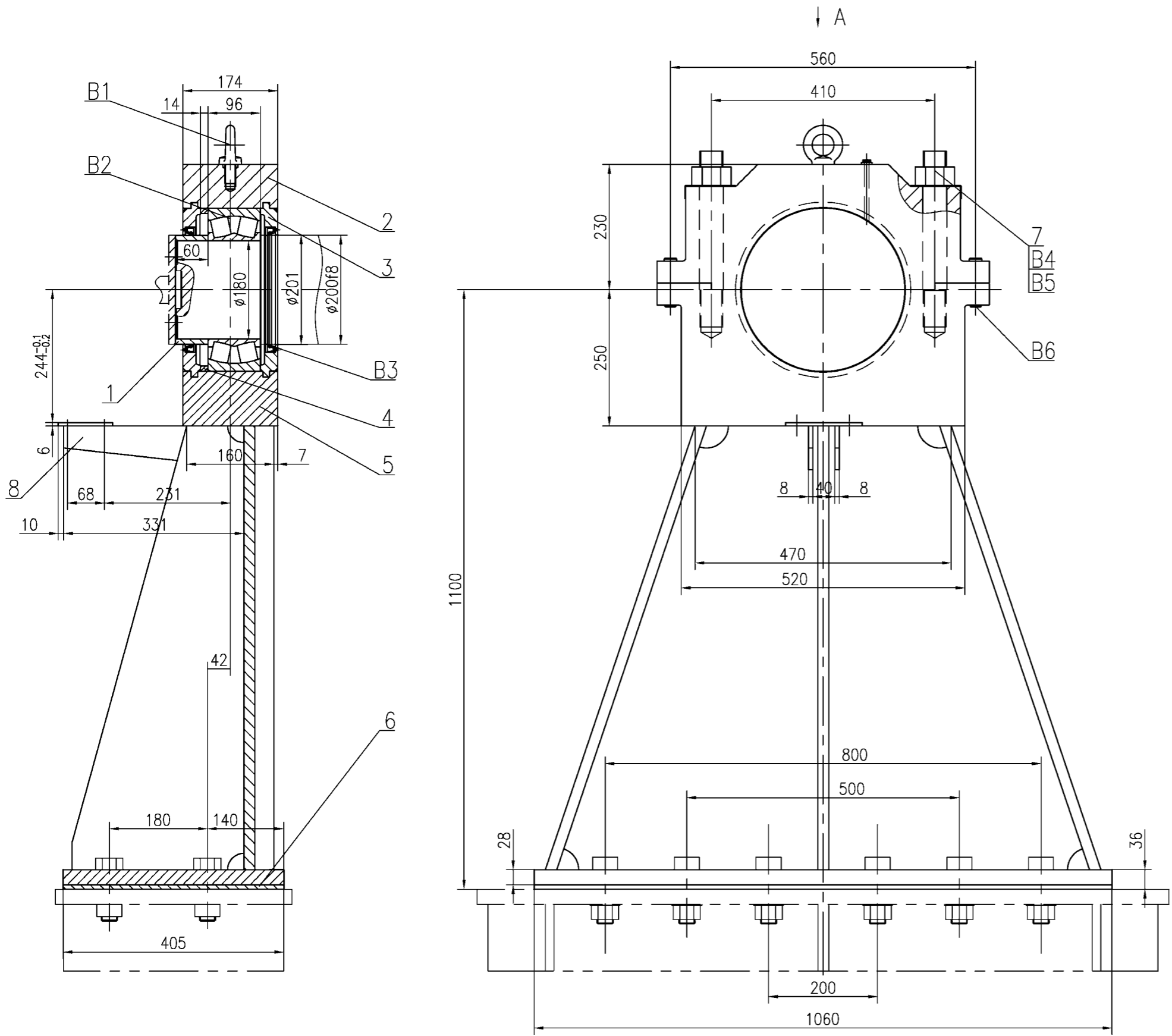
修改单025 附图2



B2	GB856-88	washer 42 垫圈 42		1	0.01	0.01	
B1	GB6170-86	nut M42 螺母M42	8	1	0.32	0.32	
1	UL25070401	钢丝绳压板 Rope clamp plate	Q345	1	4.0	4.0	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET*WEIGHT	SCALE	
PROJECT:			DESIGN STAGE:	SCALE:		1:1	
ITEM NAME: 钢丝绳压板组件 Rope clamp Ass.			DRAW NO: UL25070400		PROJ. 		
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		SET/CRANE	12	
	CHCK		VER.		WEIGHT	4.33 Kg	



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL25070401	绳压板 rope clamp plate	Q235	4 Kg	12	1:1.25
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

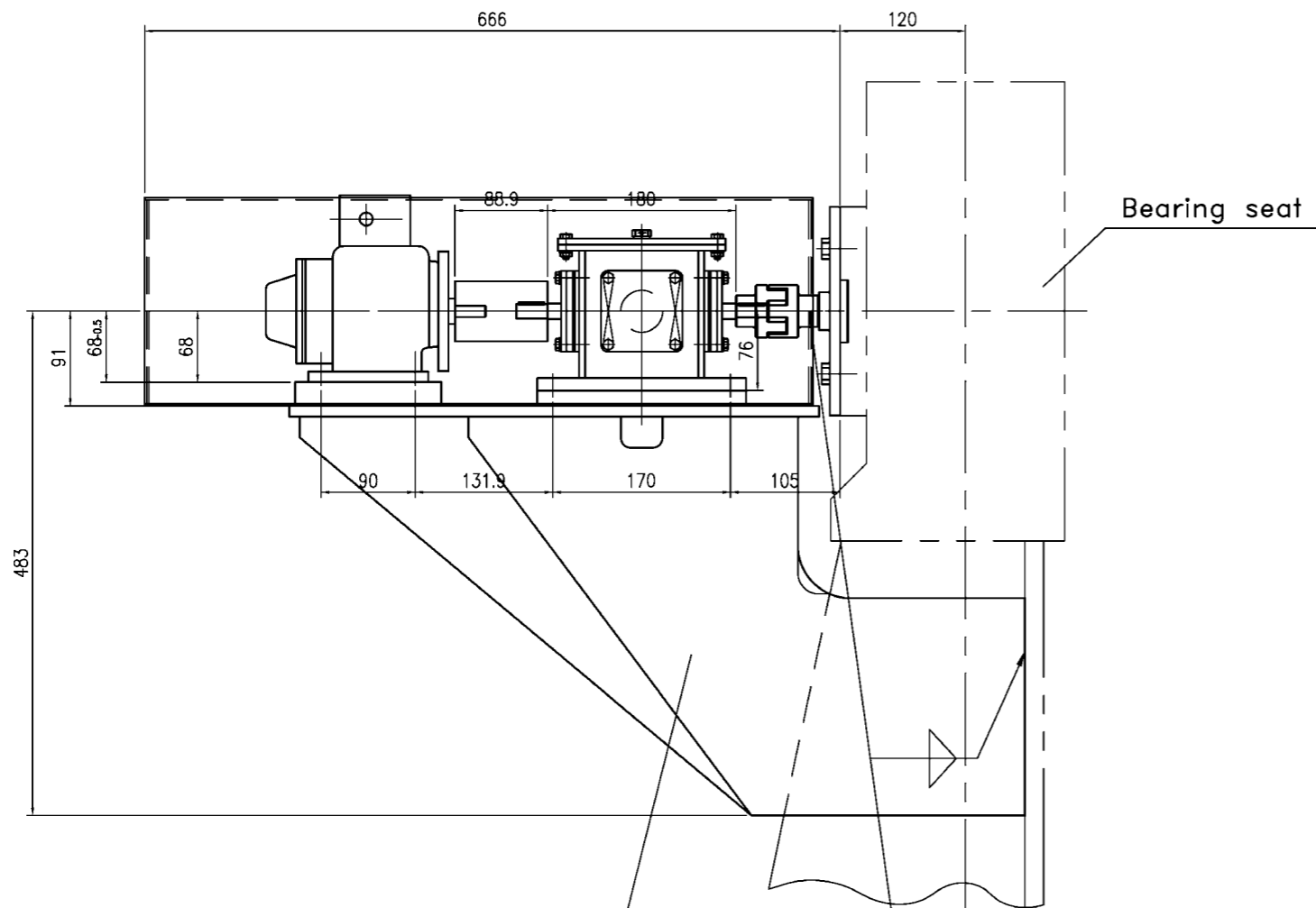


技术要求 technical requirement

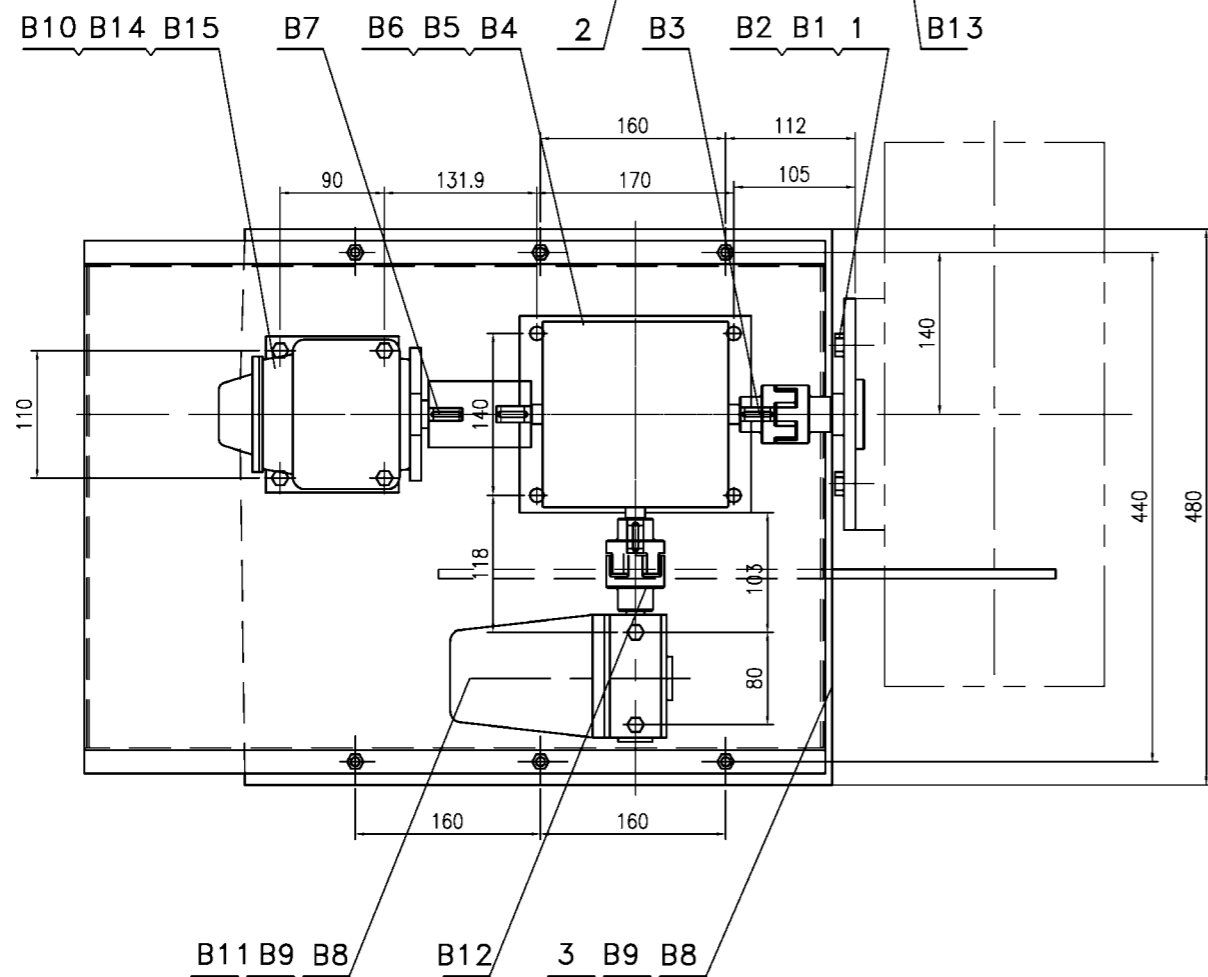
1. 轴承即洗即装, 加锂基润滑脂.
make the bearing clear and fill grease
2. 通过调整件6(调节板)的厚度调整轴承中心高度.
adjust the height of bearing with adjust plate
3. 轴承盖和轴承座在结合平面加工后, 用定位销联接,
make the bearing hole with bearing support and cover together
再一起加工轴承孔.
4. 件8限位支架与件5轴承座焊接后加工, 保证尺寸244^{-0.1}_{-0.2}
machine the surface of piece8 after
welded and make sure the dimension 244^{-0.1}_{-0.2}

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each WEIGHT	total WEIGHT	NOTE
B7	JIS B0203	grease fitting 油嘴 PT1/4"		1	0.1	0.1	黄铜制brass
B6	GB117-86	pin 销 A20x90	35	2	0.2	0.4	达克罗Drac.
B5	GB854-88	washer 垫圈 42	Q235	4			达克罗Drac.
B4	GB6170-86	nut 螺母 M42	10H	4	0.5	2.0	达克罗Drac.
B3	GB9877.1-88	seal 唇形密封 B200-230-15	橡胶rubber	2			
B2	GB288-87	bearing 轴承 3053736	中心带油槽 with grease groove	27.1	27.1		φ180Xφ300X96
B1	GB825-88	nut 吊环螺钉 M20	20#	1	0.4	0.4	
8	UL25070702	限位托架 limit switch support	welded	1	3.2	3.2	
7	UL25070208	stud 螺栓 M42	45	4	3.7	14.8	借用 borrow
6	UL25070207	adjust plate 调节板	Q235	1	25	25	借用 borrow
5	UL25070206	bearing support 轴承座	welded	1	415	415	借用 borrow
4	UL25070205	adjust sleeve 调节套	Q235	1	0.9	0.9	借用 borrow
3	UL25070204	密封端盖 cover	Q235	2	7.8	15.6	借用 borrow
2	UL25070203	轴承盖 bearing support cover	Q345B	1	82.5	82.5	借用 borrow
1	UL25070701	轴套 shaft sleeve	Q235	1	2.8	2.8	

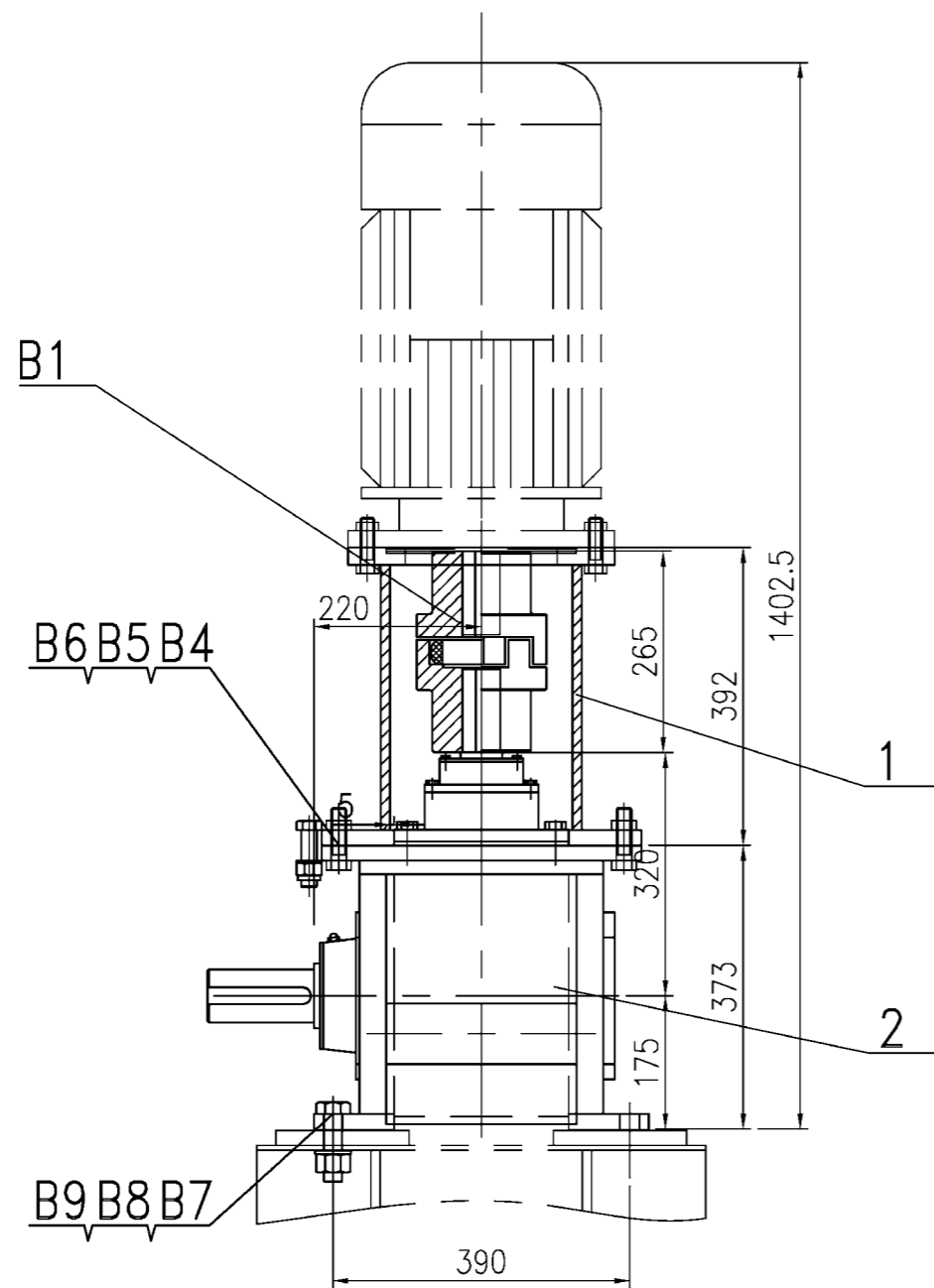
PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE: 1:6	
ITEM NAME: 卷筒轴承座2 drum bearing support 2		DRAW NO: UL25070700			
ZPMC	DSGN		TRACE		APP.
	DRAW		CHCK		Q'TY/SET 590
	CHCK		VER.		SET/CRANE 1



1.Part 2 is welded to bearing seat after installation and adjustment.
 2.All holes are match making.
 支架上的螺孔位置现场配作。



		Revision		5			
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each WEIGHT	total WEIGHT	NOTE
B15	GB889-86	nut M6	stainless steel	8			
B14	GB5782-86	bolt M6x45	stainless steel	8			
B13	GB1096-79	key C5x25	45	1			
B12		coupling 3 ML1 Y10x32/Y10x32	ZPMC	1	1	1	
B11		Worm gear limit switch 85HGE-4 53FV 50A1R	ABB	1			
B10		overspeed device	ABB	1			
B9	GB889-86	nut M8	stainless steel	8			
B8	GB5782-86	bolt M8x40	stainless steel	8			
B7		coupling 2 MCAC 225 14mm-20mm	ABB	1			
B6	FXD0300	gear box i=1	ZPMC	1	15		三表另列
B5	GB889-86	nut M10	stainless steel	4			
B4	GB5782-86	bolt M10x50	stainless steel	4			
B3		coupling 1 ML1 Y16x32/Y12x32	ZPMC	1	1	1	
B2	GB3081-88	wire $\phi 2$ l=200	stainless steel				
B1	GB32.1-88	bolt M12x25	stainless steel	8			
3	UL25070903	cover	welded	1	11	11	
2	UL25070902a	E.support	welded	1	39.5	39.5	
1	UL25070901	plate	45	1	2.5	2.5	
PROJECT:		DESIGN STAGE:	SCALE:		1:5		
ITEM NAME:		DRAW NO:		PROJ.			
Rotating-type limit switch (Rotating limit switch and Centrifugal speed switch)		UL25070900a					
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	1	
	CHCK		VER.		SET/CRANE	1x60	

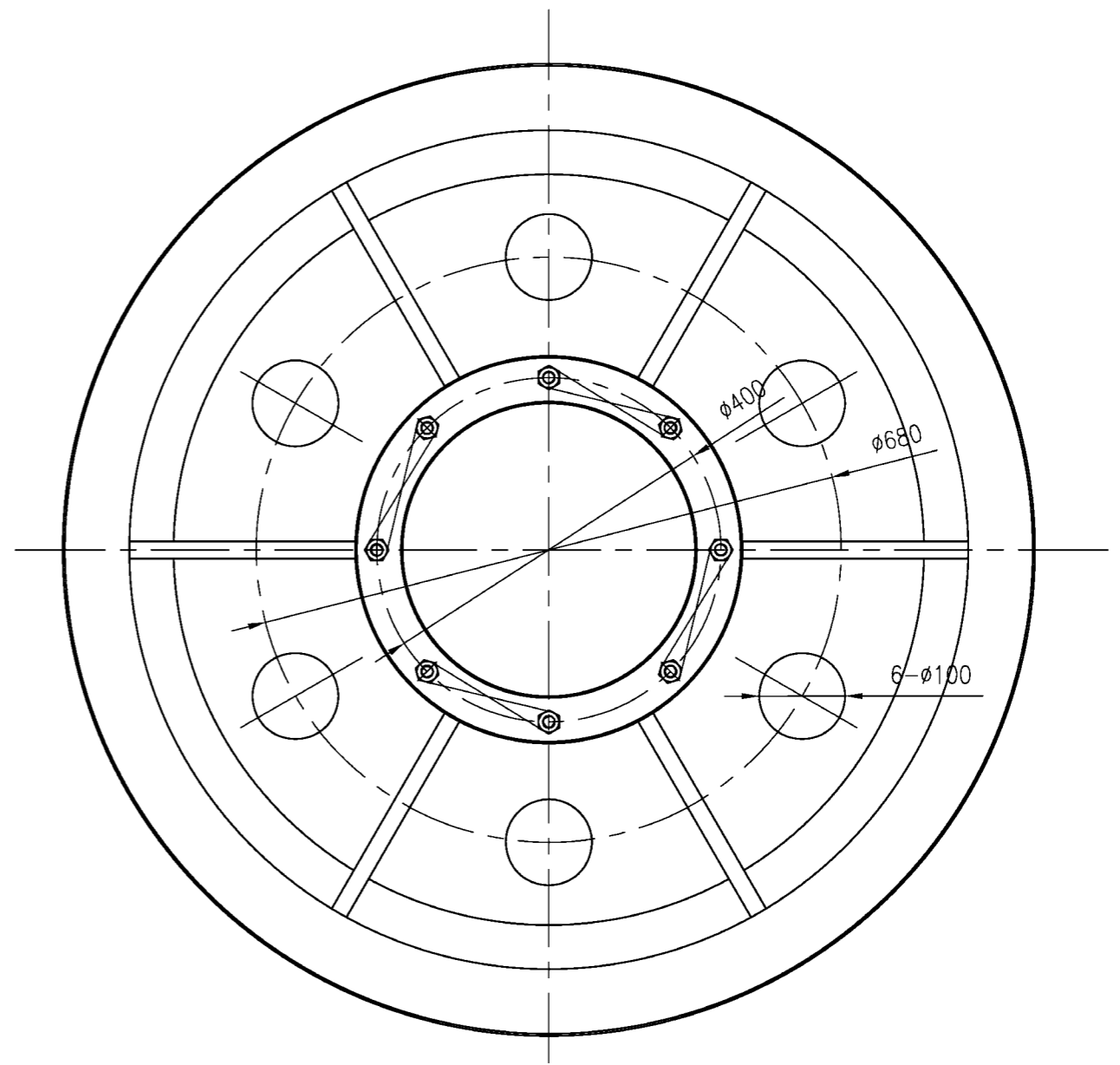
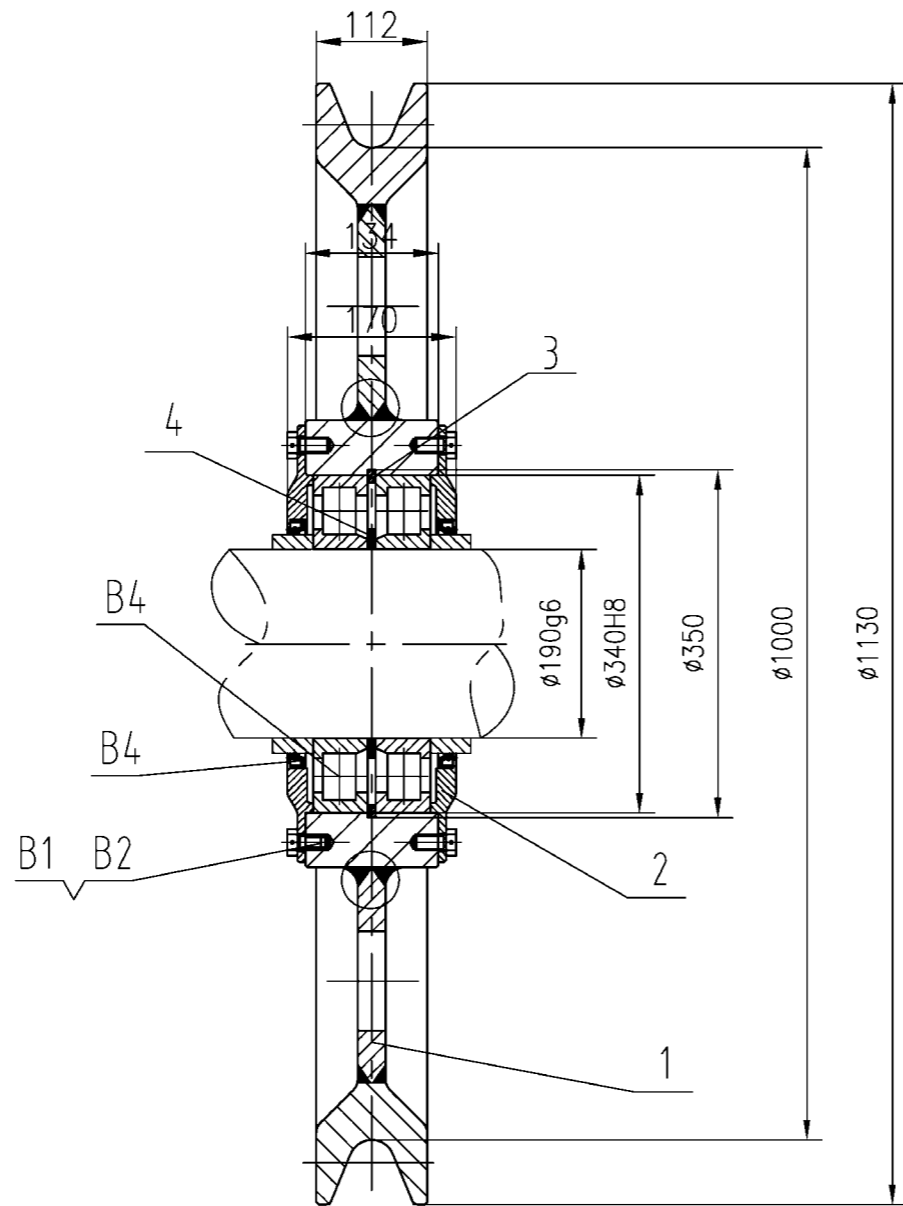


Motor 电动机	Type 型号	M3BP 180 30Kw 480V 60Hz 1600rpm
	Power 功率	30kw
	Base speed 转速	1600 rpm
Reducer 减速箱	Type 型号	FB175.8.G1B-I型
	Ratio 减速比	7.92
Motor Coupling 联轴节	Type 型号	ML7
	Nor. Tor. 公称扭矩	1120N.m

不锈钢 6
A2-70 6
6 stainless steel

B9	GB95-85	垫圈 washer24	达克罗 Dac.	6			
B8	GB889-86	螺母nut M24	达克罗 Dac.	6			
B7	GB5782-86	螺栓bolt M24x90	达克罗 Dac.	6			
B6	GB95-85	垫圈 washer 20	达克罗 Dac.	4			
B5	GB889-86	螺母nut M20	达克罗 Dac.	4			
B4	GB5782-86	螺栓bolt M20x75	达克罗 Dac.	4			
B3	AS1-24	Adjust shim1-24	stainless steel	4组			数量及厚度规格装配定
B2	AS1-10	Adjust shim1-10	stainless steel	6组			数量及厚度规格装配定
B1	ML7联轴器 YA 48*112 YA 50*112	梅花联轴节 Motor Coupling	Assembly	1	14		ZPMC订货图
2	FB175.8.G1B-I型	Reducer	Assembly	1	250	250	型
1	UL25071701	Motor mounting flange	Assembly	1	85.9	62.7	

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	
PROJECT:			DESIGN STAGE:		SCALE: 1:10		
ITEM NAME: 应急机构 Emergency mechanism			DRAW NO: UL25071700			PROJ.	
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		SET/CRANE		1
	CHCK		VER.		WEIGHT		526.7kg



Technical Requirements
技术要求

1. Check the size of all parts whether is right before assembling.
安装前, 检查所有零件的安装尺寸是否满足要求。
2. Check the lubrication hole of bearing and shaft whether is blocked up.
If there have some impurity, should wash them. Then assembly them.
检查轴承润滑孔和轴的润滑孔是否堵塞, 如发现有杂质, 必须冲洗干净保证两者畅通, 然后按图示装配, 保证滑轮无轴向窜动, 检查所有螺栓是否拧紧, 钢丝是否已将螺栓固定。
3. Fill some grease oil in bearings.
安装前, 轴承要加适量润滑脂, 安装后, 再注满润滑脂。
4. After assembling, check the work condition of sheeve.
安装后, 检查滑轮运转情况, 应无卡死和窜动现象。

4	UL25080304	隔圈 sleeve	Q235	1		0.1	
3	UL25080303	挡圈 sleeve	Q235	1		0.5	
2	UL25080302	盖 cover	Q235	2	10	20	
1	UL25080301	滑轮 pulley	焊接件	1	390	390	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	

PROJECT: Alabama2000t/h ship-unloader

DESIGN STAGE:

SCALE:

ITEM NAME: 滑轮装配1
pulley assembly

DRAW NO: UL25080300

B4	GB283-87	轴承 bearing 42238	成品 product	2	15	30	φ190Xφ340X55
B3	GB9877.1-88	油封 oil seal B220x250x15	成品 product	2			φ180Xφ210X15
B2		钢丝 steel wire φ2	不锈钢 Stainless steel	1			L=2m
B1	GB32.1-88	螺栓 bolt M16X35	镀锌 galvanize	16			

ZPMC

DSGN

DRAW

CHCK

TRACE

CHCK

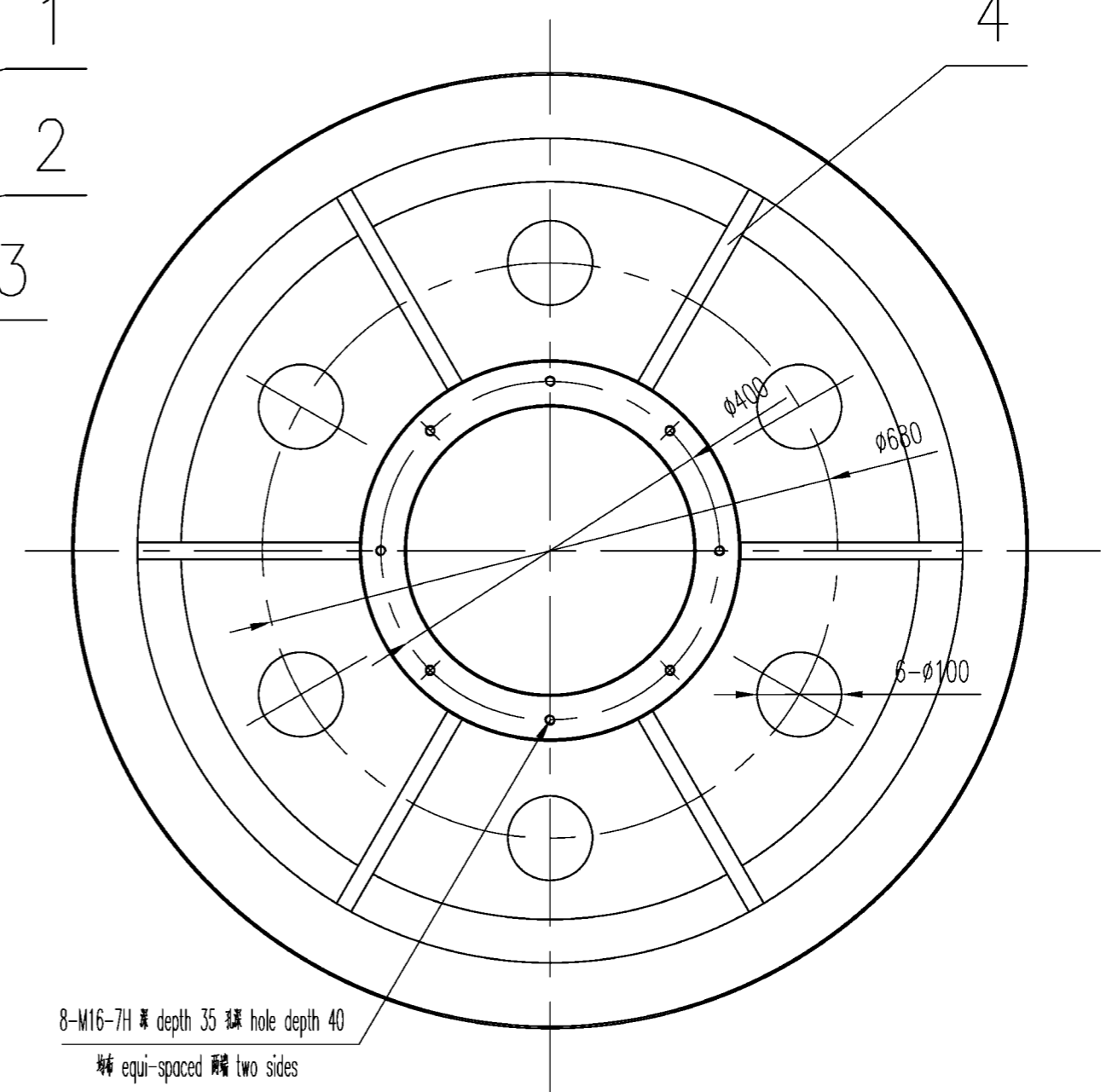
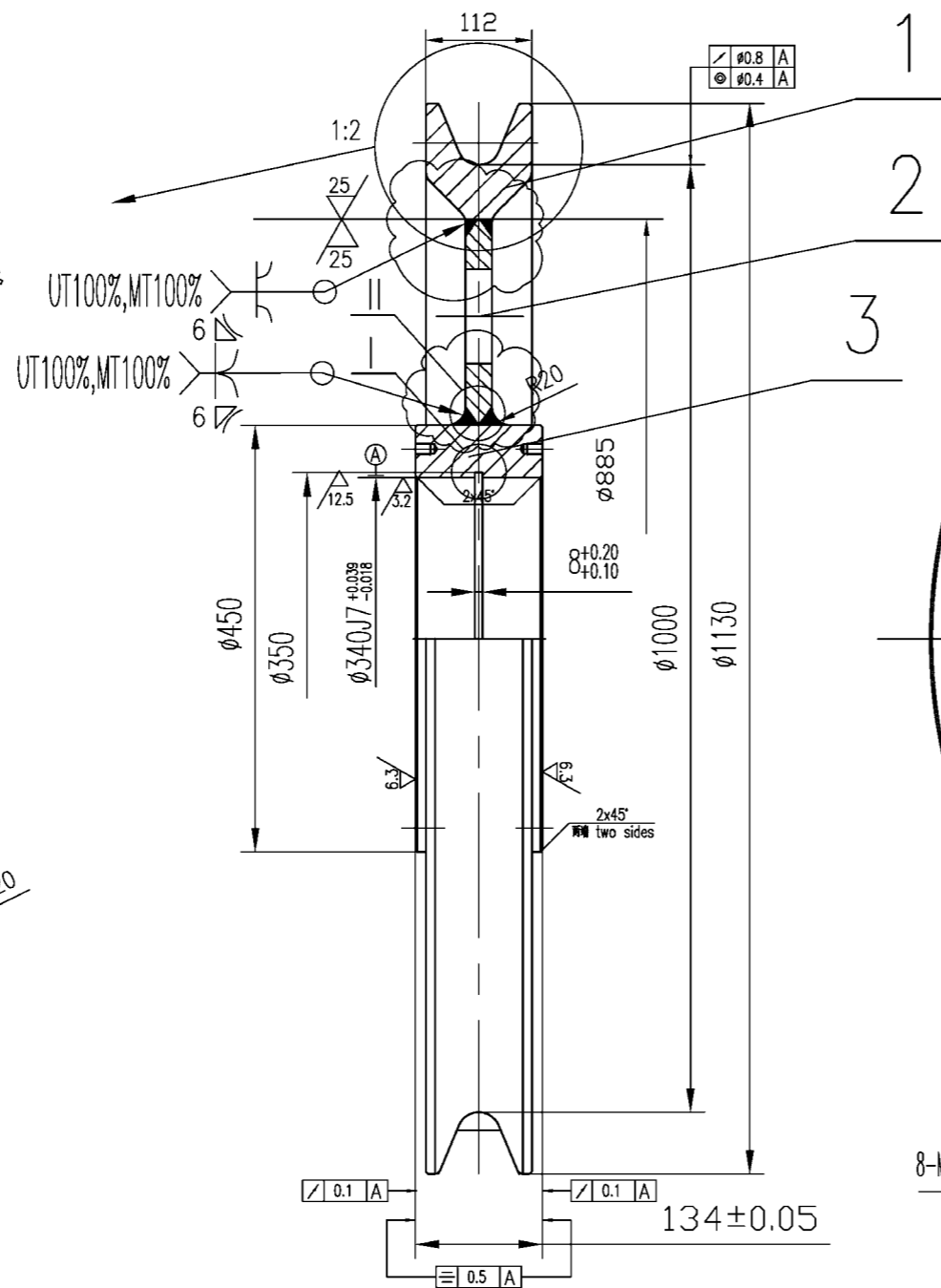
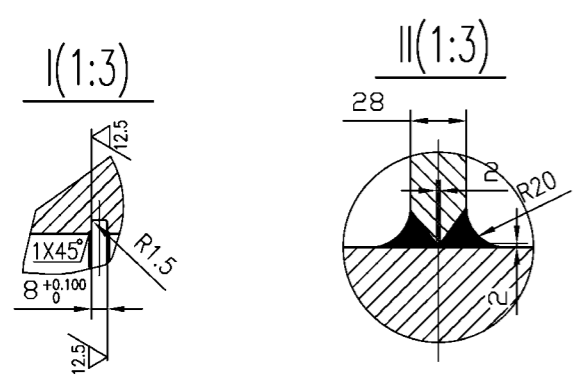
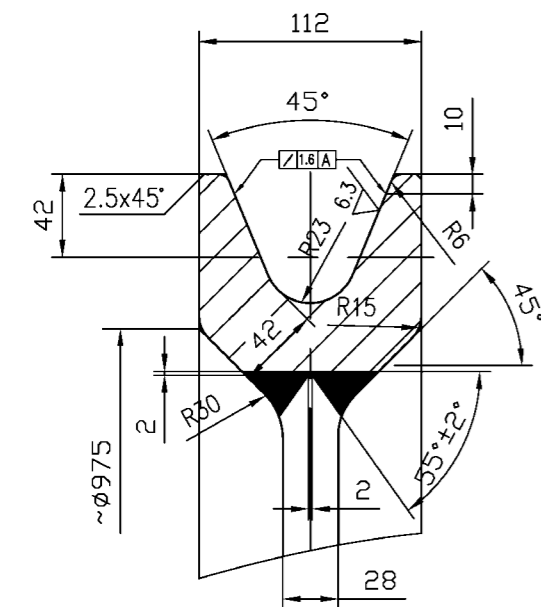
VER.

APP.

SET/CRANE 18

WEIGHT 18X441KG

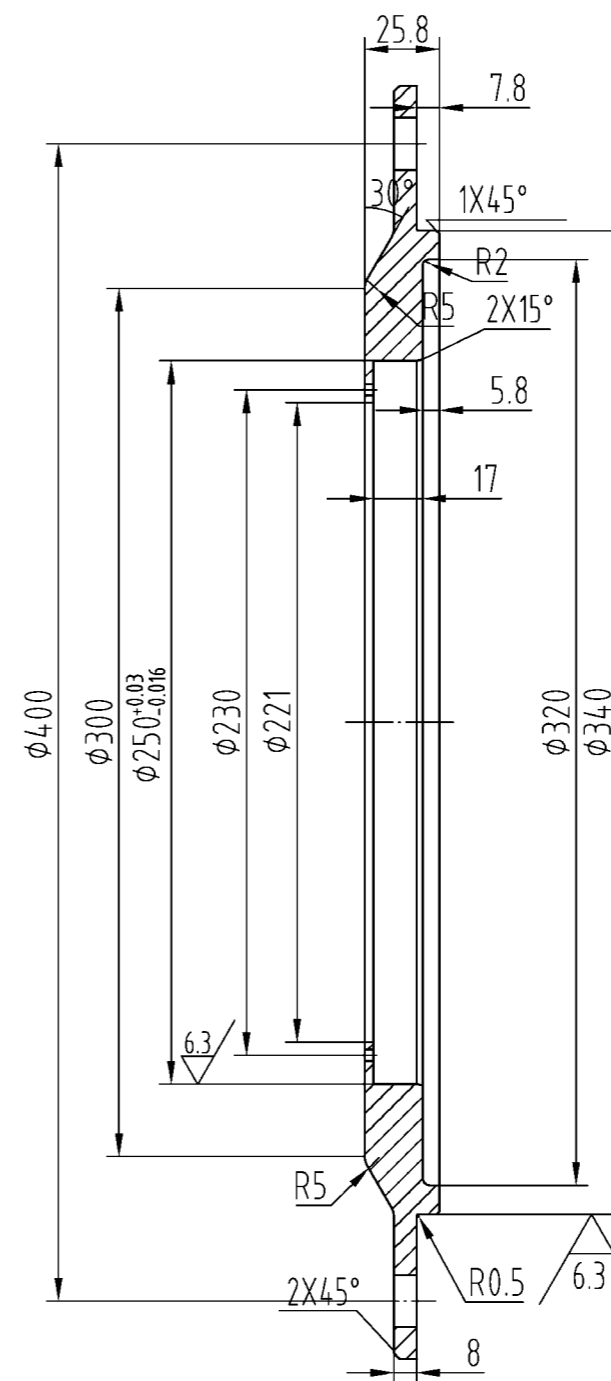
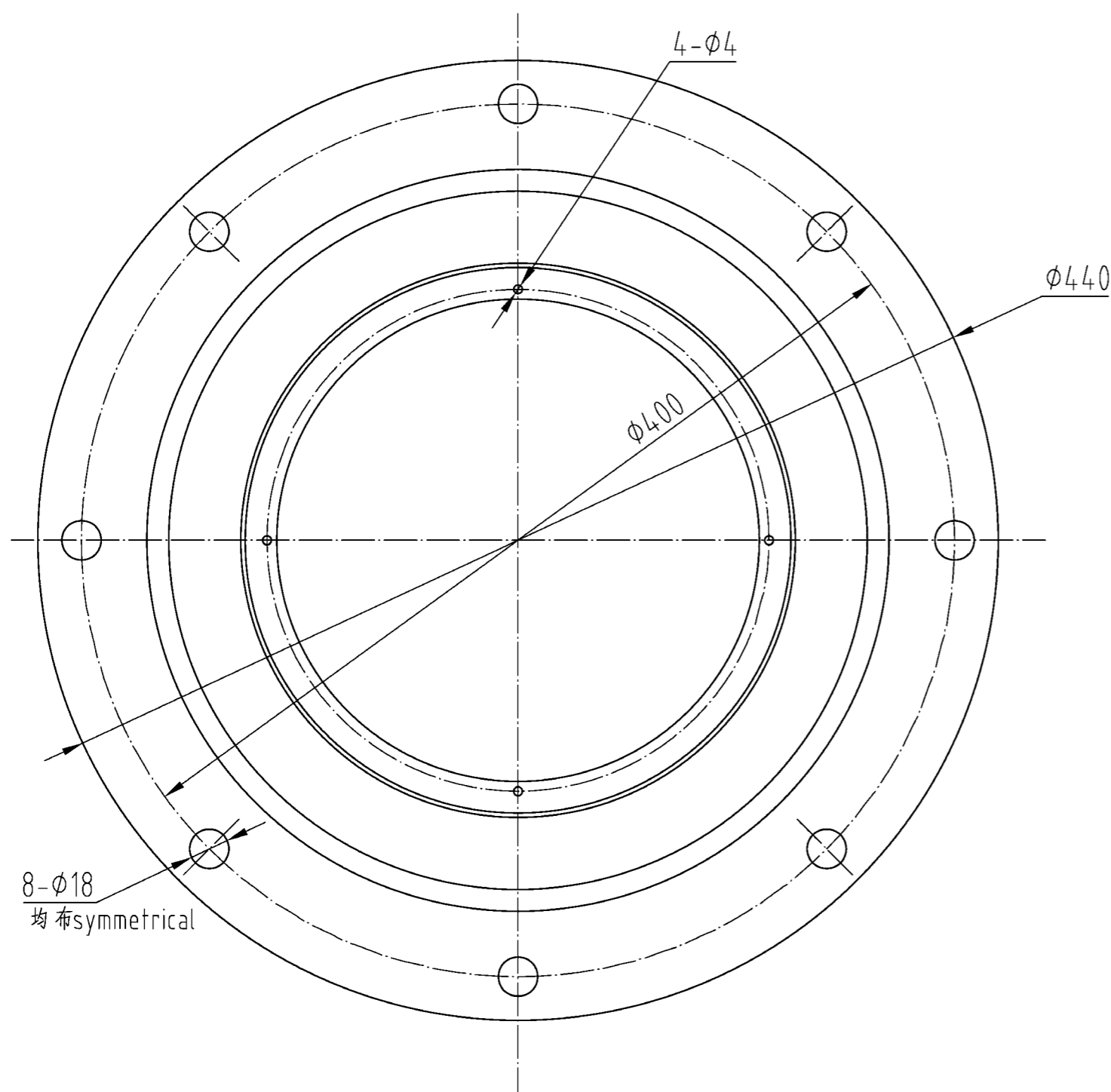
其余 others: $\sqrt{25}$



技术要求
 1. 绳槽轮廓尺寸和腹板孔以及轮切削加工, 必须满足图示尺寸和公差要求。
 2. 绳槽表面淬火, HB321。
 3. 淬火后应做低温回火消应力处理。

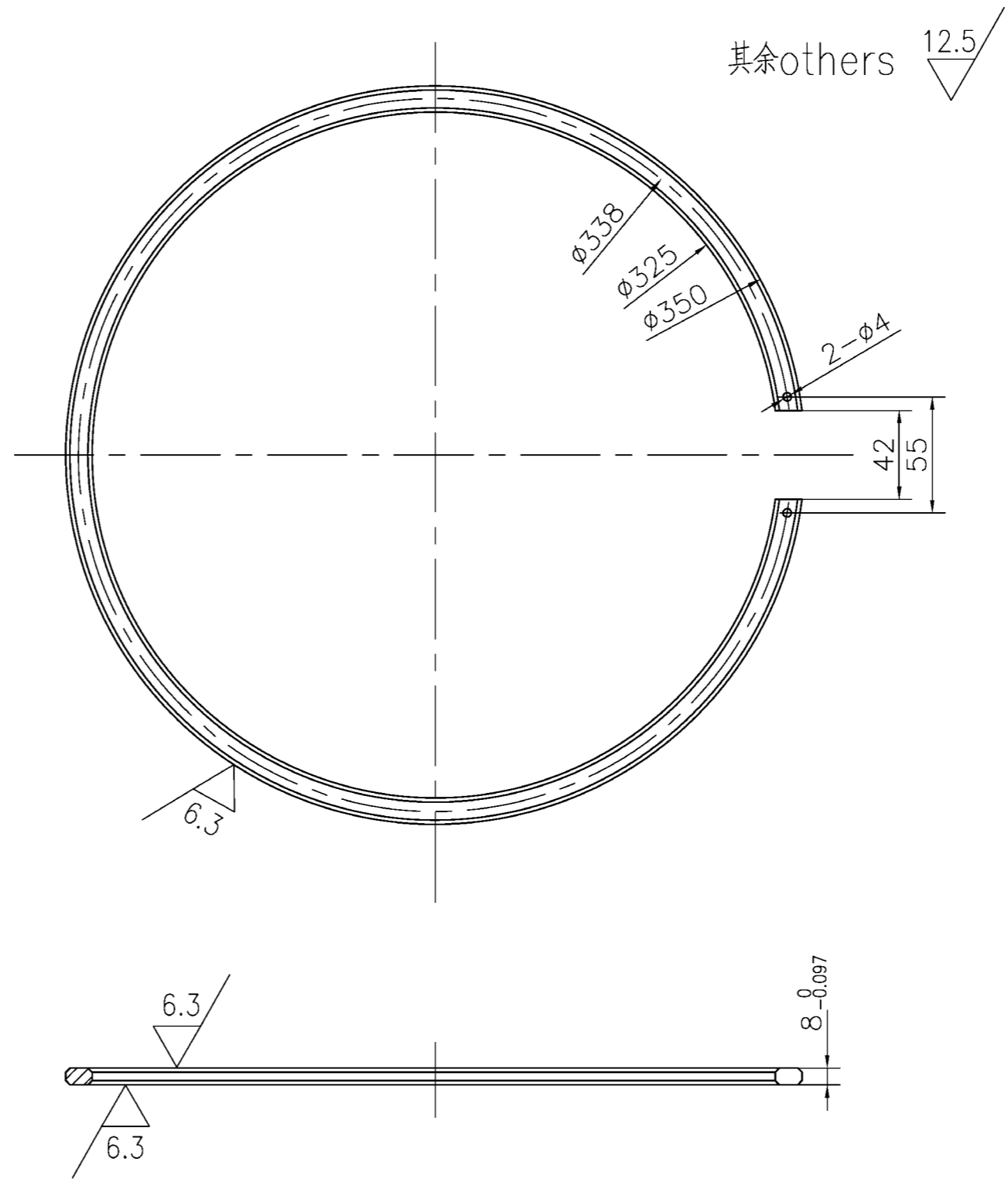
TECHNICAL REQUIREMENTS
 1. While machining all dimensions of the groove, the hub and the holes in the web should comply with the dimensions and tolerances in the drawing
 2. The rope groove surface shall be hardened to HB 321 minimum.
 3. Low-temperature stress-relief temper after hardening.

SUB. NO.		VER. NO.					
4		-20X42X262	Q345	12	1.5	18	
3		-134X450/340	DG35	1	71	71	
2		-28X885/450	Q345	1	102	102	
1		-112X1130/885	DG35	1	199	199	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	WEIGHT	SCALE	
	UL25080301	sheave 滑轮	35CrMo	18	390	7020	1:6
ZPMC		DRAW	TECH.	TRACE			
		CHCK	STDD	CHCK			



去除毛刺, 锐边倒钝.
smooth edge and not burr

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	W'ONE	W'TAL	SCALE
2	UL25080302	端盖 cover	Q235	36	10	360	1:3
ZPMC	DRAW		TECH.		TRACE		
	CHCK		STDD		CHCK		

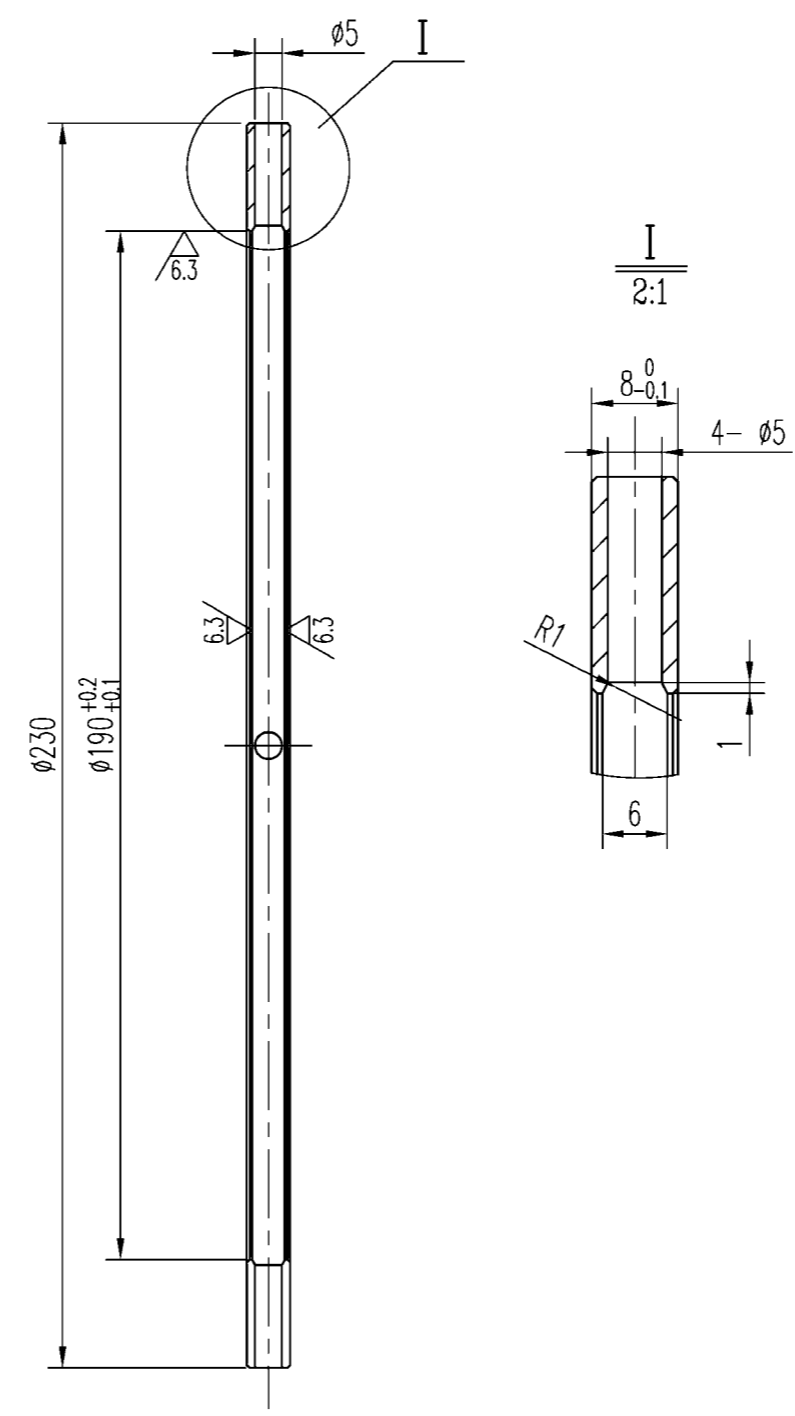


其余others $\frac{12.5}{\nabla}$

倒角 $2 \times 45^\circ$.
chamfer $2 \times 45^\circ$

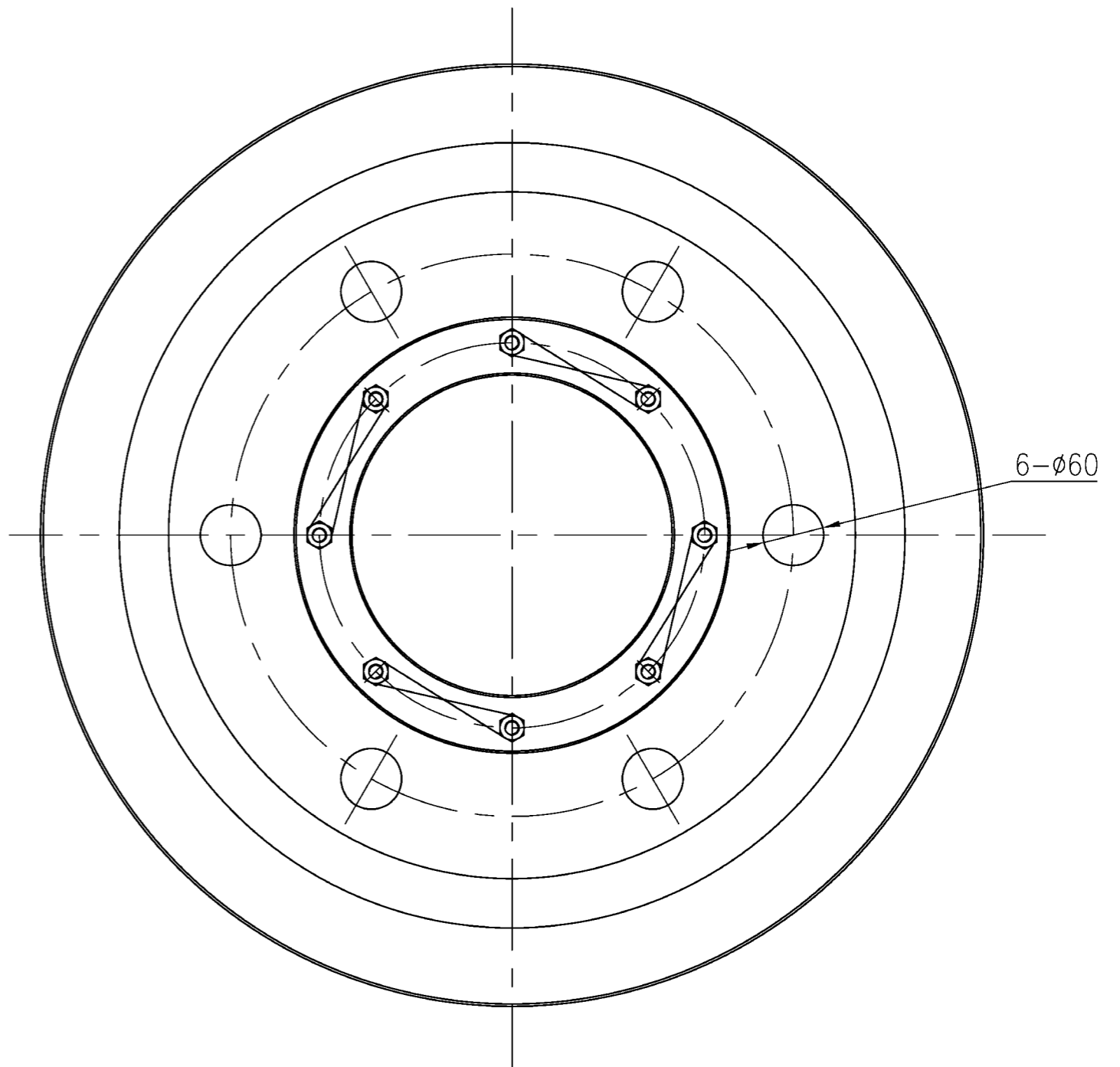
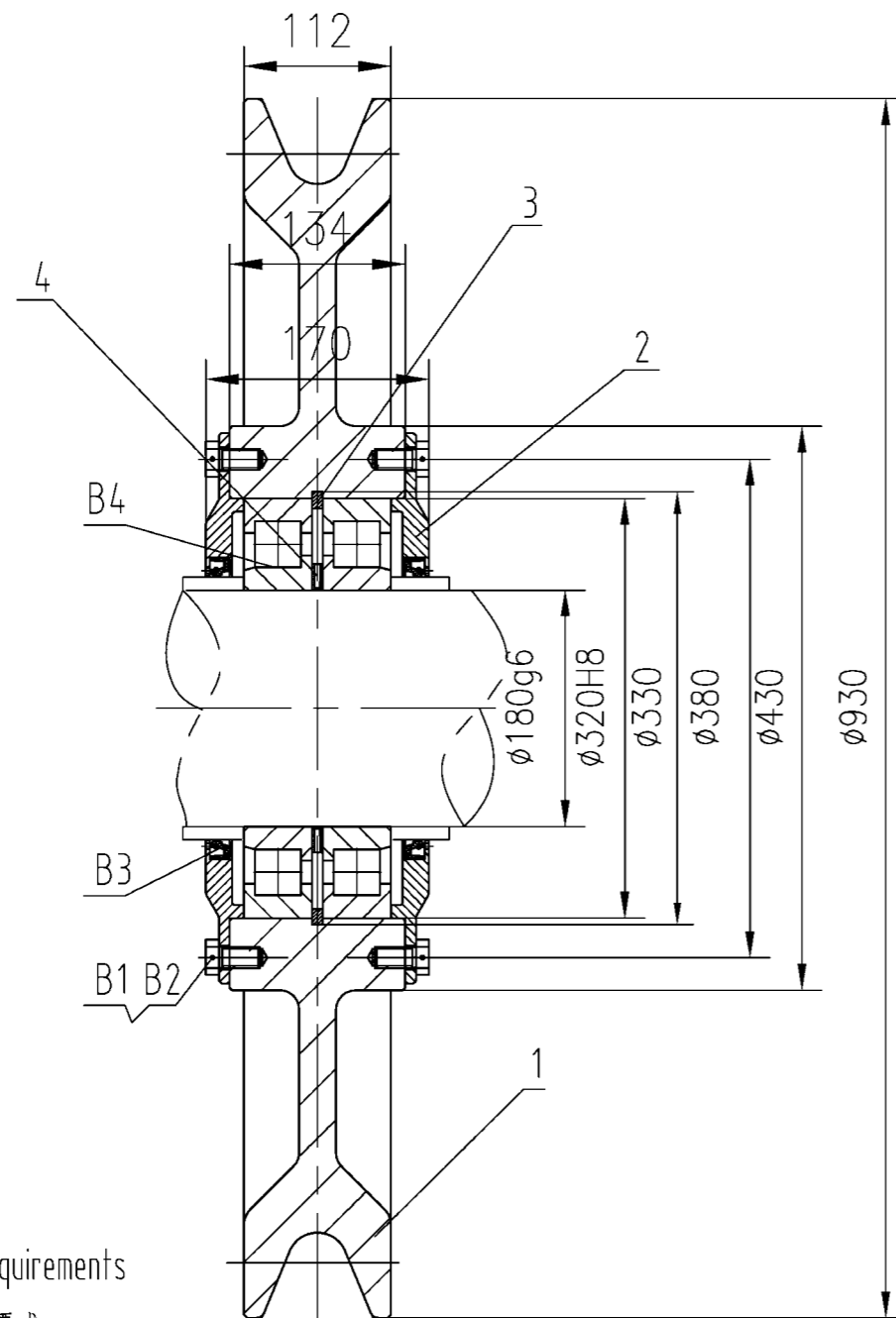
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
3	UL25080303	隔圈sleeve	65Mn	0.75kg	18	1:3
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

其余 others: $\frac{12.5}{\nabla}$



未注倒角: $0.5 \times 45^\circ$
 chamfer $0.5 \times 45^\circ$

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	WEIGHT	SCALE
4	UL25080304	内隔圈 sleeve	Q235	18	0.8x18	1:1.5
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



Technical Requirements
技术要求

1. Check the size of all parts whether is right before assembling.
安装前, 检查所有零件的安装尺寸是否满足要求。
2. Check the lubrication hole of bearing and shaft whether is blocked up.
If there have some impurity, should wash them. Then assembly them.
检查轴承润滑孔和轴的润滑孔是否堵塞, 如发现有杂质, 必须冲洗干净保证两者畅通, 然后按图示装配, 保证滑轮无轴向窜动, 检查所有螺栓是否拧紧, 钢丝是否已将螺栓固定。
3. Fill some grease oil in bearings.
安装前, 轴承要加适量润滑脂, 安装后, 再注满润滑脂。
4. After assembling, check the work condition of sheeve.
安装后, 检查滑轮运转情况, 应无卡死和窜动现象。

4	UL25081504	隔圈 adjusting ring	Q235	1		0.1	
3	UL25081503	挡圈 check ring	Q235	1		0.5	
2	UL25081502	盖 cover	Q235	2	9.5	19	
1	UL25081501	滑轮 pulley	焊接件	1	275	275	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
					WEIGHT		

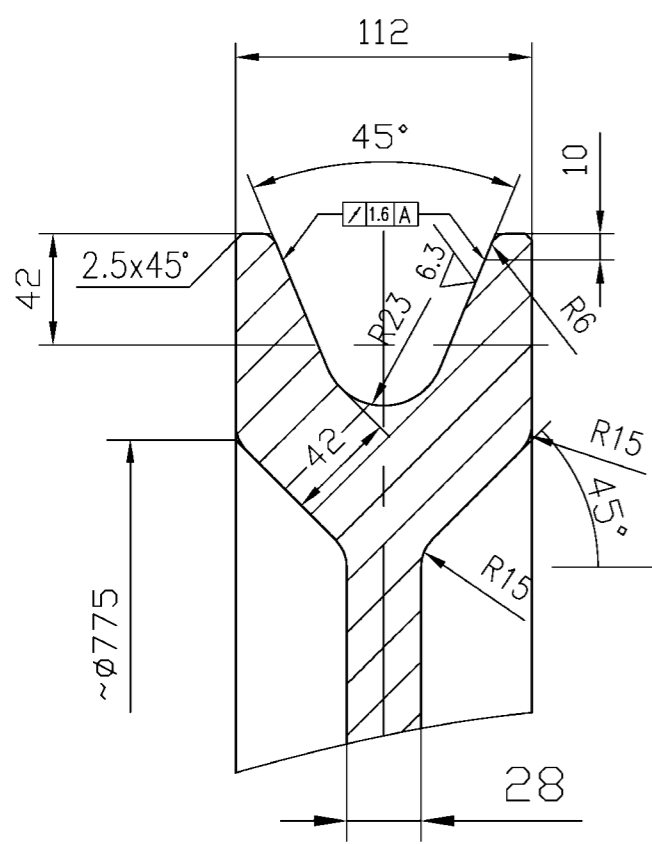
PROJECT: Alabama2000t/h ship-unloader DESIGN STAGE: SCALE:

ITEM NAME: 滑轮装配2 pulley assembly DRAW NO: UL25081500

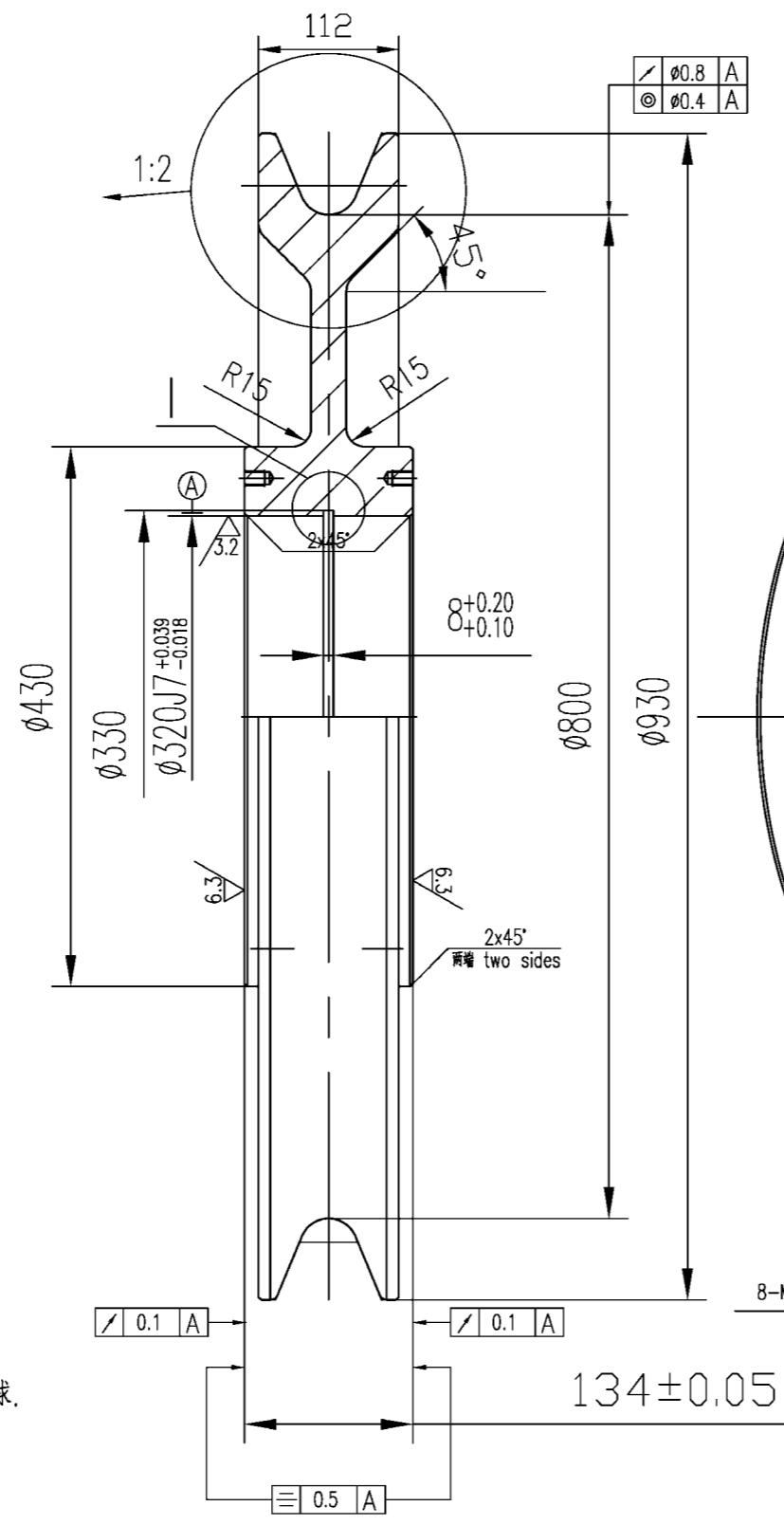
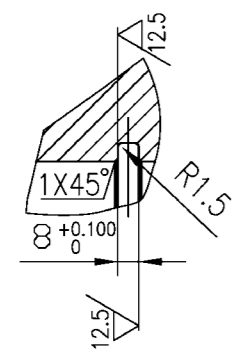
B4	GB283-87	轴承 bearing 42236	成品 product	2	15	30	φ180Xφ320X52
B3	GB9877.1-88	油封 oil seal B200x230x15	成品 product	2			φ180Xφ210X15
B2		钢丝 steel wire φ2	不锈钢 Stainless steel	1			L=2m
B1	GB32.1-88	螺栓 bolt M16X35	镀锌galvanize	16			

ZPMC	DSGN		TRACE		APP.	
	DRAW		CHCK		SET/CRANE	2
	CHCK		VER.		WEIGHT	2X325KG

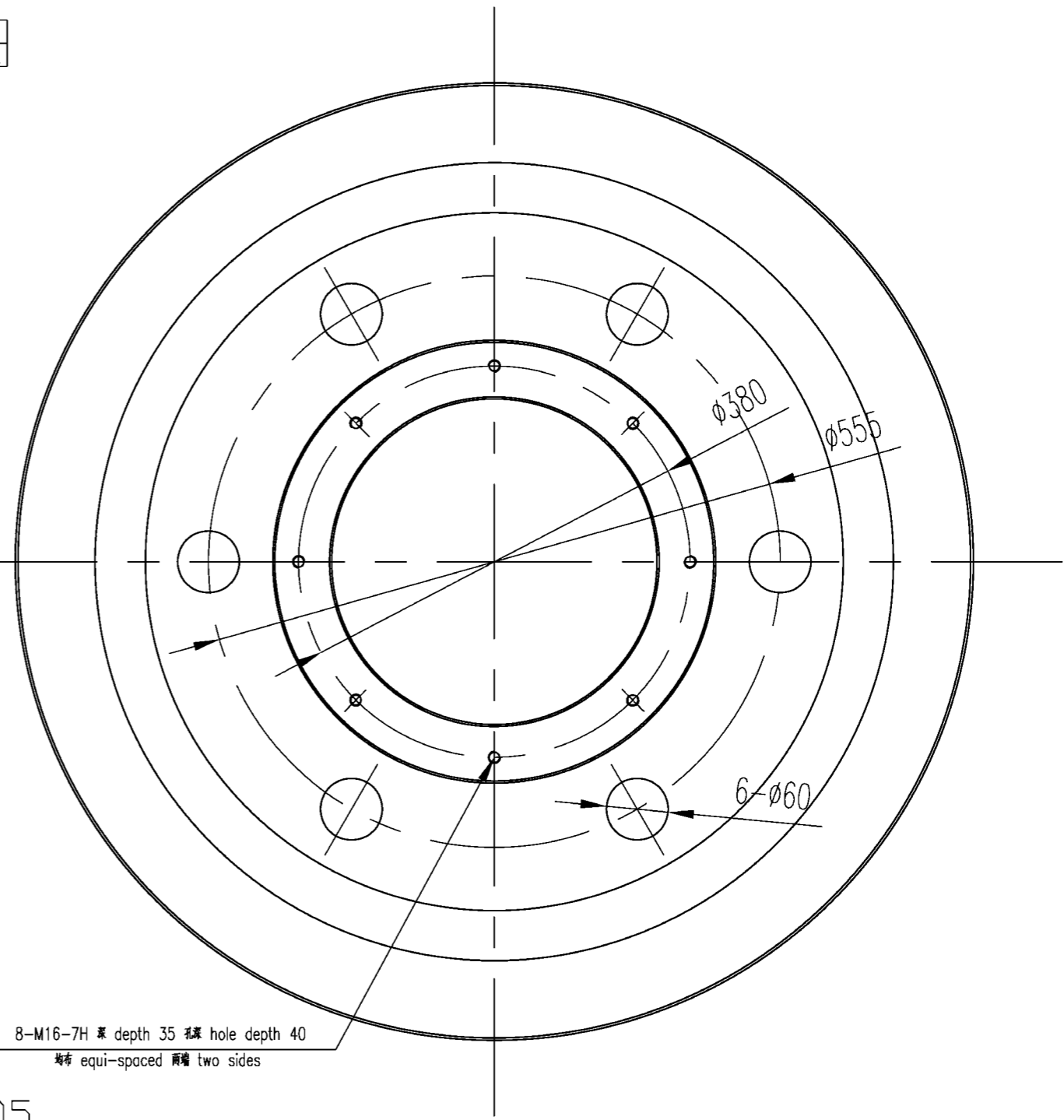
其余 others: 25/



1(1:3)



8-M16-7H 深 35 孔深 hole depth 40
均布 equi-spaced 两端 two sides



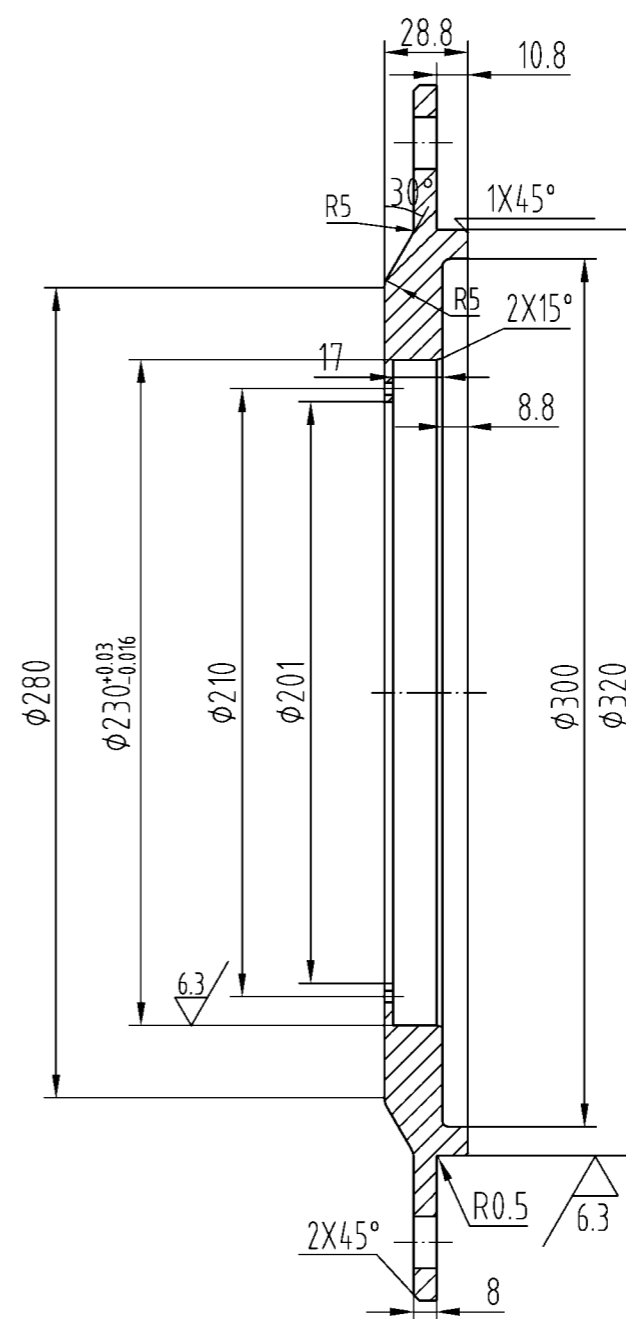
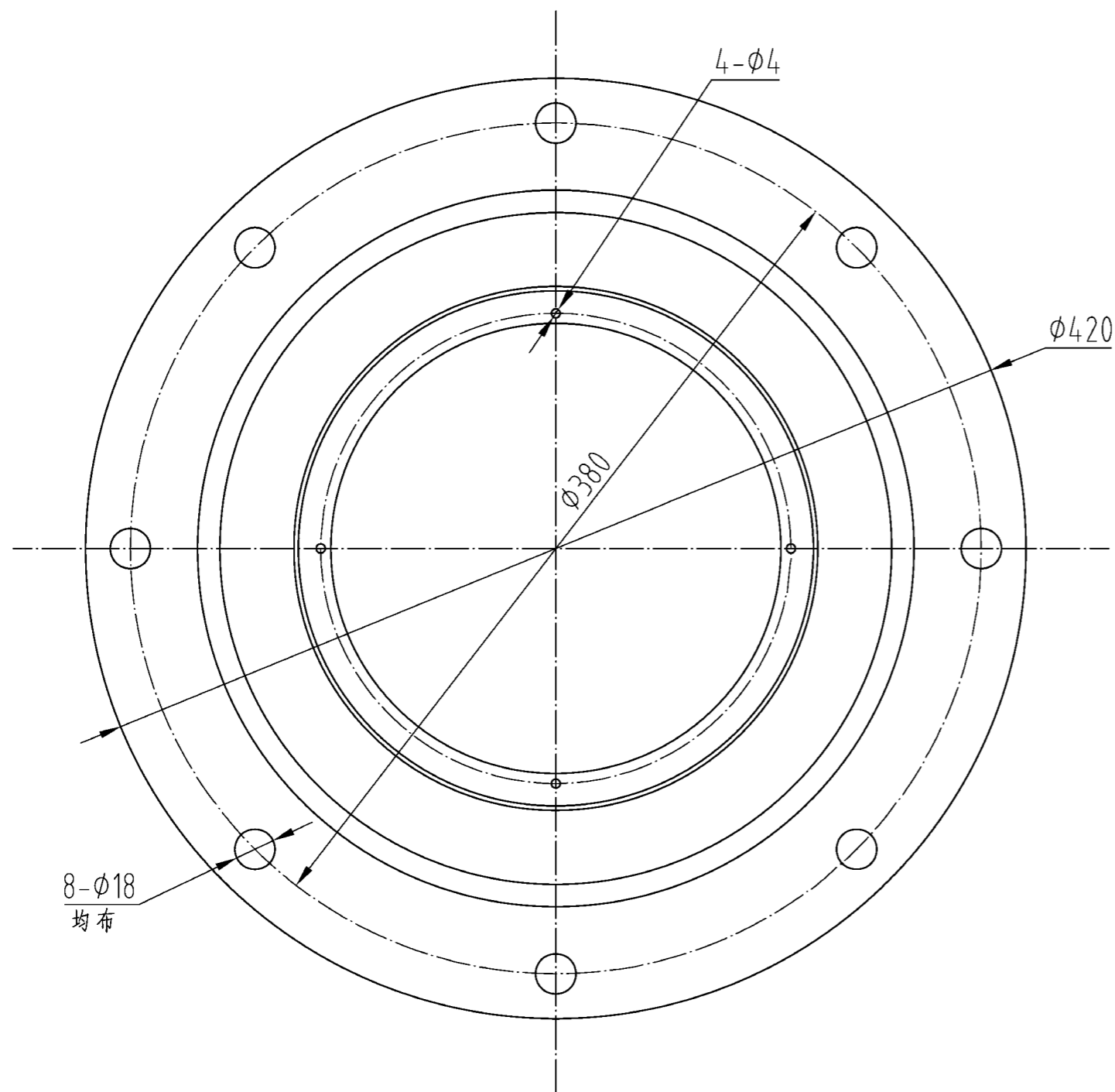
技术要求

1. 绳槽轮廓尺寸和腹板孔以及轮切削加工, 必须满足图示尺寸和公差要求.
2. 绳槽表面淬火, HB321.
3. 淬火后应做低温回火消应力处理.
4. 此滑轮为锻造滑轮

TECHNICAL REQUIREMENTS

1. While machining all dimensions of the groove, the hub and the holes in the web should comply with the dimensions and tolerances in the drawing
2. The rope groove surface shall be hardened to HB 321 minimum.
3. Low-temperature stress-relief temper after hardening.
4. This sheave is rolled.

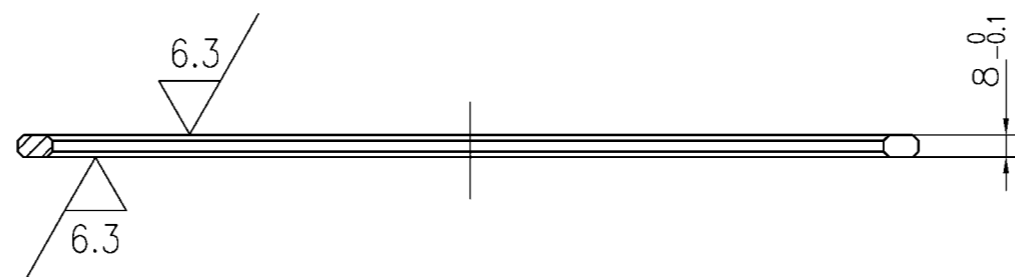
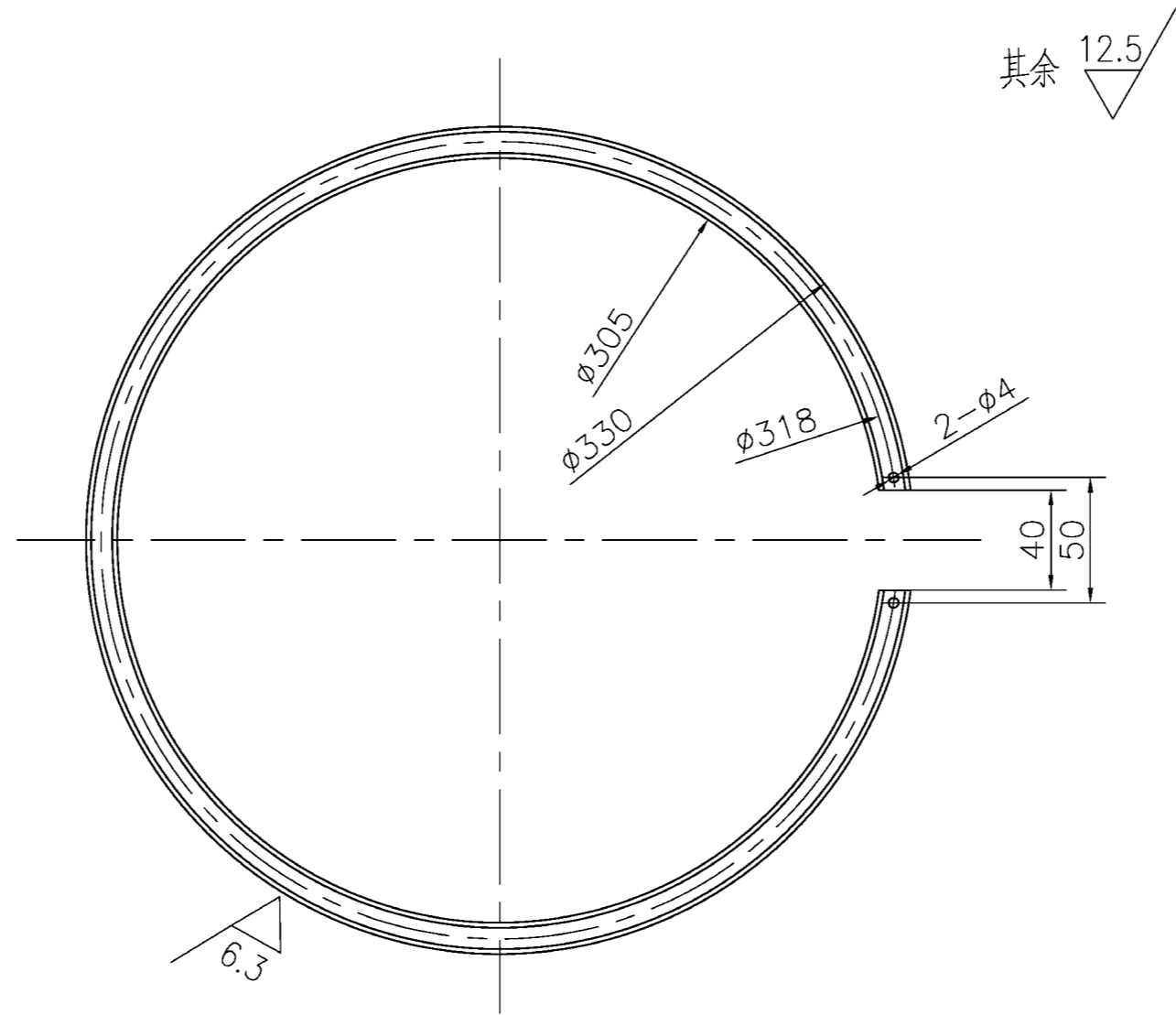
SUB. NO.		VER. NO.				
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	WEIGHT	SCALE
	UL25081501	sheave 滑轮	35CrMo	2	275 550	1:6
ZPMC		DRAW	TECH.	TRACE		
		CHCK	STDD	CHCK		



去除毛刺,锐边倒钝.

smooth edge and no burr

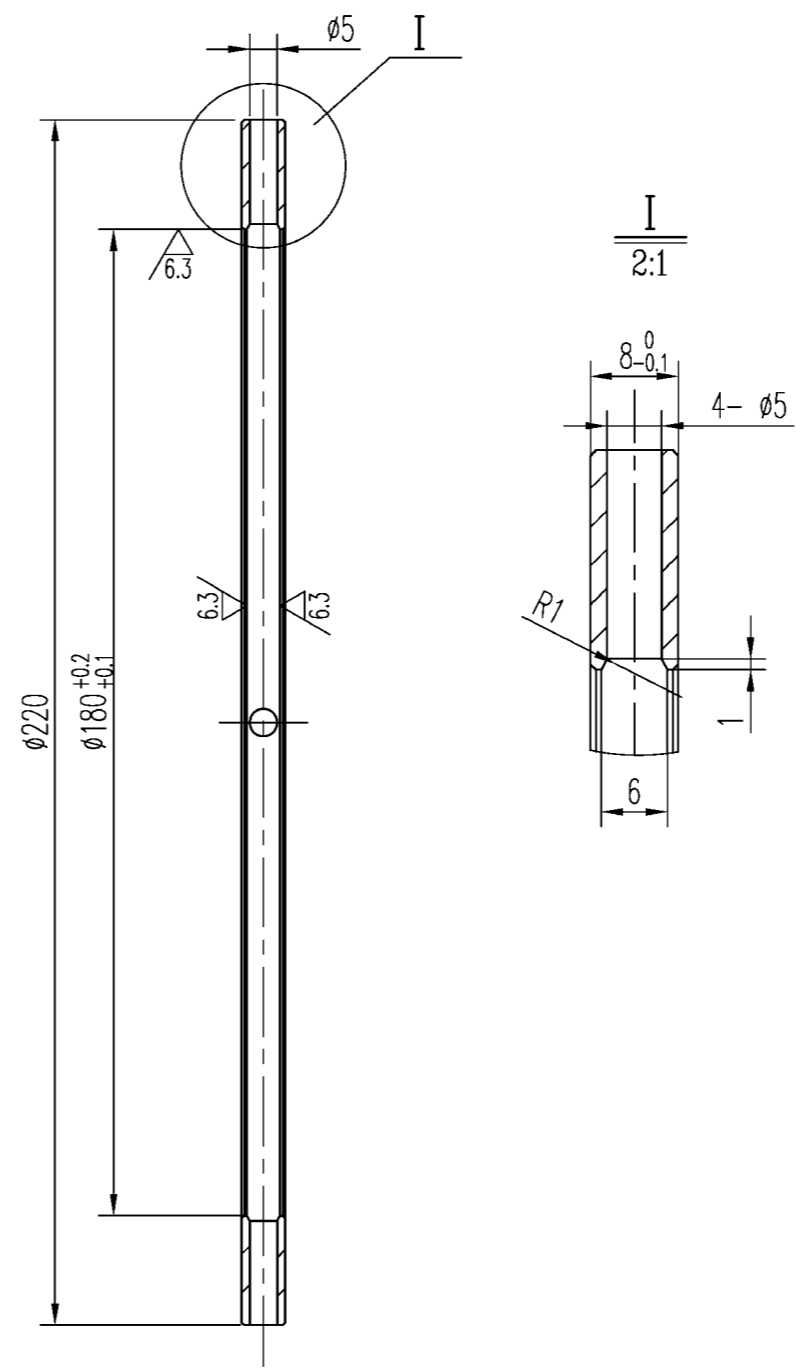
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	W'ONE	W'TAL	SCALE
2	UL25081502	端盖 cover	Q235	4	9.5	38	1:3
ZPMC	DRAW		TECH.		TRACE		
	CHCK		STDD		CHCK		



倒角 $2 \times 45^\circ$.
chamfer $2 \times 45^\circ$

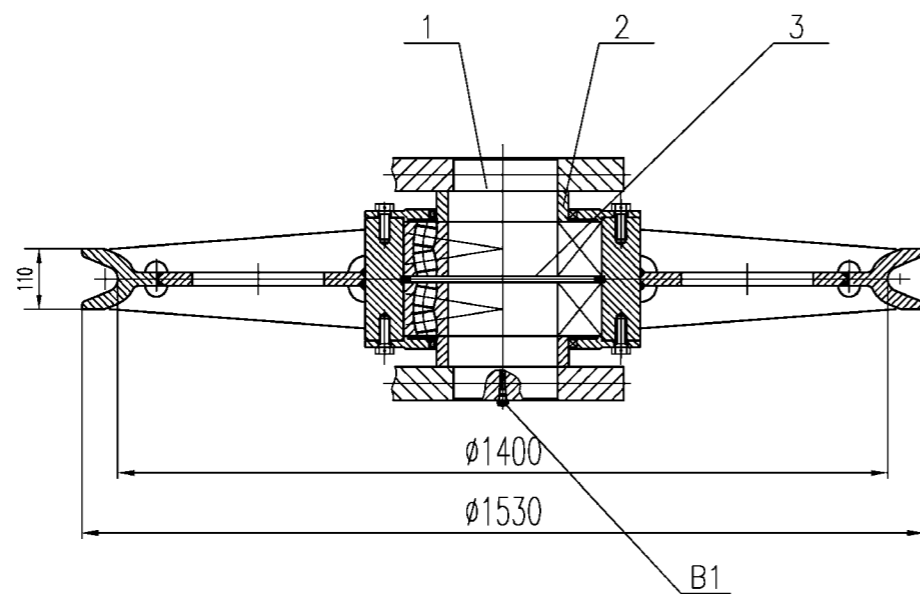
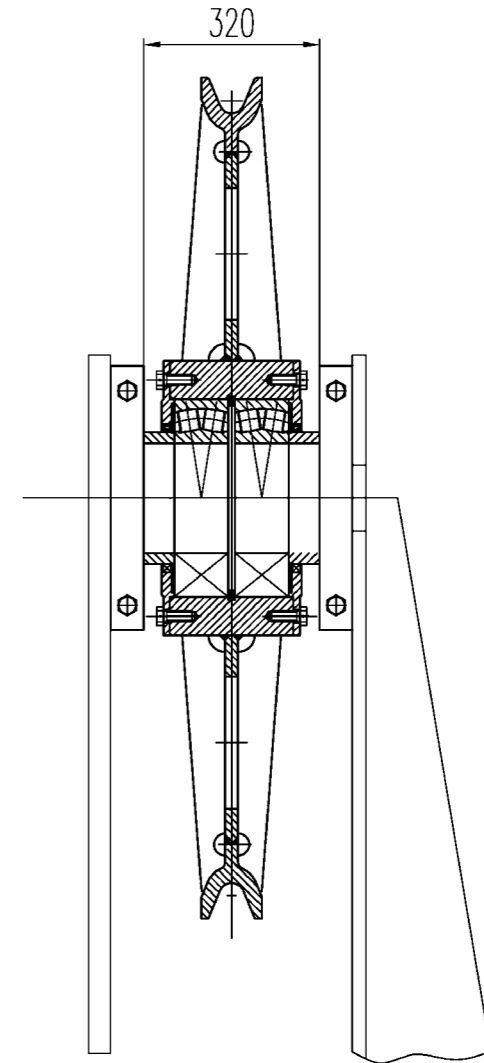
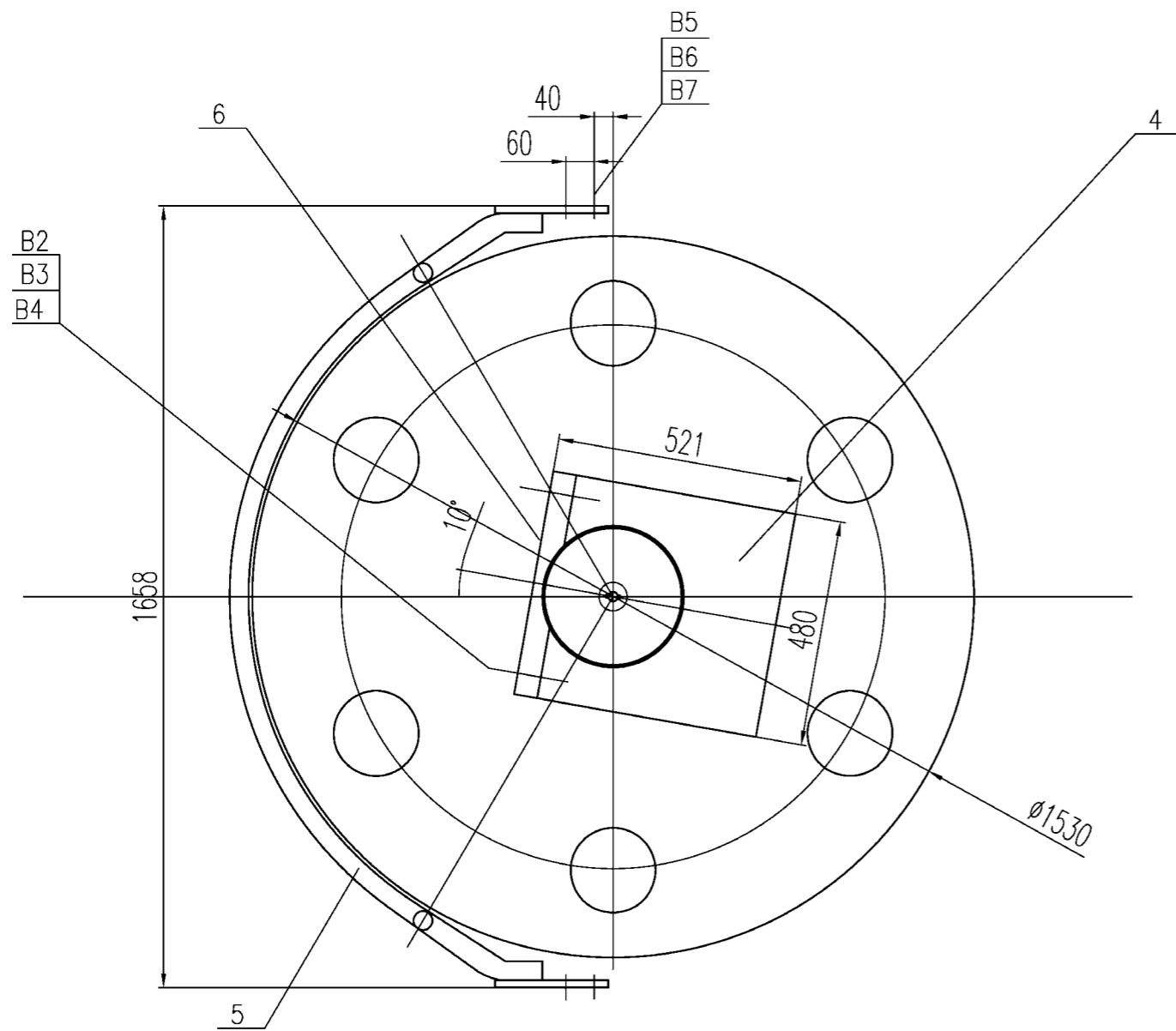
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
3	UL25081503	隔圈 sleeve	65Mn	0.75kg	2	1:3
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

其余 others: $\nabla_{12.5}$



未注倒角: $0.5 \times 45^\circ$
 chamfer $0.5 \times 45^\circ$

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	WEIGHT	SCALE
4	UL25081504	内隔圈 sleeve	Q235	2	0.8x2	1:1.5
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

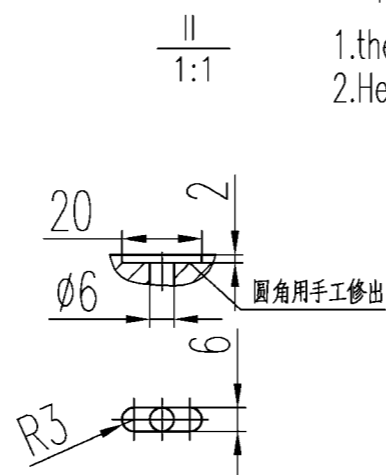
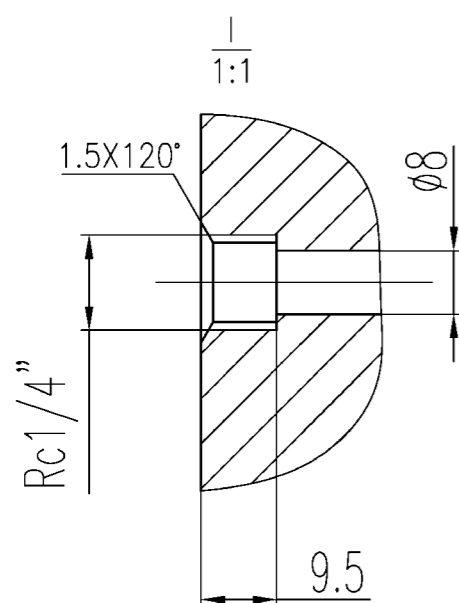
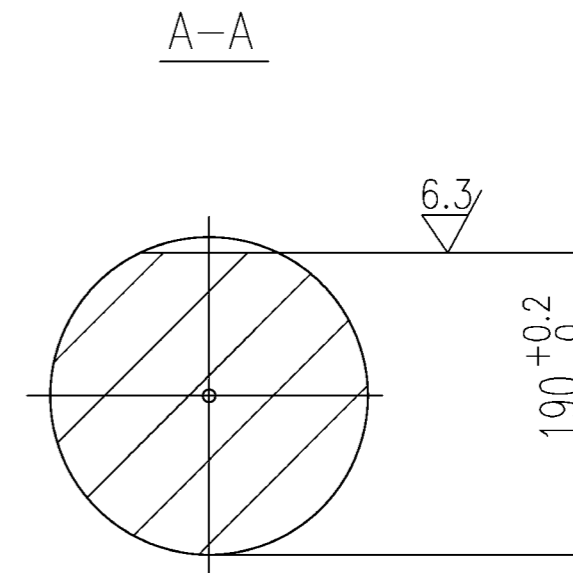
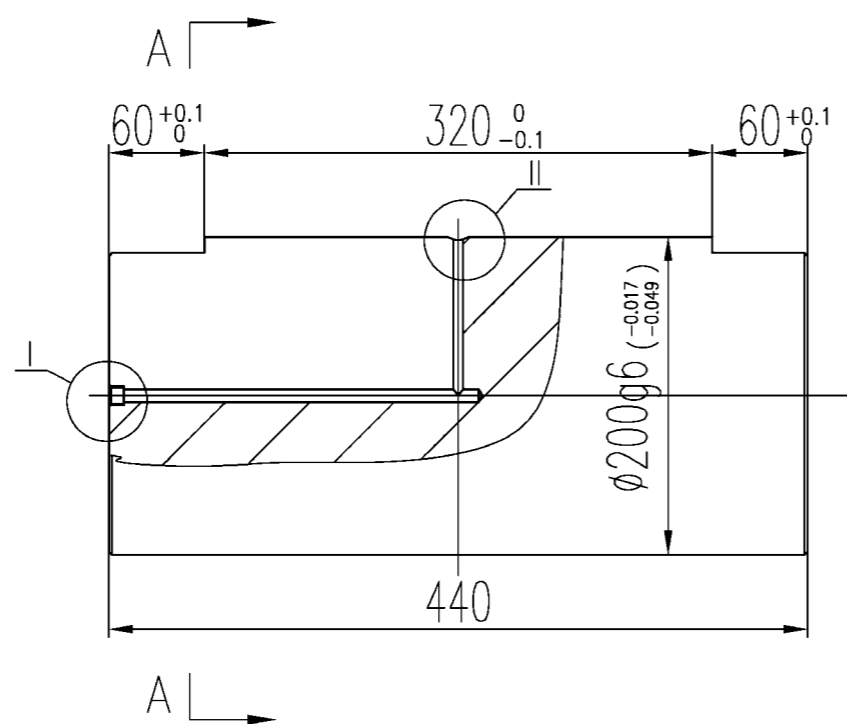


NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	WEIGHT		NOTE
					each	total	
6	UL25120505	盖板 Compress Panel	Q345B	2	7.6	15.2	
5	UL25120504	防护罩 safety cover	焊接件welding	1	74	74	
4	UL25120503	支座 bracket	Q345B	2	82	164	
3	ULHL1400	滑轮$\phi 1400$ pulley$\phi 1400$组件 Assembly		1	622.8	622.8	standard parts
2	UL25120502	轴套 shaft cover	Q235B	2	6.1	12.2	
1	UL25120501	滑轮轴 shaft	40Cr	1	108.5	108.5	

PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE: 1:10	
ITEM NAME: 大梁滑轮组$\phi 1400$ boom pulley $\phi 1400$		DRAW NO: UL25120500		PROJ.	
ZPMC	DSGN		TRACE		APP.
	DRAW		CHCK		Q'TY/SET 998.3
	CHCK		VER.		SET/CRANE 1

					B6	GB862.1-87	Washer 垫圈16	65Mn	16			
					B5	GB5782-86	Bolt 螺栓M16X55	Q235	16	0.10	1.6	
					B4	GB854-88	Washer 垫圈20	Q235	4			
					B3	GB6710-86	Nut 螺母M20	10H	4			10级
					B2	GB899-88	Bolt 螺栓GM20-M20X80-Zn.D	8.8S	4			8.8级
B7	GB6172-86	螺母nut 16	Q235	16	B1	JISB0203	nozzle 喷嘴PT1/4" finished product		1			成品

其余 $\frac{25}{\nabla}$
others



Technology Requirement

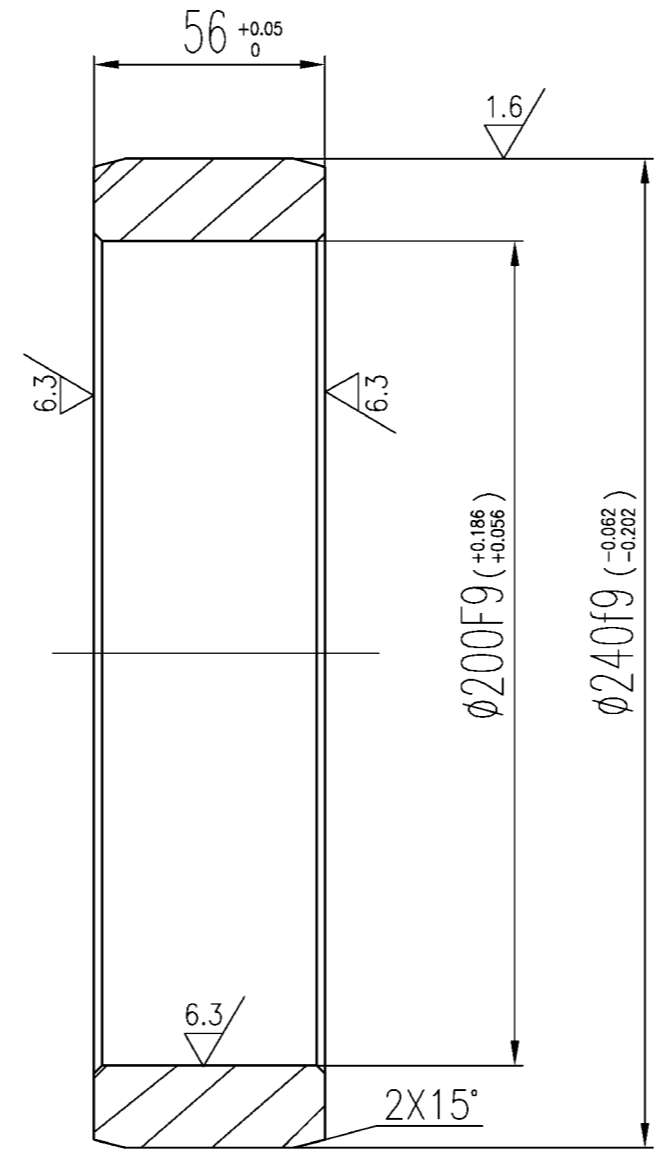
- 1.the non-noted angle filleted: 3x45°
- 2.Heat Treatment: Adjust Quality HB241~286.

技术要求

- 1.未注倒角:3X45°.
- 2.热处理:调质HB241-286.

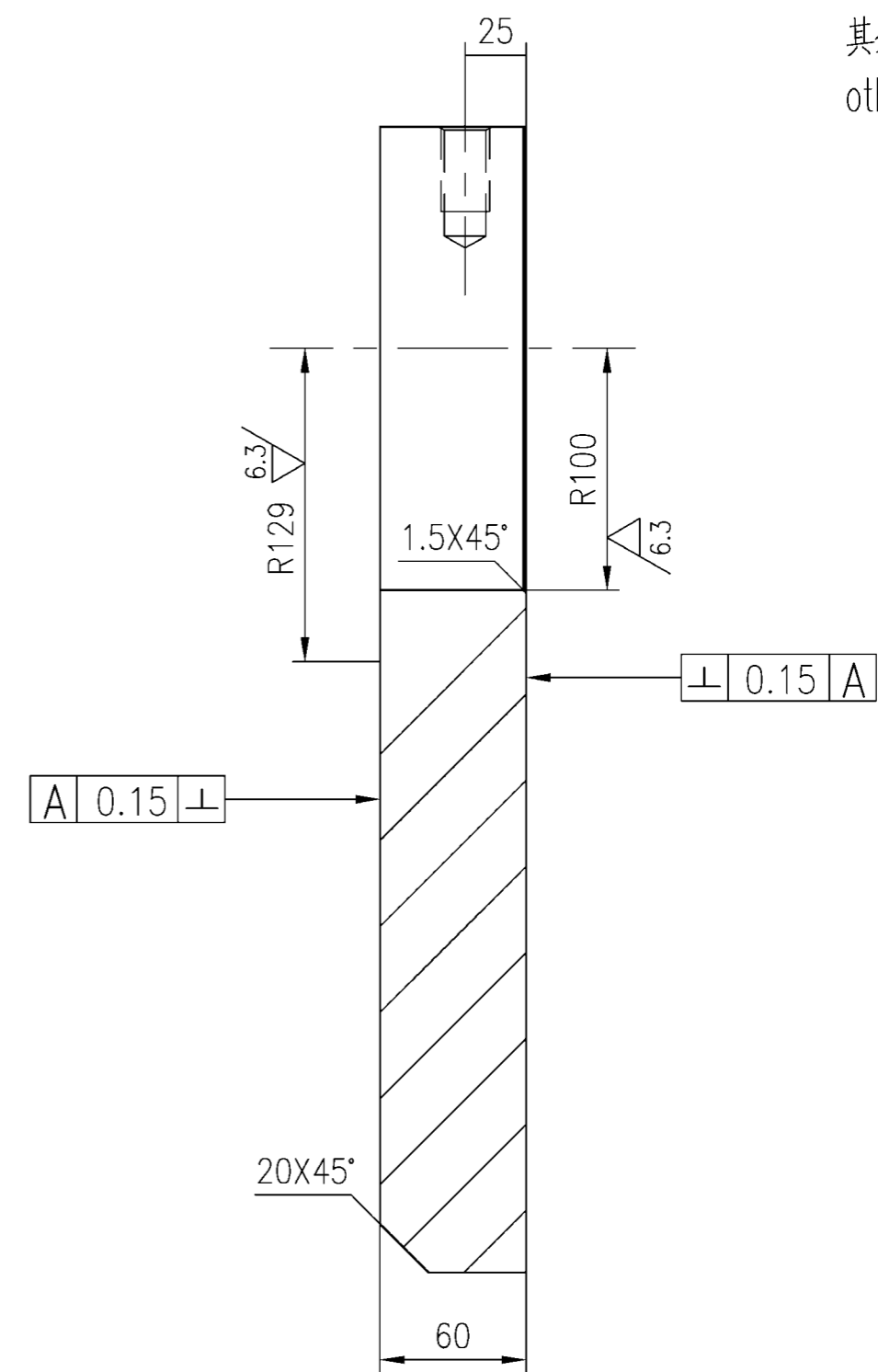
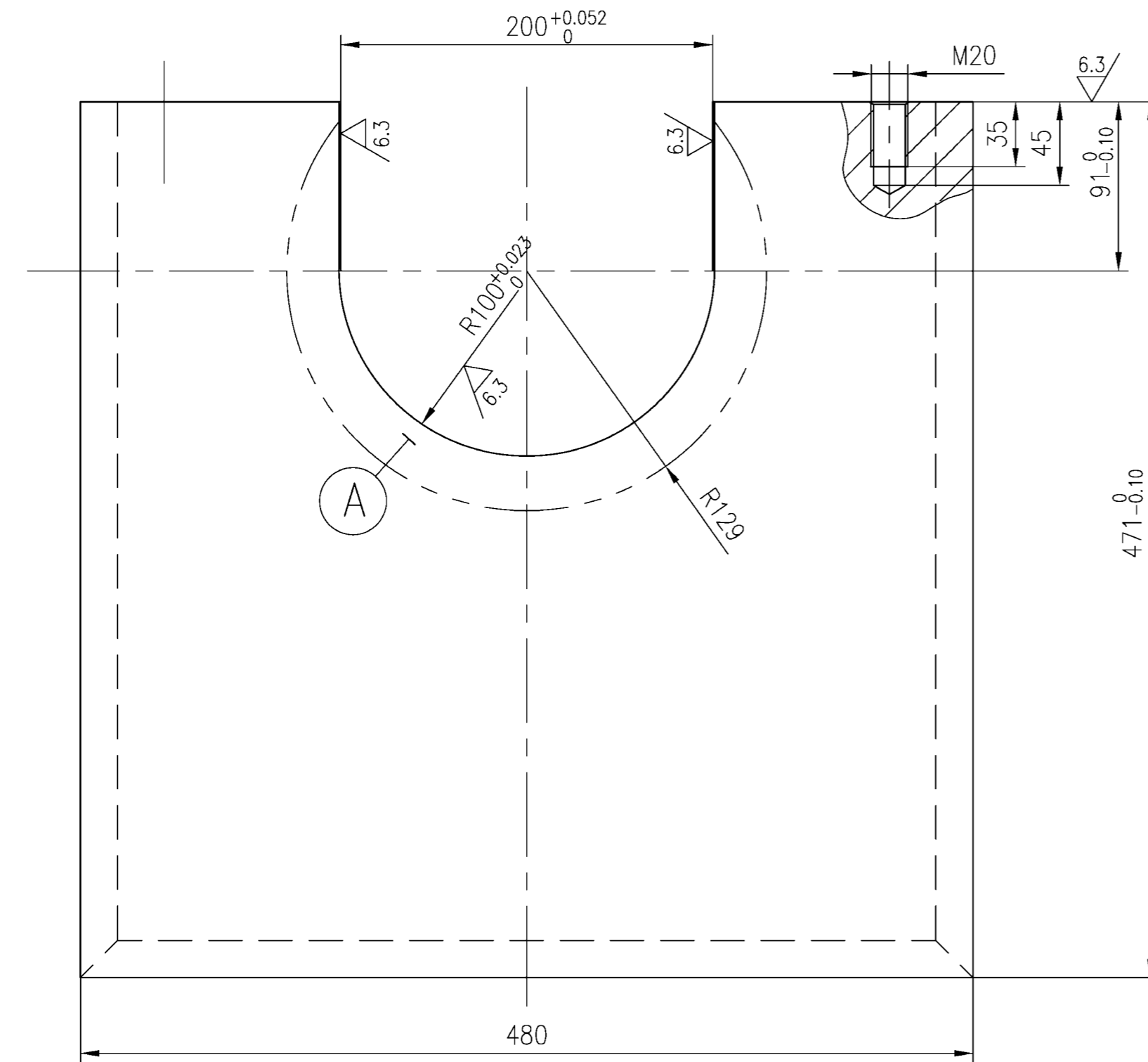
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
1	UL25120501	滑轮轴 shaft	40Cr	108.5	1	1:5
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

其余: $\frac{12.5}{\nabla}$
others

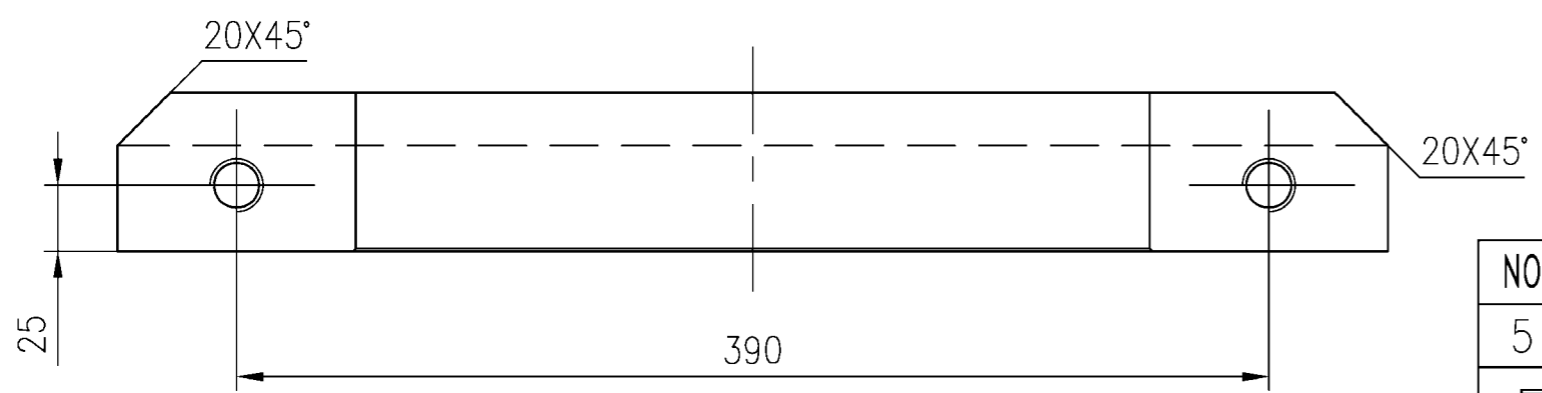


注:未注倒角:2X45°. note:the non-notedangle filleted:2X45°.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
2	UL25120502	轴套 shaft cover	Q235	6.1	2	1:2
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



其余 $\frac{12.5}{\sqrt{\quad}}$
others



技术要求

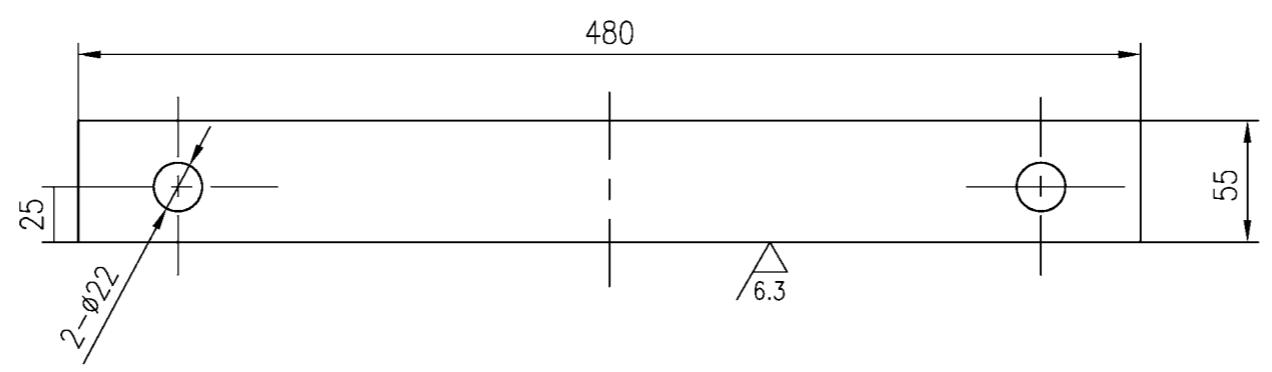
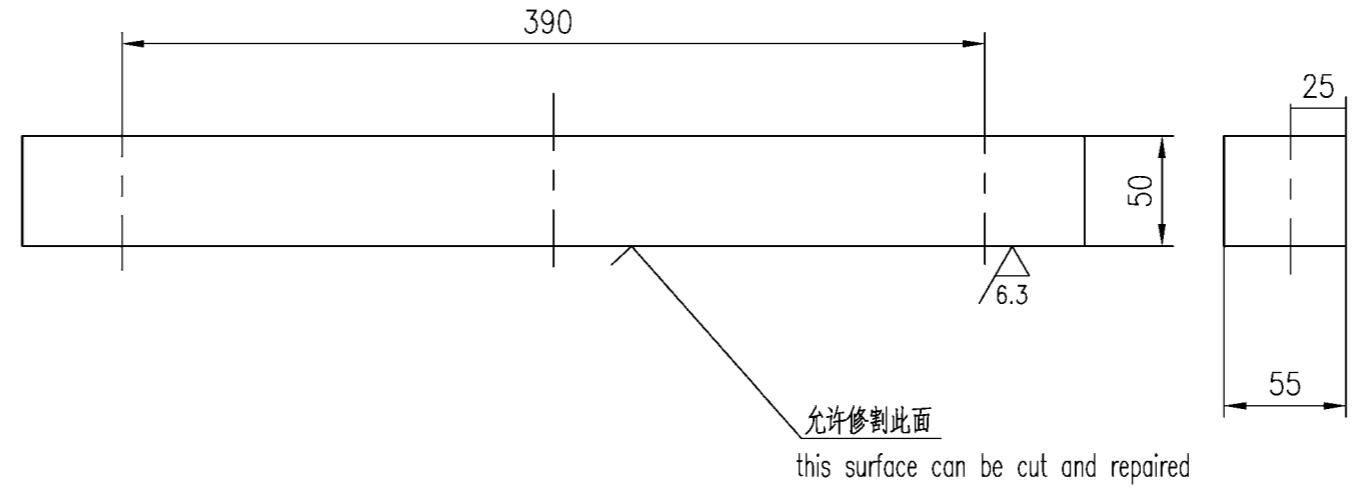
1. 锐边倒钝.
2. 在R125范围内孔口端面划平.
3. 一侧倒角用于坡口焊接.

Technology Requirement

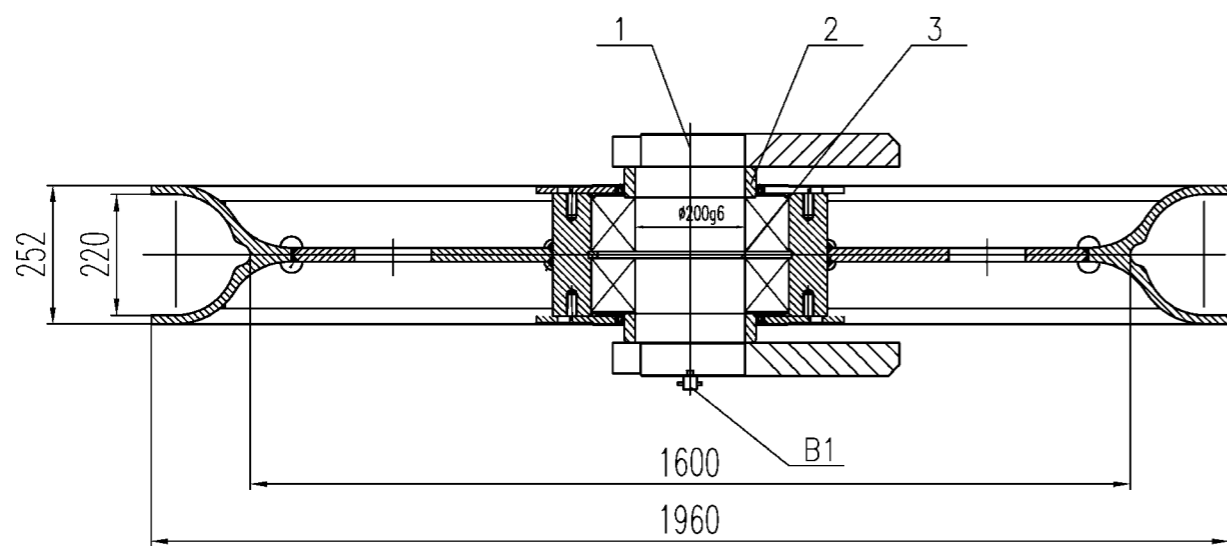
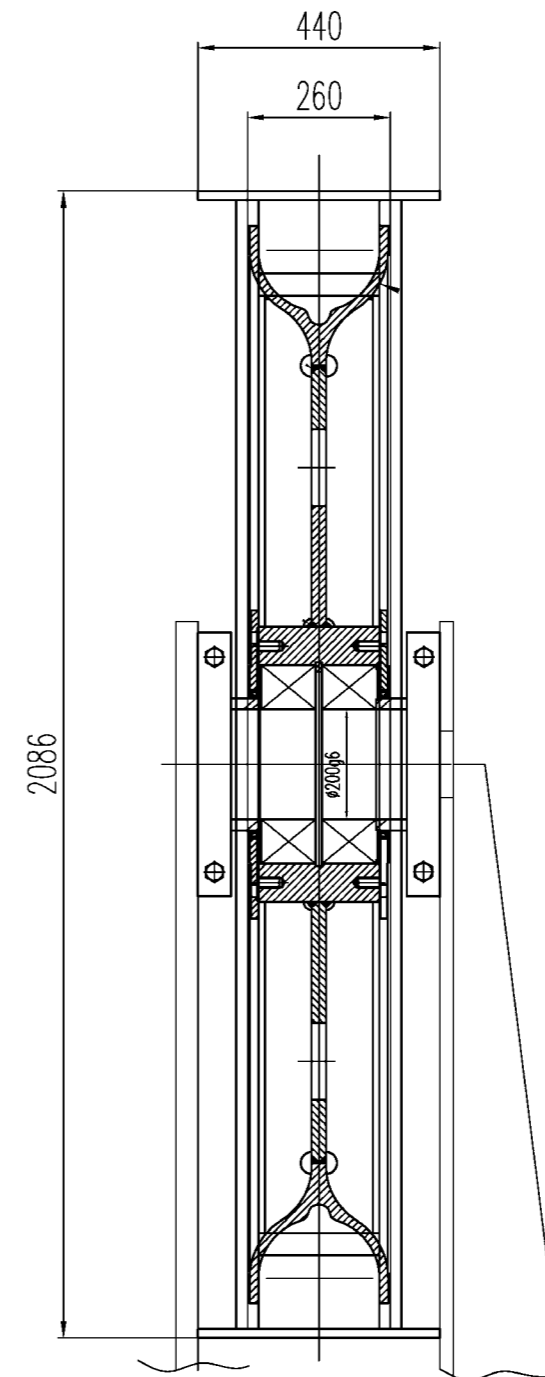
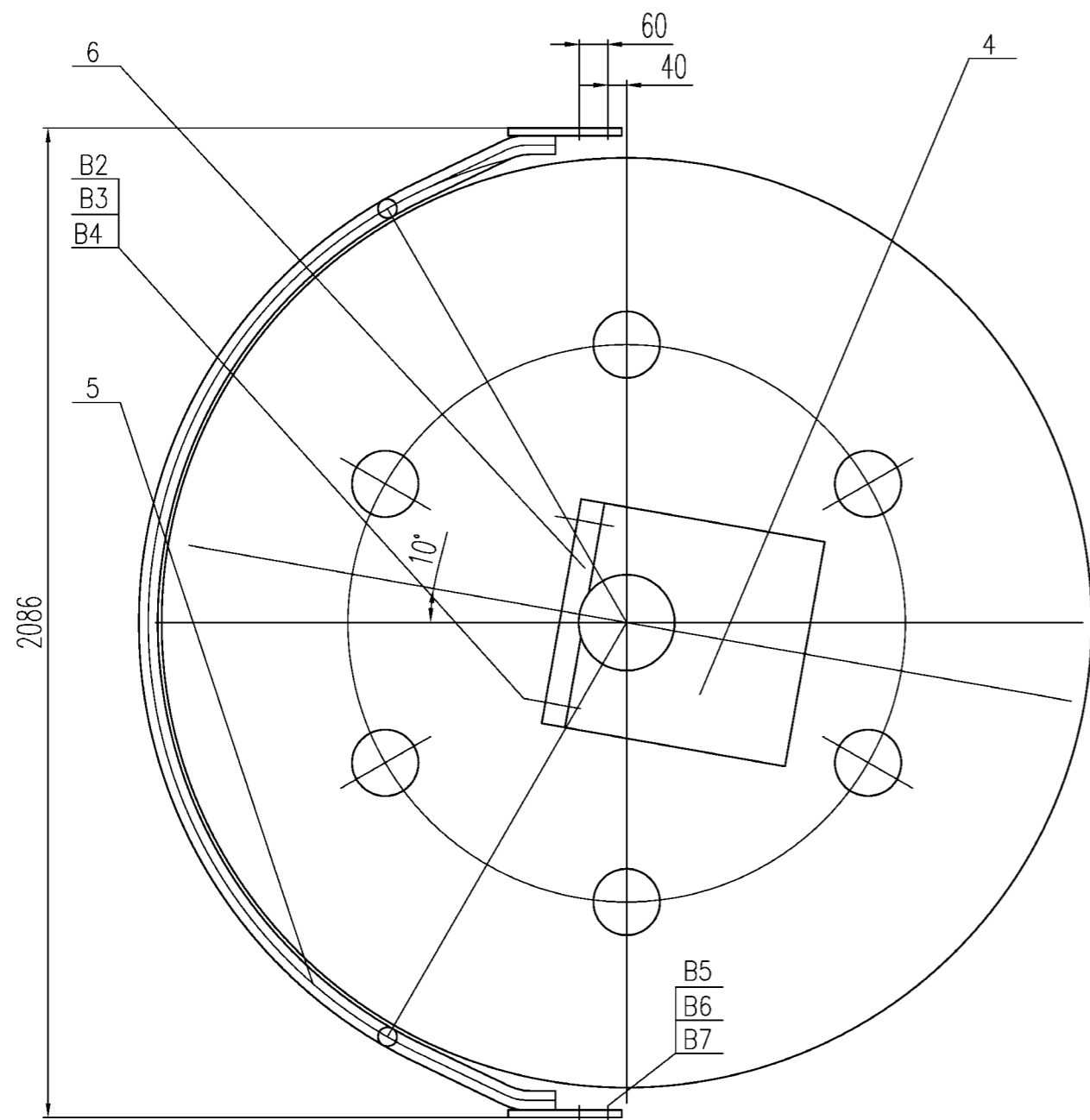
1. Acute angle fillet obtuse
2. Smoothing the surface of the boundwiths R125 around hold

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
5	UL25120503	支座 bracket	Q345B	82	2	1:2.5
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

其余 $\frac{12.5}{\nabla}$
others



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
8	UL25120505	盖板 Compress Panel	Q345B	7.6	2	1:2.5
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

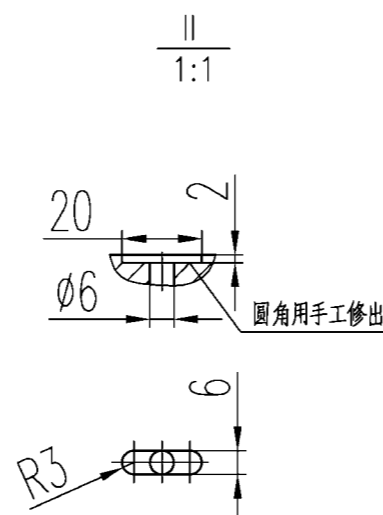
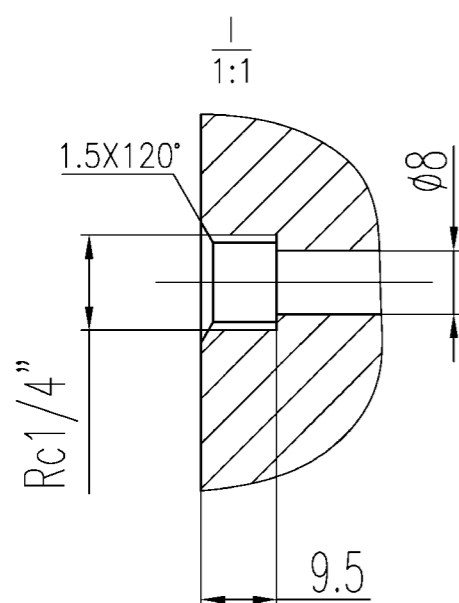
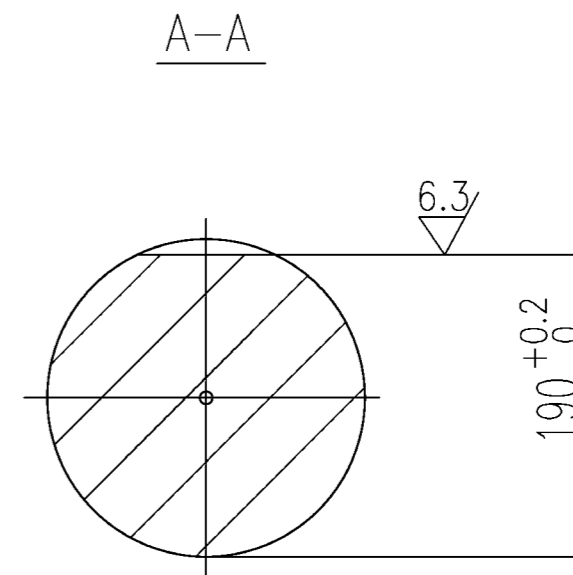
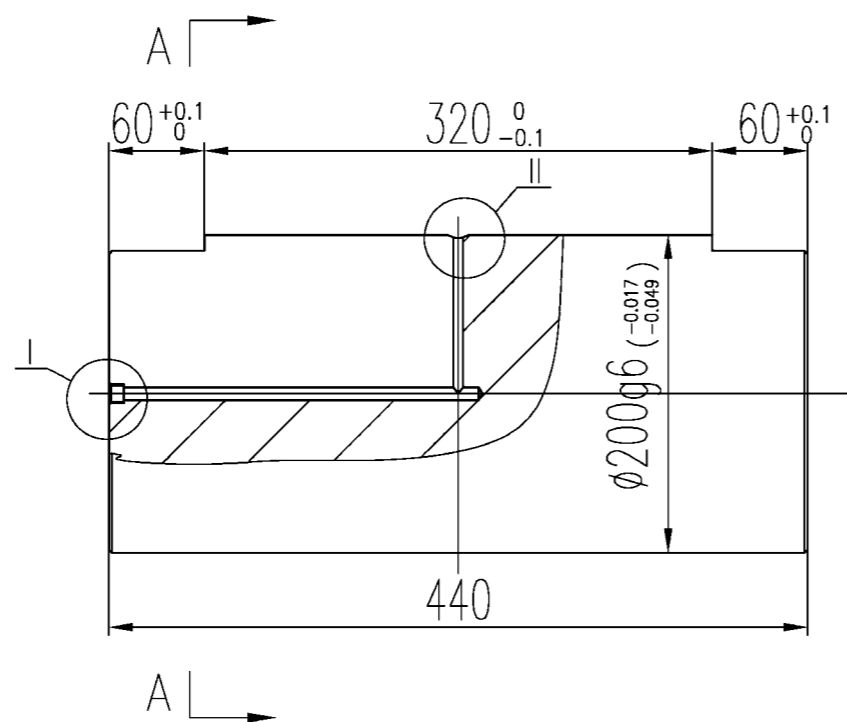


NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	each	total	NOTE
6	UL25120605	盖板 Compress Panel	Q235B	2	7.6	15.2	
5	UL25120604	防护罩 safety cover	焊接件 welding	1	89.6	89.6	
4	UL25120603	支座 bracket	Q345B	2	82	164	
3	ULWHL1600	φ1600 pulleyφ1600	组件 Assembly	1	1092.8	1092.8	标准件
2	UL25120602	轴套 shaft cover	Q235B	2	4.9	9.8	
1	UL25120601	滑轮轴 shaft	40Cr	1	108.5	108.5	

PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE: 1:10	
ITEM NAME: 大梁宽槽滑轮组φ1600 boom pulley φ1600		DRAW NO: UL25120600		PROJ.	
ZPMC	DSGN		TRACE		APP.
	DRAW		CHK		Q'TY/SET 1480
	CHK		VER.		SET/CRANE 1

B6	GB862.1-87	Washer 垫圈16	65Mn	16			
B5	GB5782-86	Bolt 螺栓M16X55	Q235	16	0.10	1.6	
B4	GB854-88	Washer 垫圈20	Q235	4			
B3	GB6710-86	Nut 螺母M20	10H	4			10级
B2	GB899-88	Bolt 螺栓GM20-M20X80-Zn.D	8.8S	4			8.8级
B7	GB6172-86	螺母nut 16	Q235	16			成品
B1	JISB0203	nozzle 油嘴PT1/4"	finished product	1			

其余 $\frac{25}{\nabla}$
others

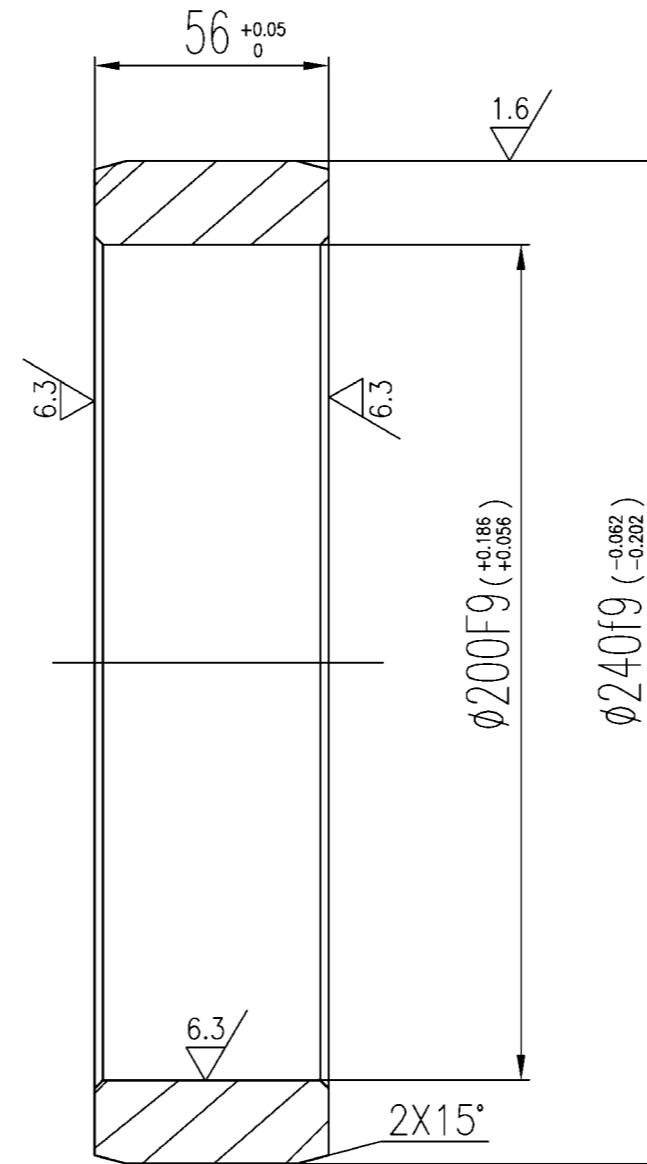


Technology Requirement
 1.the non-noted angle filleted: 3x45°
 2.Heat Treatment: Adjust Quality HB241~286.

技术要求
 1.未注倒角:3X45°.
 2.热处理:调质HB241-286.

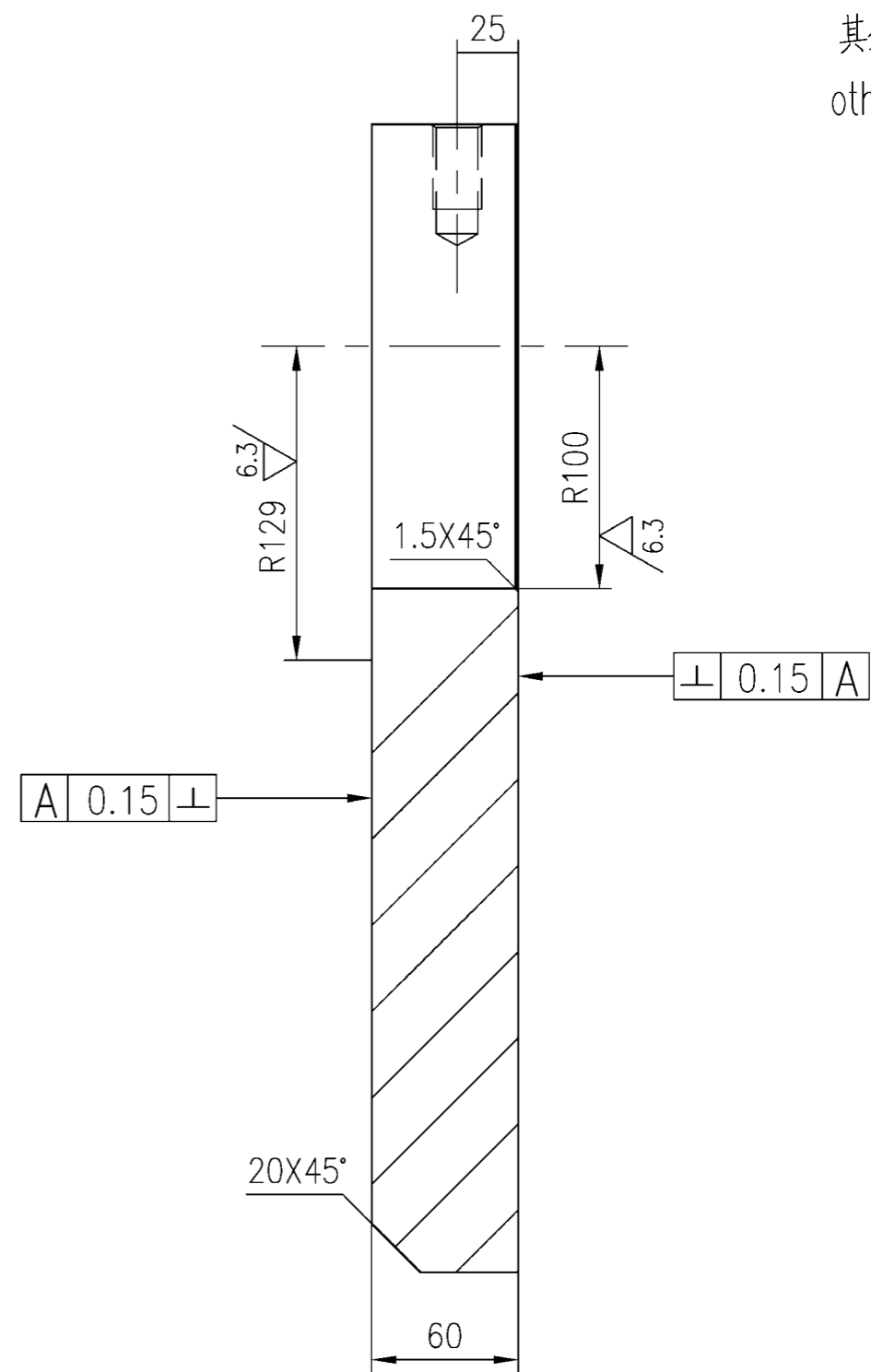
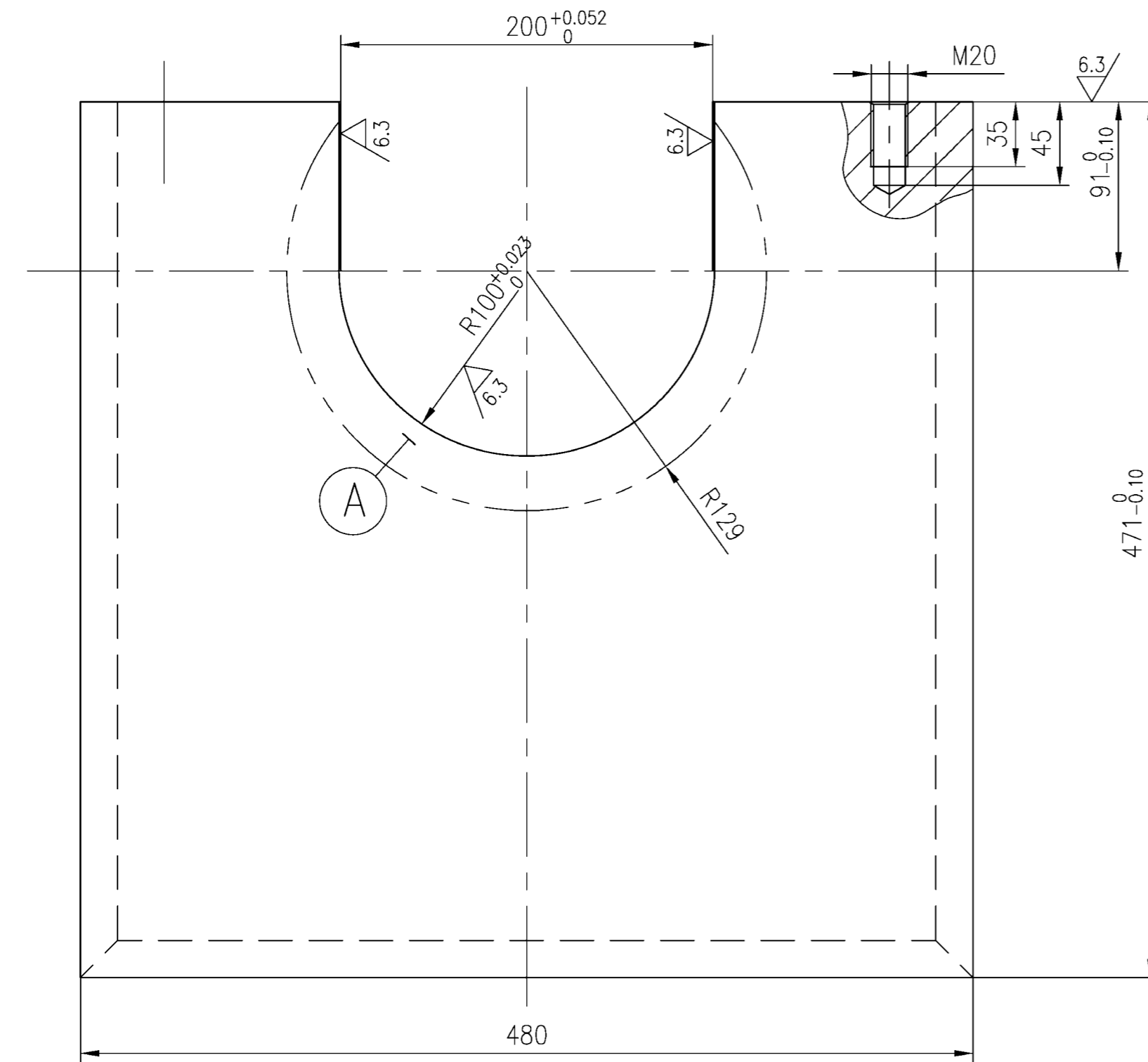
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
1	UL25120601	滑轮轴 shaft	40Cr	108.5	1	1:5
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

其余: ∇ 12.5/
others

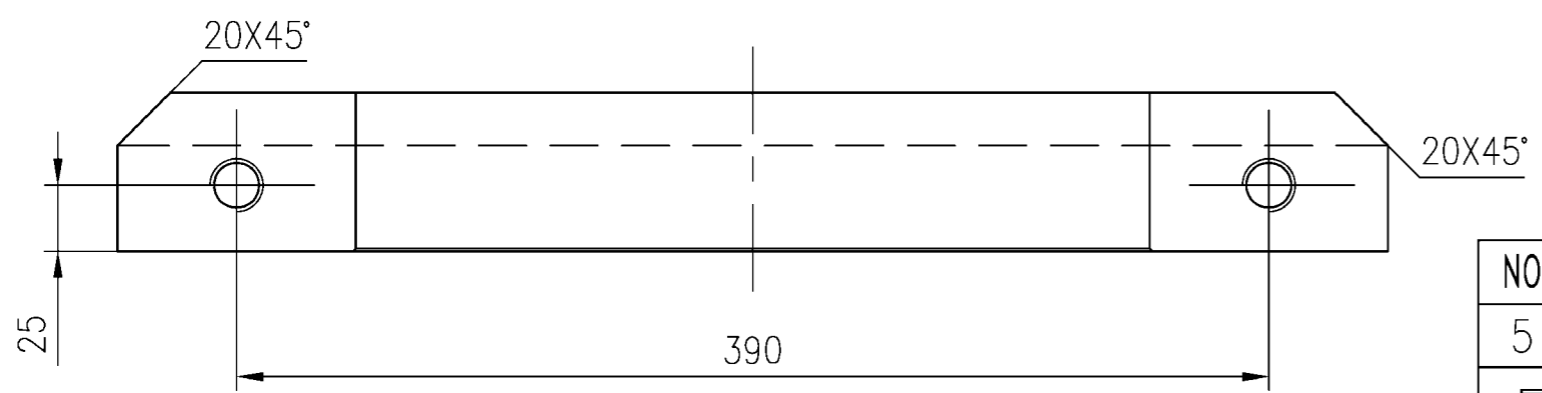


注:未注倒角:2X45°. note:the non-notedangle filleted:2X45°.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
2	UL25120602	轴套 shaft cover	Q235B	4.9	2	1:2
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



其余 12.5/
others



技术要求

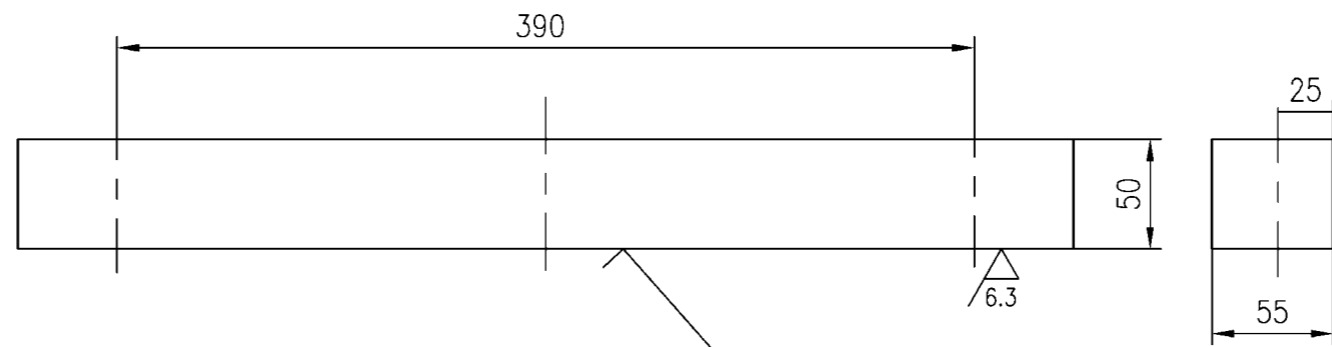
1. 锐边倒钝.
2. 在R125范围内孔口端面划平.
3. 一侧倒角用于坡口焊接.

Technology Requirement

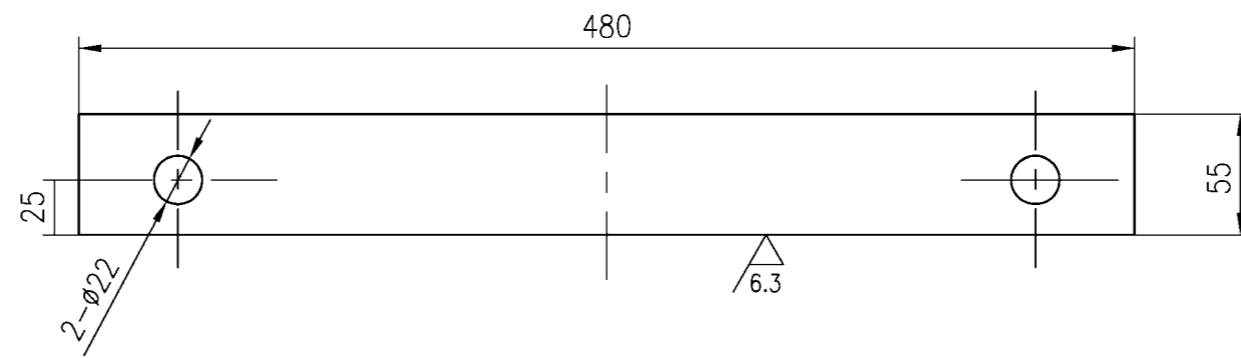
1. Acute angle fillet obtuse
2. Smoothing the surface of the boundwiths R125 around hold

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
5	UL25120603	支座 bracket	Q345B	82	2	1:2.5
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

其余 12.5/
others

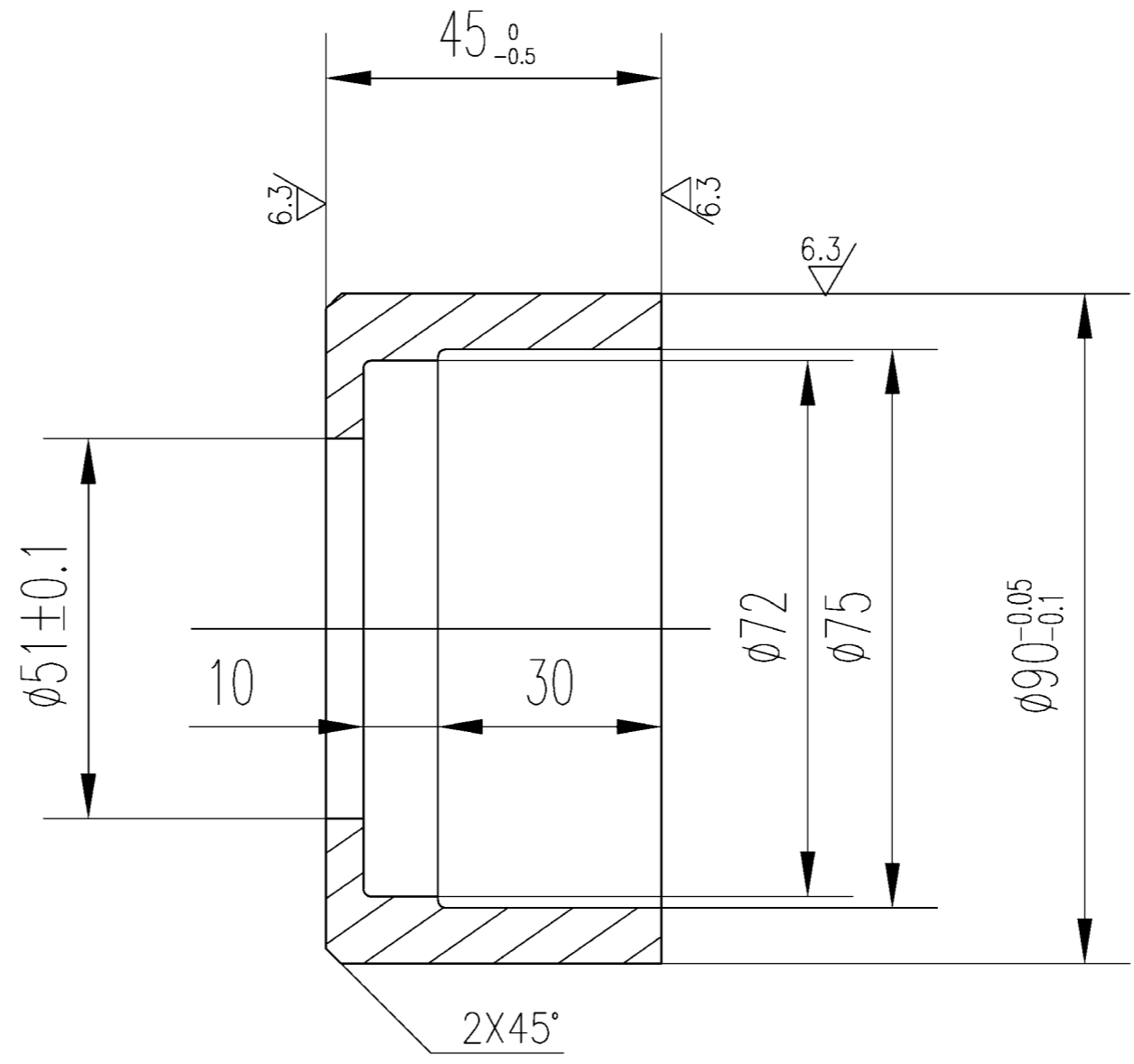


允许修割此面
this surface can be cut and repaired



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
8	UL25120605	盖板 Compress Panel	Q345B	7.6	2	1:2.5
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

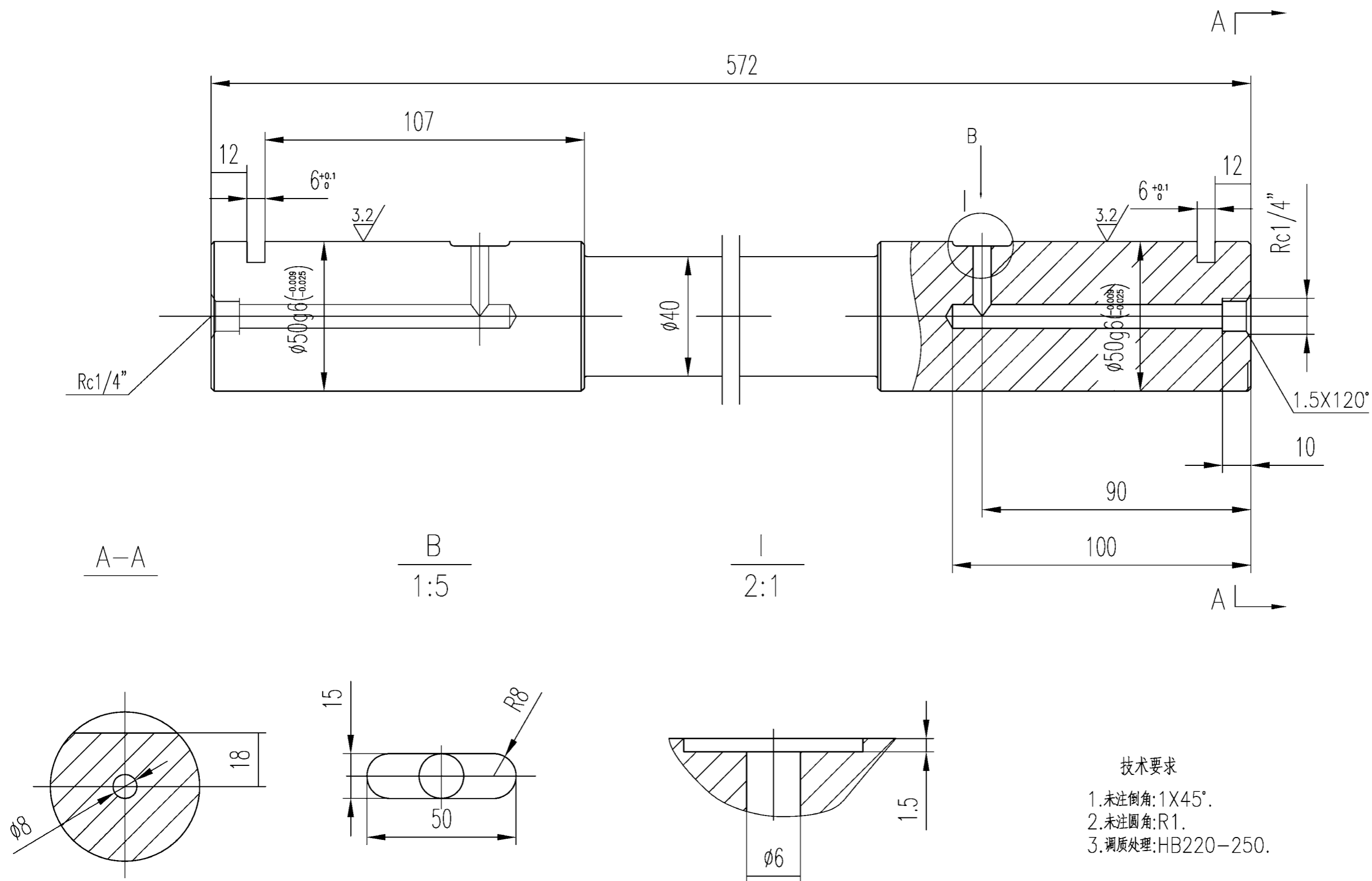
其余: $\frac{12.5}{\nabla}$



注:锐角倒钝
未注圆角R1

note:The acute angle is but actually obtuse
All the non-noted round angles are R1

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
10	UL25120702	oil block ring	Q235	0.93	4	1:1
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



技术要求

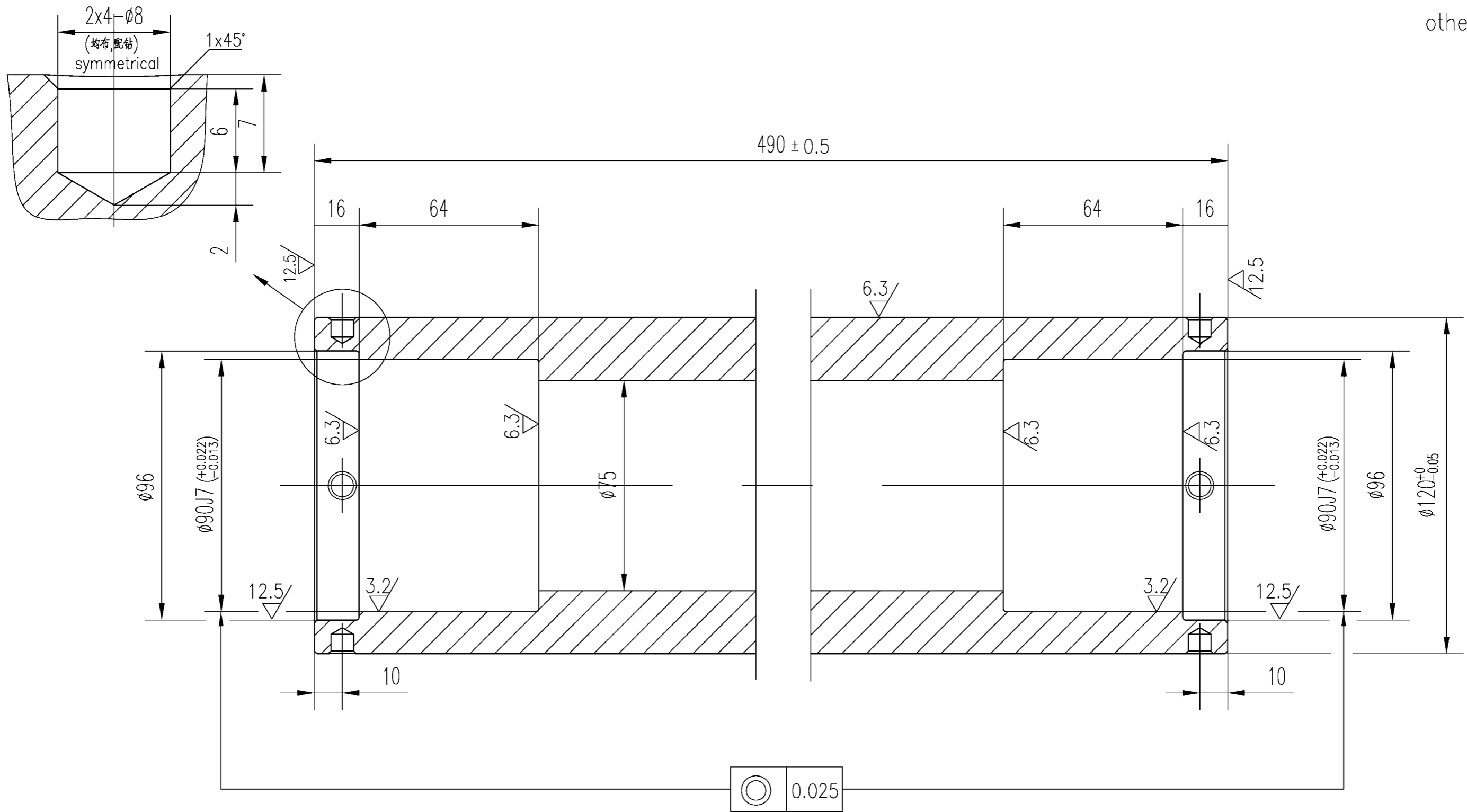
1. 未注倒角: 1X45°.
2. 未注圆角: R1.
3. 调质处理: HB220-250.

Technology Requirement

1. All the non-noted fillets are 1x45°
2. All the non-noted round angles are R1
3. Adjusting Quality HB220~250

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
11	UL25120703	托辊轴	45	2	8.1 16.2	1:1.5
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

其余: ∇ 25/
others

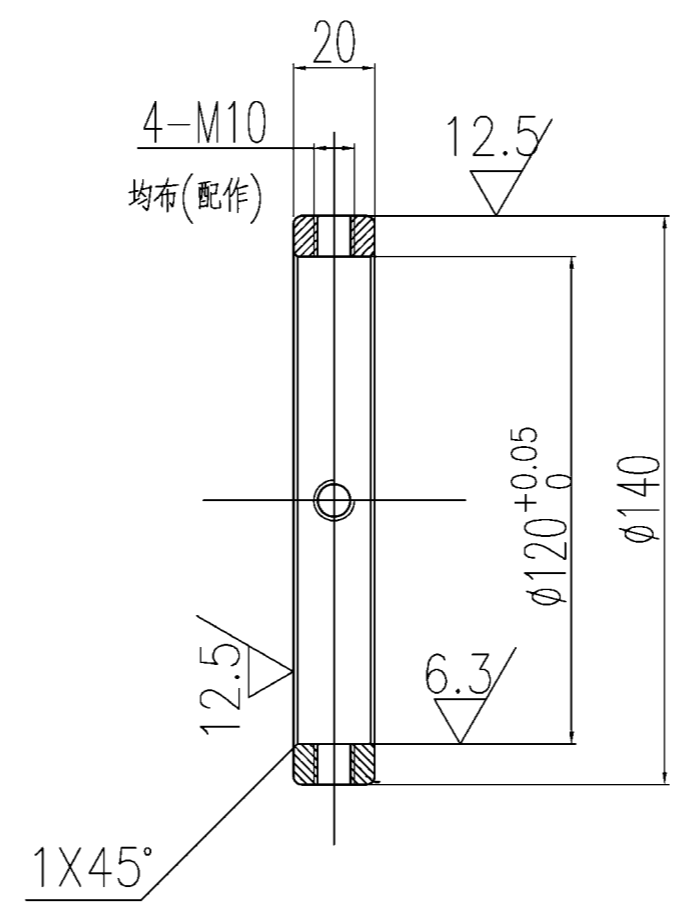


Technology Requirement

- 1.All the non-noted fillets are 1x45°
- 2.All the non-noted round angles are R1
- 3.Adjusting Quality HB262~286
- 4.Superficial high-frequency quenching:HRC48-59,The depth is not smaller than 1.5mm


NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
7	UL25120704	roller	20	39	2	1:1.5
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

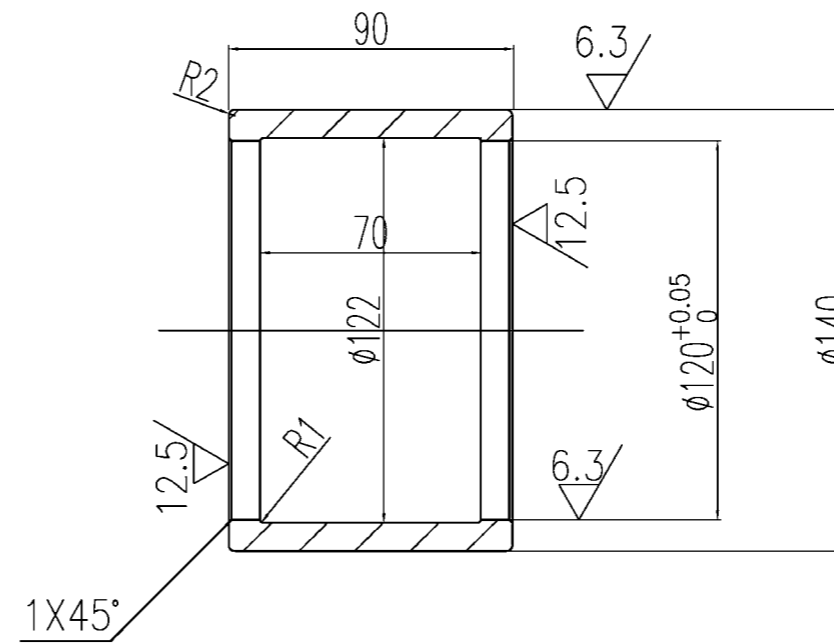
其余: 
others



note.All the non-noted fillets are 1x45°

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
8	UL25120705	block ring	20	0.64	4	1:2
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

其余: 
others



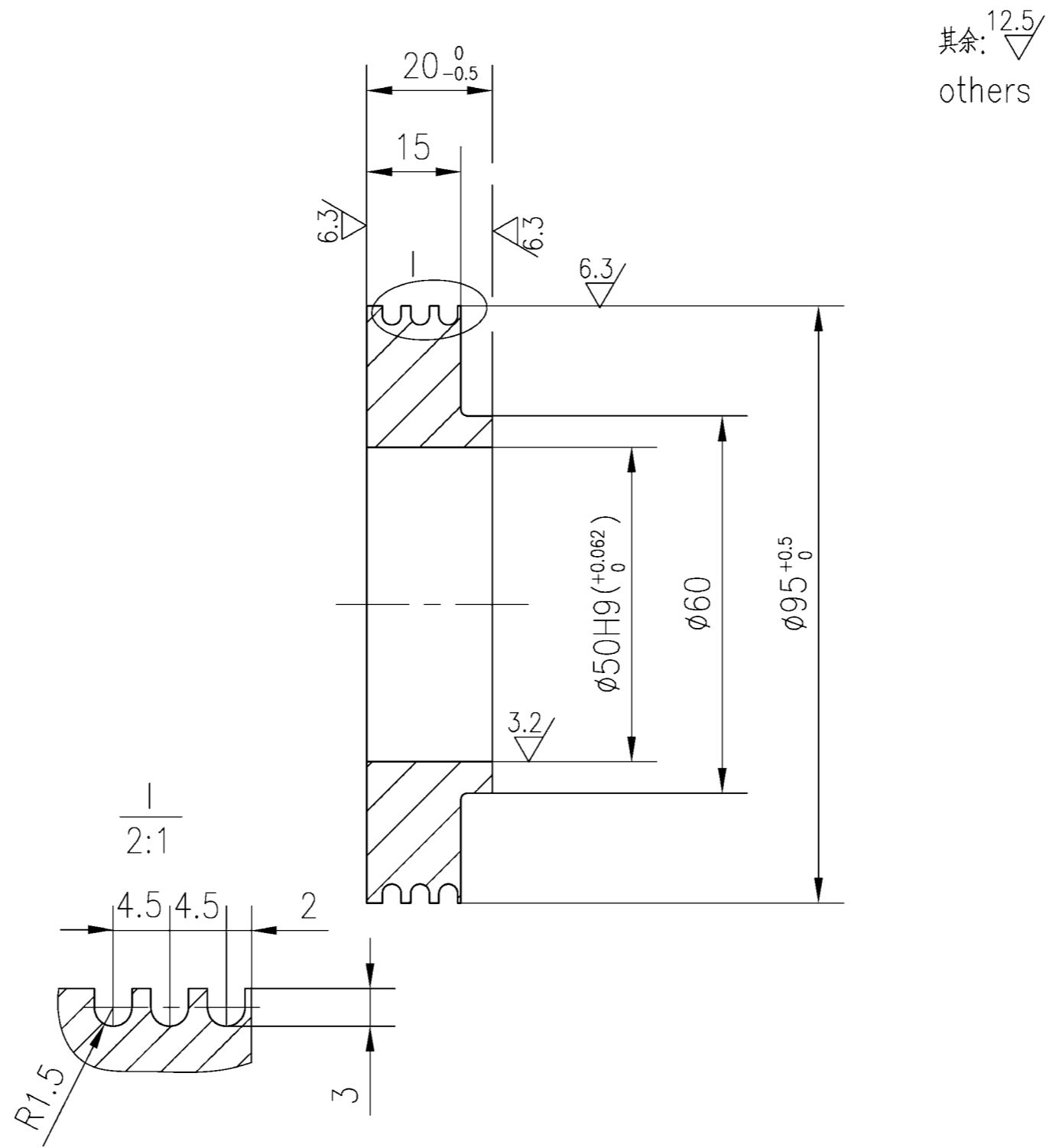
技术要求

- 1.未注倒角: $1 \times 45^\circ$.
- 2.热处理: HRC35~40

Technology Requirement

- 1.All the non-noted fillets are $1 \times 45^\circ$
- 2.Adjusting Quality HB35~40

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
6	UL25120706	托辊抗磨层1 wearable sleeve 1	40Cr	10	4.3 43	1:4
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

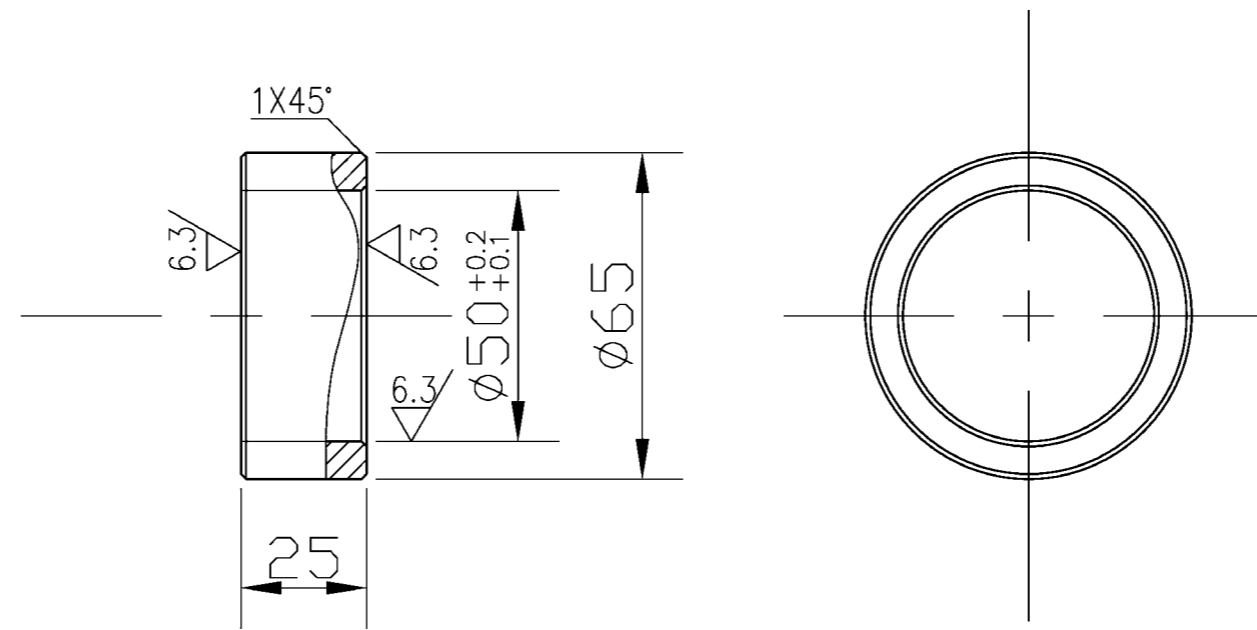


其余: $\frac{12.5}{\nabla}$
others

note: The acute angle is but actually obtuse
All the non-noted round angles are R1

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
9	UL25120707	dustproof Cover	Q235	0.58	4	1:1
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

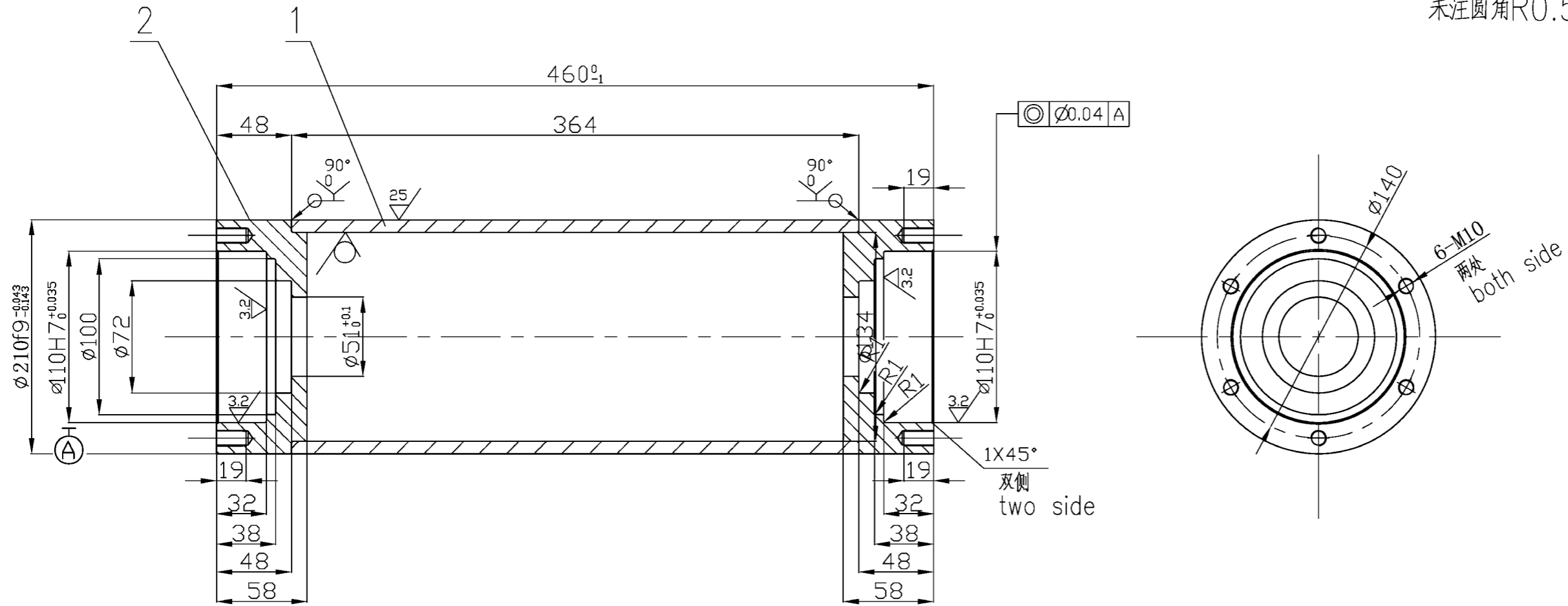
其余: $\sqrt[12.5]{\quad}$
others



1.未注倒角:1X45°.
chamfer 1x45°

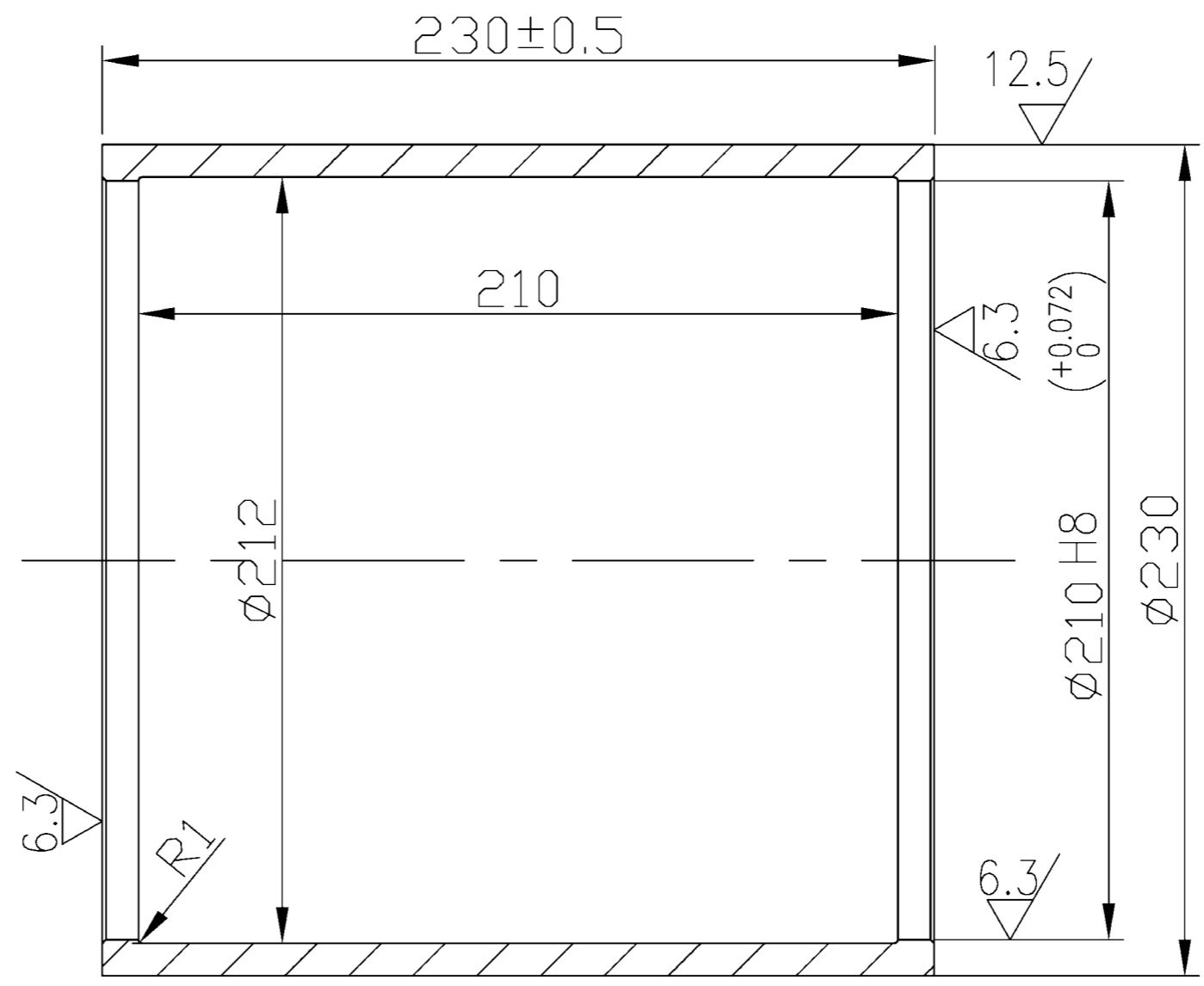
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
1	UL25120708	轴套shaft cover	Q235	4	0.35	1:4
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

其余:others $\sqrt{12.5}$
 未注倒角0.5X45° chamfer0.5X45°
 未注圆角R0.5 filletR0.5



2		-58XØ210	Q235	2	4.2	8.4	
1		Ø210x8-364	20	1		5.2	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:	SCALE:			
ITEM NAME: 托辊 roller			DRAW: NO: UL25120710				
ZPMC	DSGN		TRACE			APP.	
	DRAW		CHCK			Q'TY/SET	13.6
	CHCK		VER.			SET/CRANE	2

其余:



技术要求

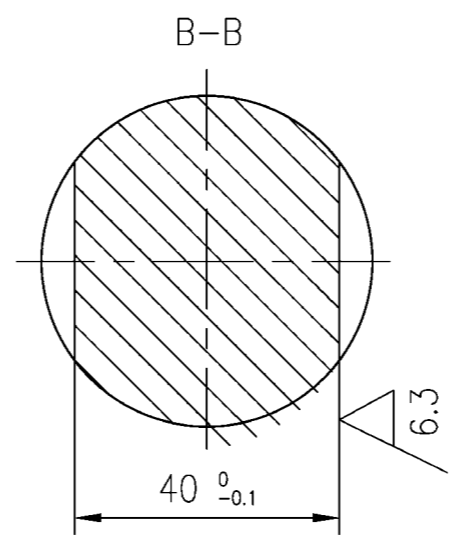
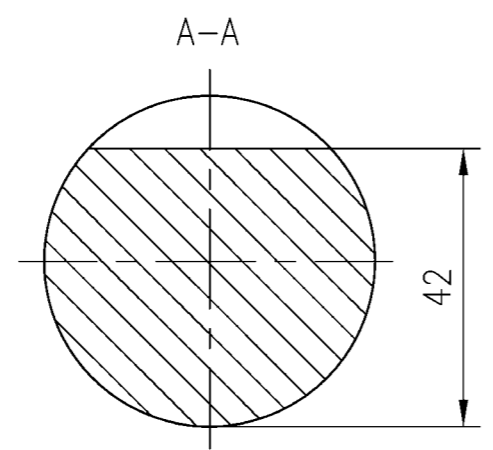
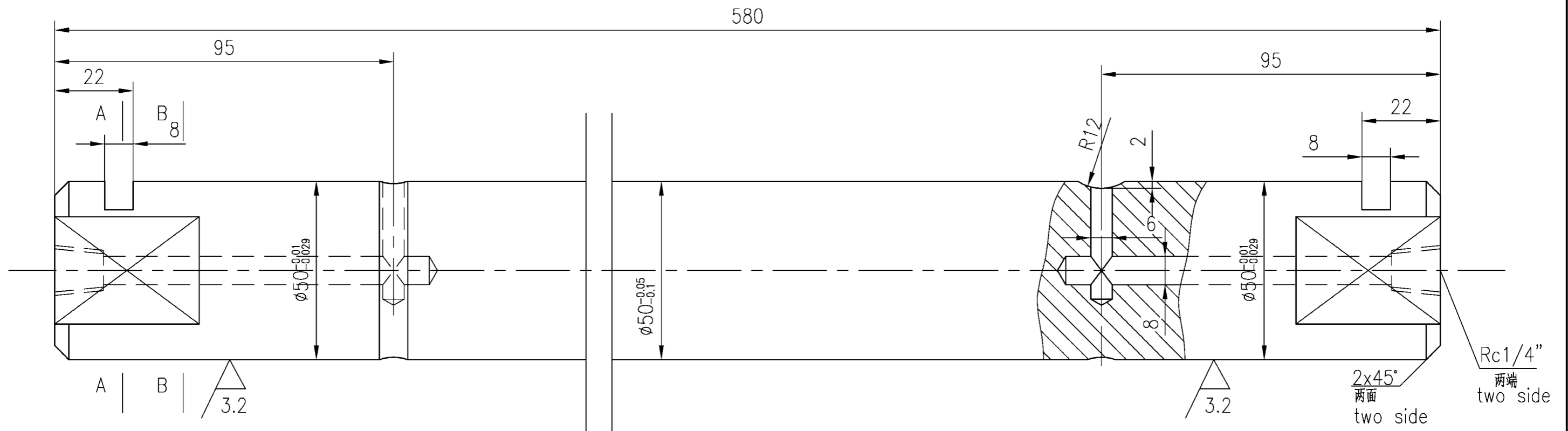
- 1.未注倒角: $1 \times 45^\circ$.
- 2.热处理: HRC35~40

Technology Requirement

- 1.All the non-noted fillets are $1 \times 45^\circ$
- 2.Adjusting Quality HB35~40

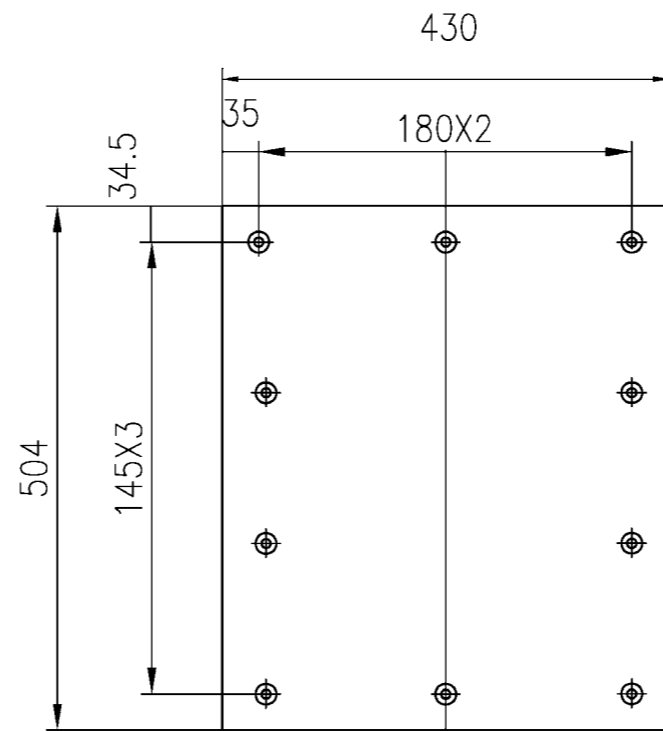
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
4	UL25120711	托辊抗磨层1 wearable sleeve 1	40Cr	5	4	1:4
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

其余 others $\sqrt{12.5}$

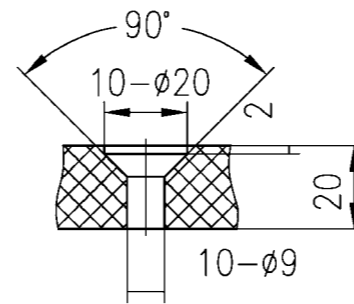


未注导角1x45°
chamfer 1x45°

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
5	UL25120712	轴 shaft	45	6	2	1:1
ZPMC		DRAW	TECH.	TRACE		
		CHCK	STDD	CHCK		



本件螺钉孔尺寸 hole for bolt installation
1:2



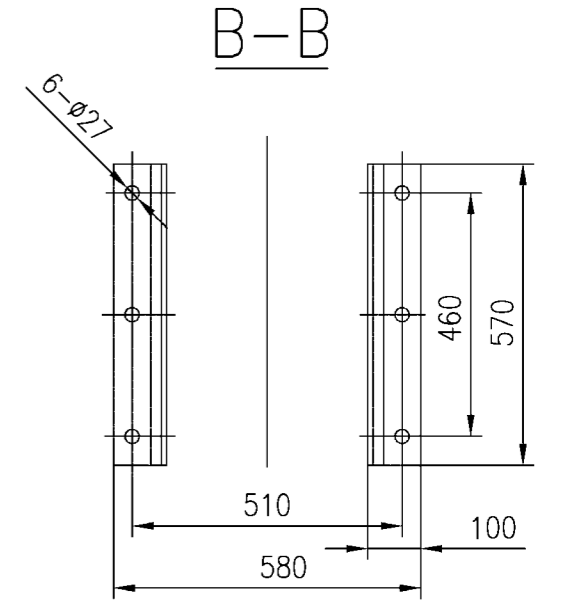
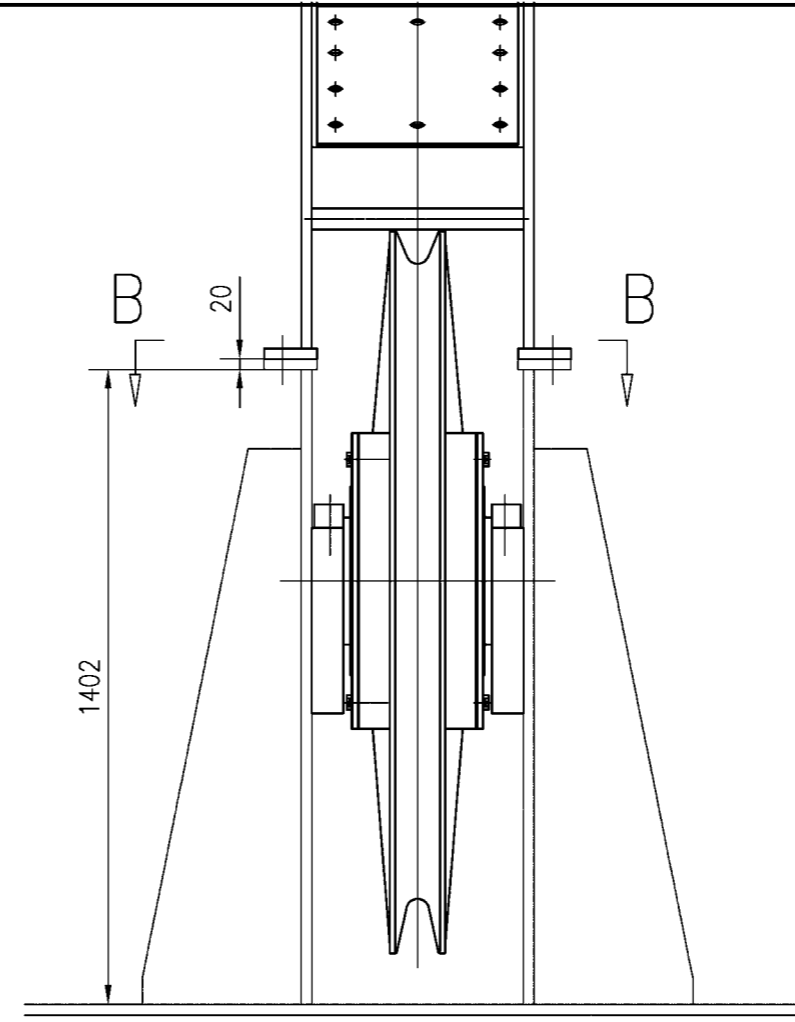
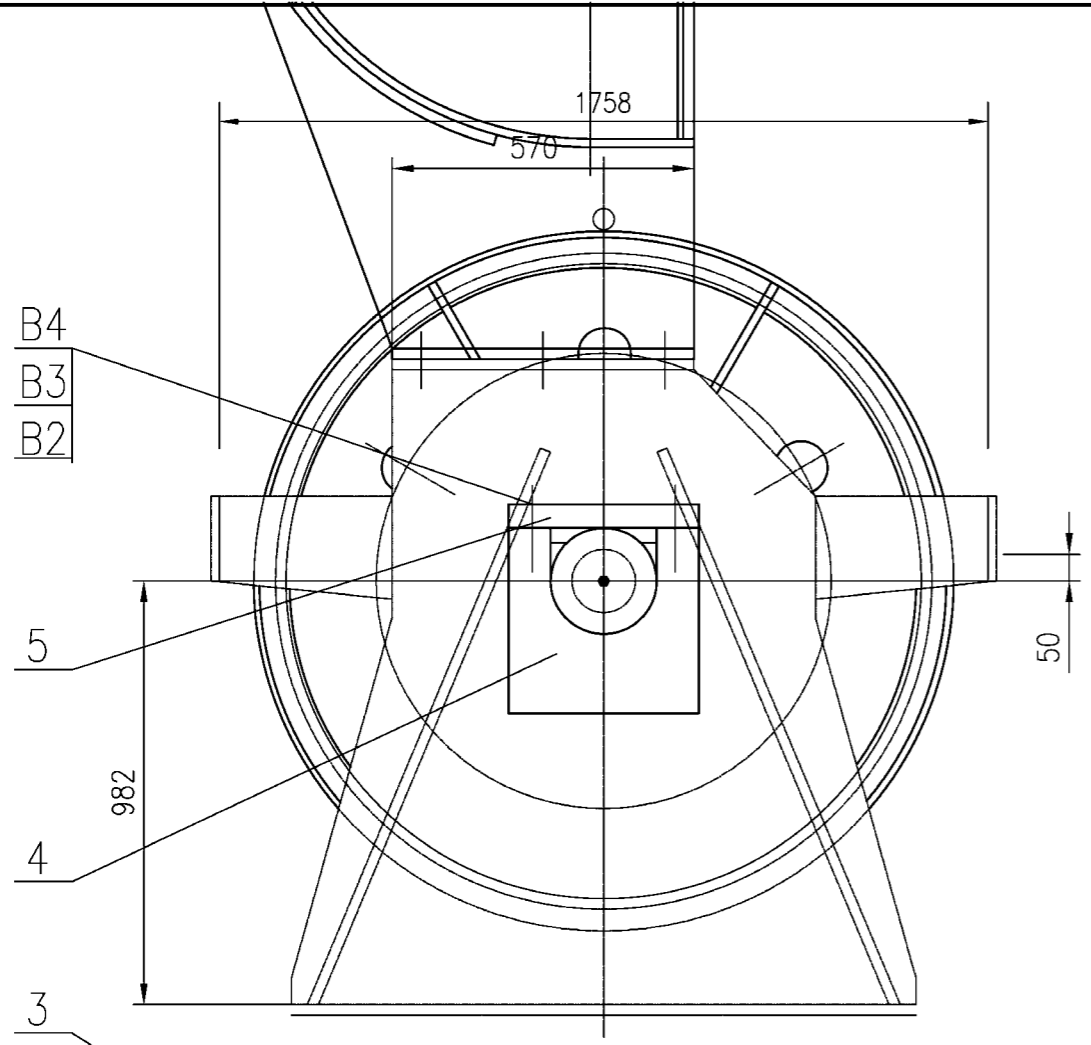
技术要求

- 1.本件为UL25120800护圈2件2沿尺寸504方向的展开图. 展角33°,R=876.
- 2.图UL25120800护圈2中件1在与件3,件4焊接好后与本件按图示尺寸配钻10-M10.

Technology Requirement

- 1.The item of UL25120800 guard ring was spreaded by 504side,spreaded angle was 38.74',R=700mm, every item was blocked off 4mm in building
2. item1 was match drill for 10-M10with this item after welded item 3and 4 at UL251208guard ring

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL25120801	complex nylon	复合尼龙	6.2	54	1:8
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

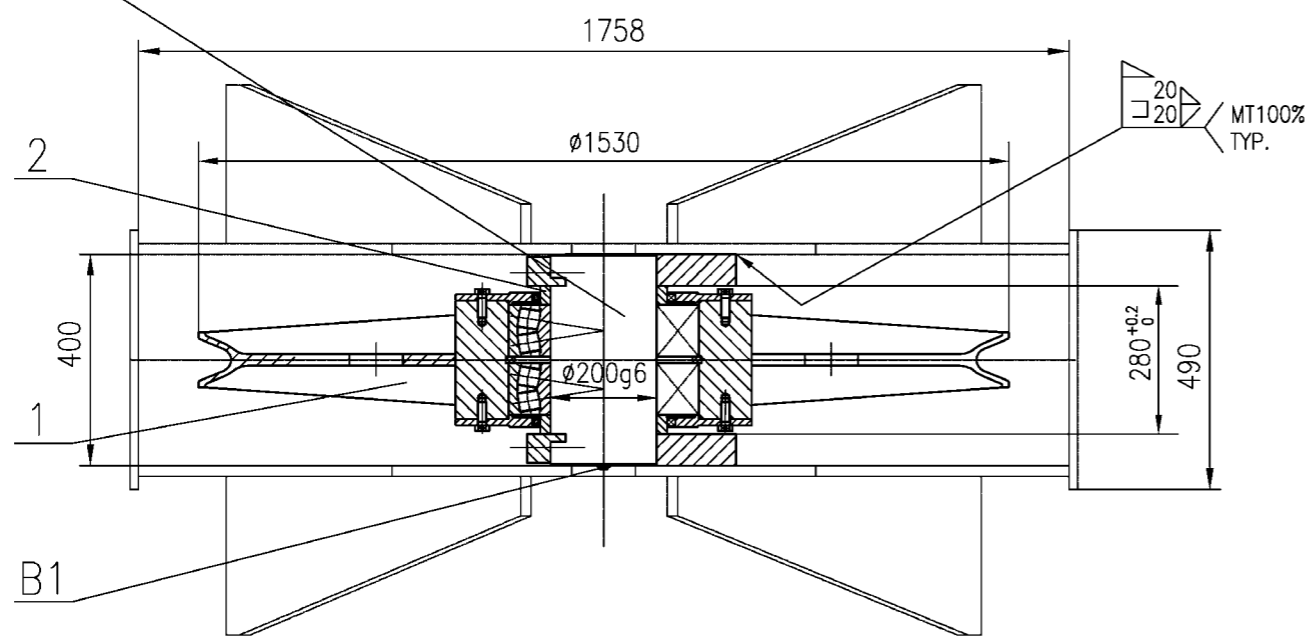


技术要求

1. 件4支座两件,成对用工艺同心轴在支承侧板间校正后焊接在侧板上.
2. 工艺心轴应保证间距 $280^{+0.2}_0$,焊接前校正水平.
3. 安装滑轮轴组时允许修割件2轴套.
4. 安装件5盖板时应修割卡入平面,防止滑轮轴转动.
5. 安装完后才能拧上润滑油嘴.

Technology Requirement

- 1.the pedestal of item 4 have two piece,Pairs adjusts with the craft with the spindle after the supporting side bar between welds on the side bar
- 2.The craft spindle should guarantee spacing $280^{+0.2}_0$ Before the welding adjusts the leve
- 3.Installs when the slippery wheel axle group allows to repair shears 2axle sleeve
- 4.When peaceful support 5 laps should repair shears the card to enter the plane,Prevents the slippery wheel axle rotation
- 5.After the installment finished can twist lubricates the smooth talker

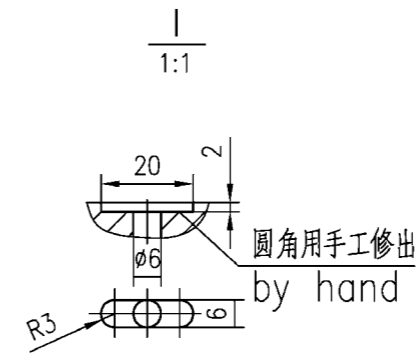
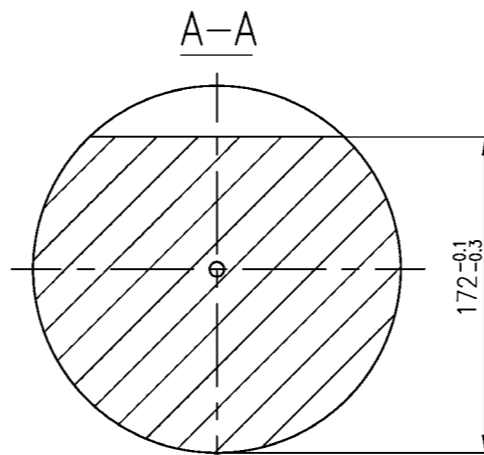
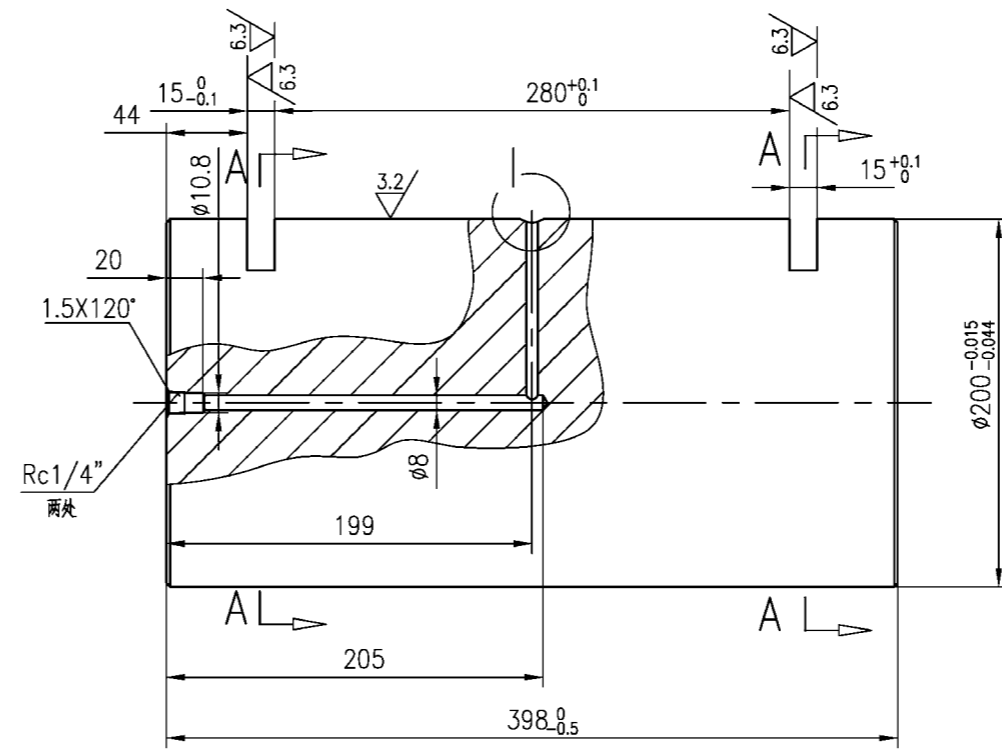


6	UL25120905	护圈 guard ring	welding	1	64.6	64.6	
5	UL25120904	盖板 cover board	Q345B	2	7.6	15.2	
4	UL25120903	支座 pedestal	Q345B	2	42.5	85	
3	UL25120902	轴 shaft	40Cr	1	73.2	73.2	
2	UL25120901	轴套 shaft cover	Q235B	2	3.9	7.8	
1	ULHL1400	pully D=1400	assembly	1	623	623	standard part

B7							
B6							
B5							
B4	GB854-88	washer 垫圈20	Q235	4	0.01	0.04	
B3	GB6170-86	nut 螺母M20	级10	4	0.05	0.2	
B2	GB899-88	bolt GM20-M20X80-Zn.D	级8.8	4	0.33	1.32	
B1	JISB0203	nozzle PT1/4"	成品	1			

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:15		
ITEM NAME: 中间滑轮组 middle pully block			DRAW NO:		UL25120900		
ZPMC	DSGN		TRACE			APP.	
	DRAW		CHCK			Q'TY/SET	872kg
	CHCK		VER.			SET/CRANE	2

其余 $\frac{12.5}{\sqrt{\quad}}$
others



Technology Requirement

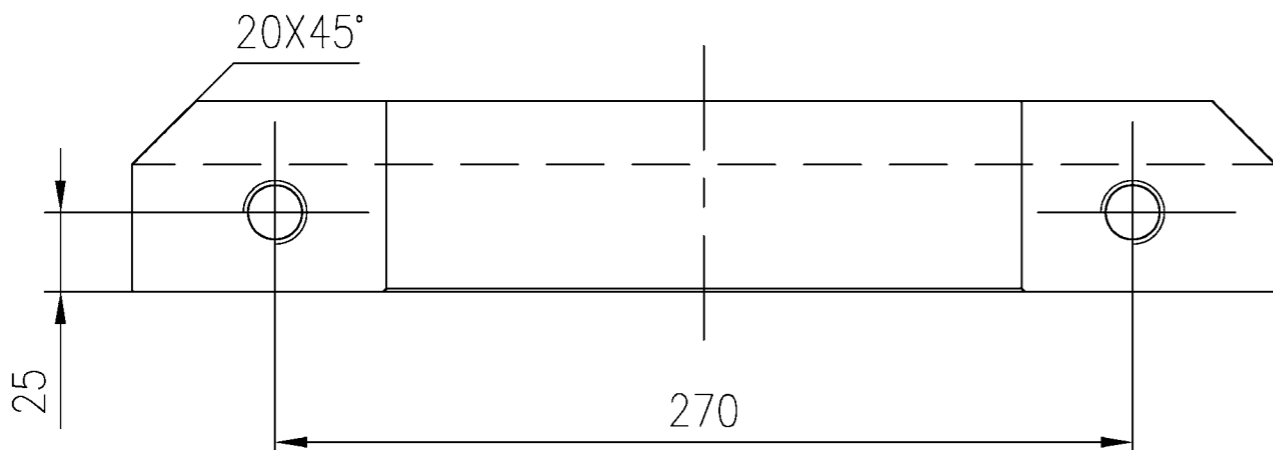
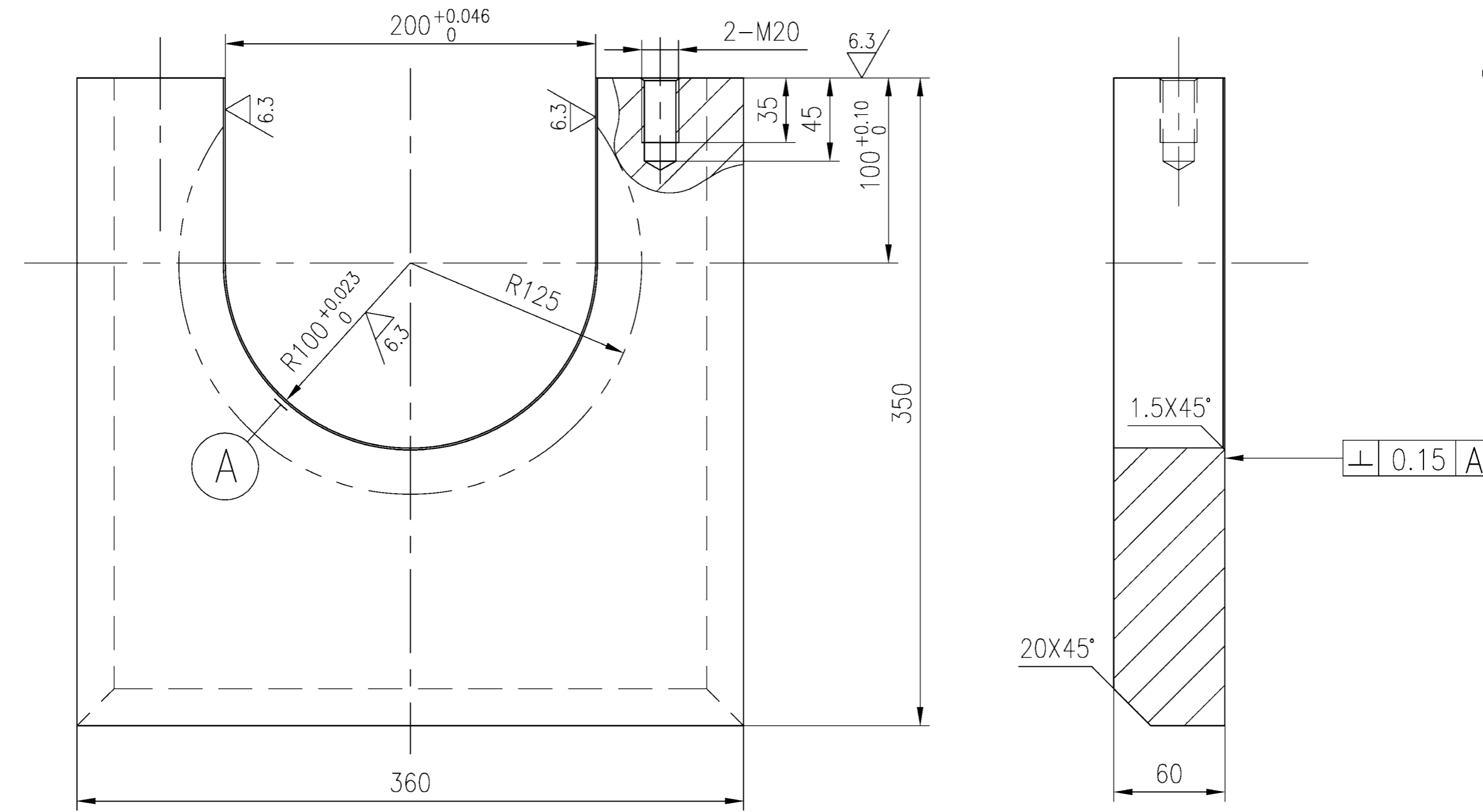
1. All the non-noted fillets are $1 \times 45^\circ$
2. All the non-noted round angles are R1
3. Adjusting Quality HB230~250
4. Fuel tank permission hand-planted

技术要求

1. 未注倒角: $1 \times 45^\circ$.
2. 未注圆角: R1.
3. 调质处理: HB230-250.
4. 油槽允许手工制作.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
3	UL25120902	轴 shaft	40Cr	73.2	2	1:2
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

其余 $\frac{12.5}{\nabla}$
others



Technology Requirement

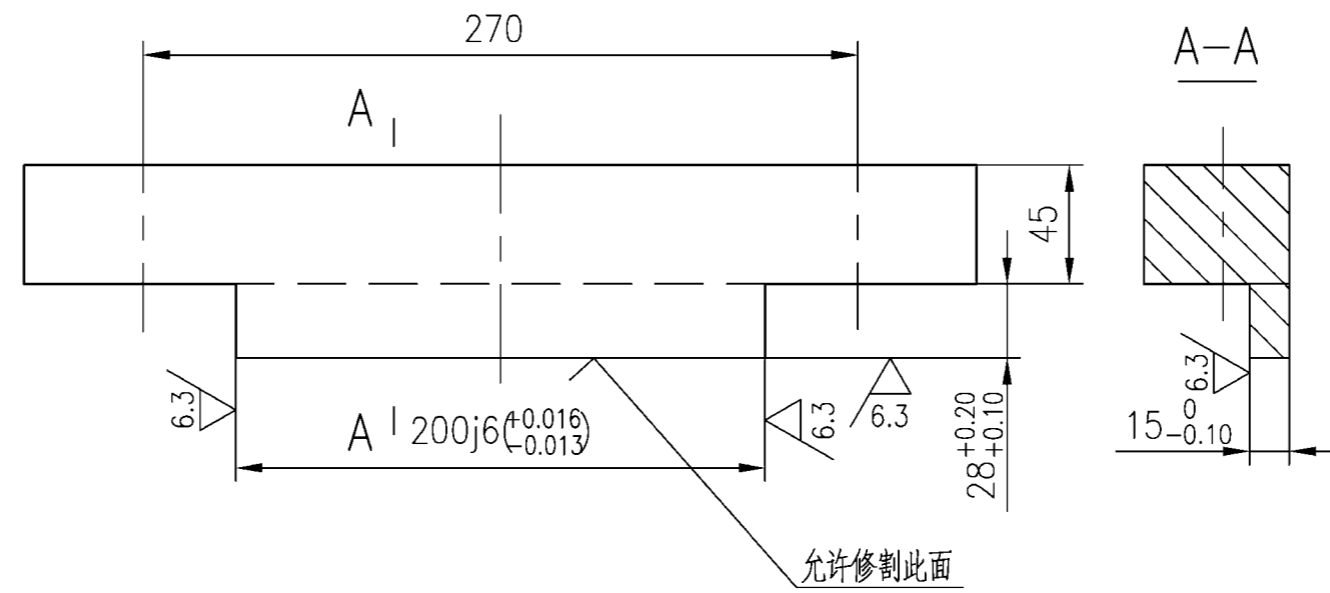
- 1. Sharp-cornered is but actually obtuse
- 2. A side bevel edge uses in the bevel welding

技术要求

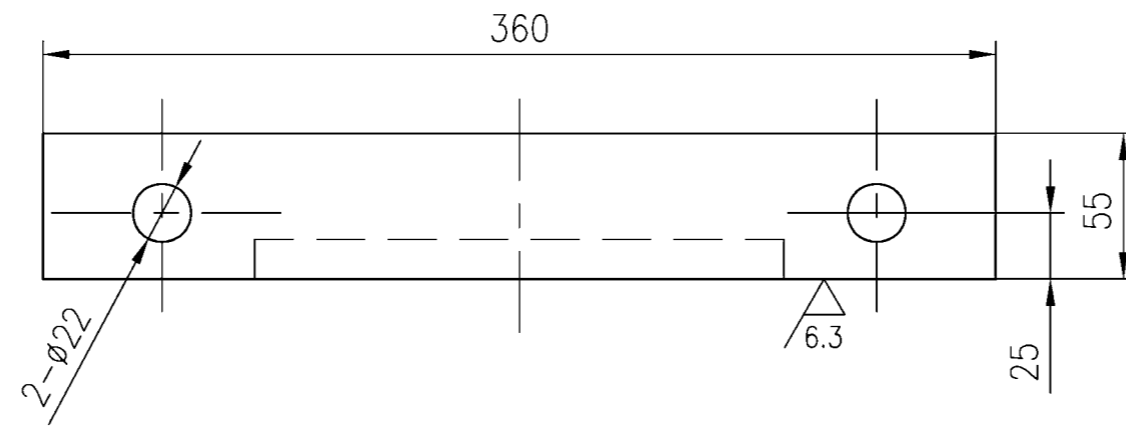
- 1. 锐边倒钝.
- 2. 一侧倒角用于坡口焊接.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
6	UL25120903	支座 pedestal	Q345B	42.5	4	1:2.5
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

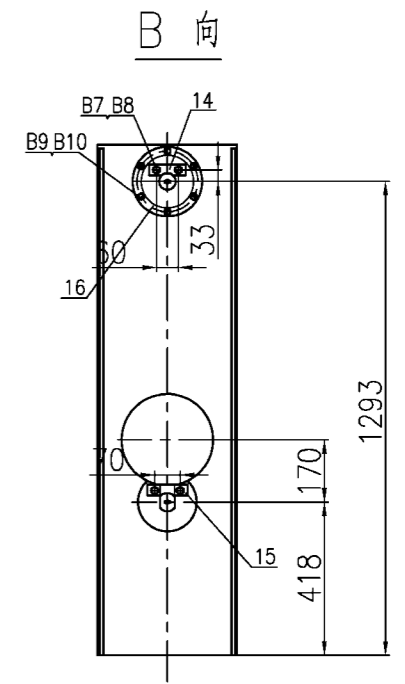
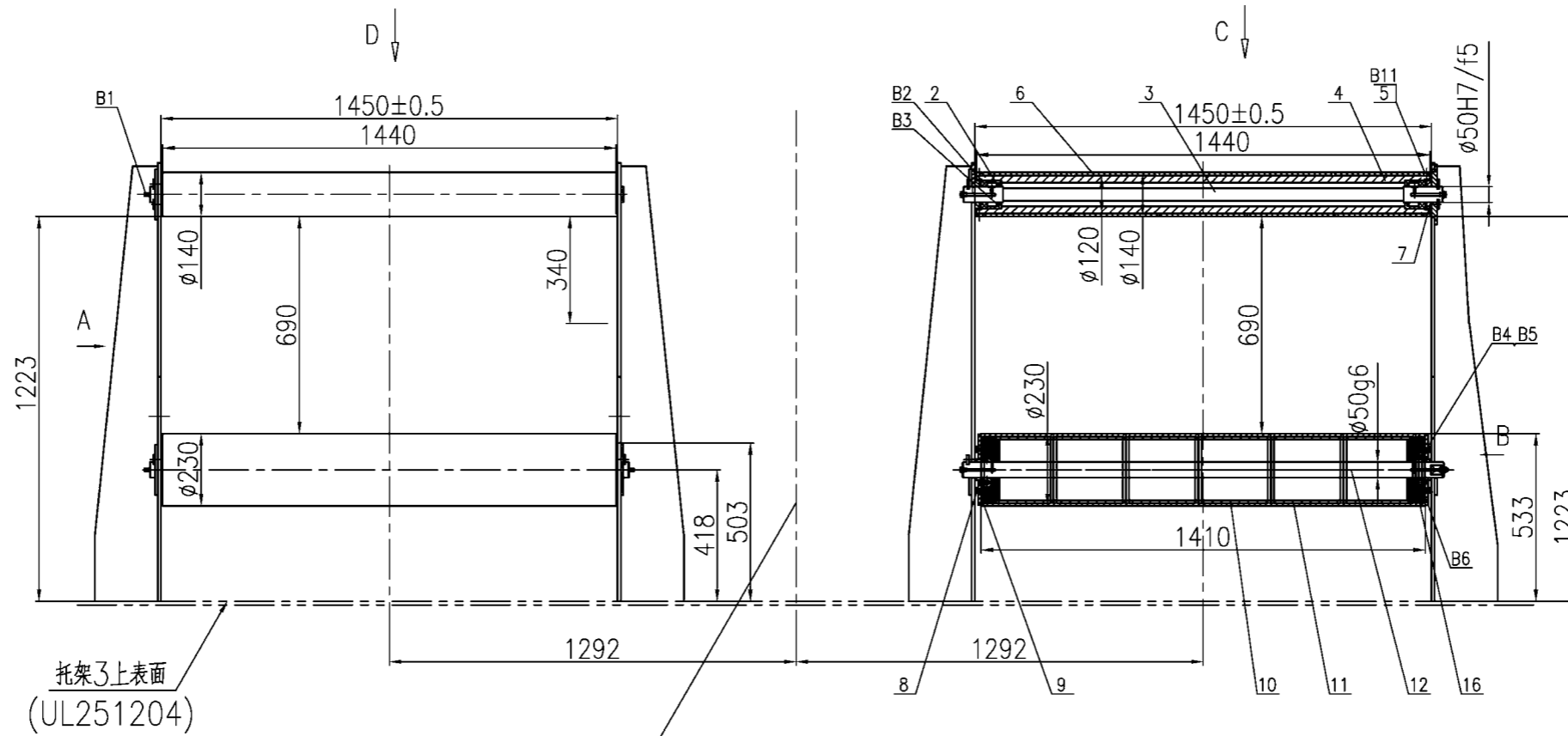
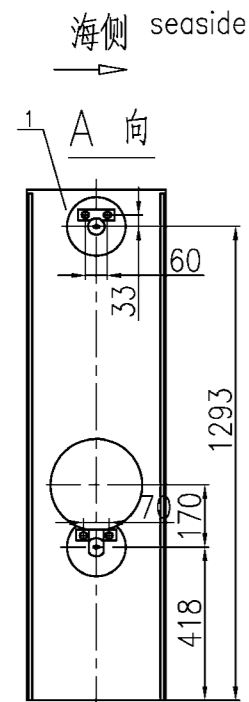
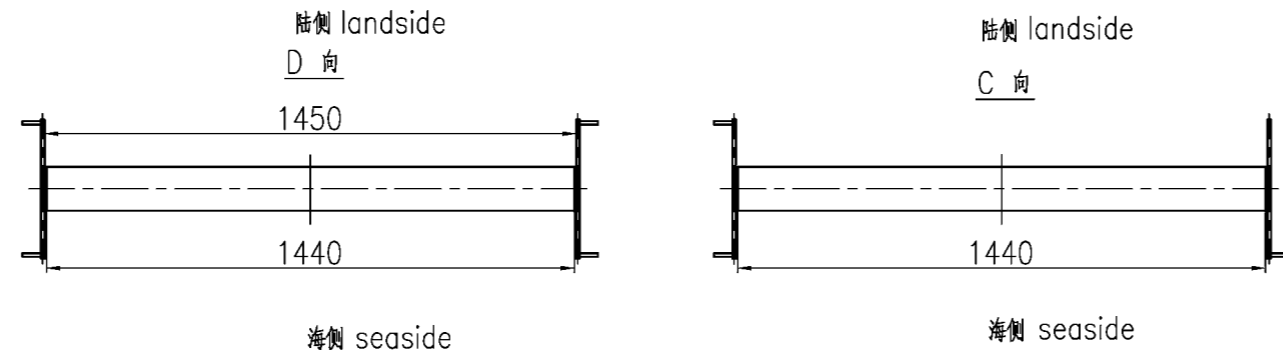
其余 $\frac{12.5}{\nabla}$
others



允许修割此面
this surface can be cut and repaired



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
7	UL25120904	盖板 cover board	Q345B	7.6	4	1:2.5
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



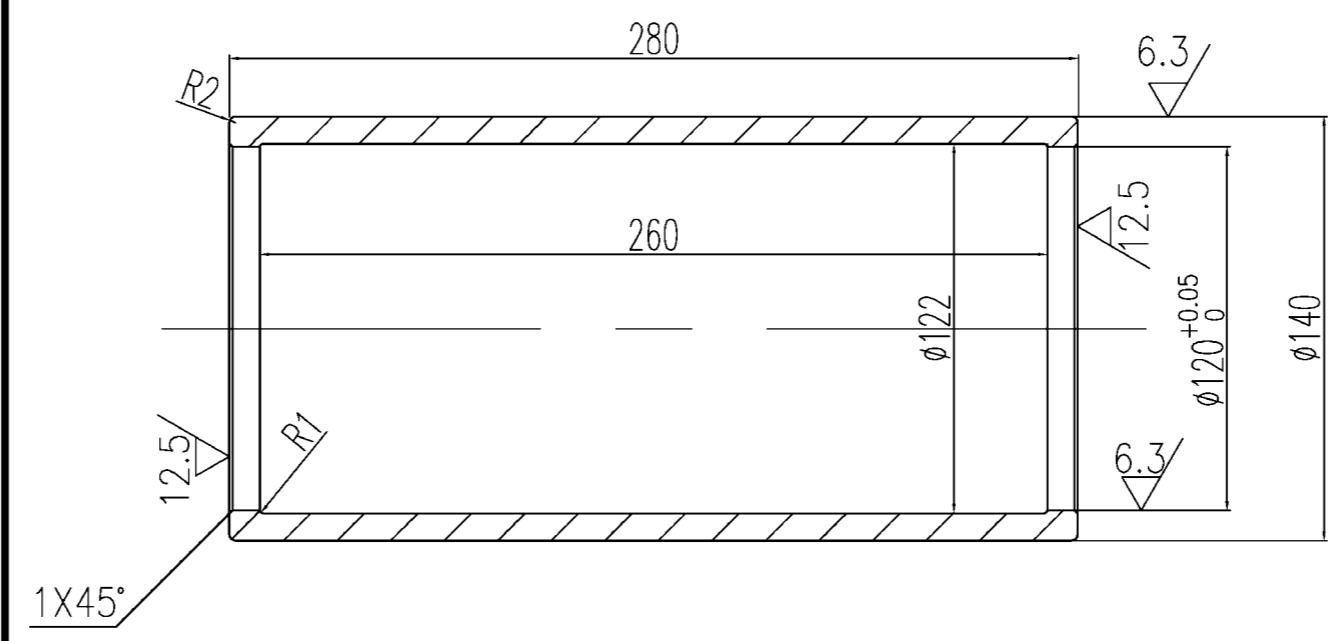
Technology Requirement

- 1.the roller to be possible to carry on the adjustment according to the steel wire actual situation
- 2.When installs, the sliding bearing returns to the fuel tank to be supposed in the flank, the symmetry but sets the bearing 42,210 inner loops slanting mouths should in the inside, But installs relatively

NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	WEIGHT		NOTE
					each	total	
4	UL25121004	上托辊 up roller	40Cr	20	2	39	78
3	UL25121003	上托辊轴 up roller shaft	Q235	45	2	8.1	16.2
2	UL25121002	挡油圈 oil block ring	Q235B	4	0.93	3.72	
1	UL25121001	托辊架 idler pedestal	焊接件	2	132	264	
PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE: 1:15			
ITEM NAME: 托辊组2 roller group2		DRAW NO: UL25121000		PROJ.			
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	483Kg	
	CHCK		VER.		SET/CRANE	1	

B11	GB79-85	bolt	螺栓10x15	16		螺栓z=5.3	
B10	GB862.1-87	washer	垫圈0	12			
B9	GB5782-86	bolt	螺栓M10X20	12			
B8	GB862.1-87	washer	垫圈2	16			
B7	GB5782-86	bolt	螺栓M12X25	16			
B6	GB276-82	bearing	轴承310	成组	4	50X110X27	
B5	GB862.2-87	washer	外锯齿锁紧垫圈0	24			
B4	GB5781-86	bolt	全螺纹六角头螺栓M10X25	24			
B3	GB9877.1-88	seal	内包骨架油封B55*72*8	成组	8		
B2	GB283-87	bearing	轴承42210	成组	4	0.31	1.24
B1		nozzle	油嘴PT1/4'	成组	8		
16	UL25121016	托辊轴衬层3	wearable sleeve 3	40Cr	2		
15	UL25121015	支承盖	supporting cover	Q235	2	2.7	5.4
14	UL25121014	轴端挡板2	shaft end Baffle2	Q235	4	0.13	0.52
13	UL25121013	轴端挡板1	shaft end Baffle1	Q235	4	0.13	0.52
12	UL25121012	轴	shaft	45	2	6	12
11	UL25121011	托辊轴衬层2	wearable sleeve 2	40Cr	12	5	20
10	UL25121010	托辊	roller	焊接件	2	13.6	27.2
9	UL25121009	端盖	end cover	Q235	4	1.2	4.8
8	UL25121008	轴套	shaft cover	Q235	4	0.35	1.4
7	UL25121007	防尘罩	dustproof Cover	Q235B	4	0.58	2.32
6	UL25121006	托辊轴衬层1	wearable sleeve 1	40Cr	10	4.3	43
5	UL25121005	挡圈	block ring	20	4	0.64	2.56

其余: 
others



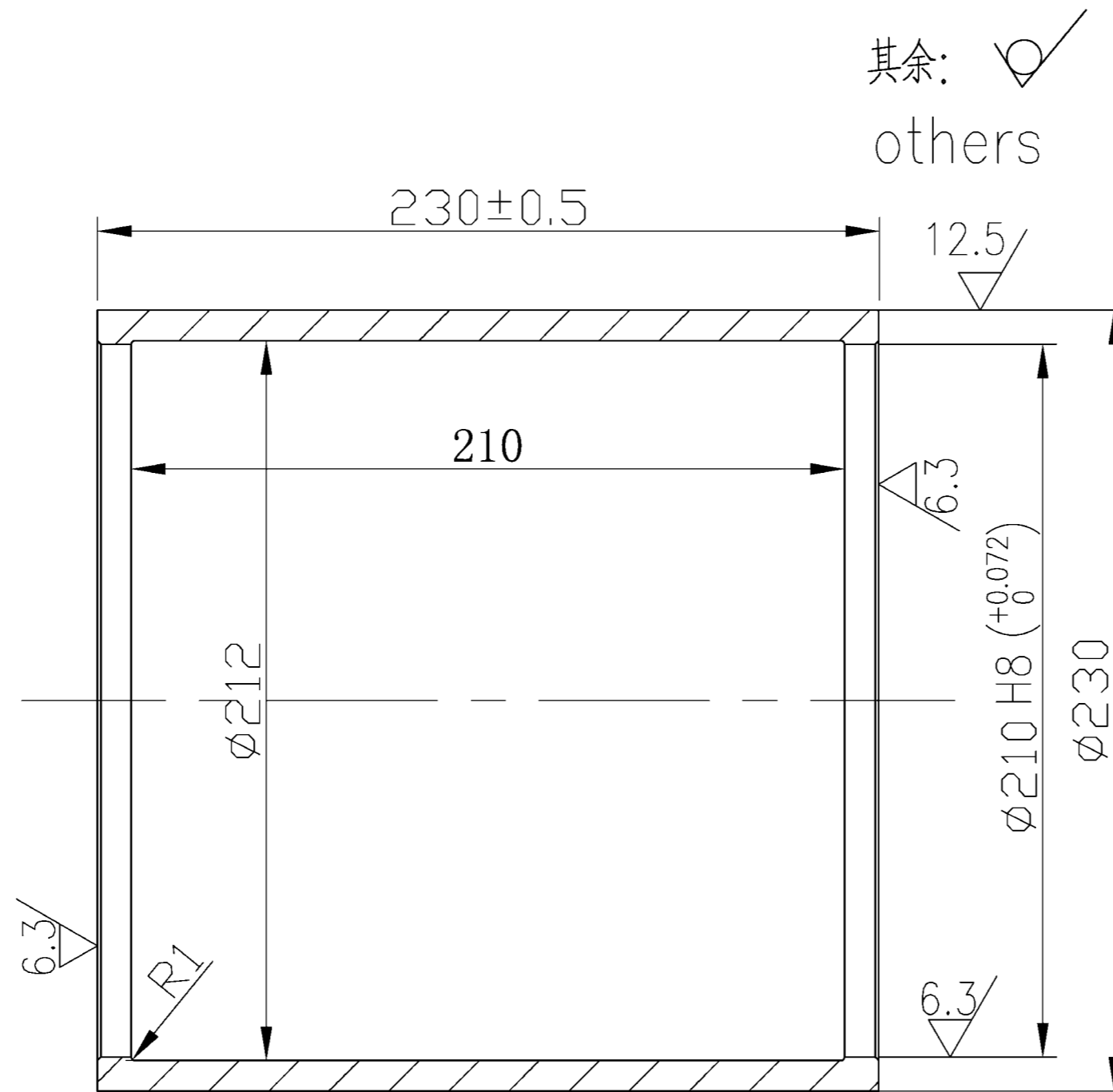
技术要求

- 1.未注倒角: 1X45°.
- 2.热处理: HRC35~40

Technology Requirement

- 1.All the non-noted fillets are 1x45°
- 2.Adjusting Quality HB35~40

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
6	UL25121006	托辊抗磨层1wearable sleeve1	40Cr	10	4.3 43	1:4
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



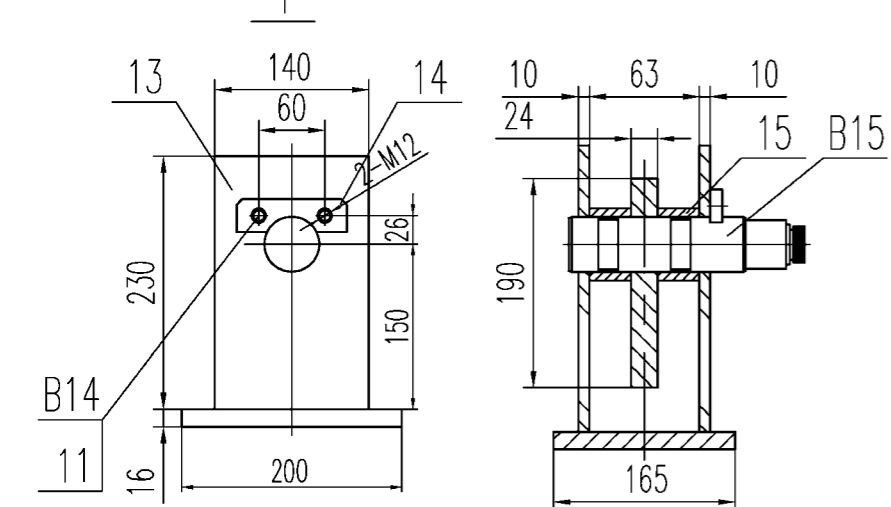
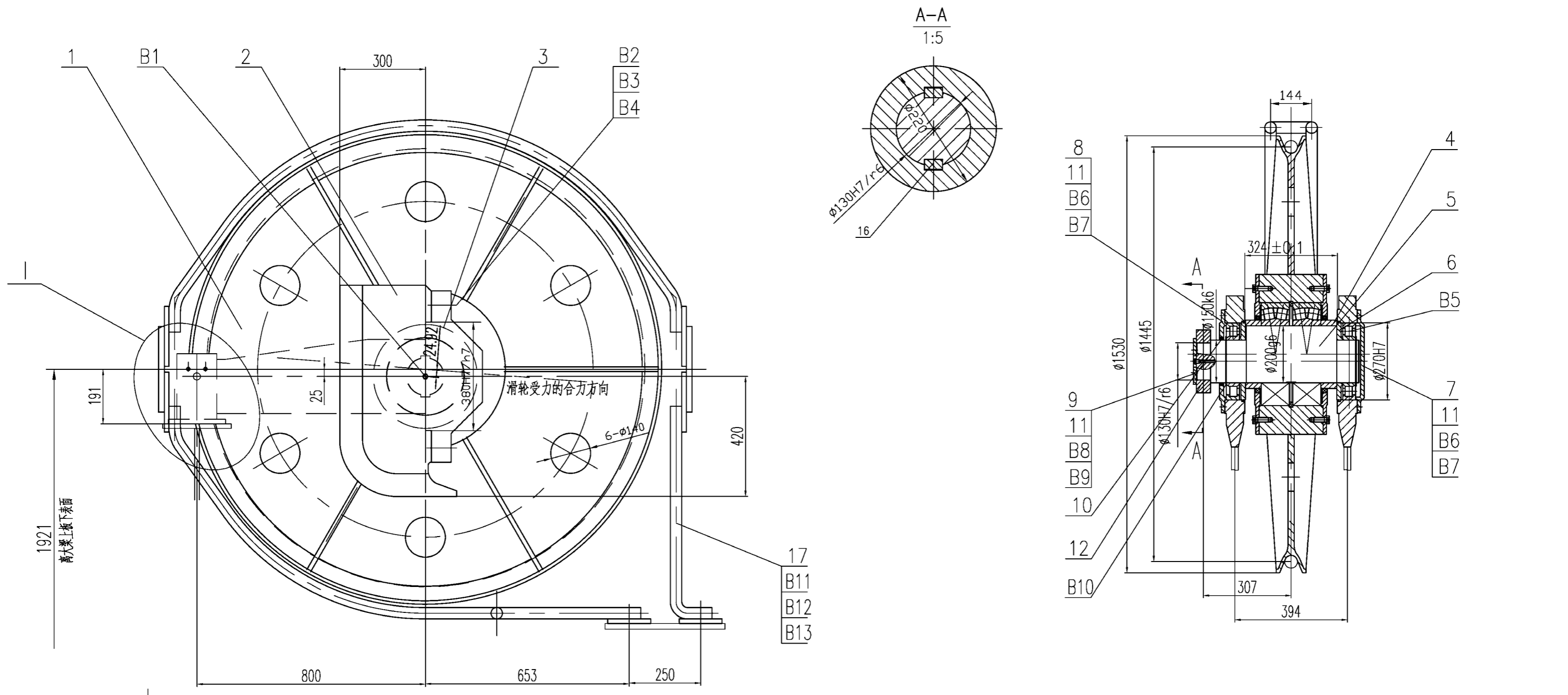
技术要求

- 1.未注倒角:1X45°.
- 2.热处理: HRC35~40

Technology Requirement

- 1.All the non-noted fillets are 1x45°
- 2.Adjusting Quality HB35~40

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
4	UL25121011	托辊抗磨层2 wearable sleeve2	40Cr	5.0	12	1:4
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



技术要求

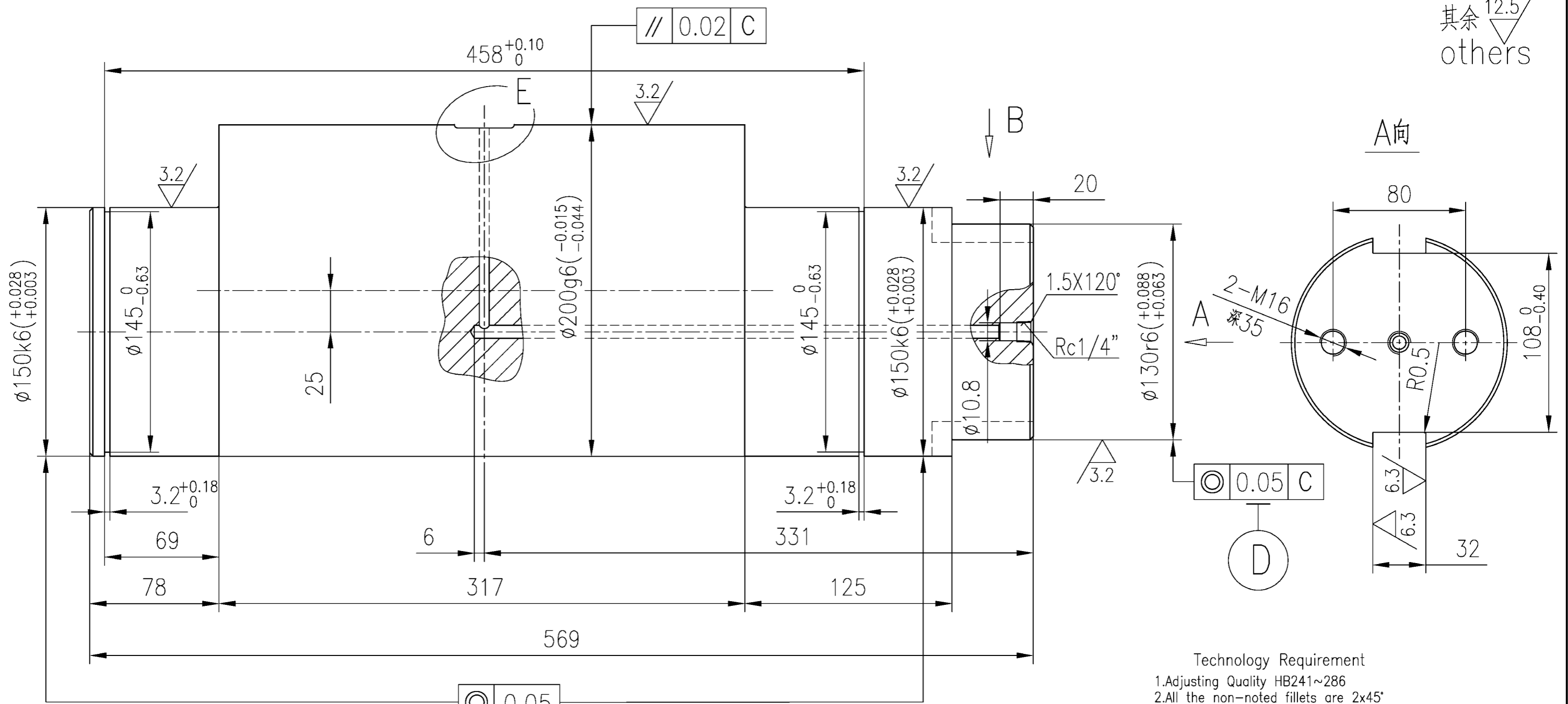
件2,3轴承座两件,成对用工艺同心轴在支承板上校正后焊接.

Technology Requirement

2,3 bearings support two,Pairs adjusts with the craft with the spindle after the support platewelds

B15	LB214	sensor 传感器(50KN)	finished product	1			MAGTROLINC	13	UL25121111	支架 pedestal	焊接件	1	9.7	9.7		
B14	GB32.1-88	bolt 螺栓M12X15		2				12	UL25121110	摇臂 rocker	Q235B	1	37.1	74.2		
B13	GB861.1-87	washer 垫圈16	65Mn	24	0.002	0.05		11		铁丝 ϕ 3.5 steel wire	Q235B		50.8	50.8		
B12	GB6170-86	nut 螺母M16	级10	24	0.03	0.46		10	UL25121109	毡圈 felt loop	毛毡	1	0.1	0.1		
B11	GB5782-86	bolt 螺栓M16X60	级8.8	24	0.11	1.7		9	UL25121108	压盖 press cover	Q235	1	1.44	1.44		
B10	GB894.1-86	block loop 挡圈150	65Mn	2	0.11	0.23		8	UL25121107	带孔端盖 Belt hole end cover	Q235	1	7.8	15.6		
B9	GB6170-86	nut 螺母M16	级10	2	0.03	0.06		7	UL25121106	端盖 end cover	Q235B	1	10.4	20.8		
B8	GB32.1-88	bolt 螺栓M16X40	级8.8	2	0.07	0.14		6	UL25121105	密封环 pressurize loop	Q235B	2	5.1	10.2		
B7	GB6170-86	nut 螺母M16	级10	12	0.03	0.35		5	UL25121104	轴 shaft	40Cr	1	103	103		
B6	GB32.1-88	bolt 螺栓M16X40	级8.8	12	0.07	0.14		4	UL25121103	轴套1 shaft cover1	Q235B	2	4.2	8.4		
B5	GB276-89	bearing 轴承6230		2				3	UL25121102	轴承盖 bearing cover	Q345B	2	14.9	30		
B4	GB854-88	washer 垫圈24	Q235	4	0.01	0.04		2	UL25121101	轴承座 bearing seat	Q345B	2	42.5	85		
B3	GB6170-86	nut 螺母M24	级10	4	0.05	0.2		1	ULHL1400	滑轮 ϕ 1400 pully ϕ 1400	组零件	1	623	623	标准件	
B2	GB899-88	bolt 螺栓M24-M24X110-Zn.D	级8.8	4	0.5	2		NO. SUB-NO. or STDD		NAME & SIZE	MATERIAL	QTY	each	total	NOTE	
B1	JISB0203	nozzle 油嘴PT1/4"	成品	1				PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:	SCALE: 1:10					
								ITEM NAME: 测力滑轮组(ϕ 1400)		DRAW NO: UL25121100	PROJ.					
								measure pulley group(ϕ 1400)		ZPMC		DSGN	TRACE	APP.		
										DRAW		CHCK	Q'TY/SET	1189.8		
										CHCK		VER.	SET/CRANE	1		
17	UL25121115	护圈 guard ring	welding	1	150.2	150.2										
16	UL25121114	键 bond	45	2	0.4	0.8										
15	UL25121113	轴套2 shaft cover2	Q235	2	1	1										
14	UL25121112	卡板 block board	Q235	1	0.21	0.21										

其余 $\frac{12.5}{\nabla}$
others

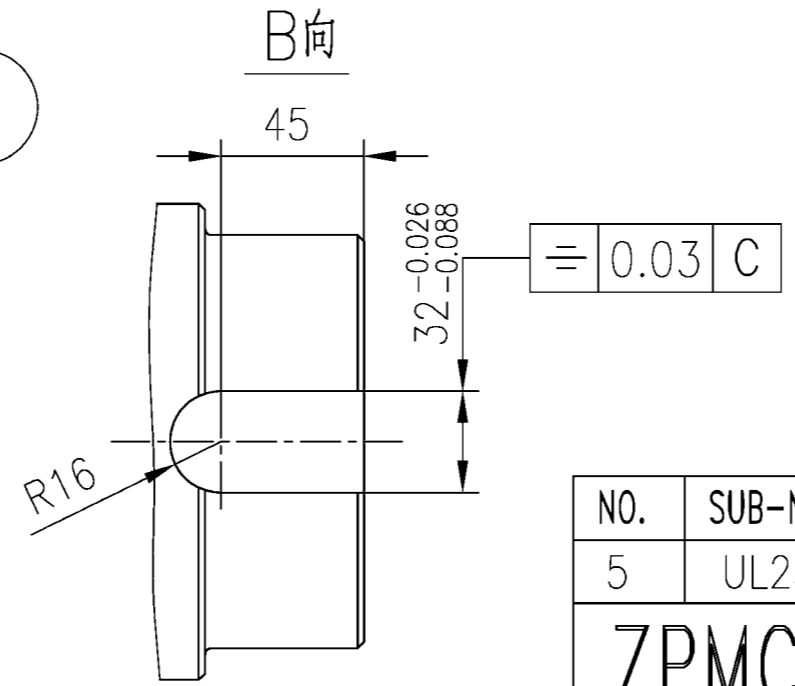
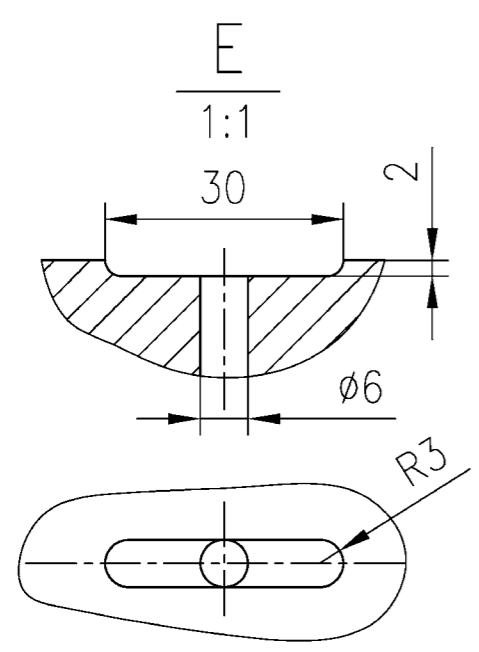


Technology Requirement

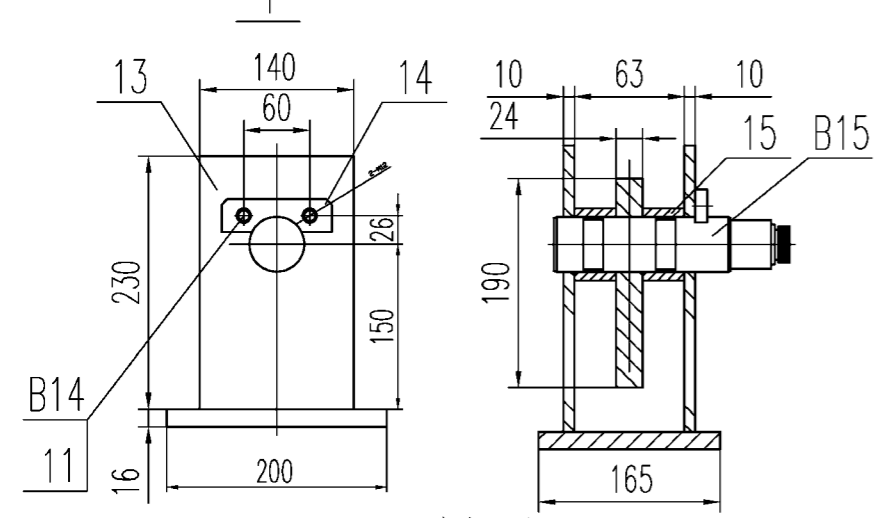
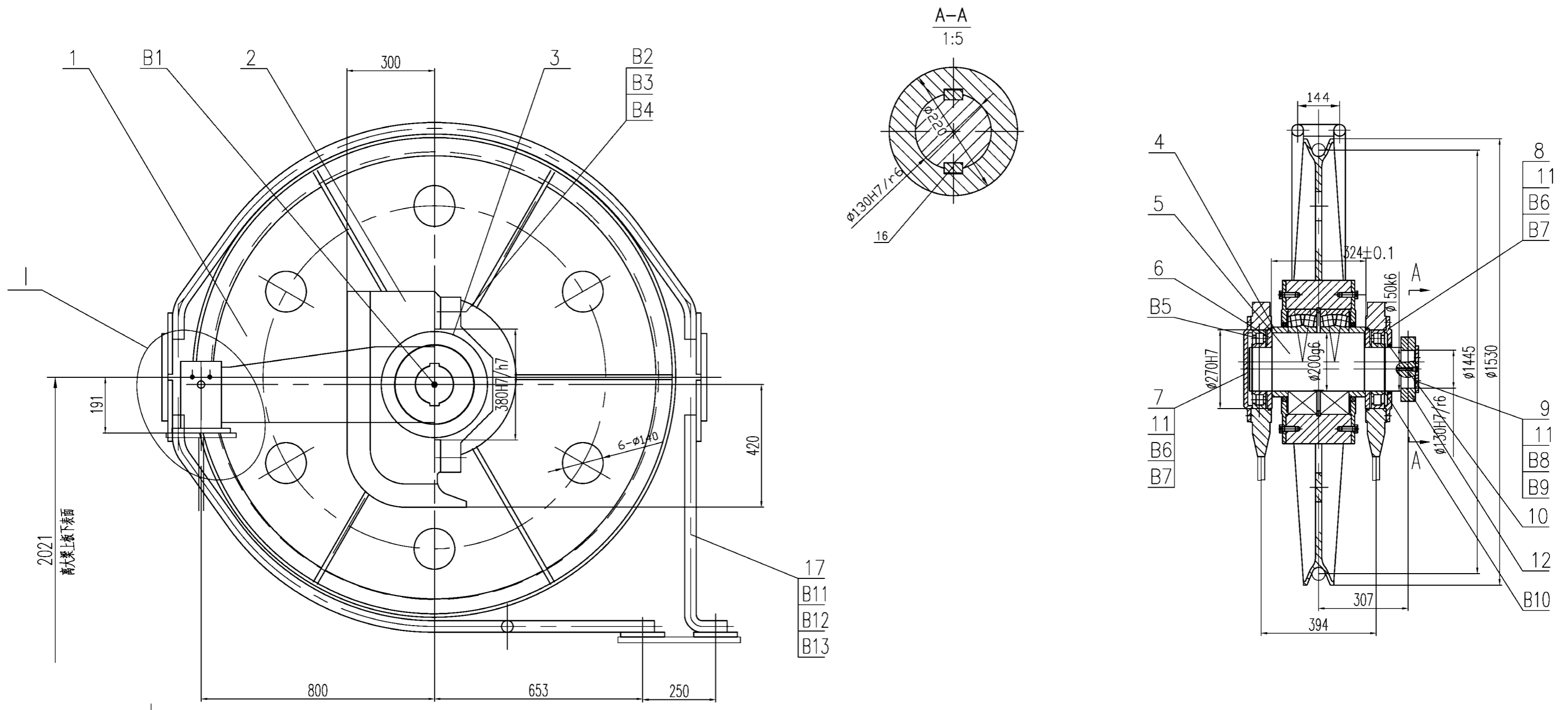
1. Adjusting Quality HB241~286
2. All the non-noted fillets are 2x45°
3. All the non-noted round angles are R1.5

技术条件

1. 热处理: 调质HB241-286.
2. 未注倒角2X45°.
3. 未注圆角R1.5.



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
5	UL25121104	轴 shaft	40Cr	103	2	1:2.5
ZPMC		DRAW	TECH.	TRACE		
		CHCK	STDD	CHCK		



技术要求

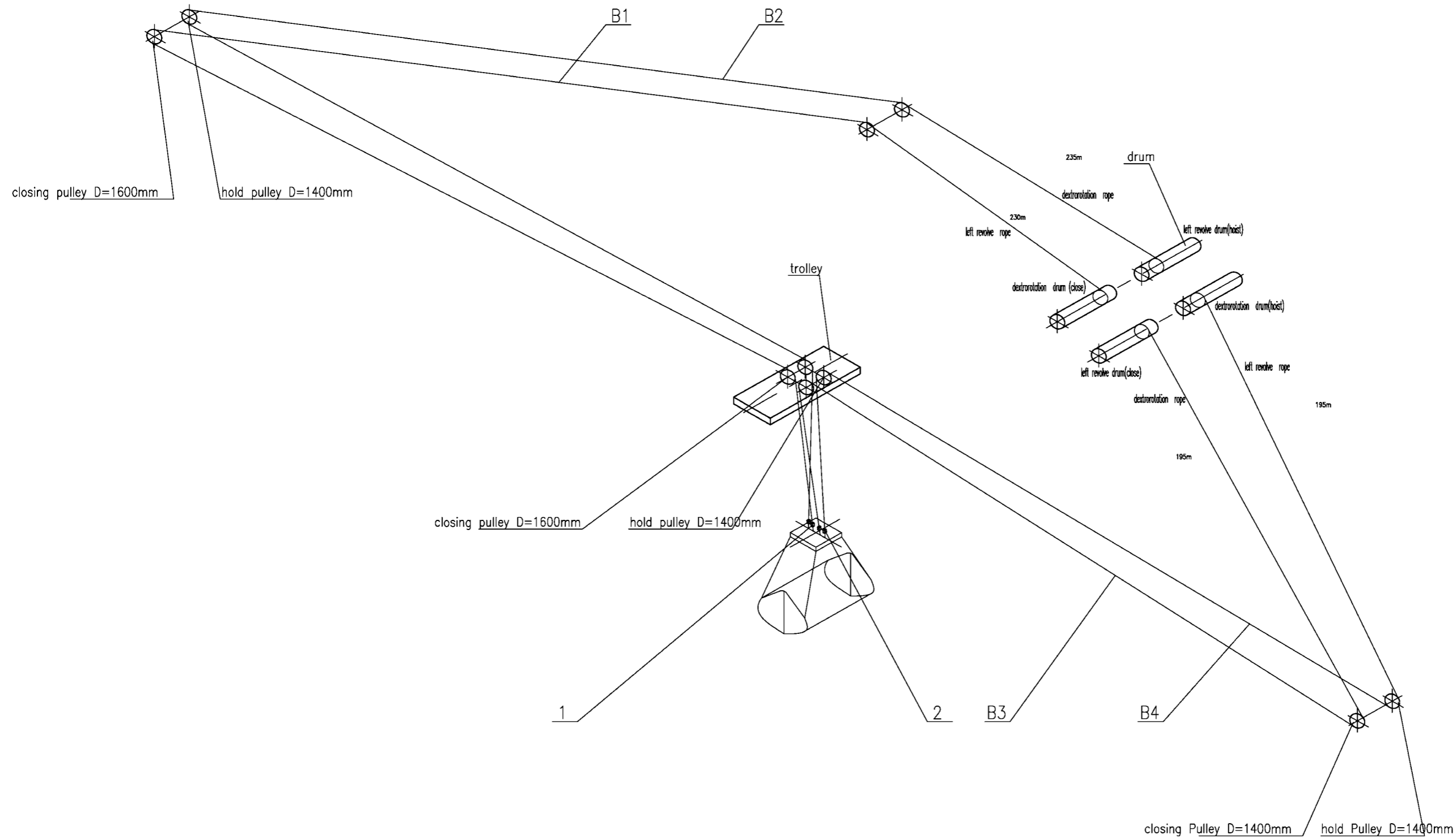
件2,3轴承支座两件,成对用工艺同心轴在支承板上校正后焊接.

Technology Requirement

2,3 bearings support two,Pairs adjusts with the craft with the spindle after the support platewelds

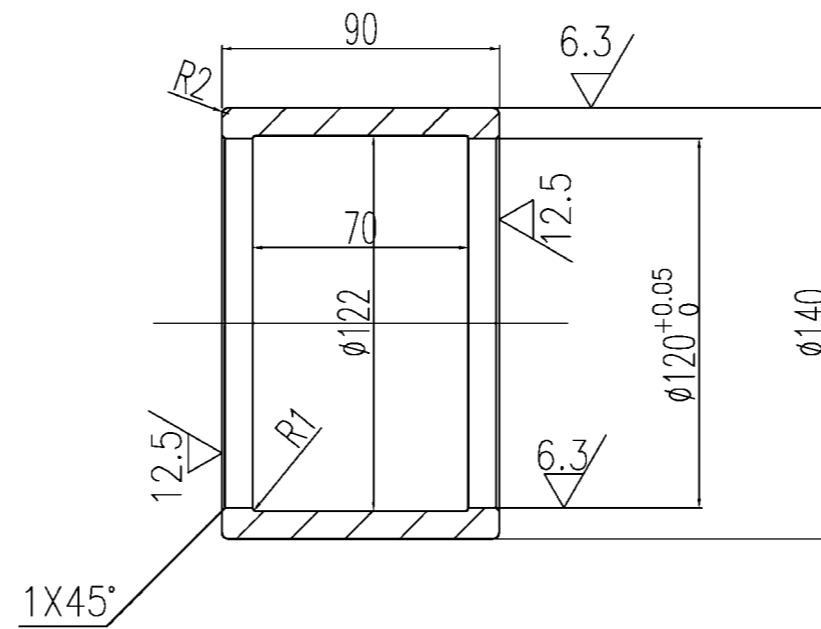
B15	LB214	sensor	传感器(50KN)	finished product	1			MAGTROLINC
B14	GB32.1-88	bolt	螺栓M12X15		2			
B13	GB861.1-87	washer	垫圈16	65Mn	24	0.002	0.05	
B12	GB6170-86	nut	螺母M16	级10	24	0.03	0.46	
B11	GB5782-86	bolt	螺栓M16X60	级8.8	24	0.11	1.7	
B10	GB894.1-86	block loop	挡圈150	65Mn	2	0.11	0.23	
B9	GB6170-86	nut	螺母M16	级10	2	0.03	0.06	
B8	GB32.1-88	bolt	螺栓M16X40	级8.8	2	0.07	0.14	
B7	GB6170-86	nut	螺母M16	级10	12	0.03	0.35	
B6	GB32.1-88	bolt	螺栓M16X40	级8.8	12	0.07	0.14	
B5	GB276-89	bearing	轴承6230		2			
B4	GB854-88	washer	垫圈24	Q235	4	0.01	0.04	
B3	GB6170-86	nut	螺母M24	级10	4	0.05	0.2	
B2	GB899-88	bolt	螺栓M24-M24X110-ZnD	级8.8	4	0.5	2	
B1	JISB0203	nozzle	油嘴PT1/4"	成品	1			
17	UL25121115	护圈	guard ring	welding	1	150.2	150.2	借用
16	UL25121114	键	bond	45	2	0.4	0.8	借用
15	UL25121113	轴套2	shaft cover2	Q235	2	1	1	借用
14	UL25121112	卡板	block board	Q235	1	0.21	0.21	借用

13	UL25121111	支架	pedestal	焊接件	1	9.7	9.7	借用
12	UL25121110	摇臂	rocker	Q235B	1	37.1	74.2	借用
11		铁丝	φ3.5 steel wire	Q235B		50.8	50.8	
10	UL25121109	毡圈	felt loop	毛毡	1	0.1	0.1	借用
9	UL25121108	压盖	press cover	Q235	1	1.44	1.44	借用
8	UL25121107	带孔端盖	Belt hole end cover	Q235	1	7.8	15.6	借用
7	UL25121106	端盖	end cover	Q235B	1	10.4	20.8	借用
6	UL25121105	密封环	pressurize loop	Q235B	2	5.1	10.2	借用
5	UL25121104	轴	shaft	40Cr	1	103	103	借用
4	UL25121103	轴套1	shaft cover1	Q235B	2	4.2	8.4	借用
3	UL25121102	轴承盖	bearing cover	Q345B	2	14.9	30	借用
2	UL25121101	轴承座	bearing seat	Q345B	2	42.5	85	借用
1	ULHL1400	滑轮φ1400	pullyφ1400	组零件	1	623	623	标准件
NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	each		total	NOTE
					WEIGHT			
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:10			
ITEM NAME: 测力滑轮组II(φ1400) measure pulley groupII(φ1400)			DRAW NO: UL25121200		PROJ.			
ZPMC	DSGN		TRACE		APP.			
	DRAW		CHCK		Q'TY/SET		1189.8	
	CHCK		VER.		SET/CRANE		1	



B6	6027-ABC(DTA MPROMEXPLW STEEL)	steel wire #45detroration	import part	28m	349	349	
B5	6027-ABC(DTA MPROMEXPLW STEEL)	steel wire#45 left revolve	import part	28m	349	349	
B4	6027-ABC(DTA MPROMEXPLW STEEL)	steel wire#45 left revolve	import part	210m	2480	2480	
B3	6027-ABC(DTA MPROMEXPLW STEEL)	steel wire #45detroration	import part	200m	2480	2480	
B2	6027-ABC(DTA MPROMEXPLW STEEL)	steel wire #45detroration	import part	250m	2852	2852	
B1	6027-ABC(DTA MPROMEXPLW STEEL)	steel wire#45 left revolve	import part	240m	2870	2870	
1	UL25121301	steel wire celenity tie-in	assembly	1	160	160	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
PROJECT:			DESIGN STAGE:	SCALE:			
ITEM NAME: 小车起升, 率引绳绕图			DRAW NO: UL25121300				
MAIN REEVING SYS.							
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHK		Q'TY/SET	11540	
	CHCK		VER.		SET/CRANE	1	

其余: 
others

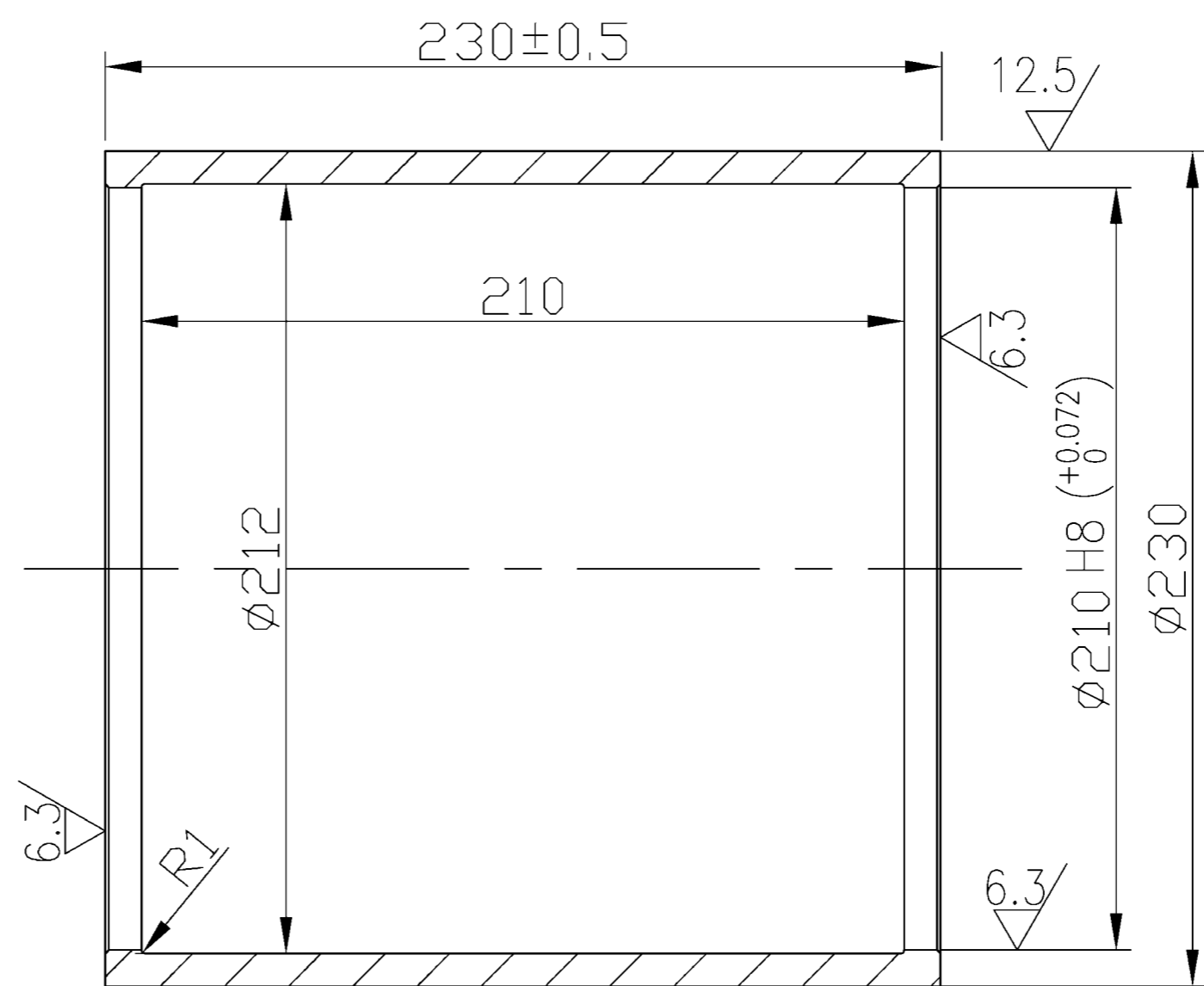


技术要求
 1.未注倒角:1X45°.
 2.热处理: HRC35~40

Technology Requirement
 1.All the non-noted fillets are 1x45°
 2.Adjusting Quality HB35~40

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
6	UL25121406	托辊抗磨层1 wearable sleeve1	40Cr	10	2.9 29	1:4
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

其余:



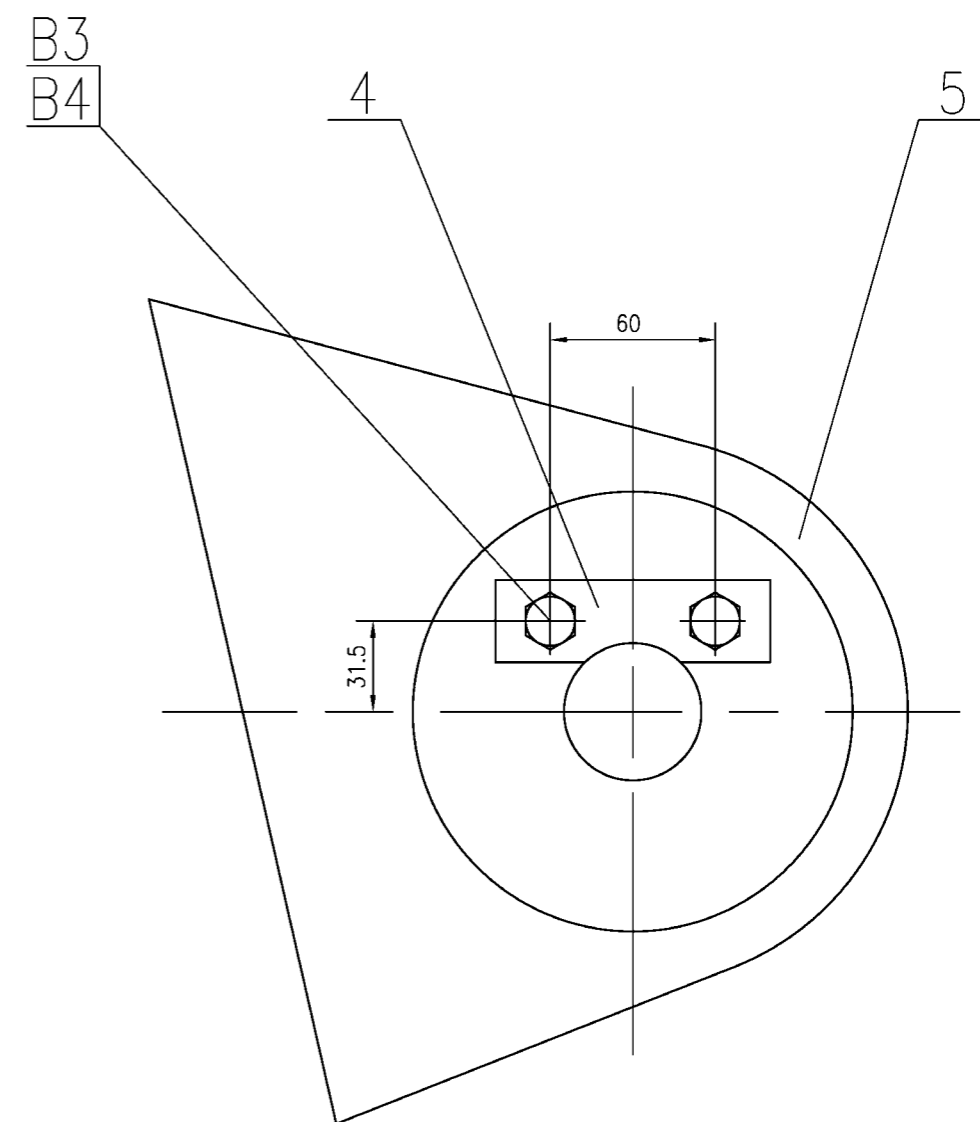
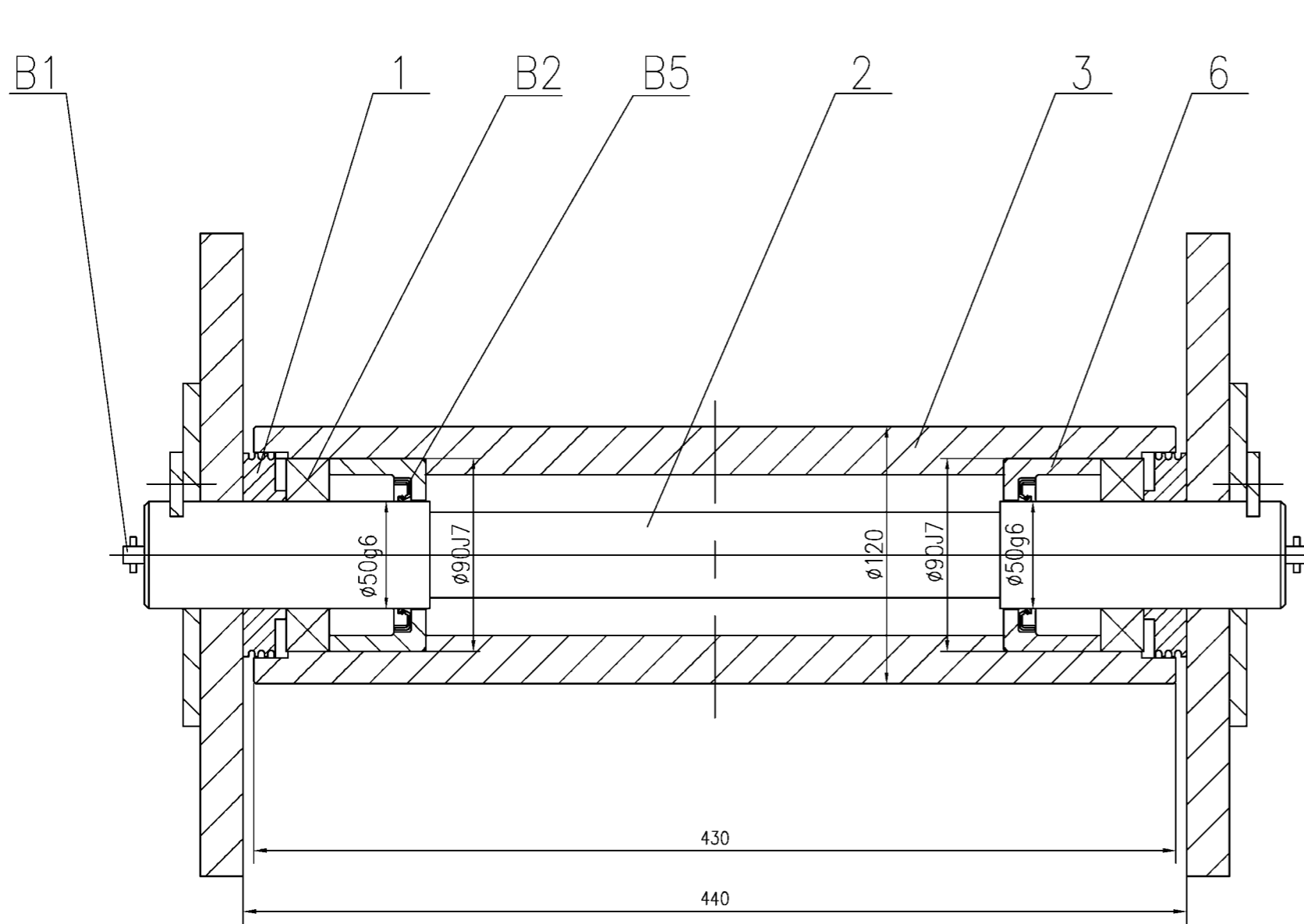
技术要求

- 1.未注倒角:1X45°.
- 2.热处理: HRC35~40

Technology Requirement

- 1.All the non-noted fillets are 1x45°
- 2.Adjusting Quality HB35~40

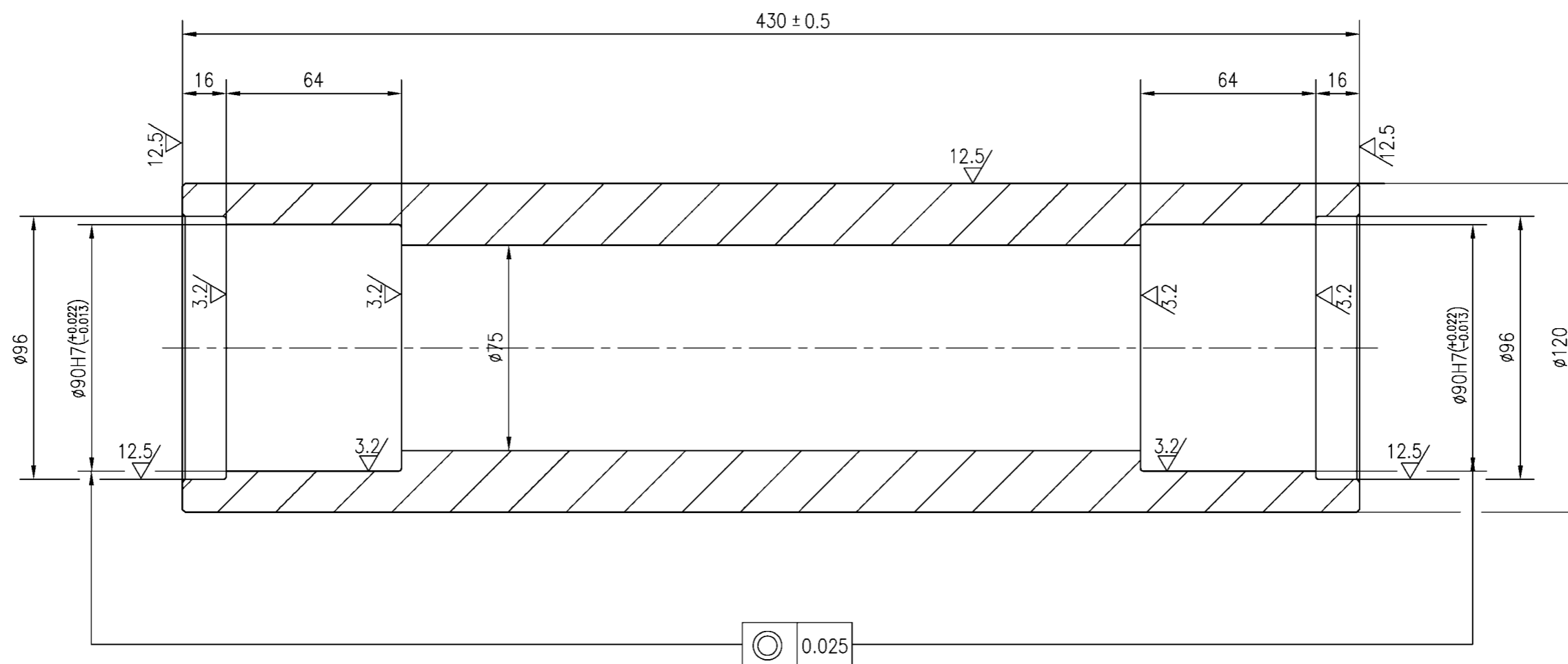
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
4	UL25121411	托辊抗磨层2wearable sleeve2	40Cr	12.5	4	1:4
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	each	total	NOTE
					WEIGHT		
6	UL25121606	挡油圈 oil block ring	Q235	2			
5	UL25121605	托辊架 roller pedestal	welding	1	14.8	14.8	
4	UL25121604	轴端挡板 shaft end Baffle	Q235	2	0.13	0.26	
3	UL25121603	托辊 roller	45	1	21.5	21.5	
2	UL25121602	托辊轴 roller shaft	45	1	6.7	6.7	
1	UL25121601	防尘罩 dustproof Cover	Q235	2	0.56	1.12	

PROJECT:Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:2	
ITEM NAME: 托辊组4 roller group4			DRAW NO: UL25121600		PROJ.	
ZPMC	DSGN		TRACE		APP.	
	DRAW		CHCK		Q'TY/SET	90
	CHCK		VER.		SET/CRANE	2

B5	GB9877.1-88	seal 内包带聚油封B55*72*8		2			
B4	GB862.1-87	washer 垫圈12	65Mn	4			
B3	GB5782-86	bolt 螺栓M12X25	Q235	4			
B2	GB283-87	bearing 轴承42210		2	0.31	0.62	
B1		nozzle 油嘴PT1/4" turnoff		1			



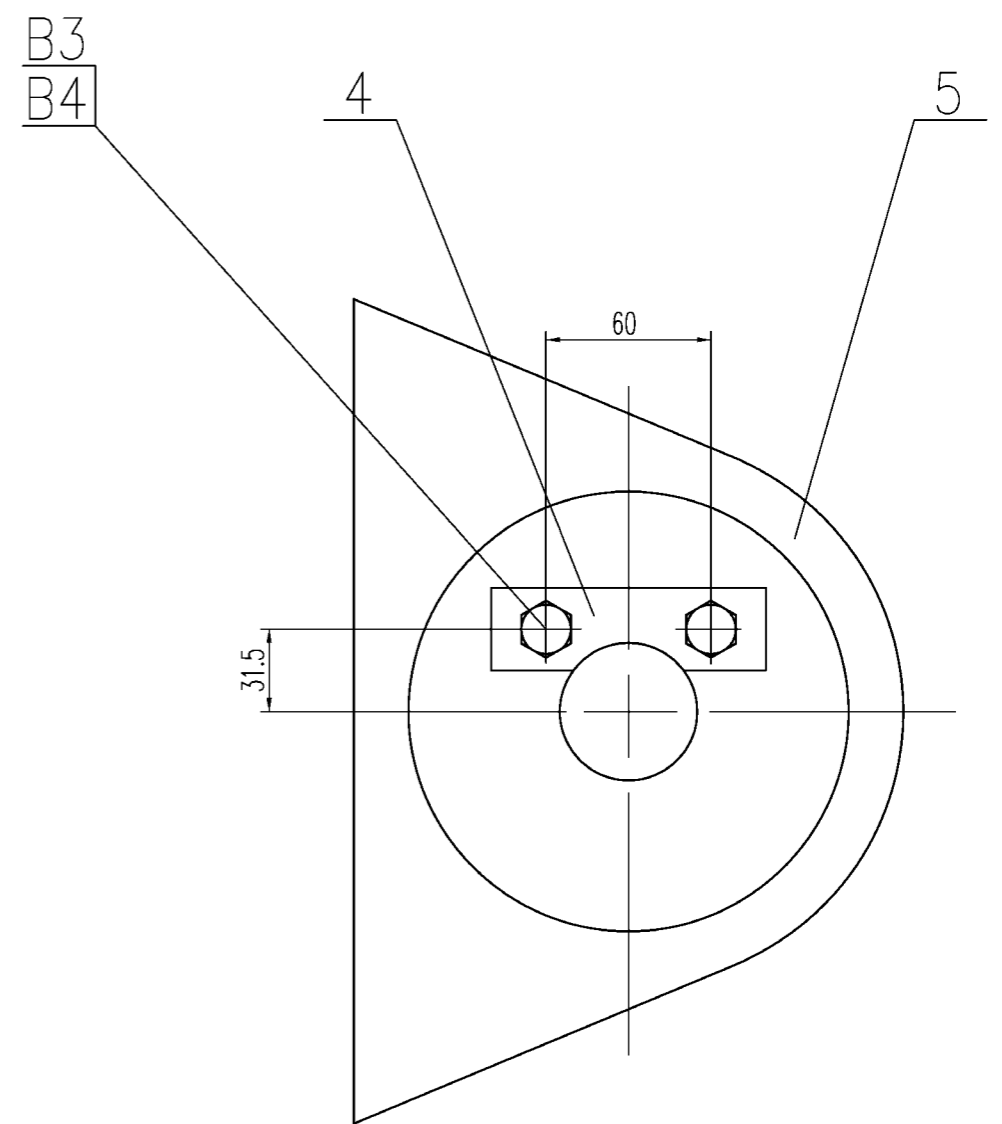
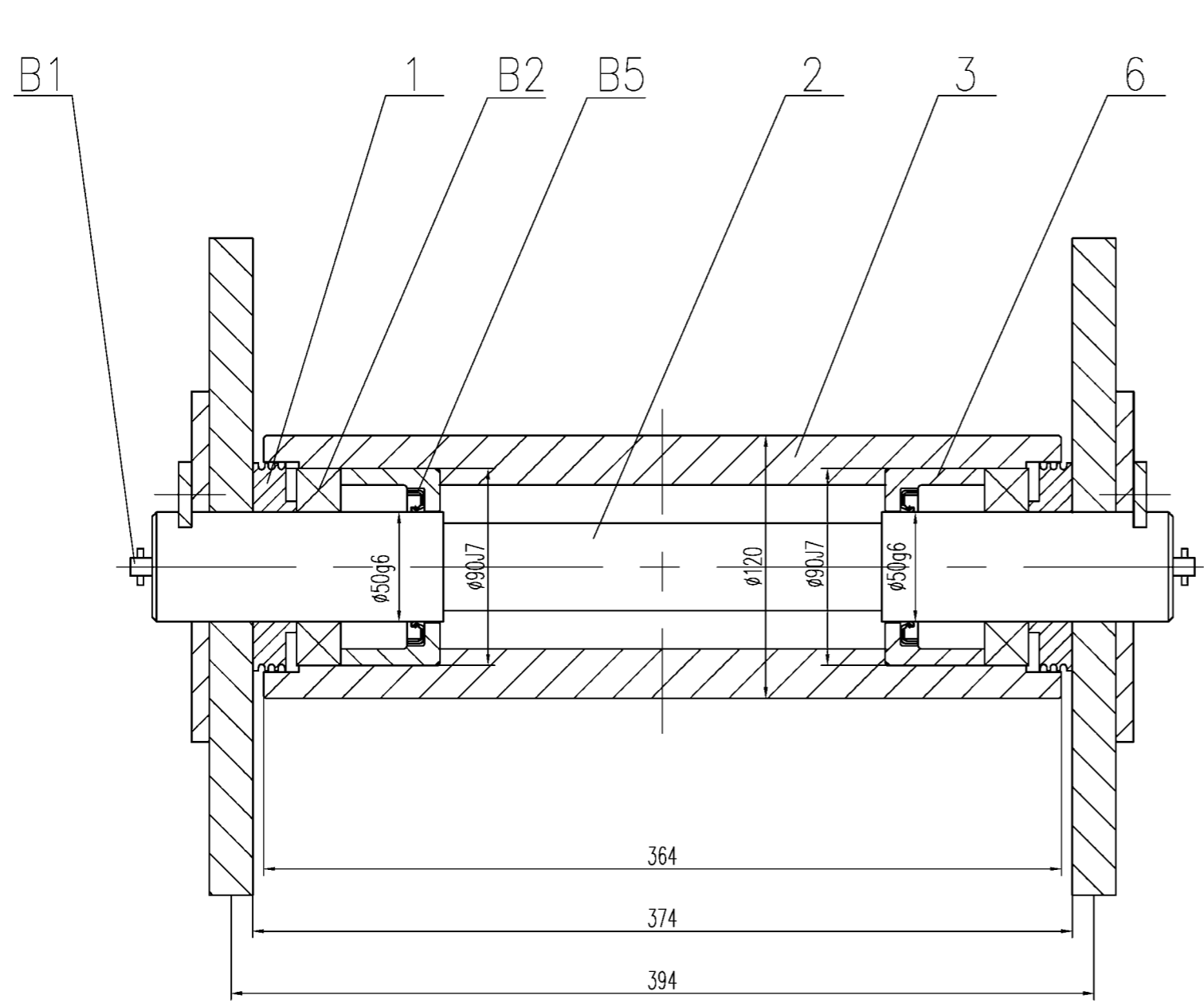
技术要求

1. 未注倒角: $1 \times 45^\circ$.
2. 未注圆角: R1.
3. 调质处理: HB262-286.
4. 表面高频淬火: HRC48-59, 深度不小于1.5mm.

Technology Requirement

1. All the non-noted fillets are $1 \times 45^\circ$
2. All the non-noted round angles are R1
3. Adjusting Quality HB262~286
4. Superficial high-frequency quenching: HRC48-59, The depth is not smaller than 1.5mm

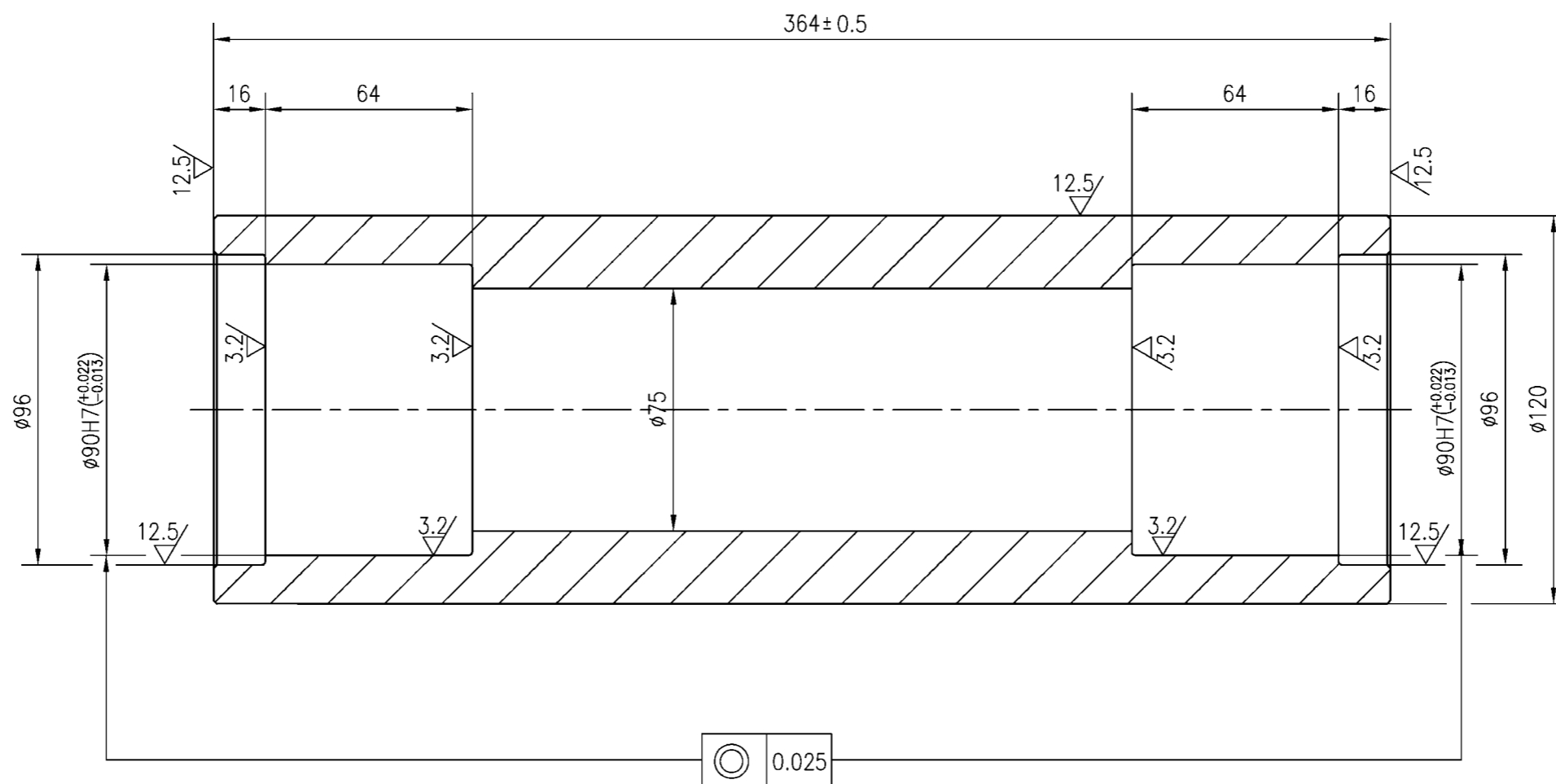
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL25121603	roller	45	21.5	2	1:2
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



6	UL25121706	挡油圈 oil block ring	Q235	2			
5	UL25121705	托辊架 roller pedestal	welding	1	14.8	14.8	
4	UL25121704	轴端挡板 shaft end Baffle	Q235	2	0.13	0.26	
3	UL25121703	托辊 roller	45	1	21.5	21.5	
2	UL25121702	托辊轴 roller shaft	45	1	6.7	6.7	
1	UL25121701	防尘罩 dustproof Cover	Q235	2	0.56	1.12	

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	
PROJECT:Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:2		
ITEM NAME: 托辊组5 roller group5			DRAW NO: UL25121700				
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	90	
	CHCK		VER.		SET/CRANE	2	

B5	GB9877.1-88	seal 内包骨架油封B55*72*8		2			
B4	GB862.1-87	washer 垫圈12	65Mn	4			
B3	GB5782-86	bolt 螺栓M12X25	Q235	4			
B2	GB283-87	bearing 轴承42210		2	0.31	0.62	
B1		nozzle 油嘴PT1/4"	turnoff	2			



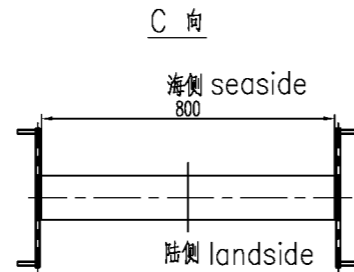
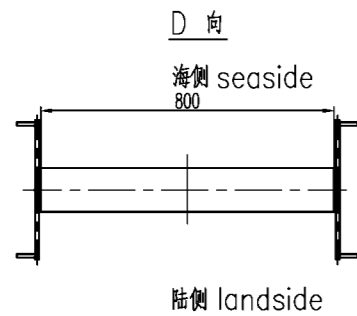
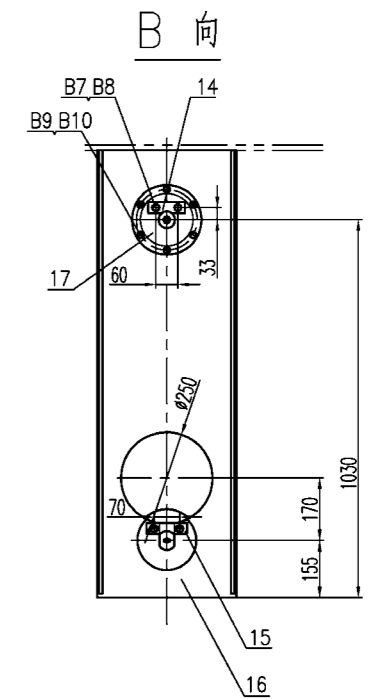
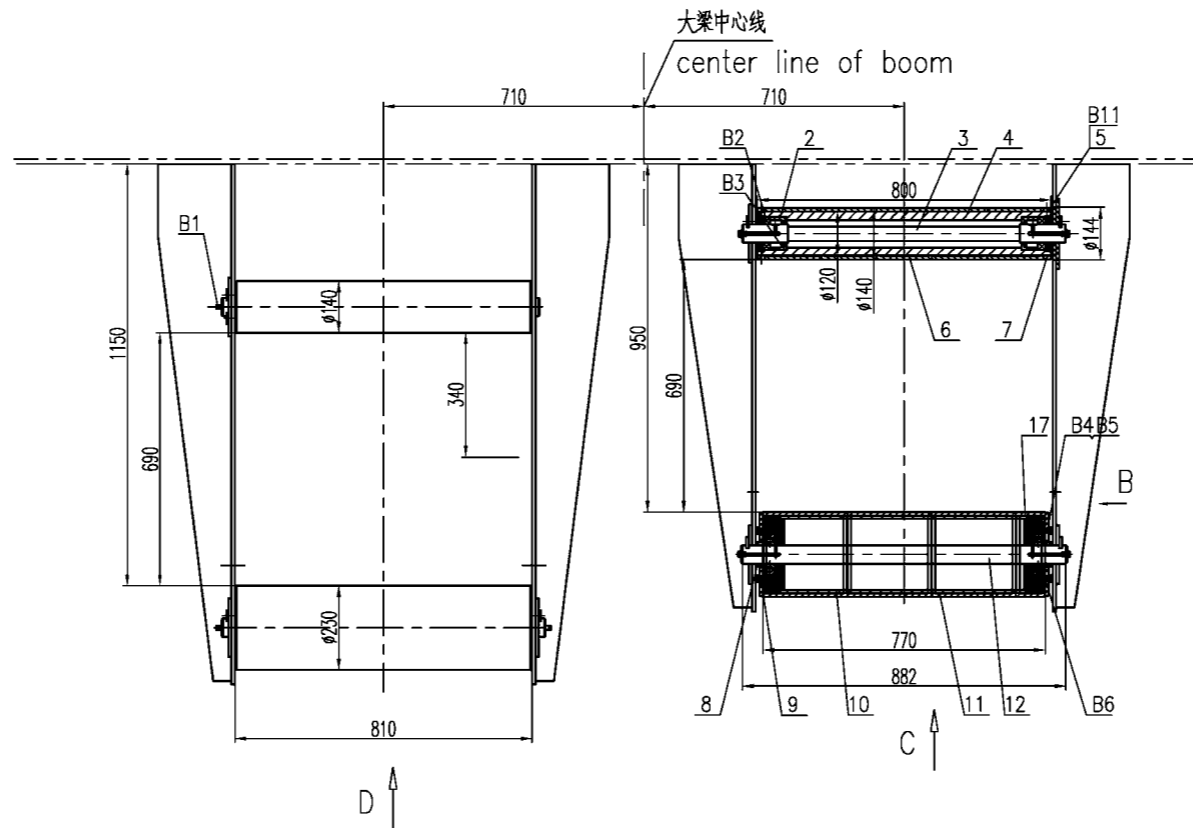
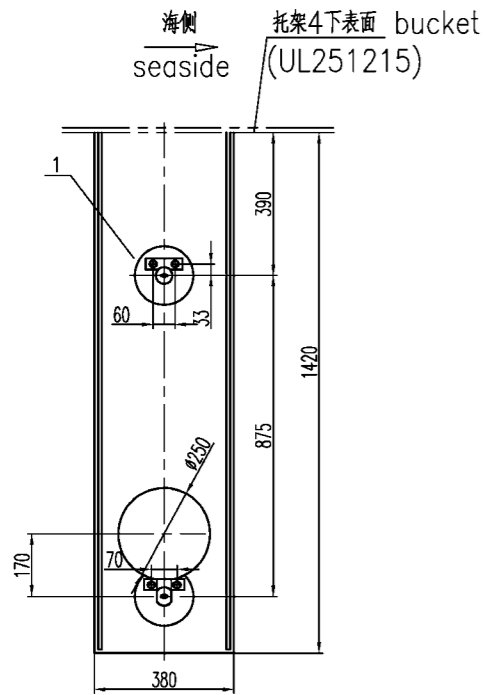
Technology Requirement

1. All the non-noted fillets are $1 \times 45^\circ$
2. All the non-noted round angles are R1
3. Adjusting Quality HB262~286
4. Superficial high-frequency quenching: HRC48-59, The depth is not smaller than 1.5mm

技术要求

1. 未注倒角: $1 \times 45^\circ$.
2. 未注圆角: R1.
3. 调质处理: HB262-286.
4. 表面高频淬火: HRC48-59, 深度不小于1.5mm.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL25121703	roller	45	21.5	2	1:2
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



Technology Requirement

- 1.the roller to be possible to carry on the adjustment according to the steel wire actual situation
- 2.When installs, the sliding bearing returns to the fuel tank to be supposed in the flank, the symmetry but sets the bearing 42,210 inner loops slanting mouths should in the inside, But installs relatively

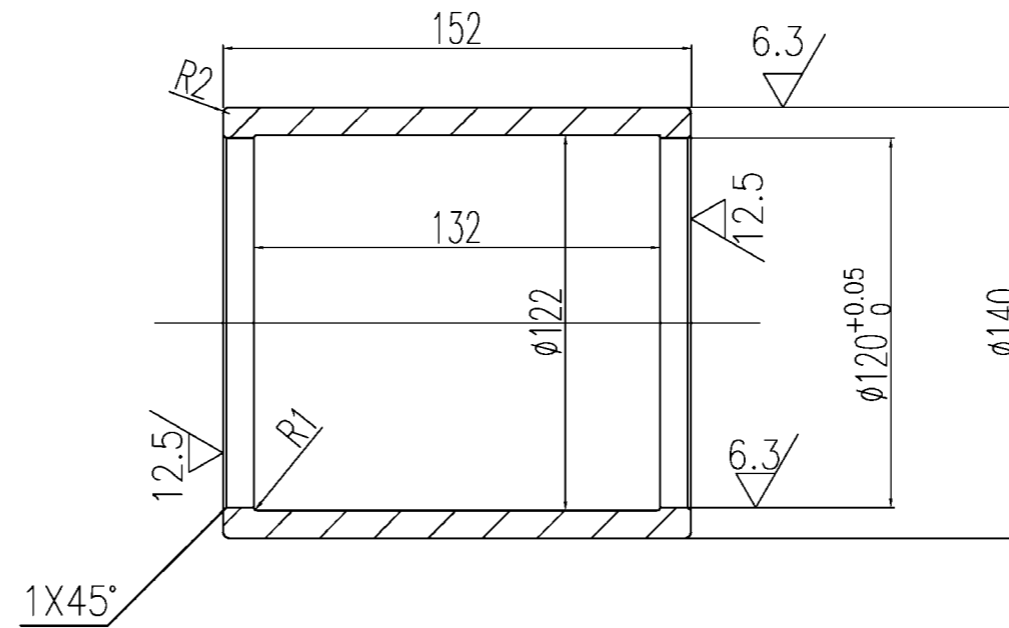
技术要求

- 1.下托辊可根据钢丝绳的实际情况进行调整.
- 2.安装时,滑动轴承回油槽应在外侧,对称而置. 轴承42,210内圈斜口应在内侧,相对而装.

NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	WEIGHT		NOTE
					each	total	
4	UL25121804	上托辊 up roller		20	2	42.5	85
3	UL25121803	上托辊轴 up roller shaft		45	2	12	24
2	UL25121802	挡油圈 oil block ring	Q235B	4		0.93	3.72
1	UL25121801	托辊架 roller pedestal	焊接件	1		135.9	135.9
17	UL25121817	托辊耐磨层3 wearable sleeve 3	40Cr	2			
16	UL25121816	支承盖 supporting cover	Q235	2	2.7	5.4	
15	UL25121815	托辊架2 roller pedestal2	焊接件	1	116.1	116.1	
14	UL25121814	轴端挡板2 shaft end Baffle2	Q235	4	0.13	0.52	
13	UL25121813	轴端挡板1 shaft end Baffle1	Q235	4	0.13	0.52	
12	UL25121812	轴 shaft	45	2	6	12	
11	UL25121811	托辊耐磨层2 wearable sleeve 2	40Cr	6	5	20	
10	UL25121810	托辊 roller	焊接件	2	13.6	27.2	
9	UL25121809	端盖 end cover	Q235	4	1.2	4.8	
8	UL25121808	轴套 shaft cover	Q235	4	0.35	1.4	
7	UL25121807	防尘罩 dustproof Cover	Q235B	4	0.58	2.32	
6	UL25121806	托辊耐磨层1 wearable sleeve 1	40Cr	10	4.9	49	
5	UL25121805	挡圈 block ring	20	4	0.64	2.56	
B11	GB79-85	bolt	螺帽10x15	16			圆头端z=5.3
B10	GB862.1-87	washer	垫圈10	12			
B9	GB5782-86	bolt	螺帽M10X20	12			
B8	GB862.1-87	washer	垫圈2	16			
B7	GB5782-86	bolt	螺帽M12X25	16			
B6	GB276-82	bearing	轴承310	成箱	4		50X110X27
B5	GB862.2-87	washer	外管直头螺帽垫圈10	24			
B4	GB5781-86	bolt	全螺线六角头螺帽M10X25	24			
B3	GB9877.1-88	seal	内包管架油封B55*72*8	成箱	8		
B2	GB283-87	bearing	轴承42210	成箱	4	0.31	1.24
B1		nozzle	油嘴PT1/4'	成箱	8		

PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE: 1:15	
ITEM NAME: 托辊组6 roller group6		DRAW NO: UL25121800		PROJ.	
ZPMC	DSGN		TRACE		APP.
	DRAW		CHCK		Q'TY/SET 491.7Kg
	CHCK		VER.		SET/CRANE 1

其余: ✓
others



技术要求

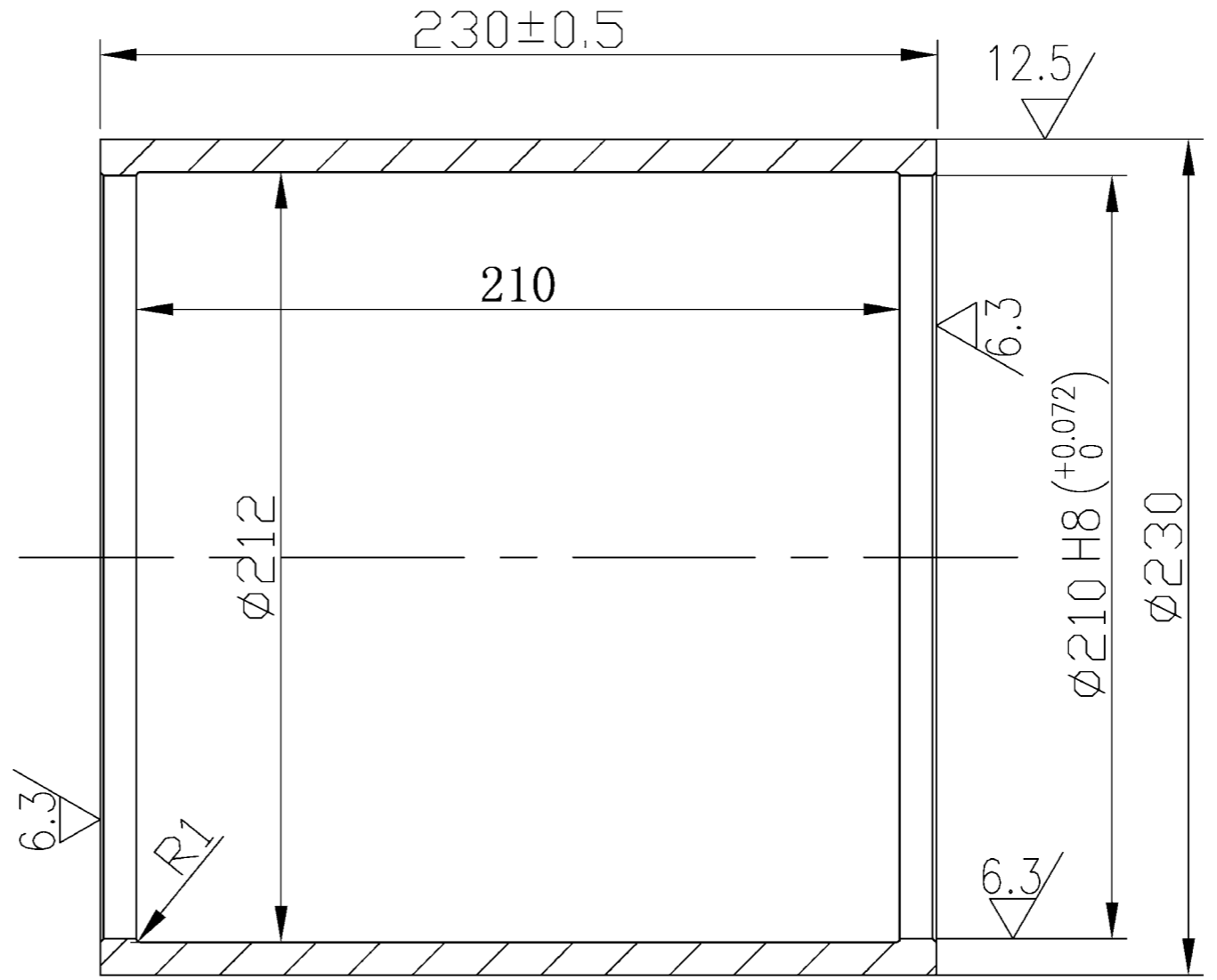
- 1.未注倒角:1X45°.
- 2.热处理: HRC35~40

Technology Requirement

- 1.All the non-noted fillets are 1x45°
- 2.Adjusting Quality HB35~40

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
6	UL25121806	托辊抗磨层 wearabe sleeve1	40Cr	10	4.9 49	1:4
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

其余: 
others



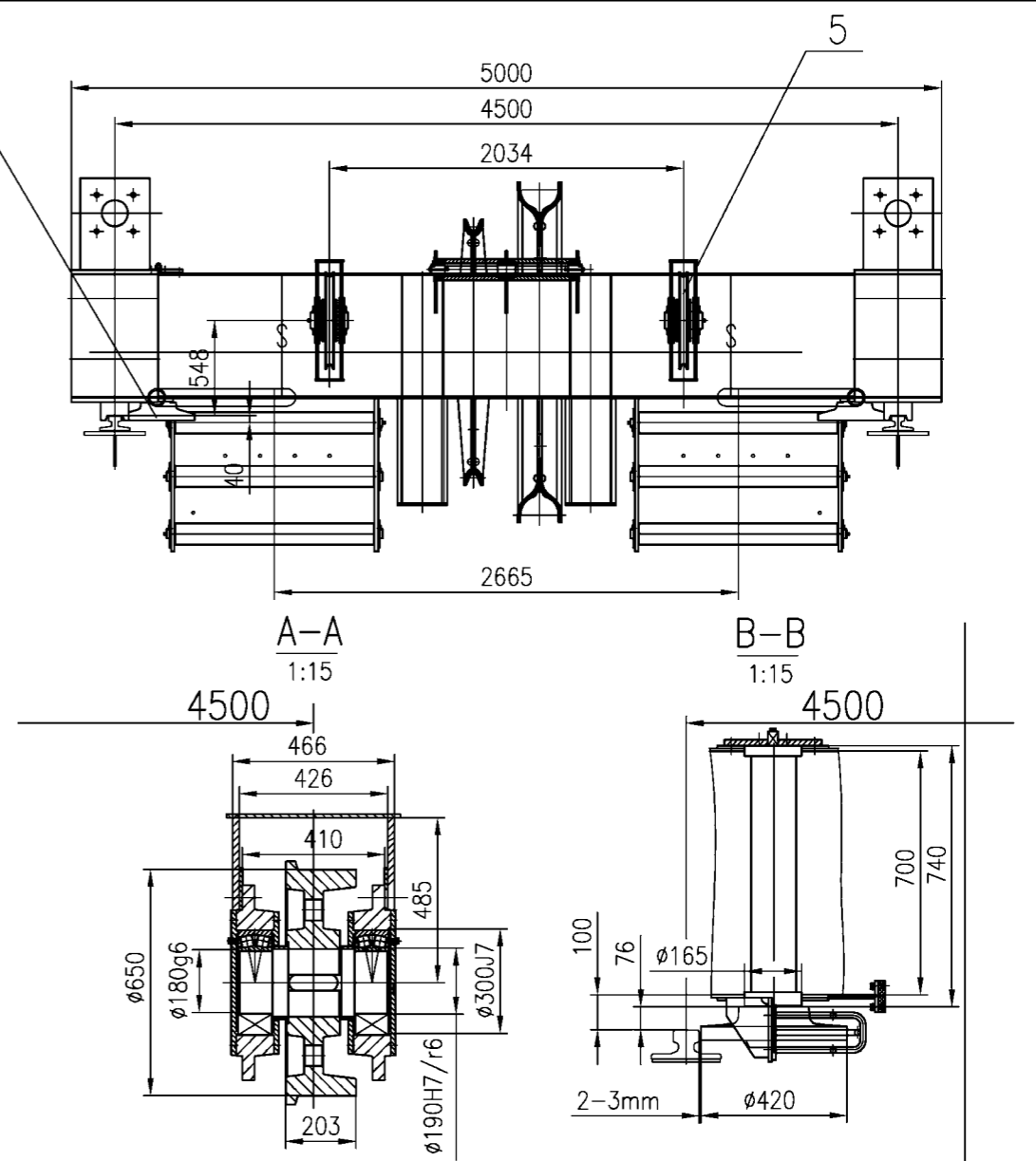
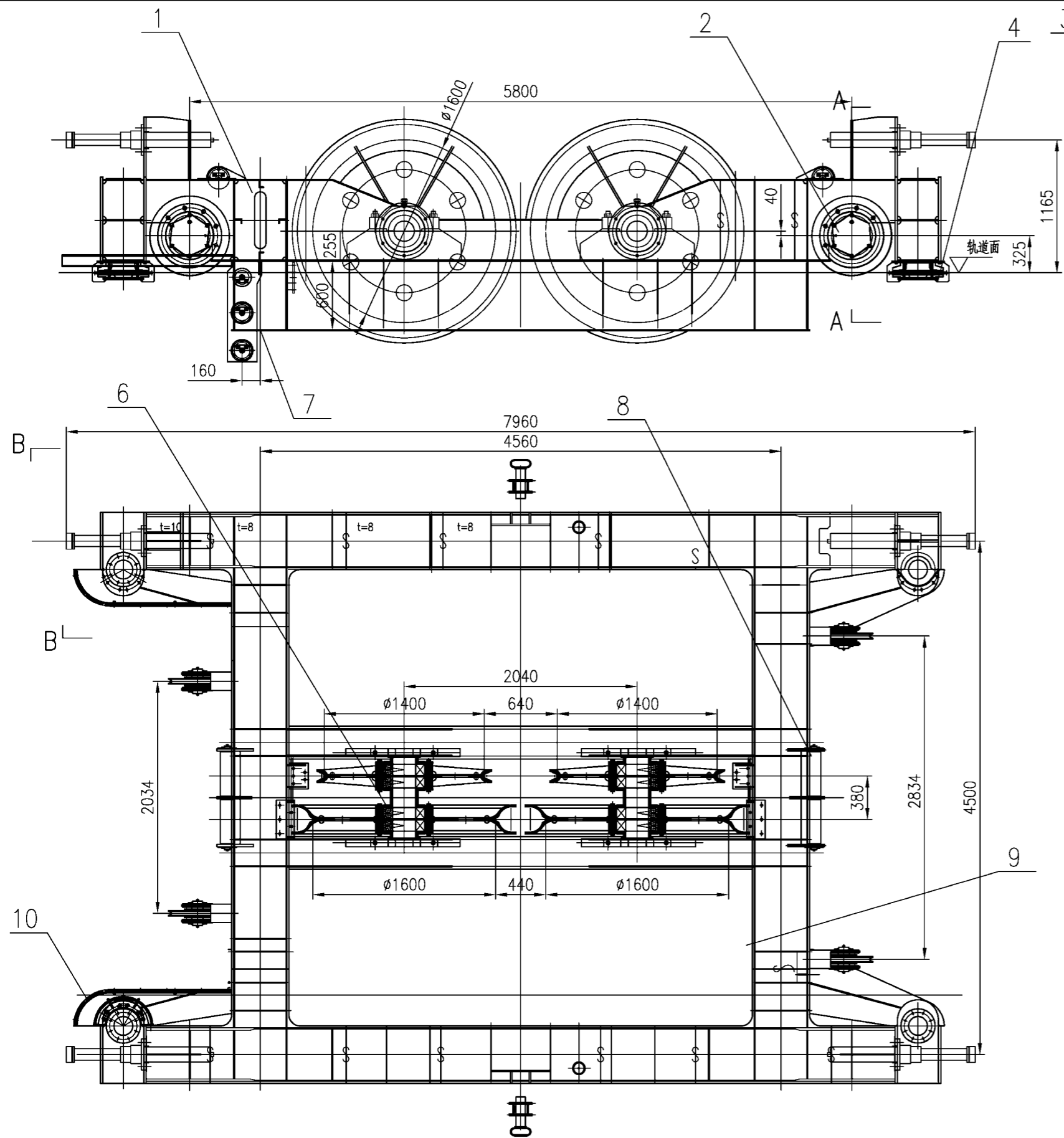
技术要求

- 1.未注倒角: 1X45°.
- 2.热处理: HRC35~40

Technology Requirement

- 1.All the non-noted fillets are 1x45°
- 2.Adjusting Quality HB35~40

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
4	UL25121811	托辊抗磨层 wearabe sleeve1	40Cr	5	6	1:4
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



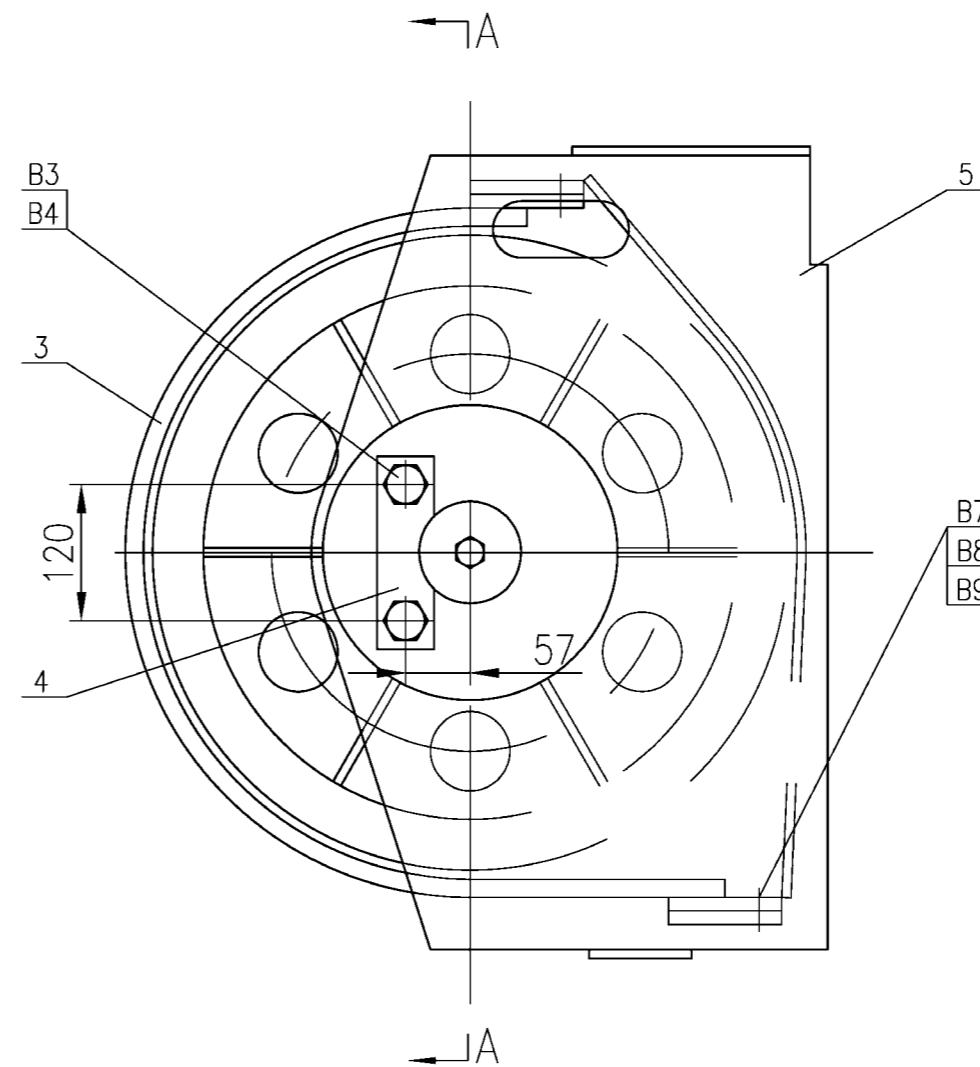
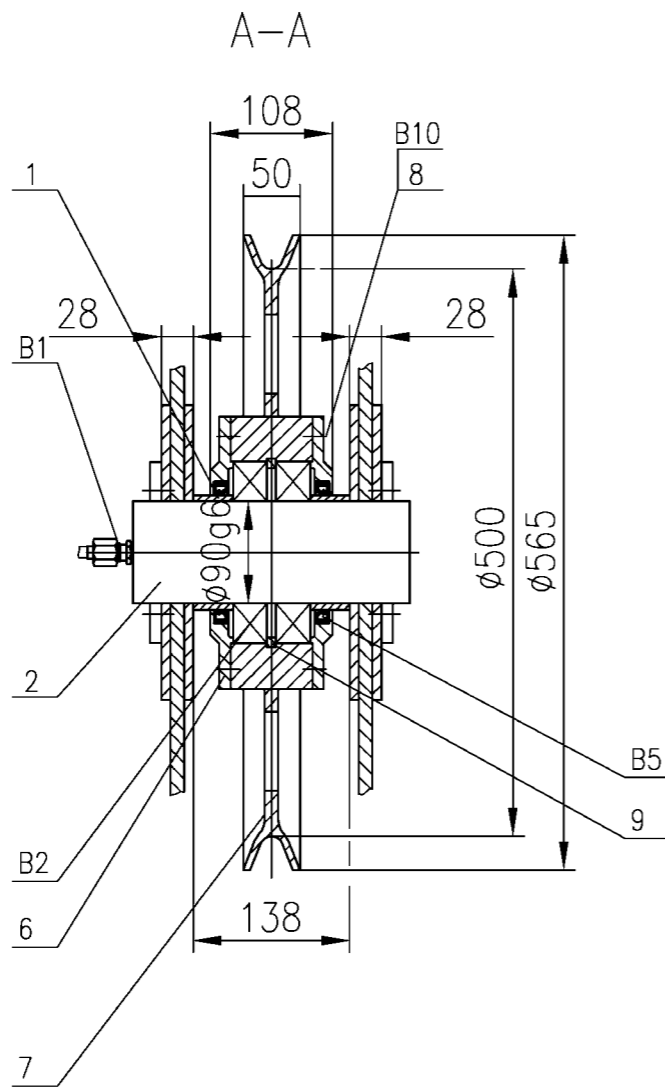
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each WEIGHT	total WEIGHT	NOTE
10	UL2512211000	guard	组合件	2	19.2	19.2	
9	UL25122109	flat roof	焊接件	1	2178	2178	
8	UL2512210800	up roller group	组合件	2	49.5	99	
7	UL2512210700	below roller group	组合件	2	324	648	
6	UL2512210600	trolley pulley block	组合件	2	2491	4982	
5	UL2512210500	pulley block2	组合件	4	14.2	56.8	
4	UL25122104	safe plate	焊接件	4	11.2	44.8	
3	UL2512210300	level wheel set	组合件	4	157.2	629	
2	UL2512210200	trolley wheel group	组合件	4	686	2744	
1	UL25122101	trolley bodywork	焊接件	1	8735	8735	

PROJECT: Alabama 2000t/h ship unloader DESIGN STAGE: SCALE: 1:30

ITEM NAME: 主小车 Main Trolley DRAW NO: UL25122100

B4	GB854-88	washer24	Q235B	16	0.043	0.7	垫圈24
B3	GB6170-86	nutM24	级10	16	0.32	5.1	螺母M24
B2	GB5782-86	boltM24X85	级8.8	16	1.2	19.3	螺栓M24X85
B1	7/500 BQF140-507	gas liquid buffer	turnoff	4	95	380	气液缓冲器

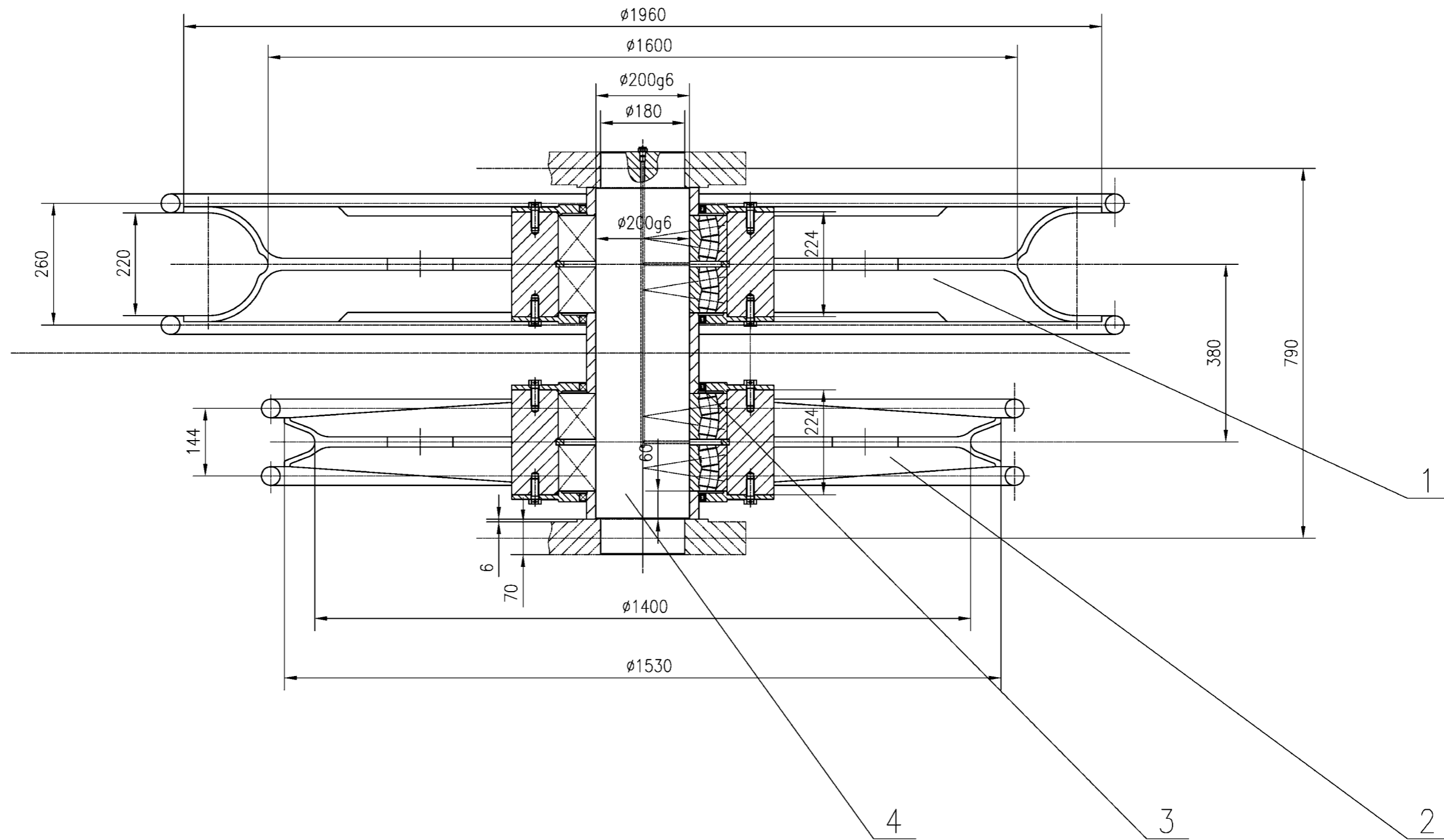
ZPMC	DSGN		TRACE		APP.	
	DRAW		CHCK		Q'TY/SET	20541
	CHCK		VER.		SET/CRANE	1



9	UL2512210508	卡圈	45	1			
8		钢丝φ3.5	Q235B				
7	UL2512210507	pulley	35CrMo	1	50	50	
6	UL2512210506	cover	Q235B	2	4.7	9.4	
5	UL2512210505	滑轮架 wheel pedestal	焊接件	1	80.1	80.1	
4	UL2512210504	轴端卡板 shaft end baffel	Q235	2	0.62	1.24	
3	UL2512210503	防护罩 safety cover	焊接件	1	6.12	6.12	
2	UL2512210502	滑轮轴 wheel shaft	45	1	10.5	10.5	
1	UL2512210501	轴套 shaft cover	Q235	2	0.28	0.56	

B10	GB32.1-88	bolt	螺栓M12X30	Q235	16		
B9	GB6170-86	nut	螺母M20	Q235	4		
B8	GB862.1-87	washer	垫圈20	65Mn	4		
B7	GB5782-83	bolt	螺栓M20X50	Q235	4	0.14	0.56
B6							
B5	GB9877.3-88	seal	Z100-130-12		2		
B4	GB862.1-87	washer	垫圈20	65Mn	4		
B3	GB5782-83	bolt	螺栓M20X35	Q235	4	0.098	0.392
B2	GB276-82		bearing218		2		
B1	JIS B0203	nozzle	平头油嘴 PT1/4"		1		

NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	WEIGHT		NOTE
					each	total	
PROJECT:			DESIGN STAGE:		SCALE: 1:6		
ITEM NAME: wheel group 2			DRAW NO: UL2512210500			PROJ.	
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	129.95kg	
	CHCK		VER.		SET/CRANE	4	

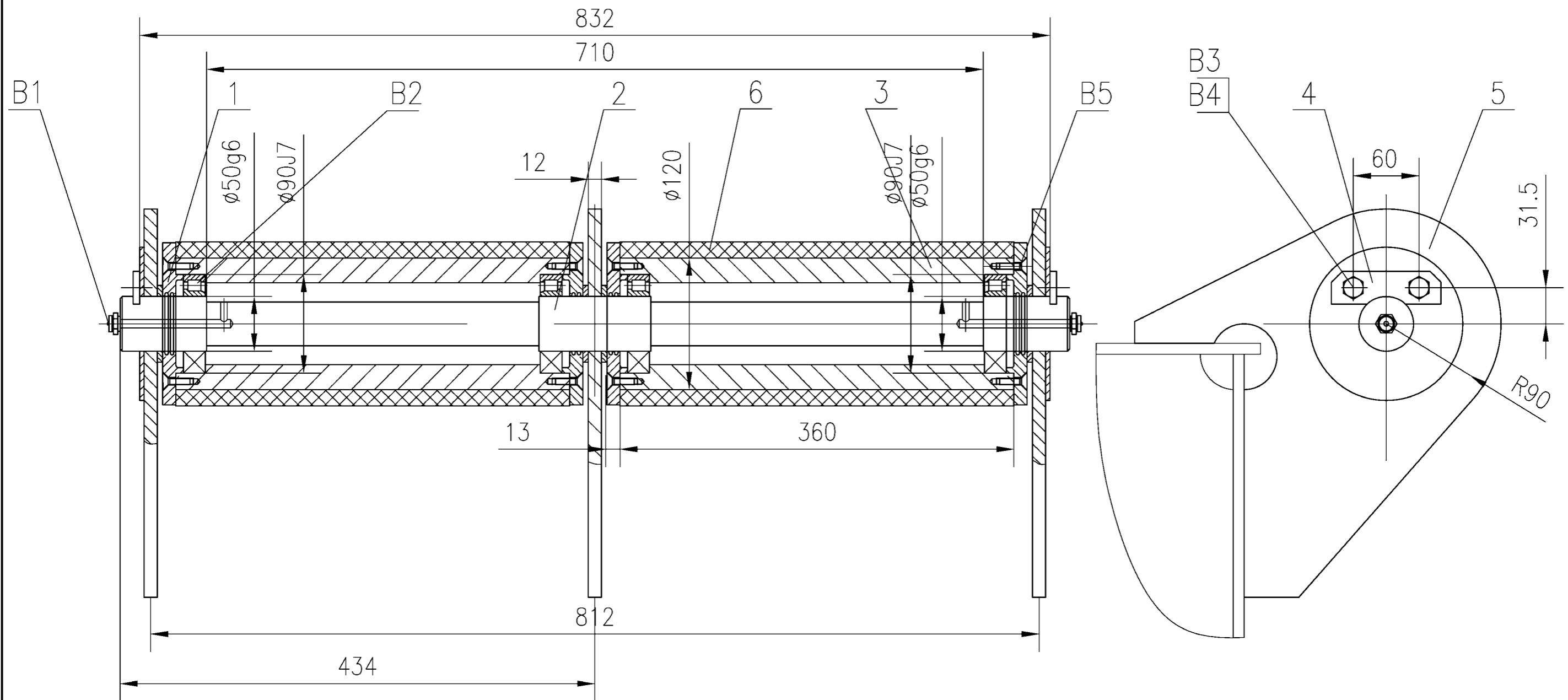


NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	
3	UL2512210603	shaft cover	Q235B	1	6.51	6.51	
2	UL2512210602	wheelD=1400	assembly	1	988	988	
1	UL2512210601	groove wheelD=1600	assembly	1	1285	1285	

PROJECT:Alabama 2000t/h ship unloader DESIGN STAGE: SCALE: 1:10

ITEM NAME: 小车滑轮组
trolley wheel group DRAW NO: UL25122106

4	UL2512210604	poppethead	40Cr	1	212	212	ZPMC	DSGN		TRACE		APP.	
								DRAW		CHCK		Q'TY/SET	2491kg
								CHCK		VER.		SET/Crane	2

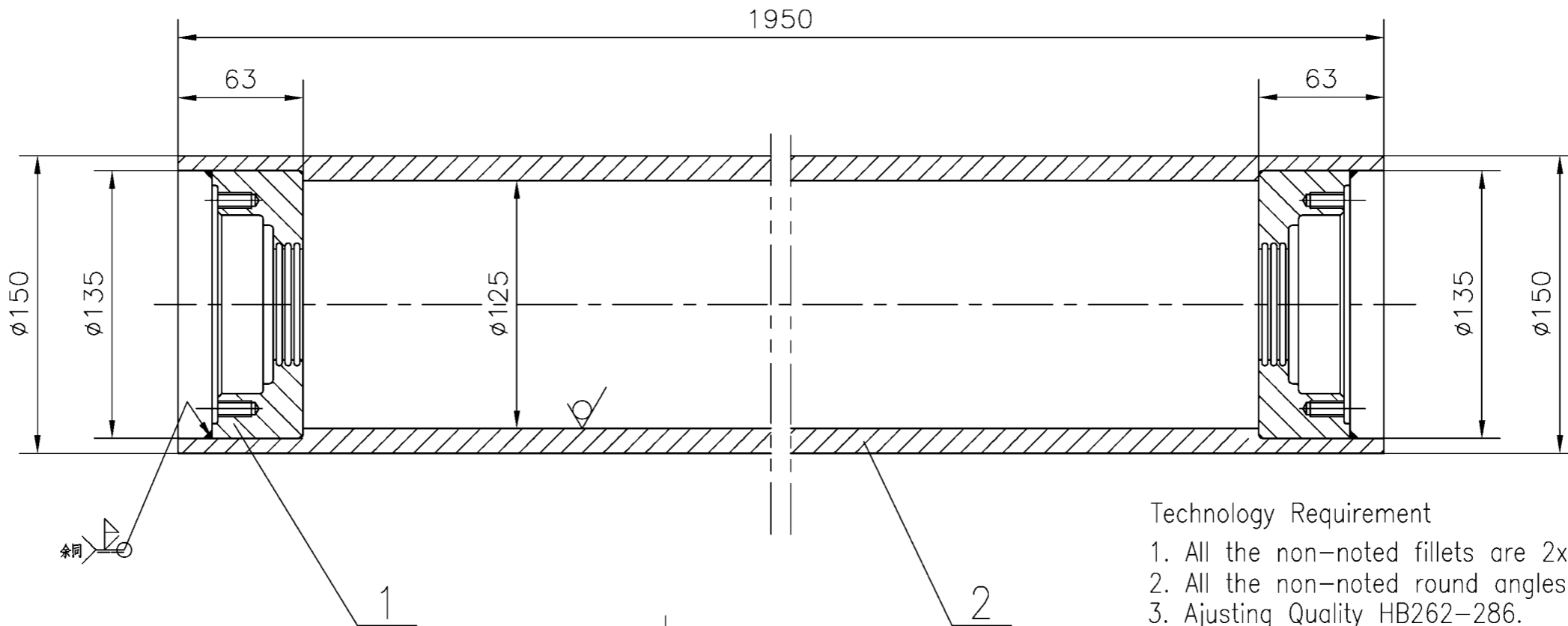


Technology Requirement

the bearing 42,210 inner loops slanting mouths should in the inside,
But installs relatively

B5	GB68-85	螺栓M6X25	级4.8	24			
B4	GB862.1-87	washer12	65Mn	4	0.001	0.004	
B3	GB5782-86	boltM12X25	8.8s	4	0.024	0.1	stainless steelA2-70
B2	GB283-87	bearing42210		4	0.31	1.24	50x90x20
B1	JISB0203	nozzle PT1/4"		2			不锈钢 stainless steel
6	UL2512210806	wearable sleeve	nylon	2	5	10	
5	UL2512210805	roller pedestal	welding	1	17.9	17.9	
4	UL2512210804	shaft end baffle	Q235B	2	0.13	0.26	

3	UL2512210803	roller	45	2	14.1	28.2	
2	UL2512210802	roller shaft	45	1	9.2	9.2	
1	UL2512210801	dustproof	Q235B	4	0.56	2.24	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
					WEIGHT		
PROJECT:Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:4		
ITEM NAME: 上托辊组 up roller group			DRAW NO: UL25122108				
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	49.5kg	
	CHCK		VER.		SET/CRANE	2	

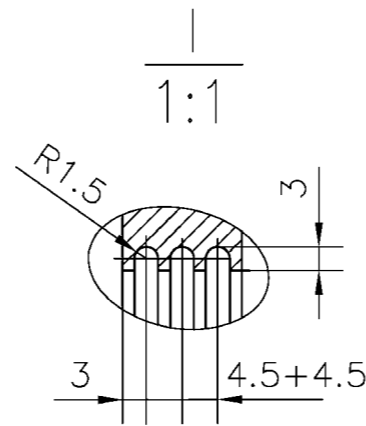
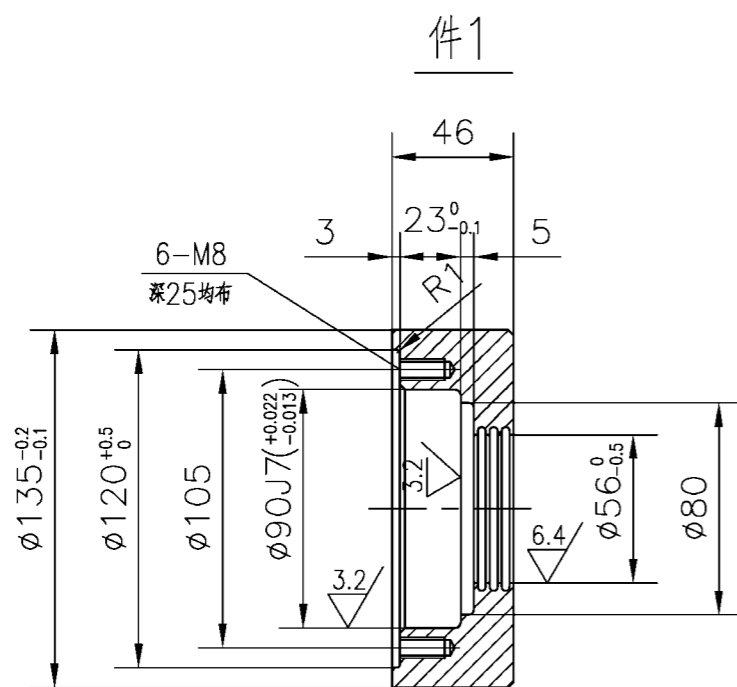


Technology Requirement

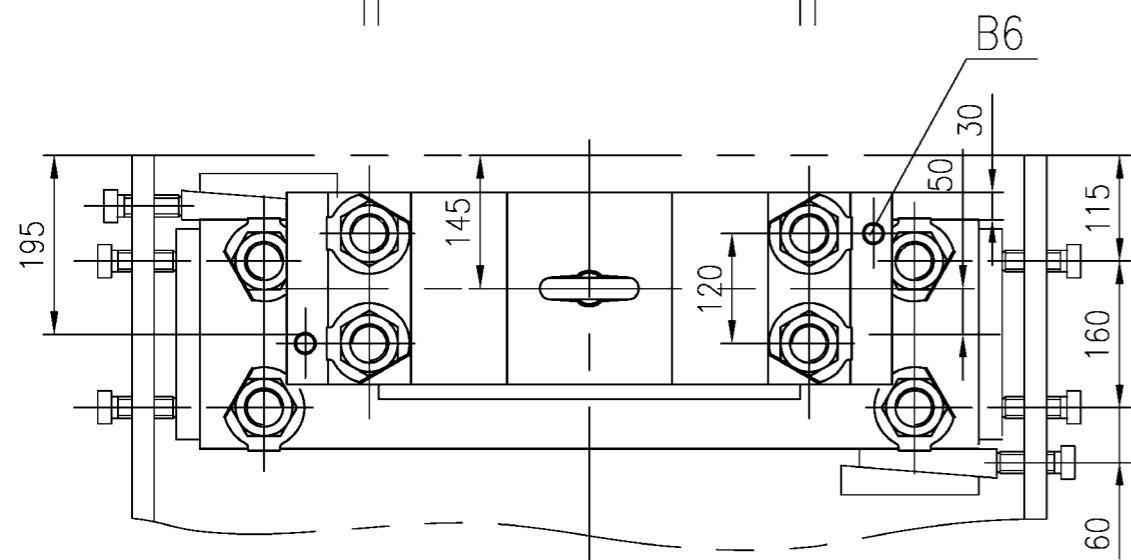
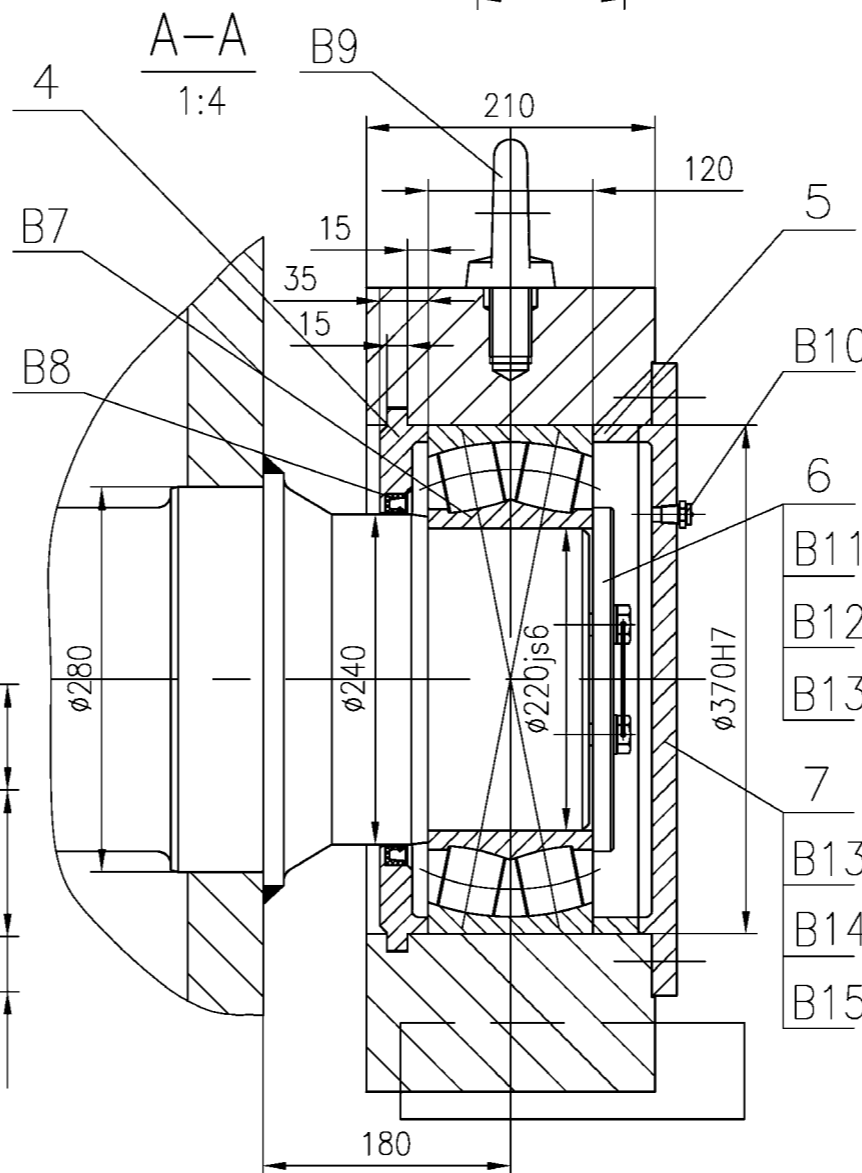
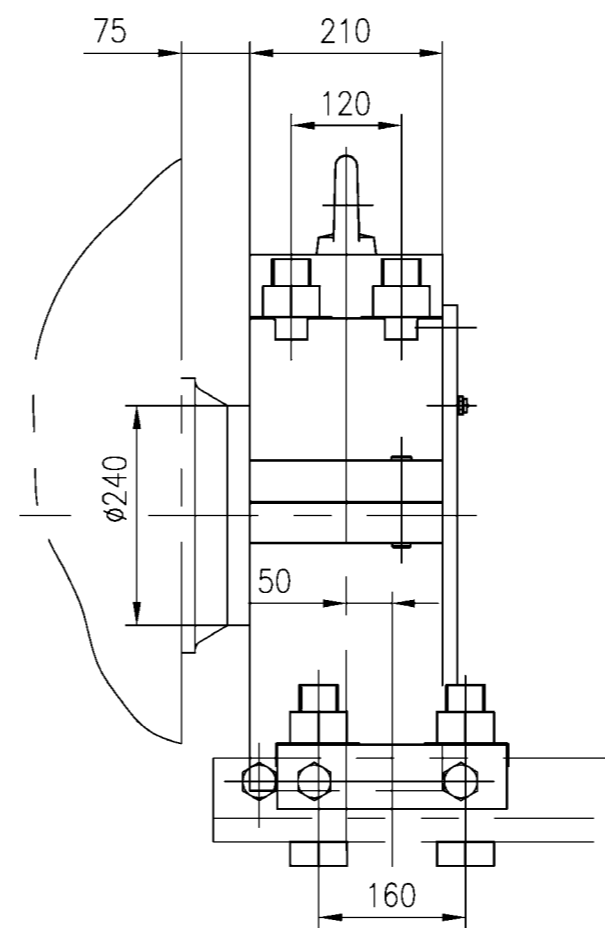
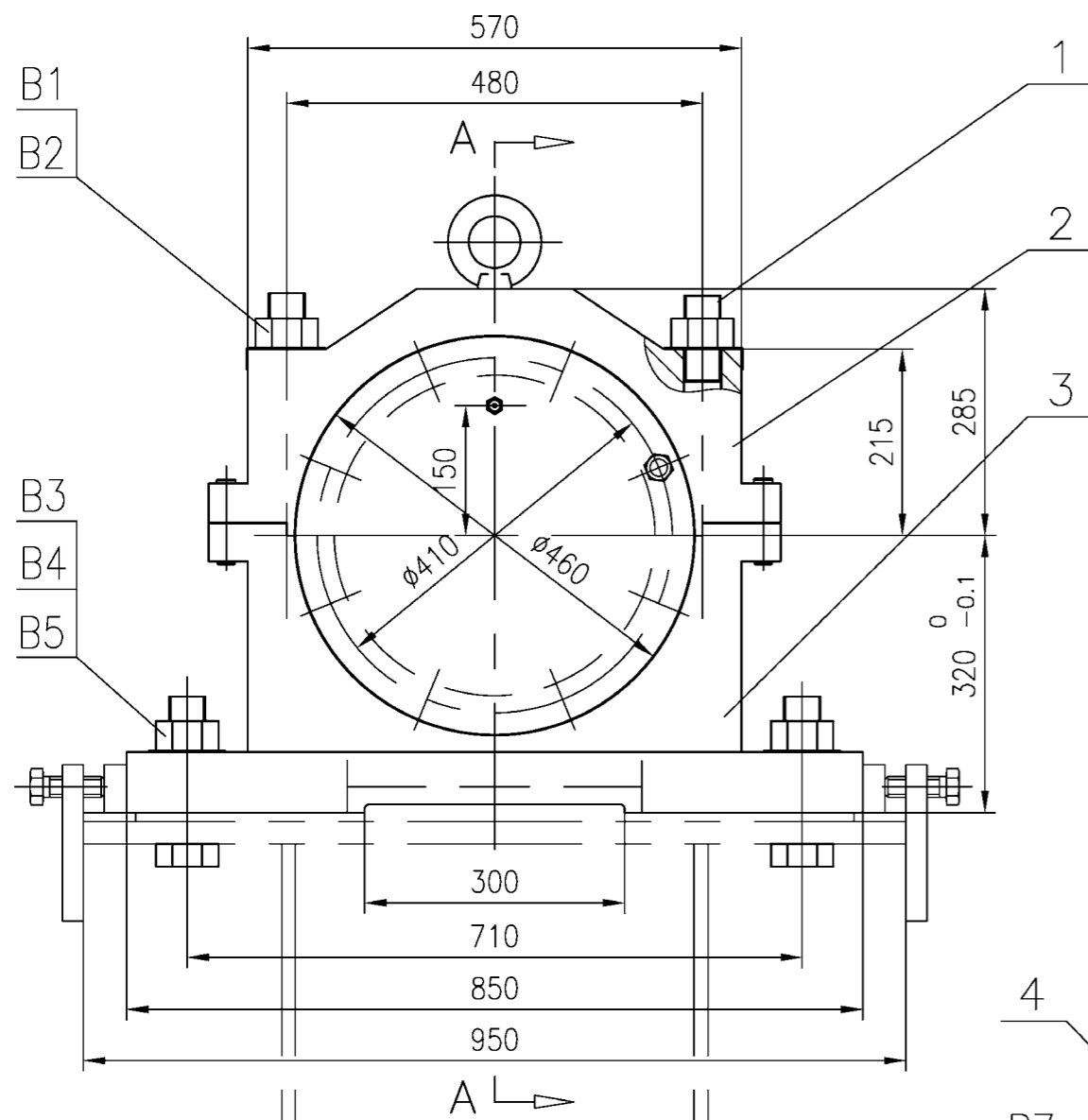
1. All the non-noted fillets are 2x45°.
2. All the non-noted round angles are R2.
3. Adjusting Quality HB262-286.
4. Superficial high-frequency quenching: HRC48-59, The depth is not smaller than 1.5mm.

技术要求

1. 未注倒角2X45°, 未注圆角R2.
2. 件2调质处理: HB262-286.
3. 件2表面高频淬火: HRC48-59, 深度不小于1.5mm.



2		φ152X14	45	1		93	
1		φ135	Q235	2	5.9	11.8	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	
PROJECT:			DESIGN STAGE:		SCALE:		
ITEM NAME: 托辊			DRAW NO: UL0612080104				
ZPMC	DSGN		TRACE			APP.	
	DRAW		CHCK			Q'TY/SET	105
	CHCK		VER.			SET/CRANE	



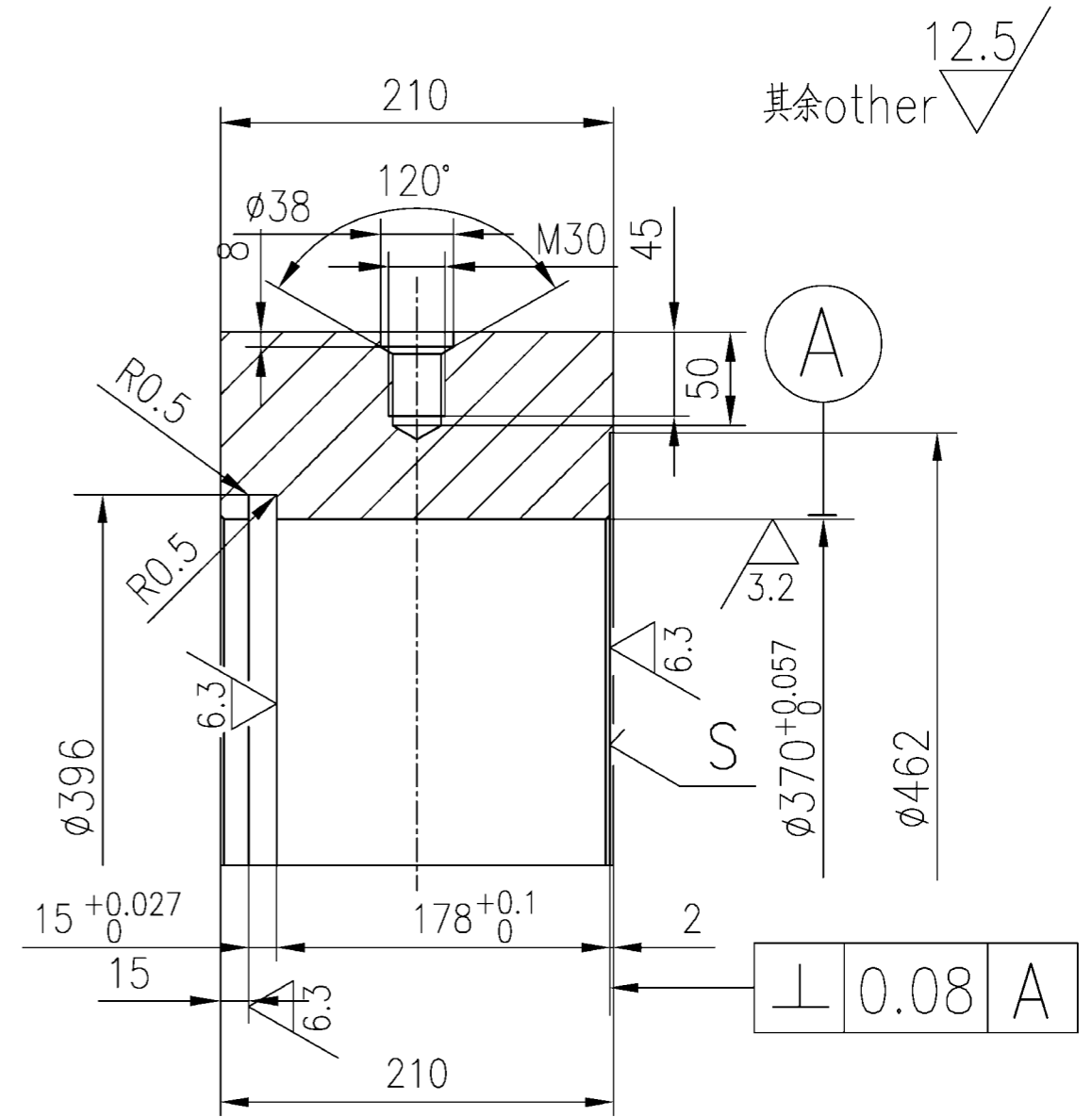
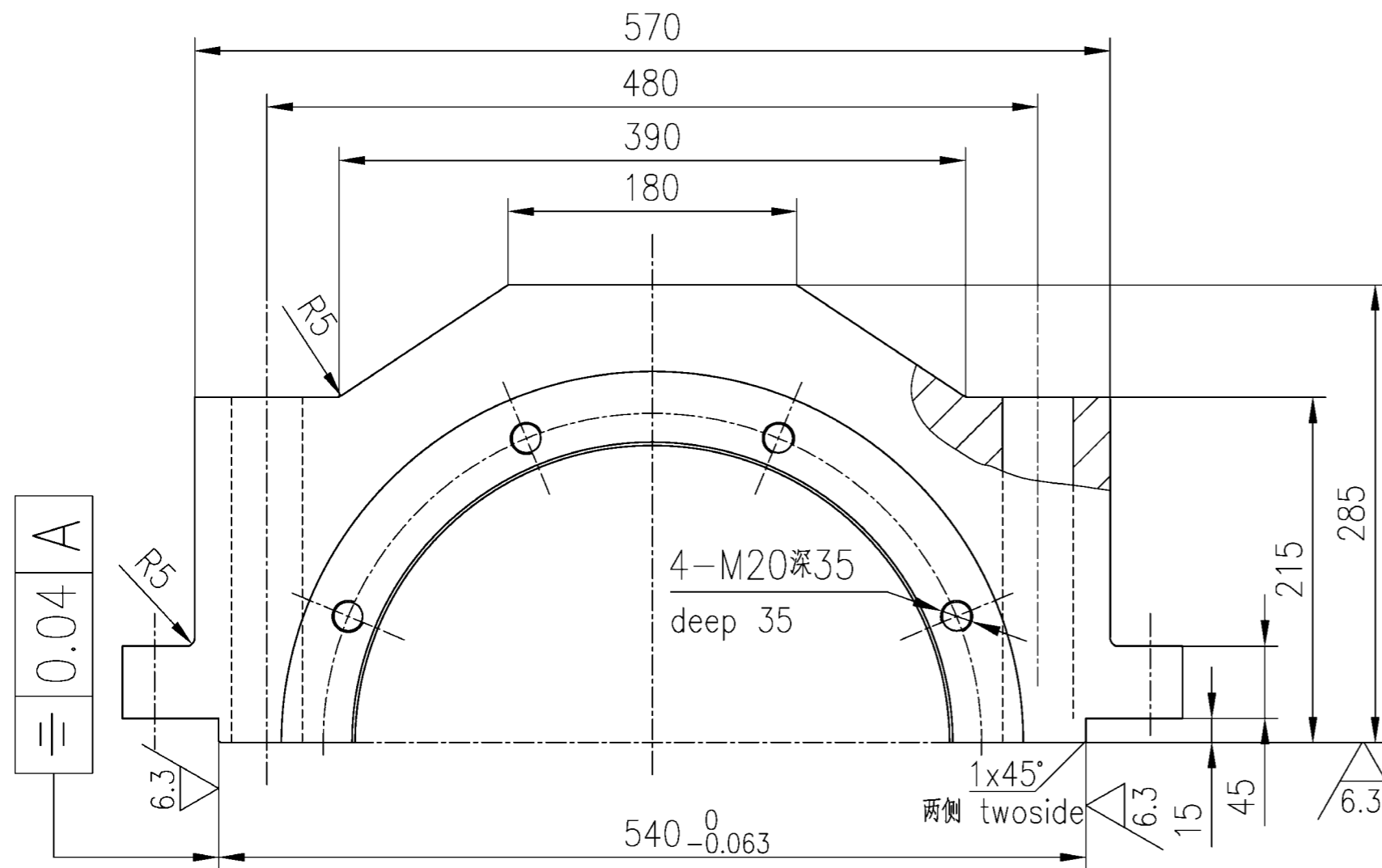
技术要求

1. 件1螺柱的预紧扭矩为1960N.m
2. 吊环螺钉(B9)仅用于轴承座搬运.

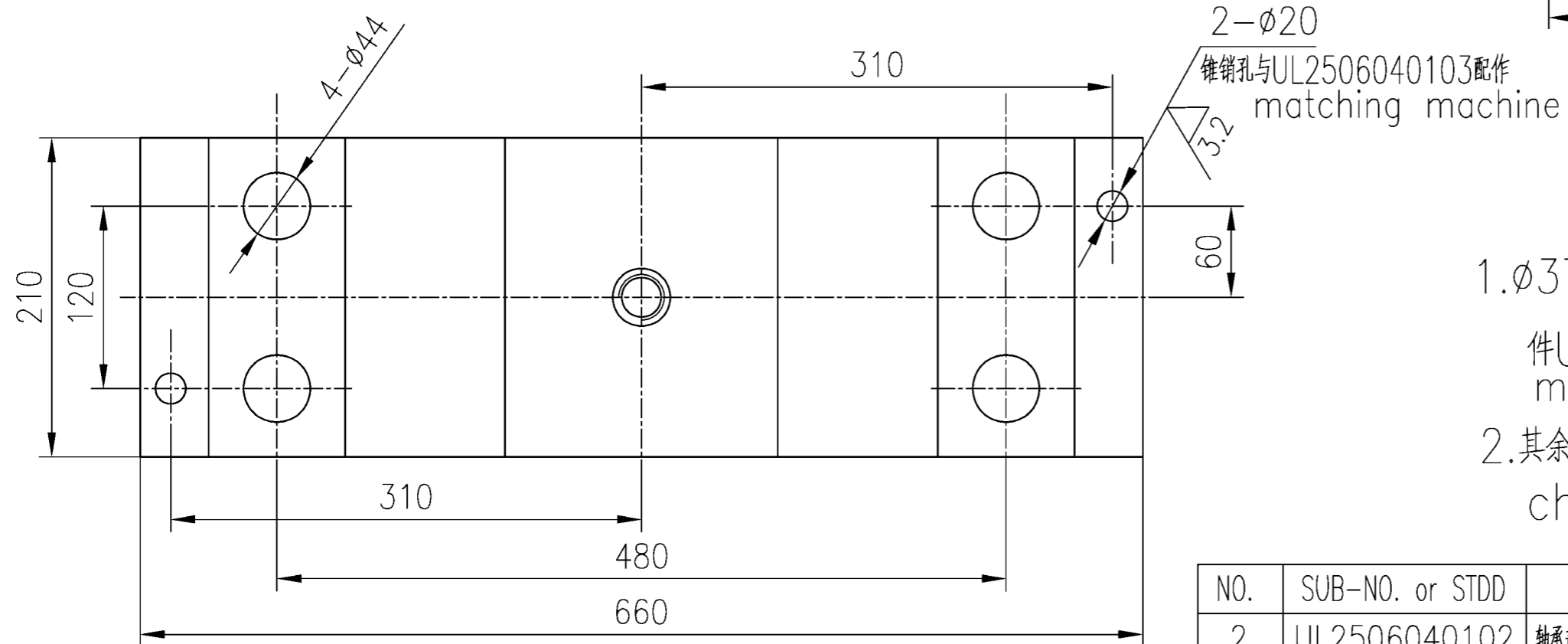
technical requirement

1. torque of bolt piece 1 is 1960Nm
2. bolt B9 is used for lift the support

B15	GB97.2-85	垫圈washer 20	Q235	8	0.02	0.14	
B14	GB32.1-86	螺栓bolt M20x45	8.8级	8	0.15	1.22	
B13		铁丝$\phi 2.5$	不锈钢	1			
B12	GB97.2-85	垫圈washer16	Q235	2	0.002	0.034	
B11	GB32.1-88	螺栓boltM16x35	8.8级	2	0.062	0.125	
B10	JISB0203	油嘴 PT1/4"	oil fitting	1			
B9	GB825-88	吊环螺钉bolt M30	20	1	1.2	1.2	
B8	GB9877.1-88	骨架密封W240x270x15 Seal	橡胶 rubber	1	0.01	0.01	
B7	SKF (GB288-87)	23144 CC/W33 轴承bearing (3003744)	组件	1	53	53	220x370x120
B6	GB119-86	定位销pin A20x100	35	2	0.25	0.5	
B5	GB854-88	止动垫圈42 washer	Q235	4	0.06	0.25	
B4	GB6182-86	螺母nut M42	8级	4	0.744	2.98	
B3	GB5782-86	螺栓bolt M42X170	8.8级	4	2.86	11.4	
B2	GB854-88	止动垫圈42 washer	Q235	4	0.06	0.25	
B1	GB6170-86	螺母nut M42	8级	4	0.6	2.4	
7	UL2506040107	网盖cover	Q235	1	24.1	24.1	
6	UL2506040106	压板baffle	Q235	1	5.7	5.7	
5	UL2506040105	调整圈adjust plate	Q235	1	3.64	3.64	
4	UL2506040104	透盖End cover	Q235	1	12.2	12.2	
3	UL2506040103	轴承座Bearing base	焊接件	1	264.8	264.8	
2	UL2506040102	轴承盖Bearing cover	Q345B	1	125	125	
1	UL2506040101	螺柱 M42 Stud		45	3.7	14.8	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
PROJECT: Alabama 2000t/h ship unloader					DESIGN STAGE:		SCALE: 1:6
ITEM NAME: 卷筒轴承支座 DRUM BEARING SUPPORT			DRAW NO: UL2506040100				
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	525.8kg	
	CHCK		VER.		SET/CRANE	4	



其余other $\nabla 12.5$

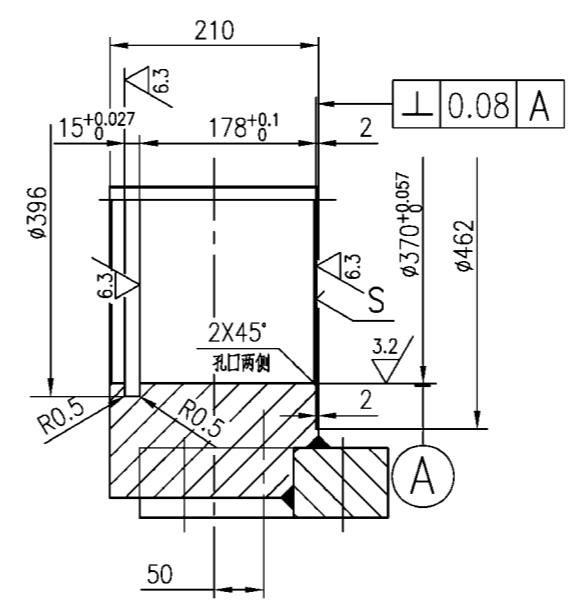
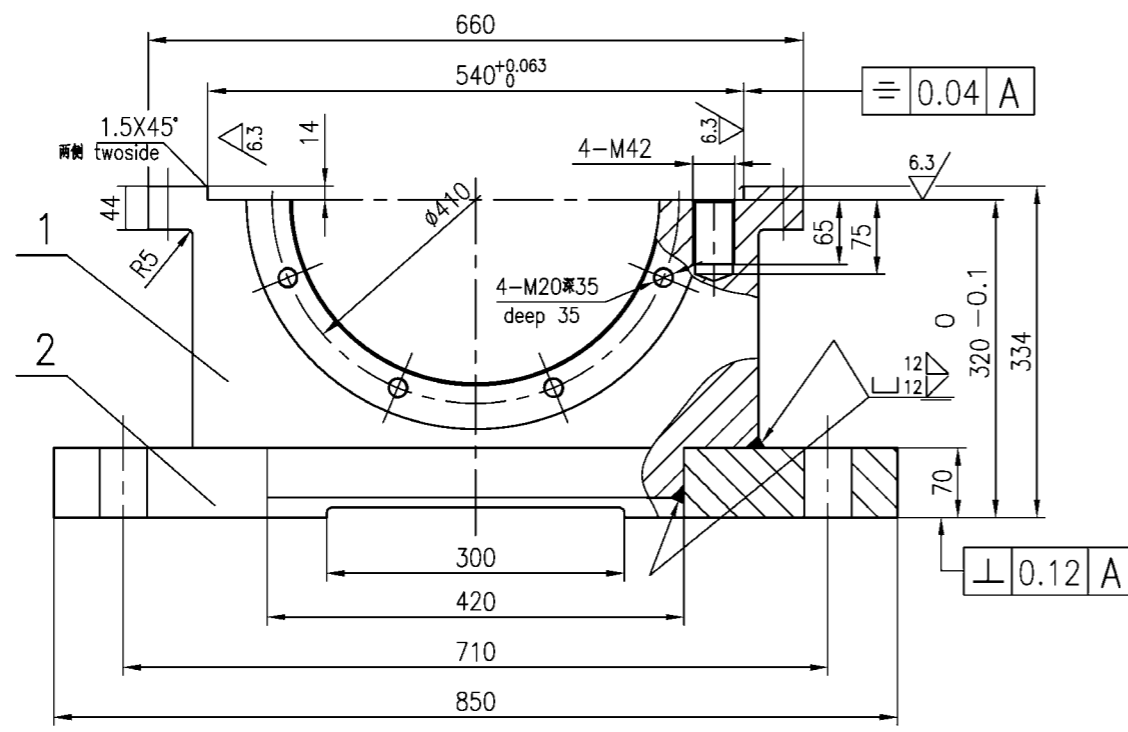


技术要求

1. $\phi 370^{+0.057}$, $\phi 396$ 凹槽和 $\phi 462$, S 端面及螺孔与件 UL2506040103 一起制作, matching machine the hole
2. 其余倒角 2X45°. chamfer 2x45°

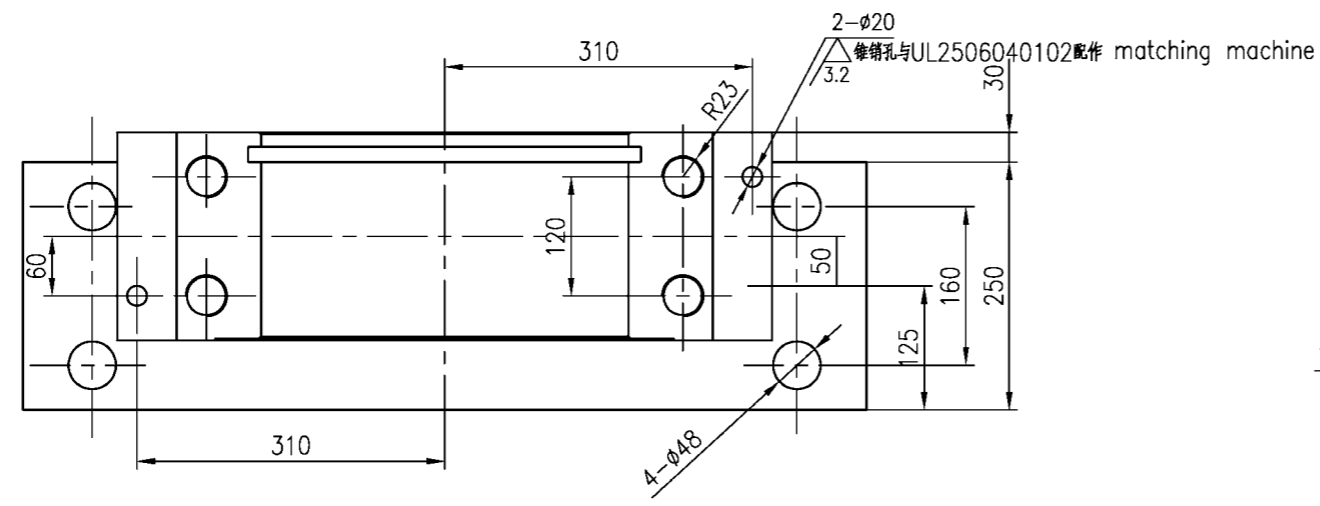
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
2	UL2506040102	轴承盖 bearing support	Q345B	125kg	4	1:4
ZPMC		DRAW	TECH.	TRACE		
		CHCK	STDD	CHCK		

其余 other $\nabla_{12.5}$

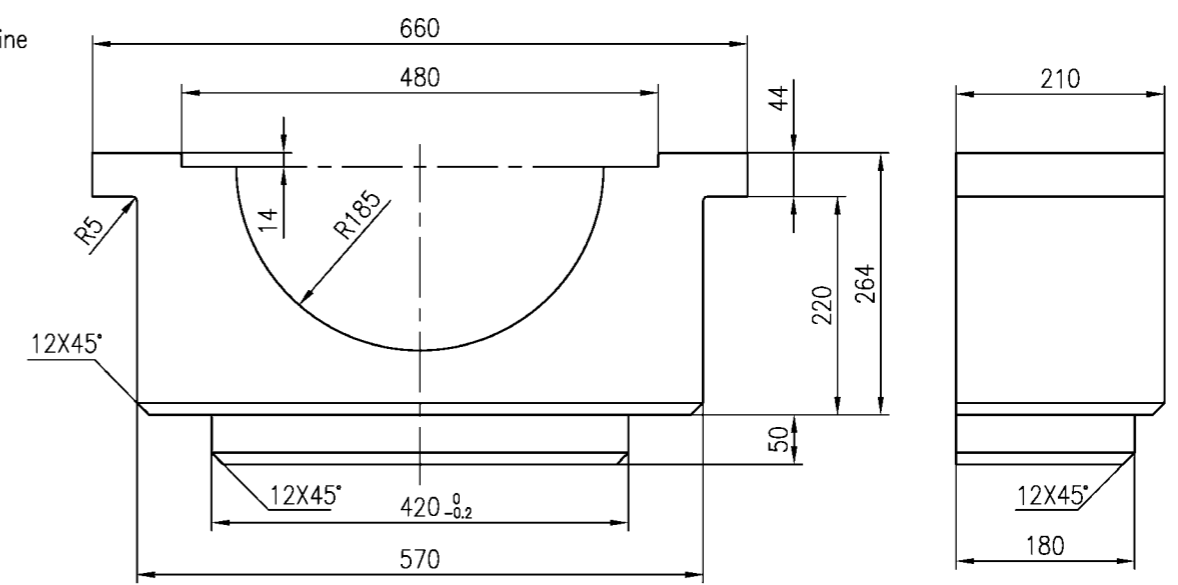


技术要求

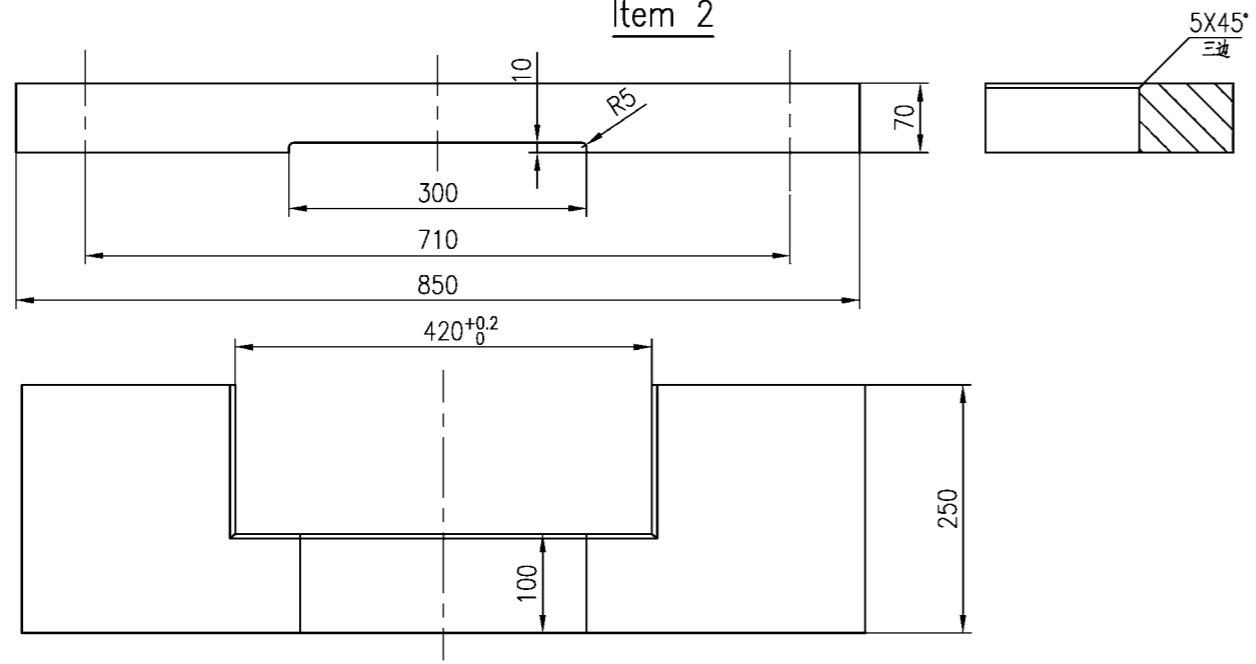
1. $\phi 370^{+0.057}$, $\phi 396$ 凹槽和 $\phi 462$, S 端面及螺孔与件 UL2506040102 一起制作。
matching machine the hole
2. 其余倒角 2X45°.
chamfer 2x45°
3. 所有加工在焊接后进行。
machine after welded



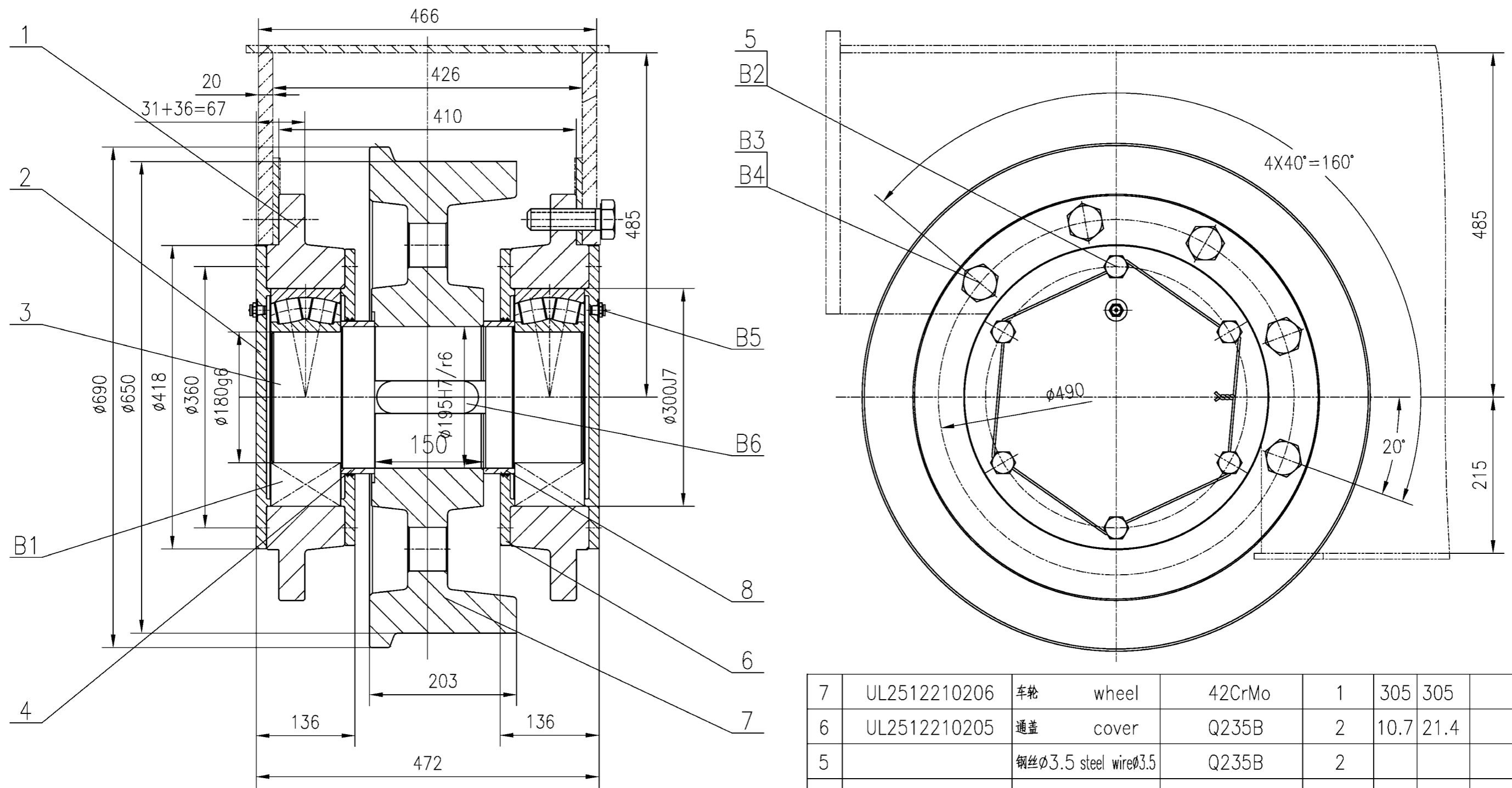
Item 1



Item 2



2		-70X250X850	Q345B	1	80.8	80.8	
1		-210X314X660	Q345B	1	184	184	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total		NOTE
					WEIGHT		
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:8		
ITEM NAME: 轴承座 bearing support			DRAW NO: UL2506040103				
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	4x264.8kg	
	CHCK		VER.		SET/CRANE	4	



Technology Requirement

installs the wheel to be supposed to rotate nimbly

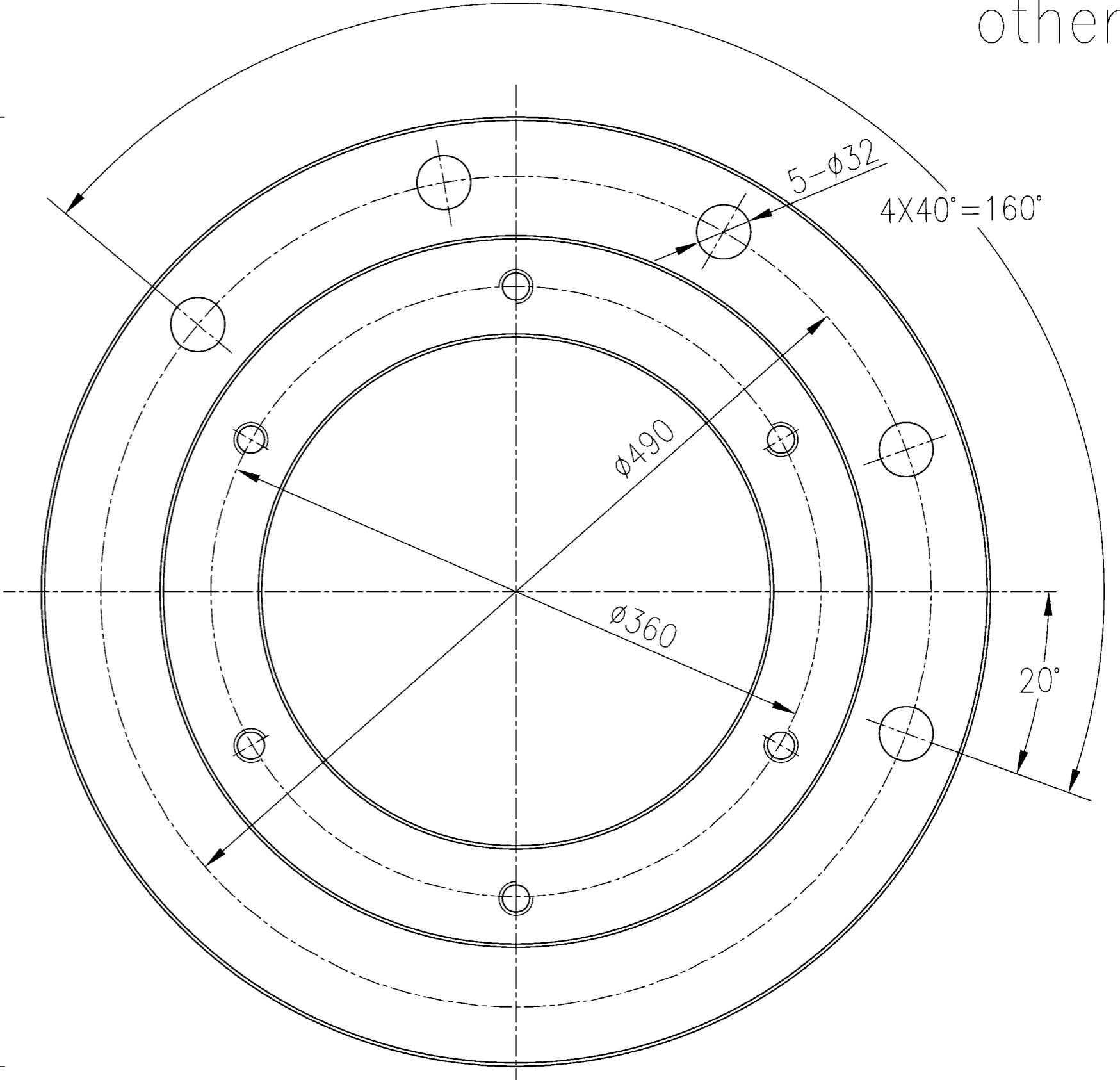
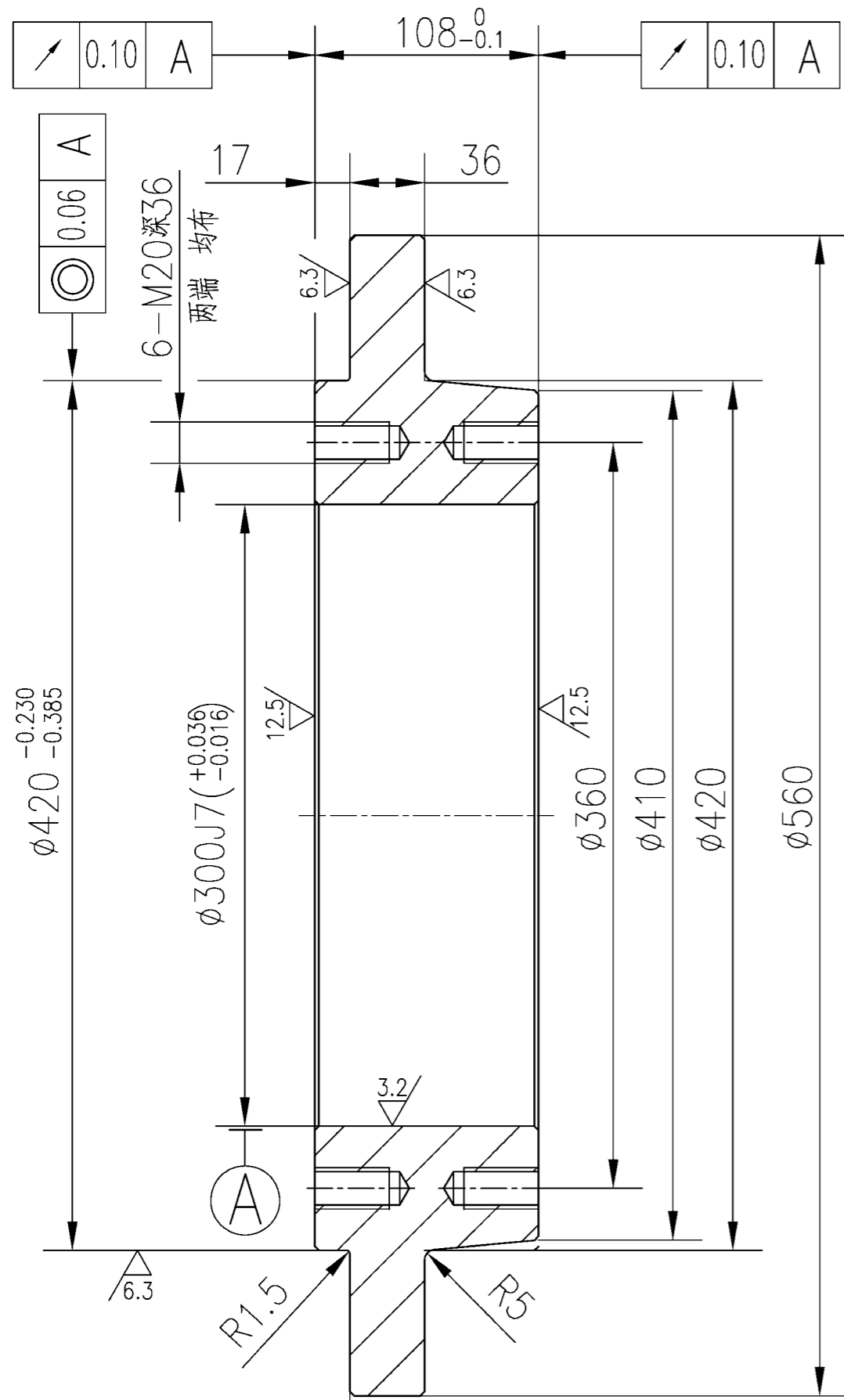
技术要求
安装车轮应转动灵活。

7	UL2512210206	车轮 wheel	42CrMo	1	305	305	
6	UL2512210205	通盖 cover	Q235B	2	10.7	21.4	
5		钢丝φ3.5 steel wireφ3.5	Q235B	2			
4	UL2512210204	轴套1 shaft cover1	Q235B	2	0.9	1.8	
3	UL2512210203	车轮轴 wheel shaft	40Cr	1	91.4	91.4	
2	UL2512210202	网盖 close cover	Q235B	2	13.1	26.2	
1	UL2512210201	轴承套 bearing cover	Q235B	2	85.4	170.8	

B6	GB1564-79	键A45X140	45	1	1.4	1.4	
B5	JISB0203	平头油嘴PT1/4"	成品	2			
B4	GB862.1-87	垫圈30	65Mn	10			
B3	GB5782-86	螺栓M30X120	级8.8	10	0.93	9.3	
B2	GB32.1-88	螺栓M20X40	级8.8	24	0.13	1.56	
B1	SKF (GB288-87)	轴承23136CC/W33 (3003736)	成品	2	27.1	54.2	180x300x96
8	UL2512210207	轴套2	Q235B	2	0.9	1.8	

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total		NOTE
					each	total	
					WEIGHT		
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:6		
ITEM NAME: 主小车车轮组 trolley wheel group			DRAW NO: UL2512210200				
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	686	
	CHCK		VER.		SET/CRANE	4	

其余 $\frac{12.5}{\nabla}$
others



\perp 0.10 A

Technology Requirement

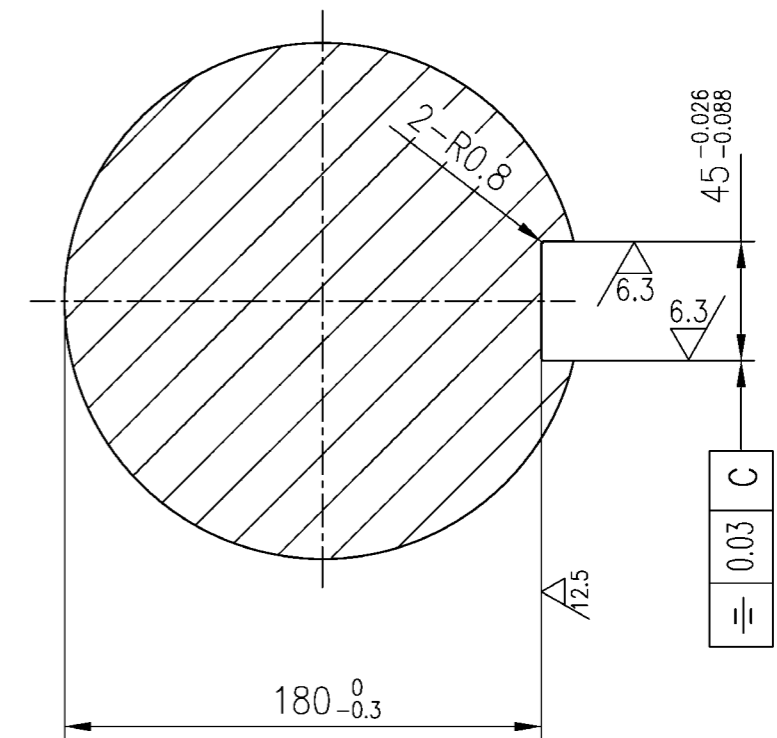
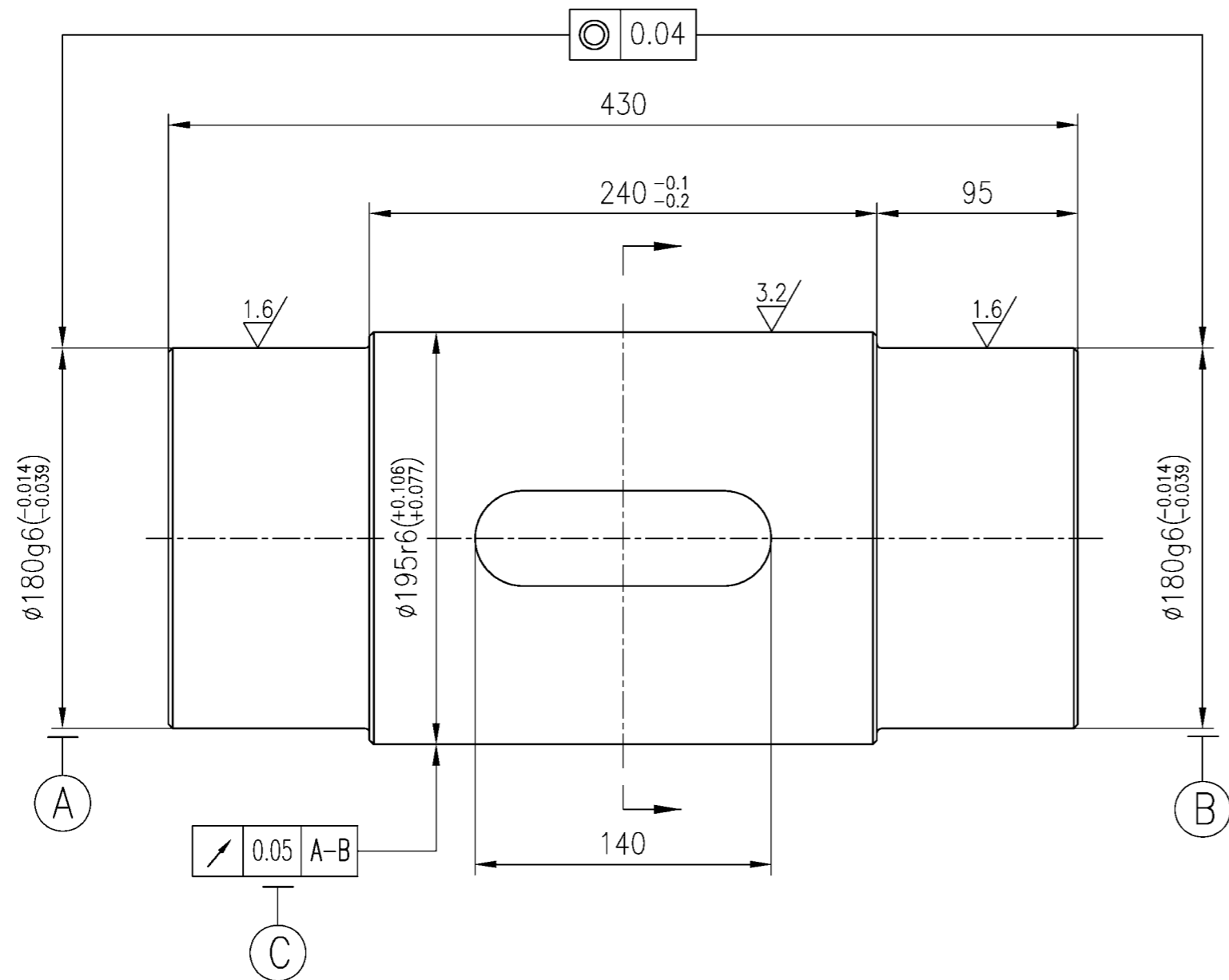
- All the non-noted fillets are $1.5 \times 45^\circ$.
- All the non-noted round angles are R1.5

技术条件

- 未注倒角 $1.5 \times 45^\circ$.
- 未注圆角 R1.5.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
1	UL2512210201	轴承套 bearing cover	Q235B	85.4/683.4	8	1:3
ZPMC		DRAW	TECH.	TRACE		
		CHCK	STDD	CHCK		

其余 $\sqrt{12.5}$
others



技术条件

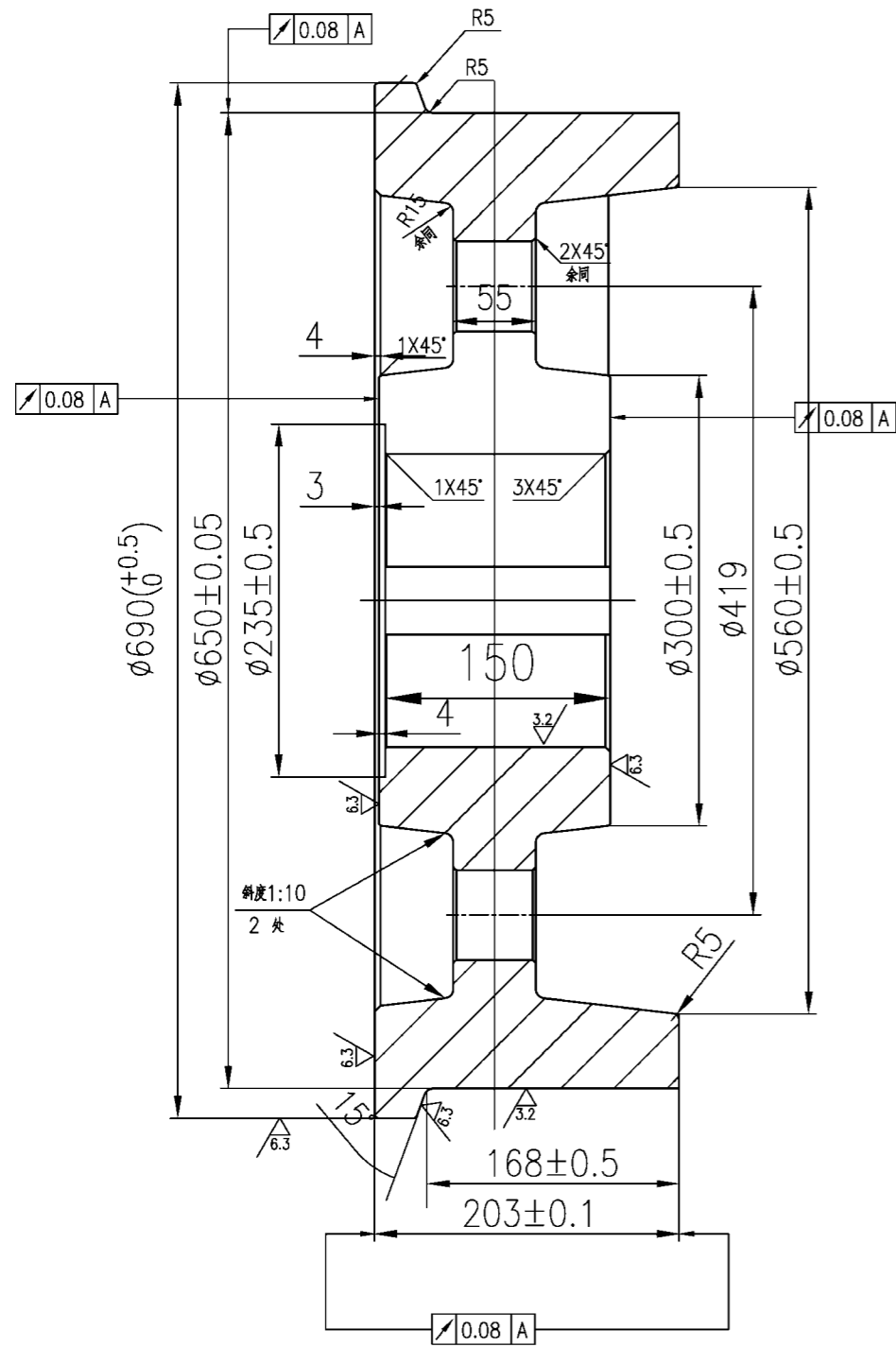
1. 未注倒角 $2 \times 45^\circ$.
2. 未注圆角 R2.
3. 热处理: 调质 HB241-286.

Technology Requirement

1. All the non-noted fillets are $2 \times 45^\circ$.
2. All the non-noted round angles are R2
3. Adjusting Quality HB241~286

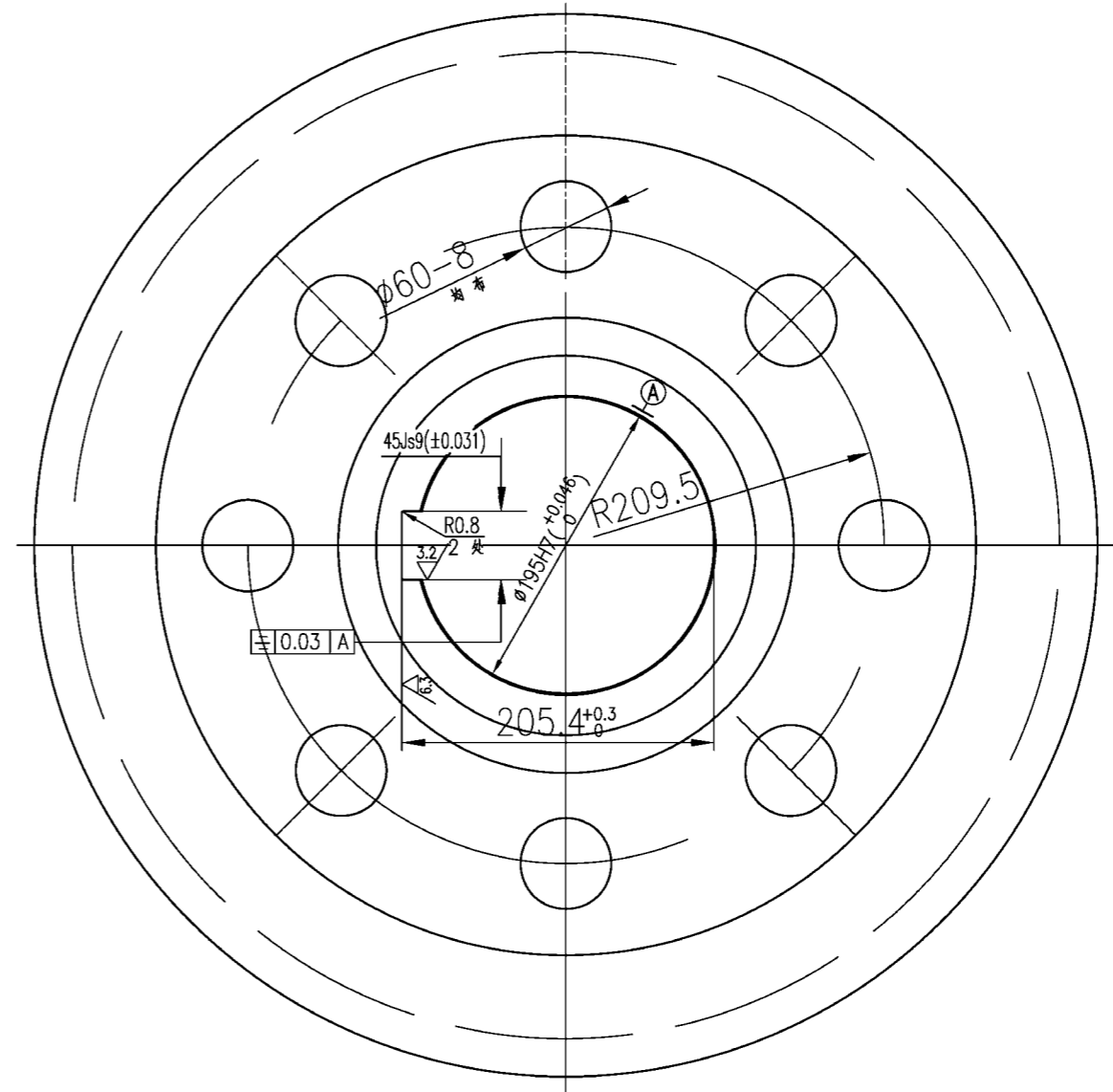
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
3	UL2512210203	车轮轴 wheel shaft	40Cr	91.4/365.5	4	1:3
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

other $\sqrt{12.5}$



技术要求

1. 向买方保证值: 踏面硬度>HB321,硬化层有效深度>10mm, 10mm深处硬度>HB257.
2. 制作时按公司内控标准(高于ASTM A504标准)制作: 踏面硬度HRC50~56, 硬化层有效深度>15mm, 15mm深处硬度>HRC35.
3. 车轮锻件按GB12361-90和GB12362-90技术条件验收, 车轮探伤应按美国ASTM A504-C级进行验收.



technical requirement

1. Hrdness of contact face >HB321,effective harden depth >10mm, hardness in 10mm depth >HB257.
2. According to ZPMC's regulation(above ASTM A504),the hardness of contact face HRC50-56,effective harden depth >15mm,hardness in 15mm depth>HRC35.
3. Foging body's check according to GB12361-90 AND GB12362-90, inspect according to ASTM A504-C.

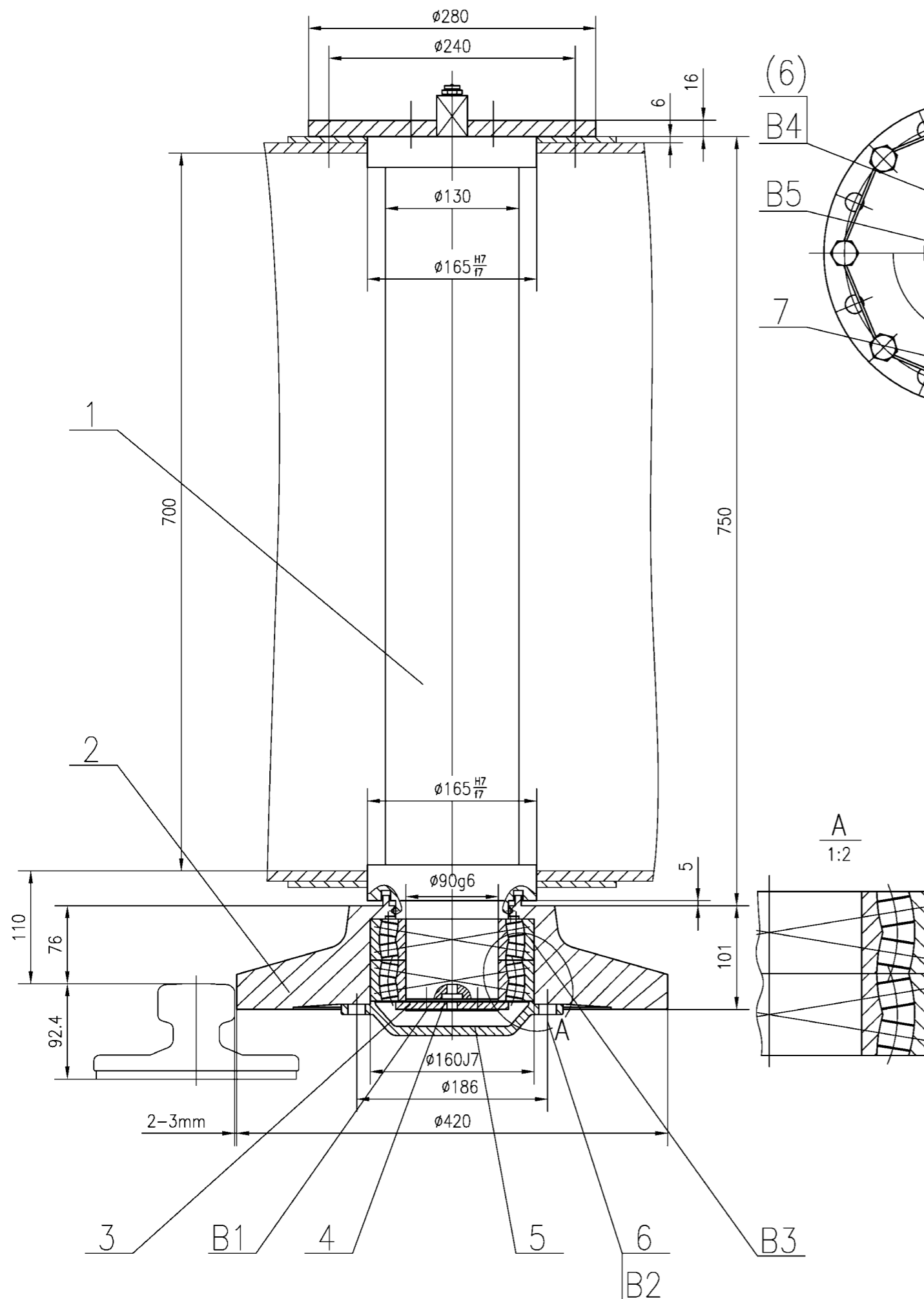
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
7	UL2512210206	小车车轮 trolley wheel	42CrMo	4	185/740	1:5
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

Technology Requirement

- 1.The graphical representation position is in the position for the eccentric shaft, The eccentricity is 8mm
- 2.The height position should guarantee a level turn of on surface outdoes orbital plane 76mm

技术要求

- 1.图示位置为偏心轴处于中位,偏心距为8mm.
- 2.高低位置应保证水平轮上表面高出轨道面76mm.



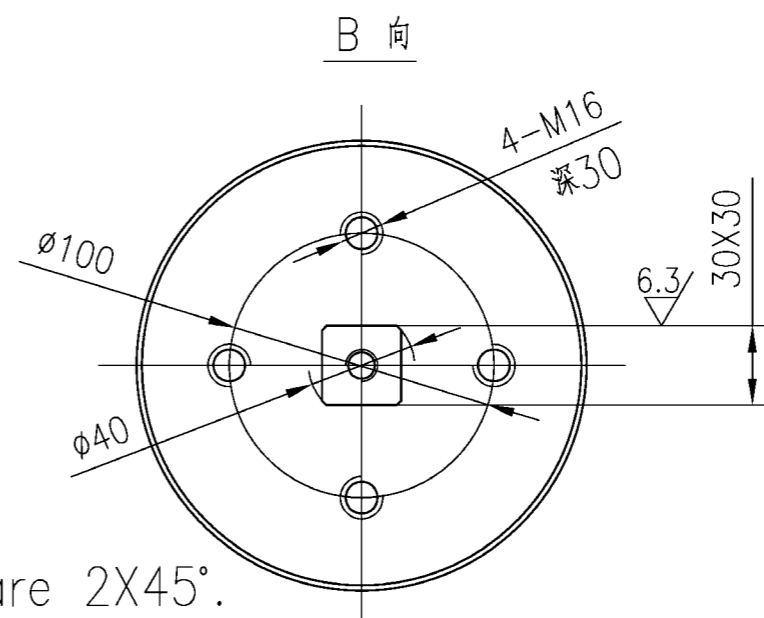
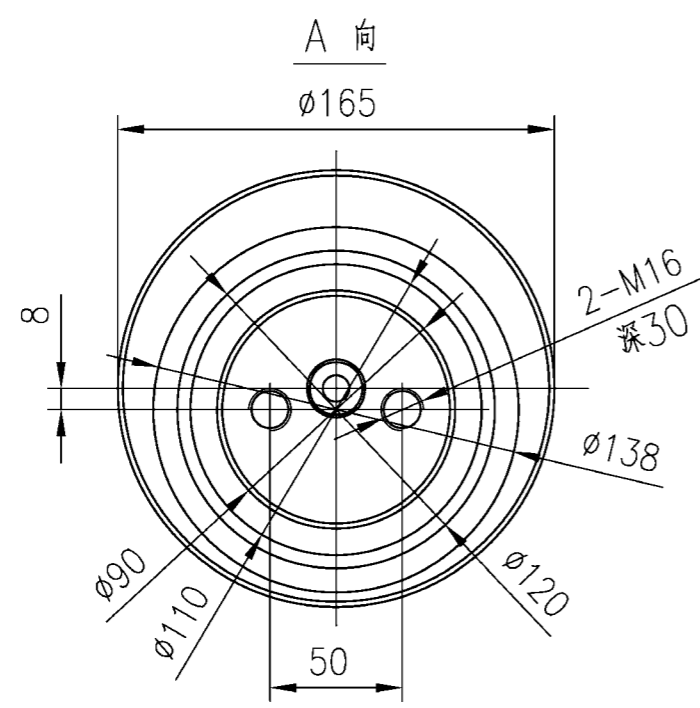
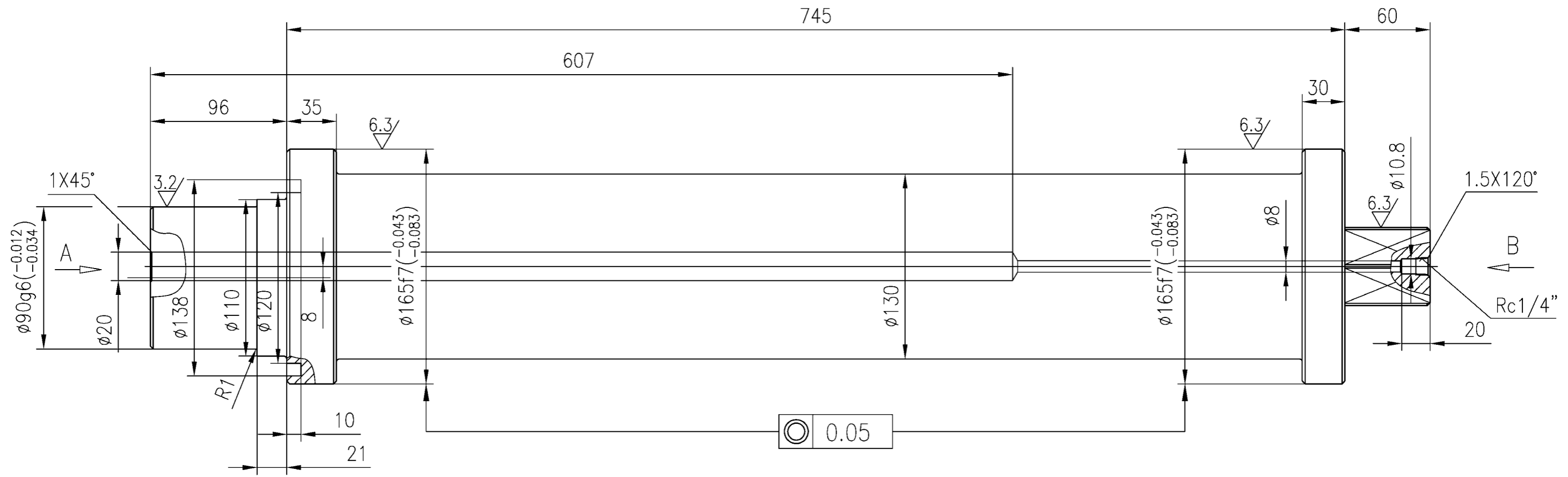
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
					WEIGHT		
B6	GB32.1-88	BoltM16X45	级8.8	8	0.08	0.64	
B5	JISB0203	nozzlePT1/4"	成品	1			
B4	GB32.1-88	boltM16X45	级8.8	4	0.08	0.32	
B3	GB288-87	bearing53518	成品	2	3.28	6.56	90X160X40
B2	GB32.1-88	boltM16X40	级8.8	6	0.07	0.43	
B1	GB5782-86	boltM16X40	级8.8	2	0.03	0.06	
7	UL2512210306	orientation tray	Q345B	1	5.8	5.8	
6		steel wireφ2.5		3			
5	UL2512210305	close cover	Q235B	1	3.2	3.2	
4	UL2512210304	stop washer	Q235B	1	0.02	0.02	
3	UL2512210303	shaft end baffel	Q235B	1	0.56	0.56	
2	UL2512210302	level wheel	45	1	55.2	55.2	
1	UL2512210301	partiality shaft	45	1	86.2	86.2	

PROJECT:Alabama 2000t/h ship unloader DESIGN STAGE: SCALE: 1:5

ITEM NAME: 水平轮装置
level wheel set DRAW NO: UL2512210300

ZPMC	DSGN		TRACE		APP.	
	DRAW		CHCK		Q'TY/SET	157.2kg
	CHCK		VER.		SET/CRANE	4

其余: $\frac{12.5}{\nabla}$
others

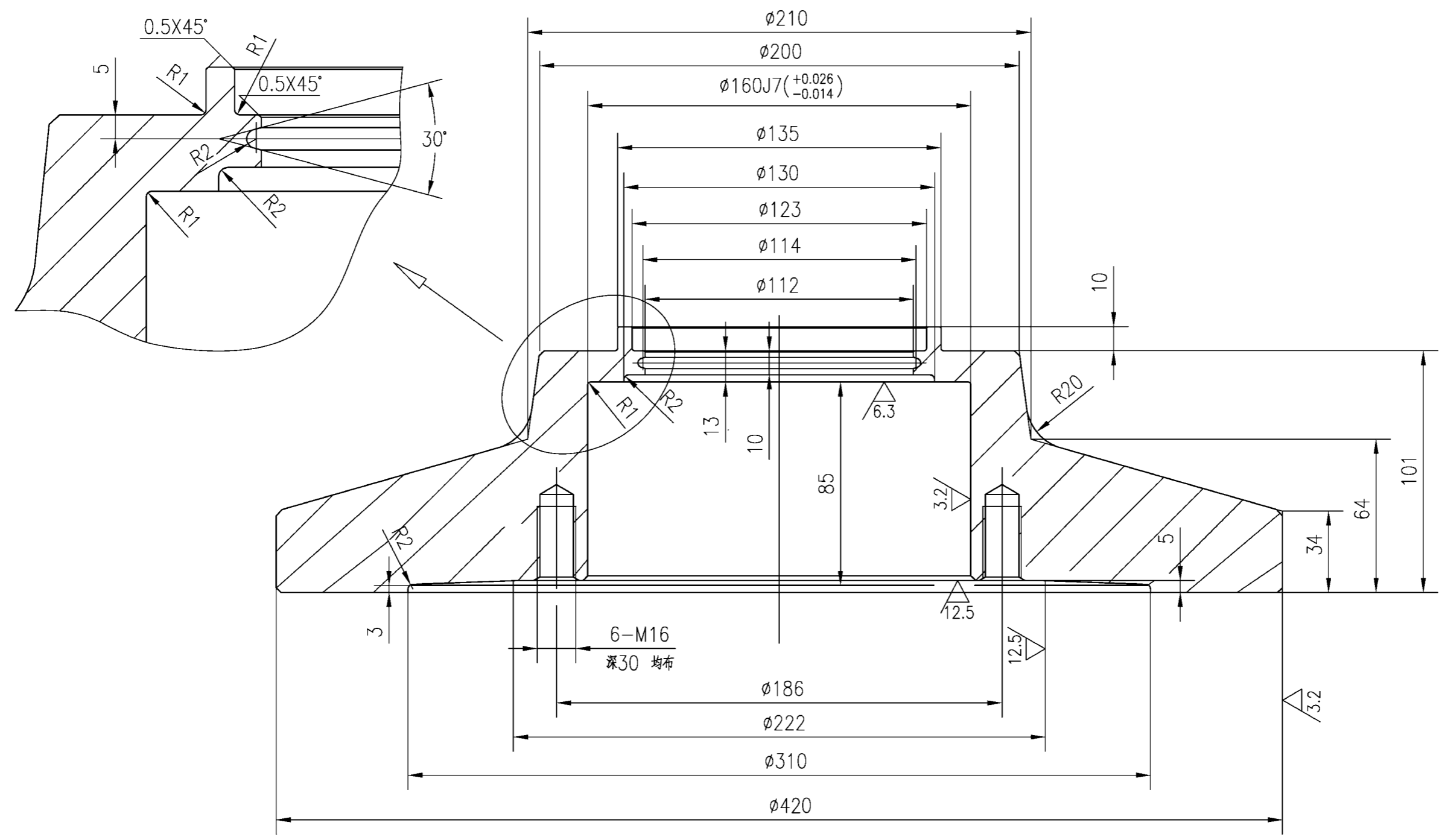


Technology Requirement
 1. All the non-noted fillets are $2 \times 45^\circ$.
 2. All the non-noted round angles are R2
 3. Adjusting Quality HB220~250

技术要求
 1. 未注倒角: $2 \times 45^\circ$.
 2. 未注圆角: R2.
 3. 调质处理: HB220-250

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
1	UL2512210301	偏心轴 partiality shaft	45	86.2	4	1:4
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

其余 $\sqrt{12.5}$
others



技术要求

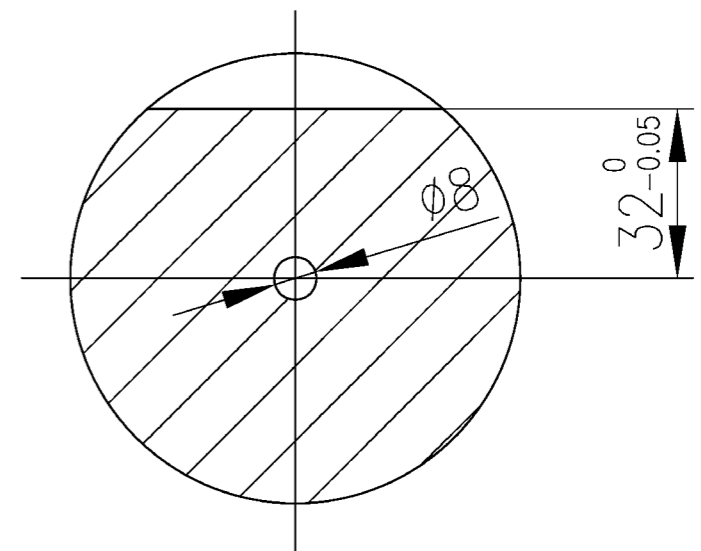
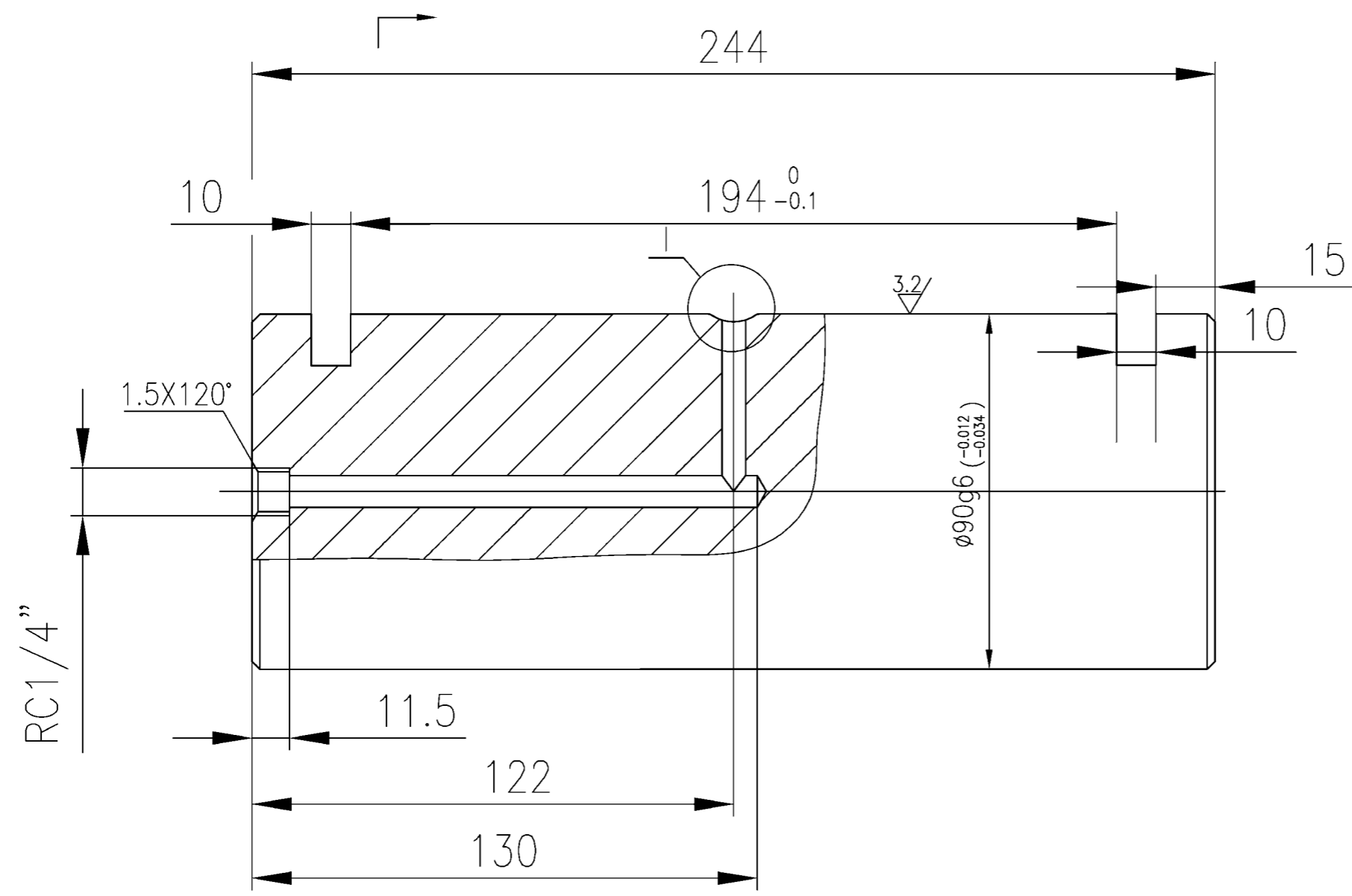
- 1.未注倒角:2X45°,锐角倒钝.
- 2.未注圆角:R2.
- 3.车轮表面热处理:HRC45-50,深度大于10mm.

Technology Requirement

- 1.All the non-noted fillets are 2x45°,The acute angle is but actually obtuse
- 2.All the non-noted round angles are R2
- 3.Superficial high-frequency quenching:HRC45-50,The depth is not smaller than 10mm

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
2	UL2512210302	水平轮 level wheel	45	55.2	4	1:2
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

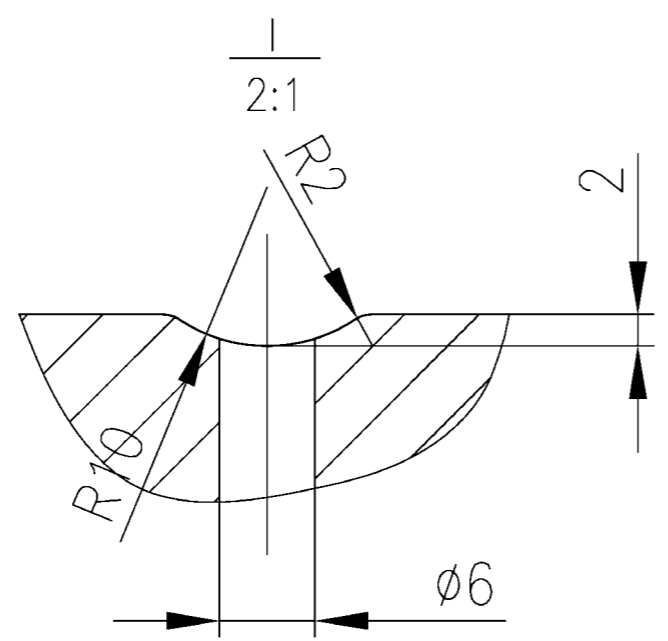
其余: $\sqrt{12.5}$
others



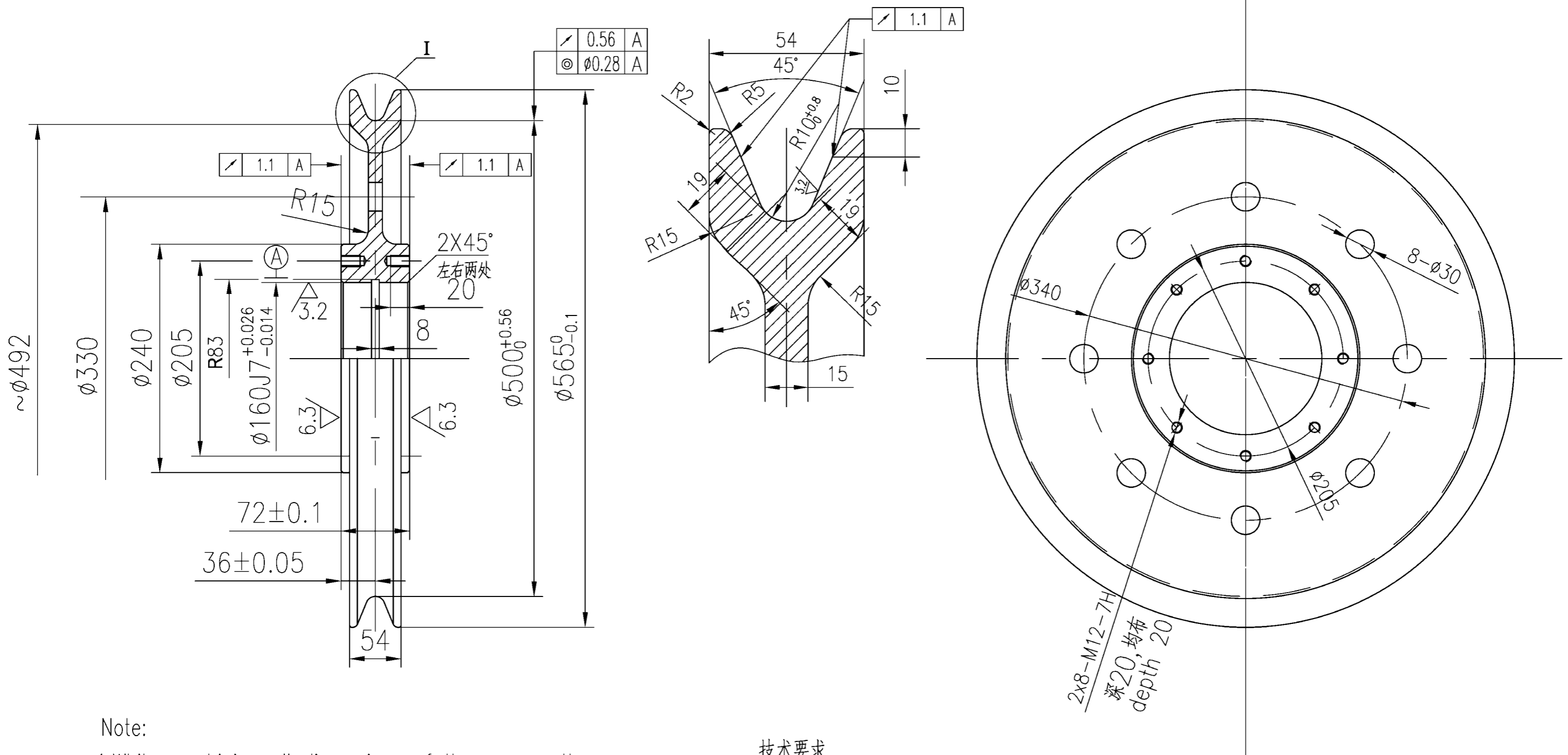
技术要求

1. 未注倒角: 2X45°.
2. 调质处理: HB220-250.

Technology Requirement
 1. All the non-noted fillets are 2X45°.
 2. Adjusting Quality HB220~250



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL2512210502	wheel shaft	45	10.5kg	4	1:2
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



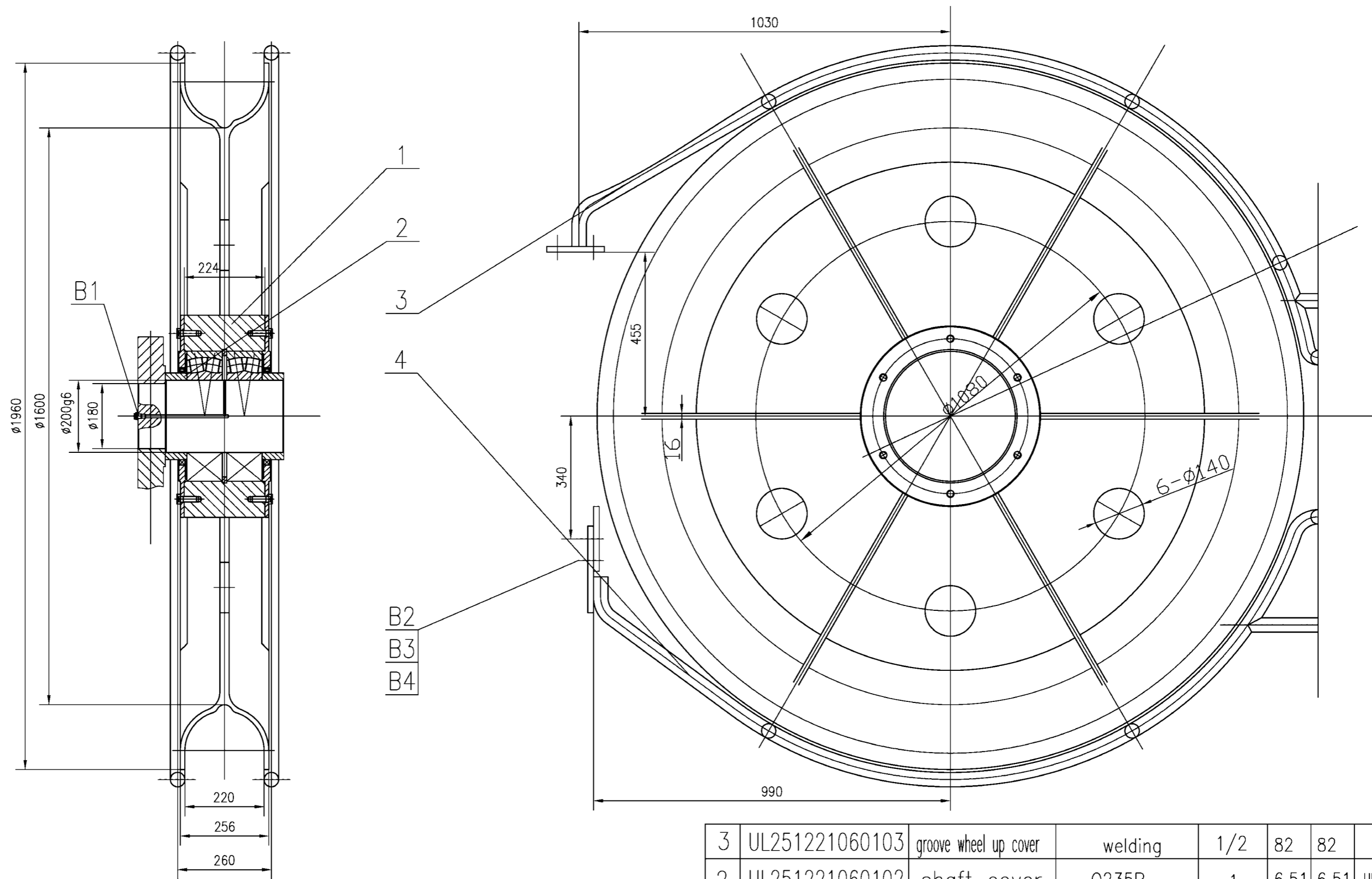
Note:

1. While machining all dimensions of the groove, the hub and the holes in the web should comply with the dimensions and tolerances in the drawing.
2. The sheave groove will be deep harden HB321. The harden depth is 3~6mm.
3. Low-temperature stress-relief temper after hardening.
4. This sheave is rolled.

技术要求

1. 绳槽轮廓尺寸和腹板孔以及轮毂切削加工, 必须满足图示尺寸和公差要求.
2. 绳槽表面淬火, 表面硬度 \geq HB321; 淬深 3~6mm.
3. 淬火后应做低温回火的消应力处理.
4. 此滑轮为锻造滑轮.

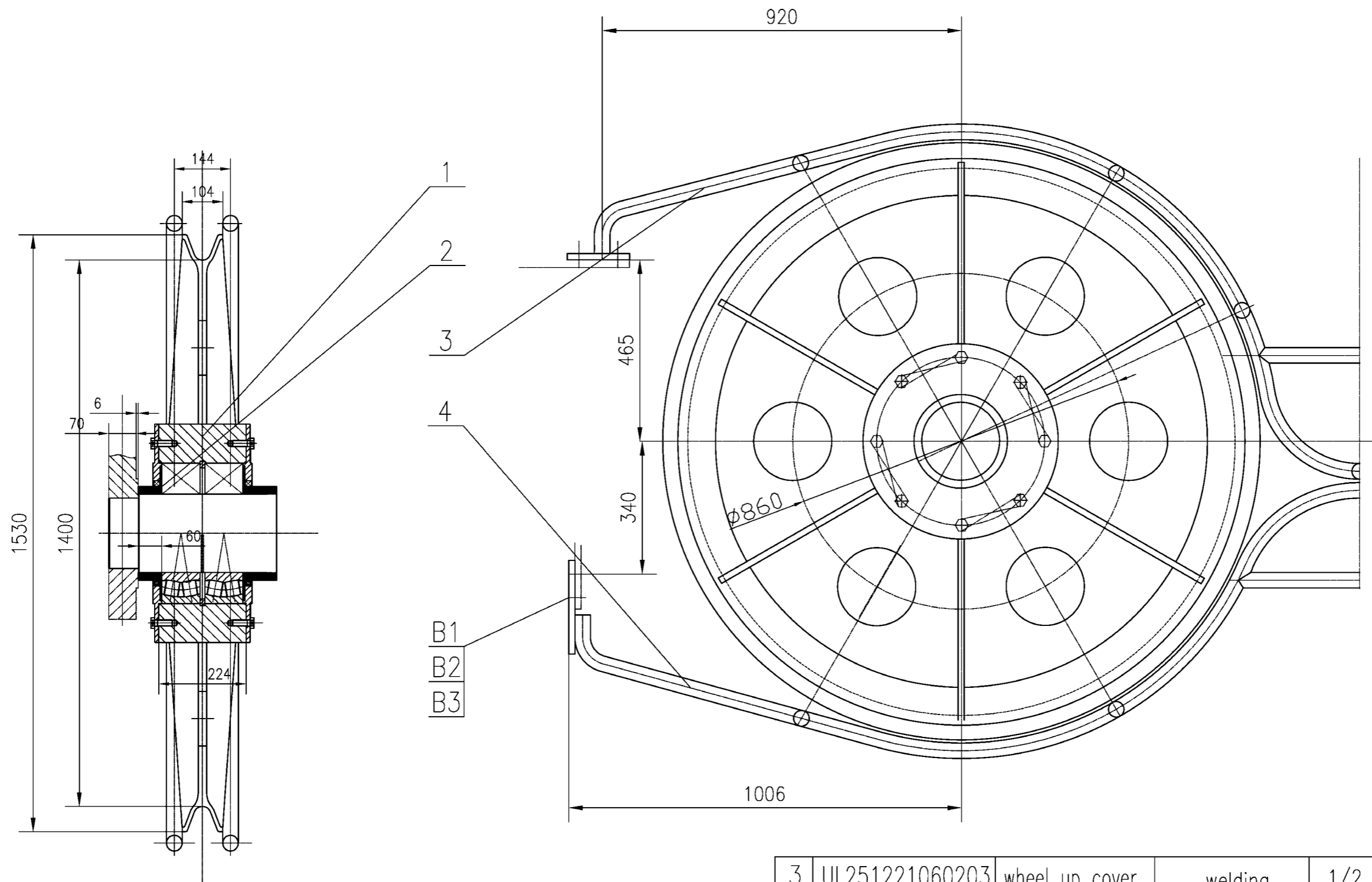
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/crane	WEIGHT	SCALE
1	UL2512210507	Sheave 滑轮	35CrMo	4	50	1:6
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



3	UL251221060103	groove wheel up cover	welding	1/2	82	82	
2	UL251221060102	shaft cover	Q235B	1	6.51	6.51	UL2512210602借用二件
1	ULWHL1600	groove wheel D=1600	assembly	1	1093	1093	标准件
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	

B4	GB862.1-87	washer16	65Mn	10	0.002	0.04	垫圈16
B3	GB6170-86	nutM16	级10	10	0.03	0.6	螺母M16
B2	GB5782-86	boltM16X50	级8.8	10	0.09	1.8	螺栓M16X50
B1	JISB0203	nozzle PT1/4"	成品	1			油嘴PT1/4"
4	UL251221060104	groove wheel below cover	welding	1/2	74.2	74.2	

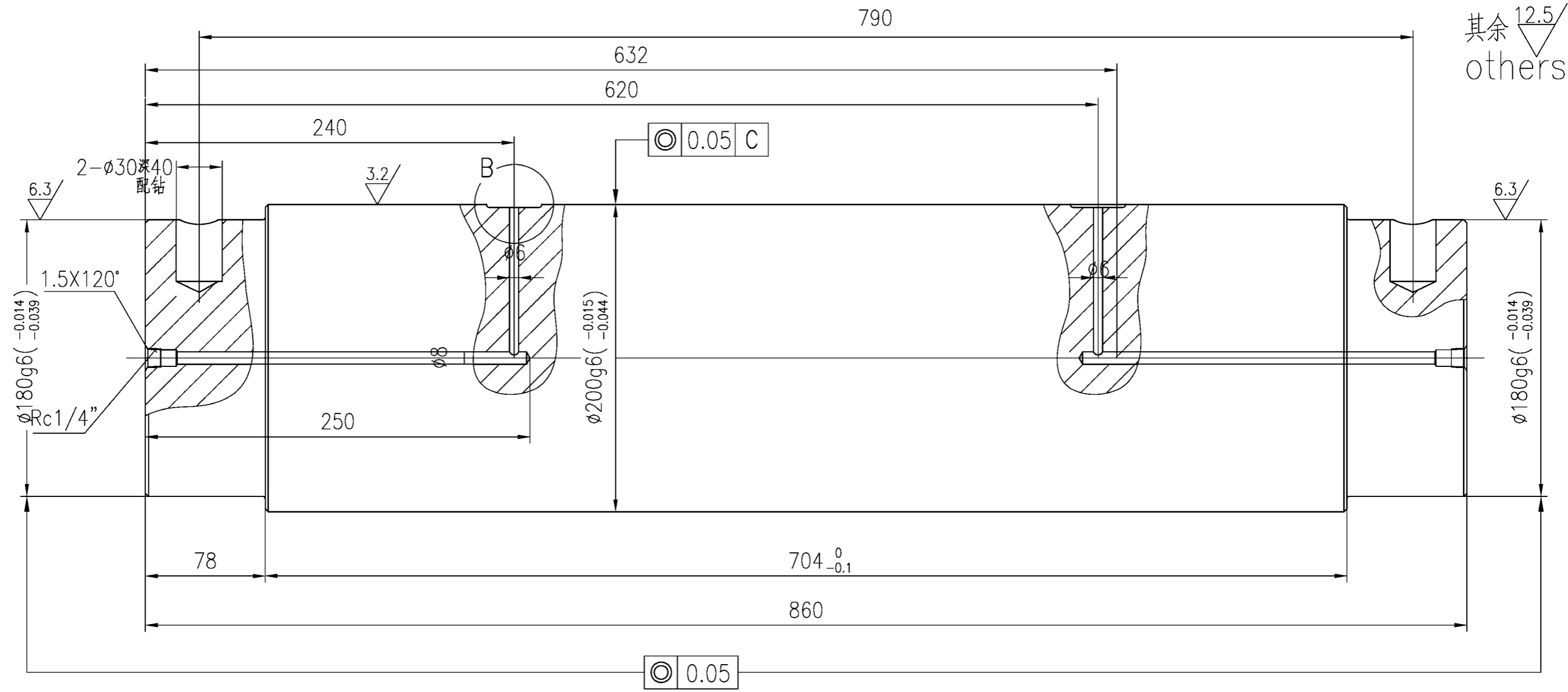
PROJECT:Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE: 1:10	
ITEM NAME: groove wheel group		DRAW NO:		UL2512210601	
ZPMC	DSGN		TRACE		APP.
	DRAW		CHCK		Q'TY/SET 1285kg
	CHCK		VER.		SET/CRANE 2



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	
3	UL251221060203	wheel up cover	welding	1/2	59.6	59.6	
2	UL251221060102	shaft cover	Q235B	1	6.51	6.51	borrow part
1	ULHL1400	wheel D=1400	assembly	1	857	857	standard part

B3	GB862.1-87	washer	65Mn	10	0.002	0.04	垫圈16
B2	GB6170-86	nut	级10	10	0.03	0.6	螺母M16
B1	GB5782-86	bolt	级8.8	10	0.09	1.8	螺栓M16X50
4	UL251221060204	wheel below cover	welding	1/2	62	62	

PROJECT:Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE: 1:10	
ITEM NAME: 滑轮组 wheel group		DRAW NO: UL2512210602			
ZPMC	DSGN		TRACE		APP.
	DRAW		CHCK		Q'TY/SET 988kg
	CHCK		VER.		SET/CRANE 2

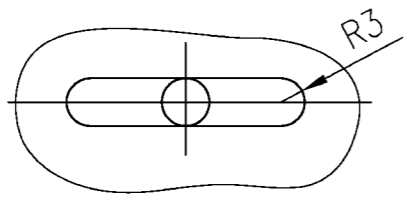
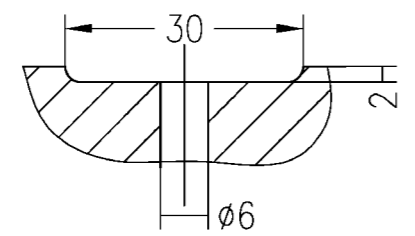


其余 12.5/
others

◎ 0.05
C

技术条件

B
1:1

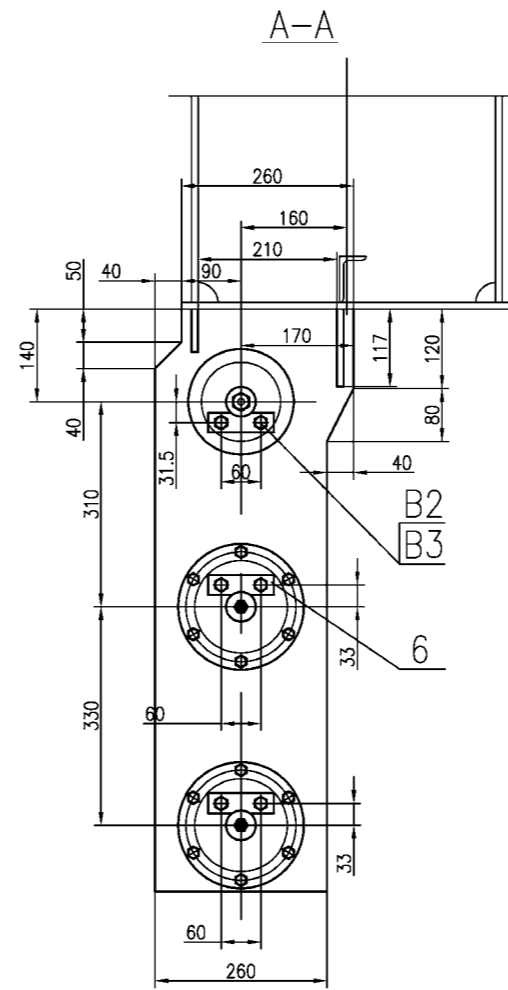
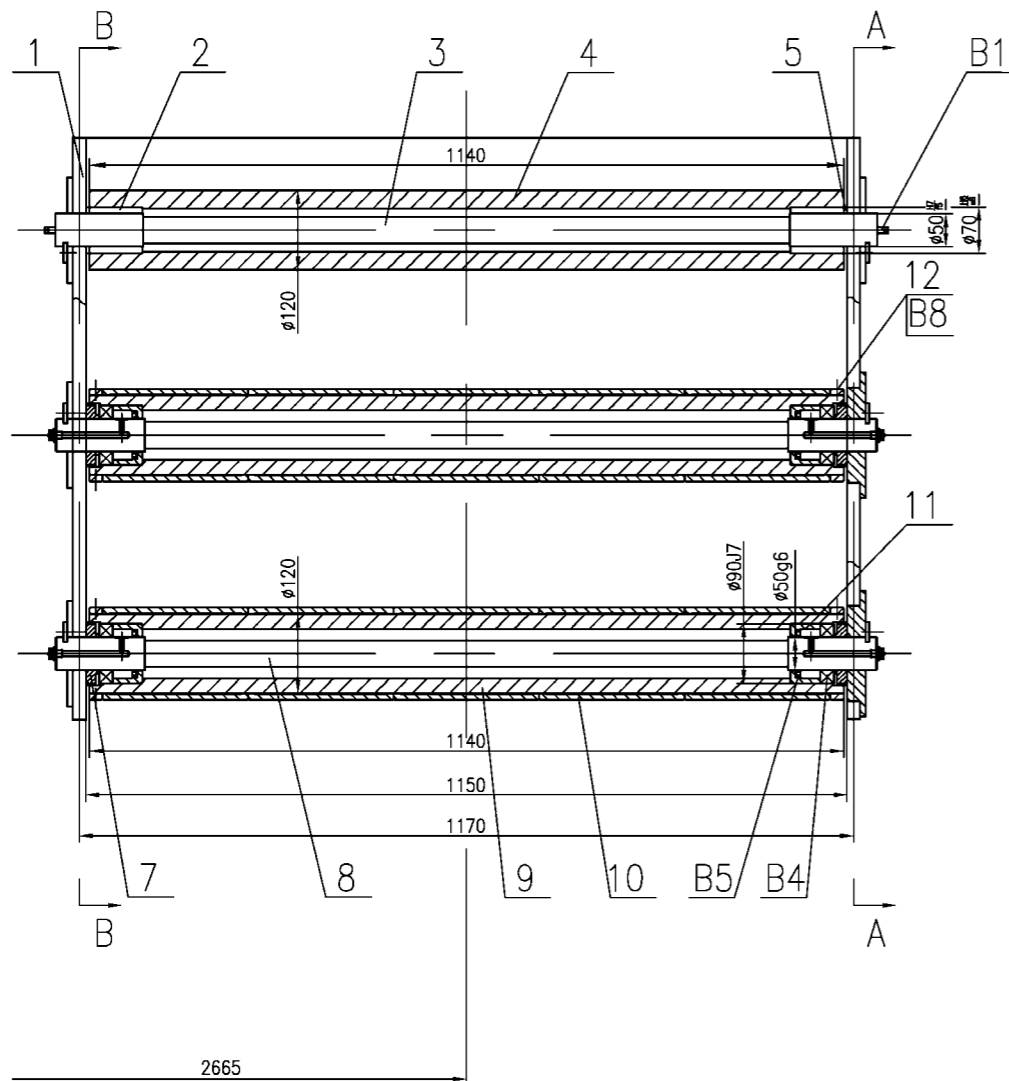


Technology Requirement

1. Adjusting Quality HB241~286
2. All the non-noted fillets are 2X45°.
3. All the non-noted round angles are R1.5
4. material: 40Cr

1. 热处理: 调质 HB241-286.
2. 未注倒角 2X45°.
3. 未注圆角 R1.5.
4. 材料: 40Cr

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
					WEIGHT	WEIGHT	
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:	SCALE: 1:3			
ITEM NAME: 滑轮轴 wheel shaft			DRAW NO: UL2512210604				
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	221.9kg	
	CHCK		VER.		SET/CRANE	2	



技术要求

安装时,滑动轴承回油槽应在外侧,对称而置

Technology Requirement

When installs, The sliding bearing returns to the fuel tank to be supposed in the flank, The symmetry but set

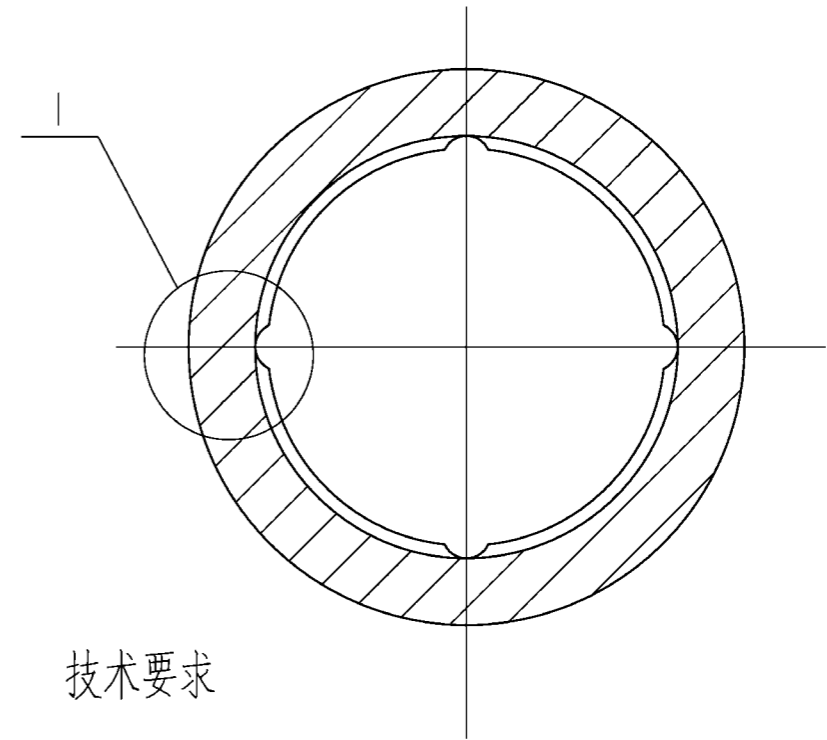
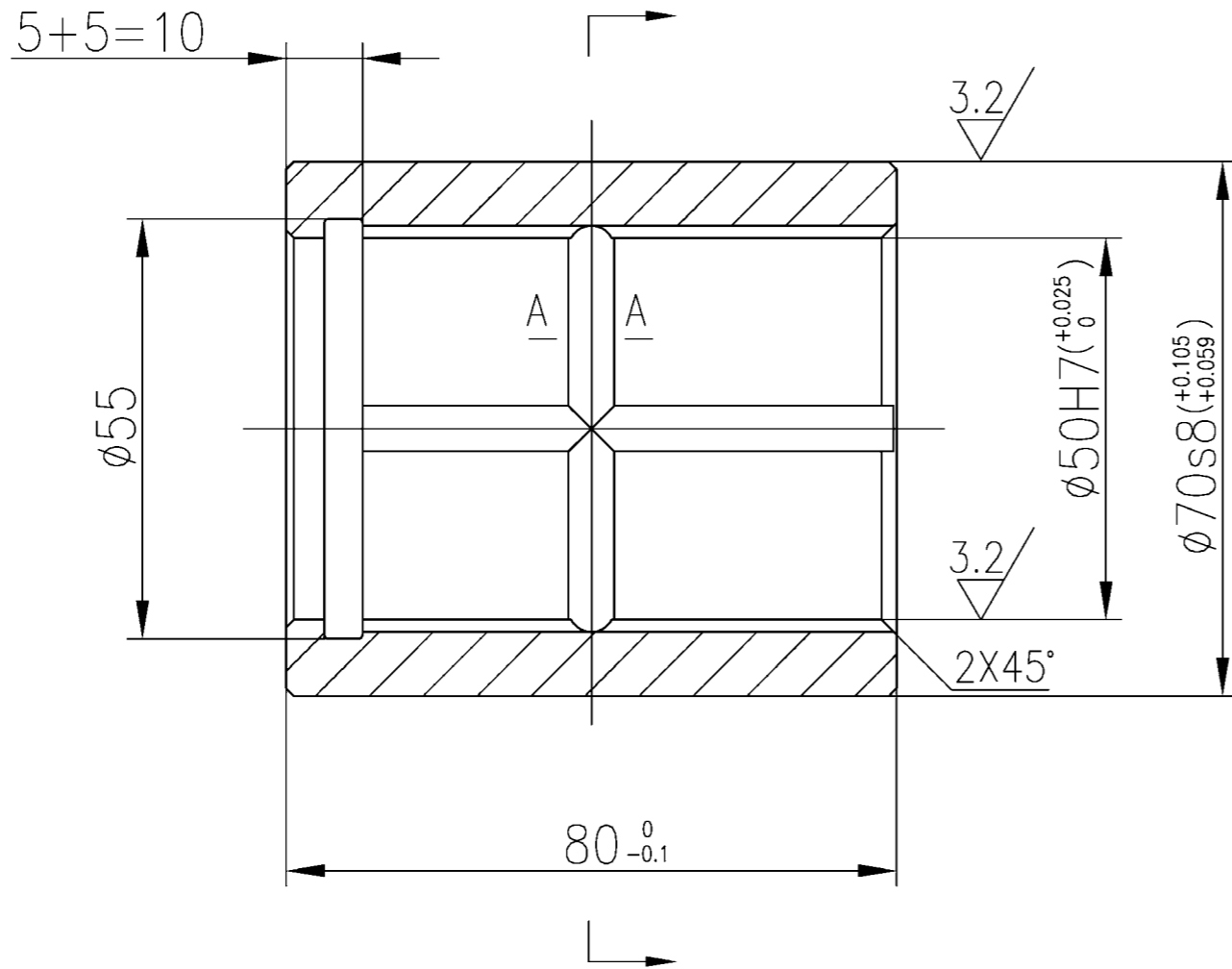
13	UL2512210713	支承盖 supporting cover	Q235	2			
12	UL2512210712	挡圈 block ring	20	4			
11	UL2512210711	挡油圈 oil block ring	Q235	4			
10	UL2512210710	托辊抗磨层 wearable sleeve 40Cr		10			
9	UL2512210709	下托辊 below roller	45	2	53.7	107.4	
8	UL2512210708	下托辊轴 below roller shaft	45	2	12.4	24.8	
7	UL2512210707	防尘罩 dustproof cover	Q235	4	0.56	2.24	
6	UL2512210706	轴端挡板 shaft end baffle	Q235	6	0.13	0.78	
5	UL2512210705	轴套1 shaft cover 1	Q235	2	0.067	0.134	
4	UL2512210704	上托辊 up roller	45	1	65	65	
3	UL2512210703	上托辊轴 up roller shaft	45	1	12.4	12.4	
2	UL2512210702	滑动轴承 sliding bearing	ZQAL9-4	2	1.1	2.2	
1	UL2512210701	托辊架 roller pedestal	welding	1	108.5	108.5	

NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	WEIGHT		NOTE
					each	total	

B8	GB79-85	螺栓10x15		16			圆柱端:z=5.3
B7	GB862.1-87	垫圈10		12			
B6	GB5782-86	螺栓M10X30		12			
B5	GB9877.1-88	内包骨架油封B55*72*8		4			
B4	GB283-87	轴承42210 bearing42210	turnoff	4	0.31	1.24	
B3	GB862.1-87	垫圈12 washer12	65Mn	8			
B2	GB5782-86	螺栓M12X25 boltM12X25	Q235	8			
B1	JISB0203	平头油嘴 PT1/4" nozzle	turnoff	6			

PROJECT:		DESIGN STAGE:		SCALE: 1:12	
ITEM NAME: 下托辊组 below roller group		DRAW NO: UL2512210700		PROJ.	
ZPMC	DSGN		TRACE		APP.
	DRAW		CHCK		Q'TY/SET 324.kg
	CHCK		VER.		SET/CRANE 2

其余: $\sqrt[12.5]{\text{▽}}$
others



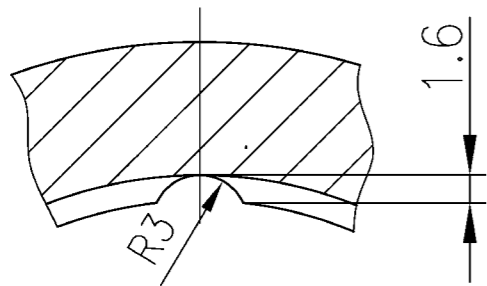
技术要求

1. 未注倒角1X45°.
2. 未注圆角R0.5.
3. 油槽允许手工制作.

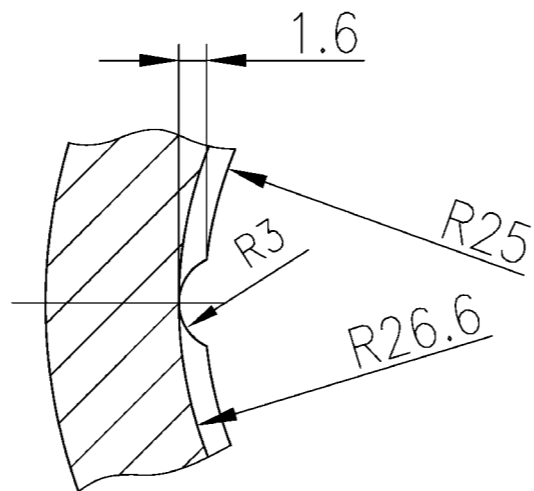
Technology Requirement

1. All the non-noted fillets are 1x45°
2. All the non-noted round angles are R0.5
3. Fuel tank permission hand-planted

A-A
2:1

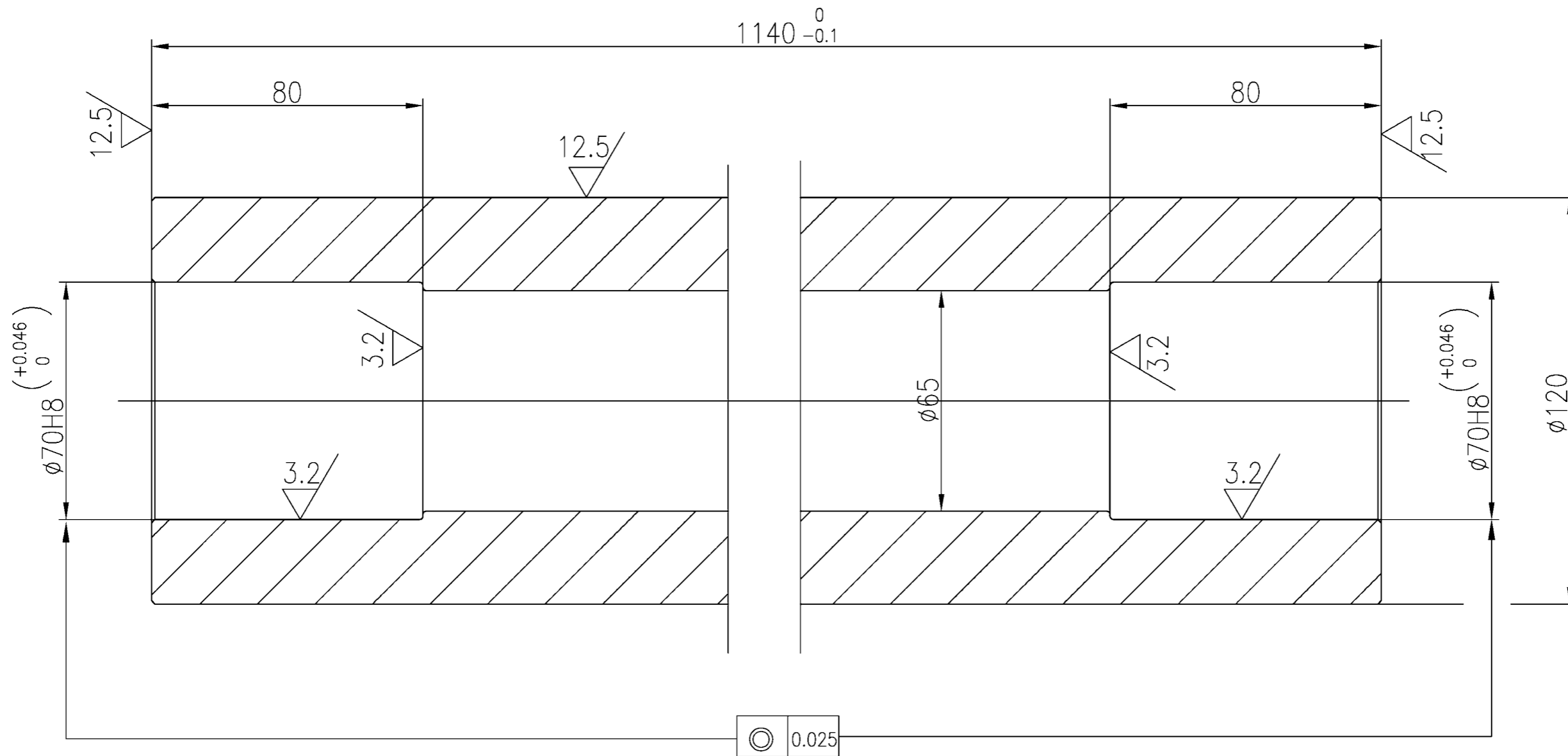


1
2:1



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL2512210702	sliding bearing	ZQAL9-4	1.1kg	4	1:1
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

其余: 12.5/
others



技术要求

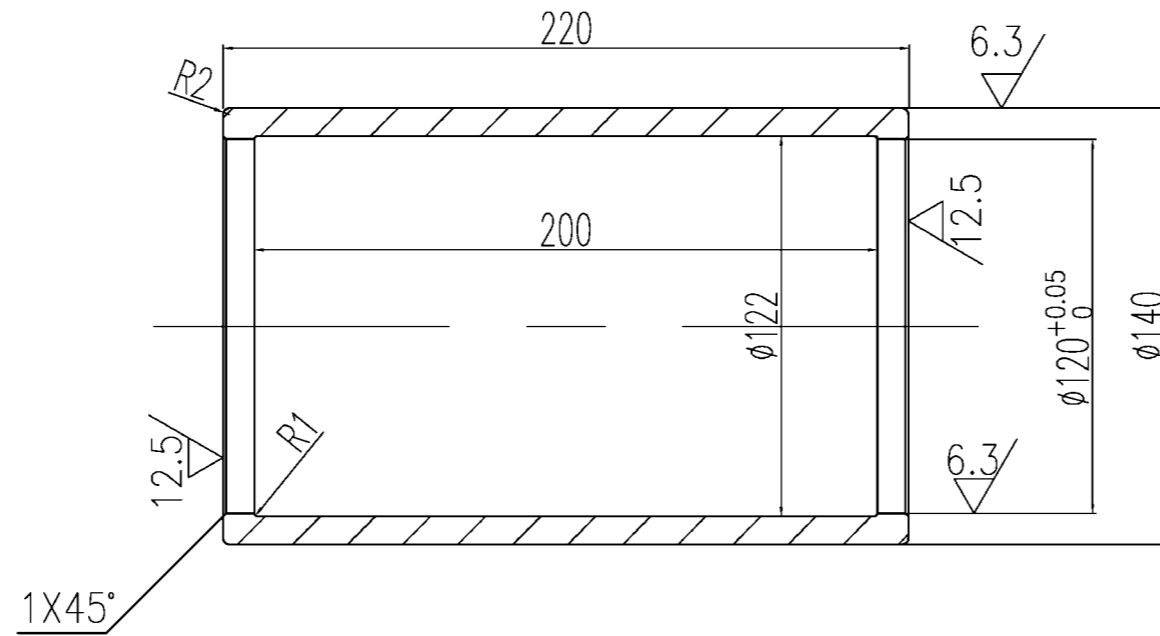
1. 未注倒角: 1X45°.
2. 未注圆角: R1.
3. 调质处理: HB262-286.
4. 表面高频淬火: HRC48-59, 深度不小于1.5mm.

Technology Requirement

1. All the non-noted fillets are 1x45°
2. All the non-noted round angles are R1
3. Adjusting Quality HB262~286
4. Superficial high-frequency quenching: HRC48-59, The depth is not smaller than 1.5mm

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL2512210704	up roller	45	65kg	2	1:1.5
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

其余: 
others



技术要求

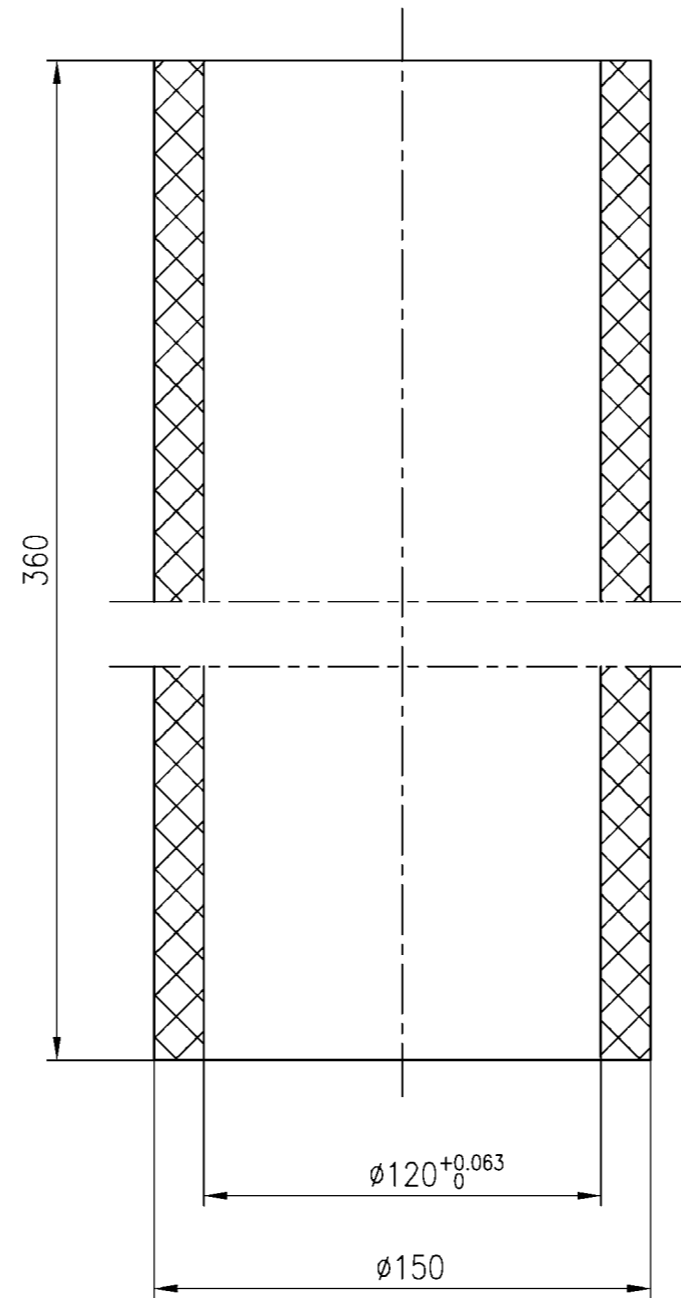
- 1.未注倒角: $1 \times 45^\circ$.
- 2.热处理: HRC35~40

Technology Requirement

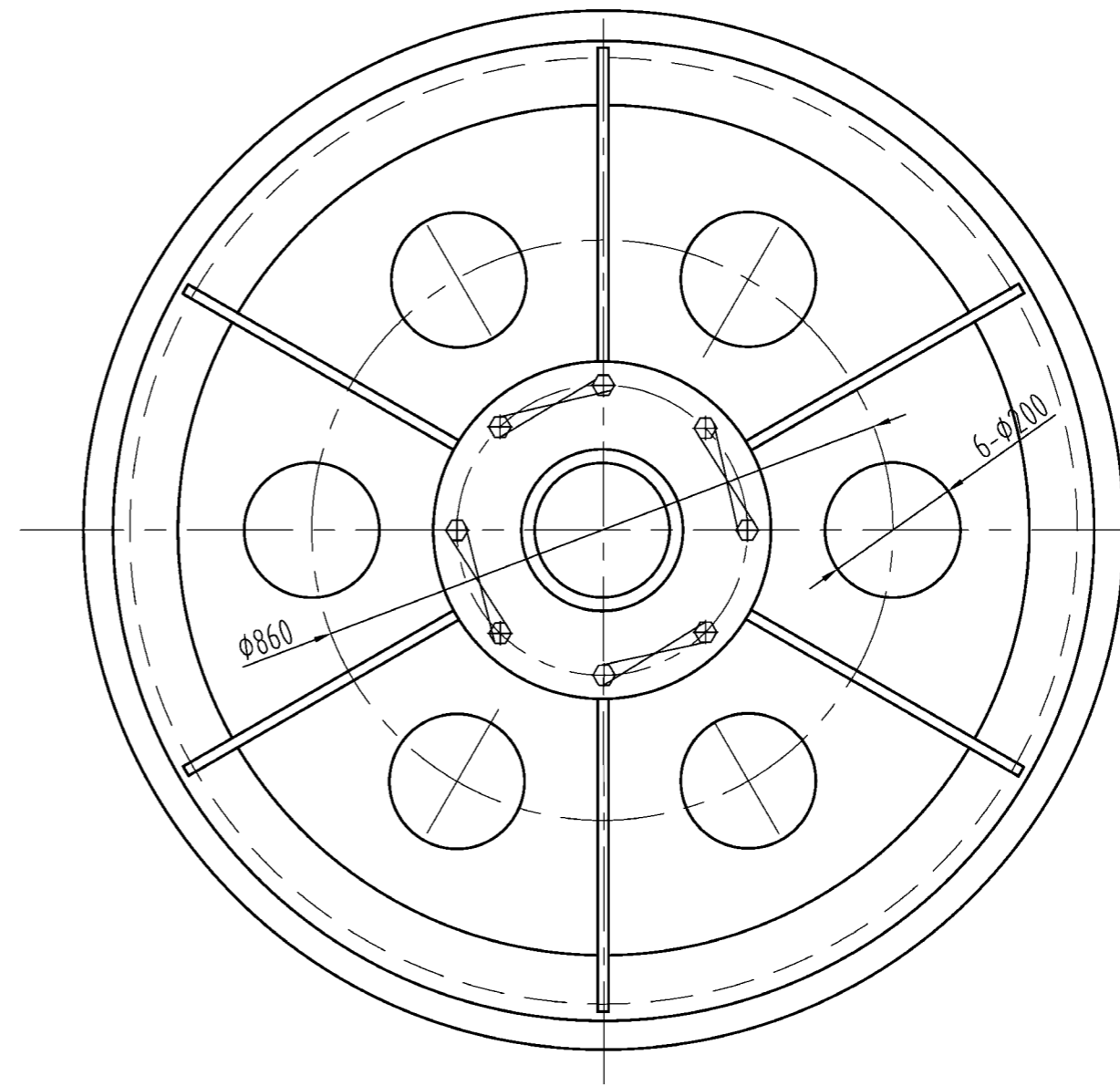
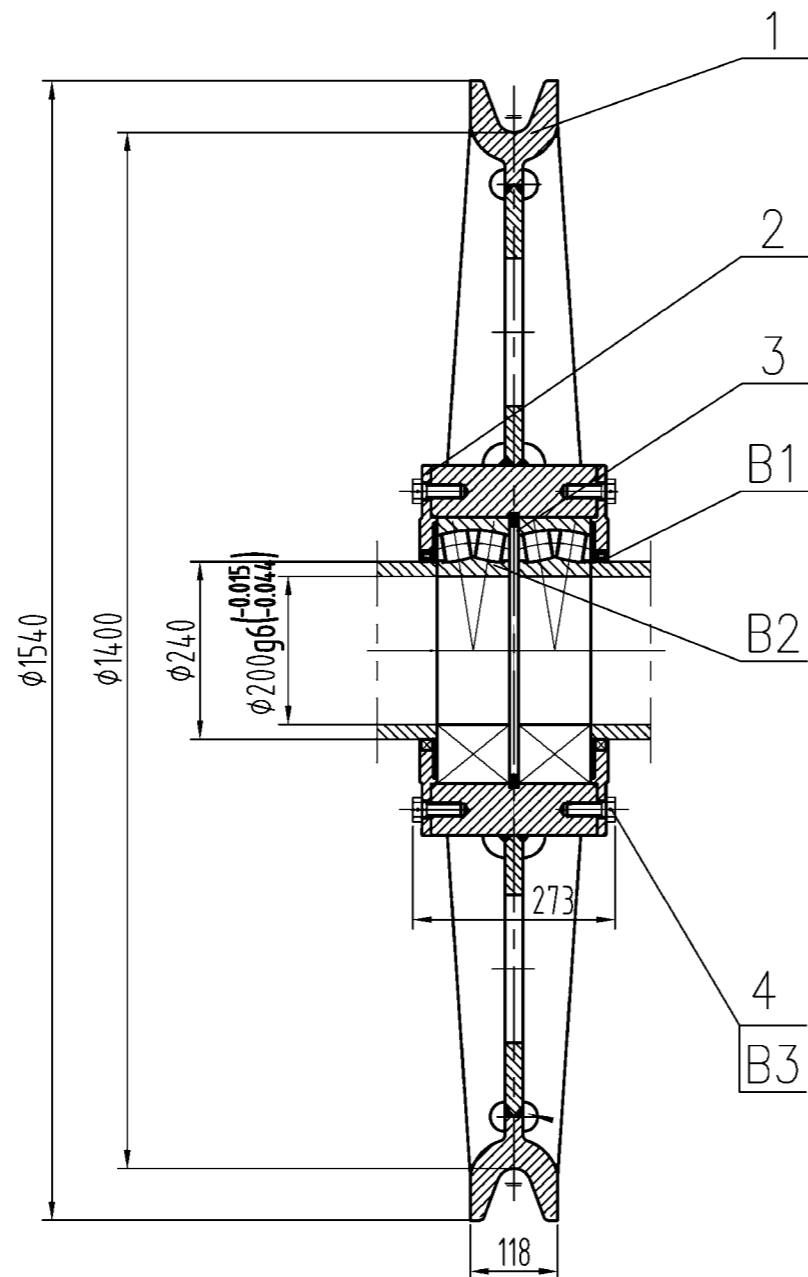
- 1.All the non-noted fillets are $1 \times 45^\circ$
- 2.Adjusting Quality HB35~40

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
6	UL2512210710	托辊抗磨层wearable sleeve	40Cr	20	4.3 43	1:4
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

全部all 12.5/
▽



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
7	UL2512210806	托辊抗磨层 wearabe sleeve	复合尼龙 nylon	6	2	1:2.5
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

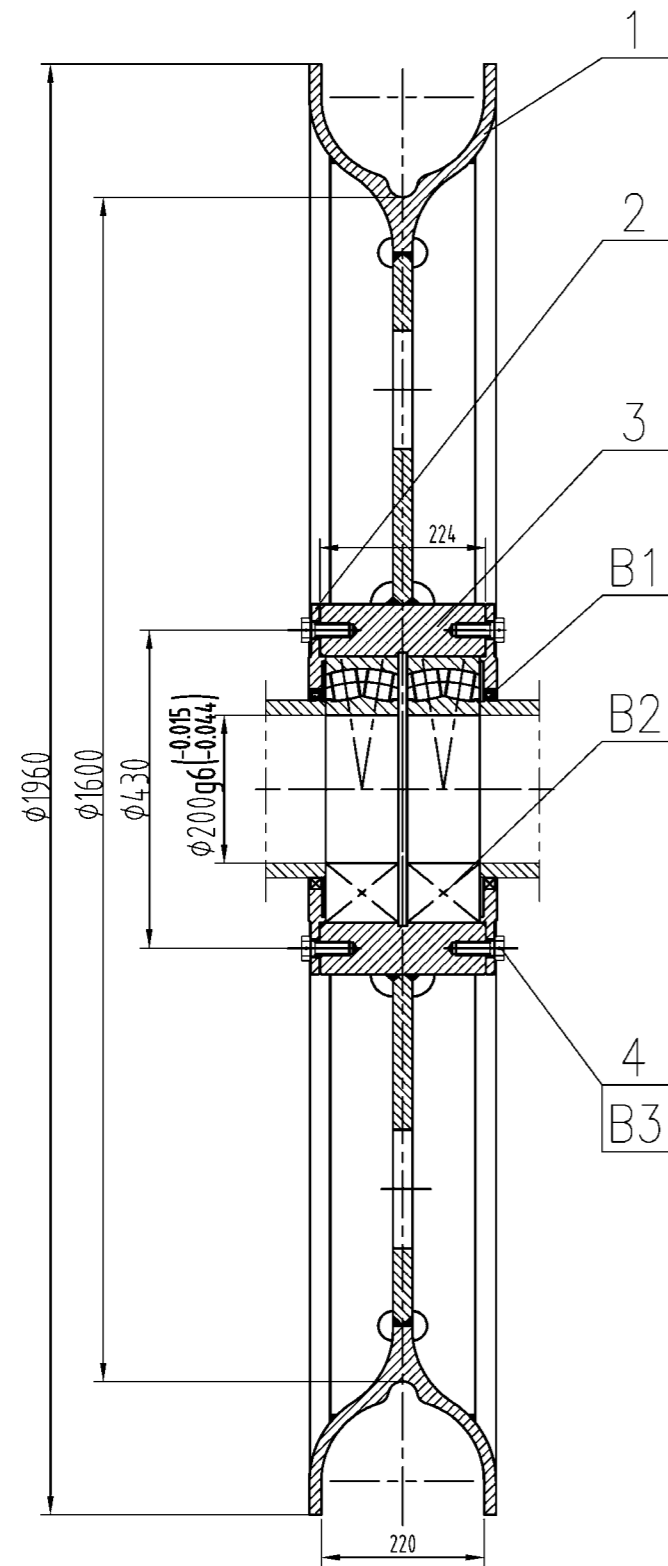


技术要求

1. 安装前检查所有零件的安装尺寸是否满足要求, 安装后检查滑轮运转情况, 应无卡死和窜动现象.
2. 检查轴承润滑孔和轴的润滑孔是否堵塞, 如发现杂质, 必须冲洗干净, 保证两者畅通, 然后按图示装配, 保证滑轮轴向无窜动, 检查所有螺栓是否拧紧, 铅丝是否已将螺栓固定.
3. 安装前, 轴承要加适量润滑脂. 安装后再注满润滑脂.
4. 油封安装时可以除去内部的弹簧, 且与轴承外侧的间距不得小于2mm.
5. 本件为标准通用件, 共包含9种不同规格的滑轮, 设计者需在基本参数选择表中根据设计要求选择适合的最大钢丝绳绳径和绳槽角度两个参数以确定滑轮型号, 制作, 装配均按所选进行.

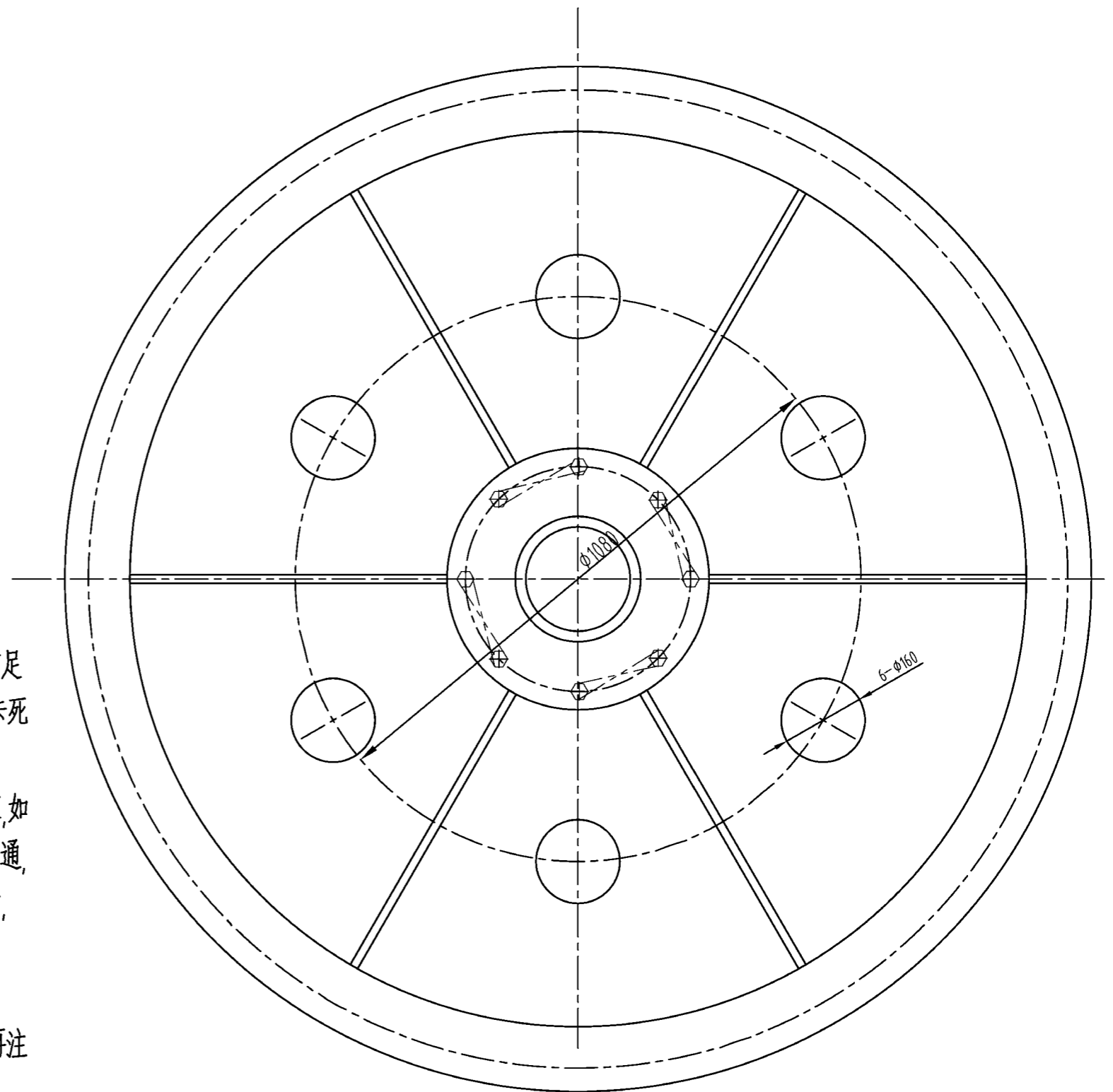
基本参数选择	
最大绳径	绳槽角度
40	45°
46	52°
48	35°

B3	GB32.1-88	螺栓M20X50	8.8J级	16	0.2	3.2	
B2	GB/T288-94	轴承GB22240(φ200xφ360x98)	成品	2	44.5	89	
B1	GB9877.1-88	密封圈B240-270-15	成品	2			
4		钢丝φ3.5	Q235	2	0.1	0.2	
3	ULHL1200-3	卡圈	65Mn	1	1.8	1.8	借用
2	ULHL1200-2	通盖	Q235	2	20.6	41.2	借用
1	ULHL1400-1	滑轮体	组合件	1	657.8	657.8	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET*WEIGHT	SCALE	
PROJECT:			DESIGN STAGE:	SCALE:		1:10	
ITEM NAME: 滑轮装配 D=1400			DRAW NO: ULHL1400		PROJ.		
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		SET/CRANE		
	CHCK		VER.		WEIGHT	746.8	



技术要求

1. 安装前检查所有零件的安装尺寸是否满足要求,安装后检查滑轮运转情况,应无卡死和窜动现象.
2. 检查轴承润滑孔和轴的润滑孔是否堵塞,如发现杂质,必须冲洗干净,保证两者畅通,然后按图示装配,保证滑轮轴向无窜动,检查所有螺栓是否拧紧,铅丝是否已将螺栓固定.
3. 安装前,轴承要加适量润滑脂,安装后再注满润滑脂.
4. 油封安装时可以除去内部的弹簧,且与轴承外侧的间距不得小于2mm.



B3	GB32.1-88	螺栓 M20X50	8.8J级	16	0.2	3.2	
B2	GB22240	轴承 22240 (φ200Xφ360X98)	成品	2	44.7	89.4	
B1	GB9877.3-88	密封圈Z240-270-15	成品	2			
4		钢丝 φ3.5	Q235	2	0.1	0.2	
3	ULHL1200-3	卡圈	65Mn	1	1.8	1.8	
2	ULHL1200-2	通盖	Q345B	2	20.6	41.2	

1	ULWHL1600-1	宽槽体滑轮	组合件	1	957	957	
序号	代号	名称	数量	材料	单件重量	总计重量	备注
PROJECT:			DESIGN STAGE:		SCALE: 1:10		
ITEM NAME: 宽槽滑轮装配			DRAW NO: ULWHL1600		PROJ.		
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		SET/CRANE		
	CHCK		VER.		WEIGHT	1092.8	



GUIDE SHEAVE NEST

NEMAG TYPE 14 SOCKETS

LOWERY SOCKETS

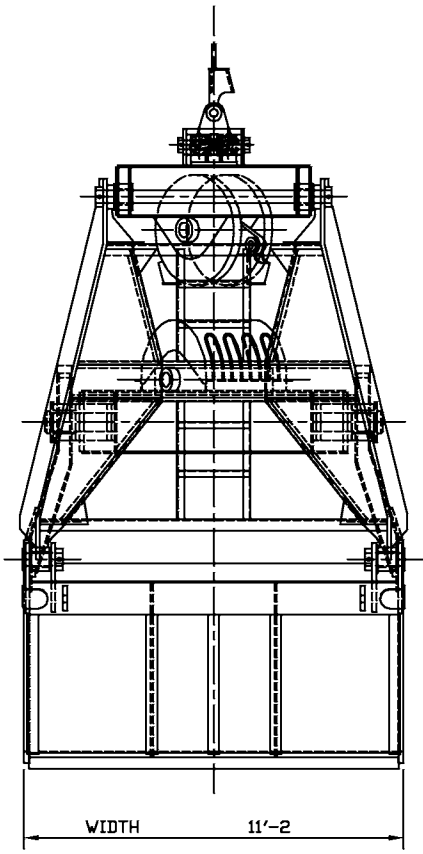
DOZER LUGS

HEIGHT CLOSED 18'-11"

HEIGHT OPEN 22'-9"

LENGTH CLOSED 16'-11"

LENGTH OPEN 21'-4"



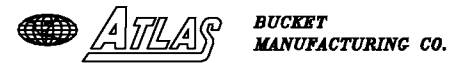
WIDTH 11'-2"

SPECIFICATIONS

HEAPED CAPACITY	44 CU. YD.
PLATE LINE	992.5 CU. FT.
WATER LEVEL	853.6 CU. FT.
DECK AREA	238.2 SQ. FT.
SHEAVE DIA.	39 1/2"
CABLE DIA.	1 3/4"
CABLE TO REEVE	84'-8 EA. SIDE
CABLE TO CLOSE	43'-5 EA. SIDE
MAX. PARTS	4 EA. SIDE
WEIGHT	45000 LBS

BUCKET	45000 LBS
COAL	65340
	110340 LBS

DIMENSIONS MAY VARY SLIGHTLY

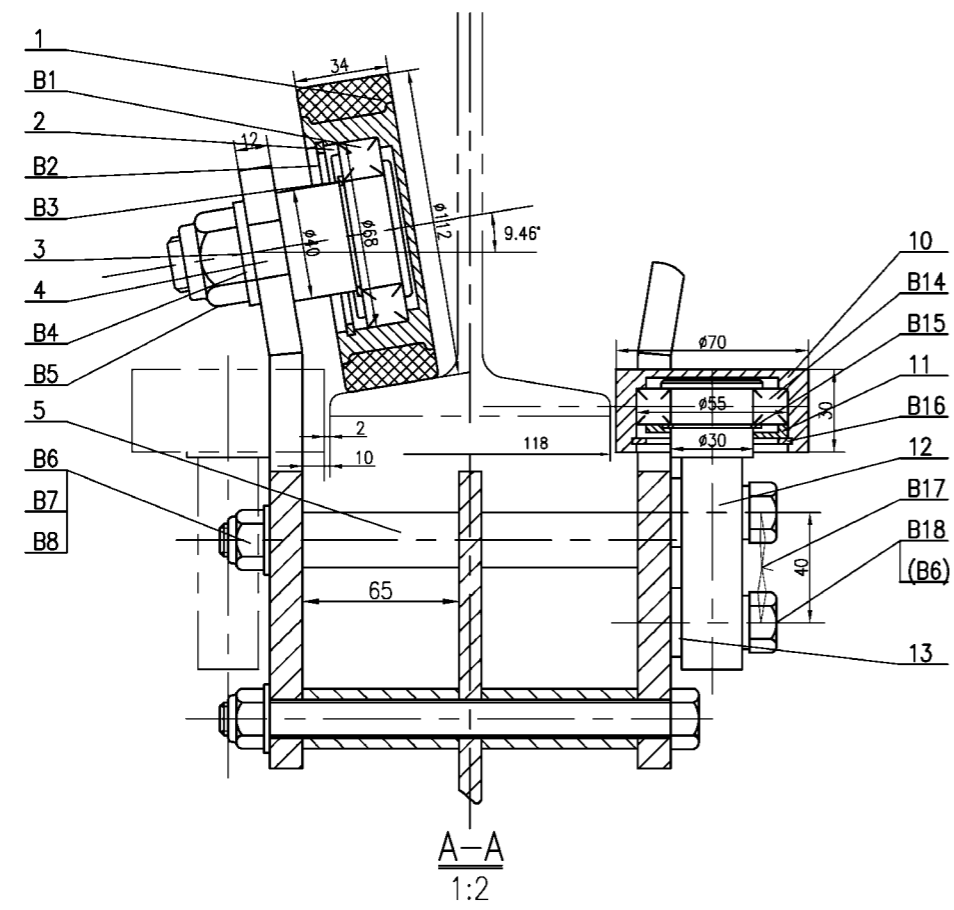
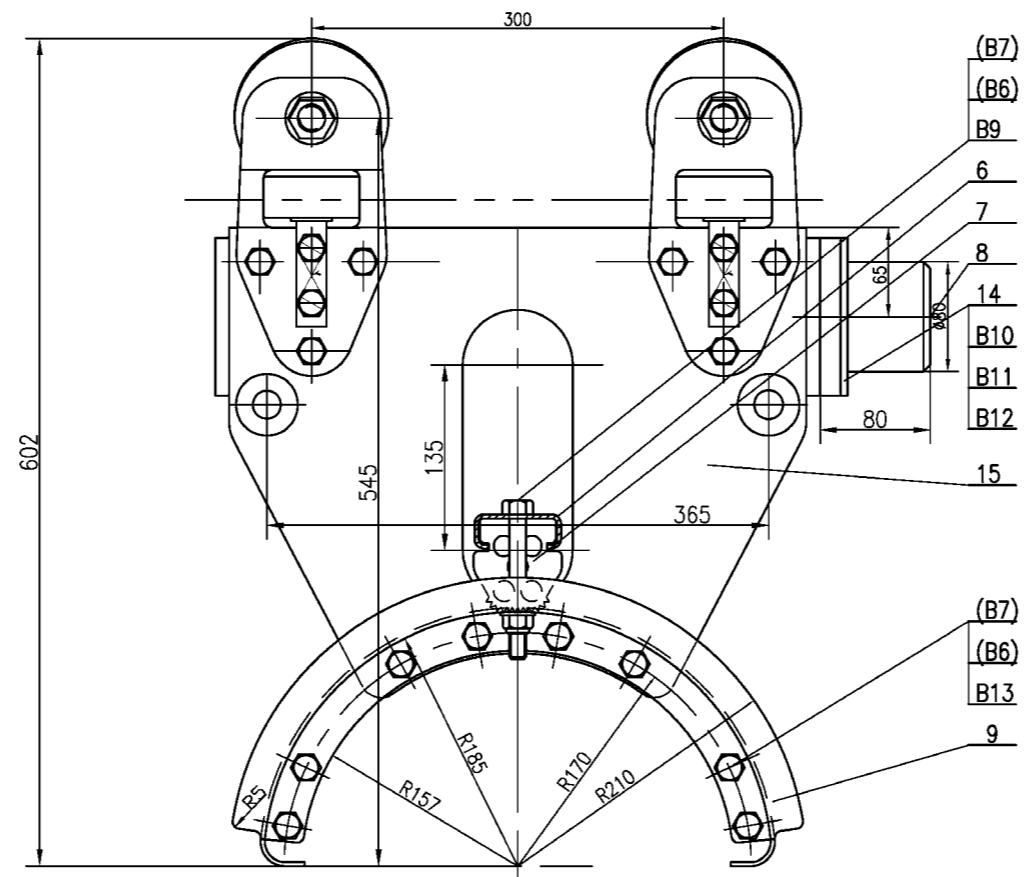
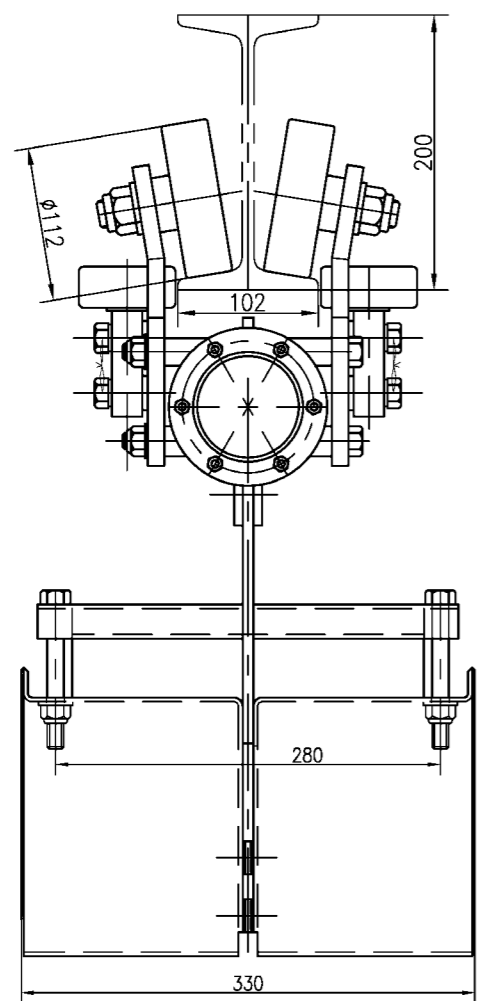


PROPOSAL DRAWING

44 YD. (HEAP) 4-ROPE COAL BUCKET

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REV.	DATE	DESCRIPTION	DRAWN BY RAW	DATE 11-11-04	DRAWING NO. P04-048	REV.
			APPR. BY	SCALE NONE		



技术要求

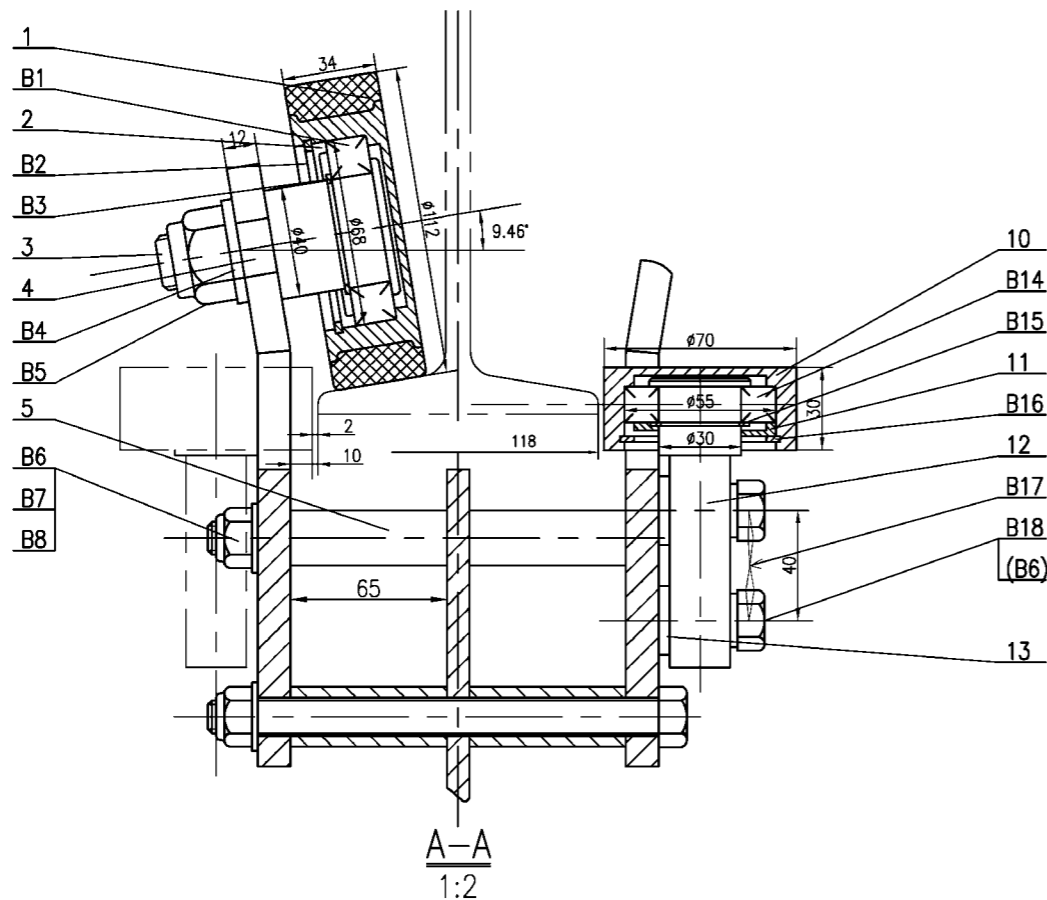
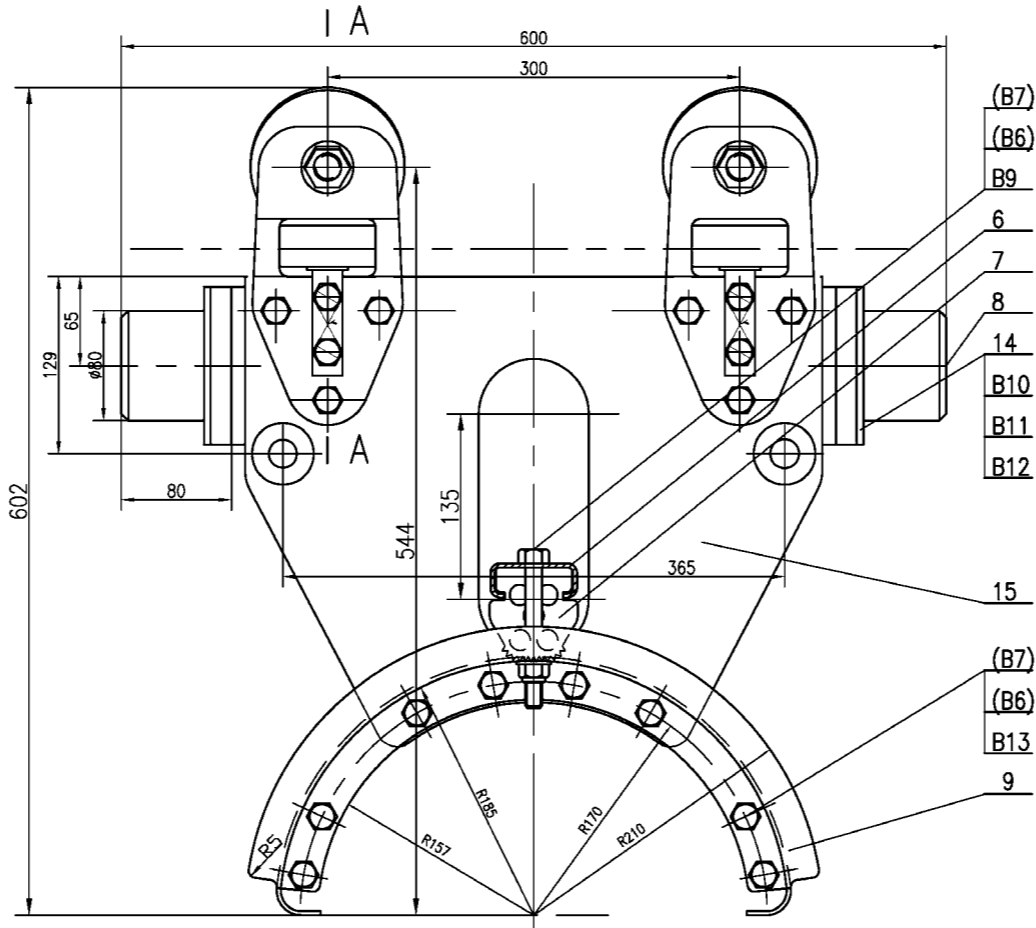
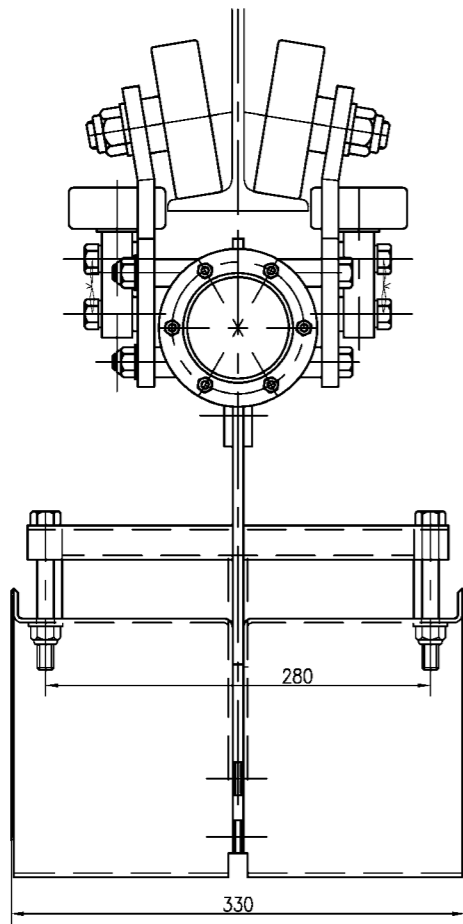
1. 各轴承安装时应转动灵活.
2. 本件安装轨道采用I25

TECHNIQE NOTE

1. The bearing should run quickly when being set.
2. The tramroad set on is I25

B18	GB32.1-86	六角头螺栓M12X45 bolt M12x45	8.8级 8.8grade	8	0.046	0.37	达克罗 Dacro.
B17		不锈钢丝φ1.0X1m stainless steel wireφ1.0x1m	不锈钢 stainless steel				
B16	GB893.1-86	孔用弹性挡圈55 block ring for hole55	65Mn	4		0.034	
B15	GB894.1-86	轴用弹性挡圈30 block ring for axes30	65Mn	4		0.013	
B14	GB279-88	单列带密封圈的深沟球轴承180106 sealed bearing 180106		4	0.12	0.48	φ55Xφ30X13
B13	GB5782-86	六角头螺栓M12X40 bolt M12x40	8.8级 8.8grade	8	0.046	0.37	达克罗 Dacro.
B12	GB6182-86	尼龙锁紧螺母M6 nut M6	A2-70	12			
B11	GB97.1-85	平垫圈6 washer 6	A200	12		0.017	
B10	GB5782-86	六角螺栓M6X40 bolt M6x40	A2-70	12		0.62	
B9	GB5782-86	六角螺栓M12X130 bolt M12x130	8.8级 8.8grade	2	0.134	0.27	达克罗 Dacro.
B8	GB5782-86	六角螺栓M12X185 bolt M12x185	8.8级 8.8grade	6	0.17	1.02	达克罗 Dacro.
B7	GB6182-86	尼龙锁紧螺母M12 nut M12	8级 8grade	16			达克罗 Dacro.
B6	GB848-85	小平垫圈12 washer 12	140HV	40		0.12	达克罗 Dacro.
B5	GB6182-86	尼龙锁紧螺母M20 nut M20	8级 8grade	4			达克罗 Dacro.
B4	GB97.1-85	平垫圈20 washer 20	200HV	4	0.025	0.10	达克罗 Dacro.
B3	GB894.1-86	轴用弹性挡圈40 block ring for axes40	65Mn	4	0.006	0.024	
B2	GB893.1-86	孔用弹性挡圈68 block ring for hole68	65Mn	4	0.016	0.064	
B1	GB279-88	单列带密封圈的深沟球轴承180108 sealed bearing 180108		4	0.19	0.76	φ68Xφ40X15
15	DLC10215B	鞍梁连接板 saddle girder connector	Q235	1	0.24	5.7	借用 borrow
14	DLC10214	压板 press plate	Q235	2	0.24	0.48	借用 borrow
13	DLC10213	垫片 washer	Q235	8	0.013	0.1	借用 borrow
12	DLC10212	轴 (II) shaft(2)	45	4	0.46	1.84	借用 borrow
11	DLC10211	盖 (II) cover(2)	Q235	4	0.044	0.176	借用 borrow
10	DLC10210	侧滚轮 beside roller	45	4	0.34	1.36	借用 borrow
9	DLC10209A	鞍梁 saddle girder	Q235	2	3.06	6.12	借用 borrow
8	DLC10208	缓冲头 amortized head	橡胶 rubber	1	0.66		借用 borrow
7	DLC10207A	压块 press block	橡胶 rubber	1	1.07	1.07	借用 borrow
6	DLC10206A	压条 press piece	Q235	1	1.77	1.77	借用 borrow
5	DLC10205B	垫块 mat plate	Al	4	0.16	0.64	
4	DLC10204	耳板 ear plate	Q235	4	1.5	6	借用 borrow
3	DLC10203	轴 (I) shaft(1)	45	4	0.52	2.08	借用 borrow
2	DLC10202	盖 (I) cover(1)	Q235	4	0.06	0.24	借用 borrow
1	DLC10201	水平滚轮 plate roller	A3/聚氨酯	4	0.75	3	借用 borrow

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total		NOTE
					WEIGHT		
PROJECT:			DESIGN STAGE:		SCALE: 1:4		
ITEM NAME: 电缆车(首) Cable trolley(head)			DRAW NO: DLC10100B				
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET		
	CHCK		VER.		SET/CRANE		36.1



技术要求

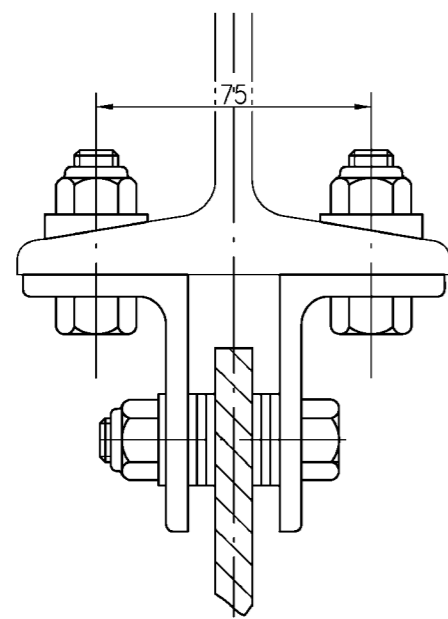
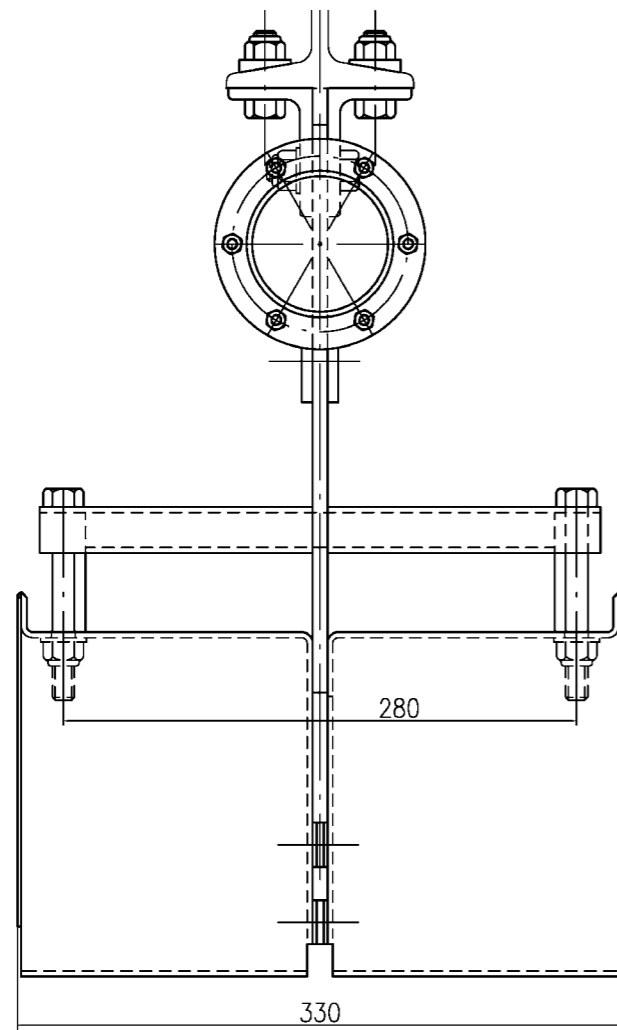
1. 各轴承安装时应转动灵活.
2. 本件安装轨道采用 I25

TECHNIQE NOTE

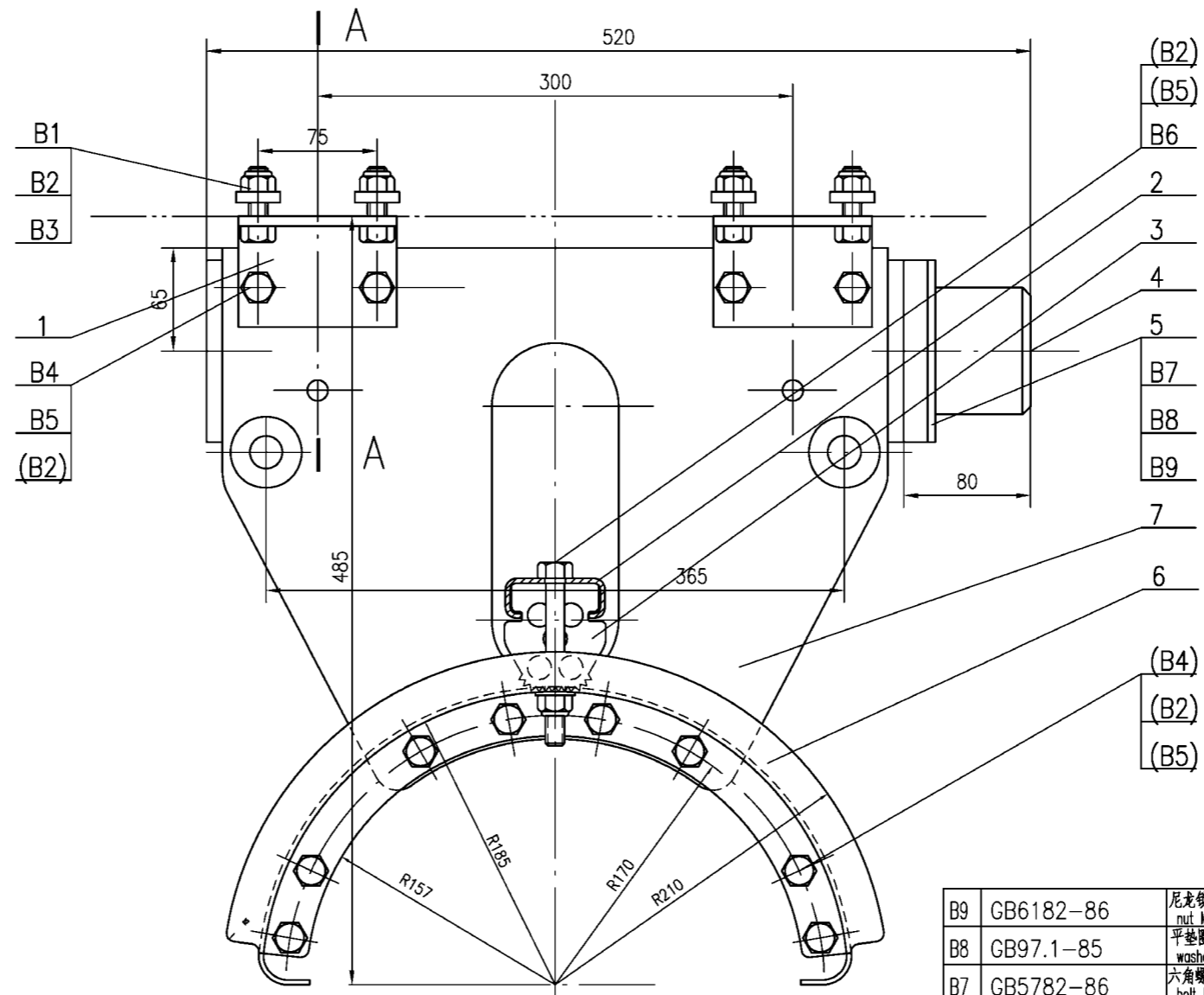
1. The bearing should run quickly when being set.
2. The tramroad set on is I25

B18	GB32.1-86	六角头螺栓M12X45 bolt M12x45	8.8级 8.8grade	8	0.046	0.37	达克罗 Dacro.
B17		不锈钢丝φ1.0X1m stainless steel wireφ1.0x1m	不锈钢 stainless steel				
B16	GB893.1-86	孔用弹性挡圈55 block ring for hole55	65Mn	4		0.034	
B15	GB894.1-86	轴用弹性挡圈30 block ring for axes30	65Mn	4		0.013	
B14	GB279-88	单列带密封圈的深沟球轴承180106 sealed bearing 180106		4	0.12	0.48	φ55Xφ30X13
B13	GB5782-86	六角头螺栓M12X40 bolt M12x40	8.8级 8.8grade	8	0.046	0.37	达克罗 Dacro.
B12	GB6182-86	尼龙锁紧螺母M6 nut M6	A2-70	12			
B11	GB97.1-85	平垫圈6 washer 6	A200	12		0.017	
B10	GB5782-86	六角螺栓M6X40 bolt M6x40	A2-70	12		0.62	
B9	GB5782-86	六角螺栓M12X130 bolt M12x130	8.8级 8.8grade	2	0.134	0.27	达克罗 Dacro.
B8	GB5782-86	六角螺栓M12X185 bolt M12x185	8.8级 8.8grade	6	0.17	1.02	达克罗 Dacro.
B7	GB6182-86	尼龙锁紧螺母M12 nut M12	8级 8grade	16			达克罗 Dacro.
B6	GB848-85	小平垫圈12 washer 12	140HV	40		0.12	达克罗 Dacro.
B5	GB6182-86	尼龙锁紧螺母M20 nut M20	8级 8grade	4			达克罗 Dacro.
B4	GB97.1-85	平垫圈20 washer 20	200HV	4	0.025	0.10	达克罗 Dacro.
B3	GB894.1-86	轴用弹性挡圈40 block ring for axes40	65Mn	4	0.006	0.024	
B2	GB893.1-86	孔用弹性挡圈68 block ring for hole68	65Mn	4	0.016	0.064	
B1	GB279-88	单列带密封圈的深沟球轴承180108 sealed bearing 180108		4	0.19	0.76	φ68Xφ40X15
15	DLC10215B	鞍梁连接板 saddle girder connector	Q235	1	0.24	5.7	借用 borrow
14	DLC10214	压板 press plate	Q235	2	0.24	0.48	借用 borrow
13	DLC10213	垫片 washer	Q235	8	0.013	0.1	借用 borrow
12	DLC10212	轴 (II) shaft(2)	45	4	0.46	1.84	借用 borrow
11	DLC10211	盖 (II) cover(2)	Q235	4	0.044	0.176	借用 borrow
10	DLC10210	侧滚轮 beside roller	45	4	0.34	1.36	借用 borrow
9	DLC10209A	鞍梁 saddle girder	Q235	2	3.06	6.12	借用 borrow
8	DLC10208	缓冲头 amortized head	橡胶 rubber	2	0.66	1.3	借用 borrow
7	DLC10207A	压块 press block	橡胶 rubber	1	1.07	1.07	借用 borrow
6	DLC10206A	压条 press piece	Q235	1	1.77	1.77	借用 borrow
5	DLC10205B	垫块 mat plate	Al	4	0.16	0.64	
4	DLC10204	耳板 ear plate	Q235	4	1.5	6	借用 borrow
3	DLC10203	轴 (I) shaft(1)	45	4	0.52	2.08	借用 borrow
2	DLC10202	盖 (I) cover(1)	Q235	4	0.06	0.24	借用 borrow
1	DLC10201	水平滚轮 plate roller	A3/聚氨酯	4	0.75	3	借用 borrow

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total		NOTE
					WEIGHT	WEIGHT	
PROJECT:			DESIGN STAGE:		SCALE: 1:4		
ITEM NAME: 电缆车(中) Cable trolley(middle)			DRAW NO: DLC10200B				
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	36.2	
	CHCK		VER.		SET/CRANE		



A-A
1:1.5



B9	GB6182-86	尼龙锁紧螺母M6 nut M6	A2-70	6				
B8	GB97.1-85	平垫圈6 washer 6	A200	6		0.017		
B7	GB5782-86	六角螺栓M6X40 bolt M6x40	A2-70	6		0.62		
B6	GB5782-86	六角螺栓M12X130 bolt M12x130	8.8级 8.8grade	2	0.134	0.27	达克罗 Dacro.	
B5	GB848-85	平垫圈12 washer 12	140HV	52		0.04	达克罗 Dacro.	
B4	GB5782-86	六角螺栓M12X55 bolt M12x55		12	0.05	0.4	达克罗 Dacro.	
B3	GB852-88	工字钢用方斜垫圈12 washer 12	8.8级 8.8grade	8	0.018	0.15	达克罗 Dacro.	
B2	GB6182-86	尼龙锁紧螺母M12 nut M12	8级 8grade	22			达克罗 Dacro.	
B1	GB5782-86	六角螺栓M12X50 bolt M12x50	8.8级 8.8grade	8	0.053	0.42	达克罗 Dacro.	
7	DLC10215B	鞍梁连接板 saddle girder connector	Q235	1		5.7	借用 borrow	
6	DLC10209A	鞍梁 saddle girder	Q235	2	3.06	6.12	借用 borrow	
5	DLC10214	压板 press plate	Q235	1		0.24	借用 borrow	
4	DLC10208	缓冲头 amortized head	橡胶 rubber	1		0.66	借用 borrow	
3	DLC10207A	压块 press block	橡胶 rubber	1	1.07	1.07	借用 borrow	
2	DLC10206A	压条 press piece	Q235	1	1.77	1.77	借用 borrow	
1	DLC10301	角铁 coner iron	Q235	4	0.52	2.08	借用 borrow	

技术要求

1. 本件安装轨道采用I25.

TECHNIQE NOTE

1. The tramroad set on is I25

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	
PROJECT:			DESIGN STAGE:		SCALE: 1:4		
ITEM NAME: 电缆车(尾) Cable trolley(end)			DRAW NO: DLC10300B				
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	36.2	
	CHCK		VER.		SET/CRANE		

A

B

C

D

E

F

G

H

A

B

C

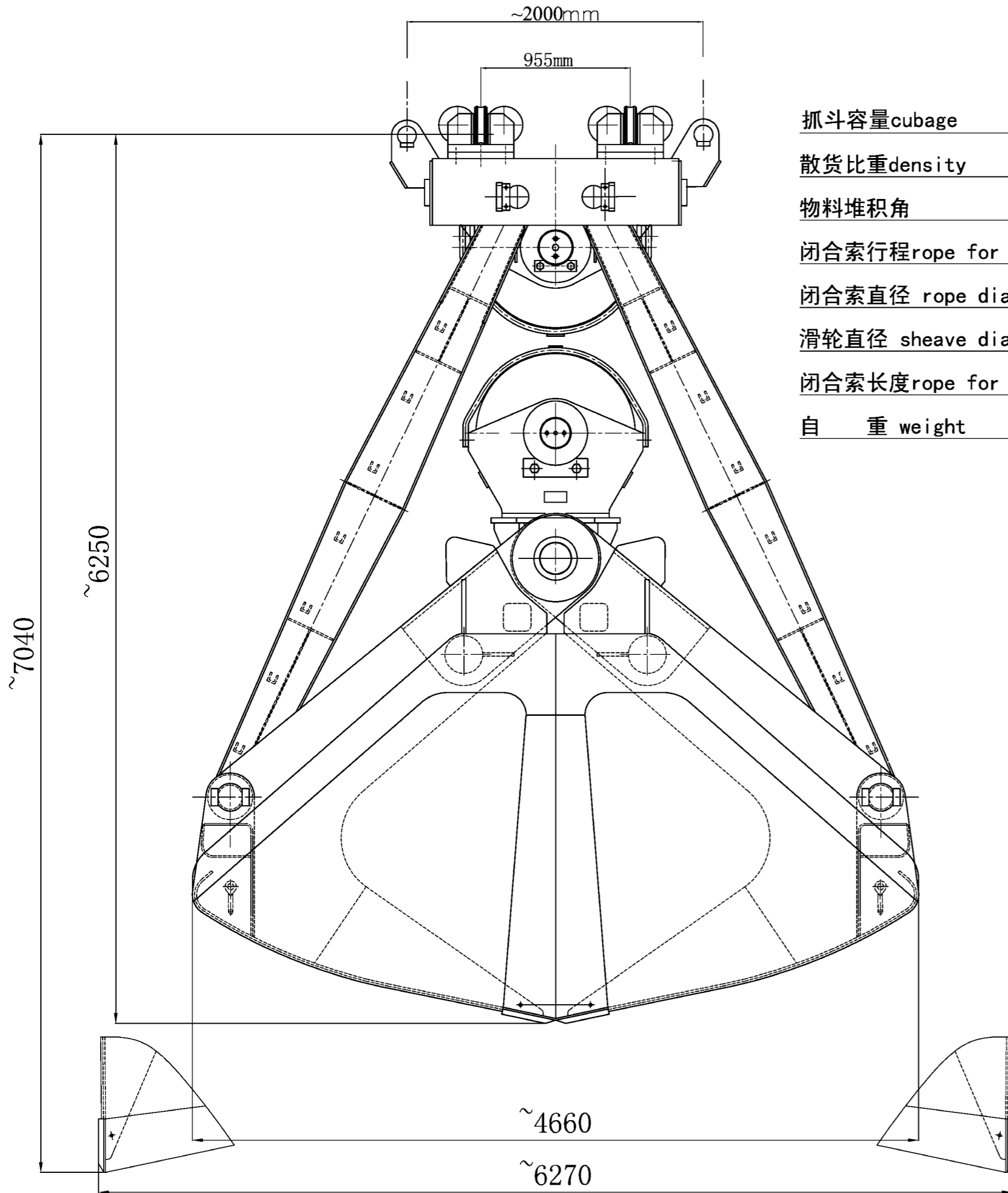
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E

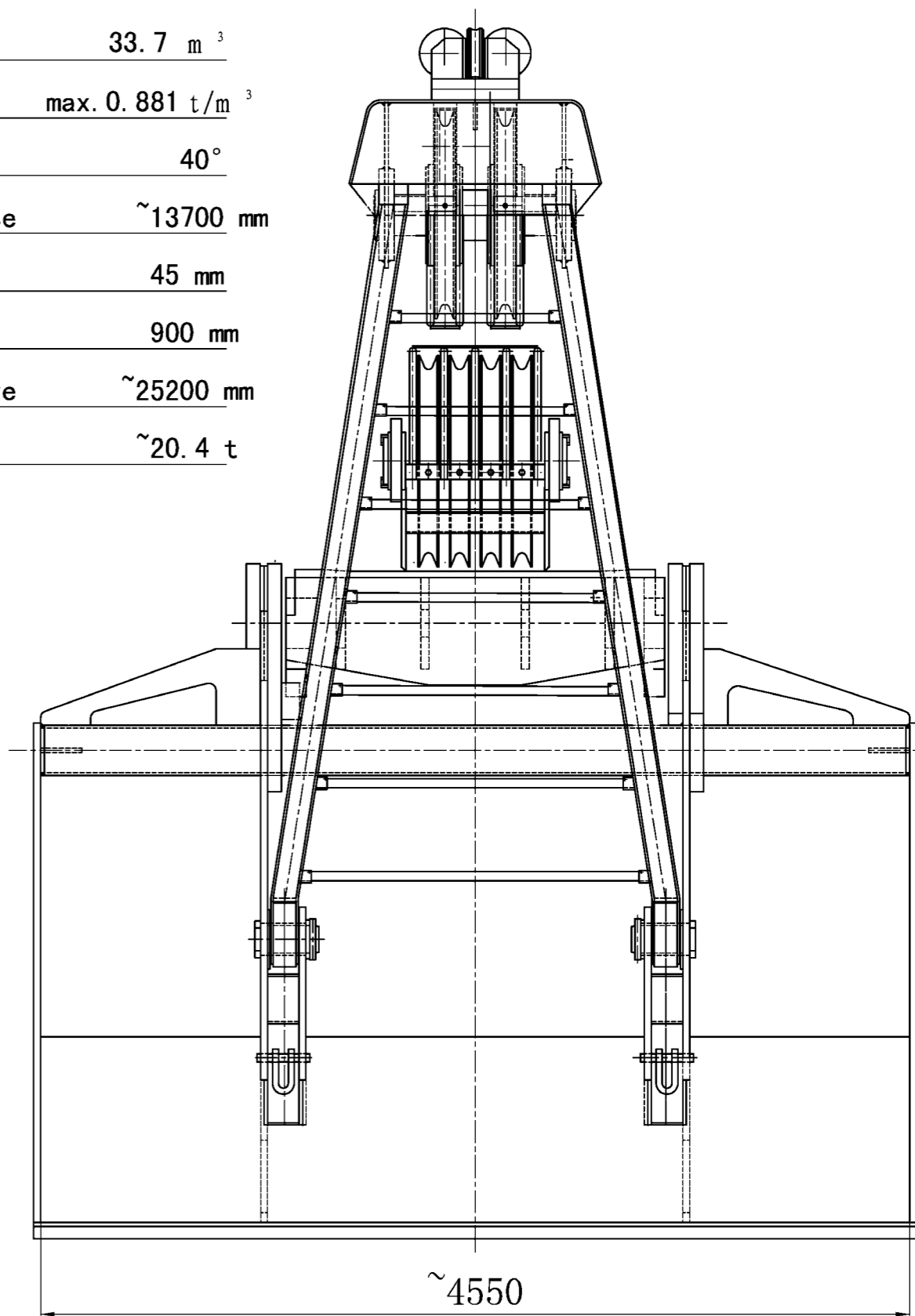
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G

H

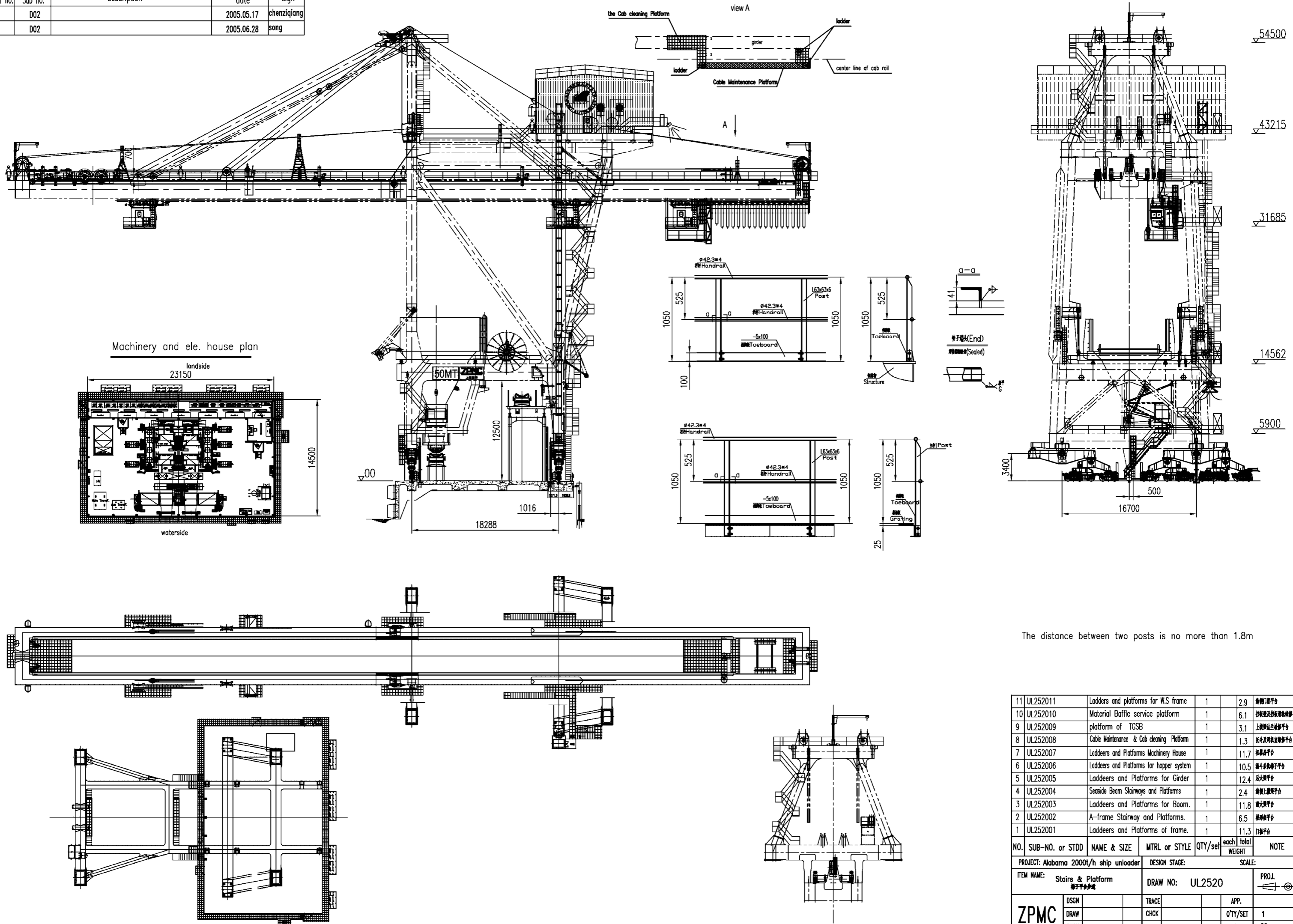


抓斗容量cubage	33.7 m ³
散货比重density	max. 0.881 t/m ³
物料堆积角	40°
闭合索行程rope for close	~13700 mm
闭合索直径 rope dia.	45 mm
滑轮直径 sheave dia	900 mm
闭合索长度rope for reeve	~25200 mm
自重 weight	~20.4 t



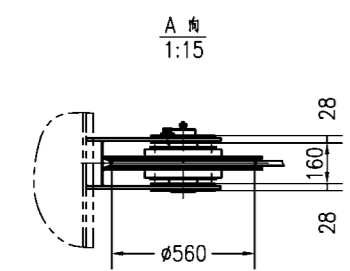
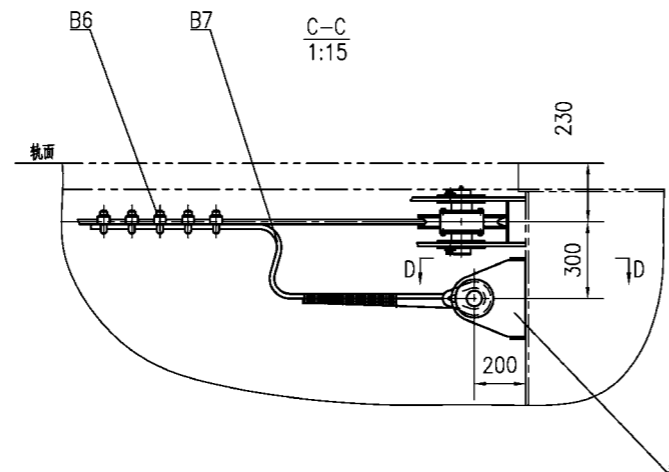
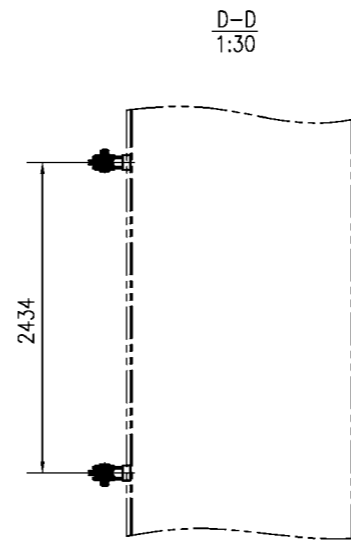
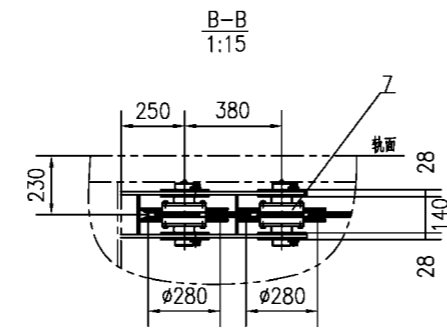
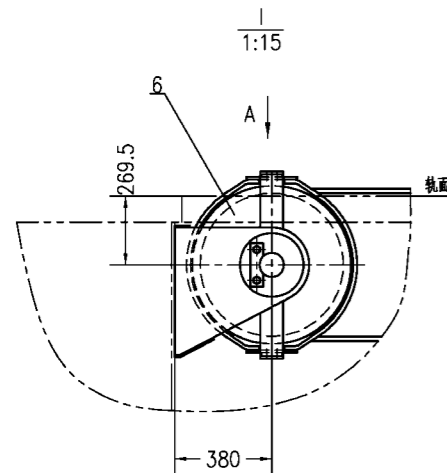
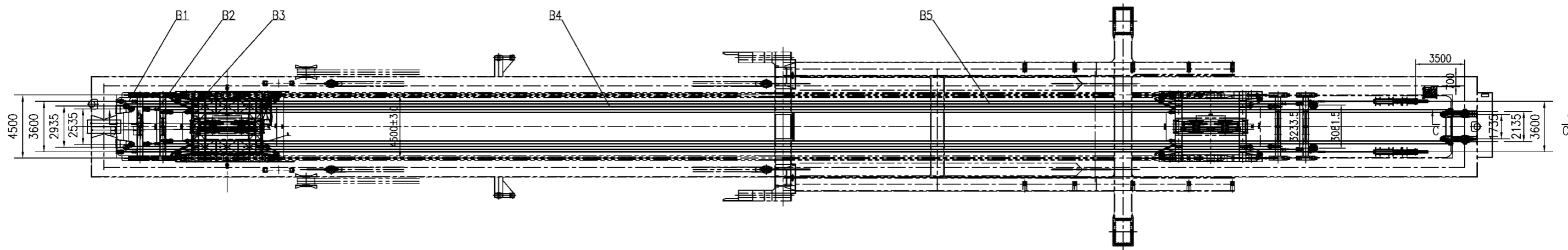
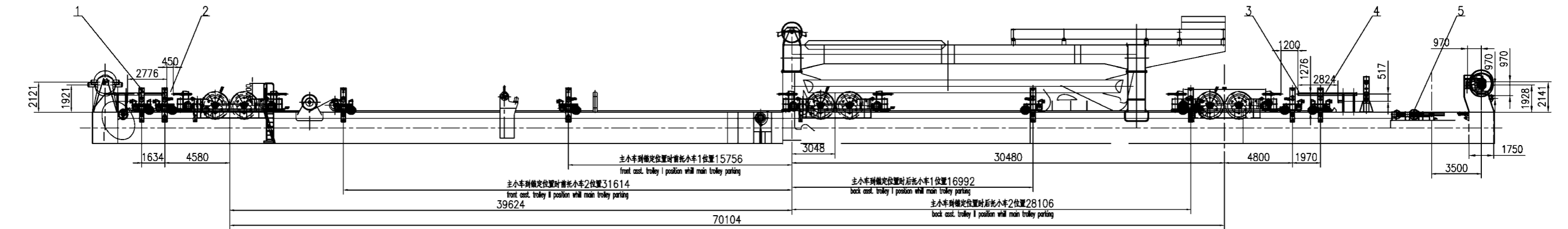
公差要求		焊接要求		其他要求	
参照 DIN ISO 8015	评价标准 C EN25817	焊接材料物质	EN440 G3SiV/EN499 E382B42		
DIN ISO 2768 m	焊接方式 MAG-M/E	检查	外观检查		
DIN 8570 A	焊接位置 PA/PB	预热	按公司焊接常规工艺		
表面公差 DIN ISO 1302	设计	VSG50.0-0.881-33700		标记	处数
火焰切割公差	校对	报价图		参考图号	层号
DIN 2310 T.3 Gutell.B	CAD			日期	签名
					0.0

revision no.	Sub no.	description	date	sign
01	D02		2005.05.17	chenziqiang
01	D02		2005.06.28	song



The distance between two posts is no more than 1.8m

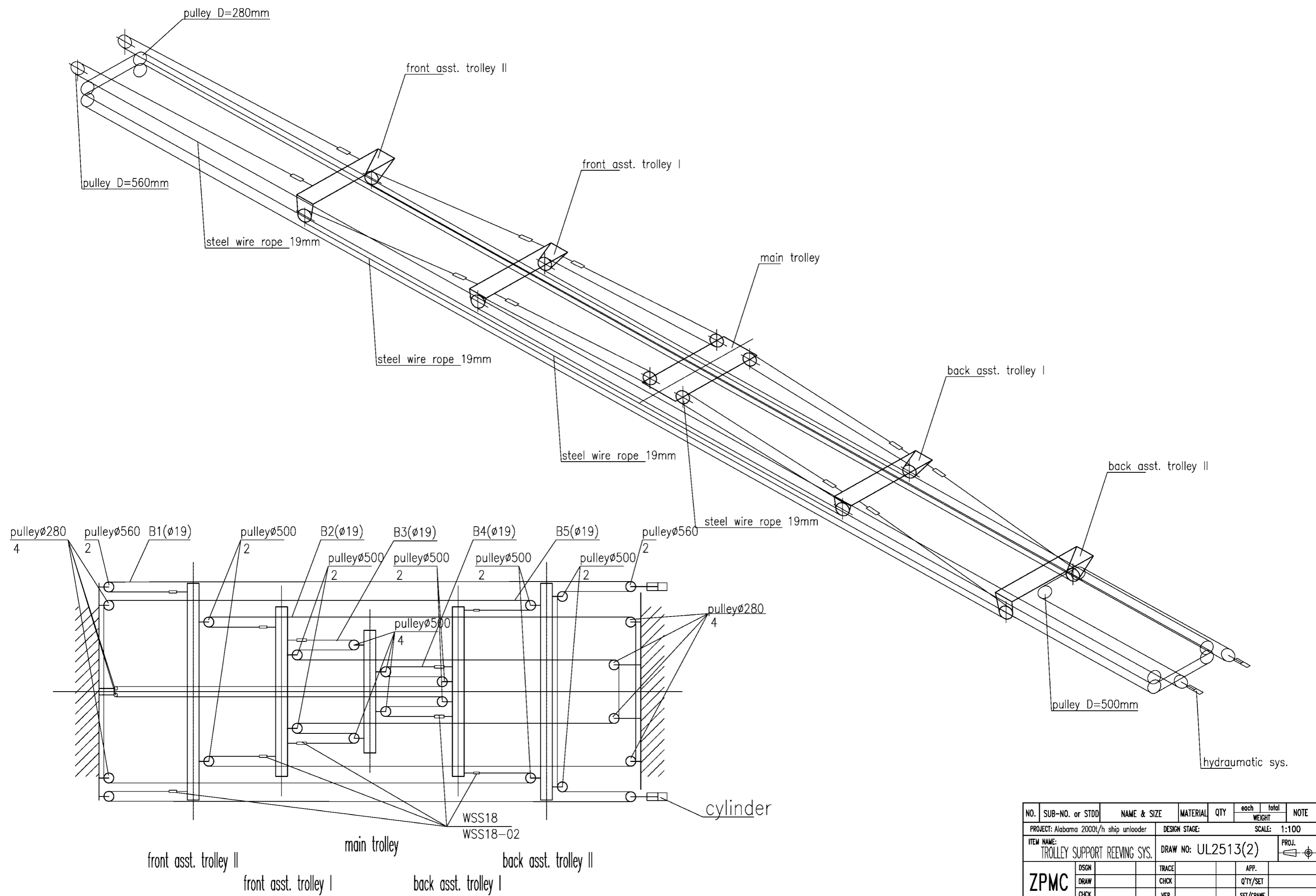
11	UL252011	Ladders and platforms for W.S frame	1	2.9	海侧门架平台	
10	UL252010	Material Baffle service platform	1	6.1	挡料架及挡料架检修平台	
9	UL252009	platform of TGSB	1	3.1	上料架法兰检修平台	
8	UL252008	Cable Maintenance & Cab cleaning Platform	1	1.3	缆绳及司机室检修平台	
7	UL252007	Ladders and Platforms Machinery House	1	11.7	机舱平台	
6	UL252006	Ladders and Platforms for hopper system	1	10.5	漏斗系统梯子平台	
5	UL252005	Ladders and Platforms for Girder	1	12.4	后大梁平台	
4	UL252004	Seaside Beam Stairways and Platforms	1	2.4	海侧上梁架平台	
3	UL252003	Ladders and Platforms for Boom.	1	11.8	前大梁平台	
2	UL252002	A-frame Stairway and Platforms.	1	6.5	梯架平台	
1	UL252001	Ladders and Platforms of frame.	1	11.3	门架平台	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total WEIGHT	NOTE
PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE:		
ITEM NAME: Stairs & Platform 梯子平台		DRAW NO: UL2520		PROJ.		
ZPMC	DSGN	TRACE	APP.			
	DRAW	CHCK	QTY/SET	1		
	CHCK	VER.	SET/CRANE	80		



Technology Requirement

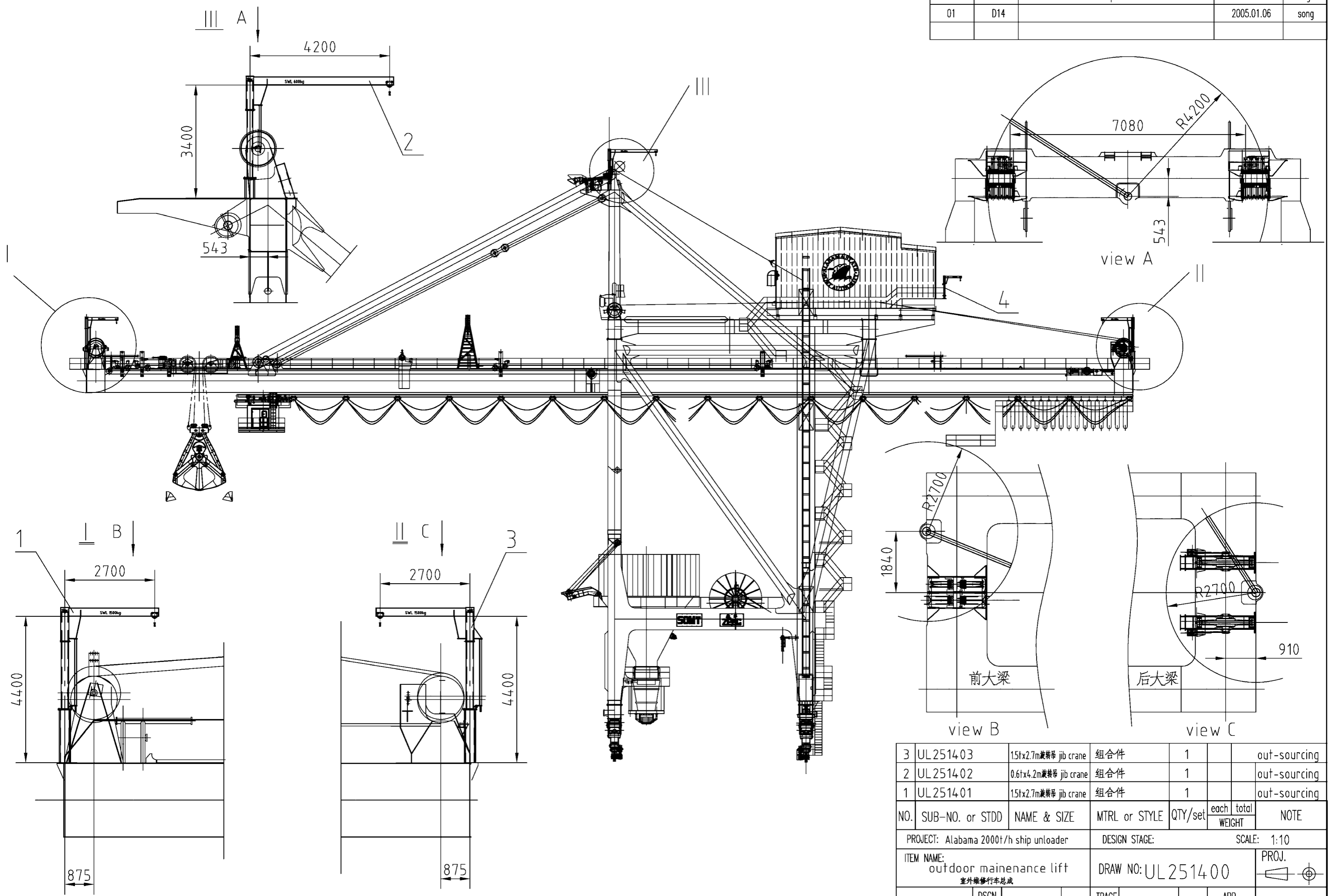
1. All supports weld when does not have to appear the undercut, Entrapped slag After welds rubs off the burr and splashes the thin
2. The paint painting working procedure should weld, After polishes the working procedure to finish carries on
3. Before the asst. trolley hauling rope tightens the strength to satisfyis supine when the front summer beam can support the asst. trolley to glide down the gravity
4. After this system installment adjustment should glibly pour into the lubricant to all cows

B8								
B7	EXST-III(2)(EXTRA IMPROVED) PLW STEEL	steel wire#19	5m	4	6.1	24.4		
B6	GB5976-86	wire nip20KTH	成品	20	0.62	12.4		
B5	EXST-III(2)(EXTRA IMPROVED) PLW STEEL	steel wire#19	180m	1	359.4	359.4		
B4	EXST-III(2)(EXTRA IMPROVED) PLW STEEL	steel wire#19	195m	1	389.3	389.3		
B3	EXST-III(2)(EXTRA IMPROVED) PLW STEEL	steel wire#19	205m	1	409.3	409.3		
B2	EXST-III(2)(EXTRA IMPROVED) PLW STEEL	steel wire#19	195m	1	389.3	389.3		
B1	EXST-III(2)(EXTRA IMPROVED) PLW STEEL	steel wire#19	250m	1	499.1	499.1		
8	UL25130800	safety tie-in	assembly	2	19.08	38.16		
7	UL25130700	lead pulley	assembly	4	139.8	559.2		
6	UL25130600	head pulley	assembly	2	119.6	239.2		
5	UL25130500	hydraumatic sys.	assembly	1	1822	1822		
4	UL25130400	back asst. trolley II	assembly	1	3046	3046		
3	UL25130300	back asst. trolley I	assembly	1	2770	2770		
2	UL25130200	front asst. trolley I	assembly	1	3076	3076		
1	UL25130100	front asst. trolley II	assembly	1	2719	2719		
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	WEIGHT	NOTE
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:	SCALE:				
ITEM NAME: TROLLEY ASSEMBLIES 托架小车系统			DRAW. NO:	UL251300(1)				
ZPMC	DSGN		TRACE		APP.			
	DRAW		CHK		Q'TY/SET	16352		
	CHK		VER.		SET/CRANE	1		



NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	each	total	NOTE
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:	SCALE: 1:100			
ITEM NAME: TROLLEY SUPPORT REEVING SYS.			DRAW NO: UL2513(2)		PROJ.		
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHK		Q'TY/SET		
	CHK		VER.		SET/CRANE		

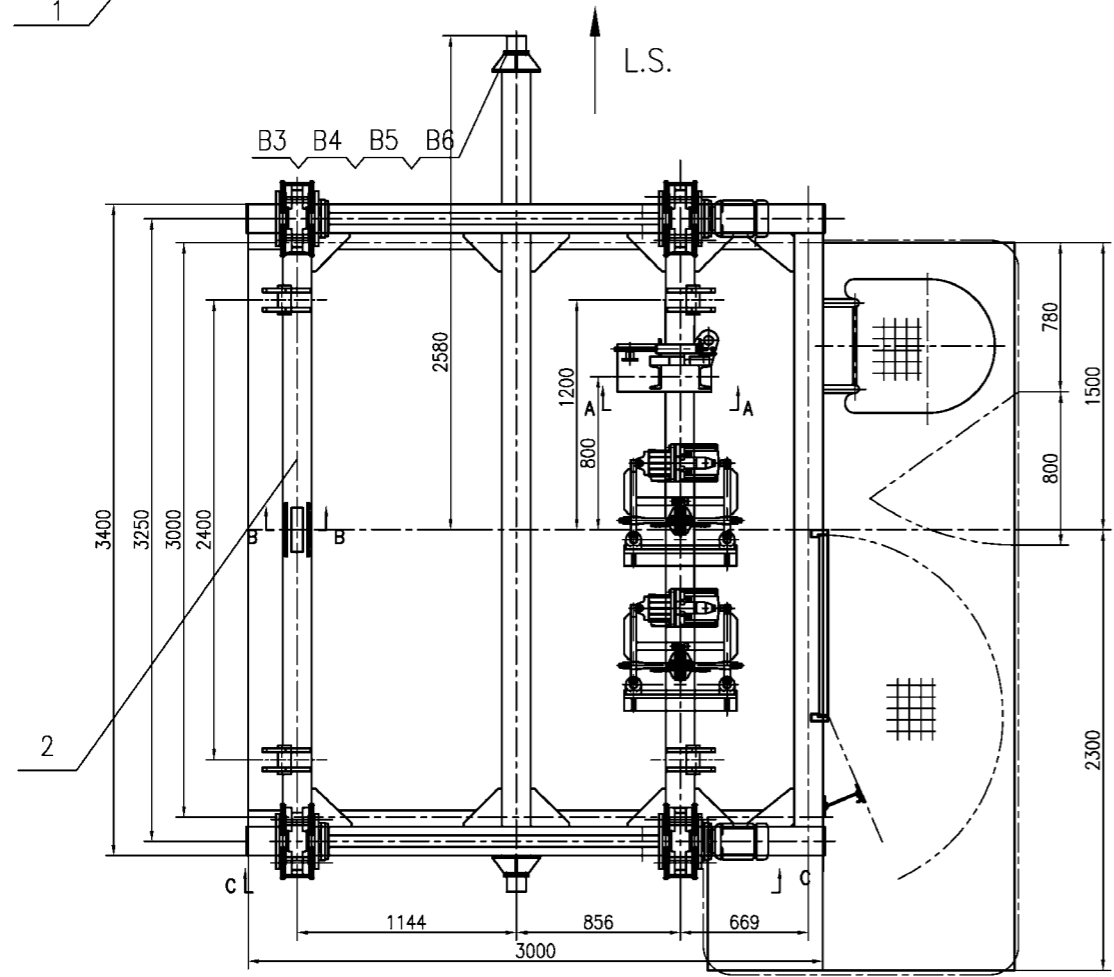
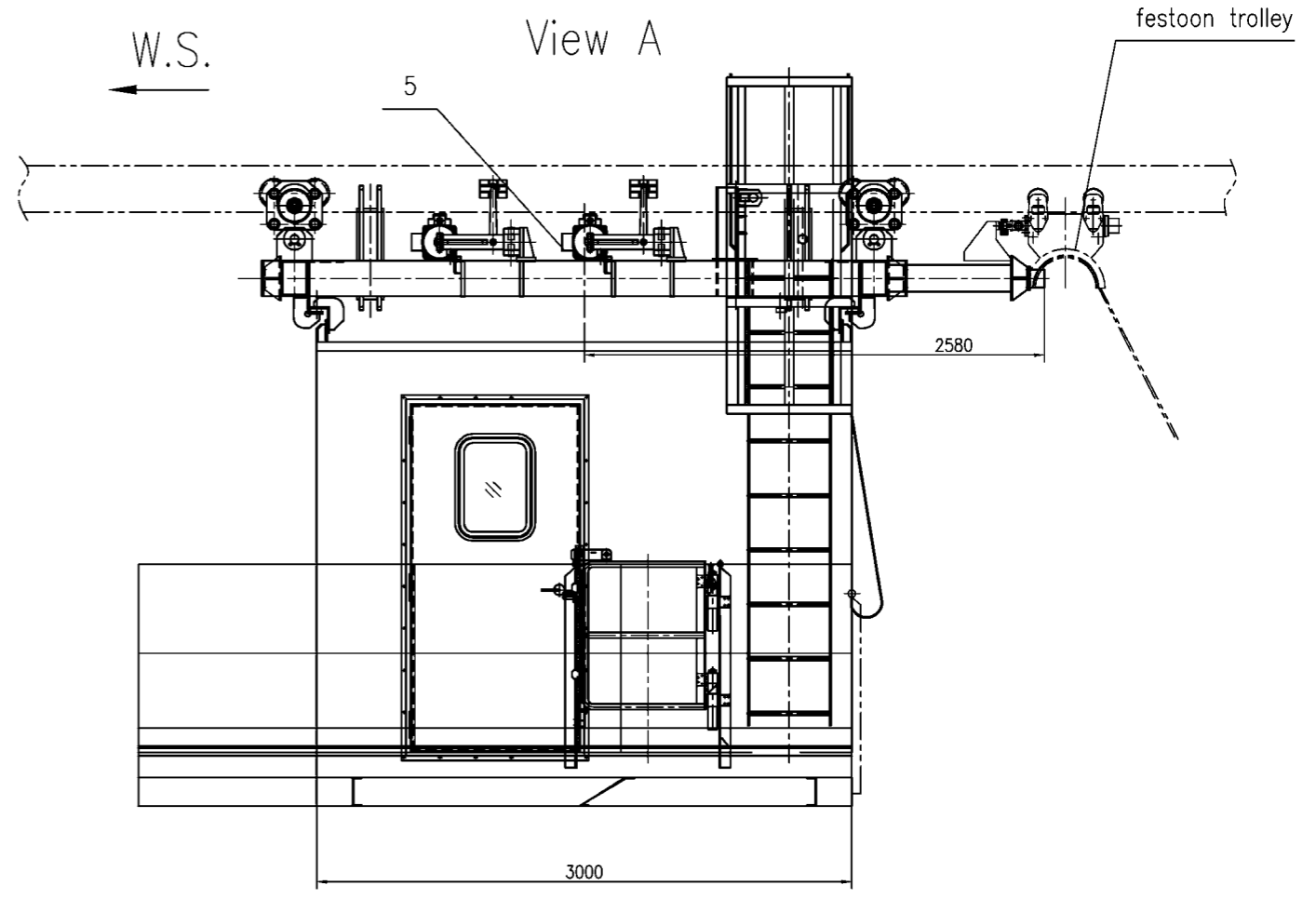
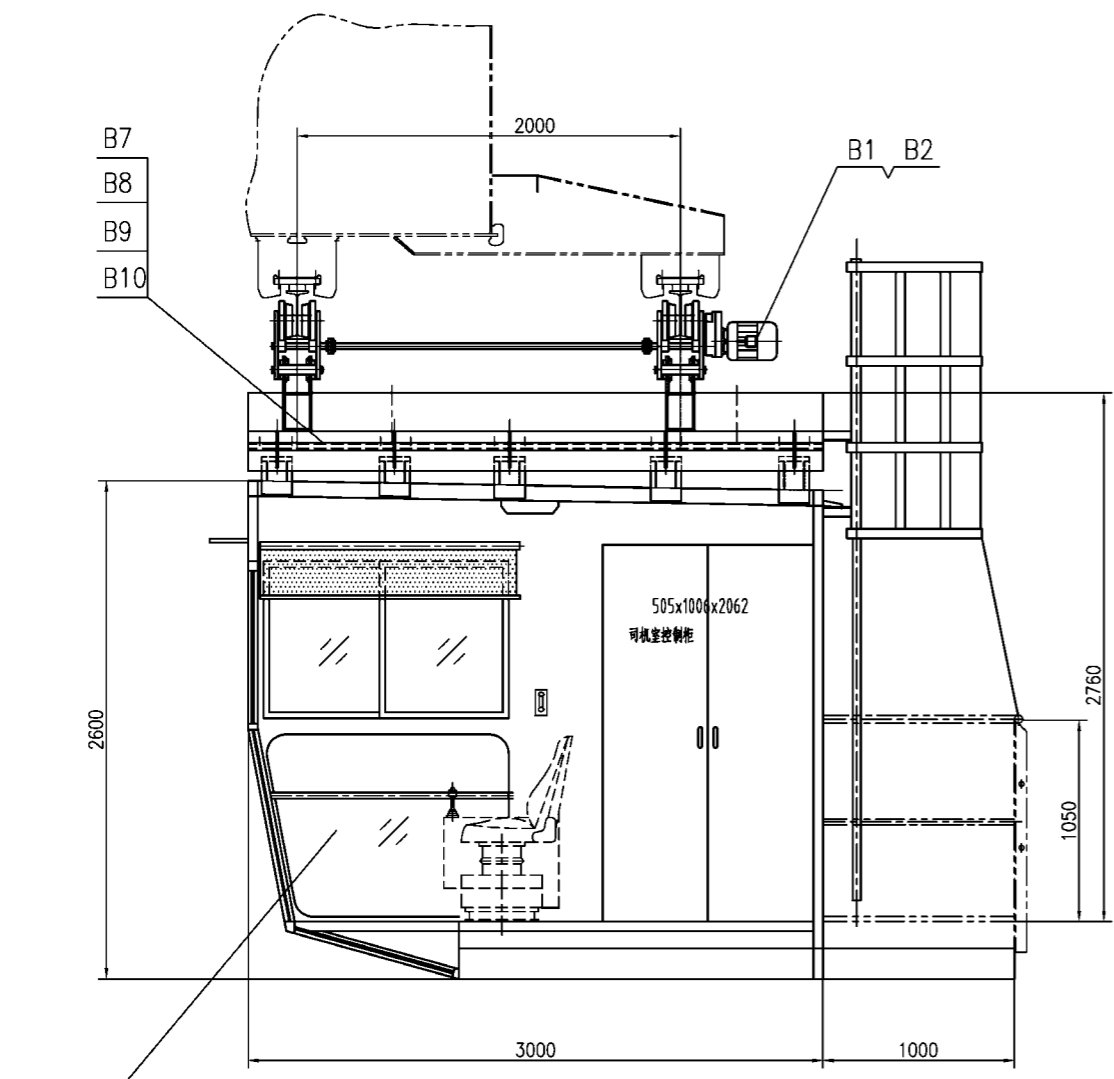
revision no.	Sub no.	description	date	sign
01	D14		2005.01.06	song



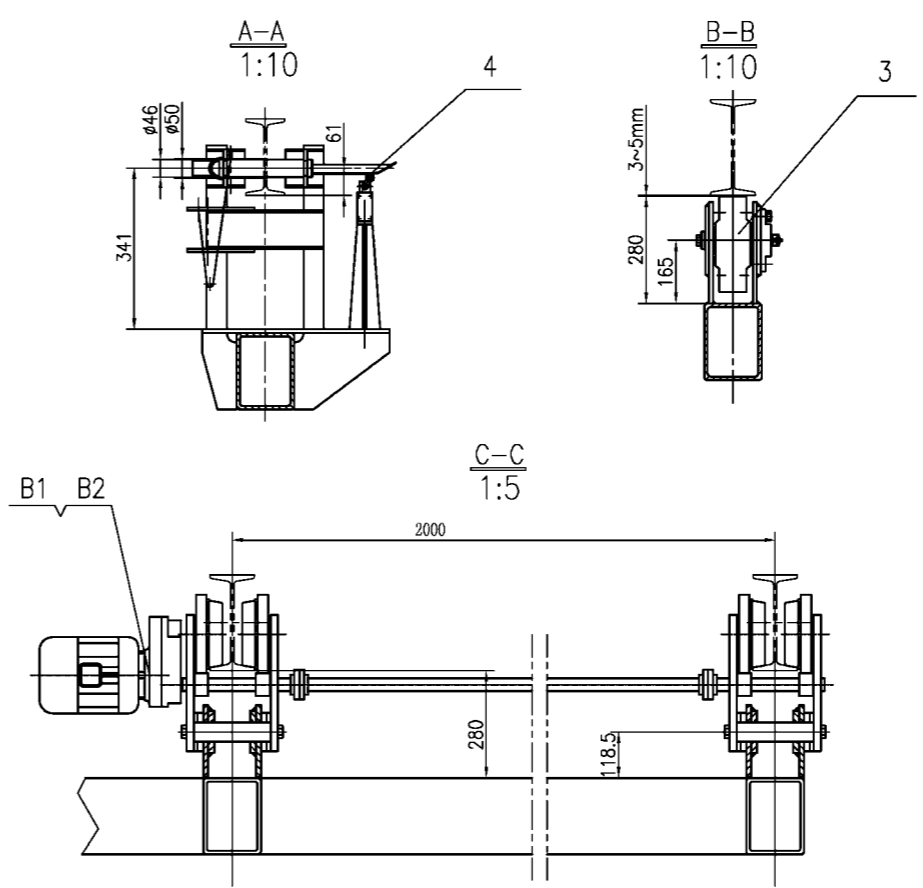
3	UL2514-03	1.5t x 2.7m 旋转吊 jib crane	组合件	1		out-sourcing	
2	UL2514-02	0.6t x 4.2m 旋转吊 jib crane	组合件	1		out-sourcing	
1	UL2514-01	1.5t x 2.7m 旋转吊 jib crane	组合件	1		out-sourcing	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
					WEIGHT		
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:10		
ITEM NAME: outdoor maintenance lift 室外维修行车总成			DRAW NO: UL2514-00		PROJ.		
ZPMC			DSGN		TRACE		APP.
			DRAW		CHCK		Q'TY/SET
			CHCK		VER.		SET/CRANE
1	UL2514-04	空调外机维护旋转吊 jib crane	组合件	1		out-sourcing	

4	UL2514-04	空调外机维护旋转吊 jib crane	组合件	1		out-sourcing
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revision no.	Sub no.	description	date	sign
01	D16		2005.01.06	song



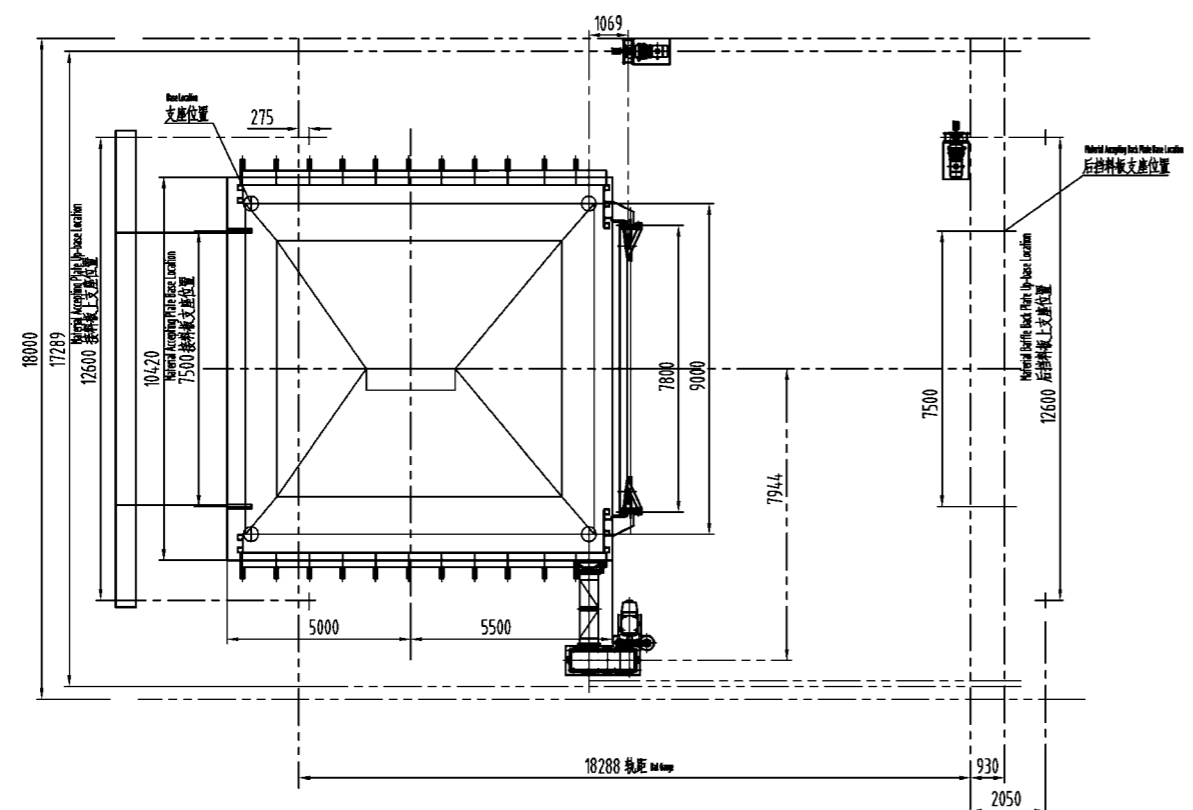
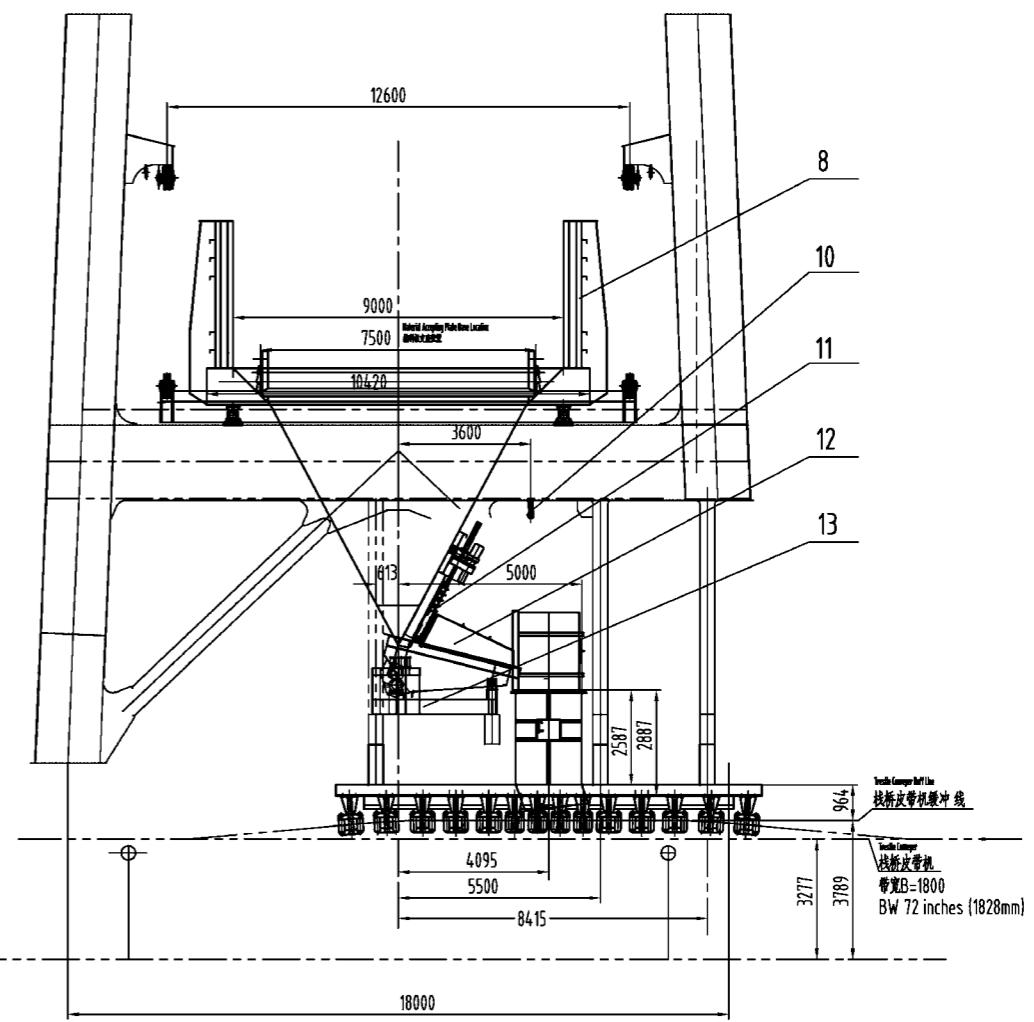
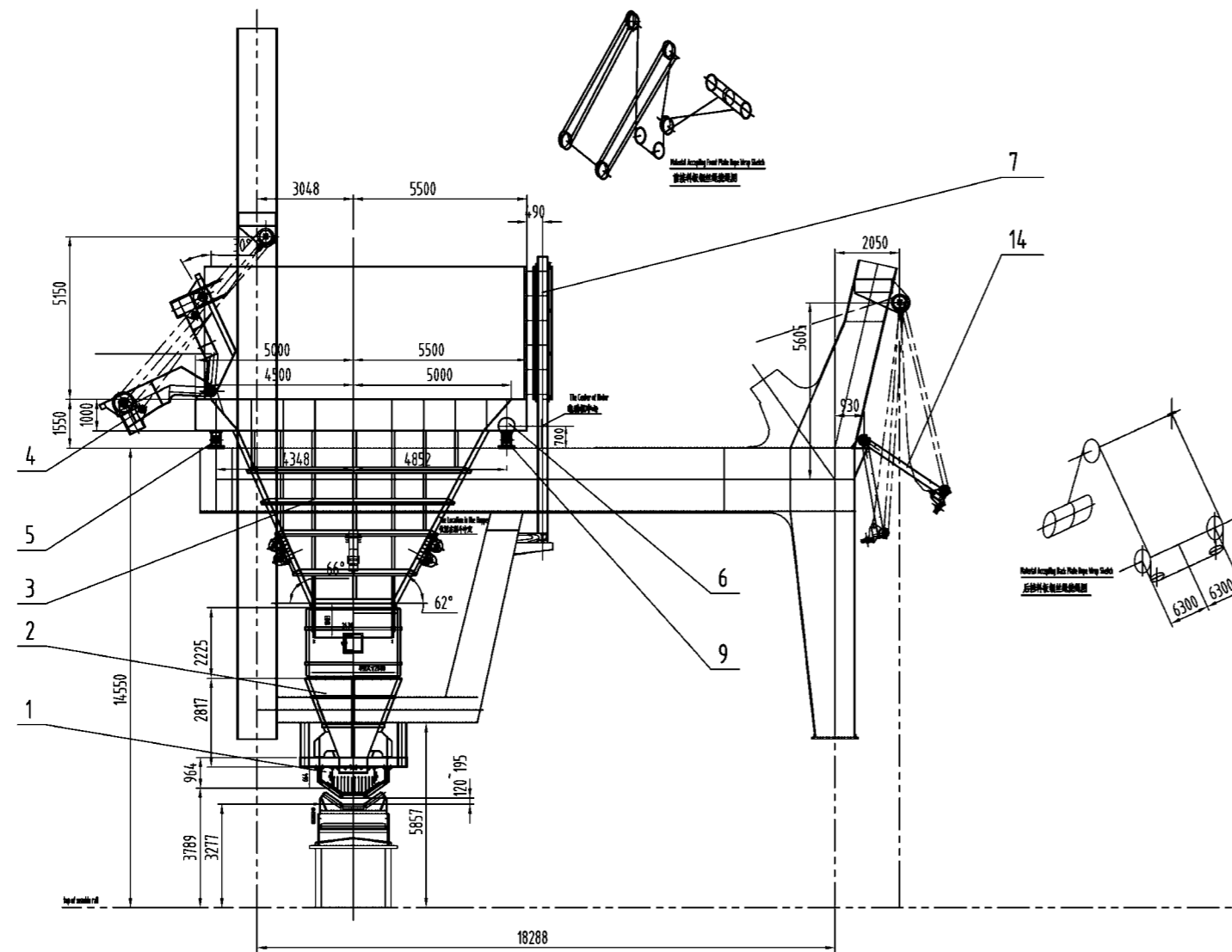
A



主参数 (Main Data)

行走速度 Speed	20 m/min
轨距 Distance of Rail	2000 mm
轨道型号 Style of Rail	I 25a
电动机 Motor	型号 type 支数 M3ARF/S 090L
转速 Rotation Speed	1000rpm
功率 Power	1.1kwx2
电源 Power	500V,60Hz

B10	JD1-2	垫板 减垫 -21x60x120	减垫	20			
B9	GB95-85	垫圈 Washer 16		20		达克罗 Dacro.	
B8	GB889-86	螺母 Nut M16		20		达克罗 Dacro.	
B7	GB5782-86	螺栓 Bolt M16x70		20		达克罗 Dacro.	
B6	GB97.1-85	垫圈 Washer 12	100Hv	16		stainless steel	
B5	GB889-86	螺母 Nut M12	8级	16		stainless steel	
B4	GB5782-86	螺栓 Bolt M12x50	8.8级	16		stainless steel	
B3		橡胶缓冲器 Buffer	JHQ-C-4	4	1.8		
		电控箱及附件				~450	
B2	UL2516-B2	驱动装置 Driving Device		1		out-sourcing	
B1	UL2516-B1	电动机 Motor		2		电气	
5	UL06040700	司机室安全制动器 safety brake		2	123	246 (借用 borrow)	
4	UL11040100	固定装置 Anchor Device	焊接	1		10. (借用 borrow)	
3	UL11040700	平衡轮 Balance Wheel	焊接	1		29 (借用 borrow)	
2	UL25160200	支架 Support	焊接	1		1550	
1	UL25160100	司机室 Operator's Cab	焊接	1		3200	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total WEIGHT	NOTE
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:	SCALE: 1:20			
ITEM NAME: 司机室总成 Operator's Cab Assembly			DRAW NO: UL251600				
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET		
	CHCK		VER.		SET/CRANE		

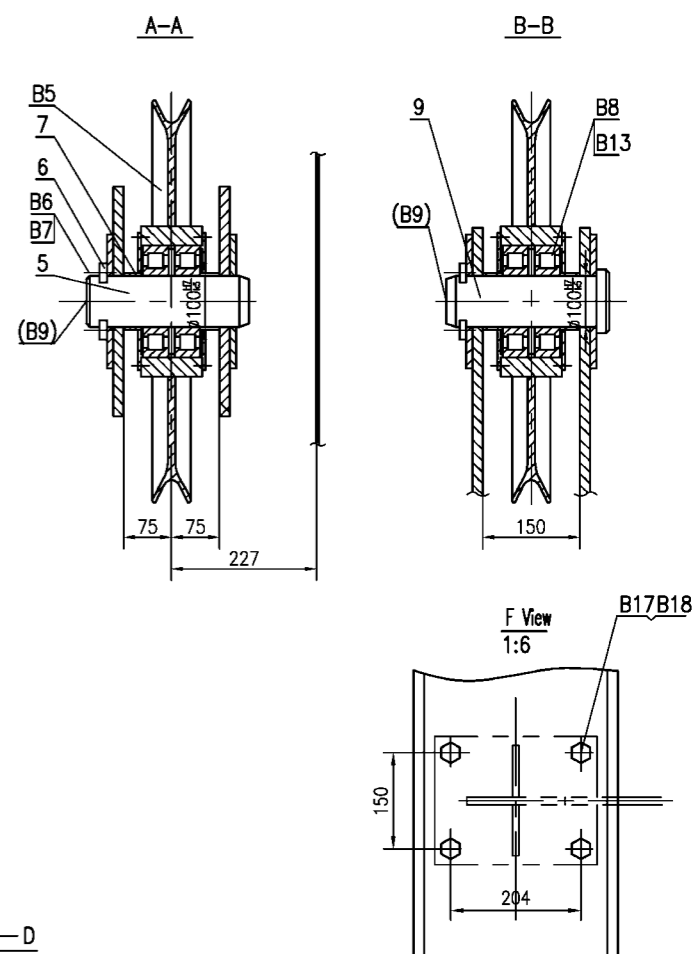
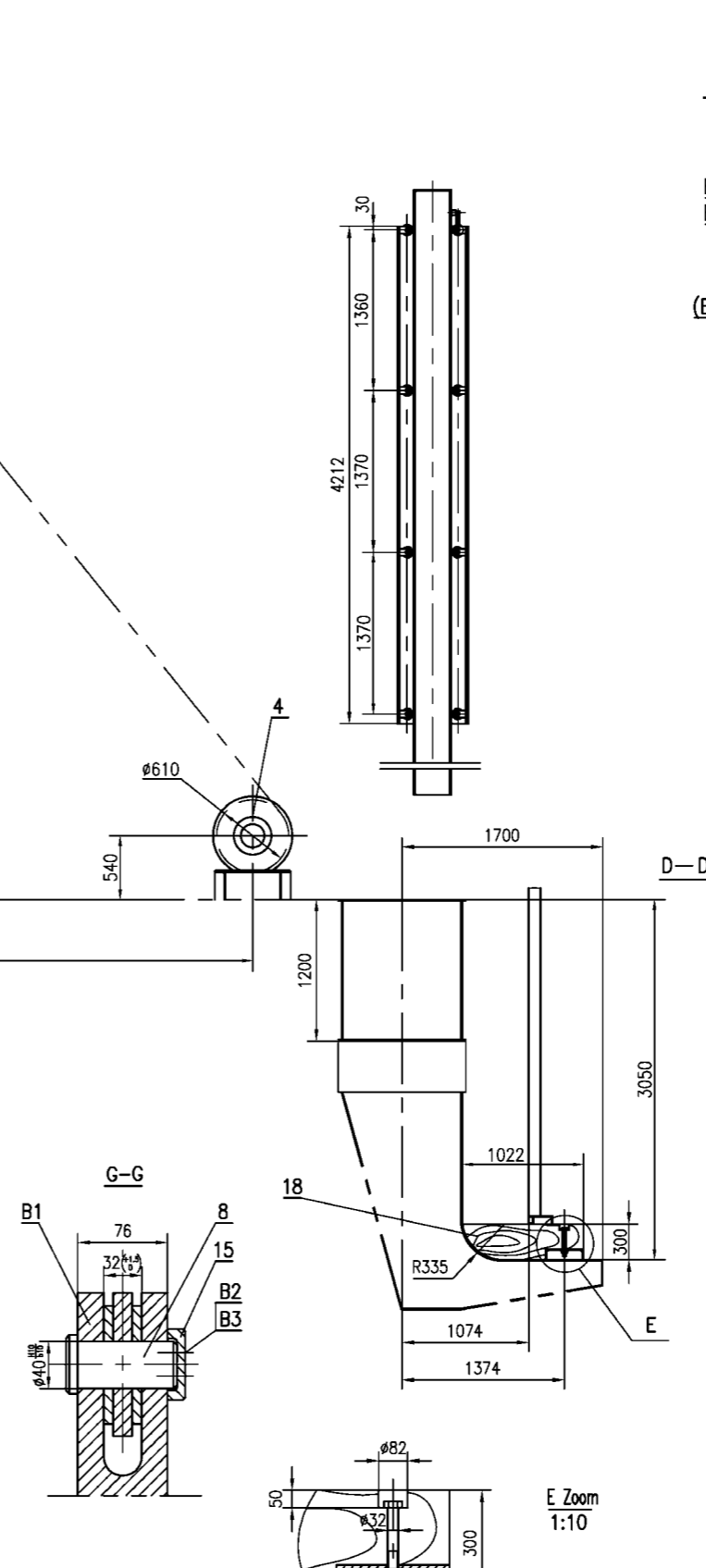
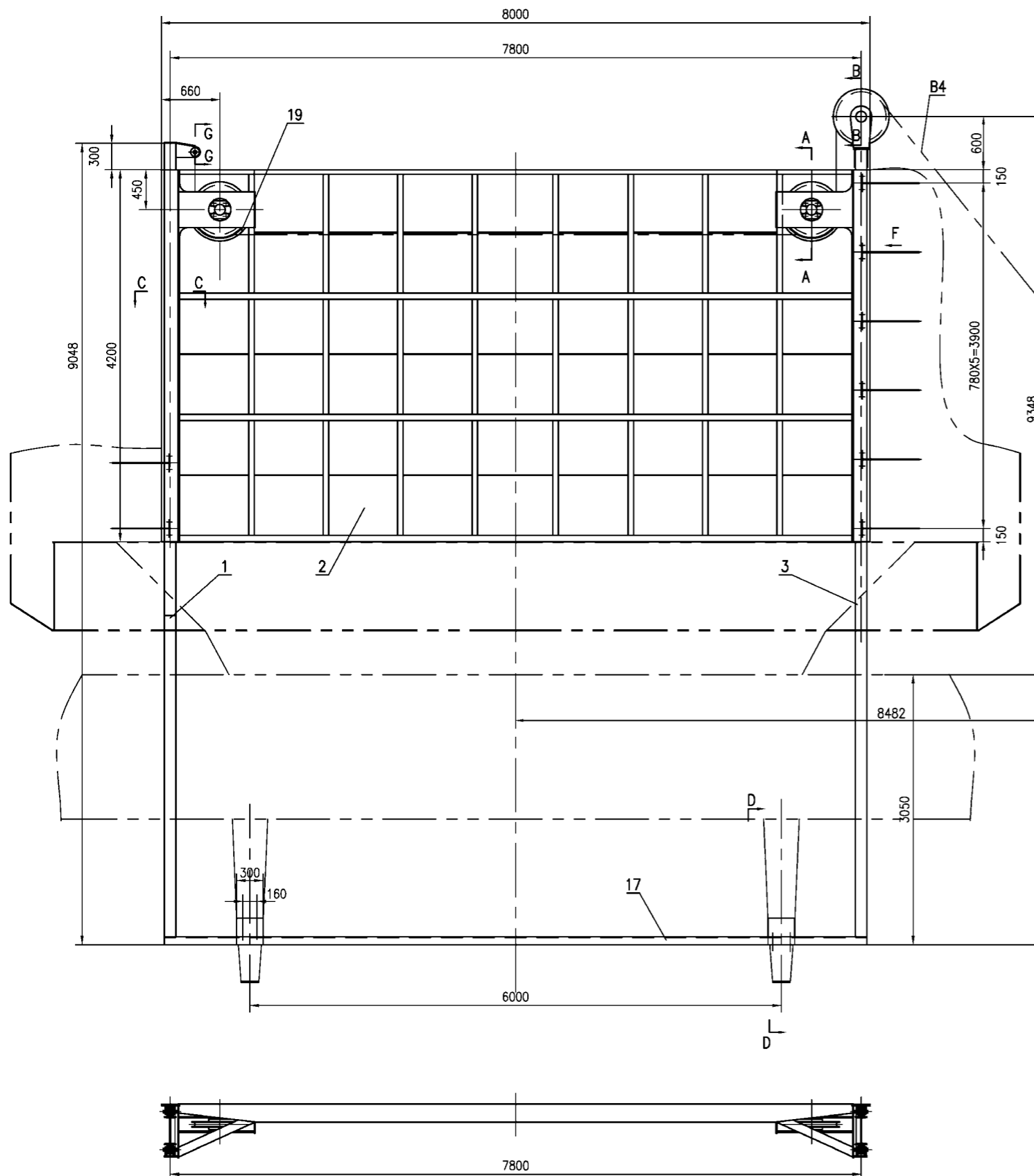


Vibratile Feeder Power	18kw
Hopper Volume	120m ³
Vibratile Feeder Efficiency	2200t/h
Buffing Installation Width	1800mm
Buffing Installation Angle	35°

振动给料机功率	18kw
漏斗容积	120m ³
振动给料机出力	2200t/h
缓冲装置带宽	1800mm
缓冲装置角度	35°

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each WEIGHT	total WEIGHT	NOTE
14	UL251714-00	Back Material Baffle And The Mechanism		1	3824	3824	后挡料板及机构
13	UL251713-00	Vibratile Feeder Installation		1	6620-7000	6620-7000	振动给料机安装
12	UL251712-00	Anti-dust Cover		1	419	419	防尘罩
11	UL251711-00	Hopper Door Mechanism		1	1514	1514	斗门装置
10	UL251710-00	Electric Motor Installation	Motor: Yongkang Jia; 德力西	1	617	617	电动机安装
9	UL251709-00	Hinge Type Weight Measure Base		2	358	716	使铁式测量支座
8	UL251708-00	Windshield Side Wall		1	13898	13898	侧挡风墙
7	UL251707-00	Windshield Door Mechanism		1	4843	4843	挡风门及机构
6	UL251706-00	Material Baffle Mechanism		1	2555	2555	挡料板机构
5	UL251705-00	Hopper Hinge of Side Side		2	338	676	漏斗侧侧铰链
4	UL251704-00	Material Baffle And Wire		1	14425	14425	挡料板及钢丝绳
3	UL251703-00	Hopper		1	50306	50306	漏斗
2	UL251702-00	Sliding Slat		1	5084	5084	溜槽
1	UL251701-00	Material End Buffering Installation		1	10251	10251	出口缓冲装置

PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:	SCALE: 1:80
ITEM NAME: Unload system 卸料系统		DRAW NO: UL251700	
ZPMC	DSGN: 王振强	TRACE	APP.
	DRAW: 王振强	CHK	QTY/SET: 11774.8
	CHK	VER.	SET/CRANE: 1

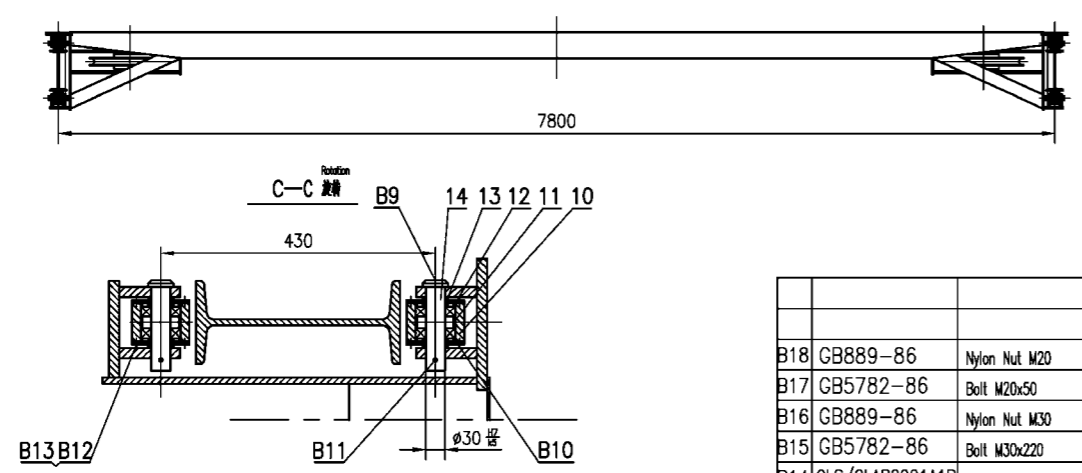


技术要求

- 限位开关的块(件16)焊在移门的顶部,位置视限位开关安装方便而定;
- 件17待本总成中其它部件都安装完毕,而且移门上下自如后,摆在漏斗后梁的钩子上,然后与件1,件3自由地埋焊。

Technology Requirement

- The limit switch block(item16)are welding at the top of the door,the location are depends for convenience.
- After all the other assemblies are finished, then the item17 should be laid on the hook of the hopper girder, and welded with item1 and item13's free ending.



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total	WEIGHT	NOTE
B18	GB889-86	Nylon Nut M20	8.8S	48	0.05	2.4	尼龙螺母 M20 尼龙
B17	GB5782-86	Bolt M20x50	8.8S	48	0.145	6.96	螺栓 M20x50 尼龙
B16	GB889-86	Nylon Nut M30	8.8S	4	0.05	0.2	尼龙螺母 M30 尼龙
B15	GB5782-86	Bolt M30x220	8.8S	4	1.5	6.2	螺栓 M30x220 尼龙
B14	GLS/GLAB2021A1B	Locating Switch		1			限位开关
B13	GB9877.1-88	#115x140x12		6			油封
B12	GB819-86	Deep Bolt M6x15	Stainless Steel 不锈钢	192	0.6		深螺栓 M6x15
B11	GB91-86	Uncork Pin 6x50	Q235	16	0.08		扣销 6x50
B10	GB283-87	Bearing 42206E		32	0.21	6.8	轴承 42206E
B9	GB6946-86	Oil Mouth P-PT1/4"		19	0.01	0.19	油嘴 P-PT1/4"
B8	GB283-87	Bearing 42220E		6	3.57	21.4	轴承 42220E
B7		Rope #2	Stainless Steel 不锈钢	2m			不锈钢绳 #2
B6	GB32.1-86	Bolt M20x30	8.8S	32	0.11	3.6	螺栓 M20x30 尼龙
B5	WJ3252A	Sleeve		3	47	141	滑套
B4	GB1102-74	Rope #21.5		1	50	50	钢丝绳 #21.5 38mm 索长 50m
B3		Rope #1x300mm	Stainless Steel 不锈钢	2	0.004		不锈钢绳 1x300mm
B2	GB32.1-86	Bolt M10-35	Stainless Steel 不锈钢	2	0.04		螺栓 M10-35
B1		美 WSS22-01	ZG35Mn	1			
		美 WSS22-02	ZG270-500	1			

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total	WEIGHT	NOTE
19	UL25170716	Safety Cover	Welding 焊接件	2	6.9	13.8	防护罩
18		Washer 300x300x1022	Wood 木材	2	68	136	木垫 300x300x1022
17		[320x90x10-7930	Q235	1	298	298	[320x90x10-7930
16		8x30x133	Q235	1	0.2	0.2	8x30x133
15	UL25170715	Rope Shaft Cover	Q235	1	0.2	0.2	绳头轴罩
14	UL25170714	Idler Wheel Shaft	45	16	0.72	11.5	滚轮轴
13	UL25170713	Idler Wheel Bushing	Q235	32	0.06	1.92	滚轮轴套
12	UL25170712	Idler wheel Lip	Q235	32	0.5	16	滚轮轴套
11	UL25170711	Bearing Baffle Ring	Q235	16	0.07	1.12	轴承挡圈
10	UL25170710	Idler wheel	45	16	1.6	25.6	滚轮
9	UL25170709	Sheave Shaft(2)	45	1	17	17	滑轮轴(2)
8	UL25170708	Rope Ending Shaft	45	1	0.5	0.5	绳头轴
7	UL25170707	Sheave Shaft Bushing	Q235	6	0.7	4.2	滑轮轴套
6	UL25170706	Clip Plate	Q235	6	0.6	3.6	卡板
5	UL25170705	Sheave Shaft(1)	45	2	15	30	滑轮轴(1)
4	UL2517070400	Drive device		1	330	330	驱动装置
3	UL25170703	Right Support Frame	Welding 焊接件	1	524	524	右支架
2	UL25170702	Mobile Door	Welding 焊接件	1	2884	2884	移门
1	UL25170701	Left Support Frame	Welding 焊接件	1	492	492	左支架

PROJECT: Alabama 2000t/h Ship Unloader DESIGN STAGE: SCALE: 1:30

ITEM NAME: 移动挡风门及机构 Mobile Windshield Door Mechanism DRAW: NO: UL251707

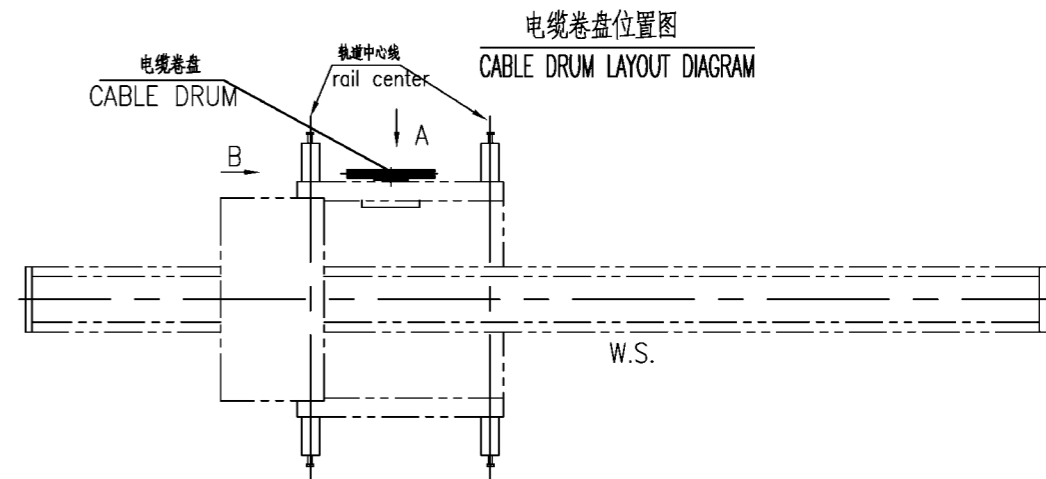
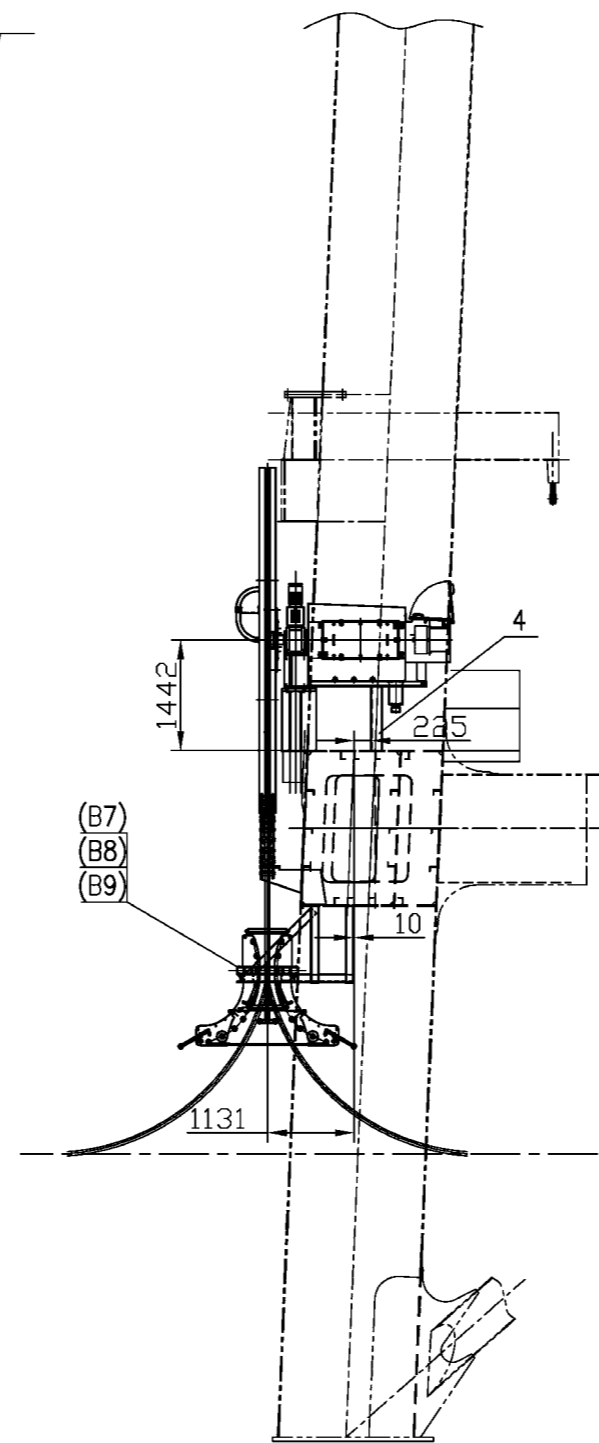
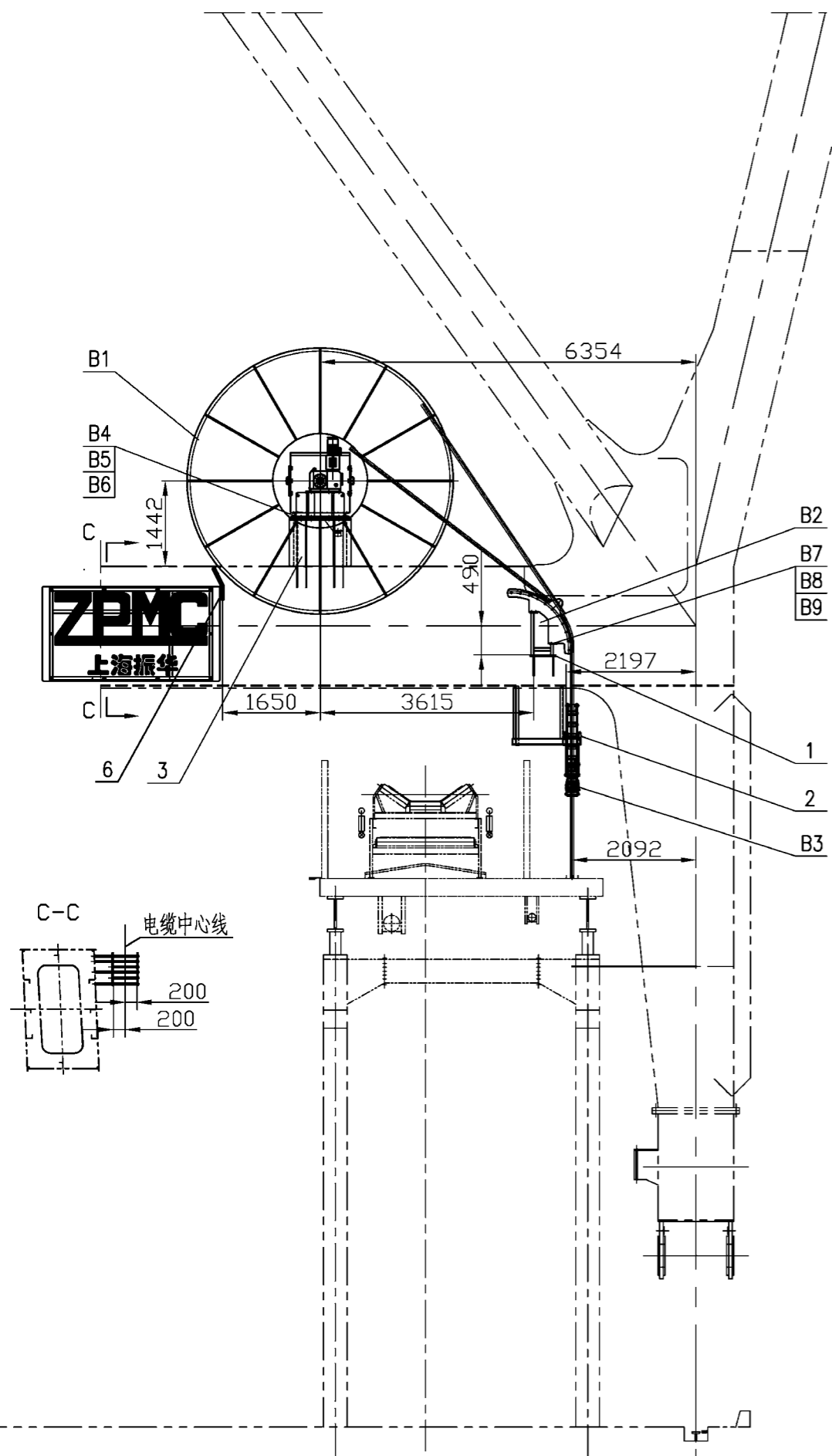
ZPMC DSGN 李季 05/02 TRACE APP. 05/02

DRAW 王根民 05/02 CHECK QTY/SET 1

CHK 05/02 VER. SET/CRANE 4843

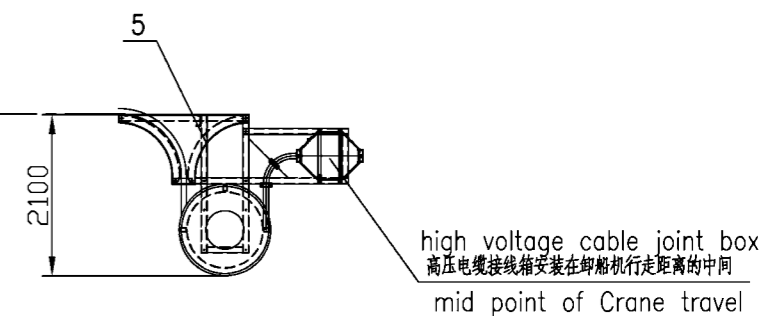
view A

view B



技术特性表
Technical Parameter

运行距离 Travelling Distance	±200m	最大运行速度 Max. Travel Speed	46m/min
电缆直径 Cable Diameter	~54.5mm	电缆重量 Cable Weight	4.21kg/m



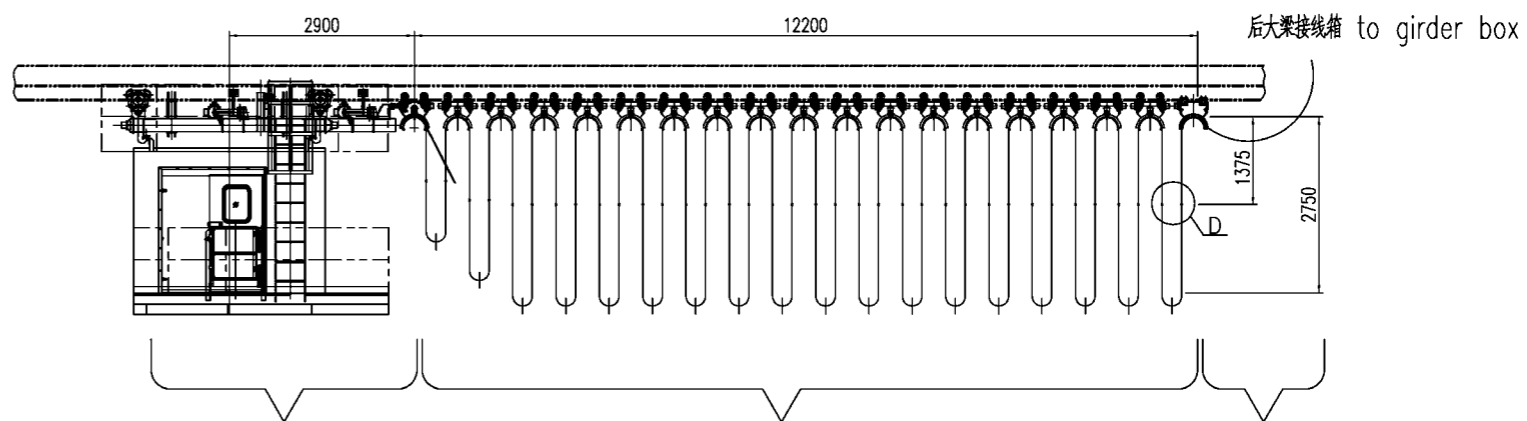
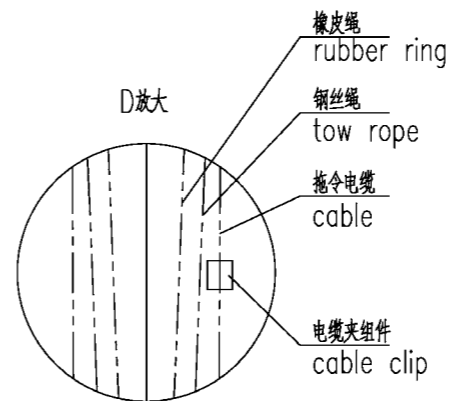
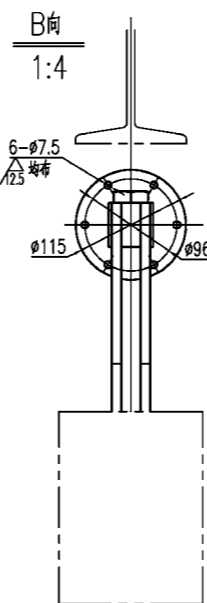
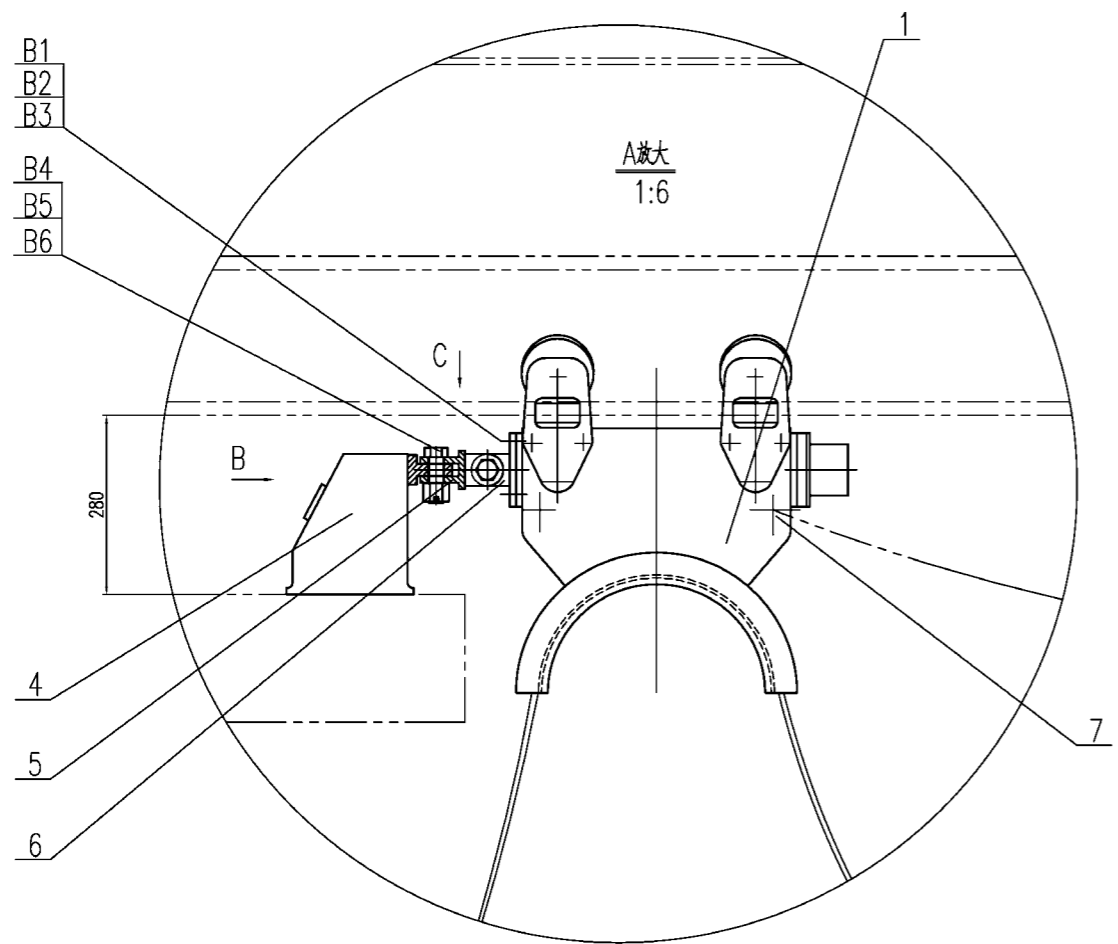
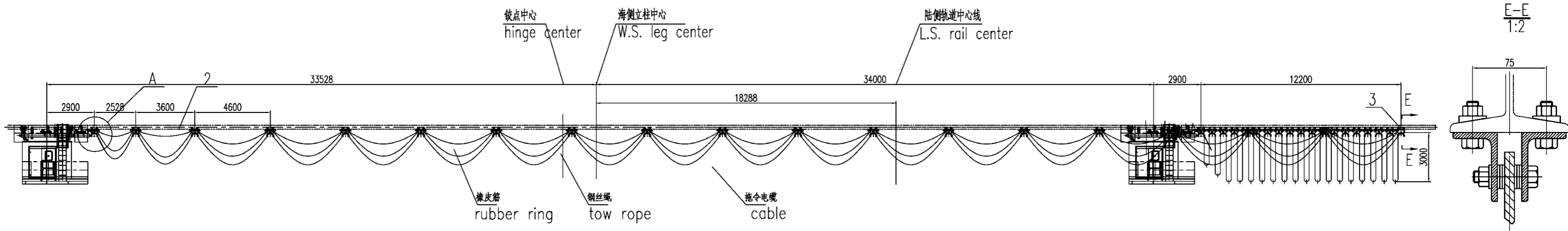
Attention:
注意:

- 1) The position of high voltage cable joint box shall be arranged by dock customer.
1) 高压电缆接线箱的位置在用户码头确定。
- 2) Enough space shall be supplied for the installation of joint box.
2) 应该有足够的空间用以安装接线箱。

B9	GB95-85	WASHER 12	A140	12		stainless steel
B8	GB889-86	NUT M12		12		
B7	GB5781-86	BOLT M12X50	A2-70	12		stainless steel
B6	GB95-85	WASHER 20	100HV	8		Dacromet 达克罗
B5	GB889-86	NUT M20	GRADE 8	8		
B4	GB5782-86	BOLT M20X95	GRADE 8.8	8		Dacromet 达克罗
B3	MZ71-U006-0024b-E	CABLE GUIDE	组合件	1	160	wampfler
B2	MZ71-U006-0013a	COMMUTATOR	组合件	1	50	wampfler
B1	MZ71-M070-077BE	MOTOR CABLE REEL	组合件	1	1160	wampfler

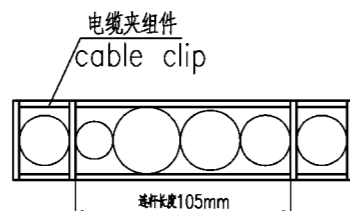
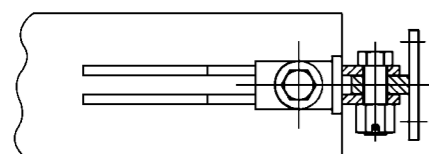
6	UL251805	保护盖 高压接线箱		1	25	
5		high voltage cable joint box 高压接线箱	组合件	1		by GBB GBB提供
4	UL251804	SUPPORT 3 支架 3	WELD COMPONENT 焊接件	1	37.6	
3	UL251803	SUPPORT BASE 支架 2	WELD COMPONENT 焊接件	1	417.1	
2	UL251802	SUPPORT 2 支架 1	WELD COMPONENT 焊接件	1	107	
1	UL251801	SUPPORT 1 支架 1	WELD COMPONENT 焊接件	1	94.5	

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total WEIGHT	NOTE
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:50	
ITEM NAME: Power Cable Reel Device 动力电缆卷盘装置			DRAW NO: UL251800		PROJ. Ass'y	
ZPMC	DSGN		TRACE		APP.	Ass'y
	DRAW		CHK		Q'TY/SET	2028
	CHK		VER.		SET/CRANE	1



去司机室留 15m to operator's cab
 悬挂部分共长 $6 \times 16 + 5.2 \times 1 + 4 \times 1 = 105.2\text{m}$
 length of cable $6 \times 16 + 5.2 \times 1 + 4 \times 1 = 105.2\text{m}$
 后大梁接线箱长 24m to girder box 24m

C向
1:4



技术要求

1. 电缆夹组件数量共36只, 连杆长度为105mm.
2. 电缆的悬挂部分长105.2m, 去司机室长15m, 去后大梁接线箱长24m, 此尺寸现场施工前需实测验证.
3. 选用橡皮筋及钢丝绳的尺寸, 取值如下:
 拖令电缆悬挂部分: $6 \times 16 + 5.2 \times 1 + 4 \times 1 = 105.2\text{m}$
 钢丝绳长度: $5.2 \times 16 + 4.5 \times 1 + 3.15 \times 1 = 90.85\text{m}$
 橡皮筋长度: $4.5 \times 16 + 3.6 \times 1 + 2.5 \times 1 = 78.1\text{m}$
4. 拖令轨道为 I25a.

NOTE

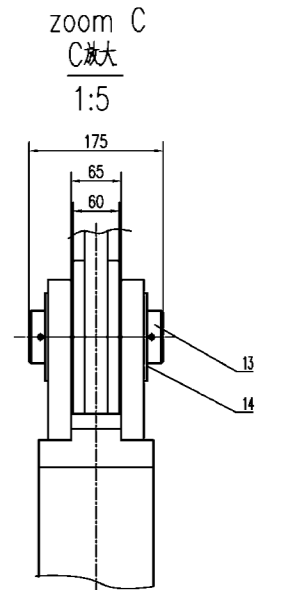
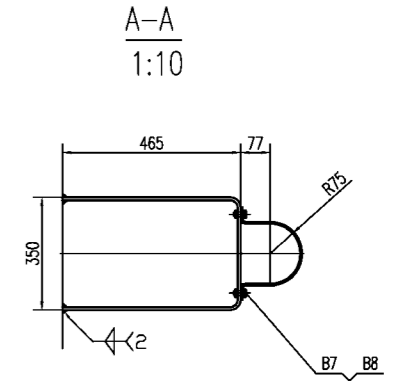
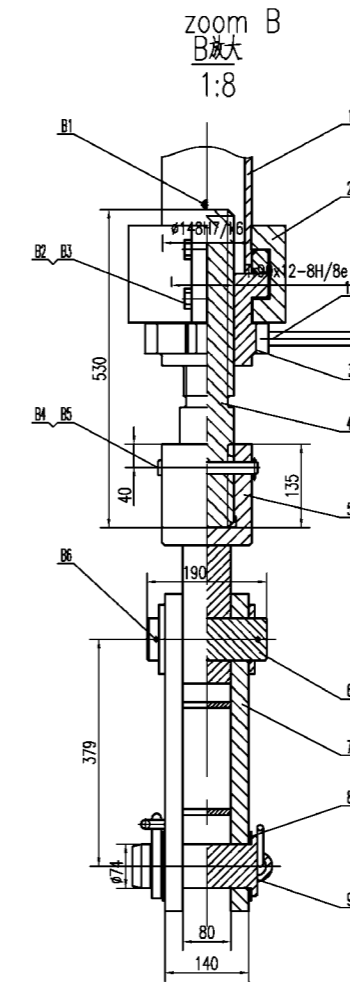
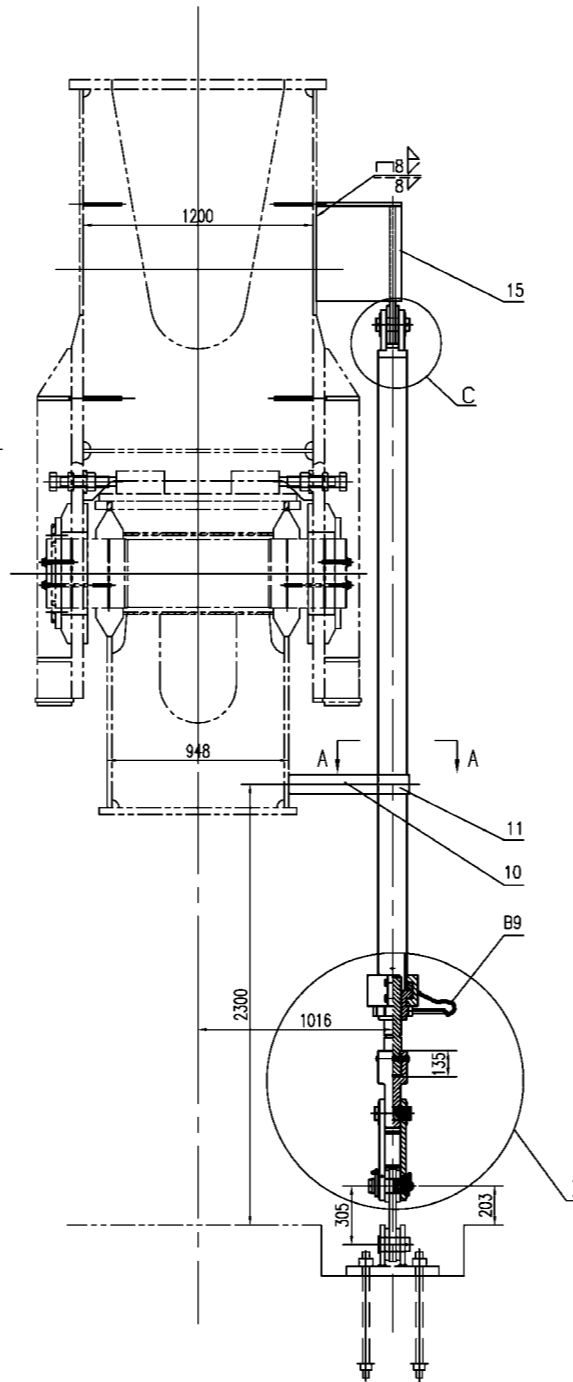
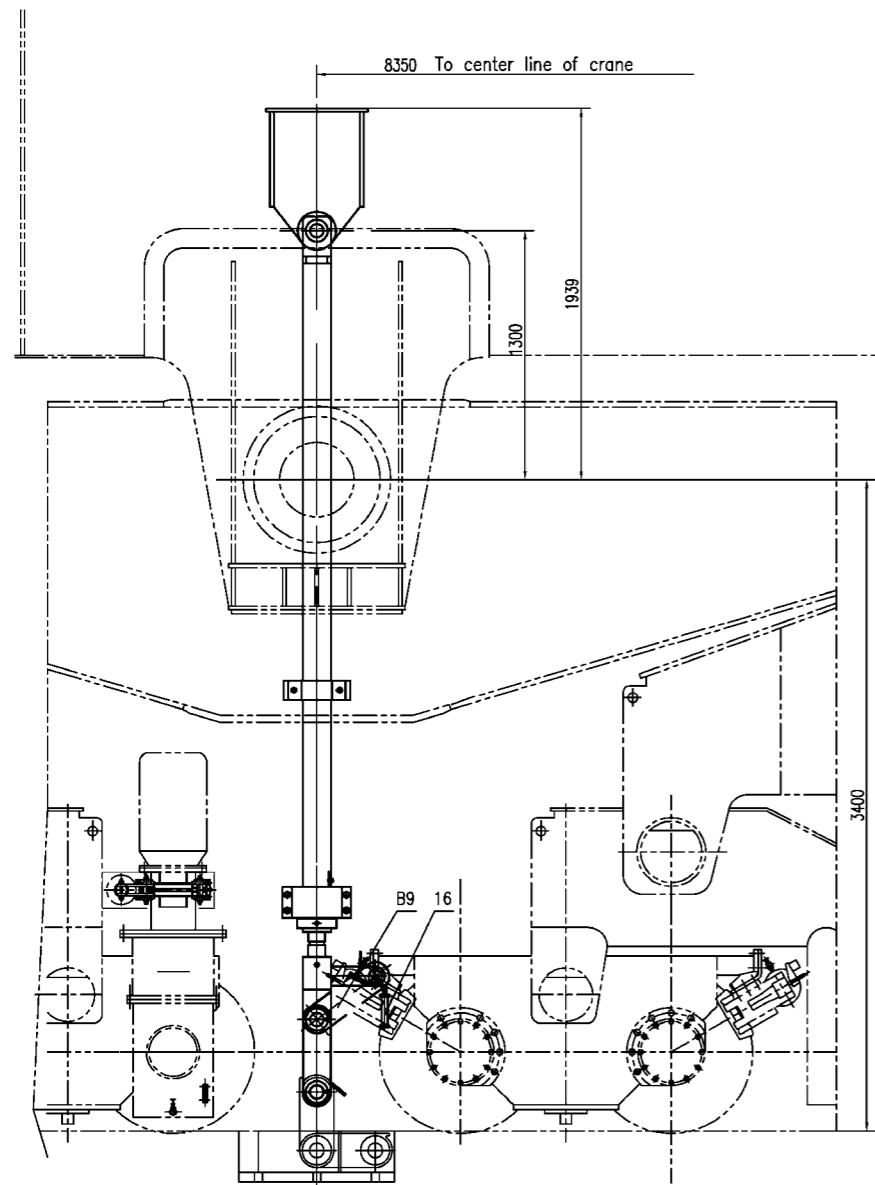
1. There are 32 cable clips, the length of the tie bars is 105mm.
2. The length of the cable is 105.2m, 15m to Operator's cab, 24m to the girder. All the dimension so be measured at site.
3. The dimension of the rubber ring and the tow rope:
 cable: $6 \times 16 + 5.2 \times 1 + 4 \times 1 = 105.2\text{m}$
 tow rope: $5.2 \times 16 + 4.5 \times 1 + 3.15 \times 1 = 90.85\text{m}$
 rubber ring: $4.5 \times 16 + 3.6 \times 1 + 2.5 \times 1 = 78.1\text{m}$
4. The railway is I25a.

B6	GB41-86	螺母 Nut M24	10H,	2		达克罗 Dacro.
B5	GB91-86	开口销 Split Pin 8X70		2		不锈钢 stainless steel
B4	GB1228-84	螺栓 Bolt M24x80	10.9S,	2		达克罗 Dacro.
B3	GB97.1-85	垫圈 Washer 6		6		不锈钢 stainless steel
B2	GB889-86	尼龙锁紧螺母 Nut M6		6		不锈钢 stainless steel
B1	GB5782-86	螺栓 Bolt M6x35		6		不锈钢 stainless steel

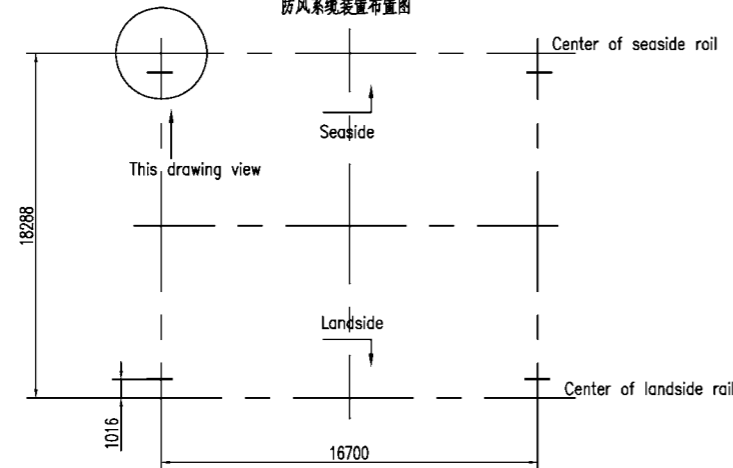
7	UL25210400	电缆手排装置 tow rope and rubber ring	组件 Ass.	18	15.2	243.2	
6	UL252103	支架2 support 2	焊接件 Welding	1		1.2	
5	UL252102	连接架 connect frame	焊接件 Welding	1		1.1	
4	UL252101	支架1 support 1	焊接件 Welding	1		6	
3	DLC10300B	电缆车(尾) Cable Trolley (end)	组件 Ass.	1		19.6	借用 borrow
2	DLC10200B	电缆车(中) Cable Trolley (middle)	组件 Ass.	17	36.2	543	借用 borrow
1	DLC10100B	电缆车(头) Cable Trolley (head)	组件 Ass.	1		36.1	借用 borrow

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:	SCALE: 1:120			
ITEM NAME: 电缆悬挂装置 Festoon System			DRAW NO: UL252100				
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHK		QTY/SET	1	
	CHK		VER.		SET/CRANE	860kg	

revision no.	Sub no.	description	date	sign
01	D23		2005.03.23	zhang
02	D23		2005.06.16	zhang
03	D23		2005.06.28	zhang



Tie down arrangement
防风系统装置布置图

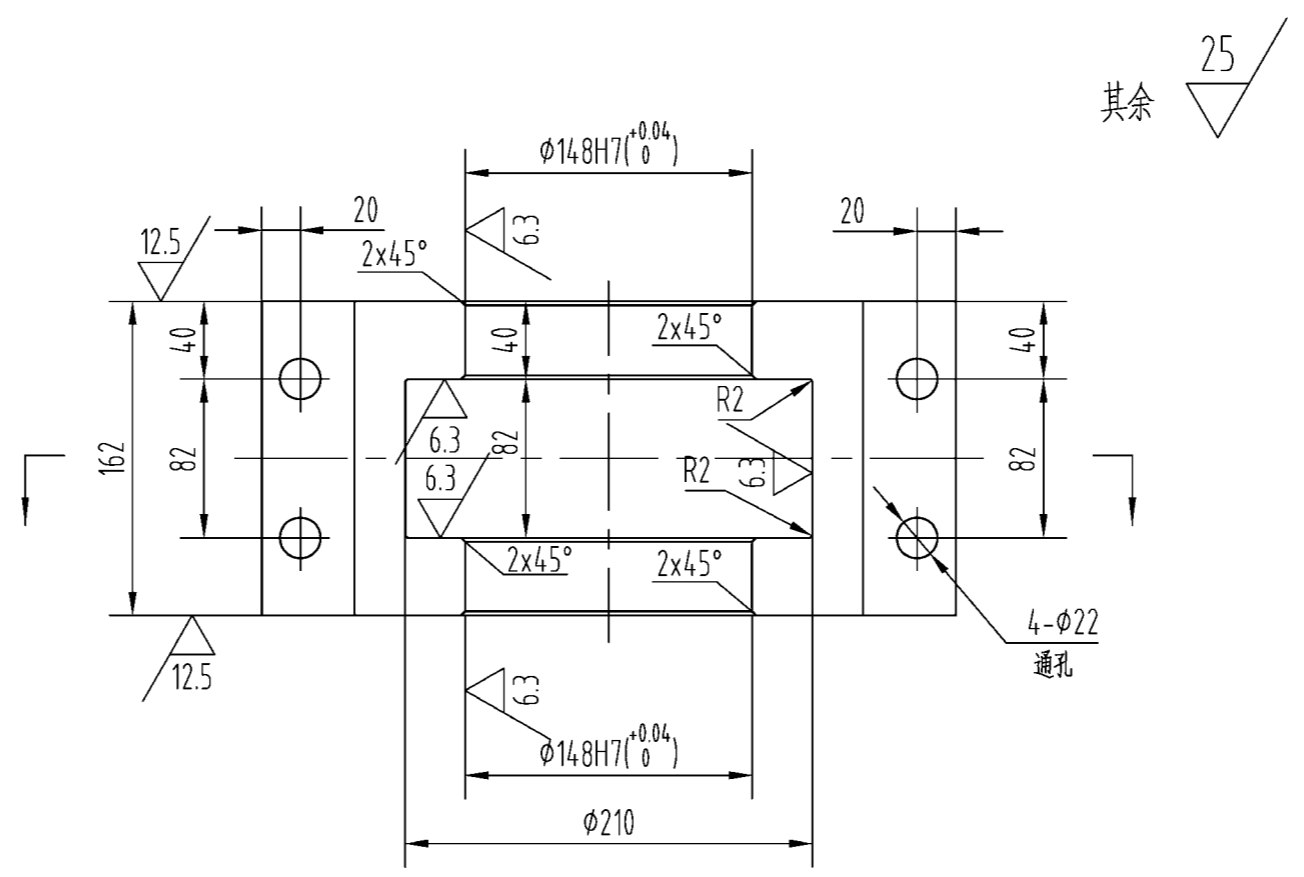


技术要求 Technical requirements

- 应按防风系统装置布置图进行安装。
To be installed according to the arrangement drawing of tie down device.
- 尺寸1016为定位尺寸。
1016-dimension is limit dimension.
- 件10和11的位置可根据需要定位。
No.10 and 11 of places are based upon requiring to decide.
- 件12扳手用小链条和件2连接固定,以免遗失。
No. 12 was connected to No.2 by little chain to avoid losing.
- 各销轴连接处,螺纹连接处涂润滑脂。
All of shaft pins and screws joints were smeared with the grease.
- 件B2的拧紧力矩为350N.m。
Pre-tightening moment of No. B2 is 350Nm.
- 拉杆拉力75吨
Nominal strength 75 t

Submittal No.	Part No.	Description	QTY	UNIT	WEIGHT	REMARKS	
B9	GB5802-86	链条chain#5.6x500	Q235	2			
B8	GB889-86	尼龙锁紧帽M16	尼龙	2		galvanization	
B7	GB5783-86	螺栓M16x35	8.8级	2		galvanization	
B6	GB91-86	开口销 6.3x100	Q235	4		stainless steel	
B5	GB91-86	开口销 5x30	Q235	1		stainless steel	
B4	GB882-86	螺母M16	35	1		galvanization	
B3	GB889-86	尼龙锁紧帽M20	尼龙	4		galvanization	
B2	GB5783-86	螺栓M20x80	8.8级	4		galvanization	
B1		手拉葫芦PT1/4"	Q235	1			
16	UL252316	销(4)	welded	1	1.1	1.1	
15	UL252315	支撑 support	welded	1	184.7	184.7	
14	UL252314	垫圈(2)	4.5	4	0.2	0.8	
13	UL252313	销(3)	4.5	1	5.1	5.1	
12	UL252312	扳手 spanner	4.5	1	0.8	0.8	
11	UL252311	压板 press plate	Q235	1	1.4	1.4	
10	UL252310	支撑板 support plate	Q235	1	10	10	
9	UL252309	销轴(2)	assembly	1	7.8	7.8	
8	UL252308	垫圈 washer(1)	Q235	2	0.2	0.4	
7	UL252307	撑板 turn plate	welded	1	37	37	
6	UL252306	销轴(1)	4.5	1	5.6	5.6	
5	UL252305	连接件 connecting	welded	1	43.6	43.6	
4	UL252304	螺栓 screw	4.5	1	22.6	22.6	
3	UL252303	螺母 nut	4.5	1	23.5	23.5	
2	UL252302	压盖 press cover	welded	2	20	40	
1	UL252301	拉杆 pull staff	welded	1	153	153	
NO.	SUB-NO.	STDD	NAME & SIZE	MTL or STYLE	QTY/set	each total WEIGHT	NOTE
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:	SCALE: 1:20			
ITEM NAME: 防风系统装置 Tie Down Device			DRAW NO: UL252300				
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHK		Q'TY/SET	4#/5	
	CHCK		VER.		SET/CRANE	517kg/4	

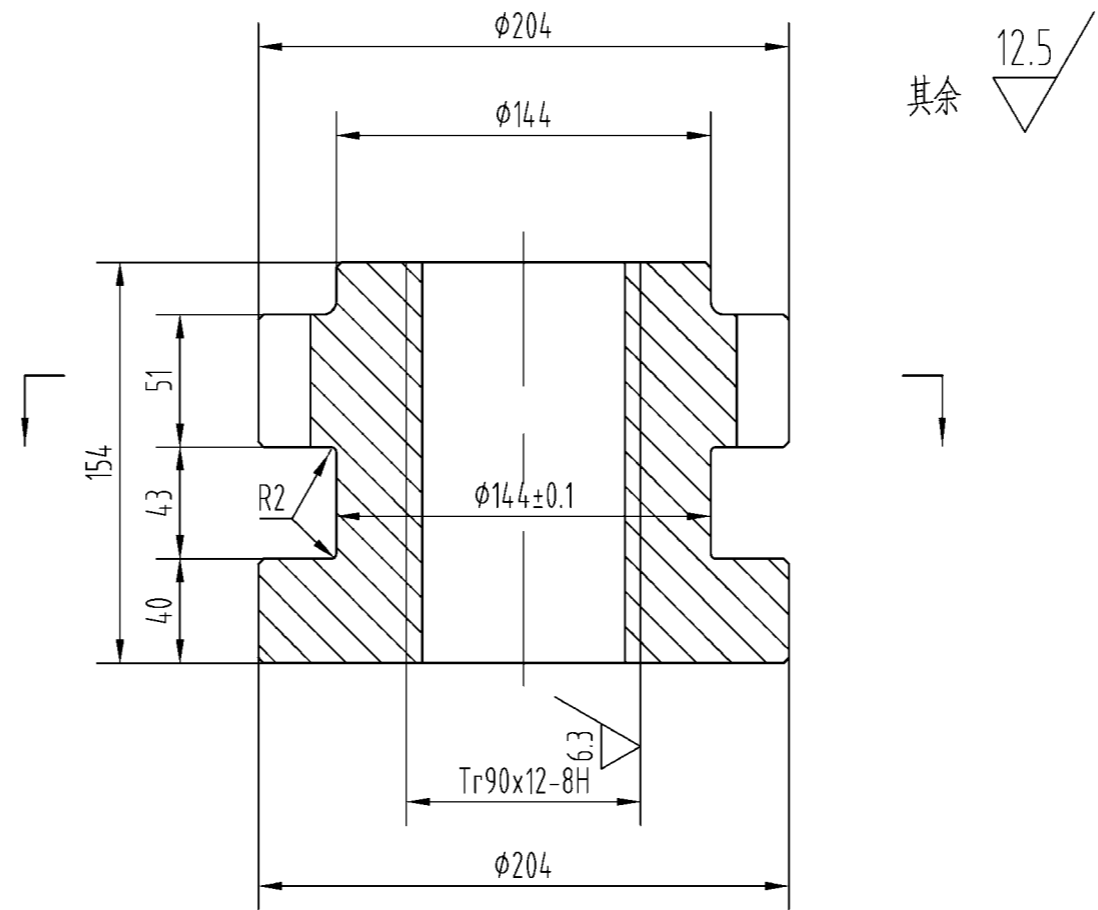
revision no.	Sub no.	description	date	sign
01	D23		2005.06.28	zhang



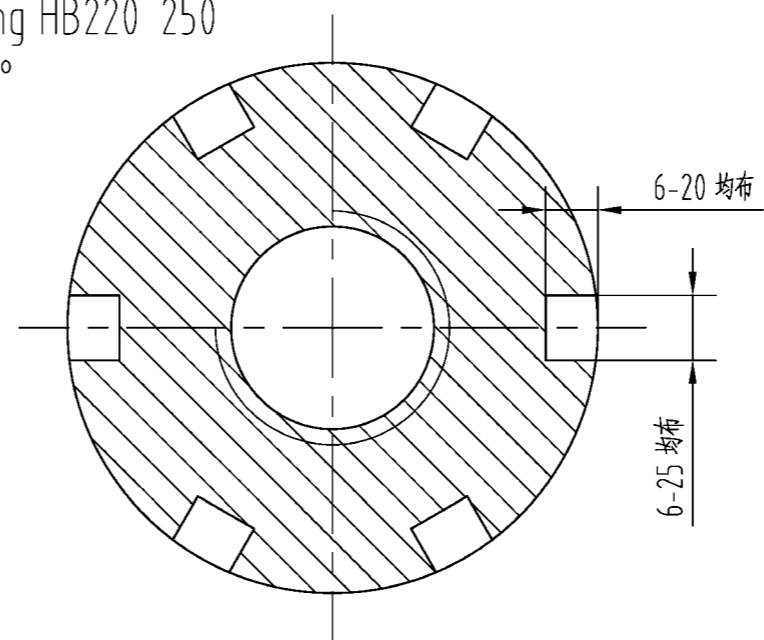
2		-25x48x162	35	2	1.5	3	
1		-R131xR74x162	35	1	17		
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE	
	UL252302	压盖 press cover	焊接件 welded	20kgX8	8/台	1:4	

ZPMC	DRAW		TECH.		TRACE		
	CHCK		STDD		CHCK		

revision no.	Sub no.	description	date	sign
01	D23		2005.06.28	zhang



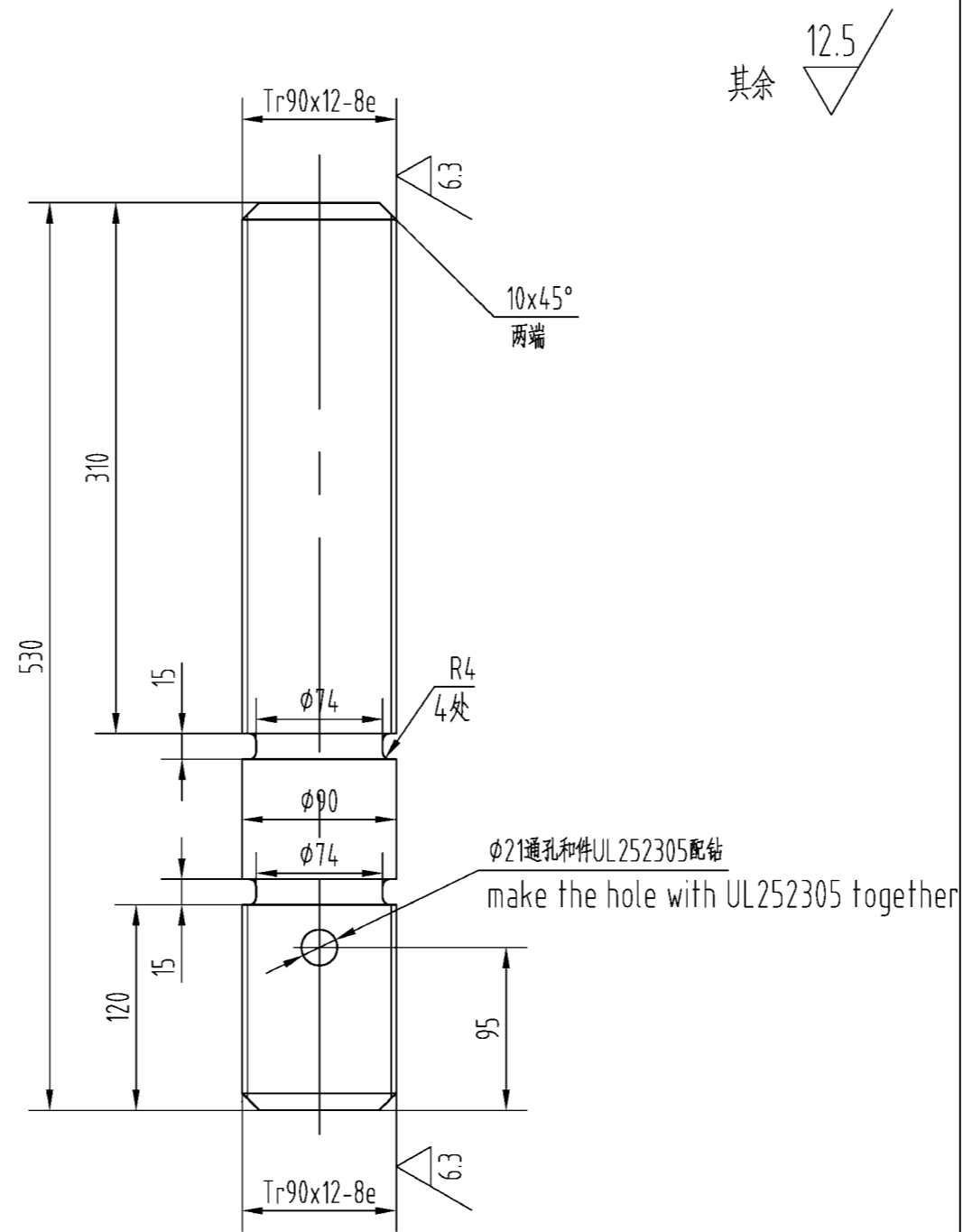
tempering and hardening HB220~250
no noted chamfer 2x45°



调质HB220-250
未注倒角2x45°

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL252303	螺母 nut	45	23.5kgX4	4/台	1:3
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

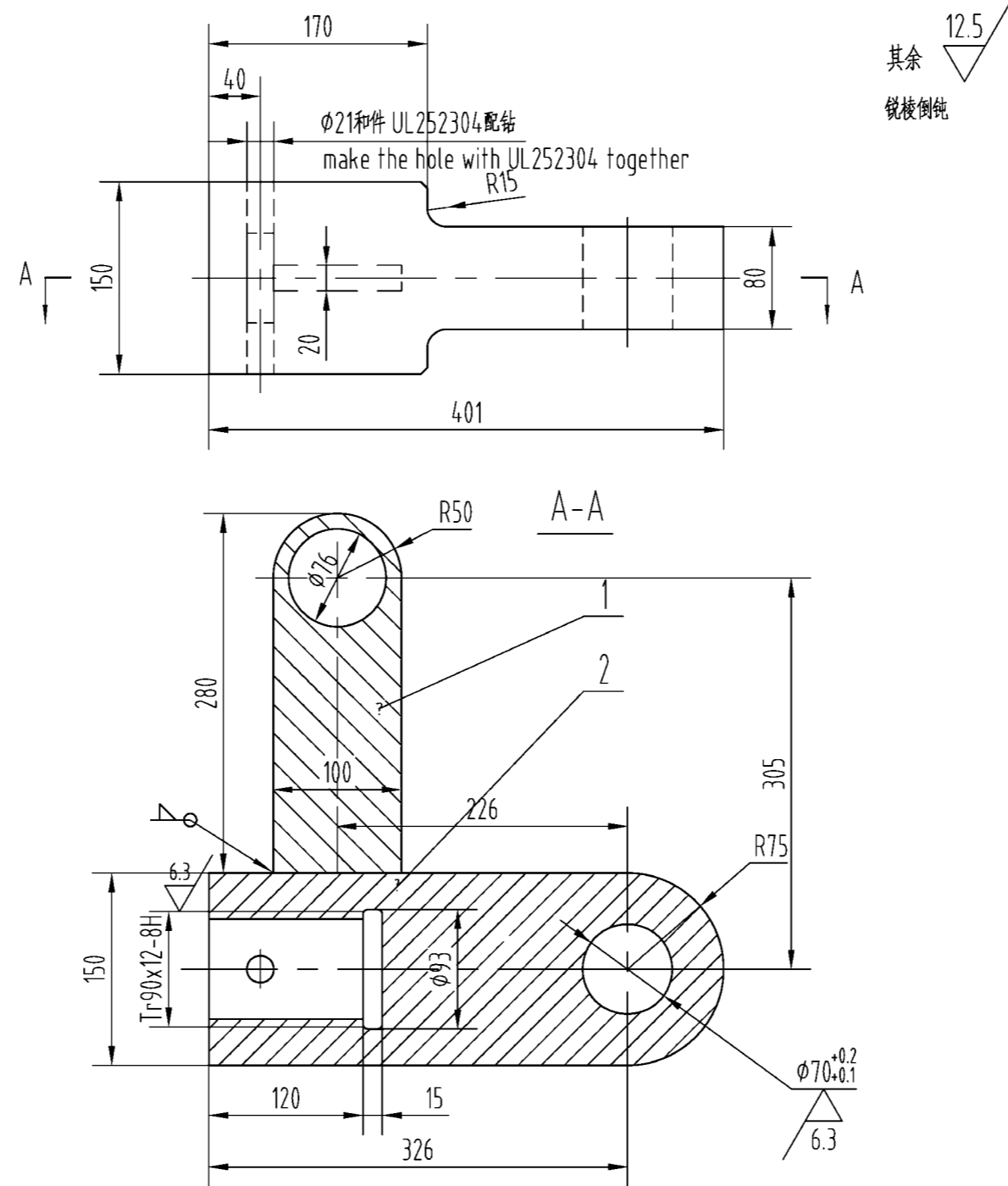
revision no.	Sub no.	description	date	sign
01	D23		2005.06.28	zhang



调质HB220-250
tempering and hardening HB220~250

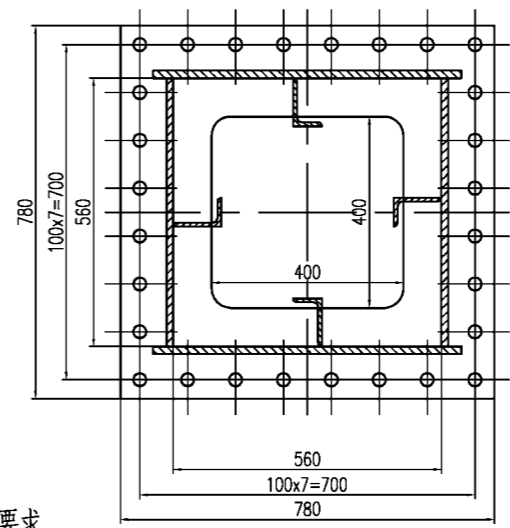
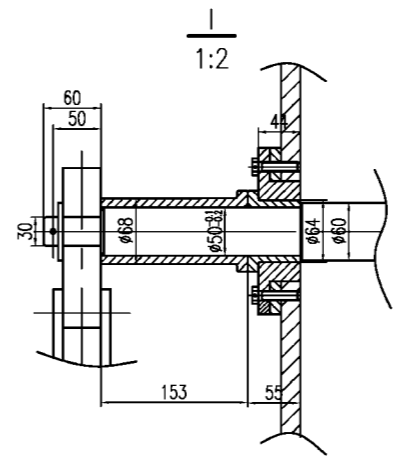
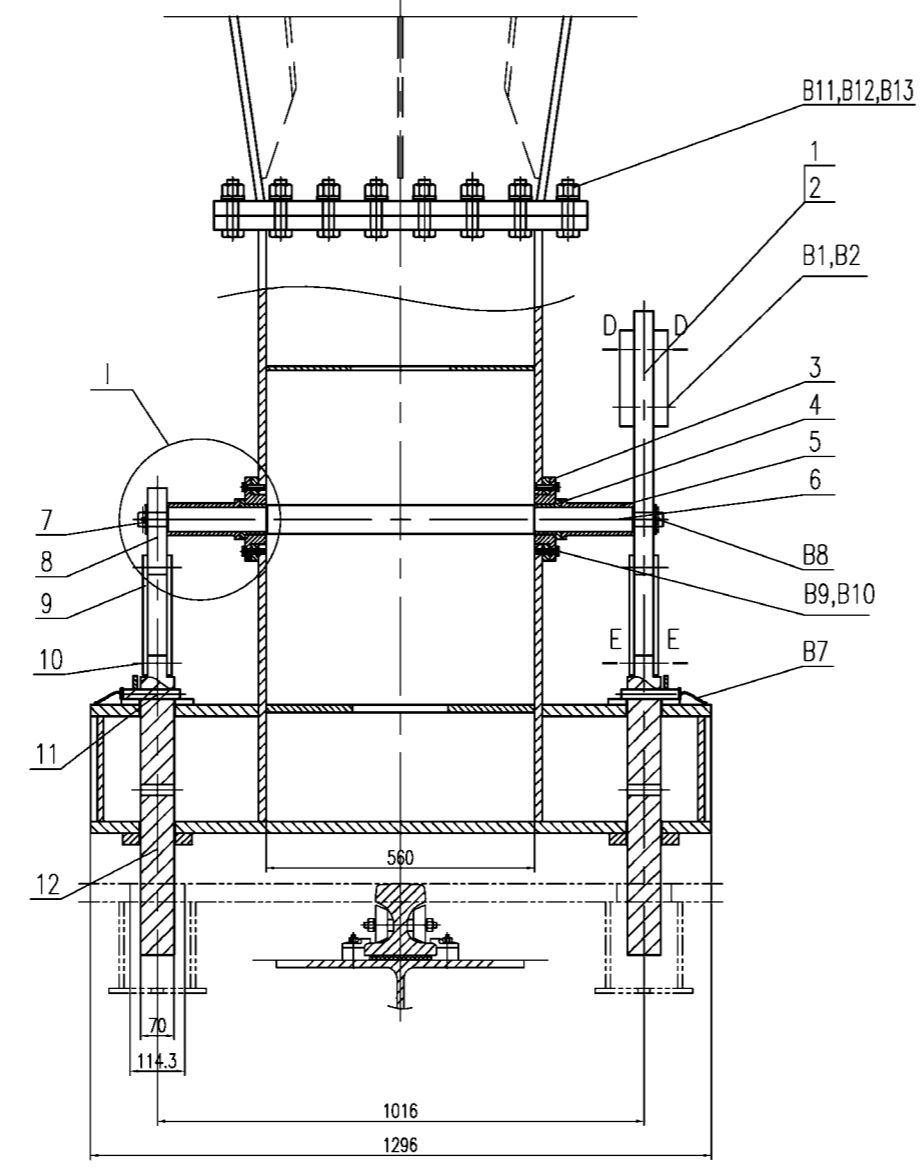
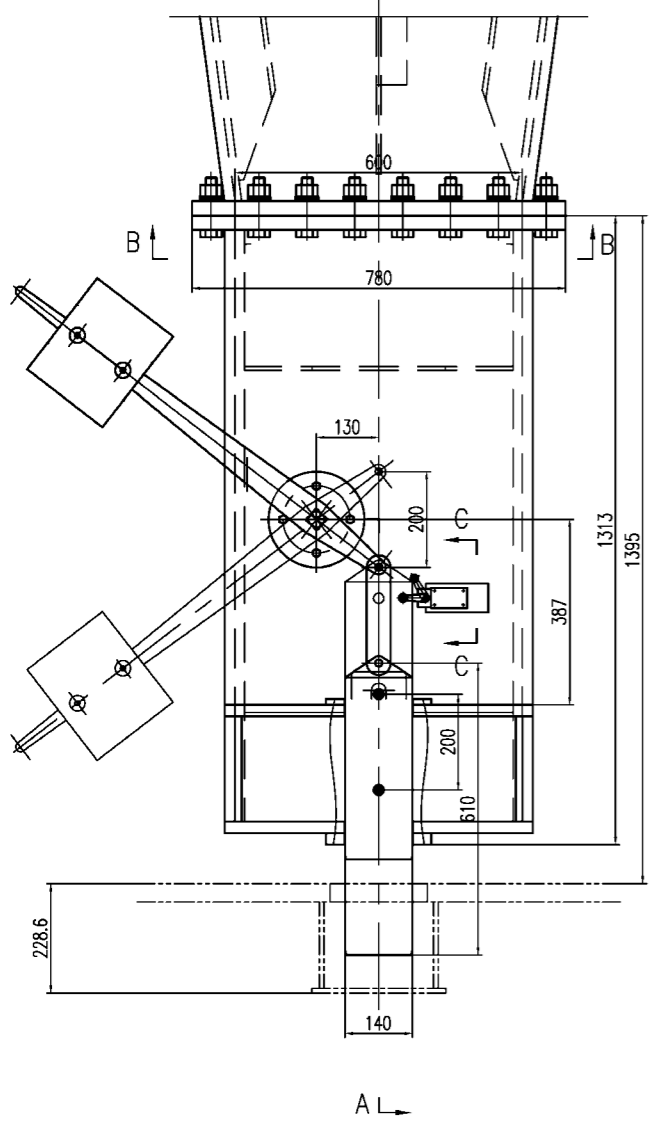
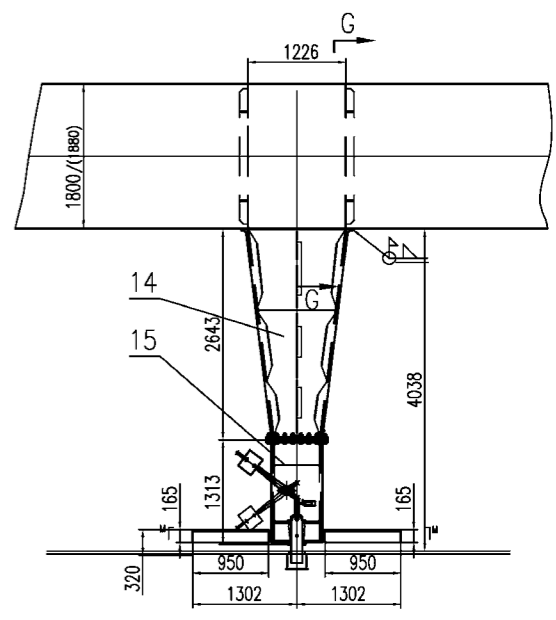
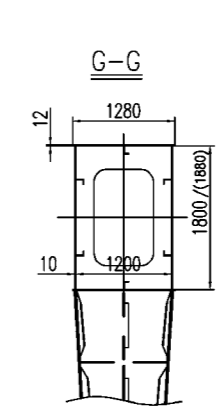
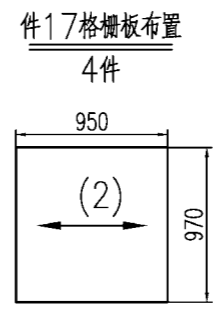
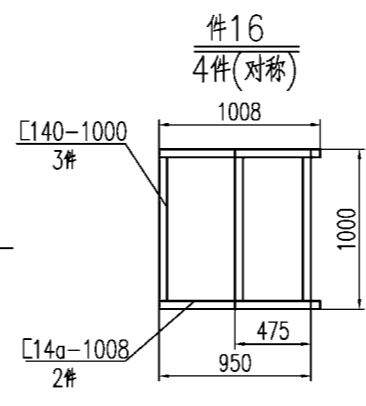
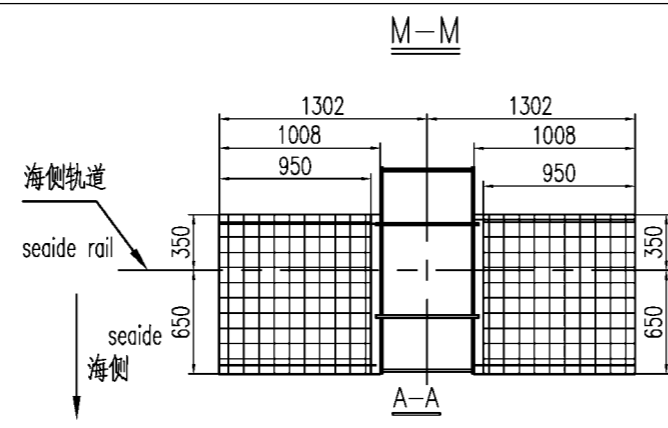
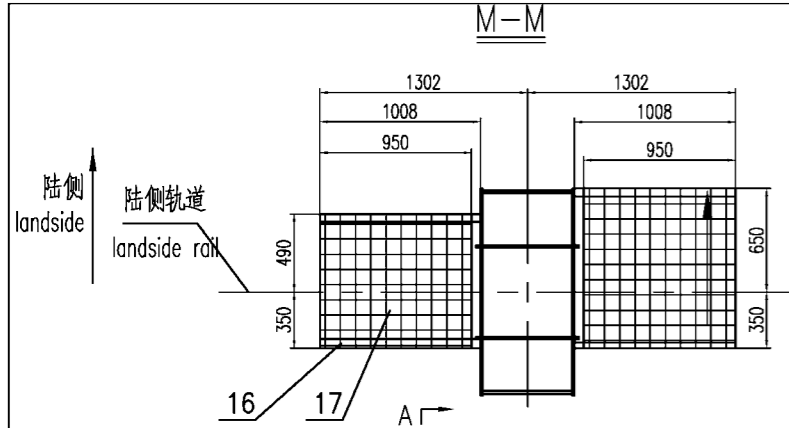
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL252304	螺杆 screw	45	22.6kgX4	4/台	1:4
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

revision no.	Sub no.	description	date	sign
01	D23		2005.06.28	zhang



piece 2: tempering and hardening HB220~250
件2调质HB220-250

2		-150x150x401	45	1	40	
1		-20x100x280	A709-50-2	1	3.6	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL252305	连接件 connecting	焊接件 welded	43.6kgX4	4/台	1:5
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

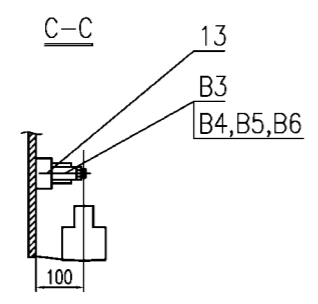
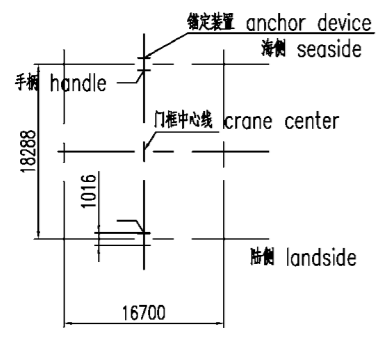


B15					
B14	GB91-86	开口销 pin 4x35	45	4	不锈钢 stainless steel
B13	GB/T1230-91	垫圈 washer24	45	56	达克罗 darco
B12	GB/T1229-91	螺母 nutM24	10s	28	达克罗 darco
B11	GB/T1228-91	螺栓 boltM24X105	10.9s	28	达克罗 darco
B10	GB95-85	平垫圈 washer10	140HV	8	不锈钢 stainless steel
B9	GB5781-86	螺栓 boltM10x30	8.8s	8	不锈钢 stainless steel
B8	GB91-86	开口销 pin5x50	35	2	不锈钢 stainless steel
B7	GB5802-86	链条 chain#5.6x400		2	不锈钢 stainless steel
B6	GB95-85	垫圈 washer5		4	不锈钢 stainless steel
B5	GB889-86	螺母 nutM5	8s	4	不锈钢 stainless steel
B4	GB5781-86	螺栓 M5x60	8.8s	4	不锈钢 stainless steel
B3	Z4VH 335-11z	限位开关 LS		1	
B2	GB889-86	压板螺母 nutM16	8s	2	达克罗 darco
B1	GB5782-86	螺栓 boltM16x100	8.8s	2	达克罗 darco

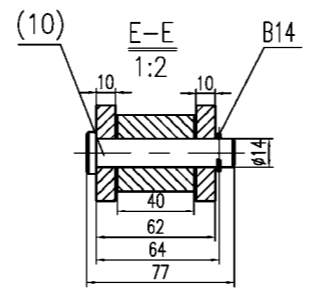
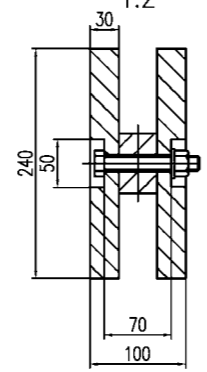
16	平角(1)	Q235	4	单件	
17	970*950	Q235	3	23	
	840*950	Q235	1	23	
15	UL252615	下支梁 down support	焊接件 welded	1	798 798
14	UL252614	上支梁 upper support	焊接件 welded	1	1410 1410
13	UL252613	限位支梁 support of LS	Q235	1	1.2 1.2
12	UL252612	限位板 anchor plate	Q345B	2	46 92
11	UL252611	销轴2 pin2	2Cr13	2	0.4 0.8
10	UL252610	销轴1 pin1	2Cr13	4	0.08 0.32
9	UL252609	连杆 link bar	Q235	4	0.9 3.6
8	UL252608	限位板 plate	Q235	1	3.3 3.3
7	UL252607	垫圈 washer	Q235	2	0.06 0.12
6	UL252606	轴 shaft	45	1	20.5 20.5
5	UL252605	衬套 bush	Q235	2	2.2 4.4
4	UL252604	套筒 sleeve	ZQSn6-6-3	2	1.0 2.0
3	UL252603	法兰 flanger	Q235	2	3.4 6.8
2	UL252602	配重 counterweight	Q235	2	11 22
1	UL252601	手柄 handle	Q235	1	1.3 1.3

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	WEIGHT	NOTE
PROJECT:		Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE: 1:8		
ITEM NAME:		锚定装置 Anchor device		DRAW NO:		UL252600		
ZPMC		DSGN		TRACE		APP.		
		DRAW		CHCK		QTY/SET	2	
		CHKC		VER.		SET/CRANE	2400x2	

锚定装置布置示意图
Anchor points arrangement



D-D Rotate
1:2



技术要求

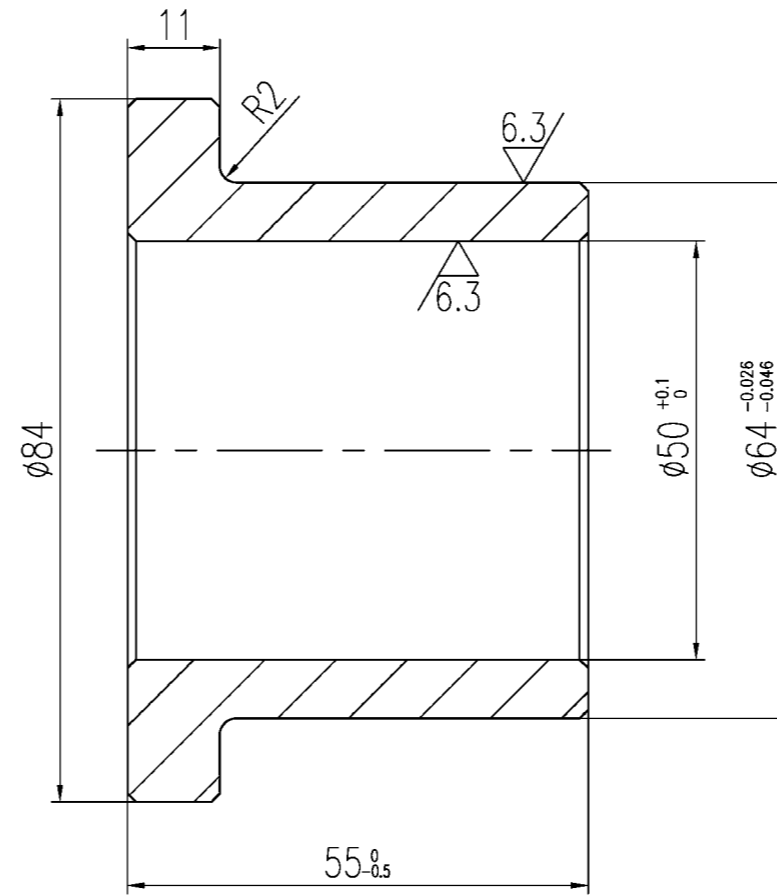
1. 定位插销用小链条固定在支架上,以防丢失。
2. 本装置能承受的最大锚定力为2x45t。

Technical Requirement

1. The pin should be connected to the support by little chain to avoid losing.
2. The device can receive a maximal anchor force of 2x45t.

其余: $\frac{12.5}{\nabla}$

others: $\frac{12.5}{\nabla}$

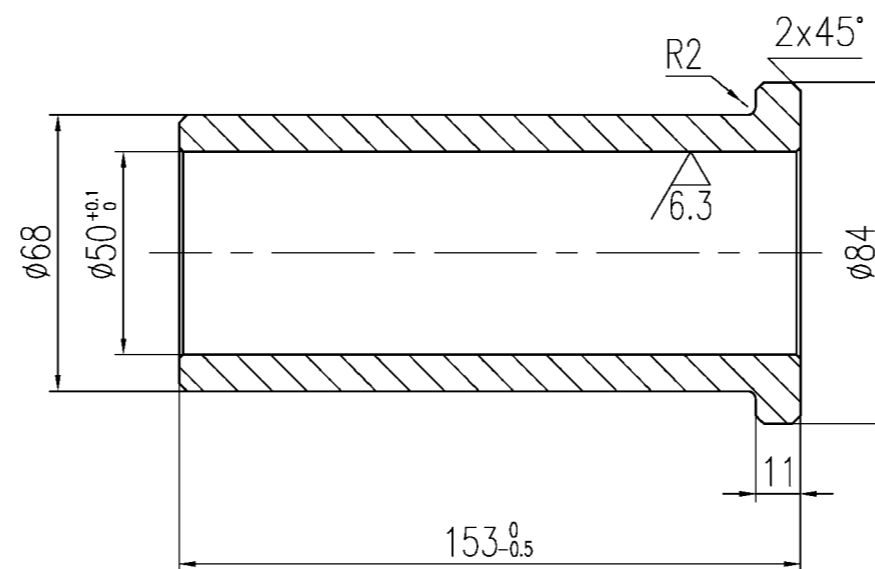


注: 未注倒角: $1 \times 45^\circ$. 锐边倒钝.

Unmarked chamfer: $1 \times 45^\circ$. 锐边倒钝.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
4	UL252604	轴套 sleeve	ZQSn6-6-3	4	1.0kgx4	1:1
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

其它: $\sqrt[12.5]{}$
 others: $\sqrt[12.5]{}$

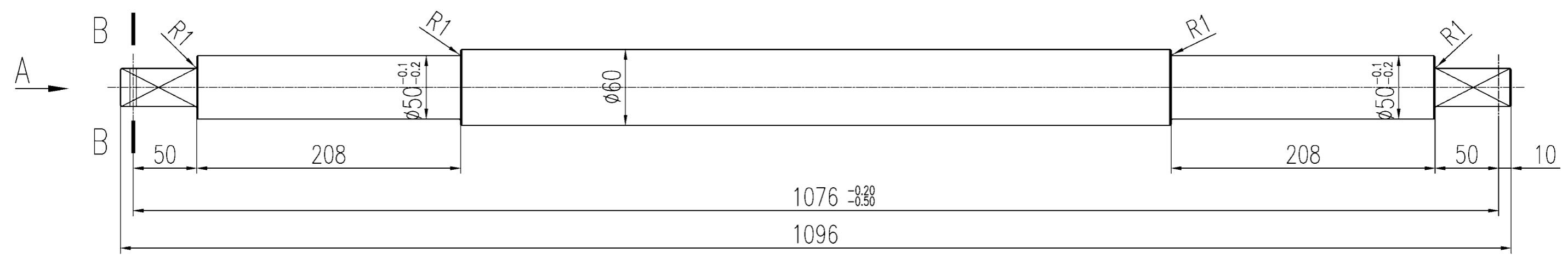


注: 未注倒角 $1 \times 45^\circ$
 Unmarked chamfer $1 \times 45^\circ$

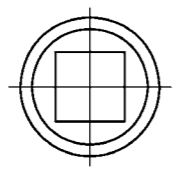
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
5	UL252605	衬套 bush	Q235	4	2.2kgx4	1:2
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

其余: $\sqrt[25]{\quad}$

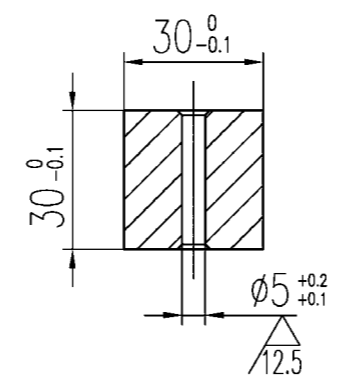
others: $\sqrt[25]{\quad}$



view A



B-B
1:2



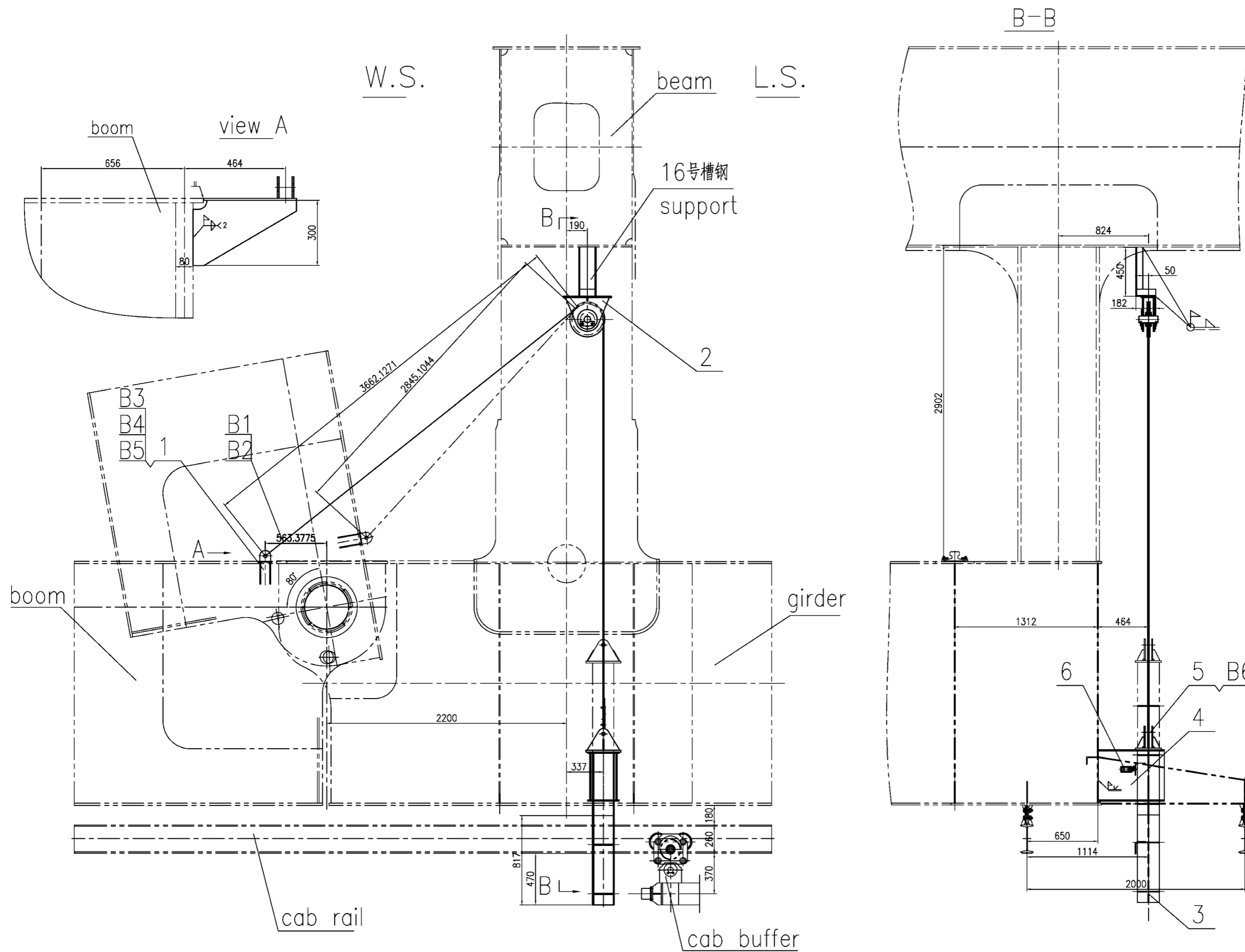
注:

1. 未注倒角1x45°
2. 调质HB210-250

Note:

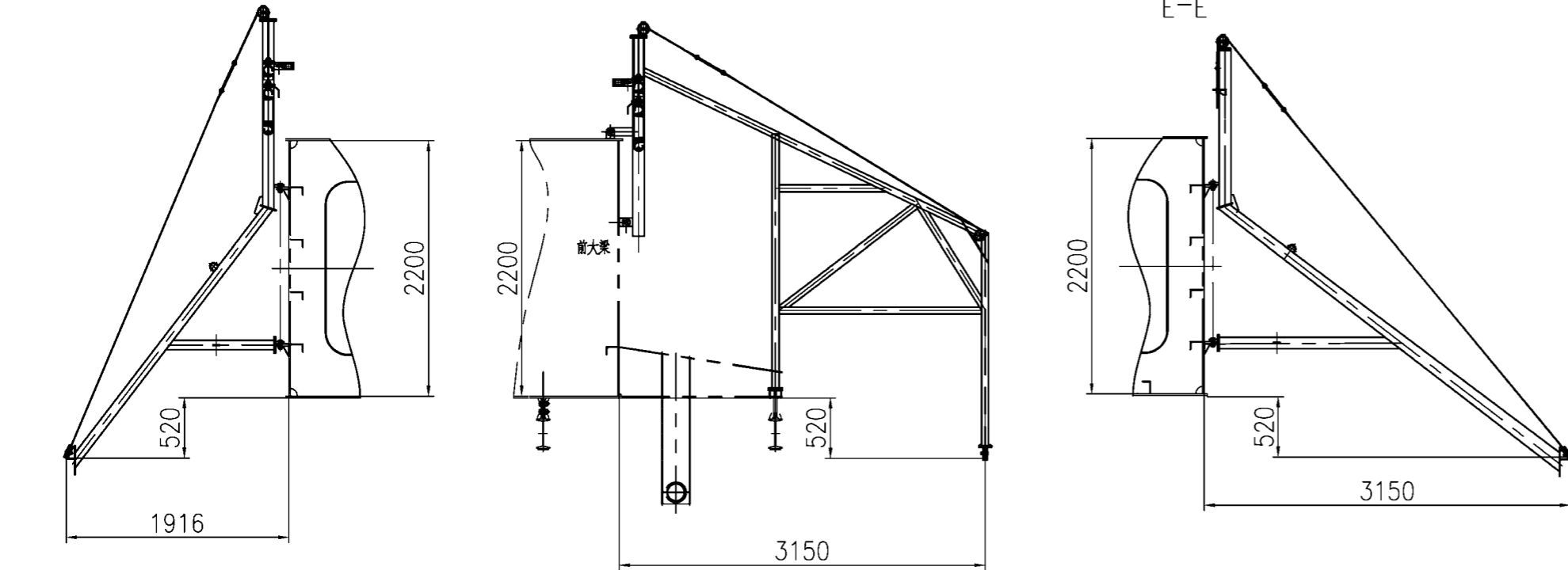
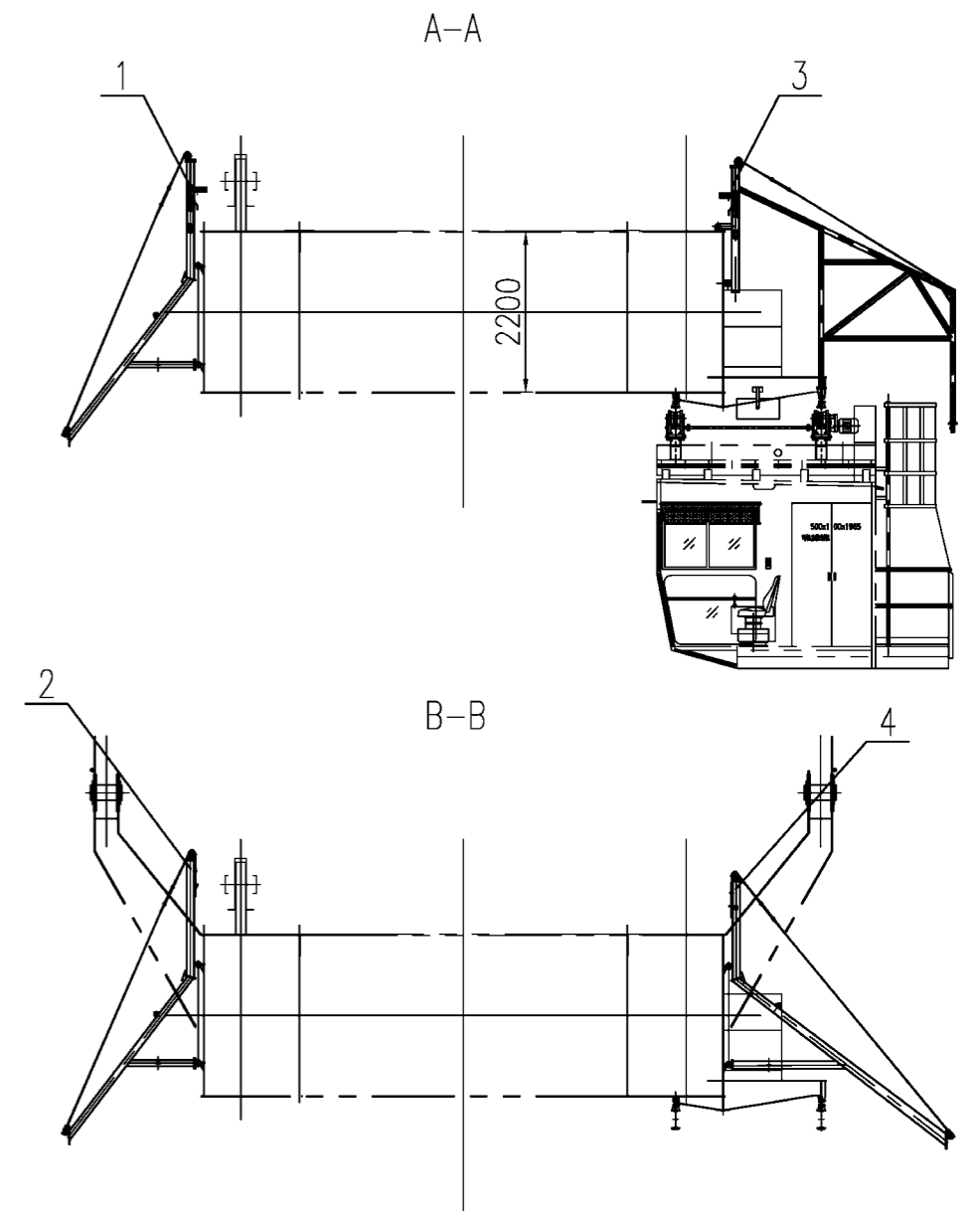
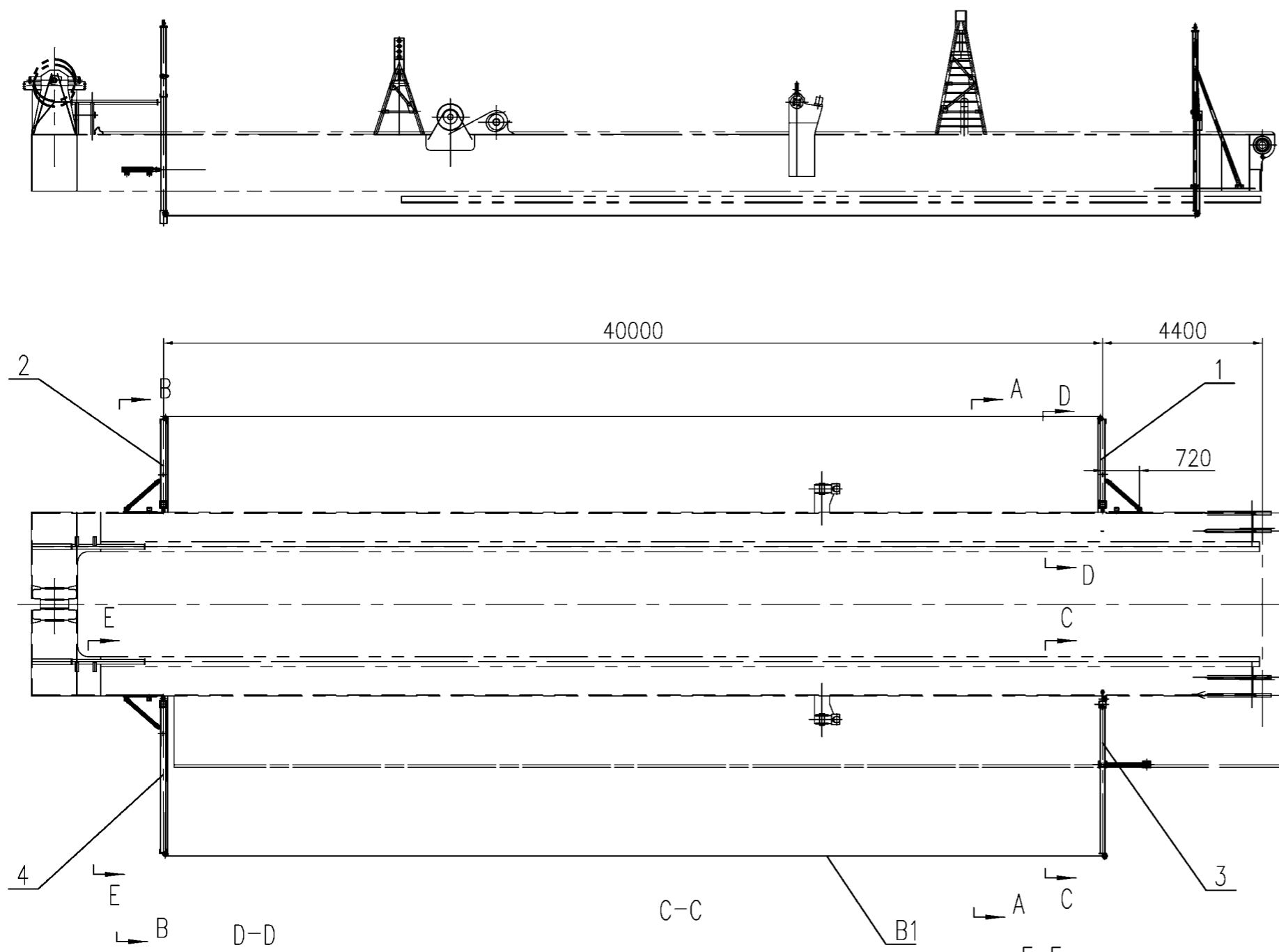
1. Unmarked chamfer 1x45°
2. Quenching and tempering HB210-250.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
6	UL252606	轴 shaft	45	2	20.5 41	1:5
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total WEIGHT	NOTE
B5	GB91-85	开口销 $\phi 4 \times 50$	Q235	1		限位装置 limit set
B5	GB6175-86	六角螺母 M30	35	2	0.35 0.7	轴轴 axis
B4	GB91-86	开口销 6.3×60	Q235	2	0.08 0.16	导向架 frame
B3	GB28-88	螺栓 M30x100	8.8级	2	0.76 1.52	安全挡块 safety bar
B2	GB1102-74	钢丝绳 rope (7x19)	$\phi 10$	9.2M	4.1	滑轮装置 sheave
B1	GB5976-86	绳夹 10		6	0.15 0.9	拉绳支座 support

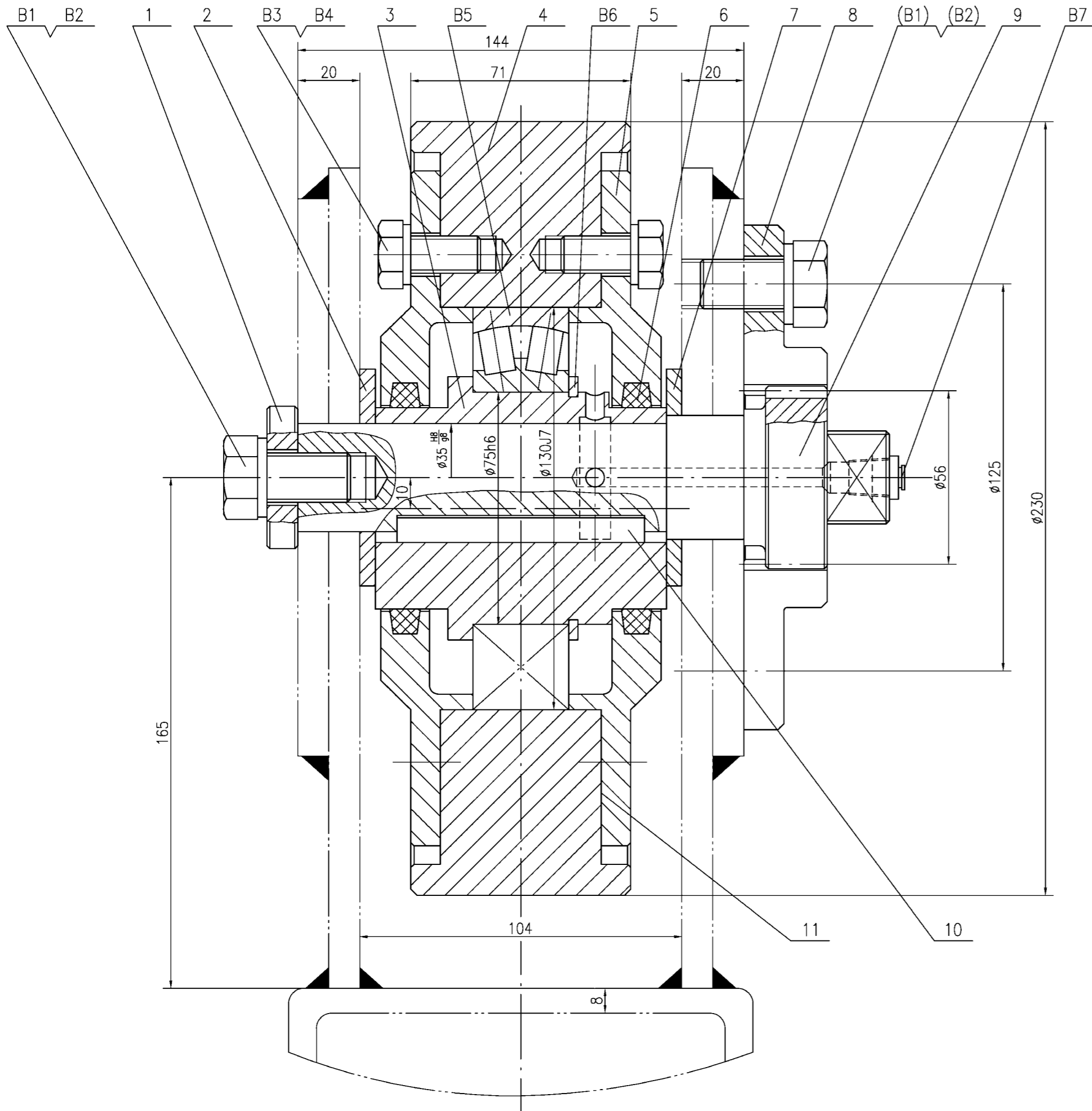
PROJECT: Alabama 2000t/h ship unloader	DESIGN STAGE:	SCALE: 1:18
ITEM NAME: 司机室保险装置 CABIN SAFETY DEVICE	DRAW NO: UL252800	
ZPMC	DSGN	TRACE
	DRAW	CHK
	CHK	VER.
		APP.
		Q'TY/SET
		SET/CRAVE
		201.3
		1



revision no.	Sub no.	description	date	sign
01	D17		2005.02.26	chenjie
02	D17		2005.03.18	chenjie

B1	GB1102-74	钢丝绳 Wire Rope 1x19-5.0-170-I 不锈钢	1			L=110m
4	UL25310400	张紧架4 supportor 4	分组件 Ass.	1	102	102
3	UL25310300	张紧架3 supportor 3	分组件 Ass.	1	115	115
2	UL25310200	张紧架2 supportor 2	分组件 Ass.	1	88	88
1	UL25310100	张紧架1 supportor 1	分组件 Ass.	1	88	88

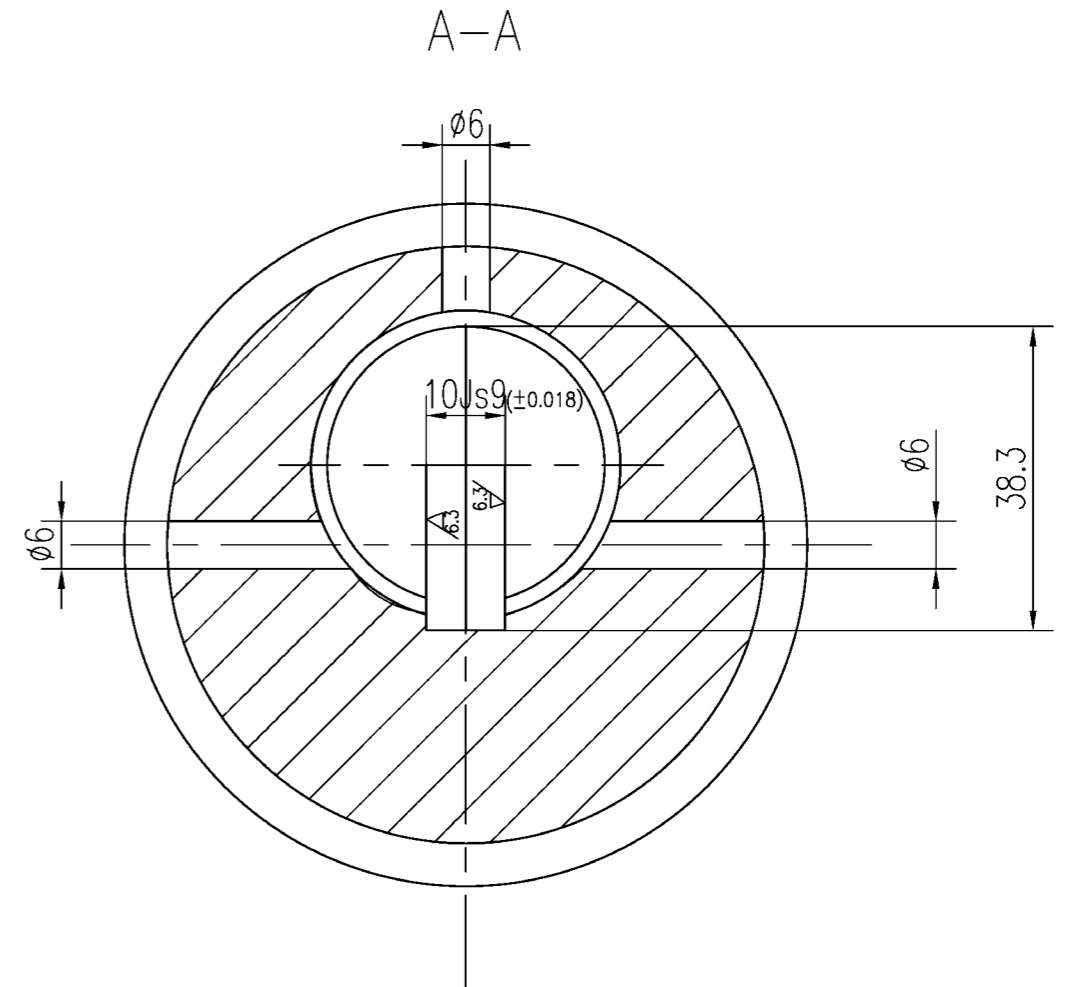
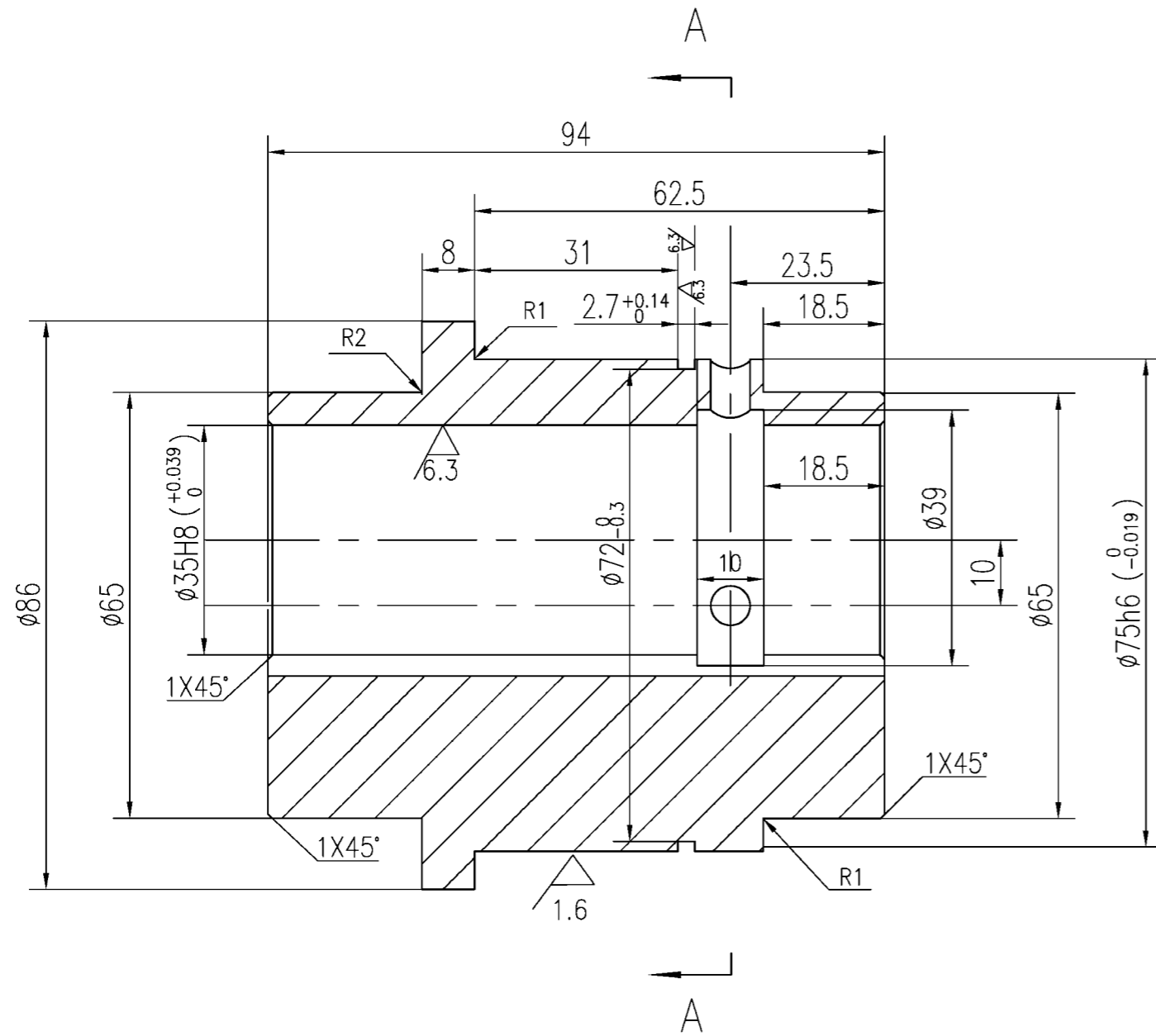
NO.SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total		NOTE
				WEIGHT		
PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE: 1:150		
ITEM NAME: 前大梁保护装置 BOOM PROTECTION DEVICE		DRAW NO: UL253100				
ZPMC	DSGN		TRACE		APP.	
	DRAW		CHCK		WEIGHT/SET	393
	CHCK		VER.		SET/CRANE	1



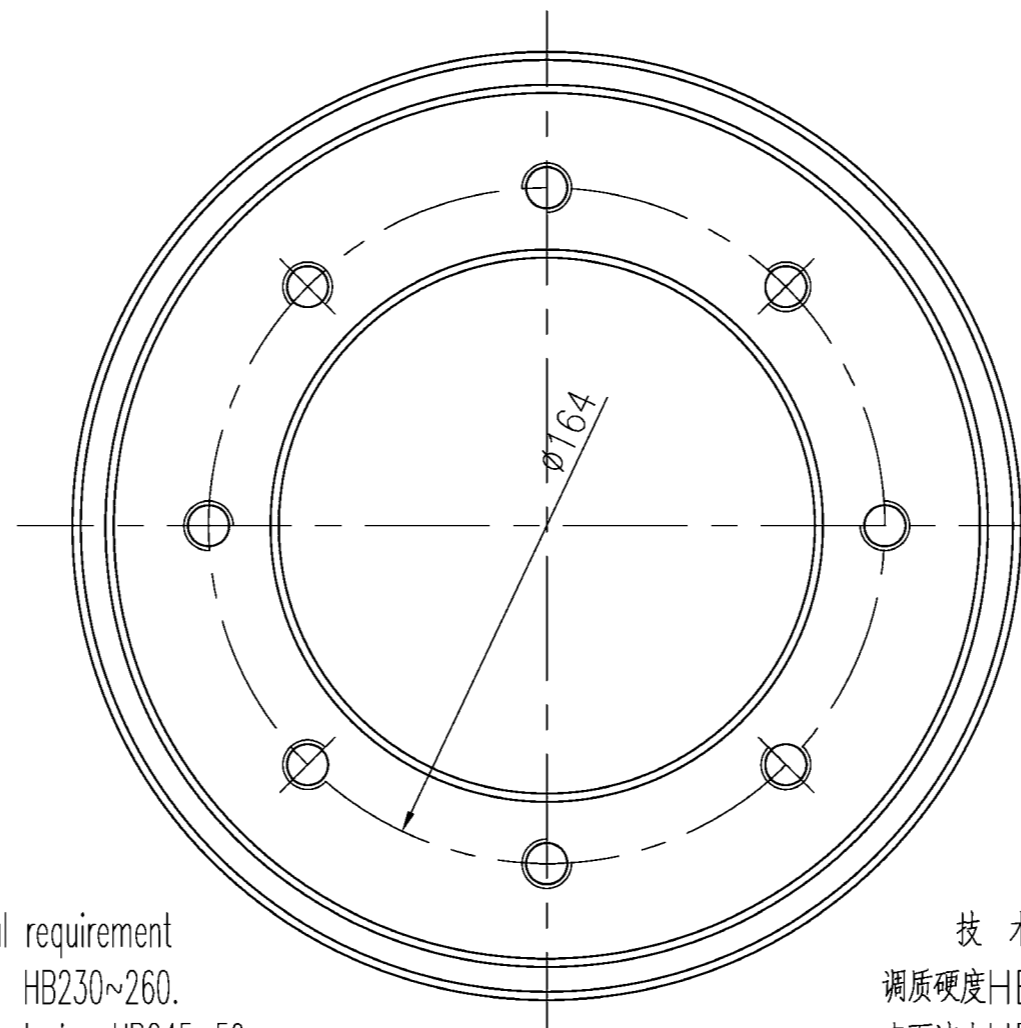
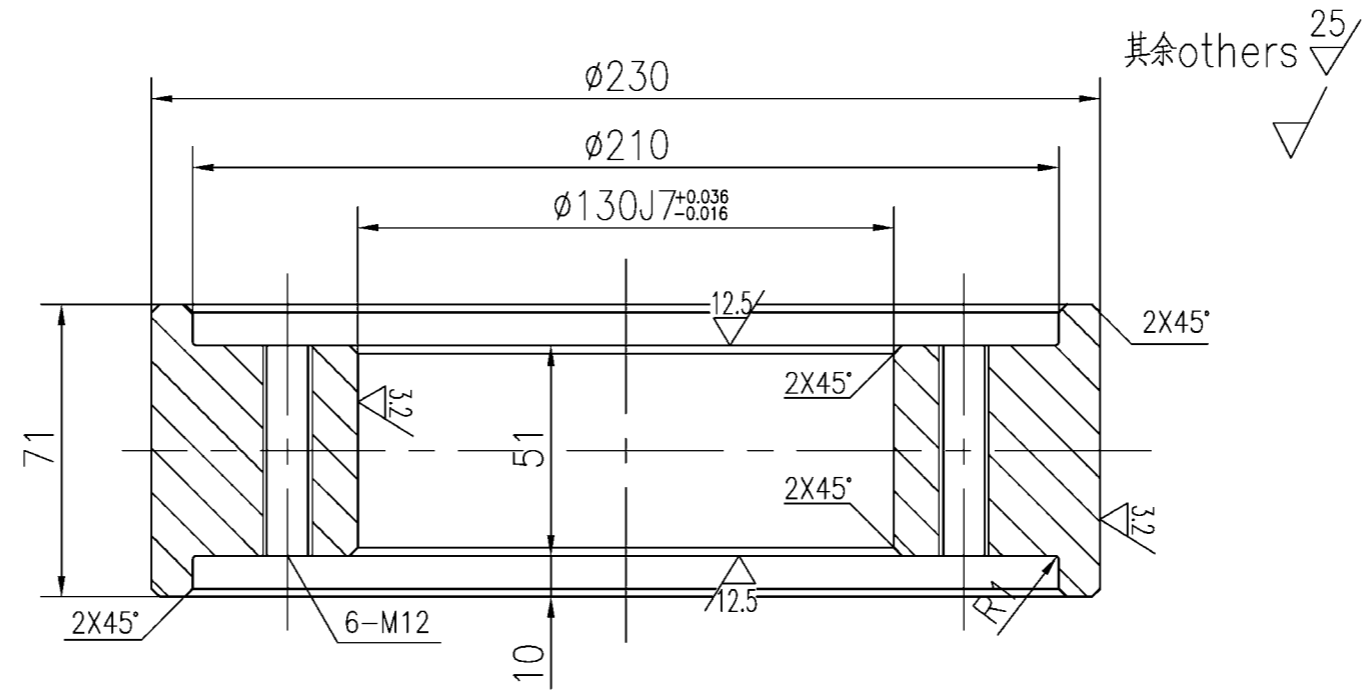
B7	JISB0203	平头油嘴	PT1/4"	1			不锈钢
B6	GB894.1-86	挡圈 75	65Mn	1		0.024	
B5	GB288-87	轴承 Bearing 53515		1		0.75	
B4	GB97.1-85	垫圈 Washer 12		12			不锈钢
B3	GB32.1-88	螺栓 Bolt M12X25	8.8级	12			不锈钢
B2	GB854-88	垫圈 Washer 16		5			达克罗
B1	GB32.1-88	螺栓 Bolt M16X30	8.8级	5			达克罗
11	UL11040711	垫片 Strap	软钢纸版	2	0.01	0.02	
10	UL11040710	平键 Key	45	1		0.05	
9	UL11040709	花键齿轴 Tooth Shaft	45	1		1.65	
8	UL11040708	防转齿块 Anti-rotation Tooth Block	45	1		1.9	
7	UL11040707	垫圈 Washer 1	Q235	1		0.1	
6	UL11040706	毡圈 Felt	羊毛毡	2			
5	UL11040705	轴承盖 Bearing Cover	Q235	2	2.71	5.42	
4	UL11040704	水平轮 Horizontal Wheel	45	1		15.6	
3	UL11040703	偏心衬套 Eccentric Bush	Q235	1		2.28	
2	UL11040702	垫圈 Washer 2	Q235	1		0.11	
1	UL11040701	轴端挡板 Postaxial Baffle	Q235	1		0.104	

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	
PROJECT: 日照2500t/h卸船机			DESIGN STAGE:		SCALE: 1:1		
ITEM NAME: 平衡轮			DRAW NO: UL11040700				
ZPMC	DSGN		TRACE		APP.	焊接件	
	DRAW		CHCK		Q'TY/SET	29	
	CHCK		VER.		SET/CRANE	1	

其余others $\sqrt[12.5]{}$



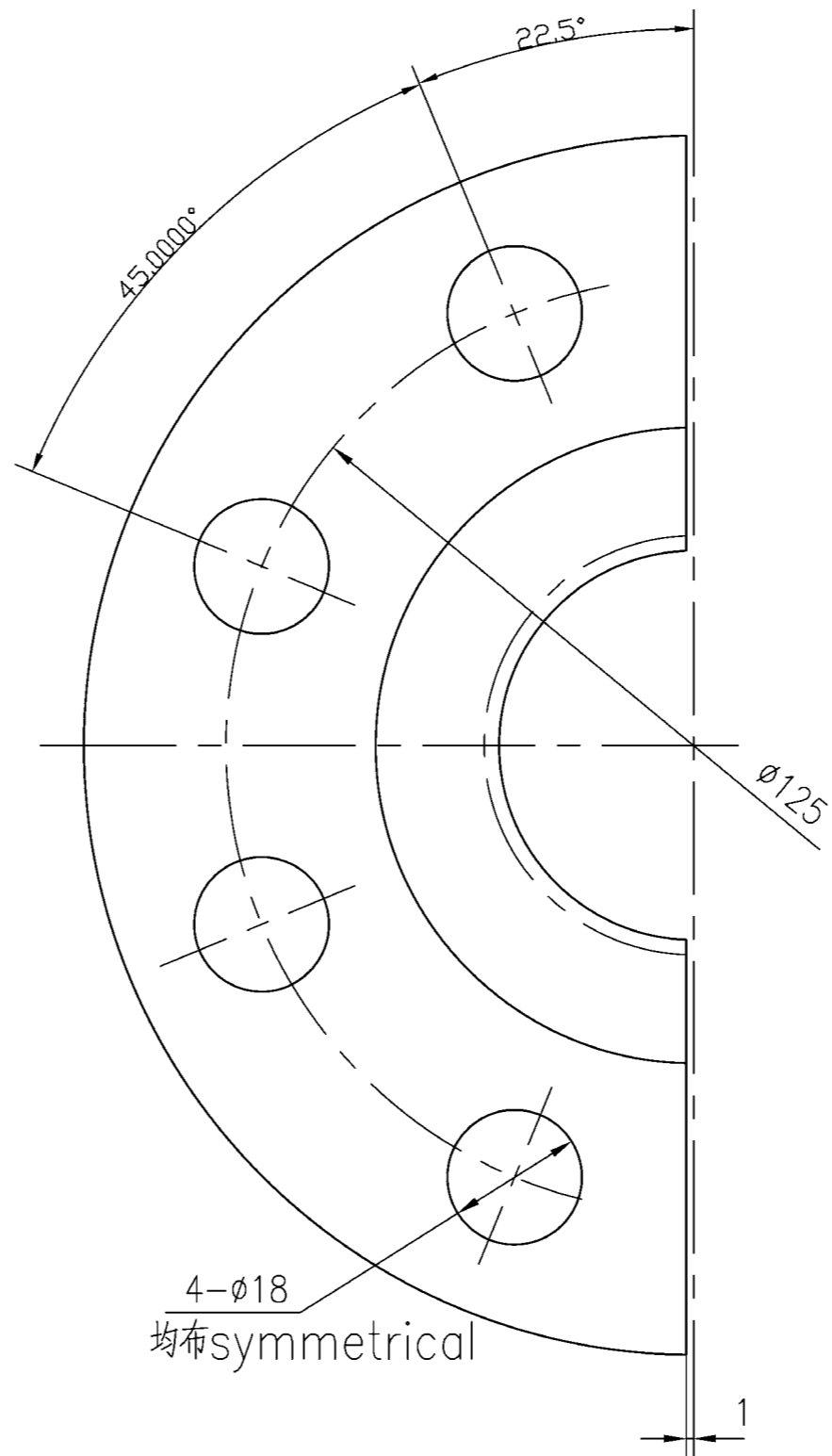
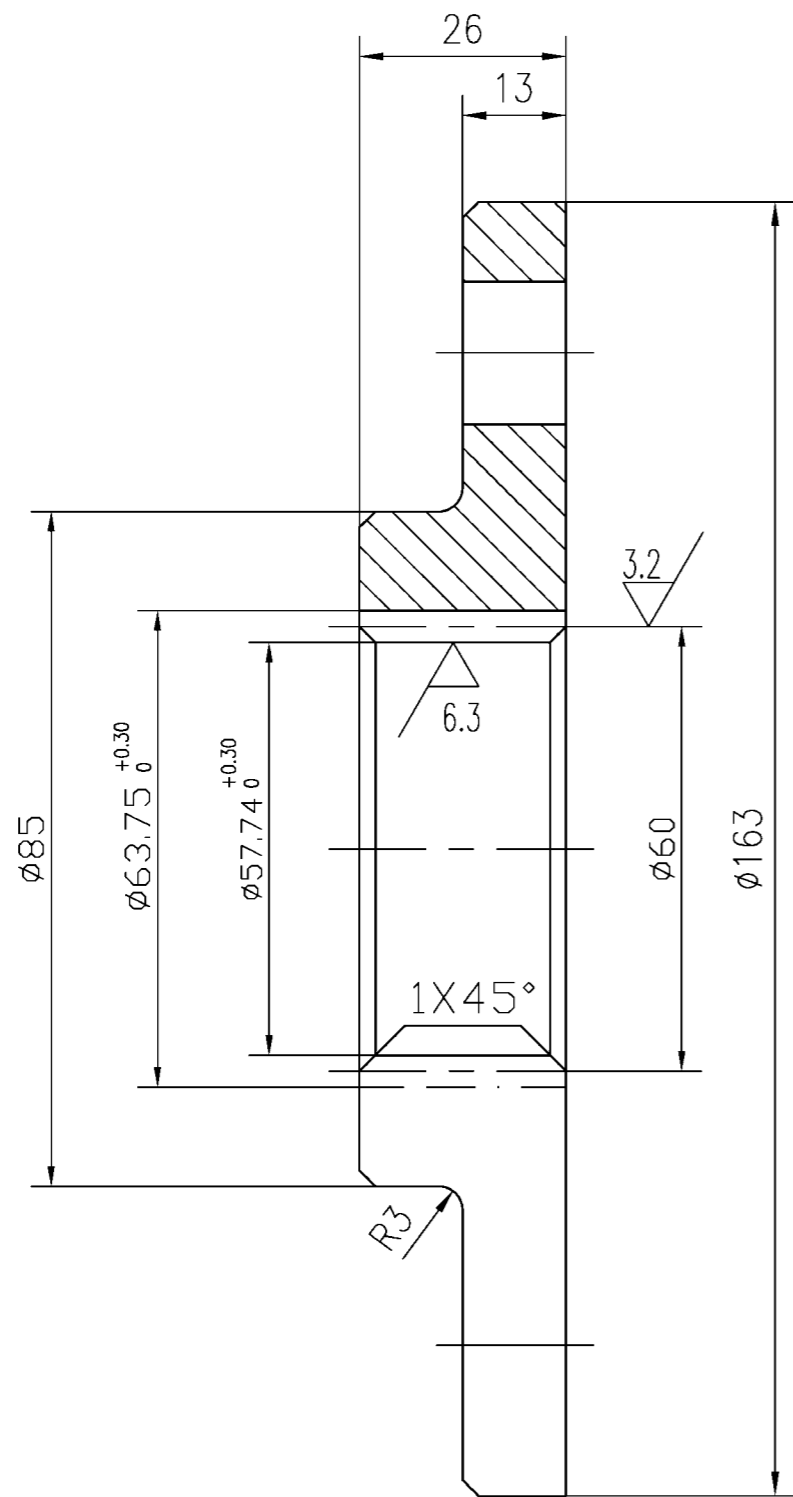
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
7.3	UL11040703	偏心轴套 Eccentric Bush	Q235	1	2.28	1:1
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



technical requirement
tempering HB230~260.
surface hardening HRC45~50.

技术要求
调质硬度HB=230~260.
表面淬火HRC45~50.

零件号	分图号或标准	名称及规格	材料或型号	每套数量	单重	共重	比例
7.4	UL11040704	水平轮 Horizontal Wheel	45	1	15.6kg		1:2
上海 振华港口机械公司		制图		工艺		描图	
		校对		标准		描校	



其余others $\sqrt{12.5}$

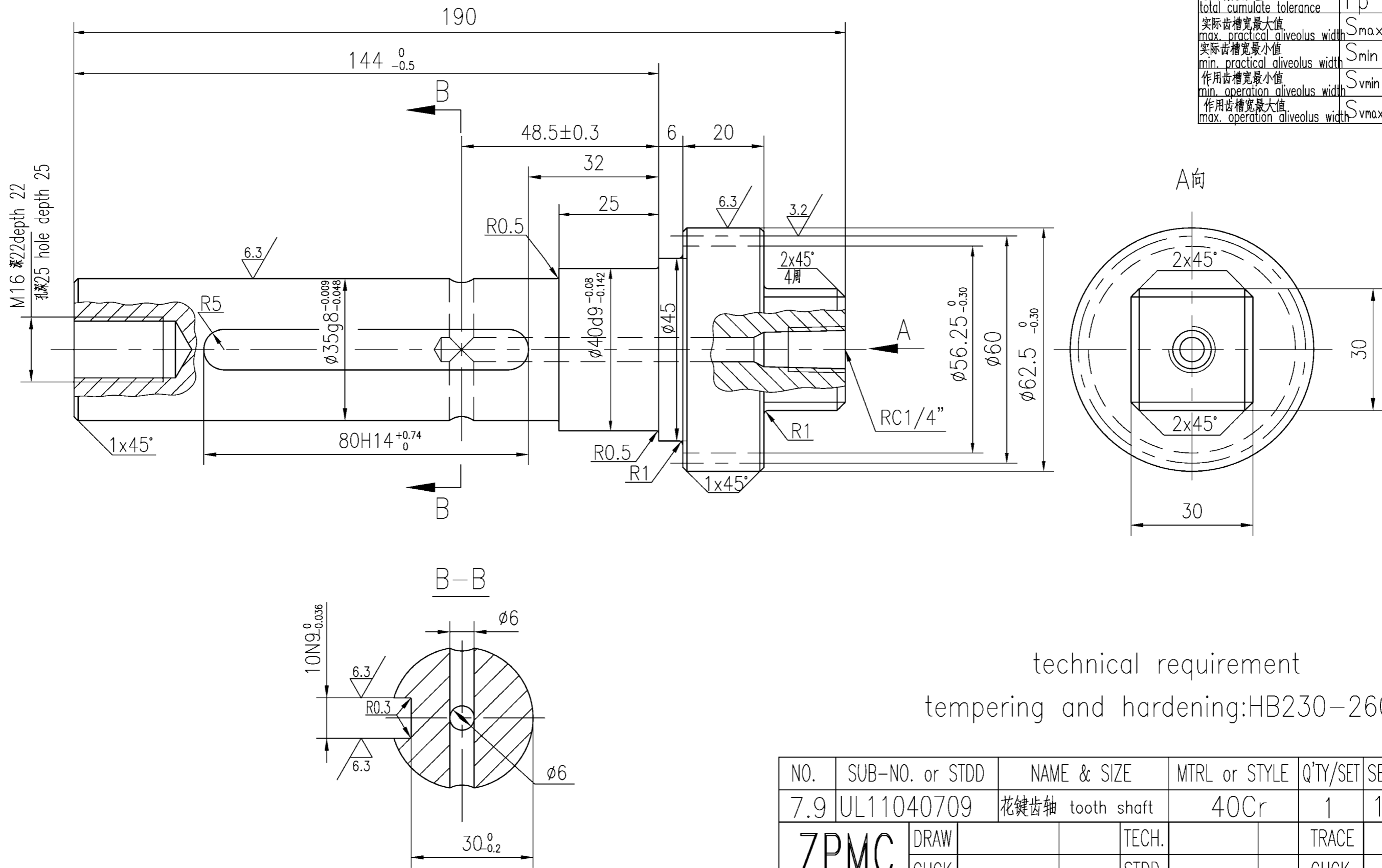
花键特性 spline parameter	
模数 Module	m 2.5
齿数 Number of teeth	z 24
分度圆压力角 Pressure angle	α 30°
精度等级和配合类别 accuracy grade	7H(GB3478.1-83)
检查项目 check items	
综合公差 composite tolerance	λ 0.065
齿形公差 tooth profile tolerance	Ff 0.060
齿向公差 tooth alignment tolerance	F β 0.020
齿距累积误差 total cumulate tolerance	Fp 0.087
实际齿槽宽最大值 max. practical aliveolus width	E _{max} 4.114
实际齿槽宽最小值 min. practical aliveolus width	E _{min} 3.862
作用齿槽宽最小值 min. operation aliveolus width	E _{vmin} 3.927
作用齿槽宽最大值 max. operation aliveolus width	E _{vmax} 4.049

technical requirement
 1.tempering and hardening the surface of tooth HRC32-40
 2.no noted chamfer 2x45°

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
7.8	UL11040708	防转齿块 Anti-rotation Tooth Block	45	1	1.9kg	1:1
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

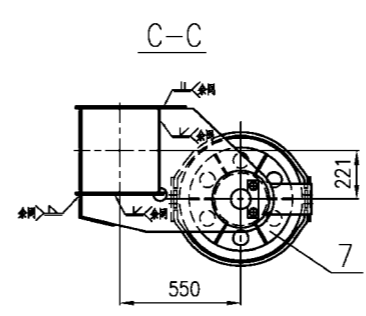
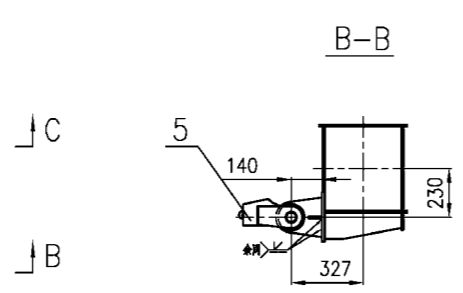
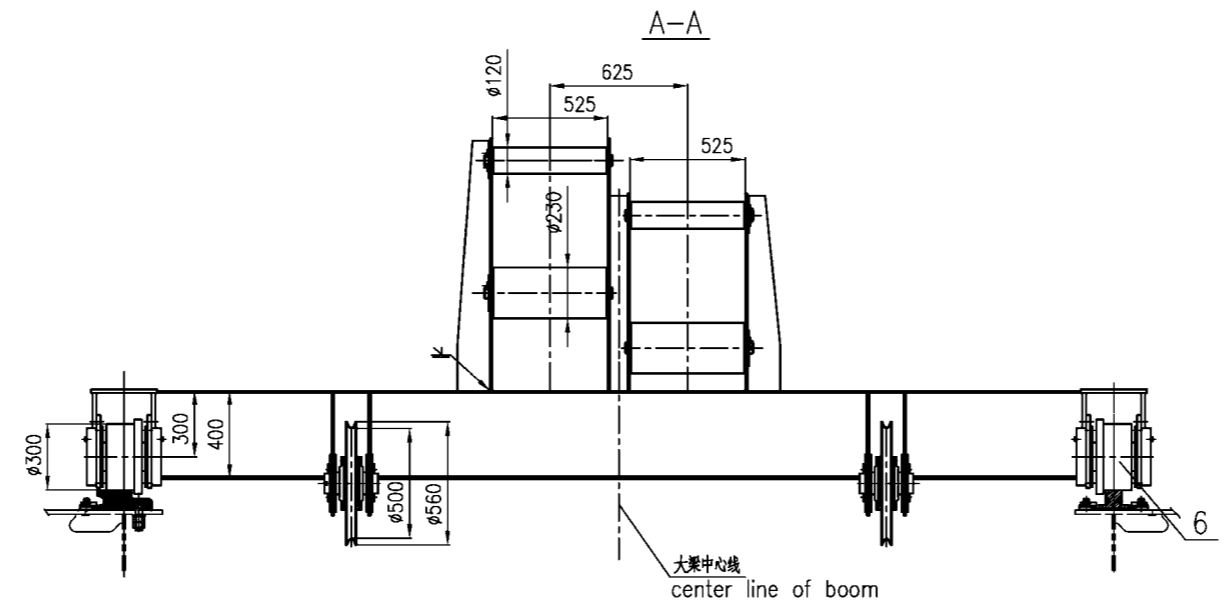
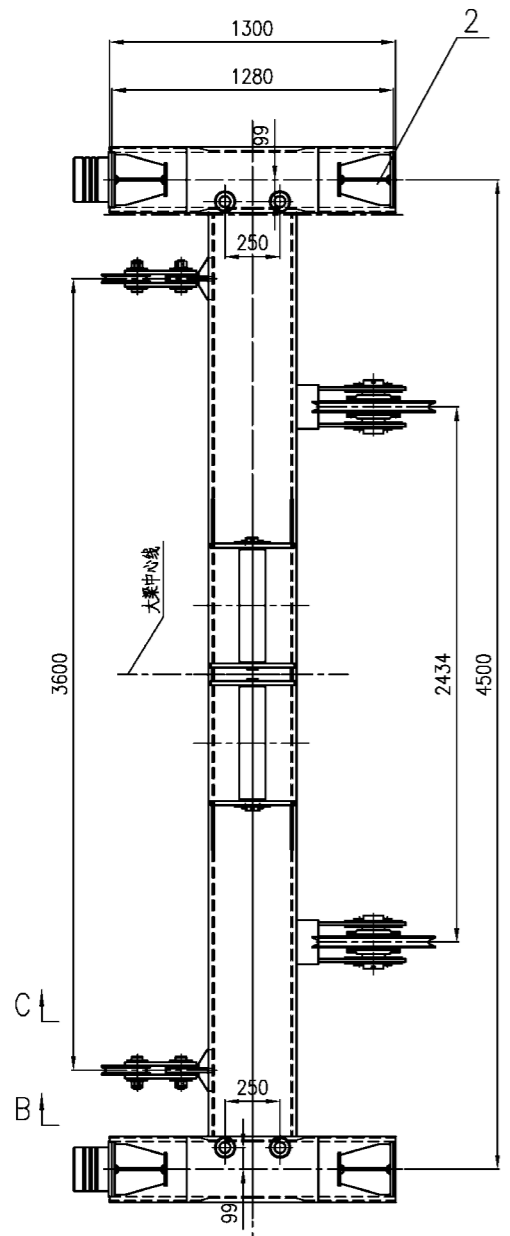
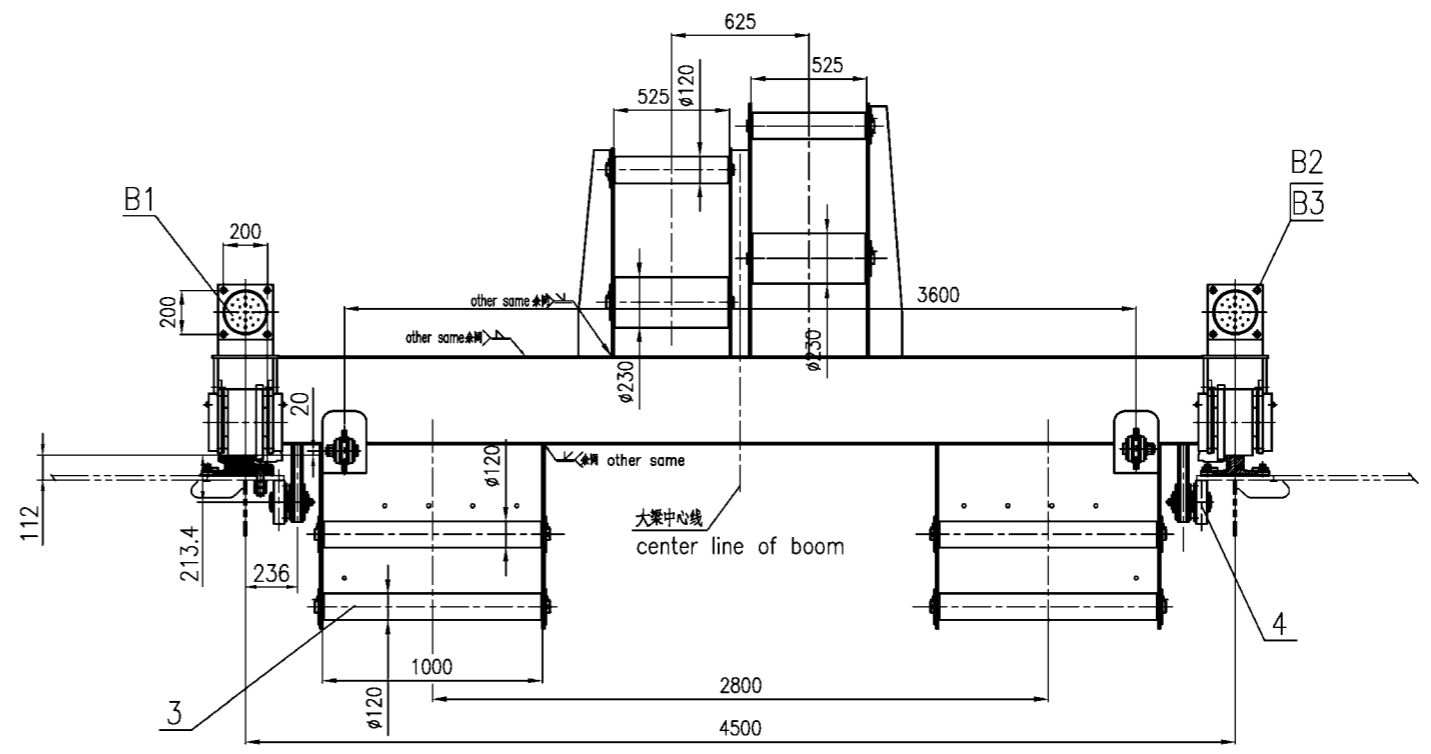
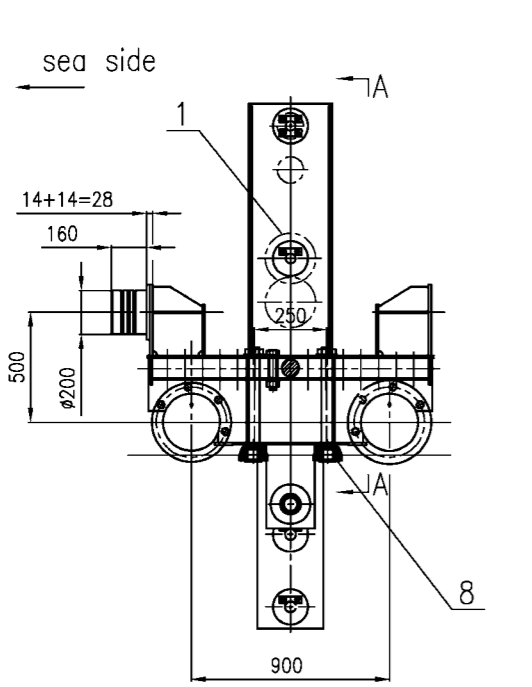
其余 $\nabla_{12.5}$

模数 Module	m	2.5
齿数 Number of teeth	z	24
分度圆压力角 Pressure angle	α	30°
精度等级和配合类别 accuracy grade	7h(GB3478.1-83)	
检查项目 check items		
综合公差 composite tolerance	λ	0.064
齿形公差 tooth profile tolerance	Ff	0.060
齿向公差 tooth alignment tolerance	F β	0.019
齿距累积公差 total cumulate tolerance	Fp	0.087
实际齿槽宽最大值 max. practical alveolus width	S _{max}	3.863
实际齿槽宽最小值 min. practical alveolus width	S _{min}	3.740
作用齿槽宽最小值 min. operation alveolus width	S _{vmin}	3.804
作用齿槽宽最大值 max. operation alveolus width	S _{vmax}	3.927



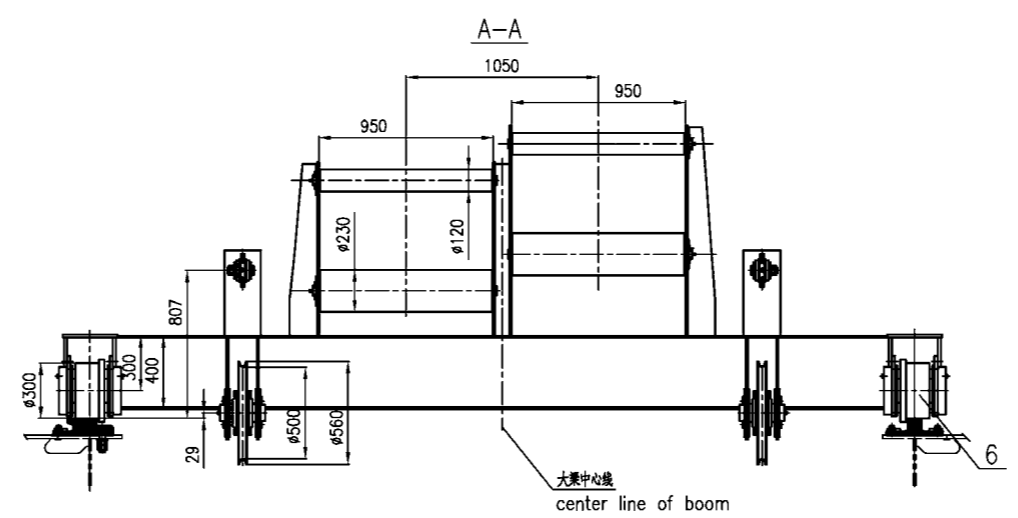
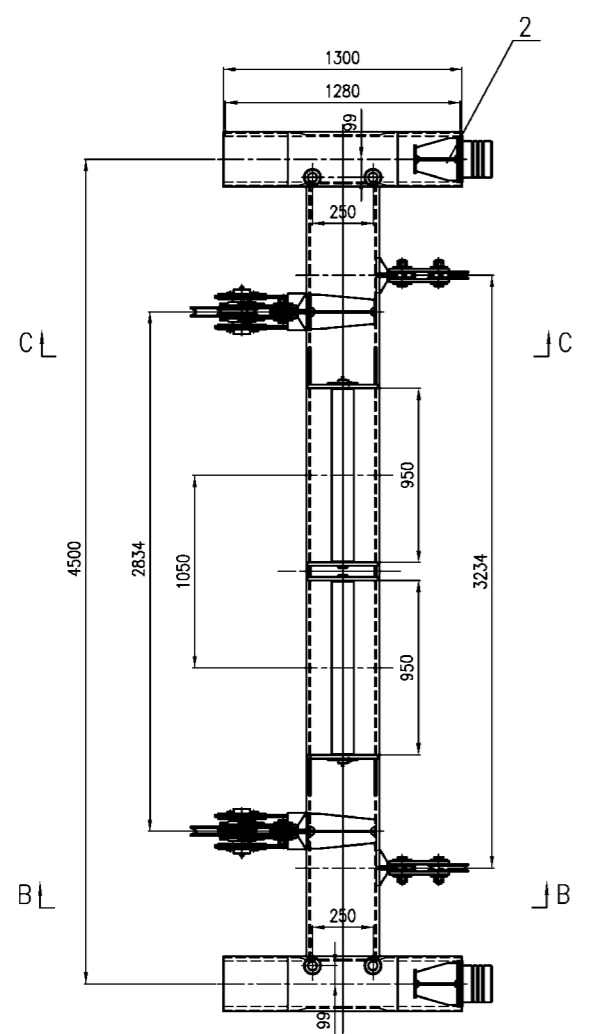
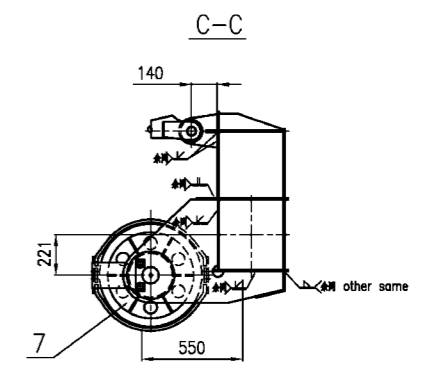
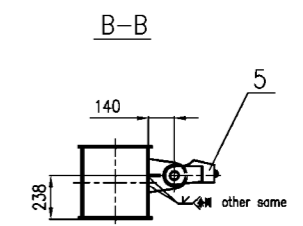
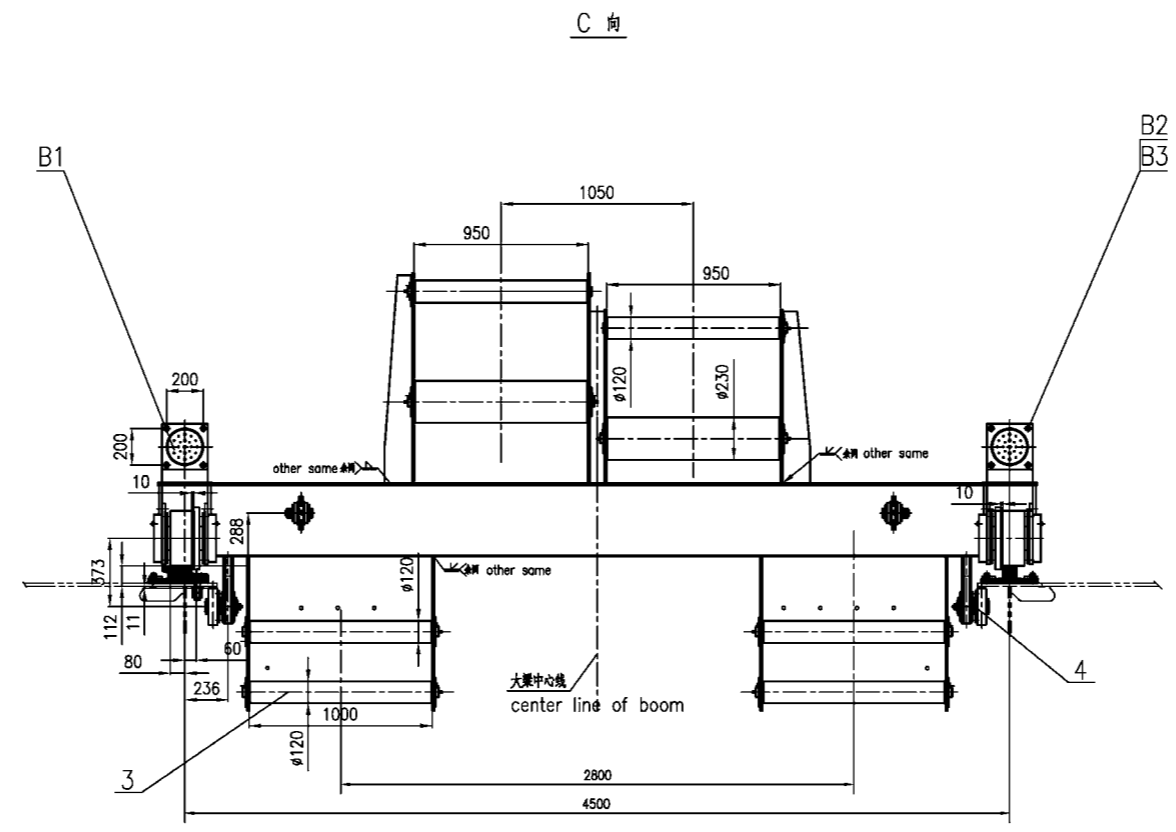
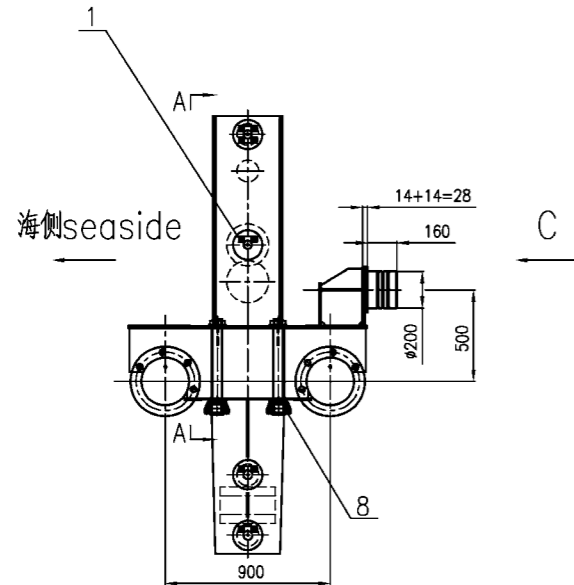
technical requirement
tempering and hardening: HB230-260

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
7.9	UL11040709	花键齿轴 tooth shaft	40Cr	1	1.65kg	1:1
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



B3	GB889-86	nutM16	Q235C	8		
B2	GB5781-86	boltM16X50	Q235C	8		
B1	JHQ-C-13	buffer	turnoff	2	9.8	19.6
10						
9						
8	UL2513010800A	asst. trolley level wheel set	组合件	4	14	56
7	UL2513010700	pulley group	组合件	2	125.6	251.2
6	UL2513010600	wheel group	组合件	4	167.5	670
5	UL2513010500	steel wire tie-in	组合件	2	13.5	27
4	UL2513010400	below idler wheel group	组合件	2	17.3	34.6
3	UL2513010300	asst. trolley steel wire roller group	组合件	2	170.2	340.4
2	UL25130102	frame	焊接件	1	921.5	921.5
1	UL2513010100	main steel wire roller group	组合件	1	399	399

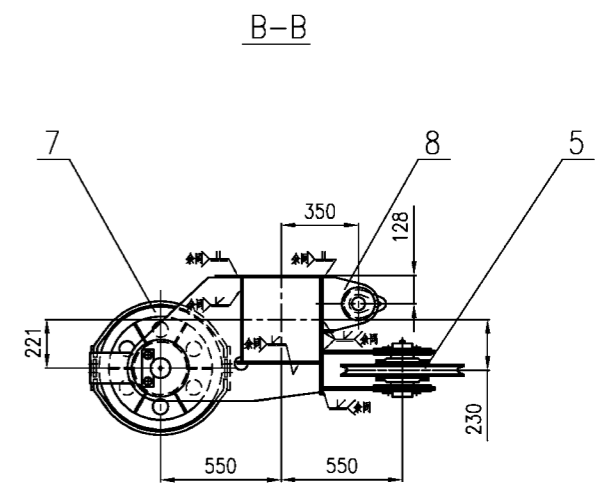
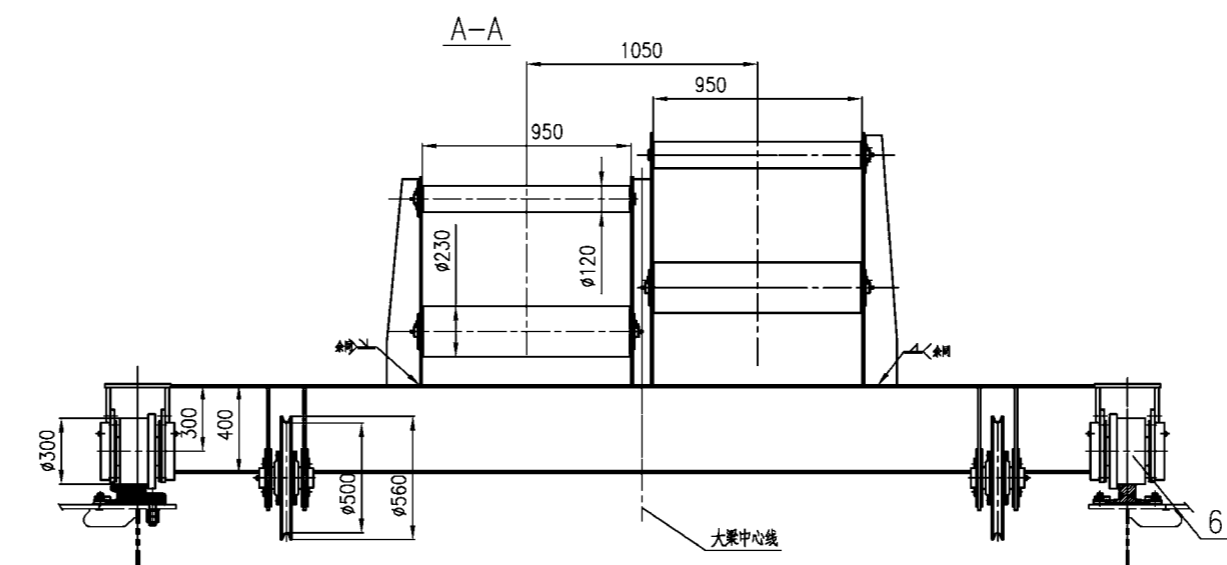
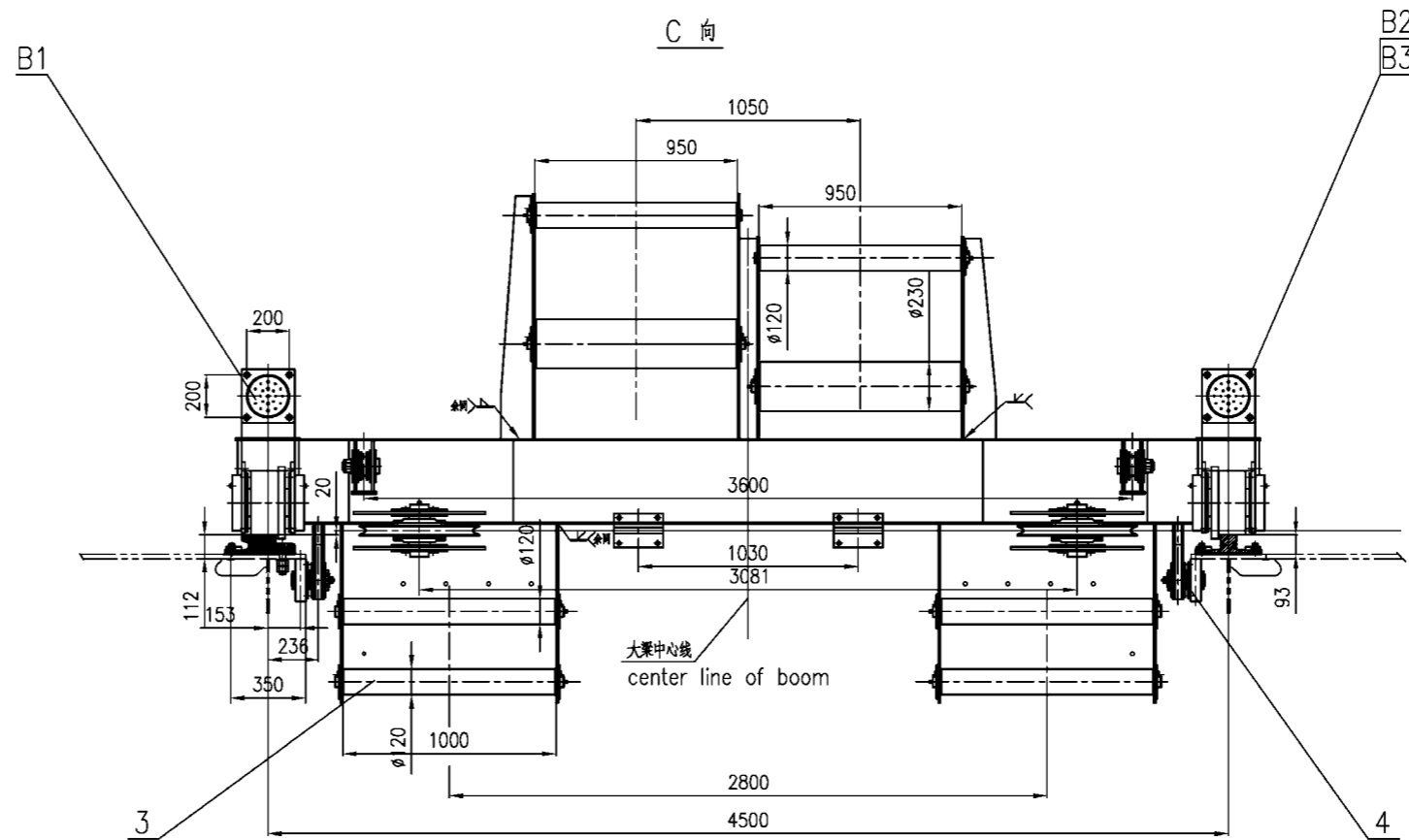
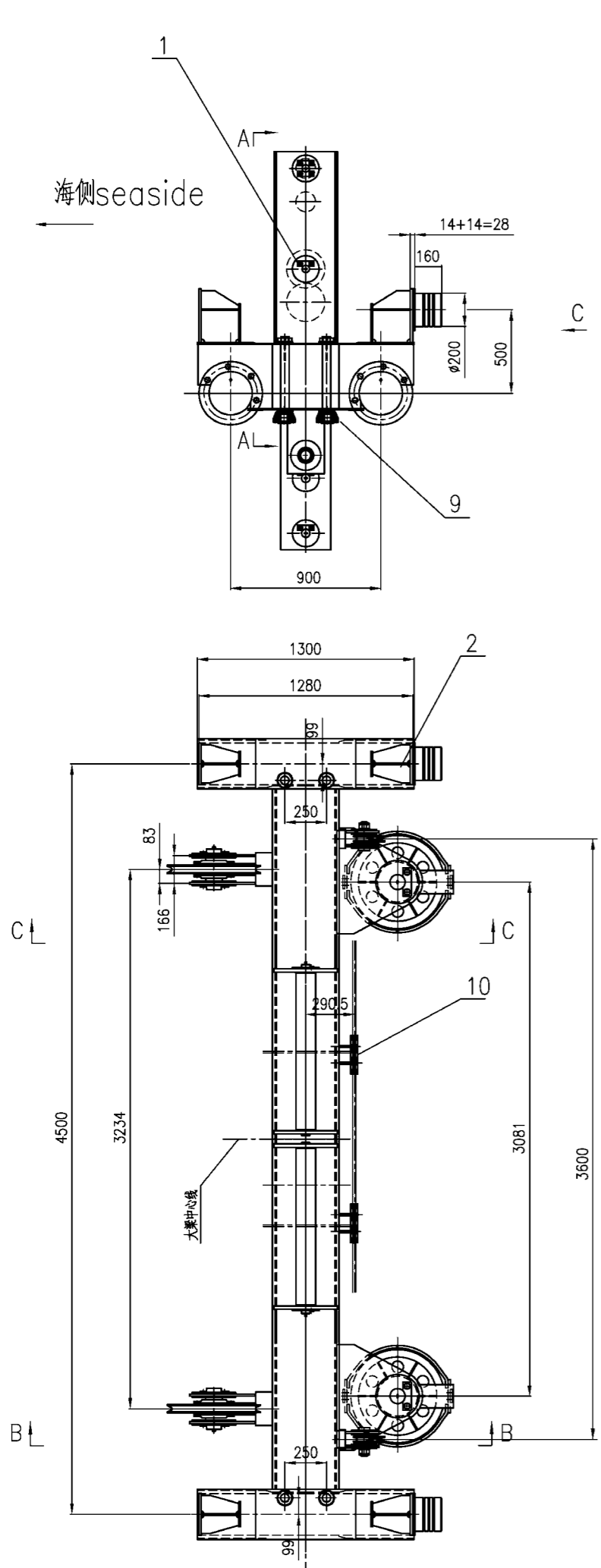
NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	WEIGHT		NOTE
					each	total	
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:25		
ITEM NAME: front asst. trolley II			DRAW NO: UL25130100		PROJ.		
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	2719kg	
	CHCK		VER.		SET/CRANE	1	



8	UL2513010800A	asst. trolley level wheel set	assembly	4	14	56	borrow part
7	UL2513030700	pulley group	assembly	2	125.6	251.2	
6	UL2513030600	wheel group	assembly	4	167.5	670	
5	UL2513030500	steel cable terminal	assembly	4	13.5	27	
4	UL2513030400	below idler wheel group	assembly	2	17.3	34.6	
3	UL2513030300	asst. trolley steel wire roller group	assembly	2	170.2	340.4	
2	UL25130302	frame	welding	1	931.6	931.6	
1	UL2513030100	main steel wire roller group	assembly	1	420.6	420.6	

PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE: 1:25	
ITEM NAME: back asst. trolley I			DRAW NO: UL25130300		PROJ.
ZPMC	DSGN		TRACE		APP.
	DRAW		CHCK		Q'TY/SET 2770kg
	CHCK		VER.		SET/CRANE 1

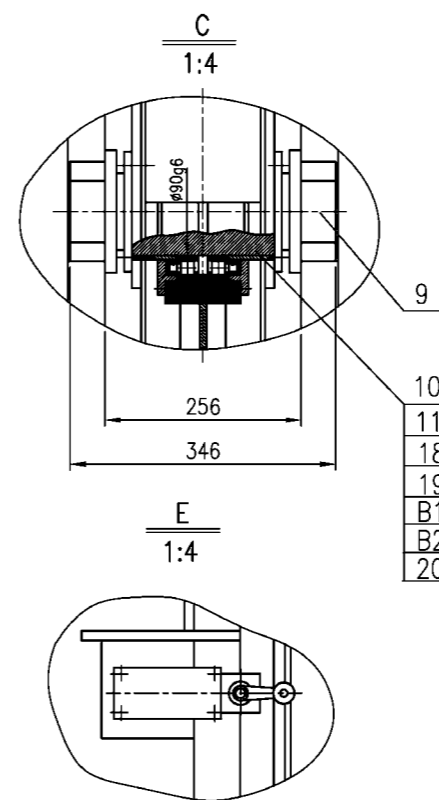
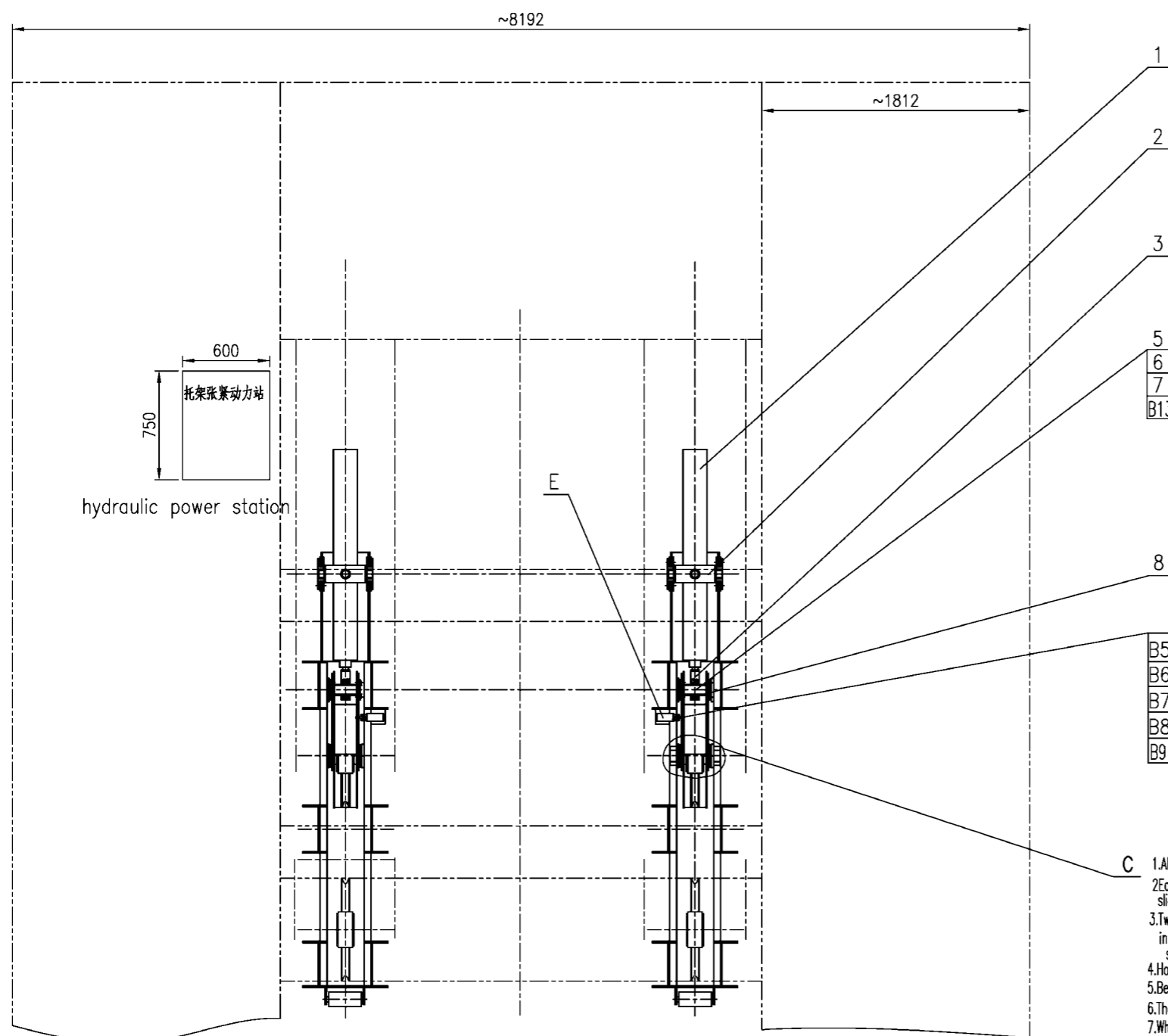
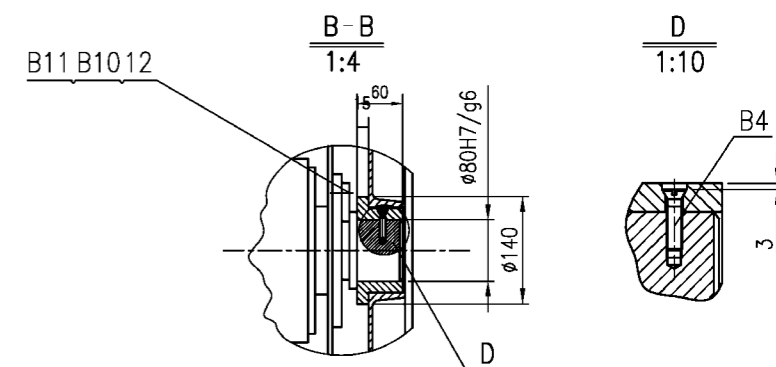
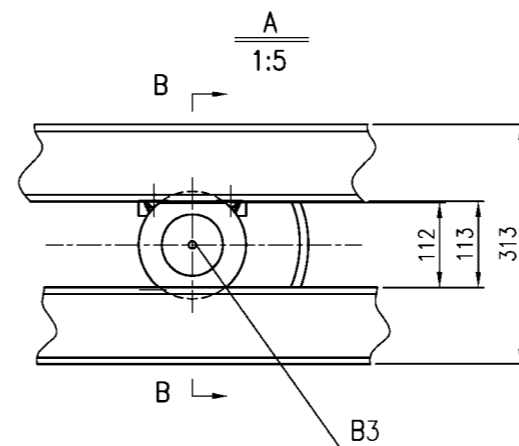
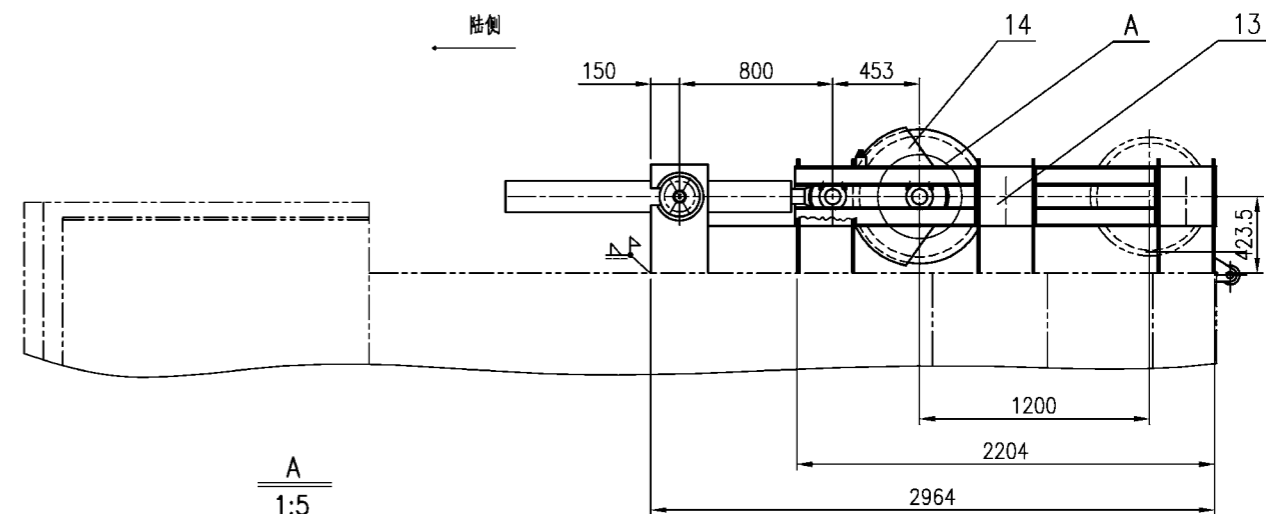
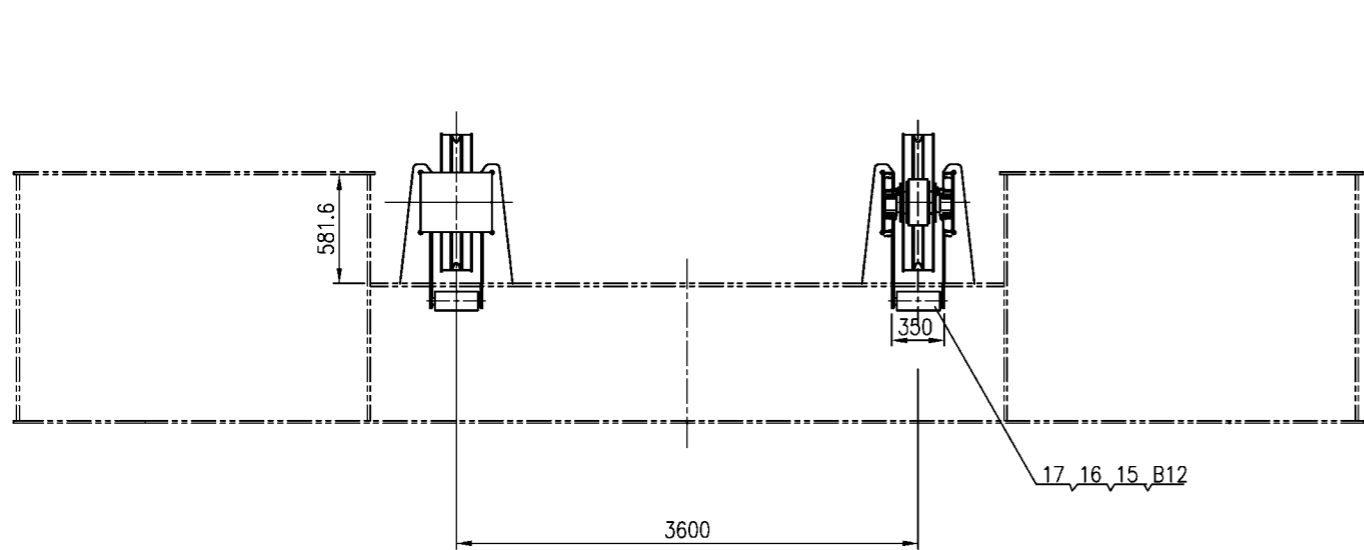
B4						
B3	GB889-86	nut16	Q235C	8		
B2	GB5781-86	boltM16X50	Q235C	8		
B1	JHQ-C-13	buffer	turnoff	2	9.8	39.2
10						
9						



NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	WEIGHT		NOTE
					each	total	
8	UL2513040800	safety cover	assembly	2	14.9	29.8	
7	UL2513040700	pulley group	assembly	2	123.1	246.2	
6	UL2513040600	wheel group	assembly	4	167.5	670	
5	UL2513040500	steel cable terminal	assembly	2	115.6	231.2	
4	UL2513040400	below idler wheel group	assembly	2	17.3	34.6	
3	UL2513040300	asst. trolley steel wire roller group	assembly	2	170.2	340.4	
2	UL25130402	frame	welding	1	997.4	997.4	
1	UL2513040100	main steel wire roller group	assembly	1	420.6	420.6	

PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE: 1:25	
ITEM NAME: back asst. trolley II			DRAW NO: UL25130400		PROJ.
ZPMC		DSGN	TRACE	APP.	
		DRAW	CHCK	Q'TY/SET	3046Kg
		CHCK	VER.	SET/CRANE	1

B3	GB889-86	nut16	Q235C	8			
B2	GB5781-86	boltM16X50	Q235C	8			
B1	JHQ-C-13	beffer	turnoff	2	9.8	19.6	
10	UL2513040900	固定板 clamp plate	assembly	2	17.4	35	
9	UL2513010800A	asst. trolley level wheel set	assembly	4	14	56	borrow part



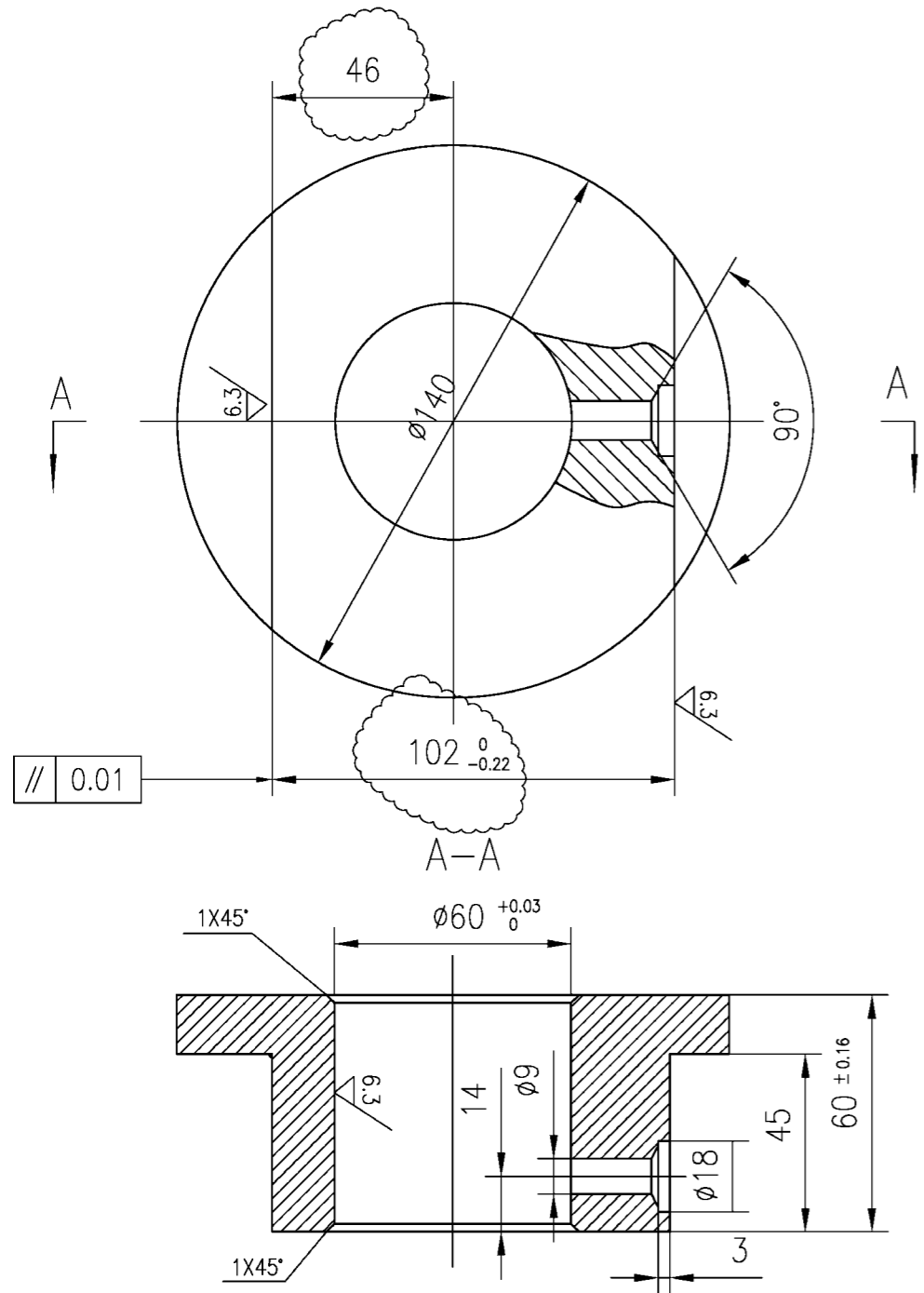
Technology Requirement

1. All bolts after are screwed tight should pair put on the iron wire to guard against the pine
2. Each set of equipments must complete in the workshop install the debugging, The supporting slide should the movement not have the card anti-phenomenon freely in the guide rail,
3. Two sets of equipments should strictly weld after the graphical representation size localization in the bridge hang in the structure, The welded joint does not have to undercut, Welds finishes should eliminate welds the dregs to spread guards against rus the paint
4. Holds the roller to be possible in the scene installment, But must guarantee installs the size to be correct
5. Before the test run should spread the lubricant on the guide rail
6. The pulley surface quenches HB>321
7. When the bearing assemblies, Side the inner loop does not have keeps off one lateral in
8. UL25130502 The connecting rod adapter assembly provides by the hydraulic pressure
9. Limit switch in scene debugging installment According to needs the coca to keep off the block

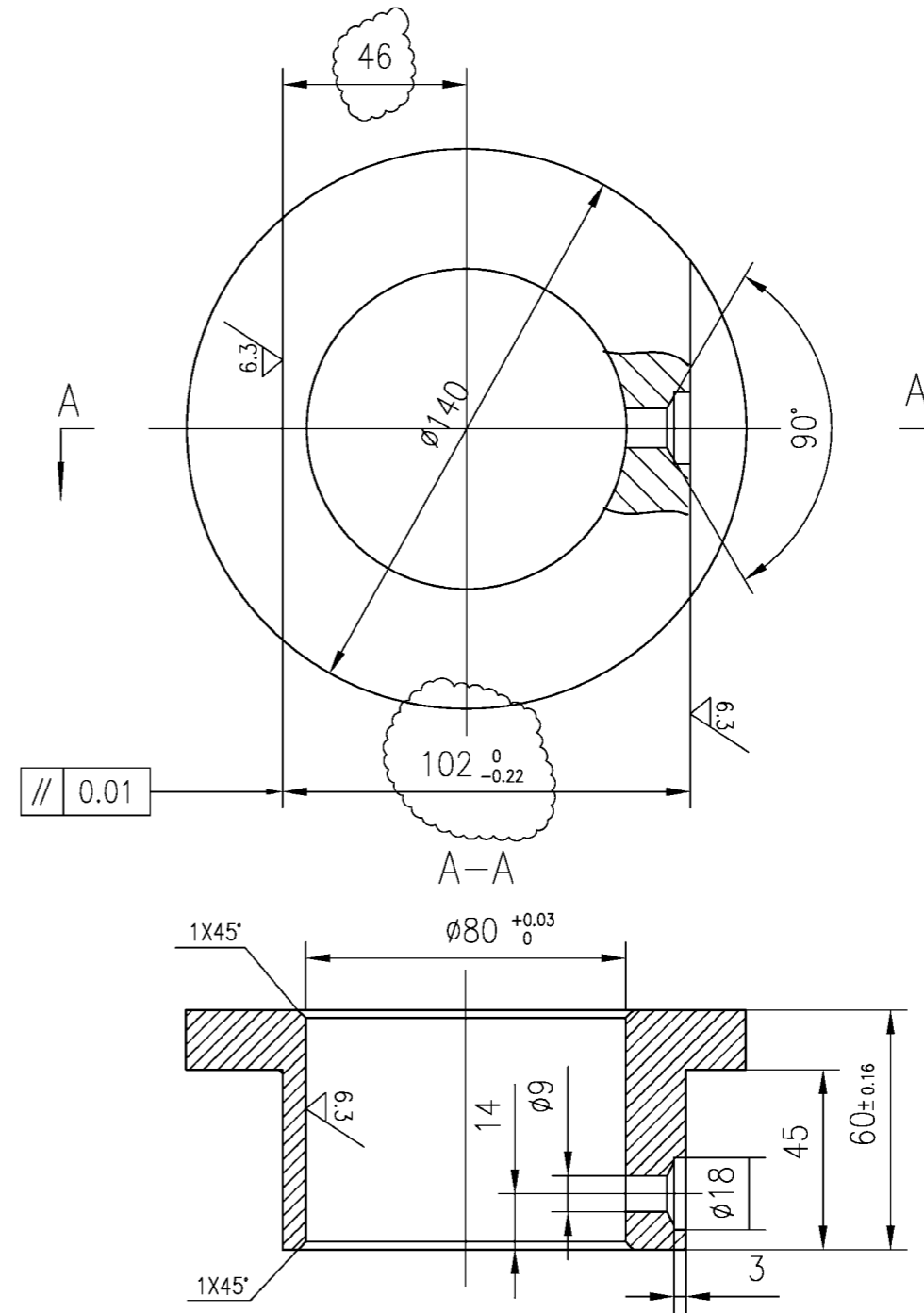
B13	GB68-85	bolt M6x35	stainless steel	4	0.006	0.024	
B12	GB31-76	bolt M10x15	stainless steel	8	0.007	0.056	
B11	GB862.1-87	washer 10	stainless steel	8	0.001	0.008	
B10	GB31-76	bolt M10x25	stainless steel	8	0.01	0.08	
B9	GB6170-86	nut M5	stainless steel	8	0.001	0.008	
B8	GB862.1-87	washer 5	stainless steel	8	0.0002	0.0016	
B7	GB95-85	washer 5	stainless steel	8	0.0003	0.0024	
B6	GB65-85	bolt M5x55	stainless steel	8	0.005	0.04	
B5		Can Locating Installation	24VDC-12	2	0.3	0.6	import
B4	GB68-85	bolt M6x25	stainless steel	4	0.005	0.02	
B3	JIS B0203	nozzle PT1/4"		4	0.1	0.4	
B2	GB283-87	bearing 42218E	60x22x2	4	2.1	8.4	
B1	HG4-692-67	oil close 110X140X14	assembly	4	0.1	0.4	
20	UL25130518	ring		45	2		
19	UL25130517	pulley	35CrMo	2	58	116	
18	UL25130516	cover	Q235	4	4.7	18.8	
17	UL25130515	baffle 3	Q235	4	0.2	0.8	
16	UL25130514	roller pedestal	Q235	4	9	36	
15	UL25130513	roller group	assembly	2	29.5	59	
14	UL25130512	pulley cover	welding	2	82.3	164.6	
13	UL25130511	pedestal	welding	2	500	1000	
12	UL25130510	baffle 2	Q235	4	0.3	1.2	
11	UL25130509	separate cover 2	Q235	4	0.6	2.4	
10	UL25130508	poppthead	45	2	18.5	37	
9	UL25130507	slide block 2	QT50-5	4	5.2	20.8	
8	UL25130506	slide block 1	QT50-5	4	5.3	21.2	
7		steel wire Ø2mm		~3m		0.07	
6	UL25130505	baffle 1	Q235	4	0.17	0.68	
5	UL25130504	pin	45	2	7.6	15.2	
4							
3	UL25130502	separate cover 1	Q235	4	0.5	2	
2	UL25130501	dual rean	assembly	2	82	164	
1	UL1300-HY03-03	hydraumatic	assembly	2	94	188	borrow part

NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	each	total	NOTE
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:20		
ITEM NAME: hydraumatic sys.			DRAW NO: UL25130500		PROJ.		
ZPMC	DSGN	TRACE	APP.	QTY/SET	1822		
	DRAW	CHK		SET/CRANE	1		
	CHK	VER.					

others 12.5/

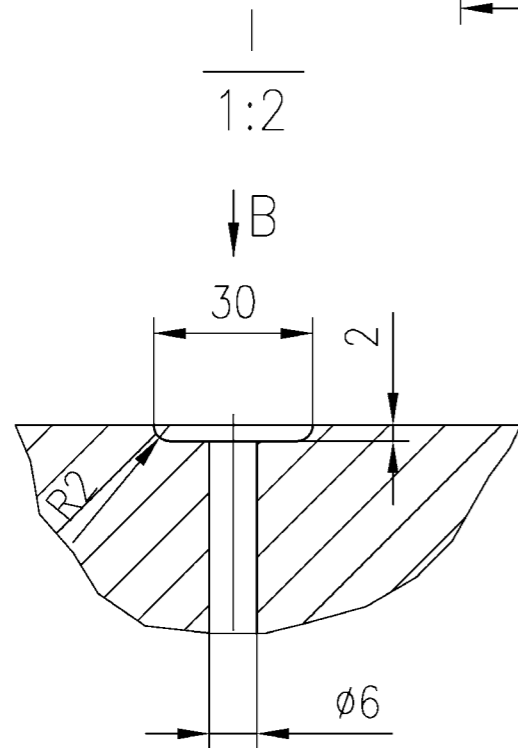
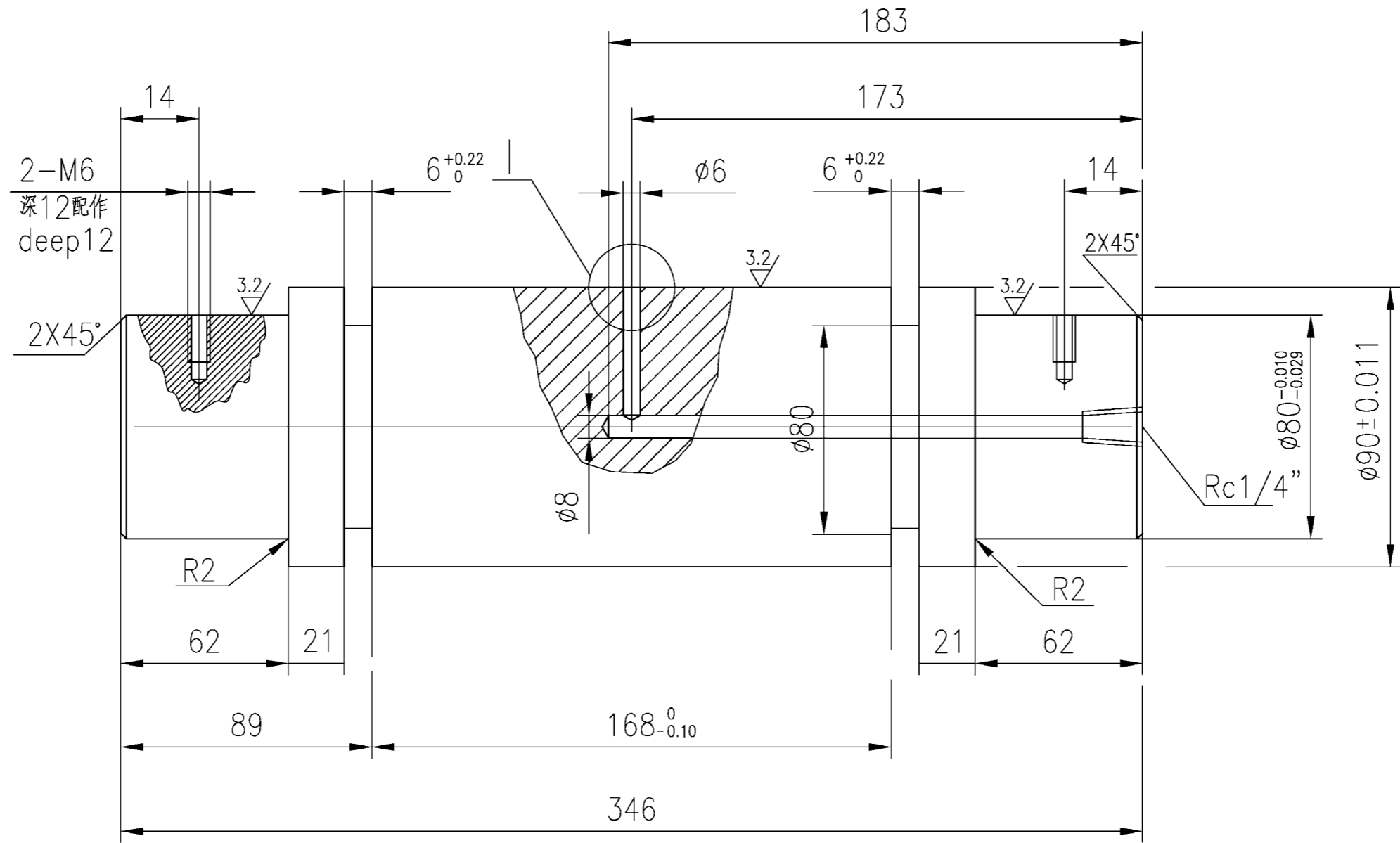


others 12.5/

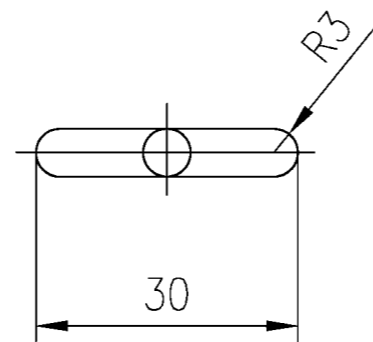


NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL25130506	slide block I	35CrMo/QT50-5/Q235	5.2Kg	4/piece	1:1
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL25130507	slide block II	35CrMo/QT50-5/Q235	5.2Kg	4/piece	1:1
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



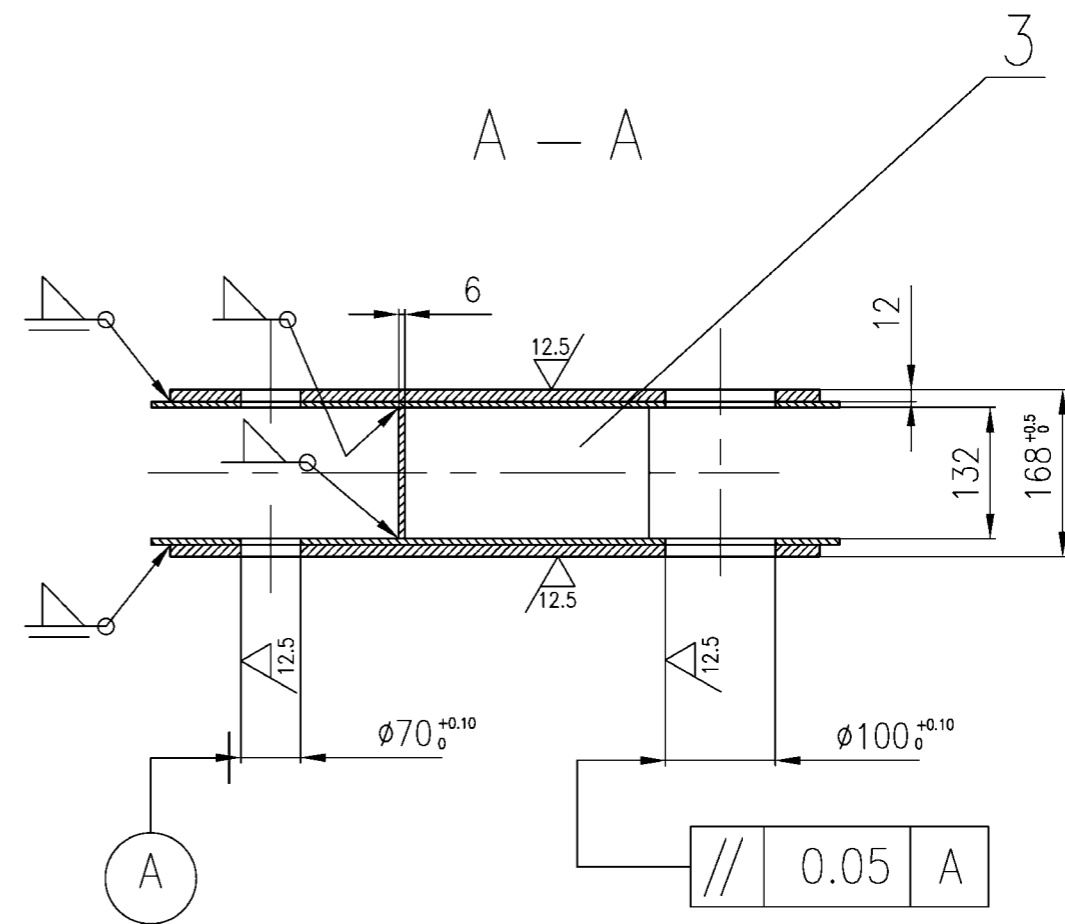
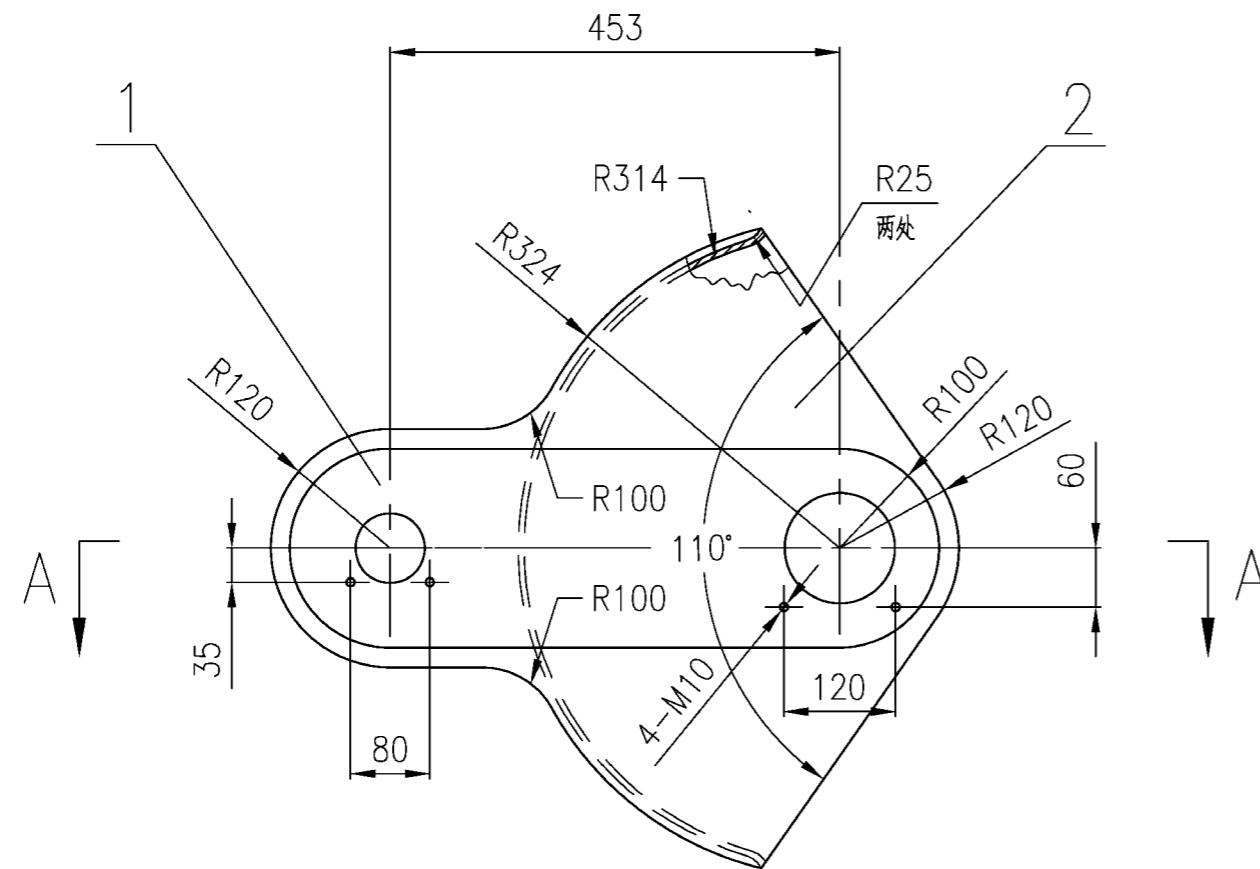
B 向



Technology Requirement

1. Adjusting Quality HB220~250
2. The acute angle is but actually obtuse

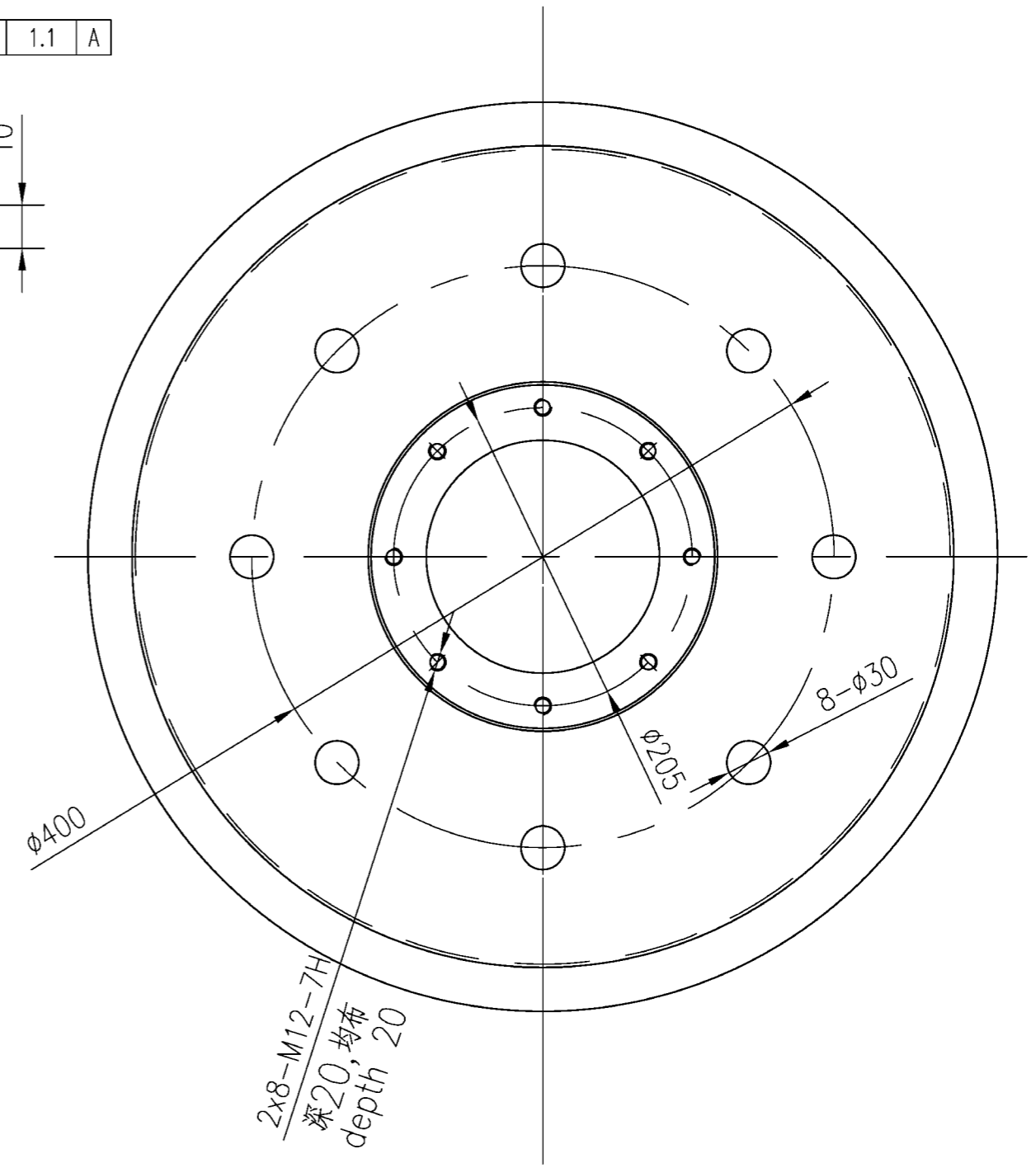
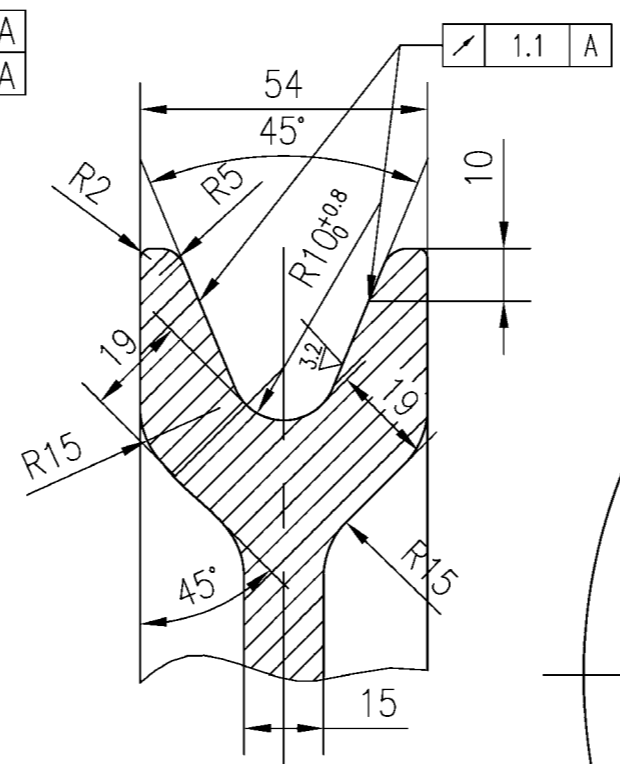
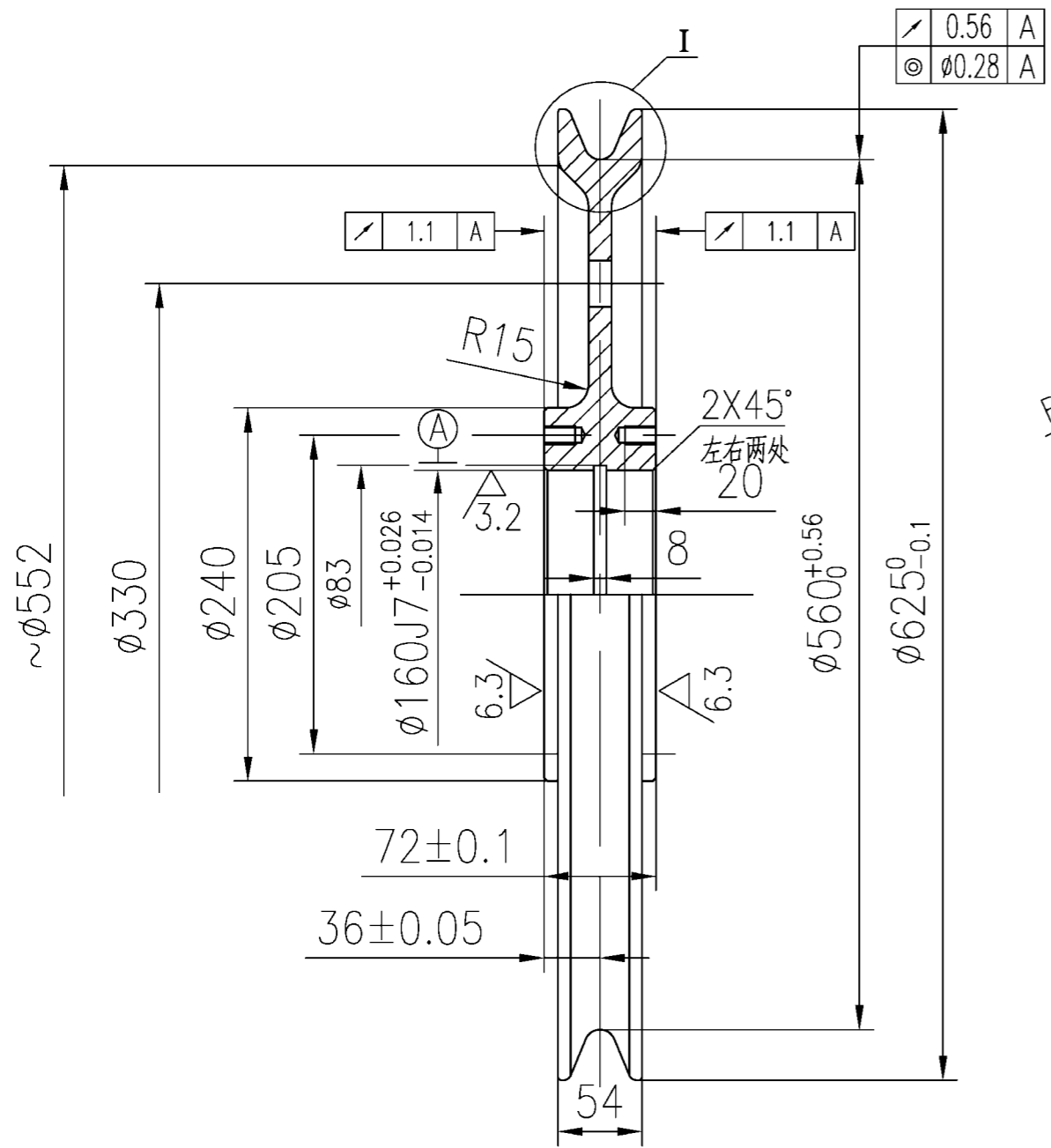
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL25130508	poppethead	45	17.4	2	1:1
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



Technology Requirement

- 1..The type of welding stick adopted is E5015
- 2.The welded joint must not have the under cut, Entrapped slag After the welding should rub off the burr and splash the thing, And according to factory sign JQ/GD03.01~03.02-88 carries on the approval
- 3.Has not poured the welded joint to execute according to the similar welded joint welds, Has not poured the welded joint slope high according to be connected the welded joint slope high according to be connected the thin steel plate to be thick
- 4.The baffle threaded hole two sides both should drill
- 5.This work piece should do spurts the pill to eliminate rust processing Then spreads the construction protective paint, Treats welds to the hoist crane on executes the painting working procedure again

3		-6X132X610	Q235	1	3.8	3.8	
2		-6X531X693	Q235	2	20	40	
1		-12X200X653	Q235	2	12	24	
NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	WEIGHT		NOTE
					each	total	
PROJECT:			DESIGN STAGE:	SCALE:	1:8		
ITEM NAME: pulley cover			DRAW NO: UL25130512		PROJ. 		
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	67.8Kg	
	CHCK		VER.		SET/CRANE	2	



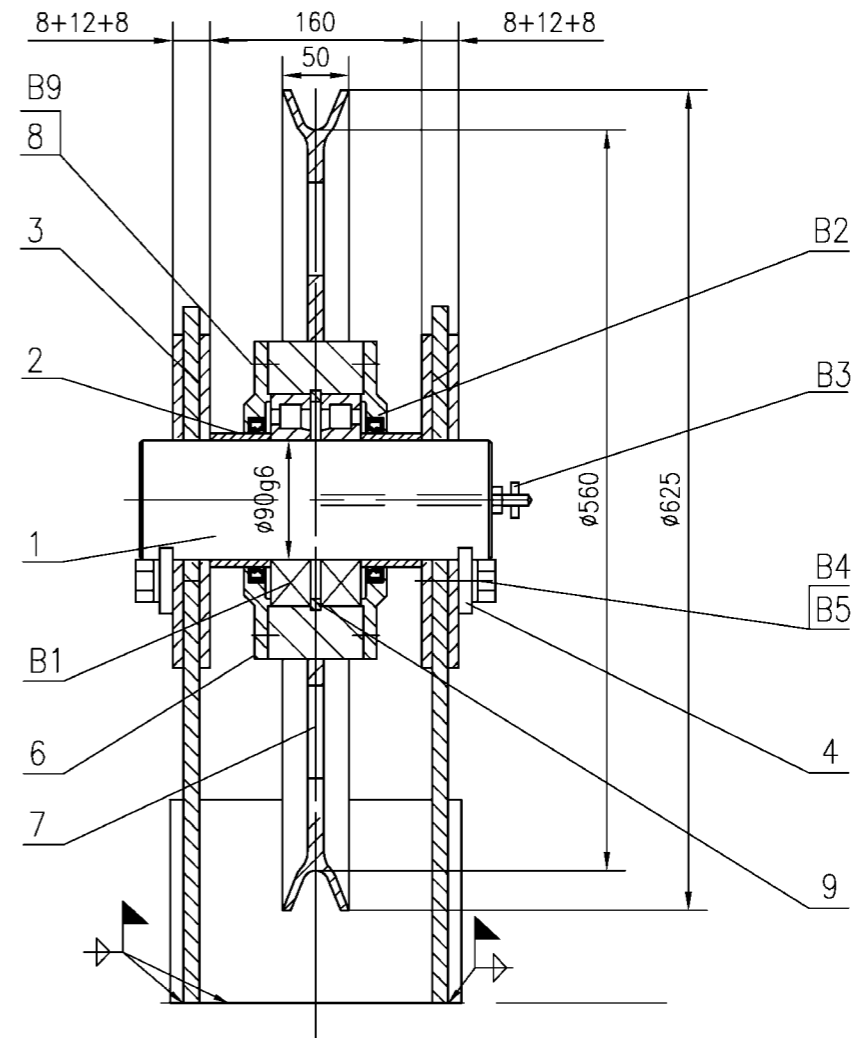
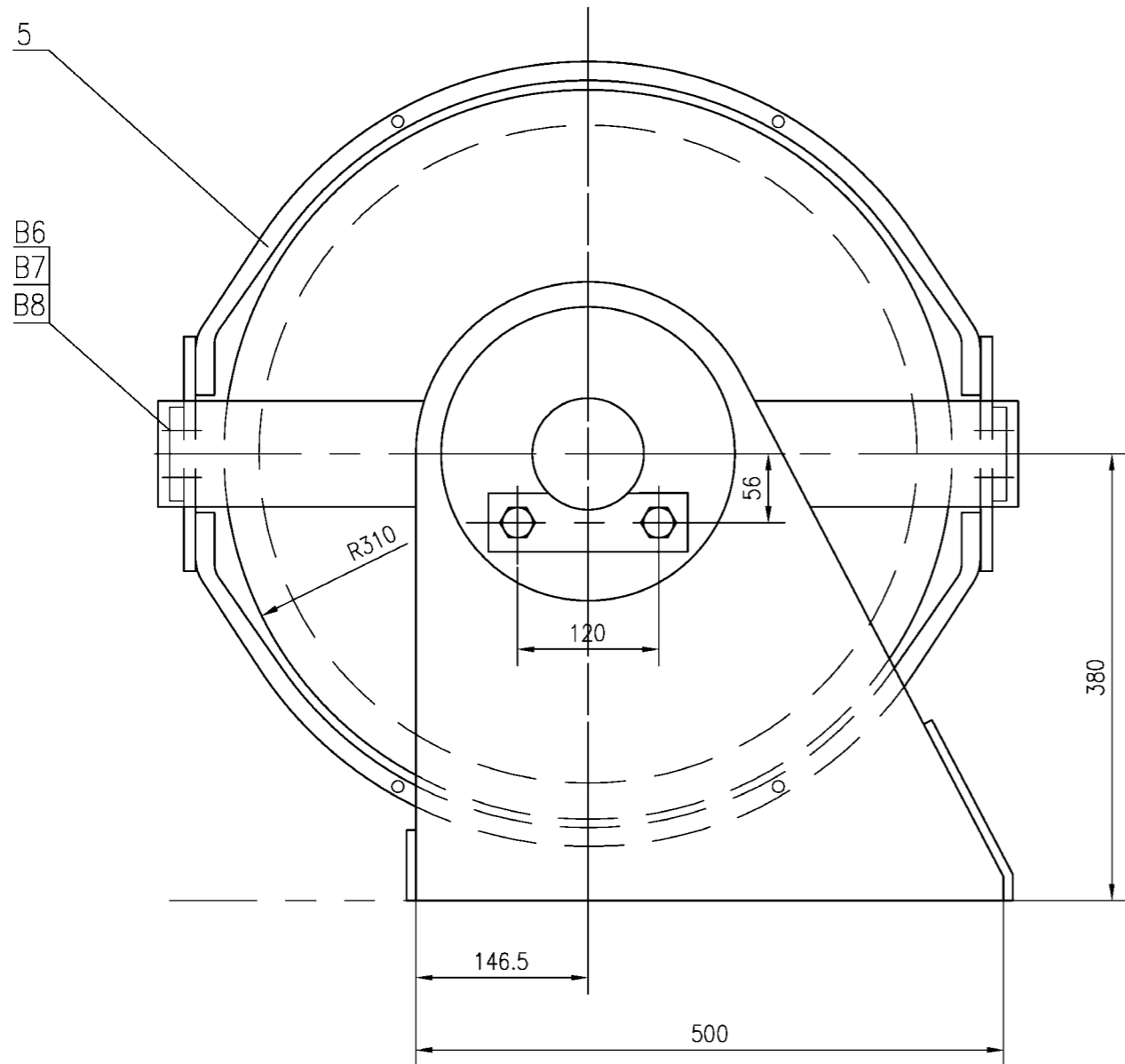
Note:

1. While machining all dimensions of the groove, the hub and the holes in the web should comply with the dimensions and tolerances in the drawing.
2. The sheave groove will be deep harden HB321. The harden depth is 3~6mm.
3. Low-temperature stress-relief temper after hardening.
4. This sheave is rolled.

技术要求

1. 绳槽轮廓尺寸和腹板孔以及轮毂切削加工, 必须满足图示尺寸和公差要求.
2. 绳槽表面淬火, 表面硬度 ≥ HB321; 淬深 3~6mm.
3. 淬火后应做低温回火的消应力处理.
4. 此滑轮为锻造滑轮.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/crane	WEIGHT	SCALE
1	UL25130517	Sheave 滑轮	35CrMo	2	58	1:6
ZPMC		DRAW	TECH.	TRACE		
		CHCK	STDD	CHCK		



B9	GB32.1-88	螺栓M12X30	Q235	16			
B8	GB6171-87	nutM16	Q235	4			
B7	GB862.1-87	washer16	65Mn	4			
B6	GB5782-83	boltM16X50	Q235	4			
B5	GB862.1-87	washer16	65Mn	4	0.002	0.008	
B4	GB5783-86	boltM16x30	35	4	0.06	0.24	galvanize
B3		nozzle PT1/4		1		0.1	
B2	HG4-692-67	oil closePD110x140x14	assembly	2	0.1	0.2	
B1	GB283-87	bearing42218E	assembly	2	3	6	

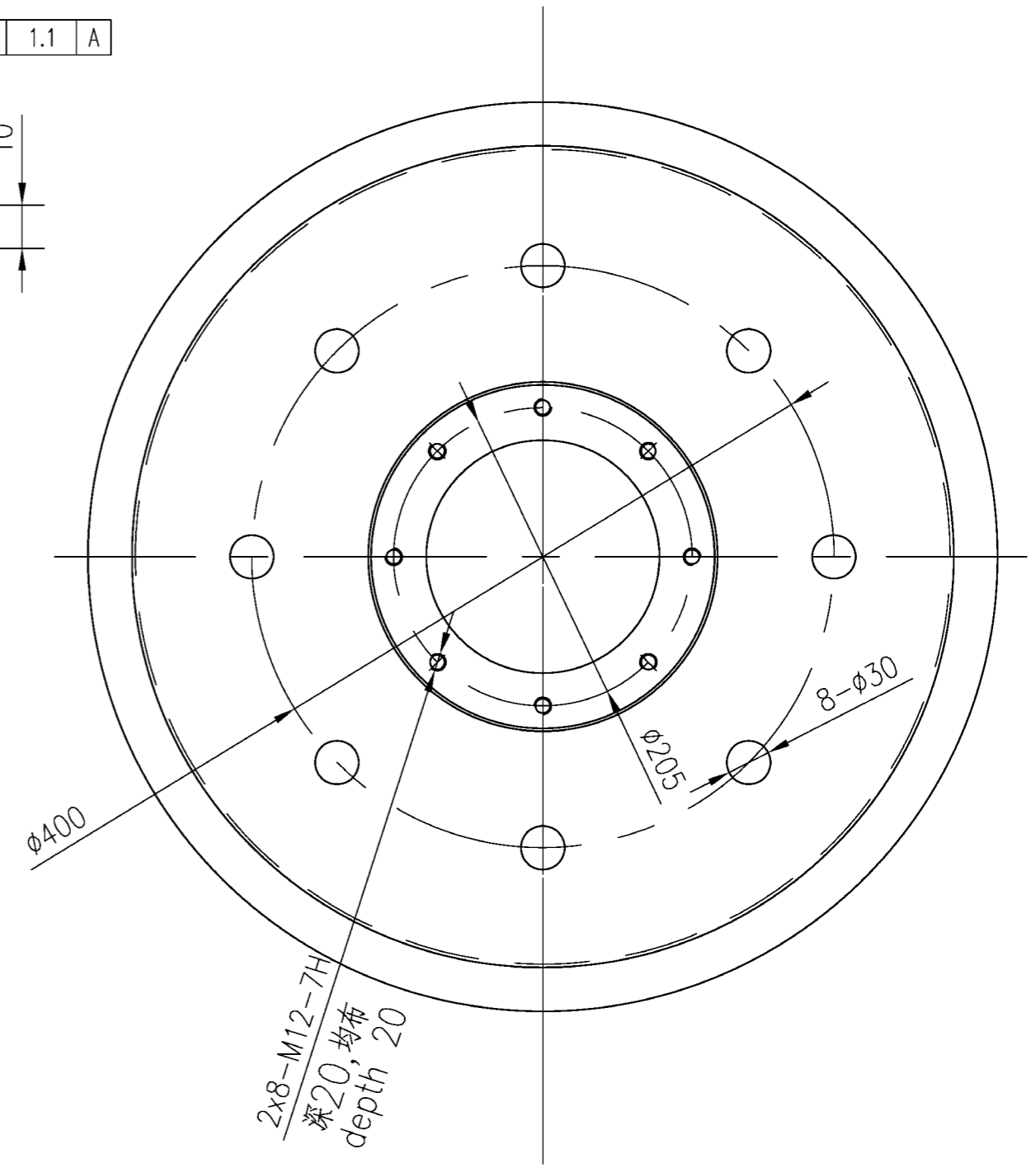
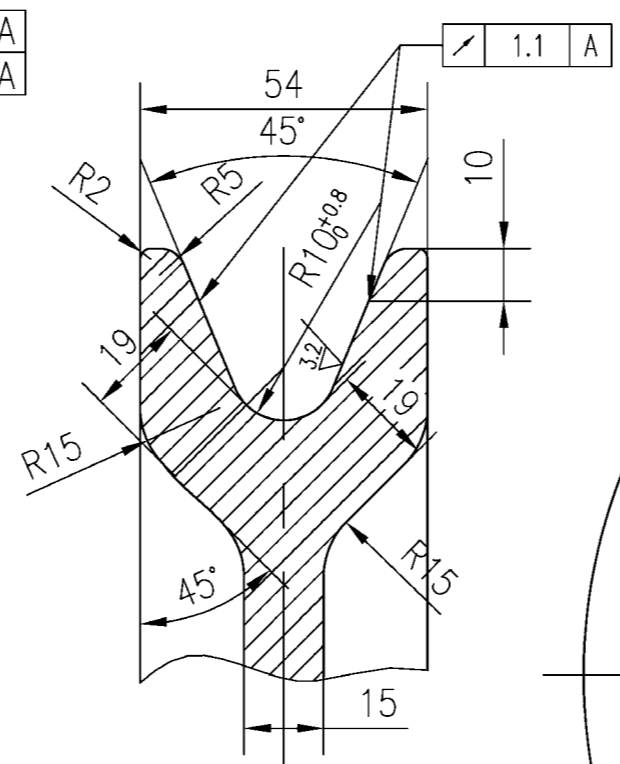
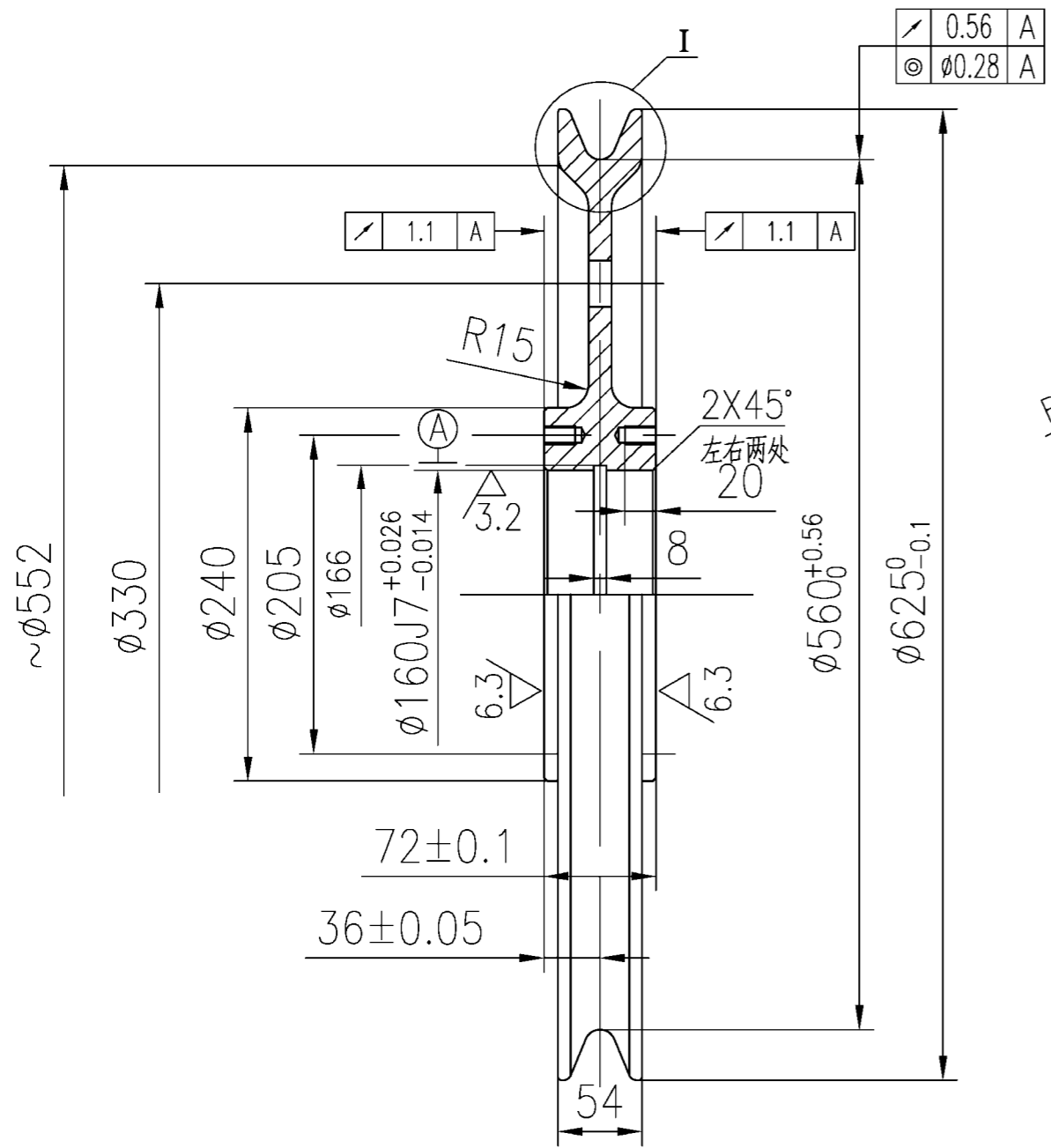
9	UL2513010708	卡圈	45	1	1.82	1.82	借用
8		钢丝φ3.5	Q235				
7	UL25130607	pulley	35CrMo	1	58	58	
6	UL25130606	cover	Q235	2	4.7	9.4	
5	UL25130605	safety cover	welding	2	4.8	9.6	
4	UL25130604	baffle	Q235	2	0.3	0.6	
3	UL25130603	pedestal	Q235	1		57.08	
2	UL25130602	shaft cover	Q235	2	0.7	1.4	
1	UL25130601	shaft	45	1		14	

NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	WEIGHT		NOTE
					each	total	

PROJECT: Alabama 2000t/h ship unloader DESIGN STAGE: SCALE: 1:4

ITEM NAME: head pulley DRAW NO: UL25130600 PROJ.

ZPMC	DSGN		TRACE		APP.	
	DRAW		CHCK		Q'TY/SET	119.6Kg
	CHCK		VER.		SET/CRANE	2



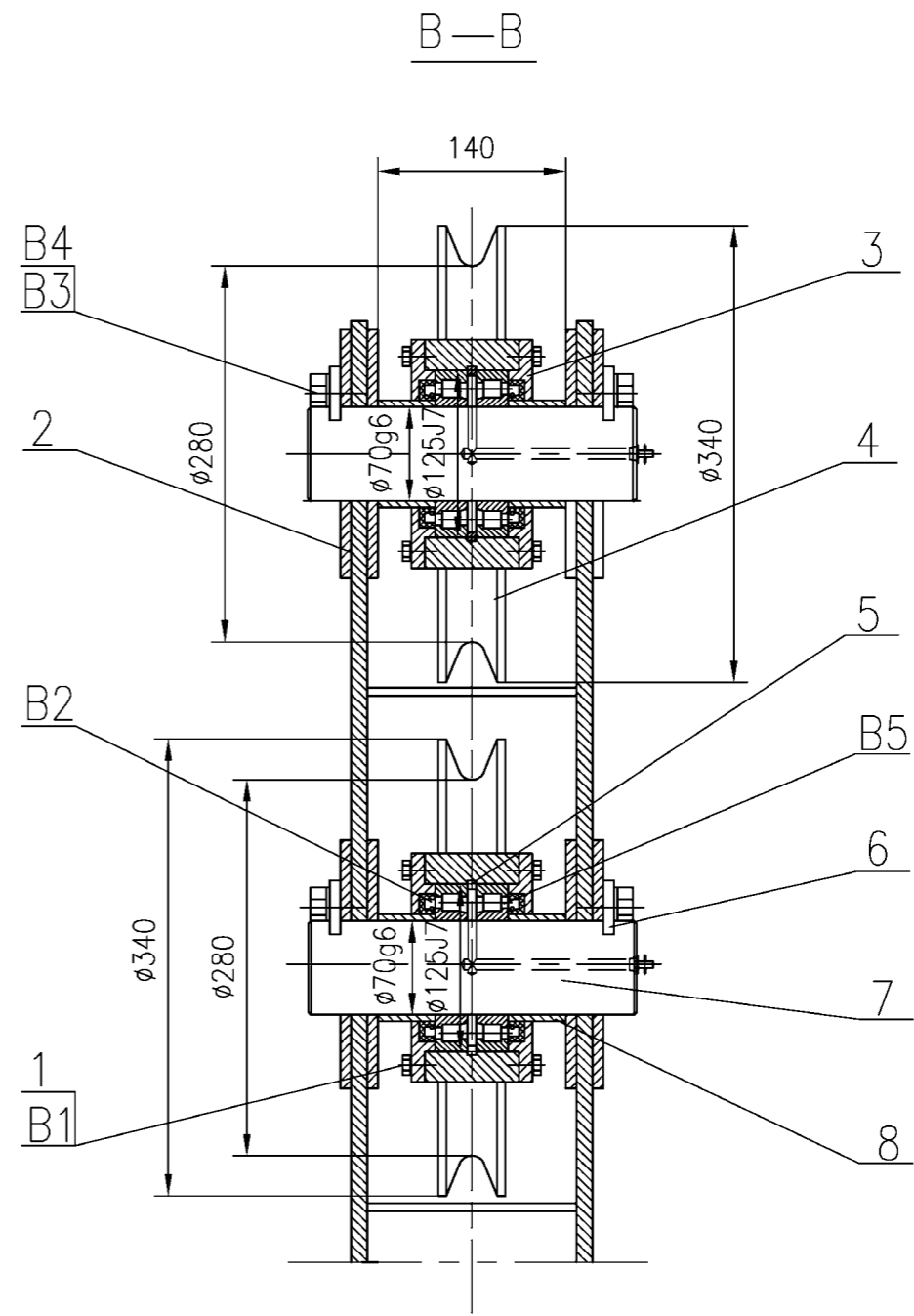
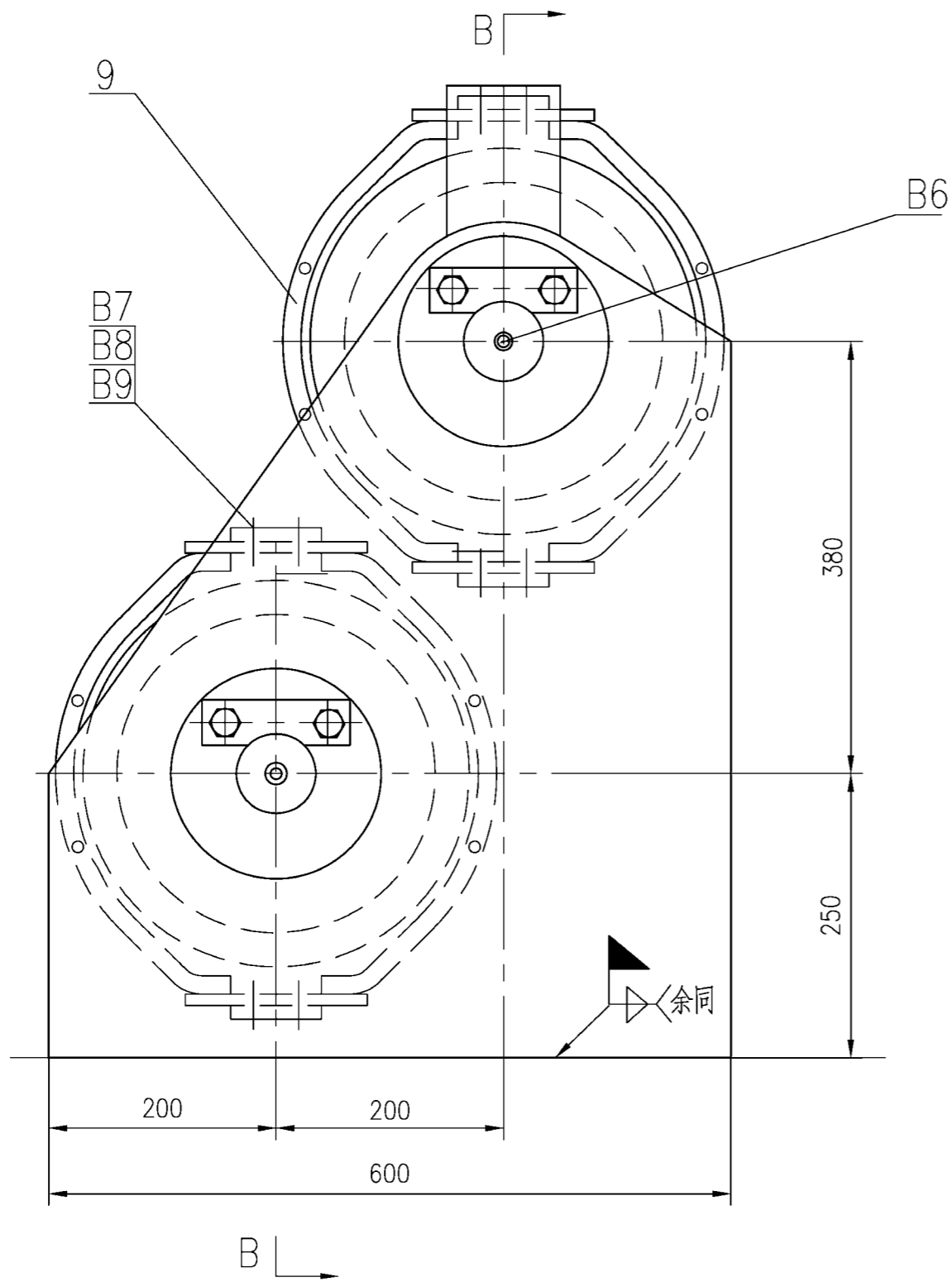
Note:

1. While machining all dimensions of the groove, the hub and the holes in the web should comply with the dimensions and tolerances in the drawing.
2. The sheave groove will be deep harden HB321. The harden depth is 3~6mm.
3. Low-temperature stress-relief temper after hardening.
4. This sheave is rolled.

技术要求

1. 绳槽轮廓尺寸和腹板孔以及轮毂切削加工, 必须满足图示尺寸和公差要求.
2. 绳槽表面淬火, 表面硬度 \geq HB321; 淬深 3~6mm.
3. 淬火后应做低温回火的消应力处理.
4. 此滑轮为锻造滑轮.

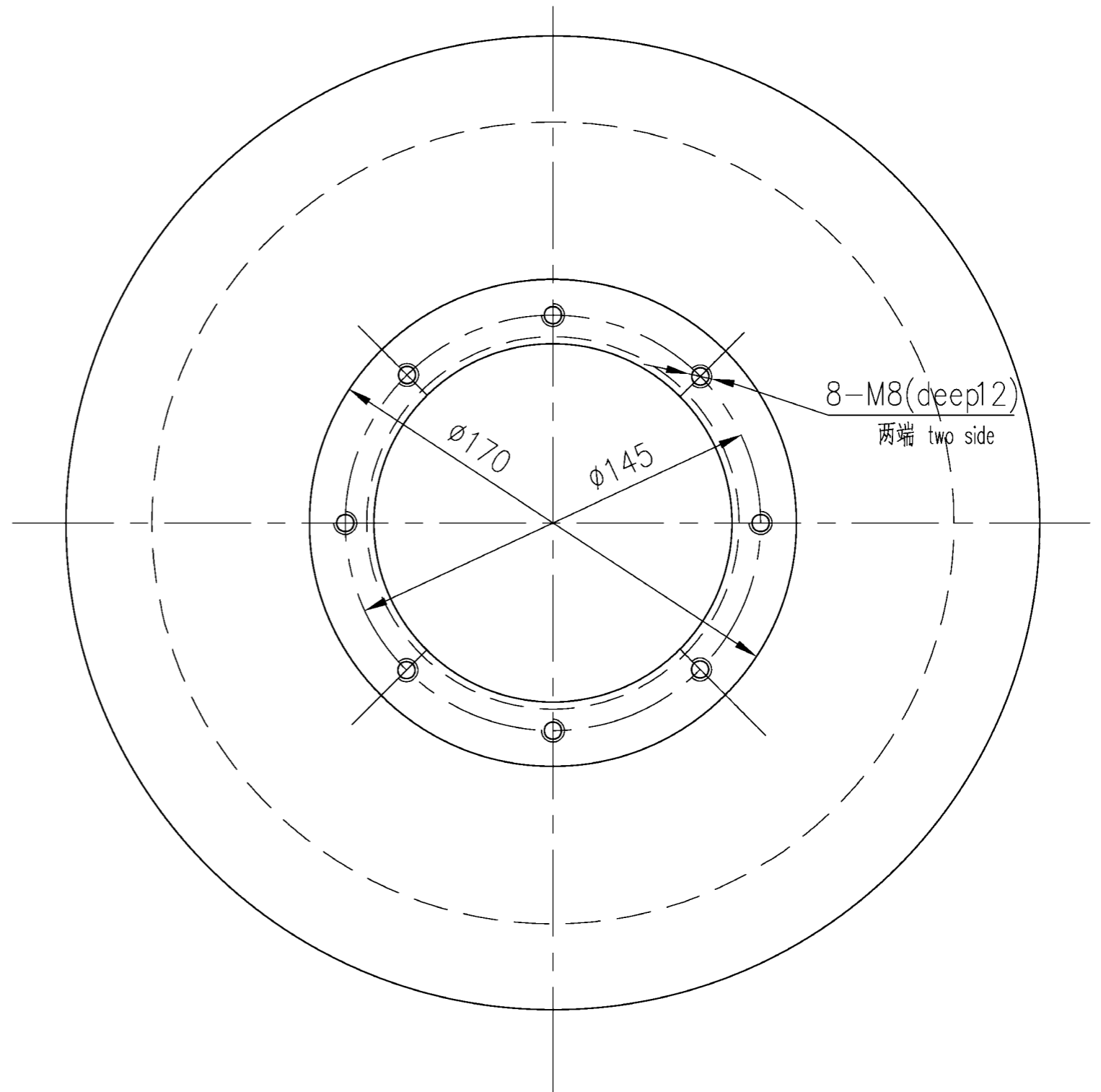
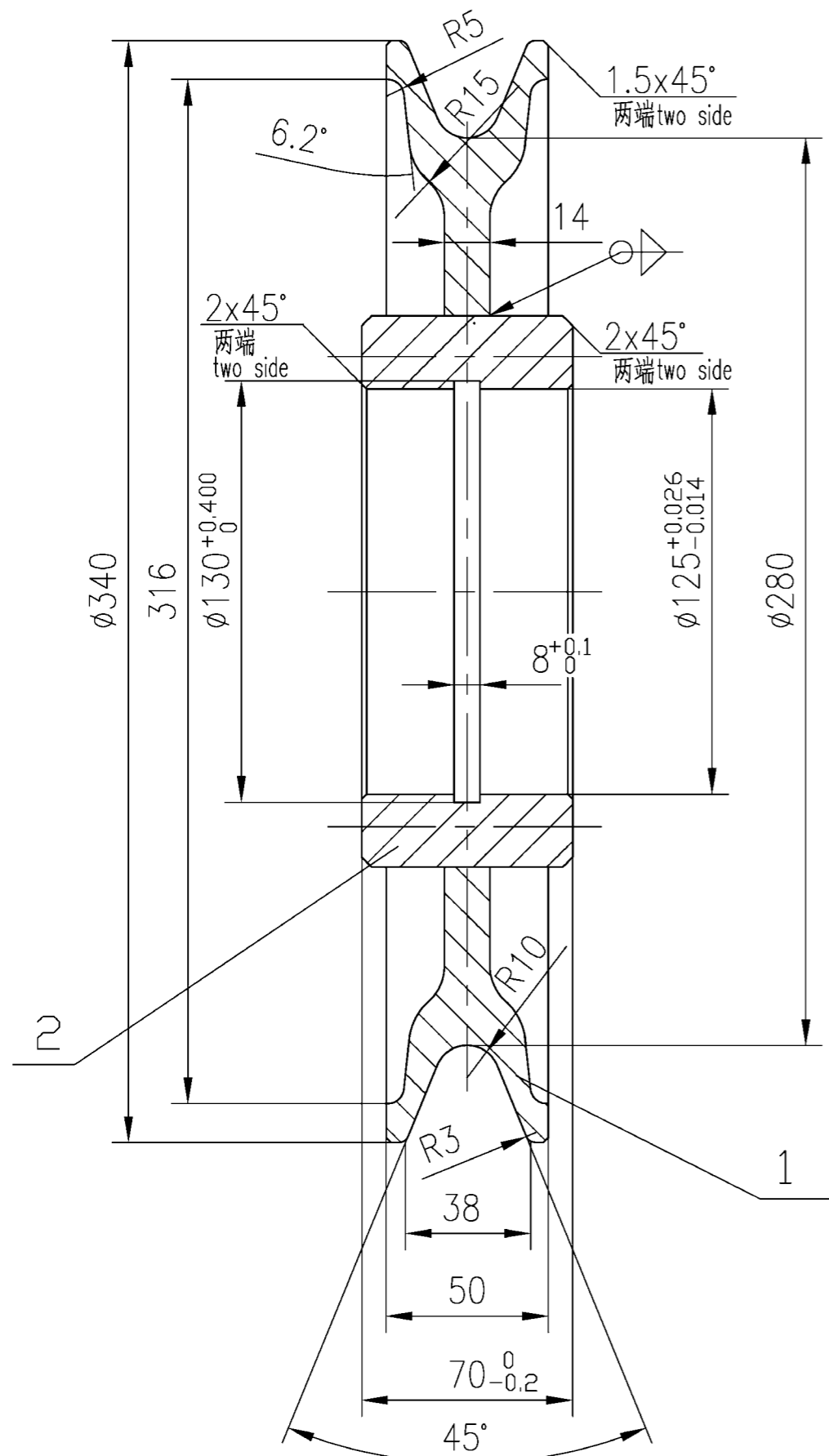
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/crane	WEIGHT	SCALE
1	UL25130607	Sheave 滑轮	35CrMo	2	58	1:6
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



B9	GB6171-87	boltM16	Q235	8		
B8	GB862.1-87	washer16	65Mn	8		
B7	GB5782-83	boltM16x50	Q235	8		
B6	A1186	nozzle PT1/4"	assembly	2	0.1	0.2
B5	GB283-87	bearing42214E	assembly	4	1.2	4.8
B4	GB854-88	washer16	Q235	8	0.008	0.064
B3	GB5783-86	boltM16x35	galanize,8.8s	8	0.06	0.48
B2	HG4-692-67	oil closePD80x105x2	assembly	4	0.1	0.4
B1	GB32.1-88	boltM8X25	stainless steel	16	0.01	0.16

9	UL25130708	safety cover	welding	4	3.14	12.56
8	UL25130707	shaft cover	Q235	4	0.39	1.56
7	UL25130706	shaft	45	2	6.8	13.6
6	UL25130705	baffle	Q235	4	0.3	1.2
5	UL25130704	separate cover	45	2	0.17	0.34
4	UL25130703	pulley	35	2	13	26
3	UL25130702	bearing cover	Q235	4	1.5	6
2	UL25130701	pedestal	Q235	1		82
1		steel wireφ2-2m				0.11

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each WEIGHT	total WEIGHT	NOTE
PROJECT:			DESIGN STAGE:		SCALE: 1:4		
ITEM NAME: lead pulley			DRAW NO: UL25130700				
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	139.8	
	CHCK		VER.		SET/CRANE	4	

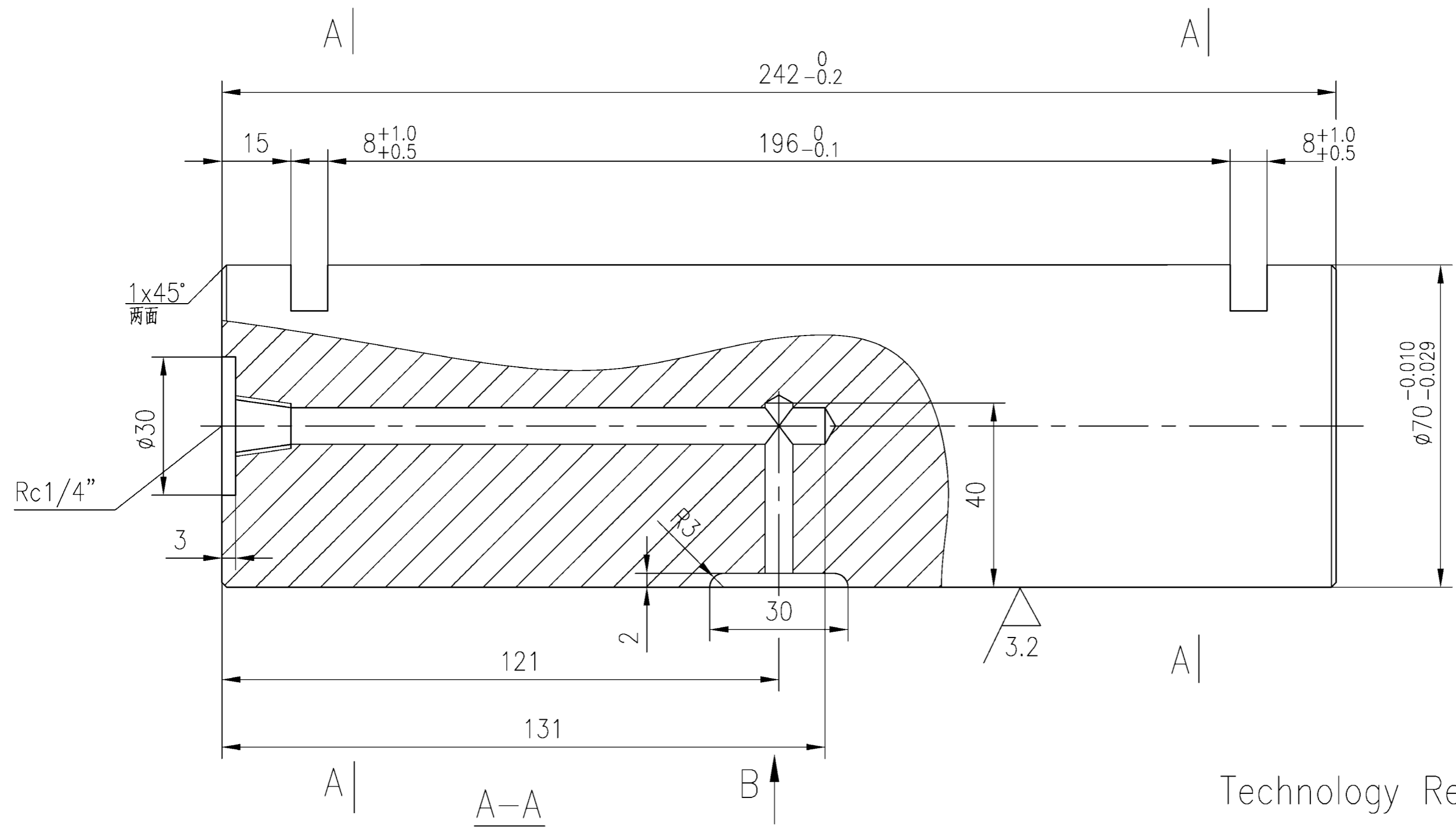


Technology Requirement

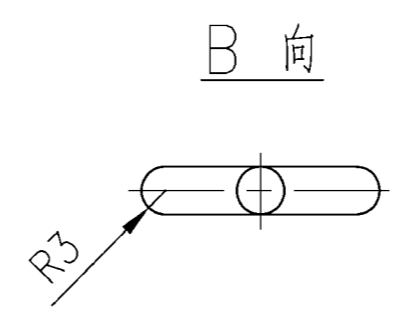
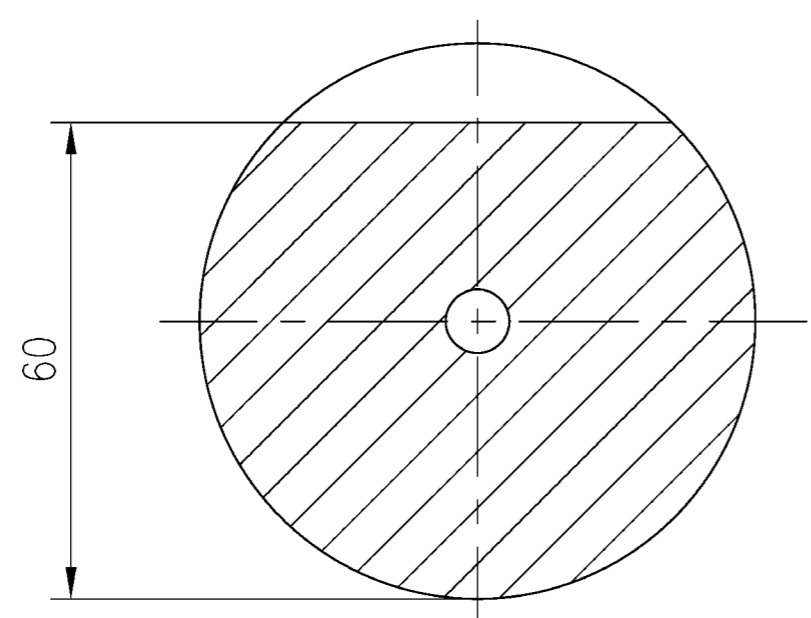
- 1.The type of welding stick adopted is E5015
- 2.The rope trough skin hardness is HRC35~45

2		-65x ϕ 170/ ϕ 125	35	1	5.32	
1		-14x ϕ 340/ ϕ 170	35	1	7.48	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
4	UL25130703	pulley	35	13	8	1:2
ZPMC		DRAW		TECH.		TRACE
		CHCK		STDD		CHCK

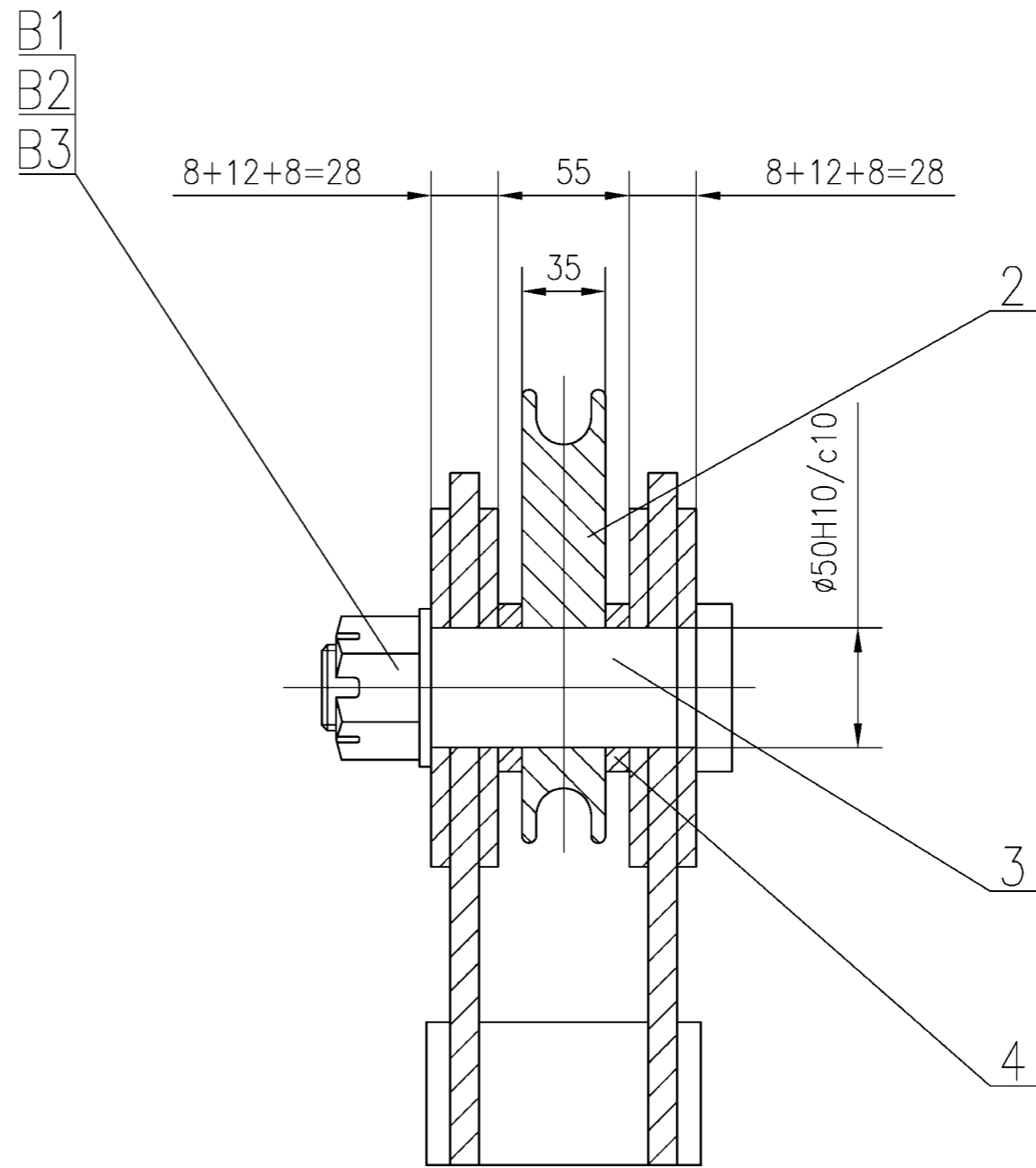
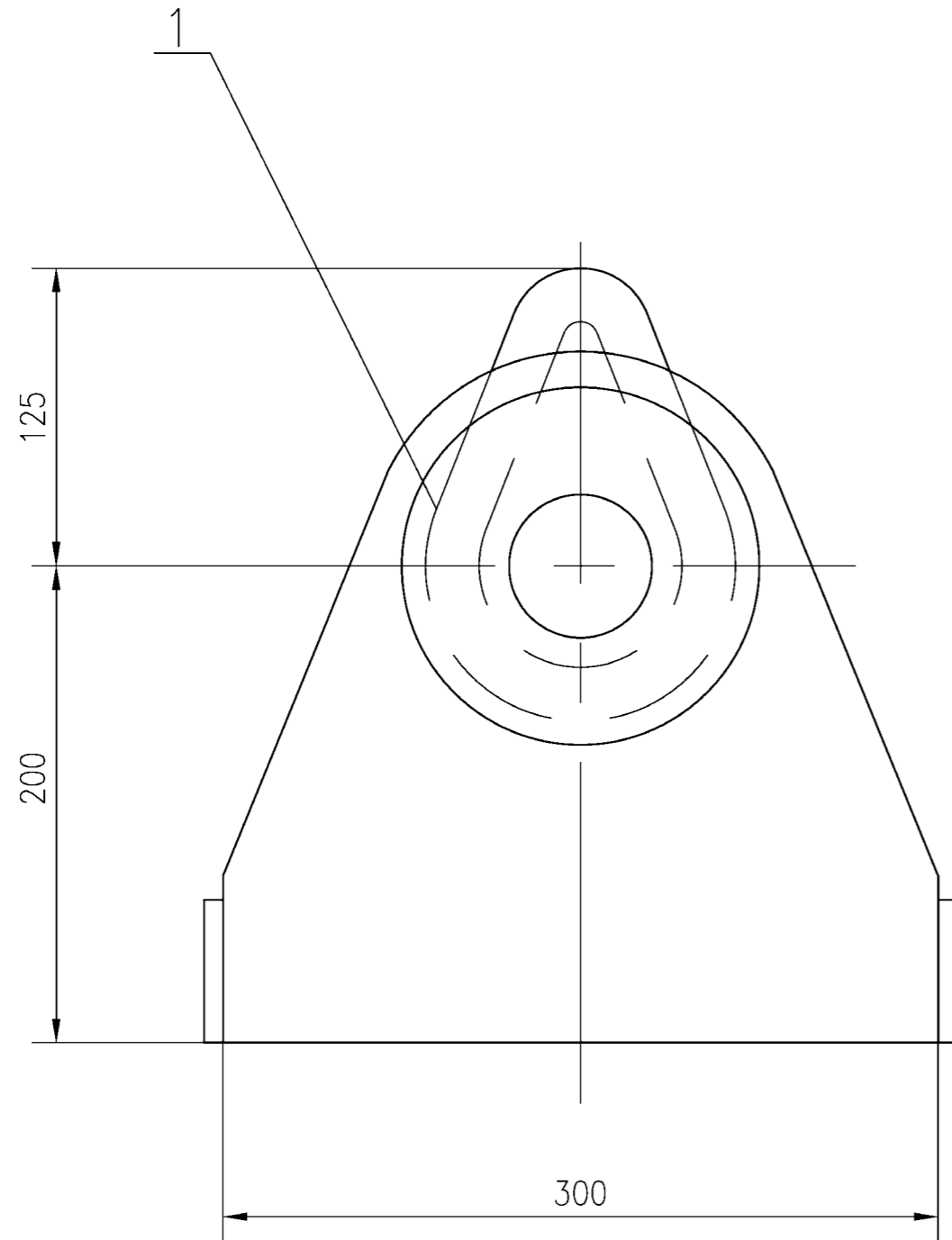
others $\nabla \frac{6.3}{}$



Technology Requirement
Adjusting Quality HB217~255



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
7	UL25130706	shaft	45	6.8	8	1:1
ZPMC		DRAW	TECH.	TRACE		
		CHCK	STDD	CHCK		



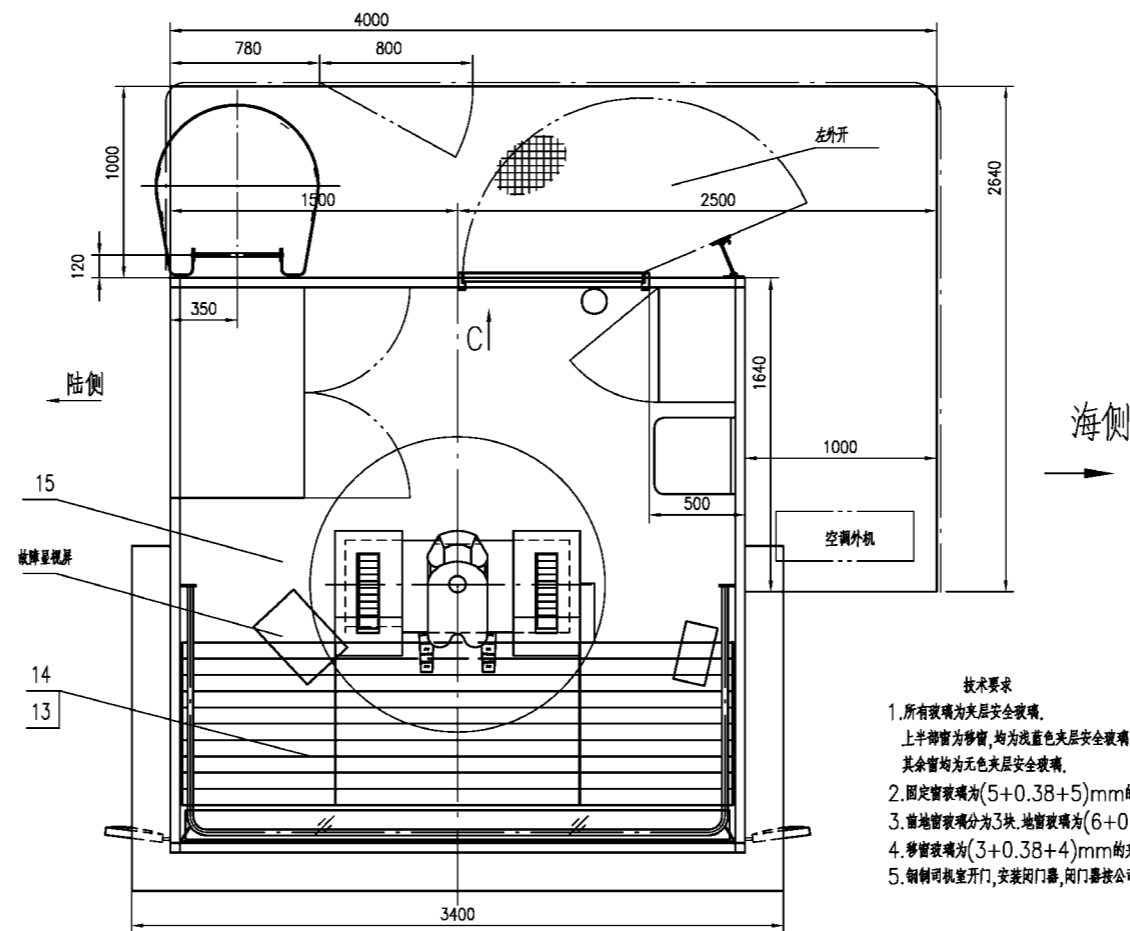
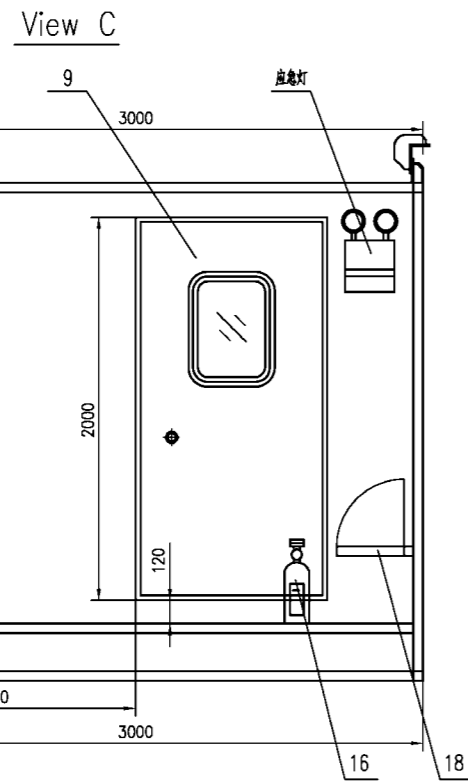
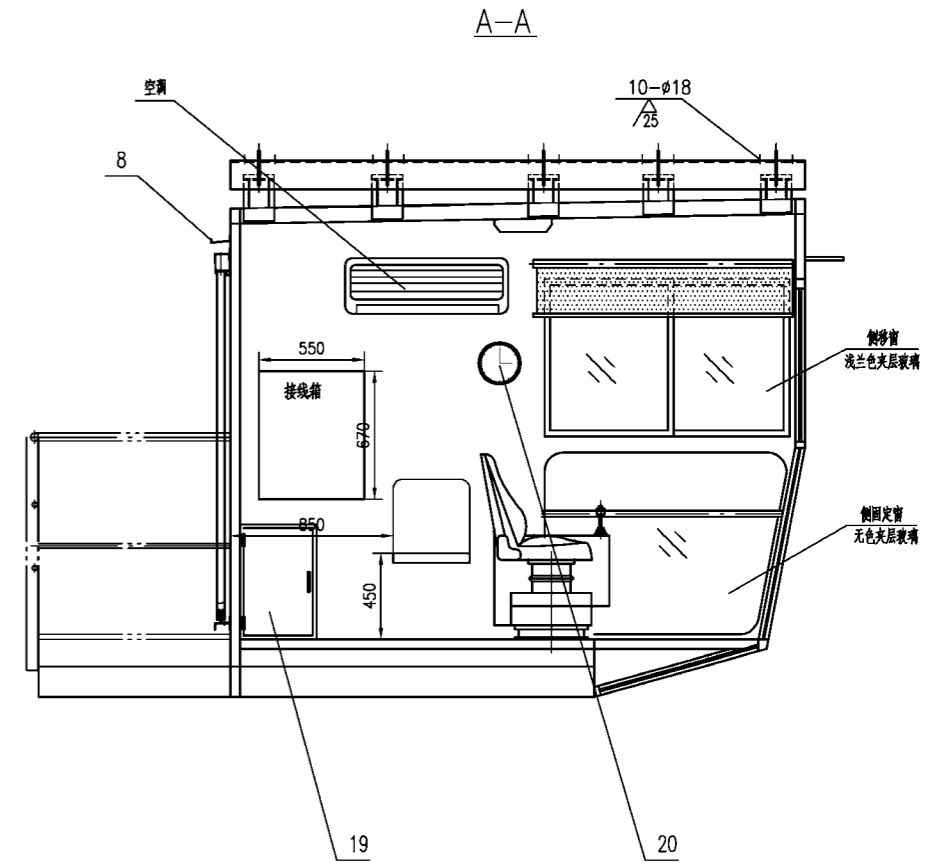
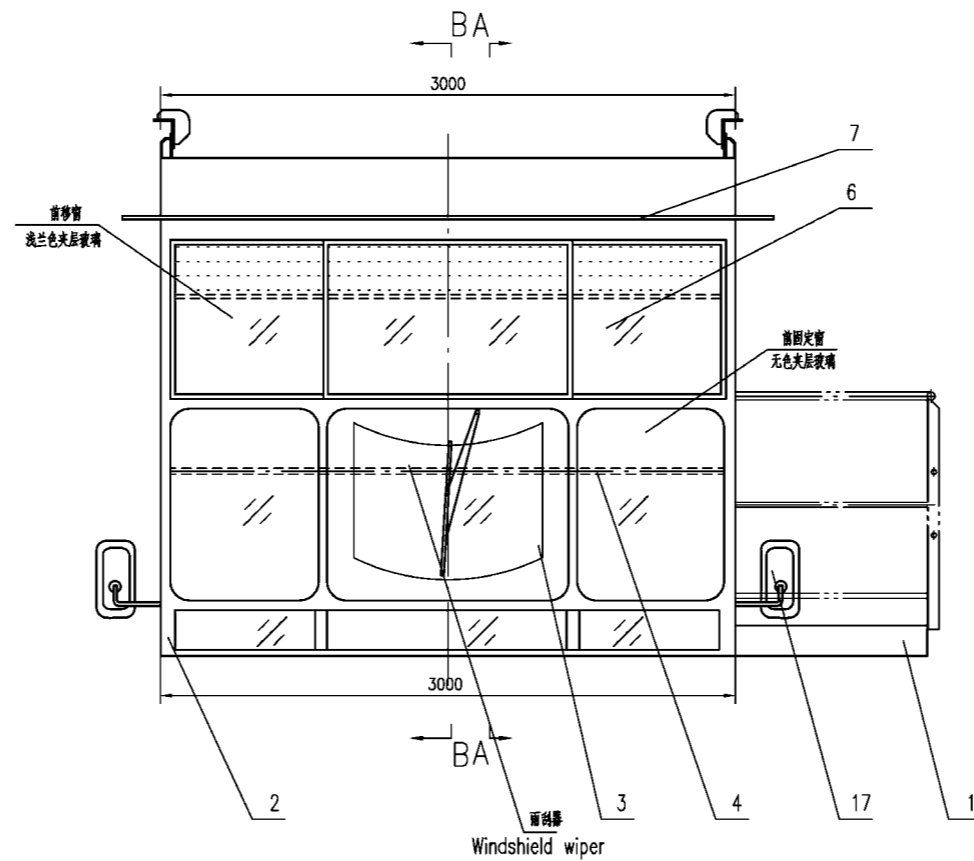
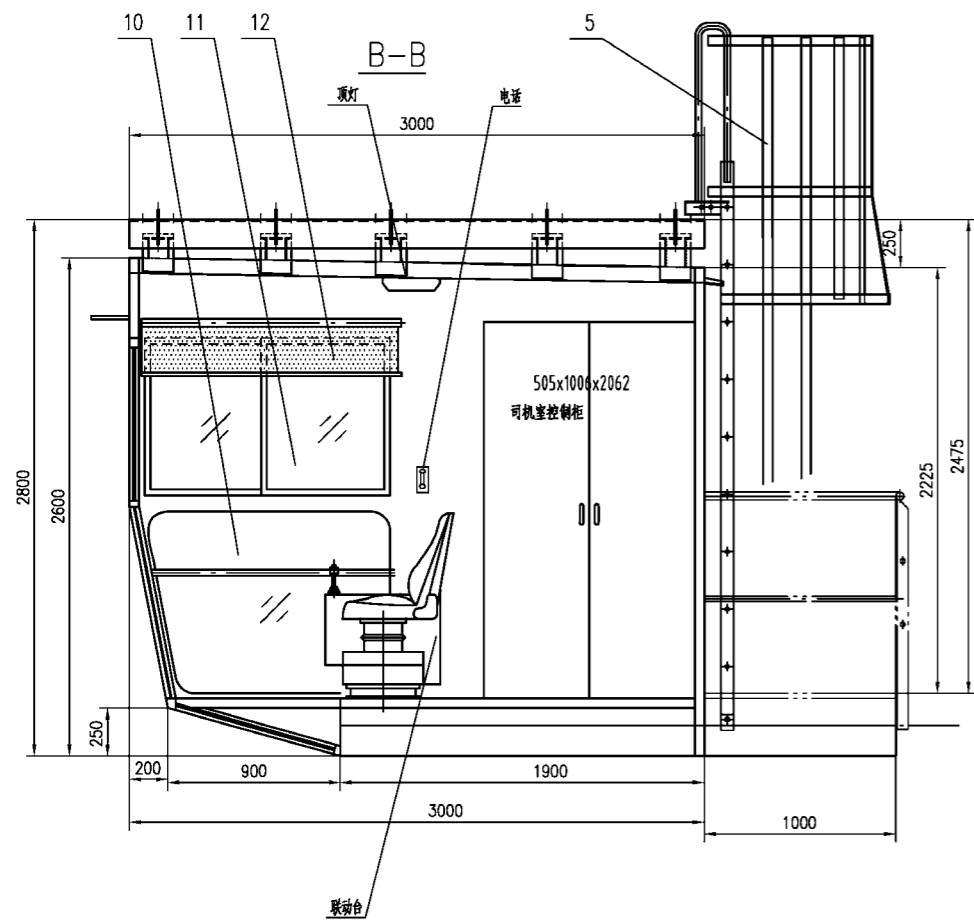
NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	each	total	NOTE
4	UL25130804	shaft cover	Q235	2	0.14	0.28	
3	UL25130803	shaft	45	1	2.2	2.2	
2	UL25130802	ringer	Q235	1	2.6	2.6	
1	UL25130801	pedestal	焊接件	1	14	14	

PROJECT: Alabama 2000t/h ship unloader DESIGN STAGE: SCALE: 1:3

ITEM NAME: safety tie-in DRAW NO: UL25130800 PROJ.

B3	GB91-86	hatch pin $\phi 6.3 \times 63$		1	stainless steel		
B2	GB95-85	washer 36	Q235	1			
B1	GB6181-86	nut M36	Q235	1			

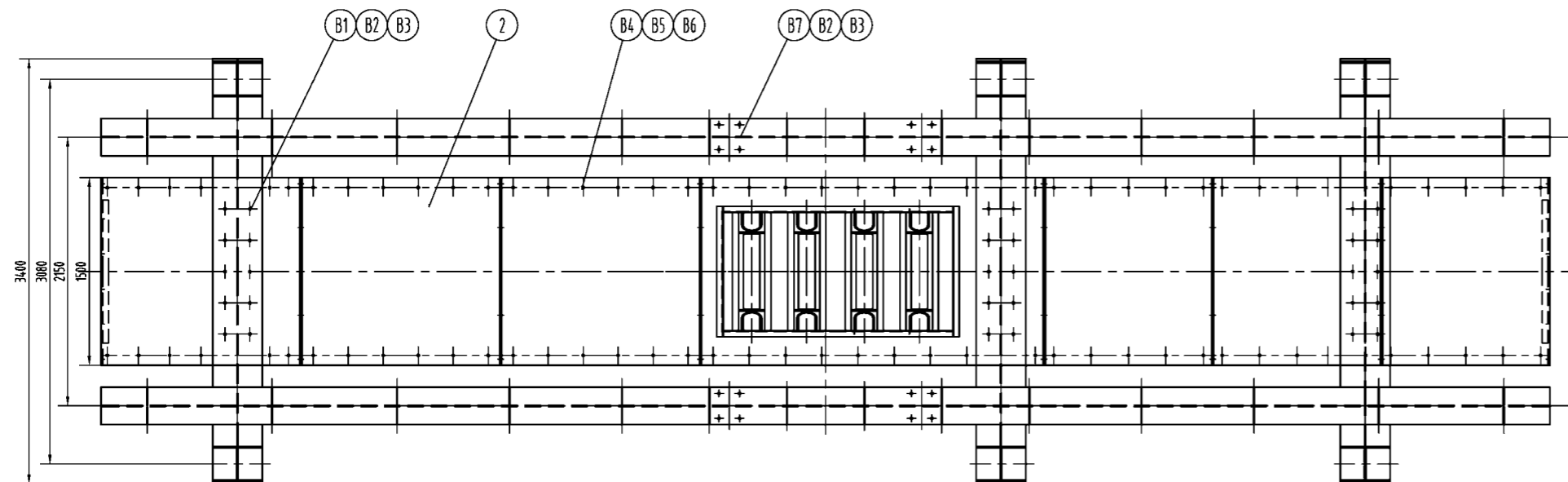
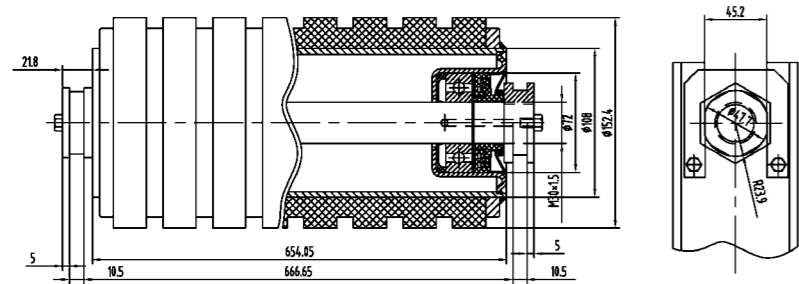
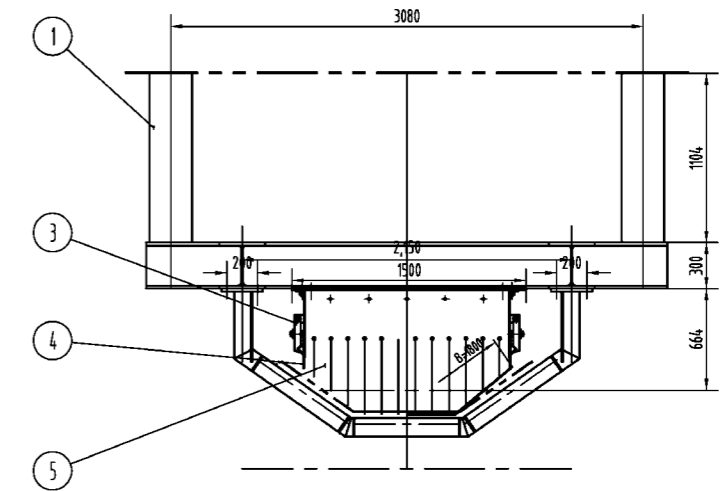
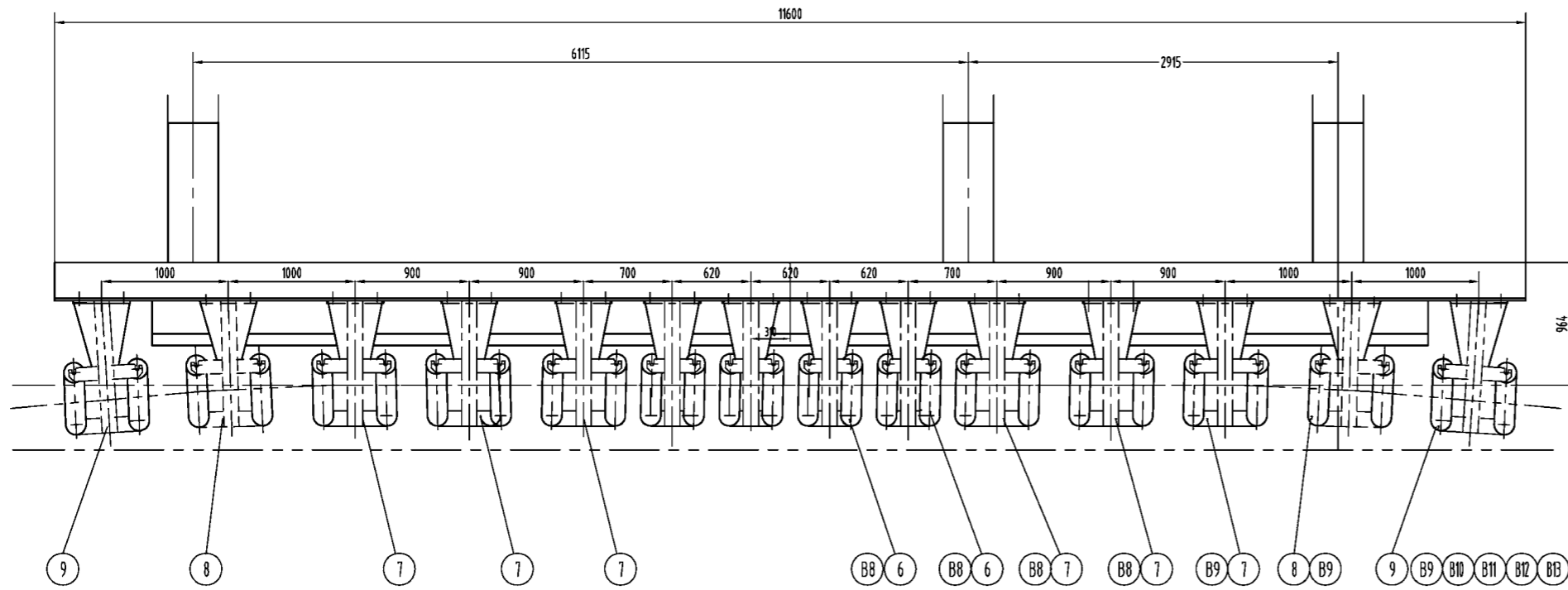
ZPMC	DSGN		TRACE		APP.	
	DRAW		CHCK		Q'TY/SET	19.1Kg
	CHCK		VER.		SET/CRANE	2



- 技术要求**
1. 所有玻璃为夹层安全玻璃。上半窗为移窗, 均为浅蓝色夹层安全玻璃。其余窗均为无色夹层安全玻璃。
 2. 固定窗玻璃为(5+0.38+5)mm的夹层安全玻璃。
 3. 前地窗玻璃分为3块, 地窗玻璃为(6+0.38+6)mm的夹层安全玻璃。
 4. 移窗玻璃为(3+0.38+4)mm的夹层安全玻璃。
 5. 钢制司机室开门, 安装闭门器, 闭门器按公司规定执行。

- Technical Requirements**
1. All glass of the windows shall be laminated safety glass. The upper window should be sliding window. The glass of the sliding window shall be light blue safety glass. The rest is non-tinted safety glass.
 2. The thickness of all the fixed window shall be 5+0.38+5mm.
 3. The front floor windows is to be in three piece. The thickness of the front floor window shall be 6+0.76+6mm.
 4. The thickness of sliding window shall be 3+0.38+4mm.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
		Fraser		1			
	UL25160112	Windows & glass ordering table	Assembly	1			
20		时钟		1			
19	UL25160111	个人用品箱		1			
18		Folding seat	Assembly	1			
17		Rearview Mirror	Type: B33 60.3寸	2	2		Outsourcing
16		CO2 Fire Extinguisher	MTZ3	1	25		带支架
15		Black Rubber Carpet	Rubber	3m ²		15	
14	UL25160110	Front floor grille	Welded	1		41	
13	UL25160109	Front floor window	Safety Glass	1		70	
12	UL25160108	Auto Reset Curtain		3			
11		Lateral sliding window	Assembly	2	25	50	
10		Lateral Fixed Window	Assembly	2	32	64	
9	UL25160107	Hinged Door	Assembly	1		100	左外开
8	UL25160106	Rain Shield	Q235	1		6.8	
7	UL25160105	Rain Shield	Q235	1		30	
6		Front sliding window	Safety Glass	1		45	
5	UL25160104	Ladder	Assembly	1		100	
4	UL25160103	Safety Bar	Assembly	1		23	
3		Front Fixed Window	Safety Glass	3		64	
2	UL25160102	Cab's Structure	Welded	1		1950	
1	UL25160101	Cab's Walkway	Welded	1		110	
PROJECT: Alabama 2000t/h ship unloader				DESIGN STAGE:	SCALE: 1:20		
ITEM NAME: 司机室 Operator's Cab			DRAW NO: UL25160100	PROJ.			
ZPMC	DRAW	TRACE	APP.				
	CHK	CHK	Q'TY/SET	不包括电气重量			
		VER.	WEIGHT	~3200kg			



技术条件

- 托辊架安装注意与地面皮带平行度
- 托辊架安装螺母注意拧紧用开口销锁住

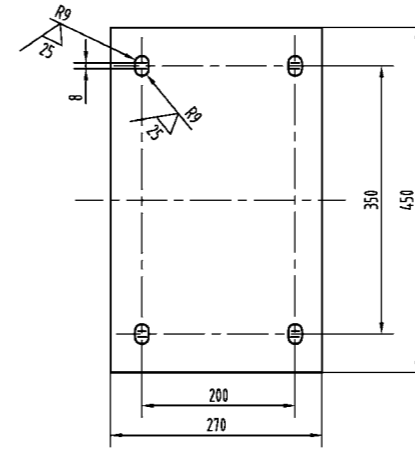
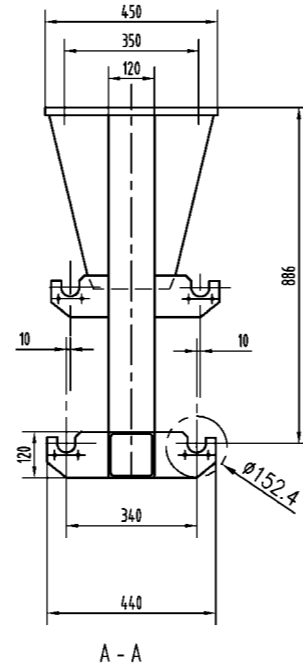
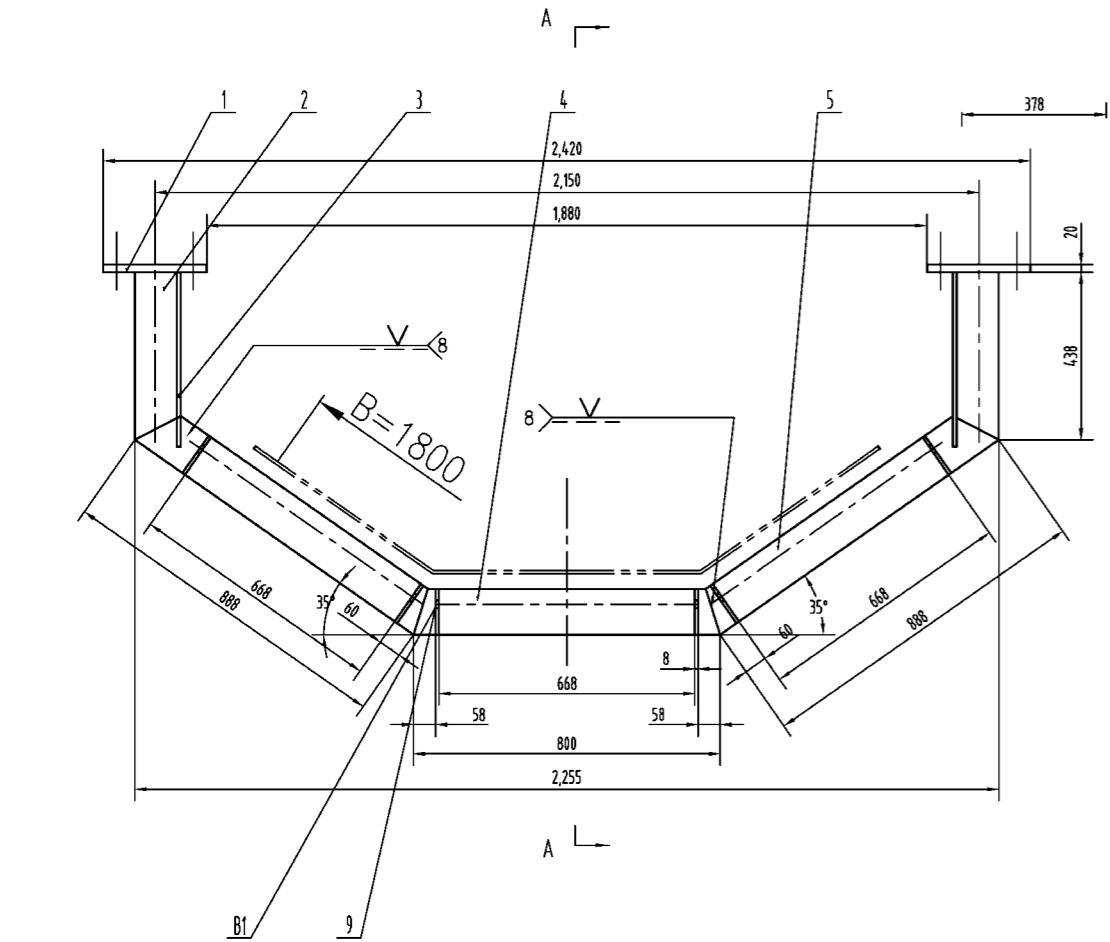
Technology Requirement

- The mill frame installation should be parallel with the conveyor of the ground.
- The mill frame installation nuts should be and screw down locked by the uncork pins.

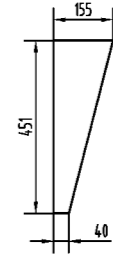
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B13							
B12	GB/T861.1-87	Washer16 垫圈16	65Mn	112	0.00	0.22	?
B11	GB889-86	Nut M16 尼龙锁紧螺母M16	8 H 8级	112	0.04	4.48	?
B10	GB5783-86	Bolt M16x70 螺栓M16x70	8.8S 8.8级	112	0.14	15.90	?
B9		外购成品	Purchase	36	22	792	
B8		外购成品	Purchase	48	25	1200	
B7	GB5782-86	Bolt M16x60 螺栓M16x60	8.8S 8.8级	16	0.12	2.00	?
B6	GB93-87	Spring Washer 弹簧垫圈10	65Mn	94	0.00	0.06	?
B5	GB6170-86	Nut M10 螺母M10	A2-70	94	0.00	0.75	
B4	GB5782-86	Bolt M10x40 螺栓M10x40	A2-70	94	0.03	2.91	
B3	GB93-87	Spring Washer 弹簧垫圈16	65Mn	46	0.00	0.13	?
B2	GB6170-86	Nut M16 螺母M16	8 H 8级	46	0.02	1.33	?
B1	GB5782-86	Bolt M16x55 螺栓M16x55	8.8S 8.8级	30	0.11	3.48	?
11		LSW50X5-11600	Q235	2	435	87	
9	UL25170109	Mill Frame 4 托辊架4	Assembly	2	152	304	
8	UL25170108	Mill Frame 3 托辊架3	Assembly	2	150	300	
7	UL25170107	Mill Frame 2 托辊架2	Assembly	6	144	864	
6	UL25170106	Mill Frame 1 托辊架1	Assembly	4	133	532	
5	UL25170105	Rubber Door 橡胶门	Rubber	2	10	20	
4	UL25170104	Skirt Border 裙边	Rubber	2	17	34	
3	UL25170103	Baffle 挡板	Assembly	1	114.1	114.1	
2	UL25170102	Cover Panel 罩板	Assembly	1	108	108	
1	UL25170101	Suspended Frame 卷架	Assembly	1	4925	4925	

PROJECT: Alabama 2000t/h Ship Unloader		DESIGN STAGE:	SCALE: 1:25
ITEM NAME: 出料口缓冲装置 Material Cat Buffer Installation		DRAW NO:	UL25170100
ZPMC	DSGN	APP.	
	DRAW	CHK	QTY/SET 10251.26
	CHK	VER.	SET/CRANE 1

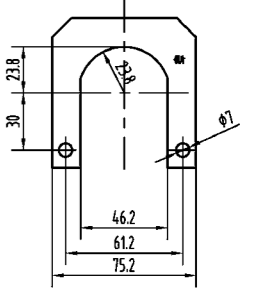
其余



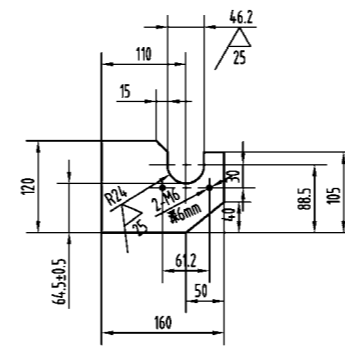
件 1
1:5



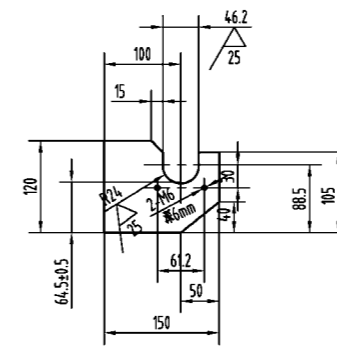
件 3



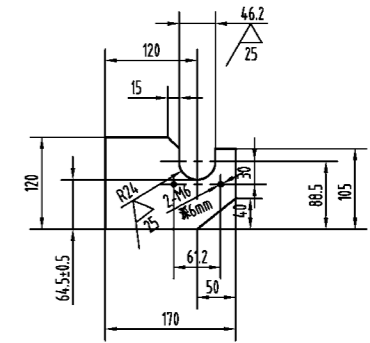
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1:2



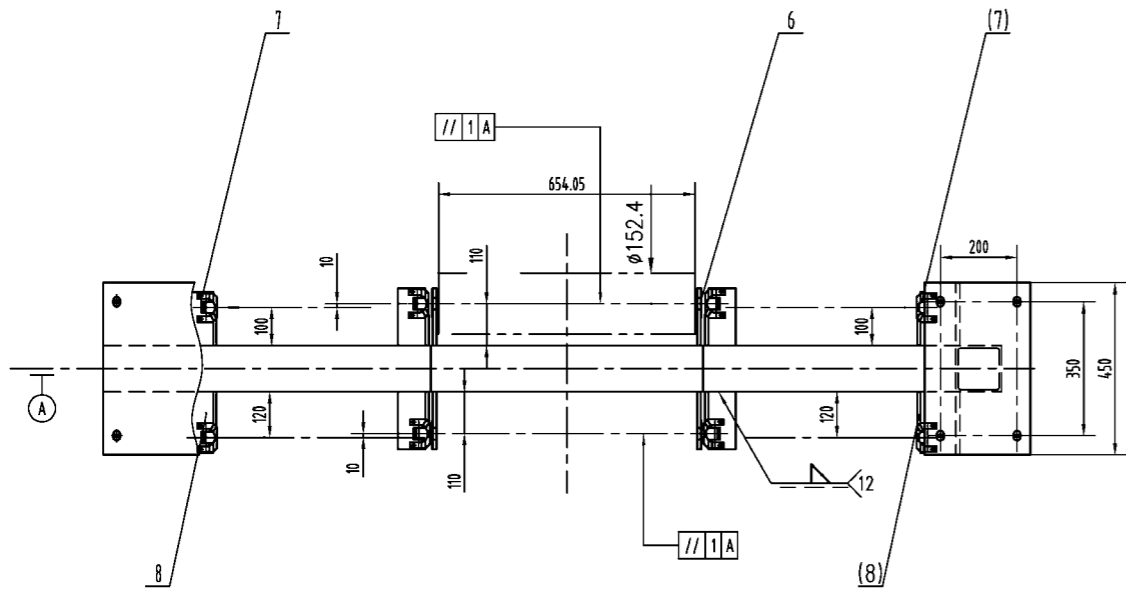
件 6
1:5



件 7
1:5



件 8
1:5



技术条件

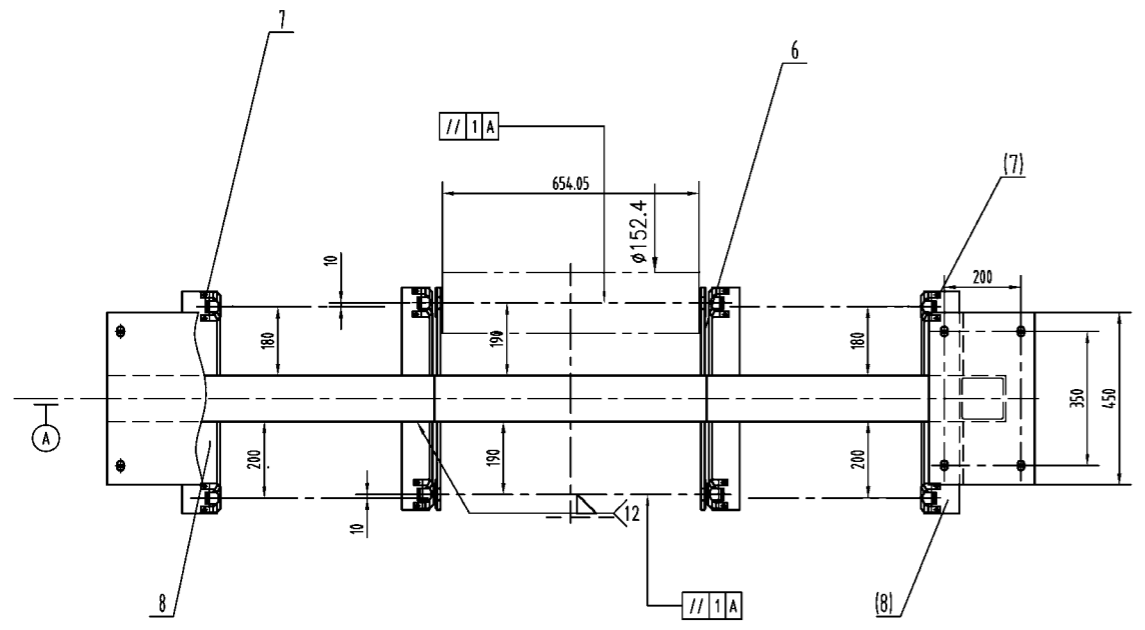
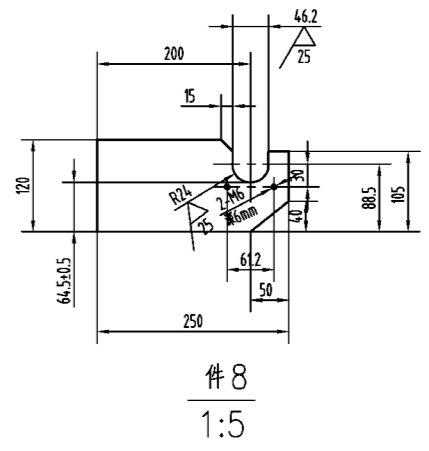
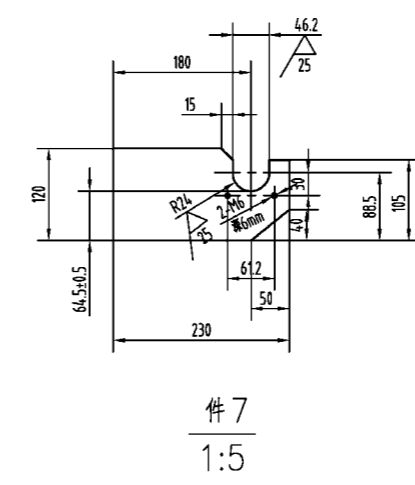
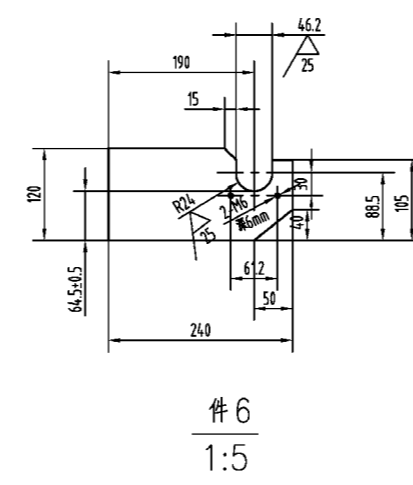
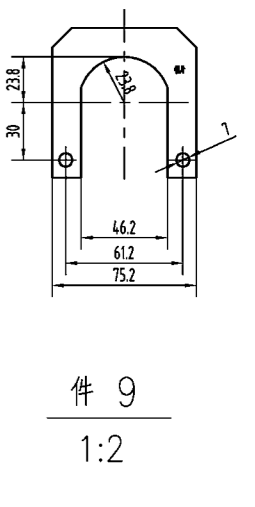
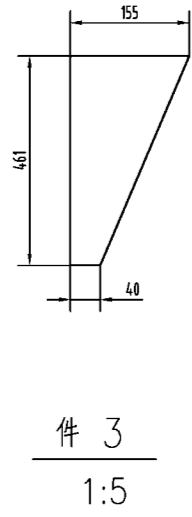
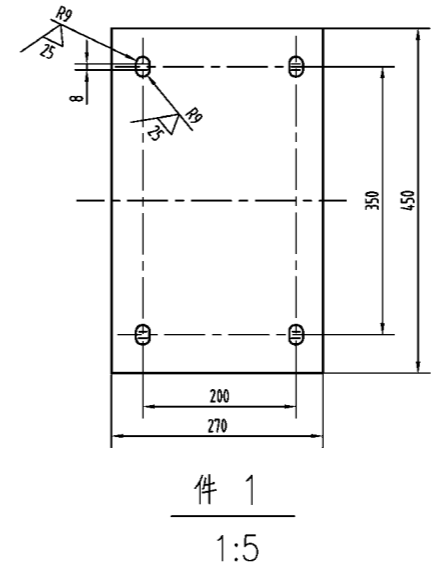
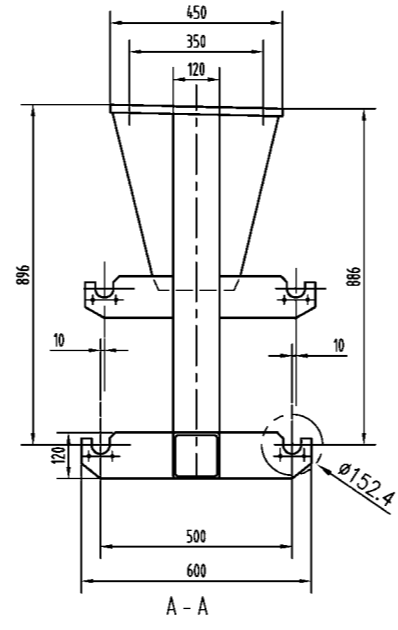
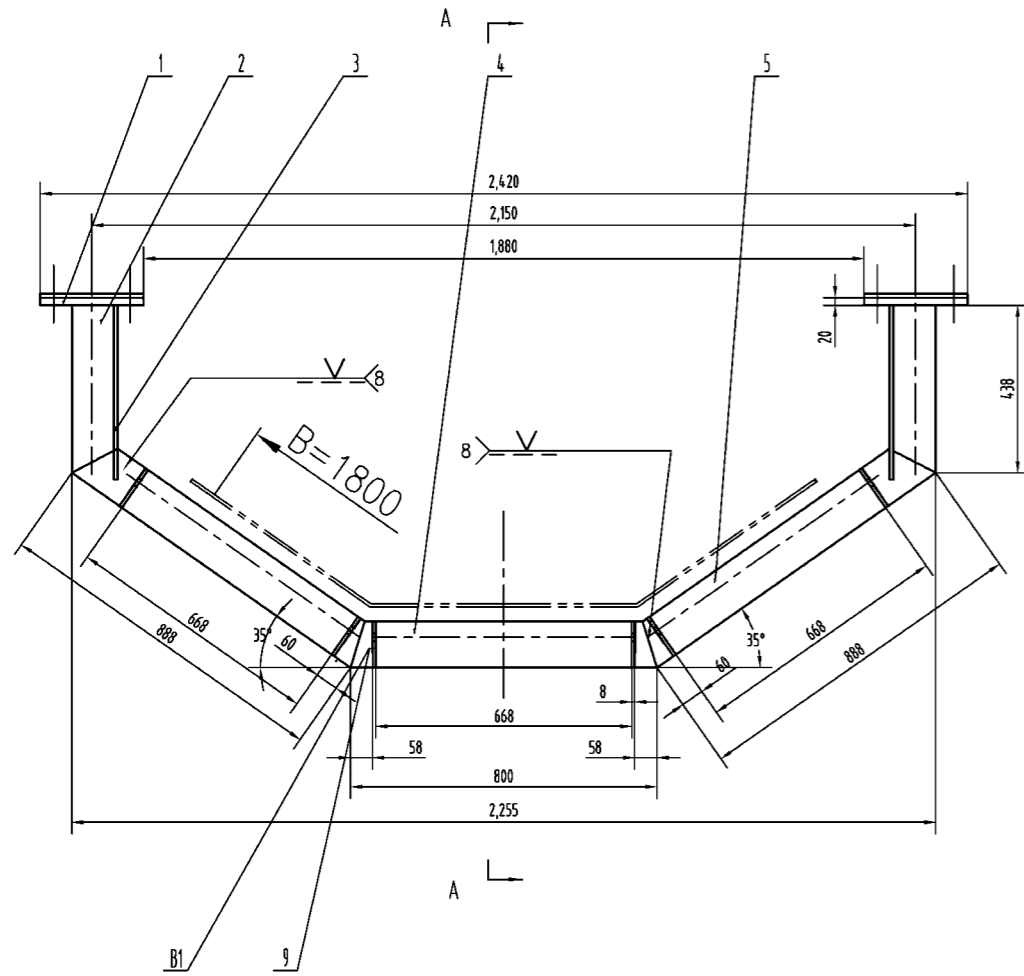
1. 焊条采用E4315.
2. 所有外露的气割边缘切割截面光洁度均要达到优级或磨平.
3. 图中未注明焊缝按同类焊缝施焊, 未注贴角焊缝高度取被连接的薄板厚度0.7倍, 未注明焊缝均按AWS D1.1标准或ZPMC焊接结构通用技术条件进行制造及检验.
4. 明细表尺寸供备料参考, 准确尺寸由放样定.

Technology Requirement

1. The type of welding stick adopted is E4315.
2. All the exposed cut fringe of section should be ground to the first-rate.
3. The non-noted welding line should be as the same as the others, the non-noted height of the welding line should be 0.7 thickness of the plate, all the non-noted welding line should be manufactured and examined by the AWS D1.1 standard or ZPMC welding technology requirement.
4. The dimension of the material in the list is for reference, the exact dimension is decided by the mold.

B1	GB/T 818-2000	bolt M6x6	不锈钢 stainless	24			
9		Plate -1x75.2x78	不锈钢 stainless	12	0.04	0.5	
8		Plate -8x120x170	Q235	2	1.5	3	
7		Plate -8x120x150	Q235	2	1.3	2.6	
6		Plate -8x120x160	Q235	8	1.4	11.2	
5		Plate -120x120x6	Q235	2	18.7	37.4	l=888
4		Plate -120x120x6	Q235	1	16.5	16.5	l=800
3		Plate -10x155x451	Q235	4	2	8	
2		Plate -120x120x6	Q235	2	5	10	l=438
1		Plate -20x270x450	Q235	2	19	38	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
PROJECT: Alabama 2000t/h Ship Unloader			DESIGN STAGE:	SCALE: 1:10			
ITEM NAME: 托辊架1 M11 frame 1			DRAW NO:	UL25170106			
ZPMC	DSGN	李学斌	Q54Z	TRACE		APP.	1
	DRAW	王根成	Q54Z	CHK		QTY/SET	127Kg
	CHK			VER.		SET/CRANE	8

其余 ∠



技术条件

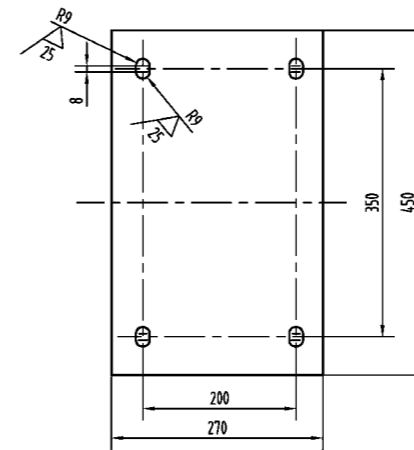
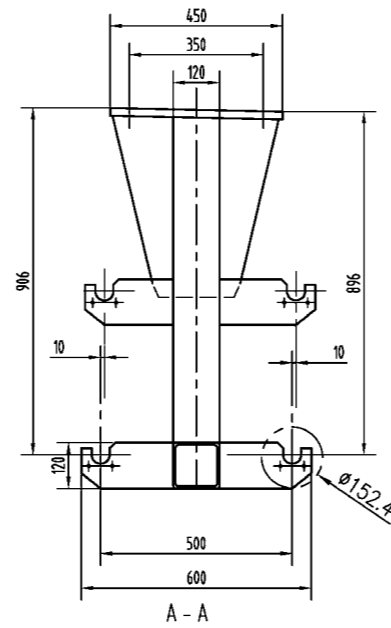
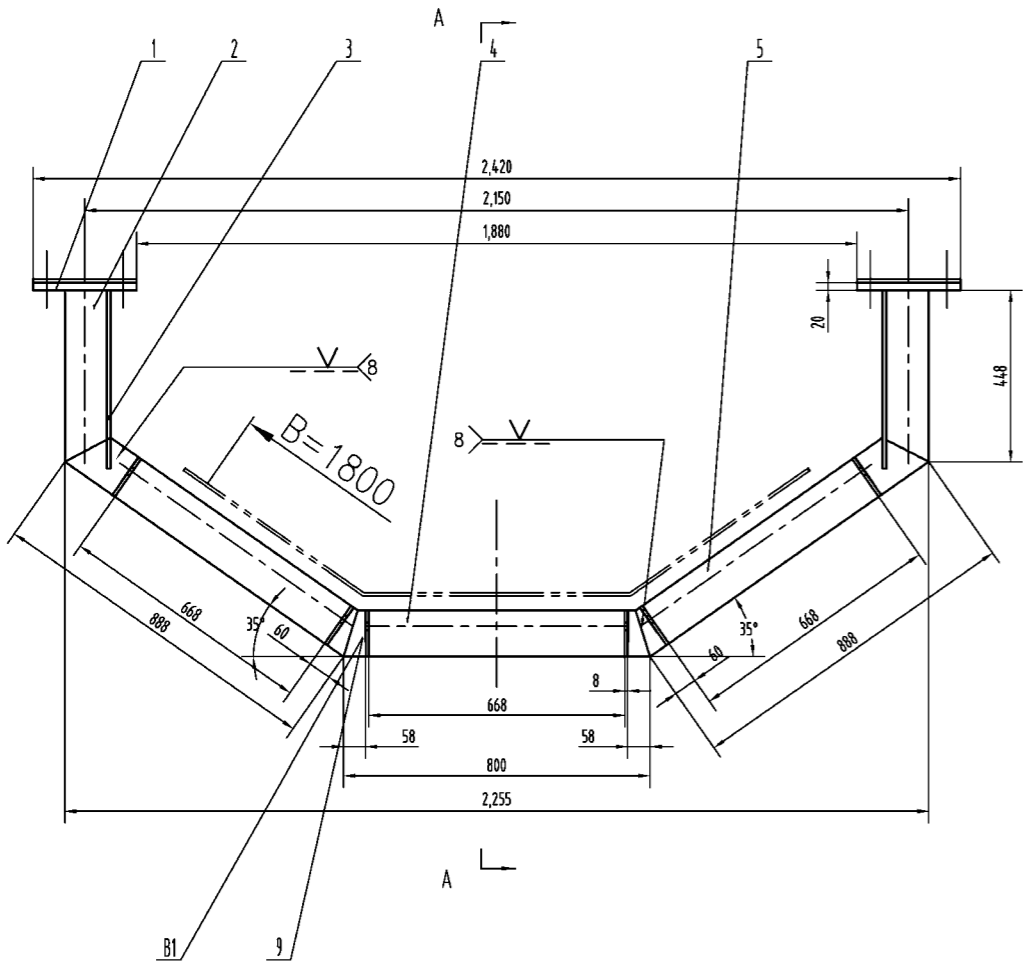
1. 焊条采用E4315.
2. 所有外露的气割边缘切割截面光洁度均要达到优级或磨平.
3. 图中未注明焊缝按同类焊缝施焊,未注贴角焊缝高度取被连接的薄板厚度0.7倍,未注明焊缝均按AWS D1.1标准或ZPMC焊接结构通用技术条件进行制造及检验.
4. 明细表尺寸供备料参考,准确尺寸由放样定.

Technology Requirement

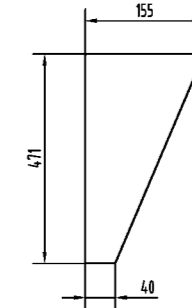
- 1.The type of welding stick adopted is E4315.
- 2.All the exposed cut fringe of section should be ground to the first-rate.
- 3.The non-noted welding line should be as the same as the others, the non-noted height of the welding line should be 0.7 thickness of the plate, all the non-noted welding line should be manufactured and examined by the AWS D1.1 standard or ZPMC welding technology requirement.
- 4.The dimension of the material in the list is for reference, the exact dimension is decided by the mold.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
B1	GB/T 818-2000	bolt M6x6	不锈钢 stainless	24			
9		Plate -1x75.2x78	不锈钢 stainless	12	0.04	0.5	
8		Plate -8x120x250	Q235	2	2.4	4.8	
7		Plate -8x120x230	Q235	2	2	4	
6		Plate -8x120x240	Q235	8	2.2	17.6	
5		Rectangular Pipe 120x120x6	Q235	2	18.7	37.4	l=888
4		Rectangular Pipe 120x120x6	Q235	1	16.5	16.5	l=800
3		Plate -10x155x461	Q235	4	2.2	8.8	
2		Rectangular Pipe 120x120x6	Q235	2	5.2	10.4	l=448
1		Plate -20x270x450	Q235	2	19	38	
PROJECT: Alabama 2000t/h Ship Unloader			DESIGN STAGE:	SCALE: 1:10			
ITEM NAME: 托架2 Frame 2			DRAW NO:	UL25170107			
ZPMC	DSGN	李学刚	05.12	TRACE		APP.	1
	DRAW	李学刚	05.12	CHK		QTY/SET	144
	CHK			VER.		SET/Crane	1

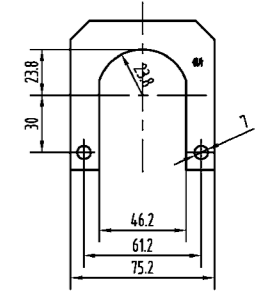
其余



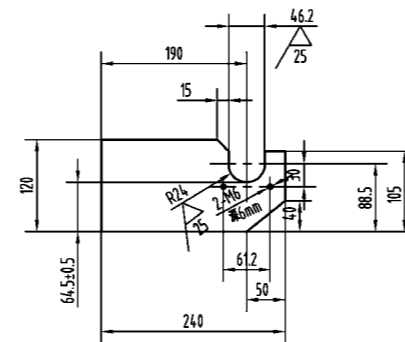
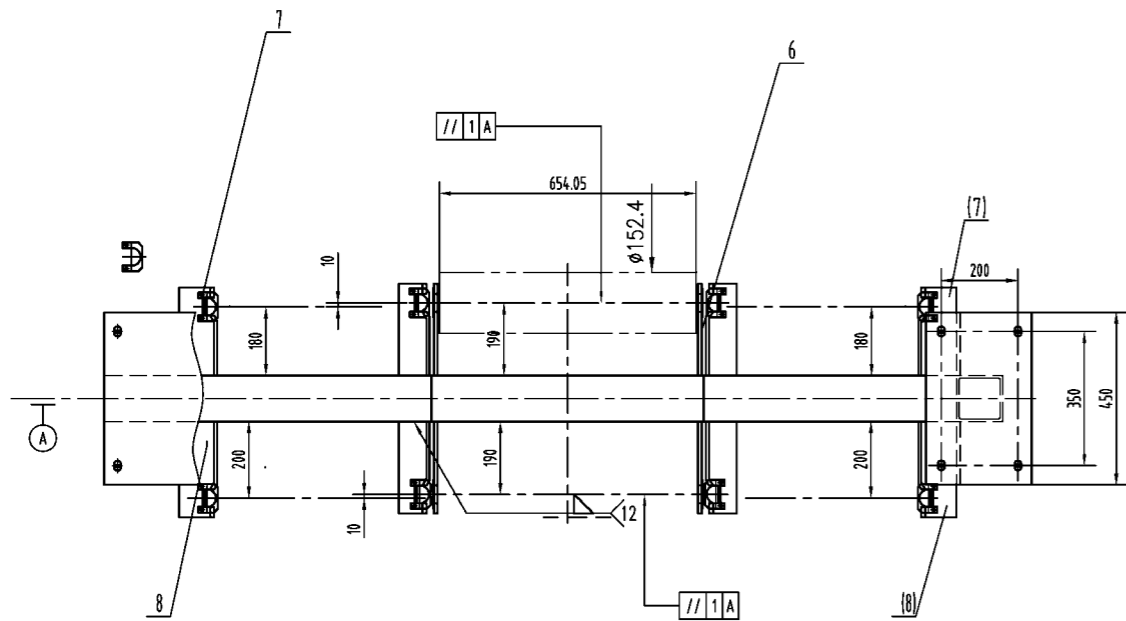
件 1
1:5



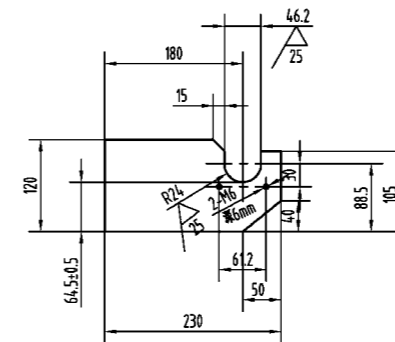
件 3
1:5



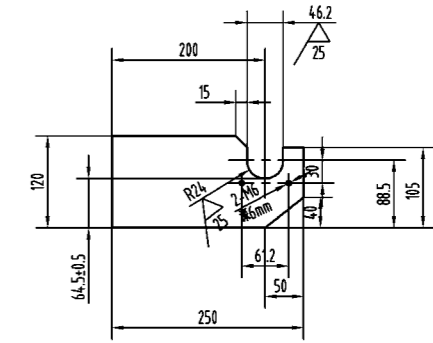
件 9
1:2



件 6
1:5



件 7
1:5



件 8
1:5

技术条件

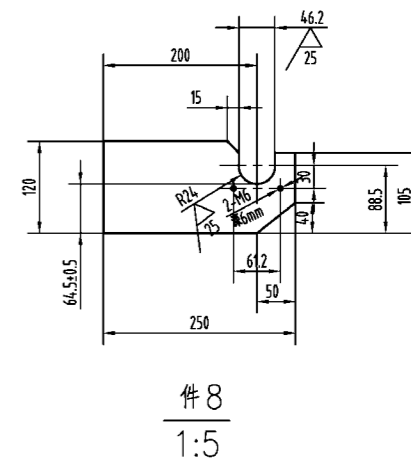
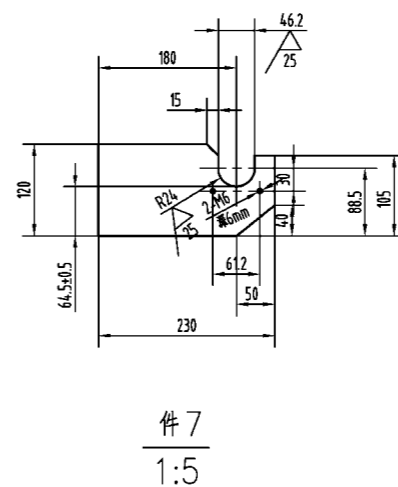
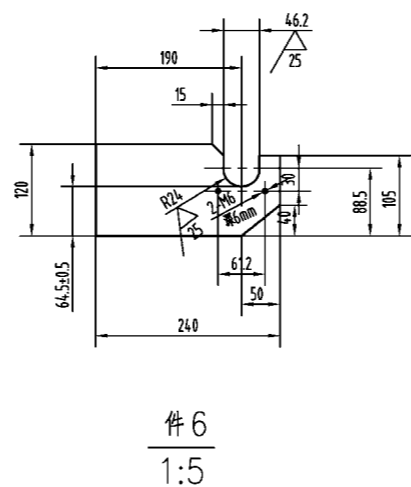
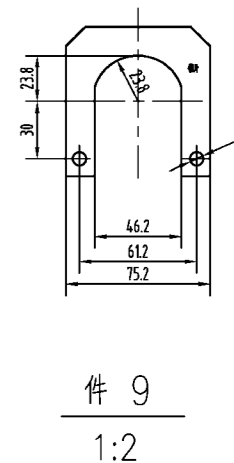
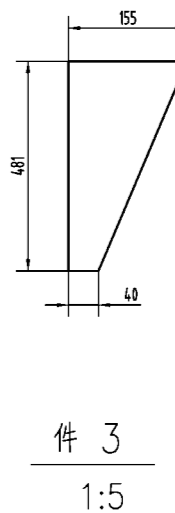
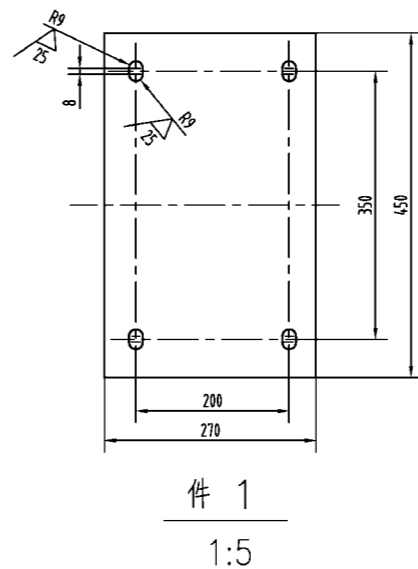
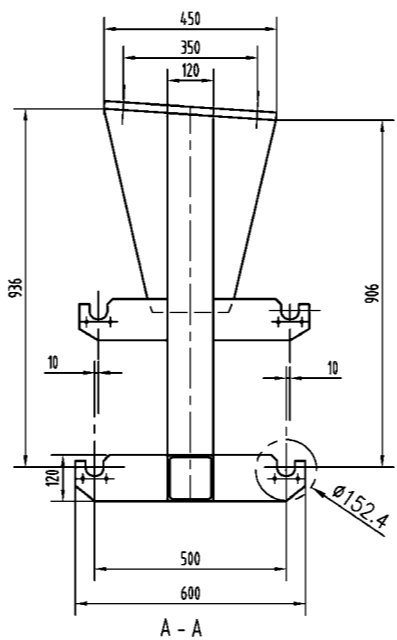
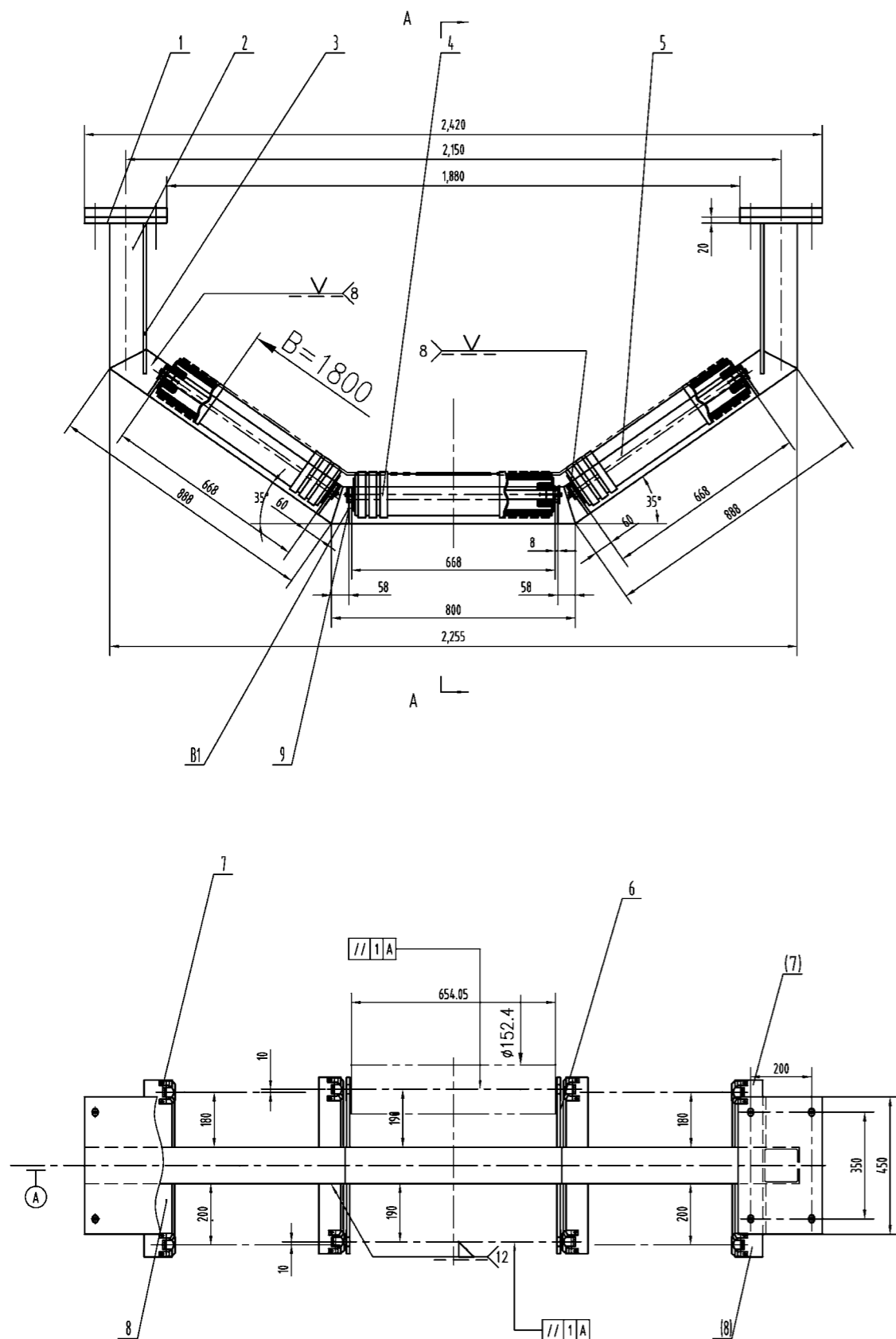
1. 焊条采用E4315.
2. 所有外露的气割边缘切割截面光洁度均要达到优级或磨平.
3. 图中未注明焊缝按同类焊缝施焊, 未注贴角焊缝高度取被连接的薄板厚度0.7倍, 未注明焊缝均按AWS D1.1标准或ZPMC焊接结构通用技术条件进行制造及检验.
4. 明细表尺寸供备料参考, 准确尺寸由放样定.

Technology Requirement

1. The type of welding stick adopted is E4315.
2. All the exposed cut fringe of section should be ground to the first-rate.
3. The non-noted welding line should be as the same as the others, the non-noted height of the welding line should be 0.7 thickness of the plate, all the non-noted welding line should be manufactured and examined by the AWS D1.1 standard or ZPMC welding technology requirement.
4. The dimension of the material in the list is for reference, the exact dimension is decided by the mold.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
B1	GB/T 818-2000	bolt M6x6	不锈钢 stainless	24			
9		Plate -1x75.2x78	不锈钢 stainless	12	0.04	0.5	
8		Plate -8x120x250	Q235	2	2.4	4.8	
7		Plate -8x120x230	Q235	2	2	4	
6		Plate -8x120x240	Q235	8	2.2	17.6	
5		Rectangular Pipe 120x120x6	Q235	2	18.7	37.4	l=888
4		Rectangular Pipe 120x120x6	Q235	1	16.5	16.5	l=800
3		Plate -10x155x471	Q235	4	2.2	8.8	
2		Rectangular Pipe 120x120x6	Q235	2	5.2	10.4	l=458
1		Plate -20x270x450	Q235	2	19	38	
PROJECT: Alabama 2000t/h Ship Unloader			DESIGN STAGE:	SCALE: 1:10			
ITEM NAME: 托架3 M11 Frame J			DRAW NO: UL25170108				
ZPMC	DSGN	李学斌	95.12	TRACE		APP.	
	DRAW	王根林	95.12	CHK		QTY/SET	150
	CHCK			VER.		SET/CRANE	1

其余



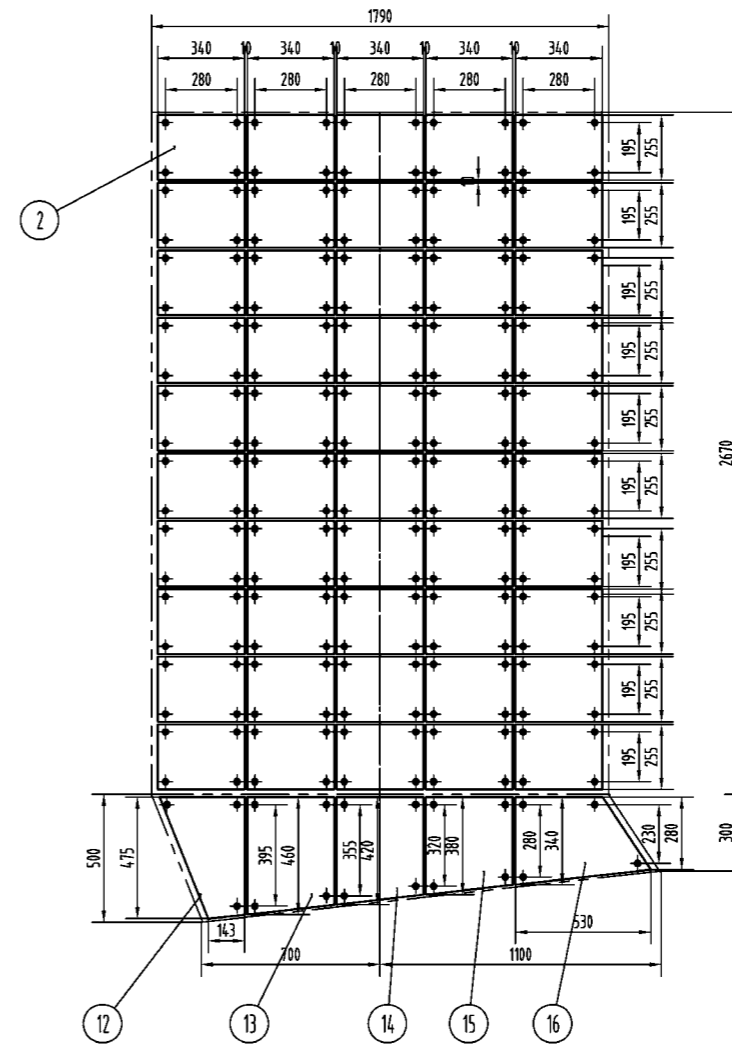
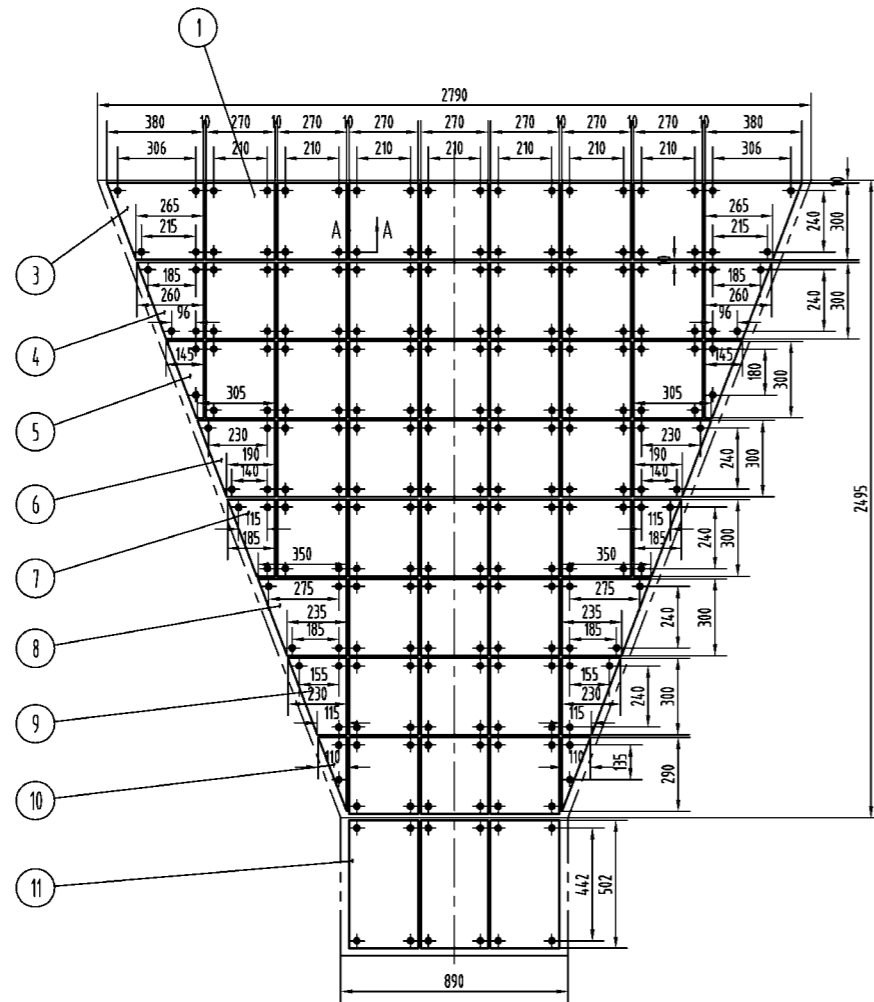
技术条件

1. 焊条采用E4315.
2. 所有外露的气割边缘切割截面光洁度均要达到优级或磨平.
3. 图中未注明焊缝按同类焊缝施焊, 未注贴角焊缝高度取被连接的薄板厚度0.7倍, 未注明焊缝均按AWS D1.1标准或ZPMC焊接结构通用技术条件进行制造及检验.
4. 明细表尺寸供备料参考, 准确尺寸由放样定.

Technology Requirement

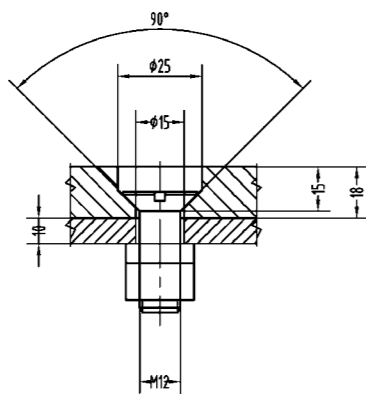
1. The type of welding stick adopted is E4315.
2. All the exposed cut fringe of section should be ground to the first-rate.
3. The non-noted welding line should be as the same as the others, the non-noted height of the welding line should be 0.7 thickness of the plate, all the non-noted welding line should be manufactured and examined by the AWS D1.1 standard or ZPMC welding technology requirement.
4. The dimension of the material in the list is for reference, the exact dimension is decided by the mold.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
B1	GB/T 818-2000	bolt M6x6	不锈钢 stainless	24			
9		Plate -1x75.2x78	不锈钢 stainless	12	0.04	0.5	
8		Plate -8x120x250	Q235	2	2.4	4.8	
7		Plate -8x120x230	Q235	2	2	4	
6		Plate -8x120x240	Q235	8	2.2	17.6	
5		Rectangular Pipe 120x120x6	Q235	2	18.7	37.4	l=888
4		Rectangular Pipe 120x120x6	Q235	1	16.5	16.5	l=800
3		Plate -10x155x481	Q235	4	2.4	9.6	
2		Rectangular Pipe 120x120x6	Q235	2	5.5	11	l=478
1		Plate -20x270x450	Q235	2	19	38	
PROJECT: Alabama 2000t/h Ship Unloader				DESIGN STAGE:		SCALE: 1:10	
ITEM NAME:		托模架4 Mold Frame 4		DRAW NO:		UL25170109	
ZPMC	DSGN	王学斌	Q24Z	TRACE		APP.	1
	DRAW	王学斌	Q24Z	CHK		QTY/SET	152
	CHCK			VER.		SET/CRANE	1



The Method of the Scaleboard Fixed on the Hopper Wall

衬板在斗壁固定法



技术要求

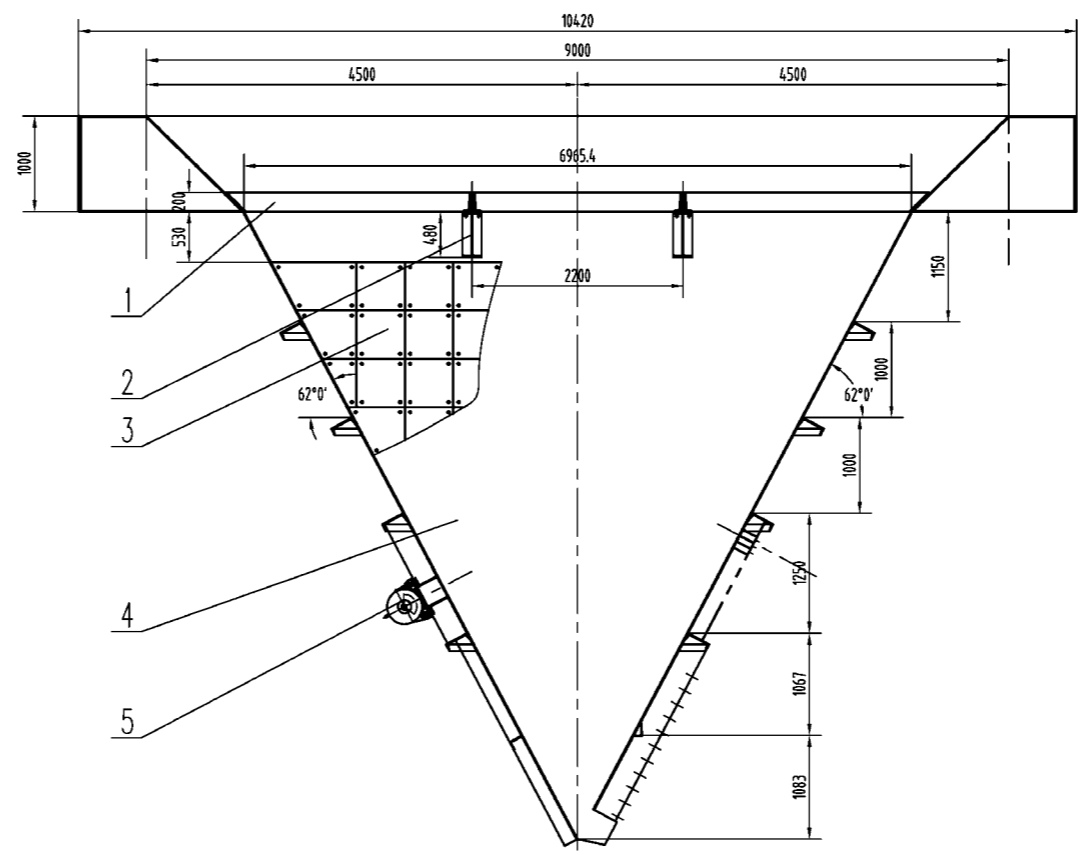
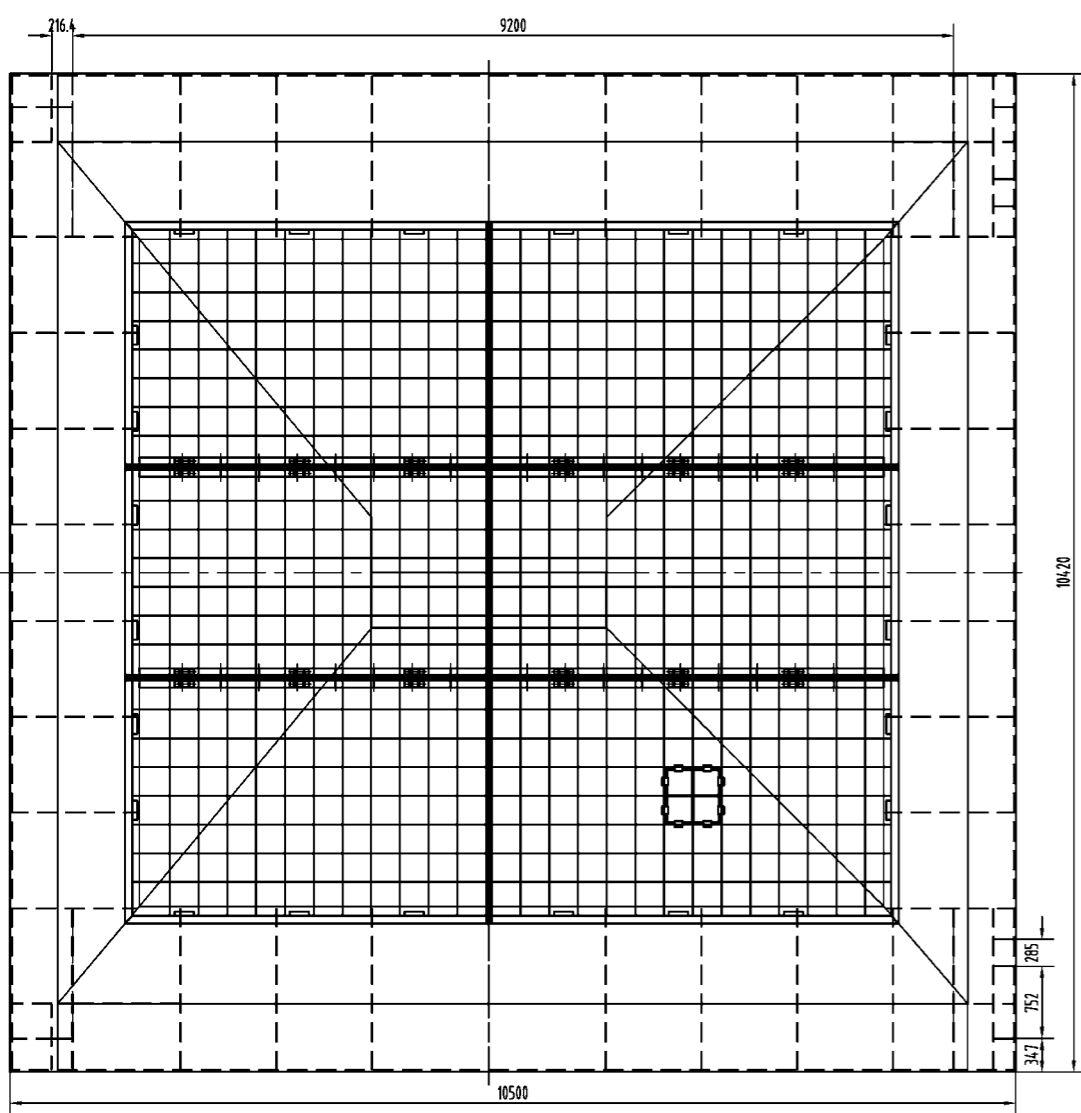
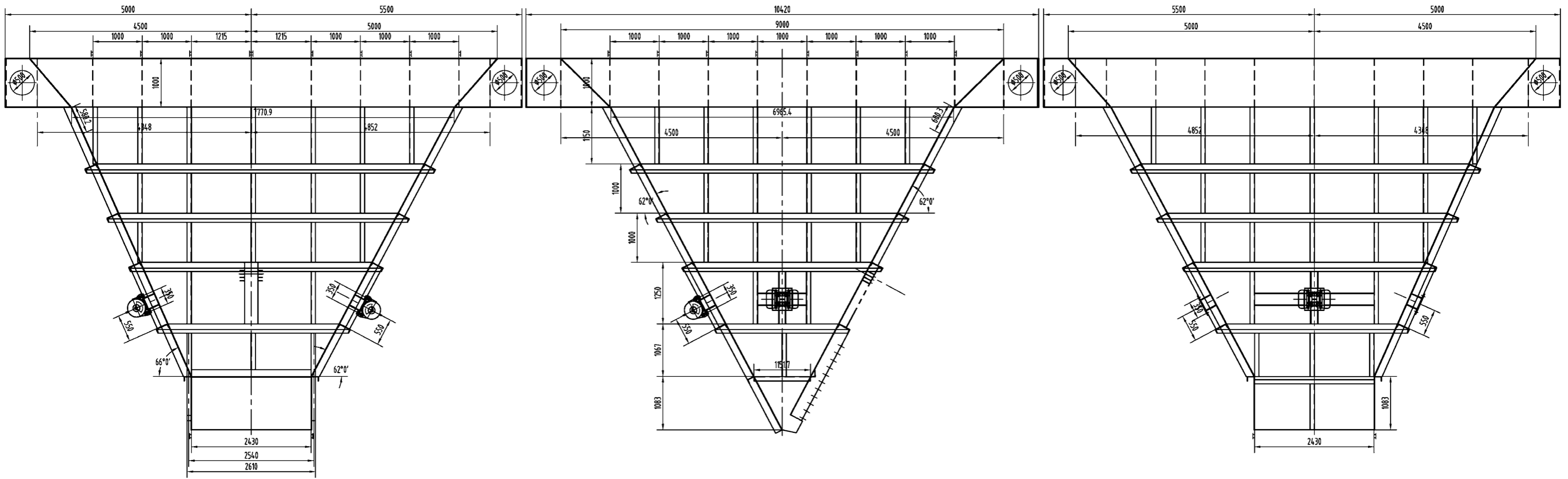
- 1.耐磨衬板的螺孔与斗体结构配钻?
- 2.明细表内板料尺寸仅供参考?准确尺寸放样定?

Technology Requirement

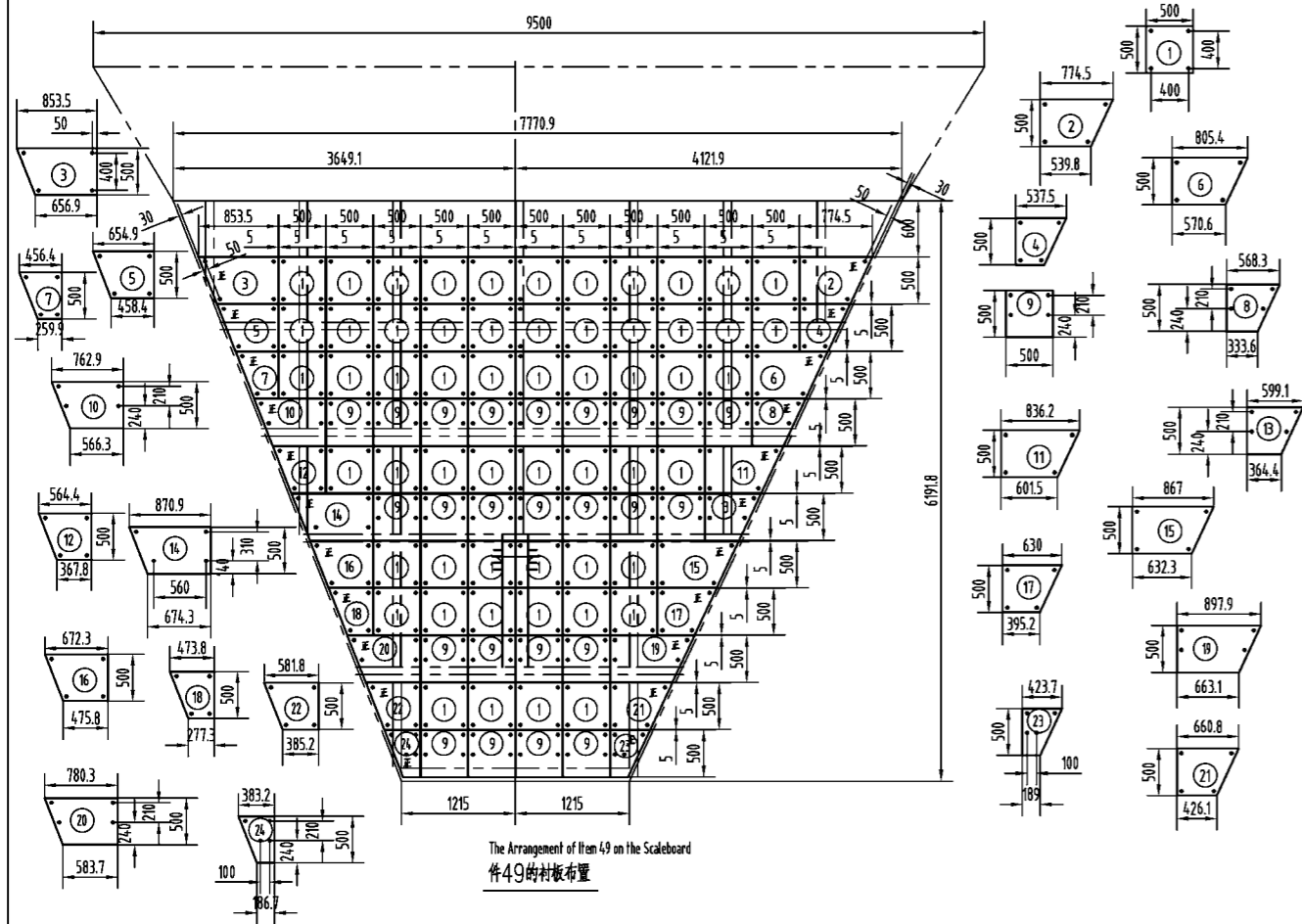
- 1.The holes of scaleboard should be drilled matching the holes in the hopper structure.
- 2.The dimension of the material in the list is for reference, the exact dimension is decided by the mold.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
16	GB709-88	-18x340x530	Casting	2	18	36.00	铸件
15	GB709-88	-108x340x380	Casting	2	16.2	32.4	铸件
14	GB709-88	-18x340x420	Casting	2	18	36.00	铸件
13	GB709-88	-18x340x460	Casting	2	19.8	39.6	铸件
12	GB709-88	-18x340x475	Casting	2	12.6	25.2	铸件
11	GB709-88	-18x270x502	Casting	3	12.6	37.8	铸件
10	GB709-88	-18x110x290	Casting	4	2.2	8.8	铸件
9	GB709-88	-18x230x300	Casting	4	6.6	26.4	铸件
8	GB709-88	-18x300x350	Casting	4	11.7	46.80	铸件
7	GB709-88	-18x185x300	Casting	4	4.5	18.00	铸件
6	GB709-88	-18x300x305	Casting	4	9.9	39.60	铸件
5	GB709-88	-18x145x300	Casting	4	3.6	14.4	铸件
4	GB709-88	-18x260x300	Casting	4	9	36.00	铸件
3	GB709-88	-18x300x380	Casting	4	13.5	54.00	铸件
2	GB709-88	-18x255x340	Casting	100	12.0	1200.0	铸件
1	GB709-88	-108x270x300	Casting	80	10.8	864	铸件

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
PROJECT:		Alabama 2000t/h Ship Unloader	DESIGN STAGE:	SCALE: 1:40			
ITEM NAME:		衬板 Scaleboard	DRAW NO.:	UL25170203A			
ZPMC	DSGN	李学斌	DATE	TRACE	APP.		
	DRAW	王权民	DATE	CHK	QTY/SET	2550	
	CHK		VER.	SET/CRANE	1		



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
5	UL25170305	Vibratile Motor Assembly	Assembly	3	254.5	763.5	震动电机装置
4	UL25170304	Hopper Structure	Welding	1		28294.2	漏斗结构
3	UL25170303	Scaleboard	Casting	1		13753.1	衬板
2	UL25170302	I-shaped Beam	Welding	1		1833.8	工字梁
1	UL25170301	Grille Bar	Welding	1		5661.2	格栅
PROJECT: Alabama 2000t/h Ship Unloader				DESIGN STAGE:	SCALE: 1:40		
ITEM NAME: 漏斗 Hopper				DRAW NO: UL25170300			
ZPMC		DSGN	王根根	05/12	TRACE	APP.	
		DRAW	王根根	05/12	CHK	Q'TY/SET	50306
		CHK			VER.	SET/CRANE	1

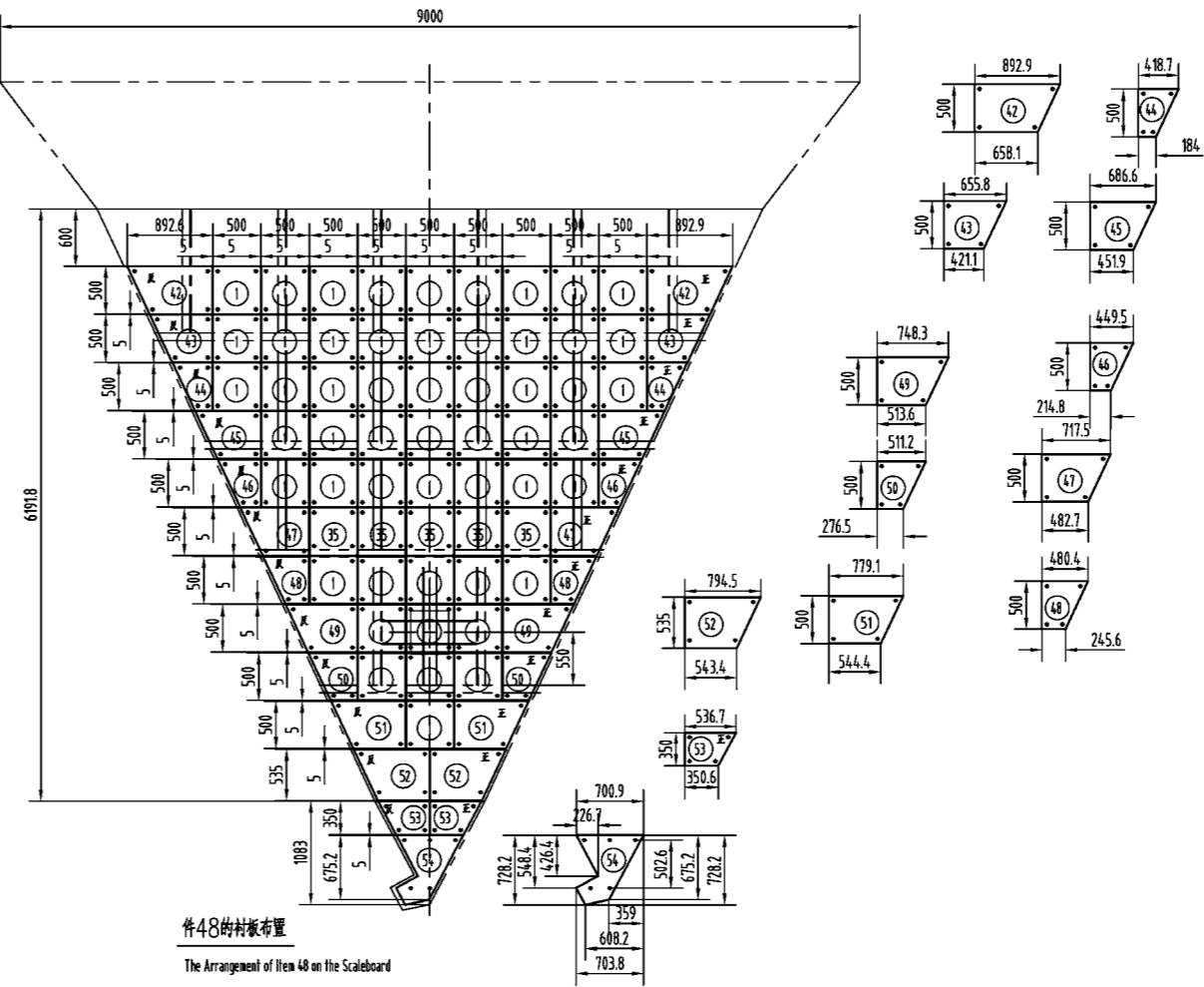
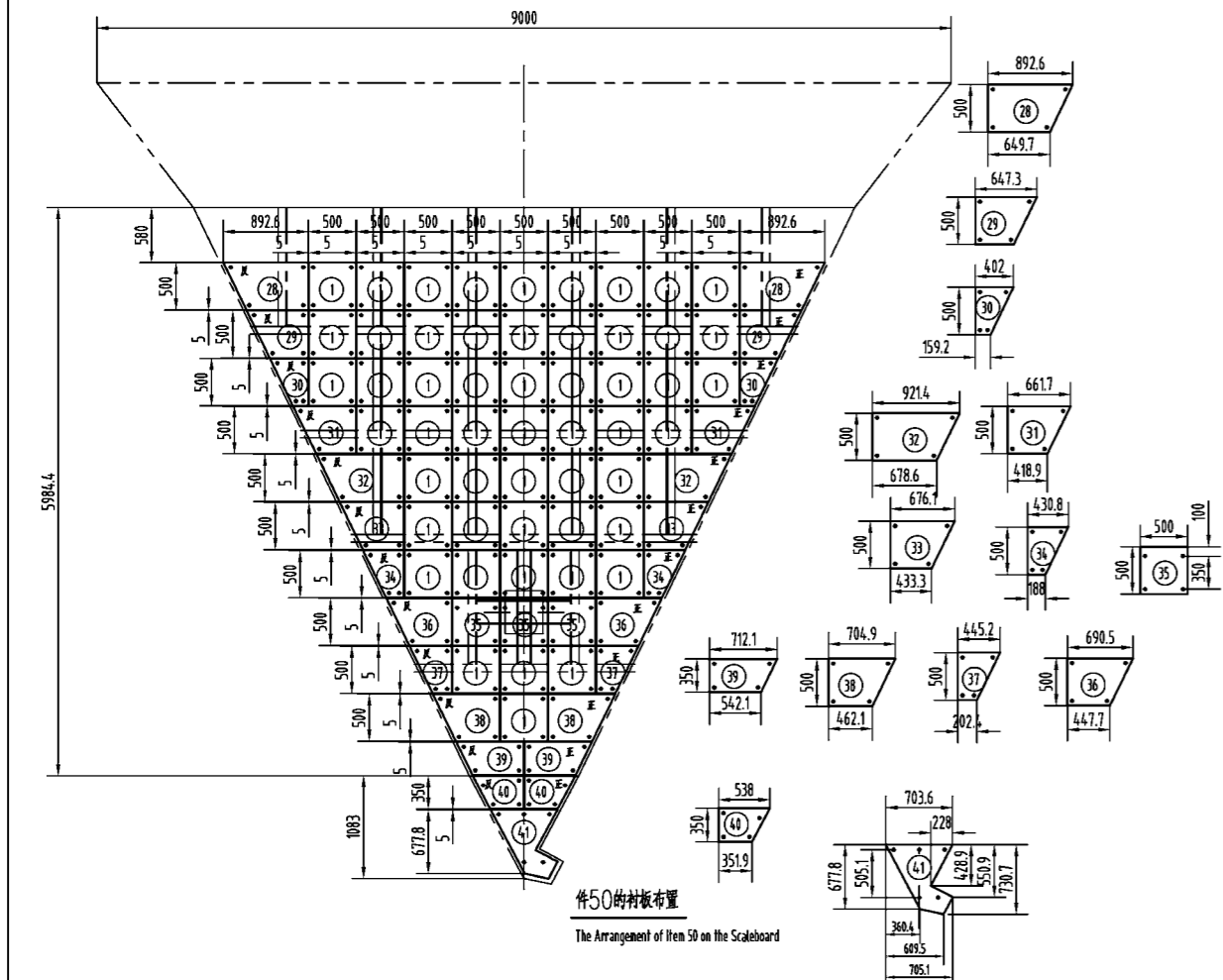
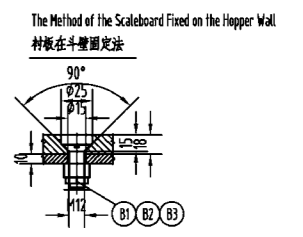
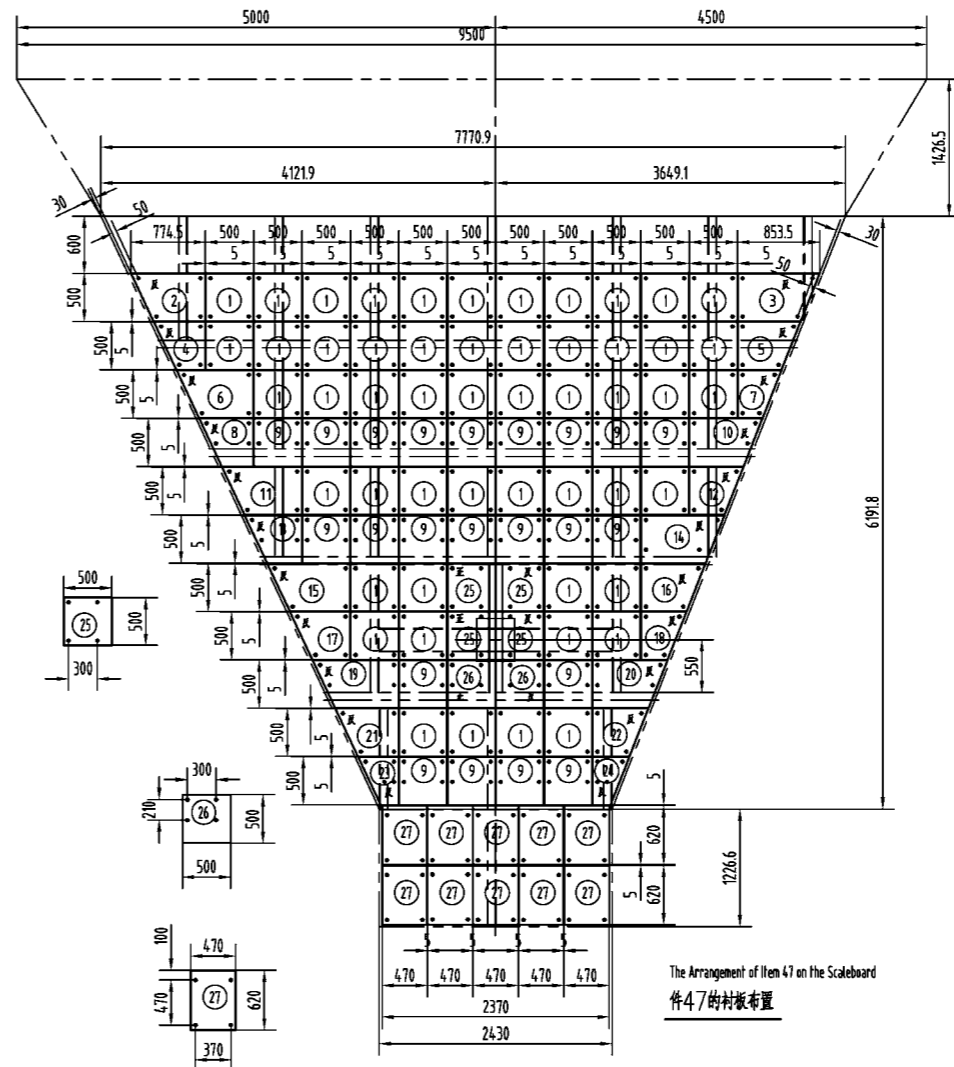


技术要求

1. 对称制作的衬板分别标明“正”“反”，数量各半
2. 各衬板均按边长公差±2mm，孔距公差±2mm制造
3. 漏斗上的螺栓孔与衬板上的孔配钻

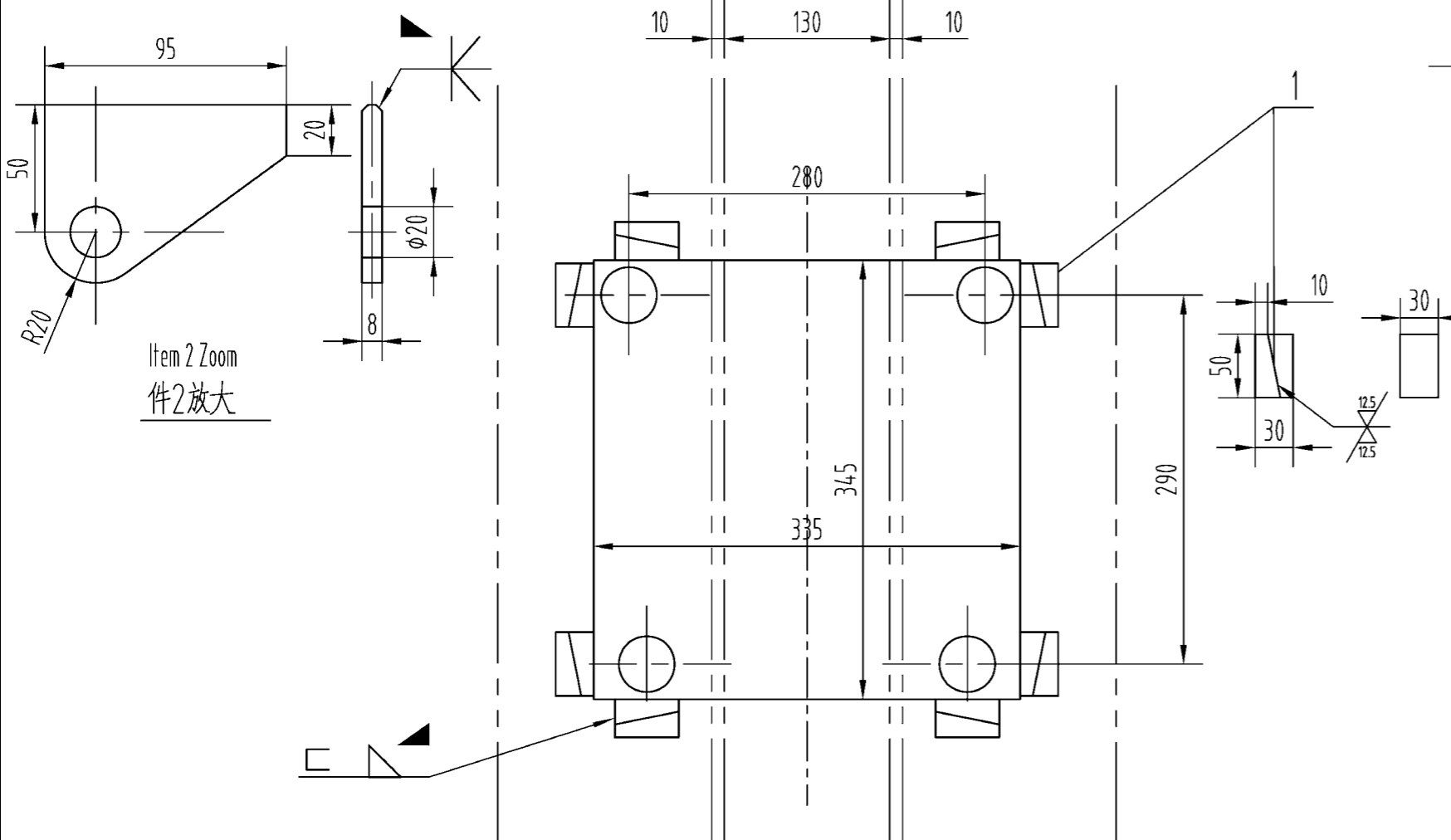
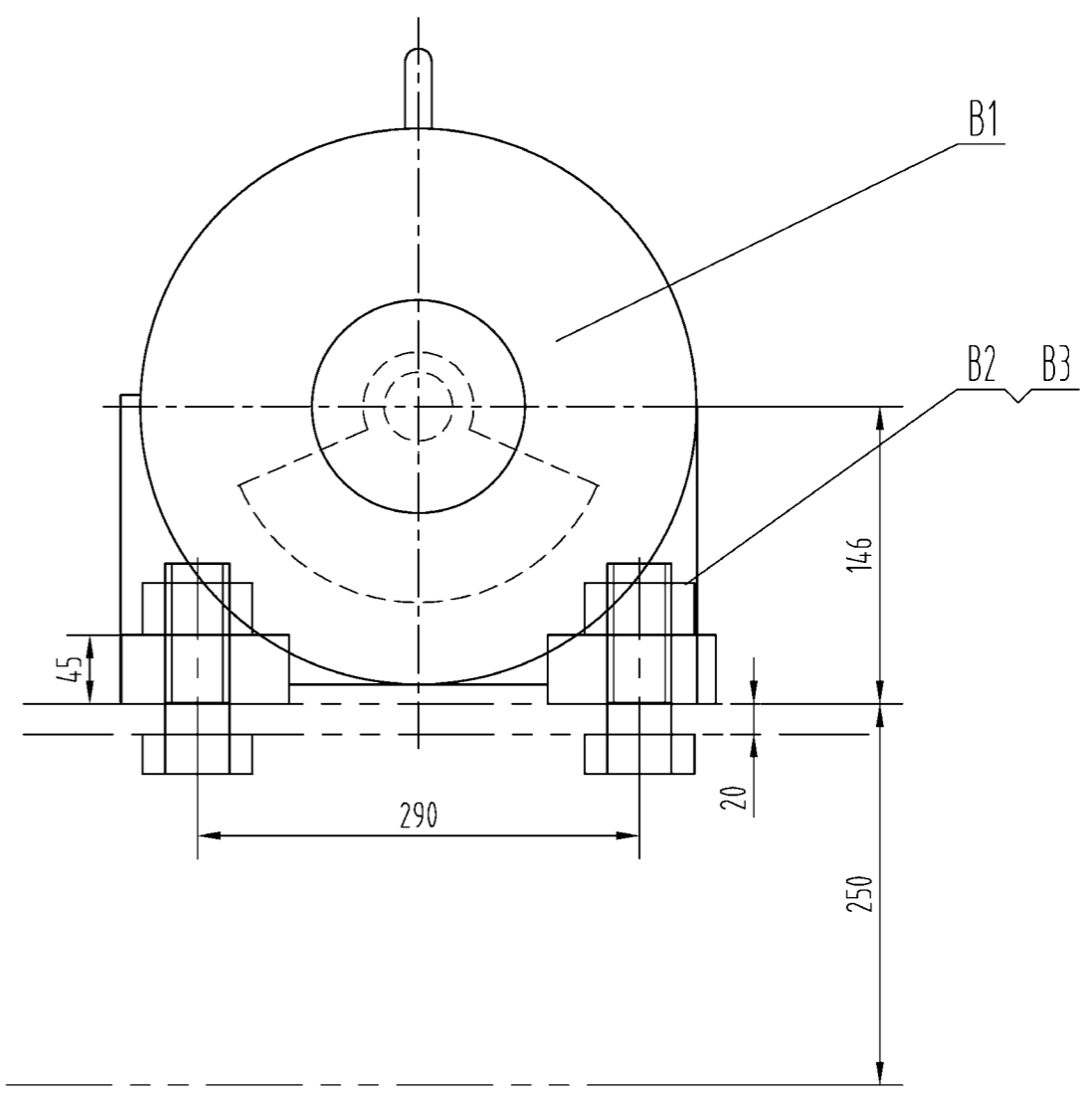
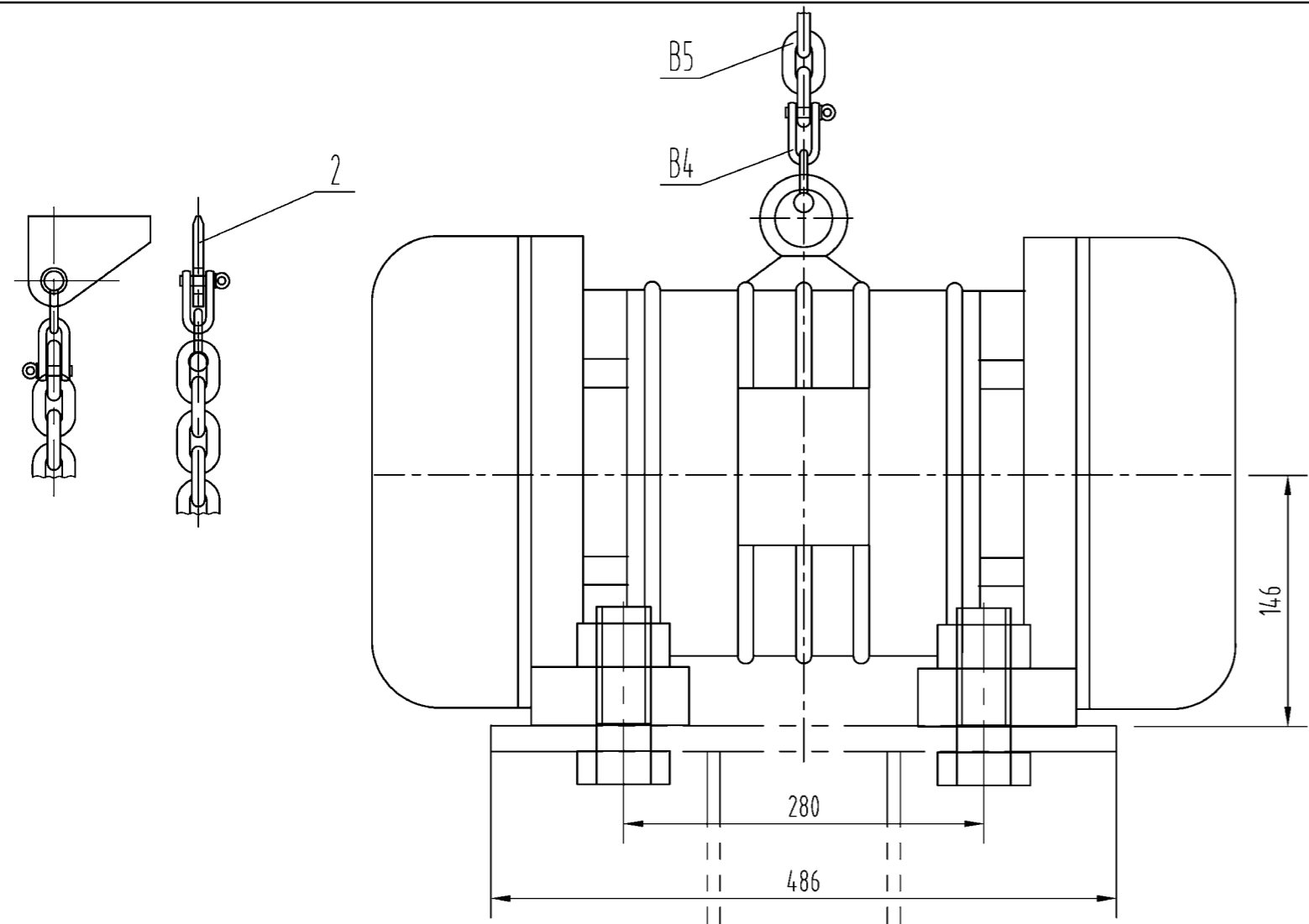
Technology Requirement

1. The symmetry fabricated scaleboards should noted "Positive", "Negative" half of the total each.
2. The tolerance of each scaleboard should be ±2mm in the border, and ±2mm in the hole distance.
3. The bolt holes on the hopper should be drilled matching the holes in the scaleboard.



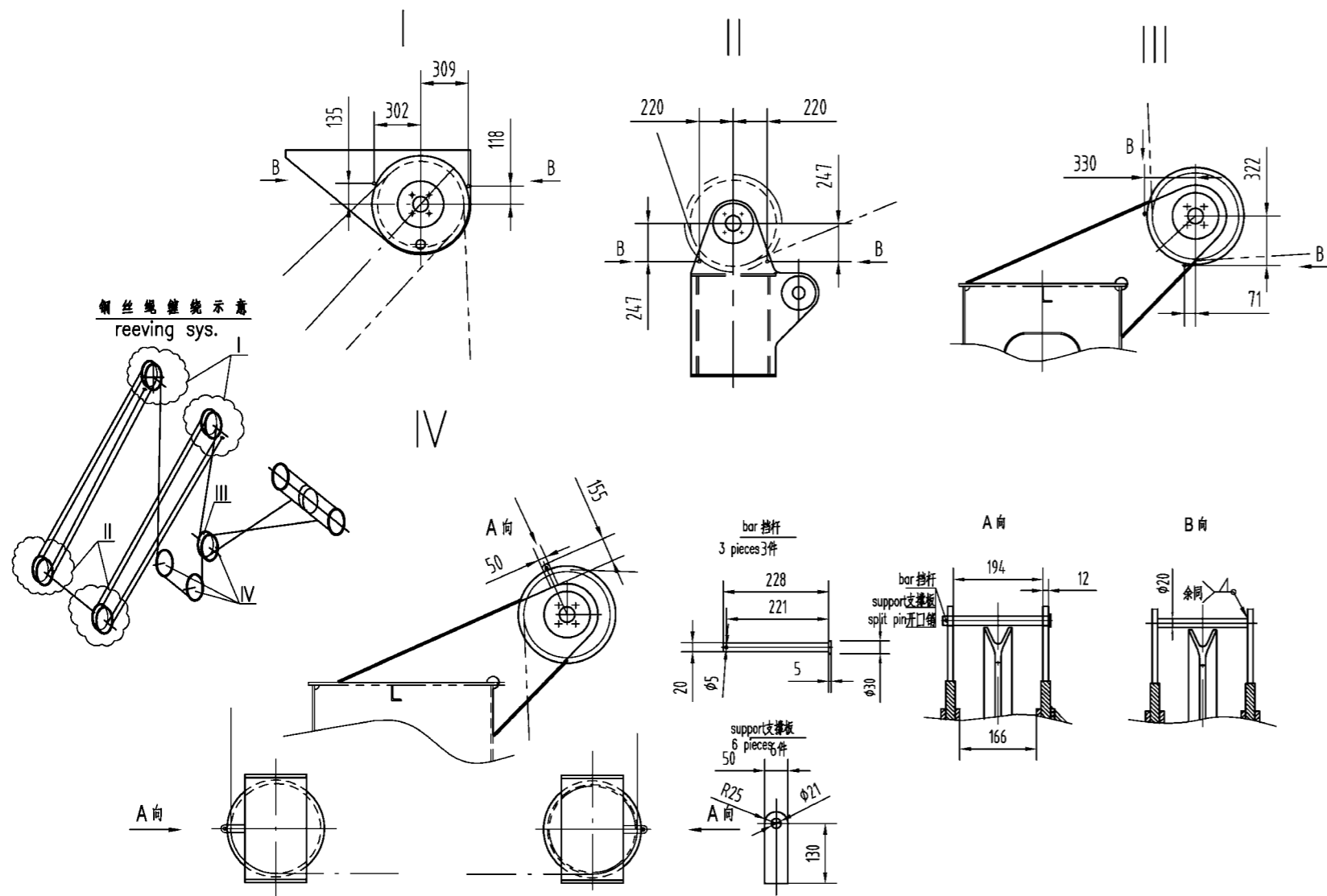
B3	GB805-88	Nut M12	65Mn	1512	0.01	15.12	螺母M12
B2	GB6170-86	Nut M12	8H	1512	0.01	15.12	螺母M12
B1	GB68-85	Deep Bolt M12x50	8.8S	1512	0.1	151.2	双头螺栓M12x50
54		-18x700.9x675.2	Casting	1	34.9	34.9	
53		-18x350x536.7	Casting	2	21.7	43.4	衬板
52		-18x535x794.5	Casting	2	50.3	100.6	衬板
51		-18x500x779.2	Casting	2	46.5	93	衬板
50		-18x500x511.2	Casting	2	27.6	55.2	衬板
49		-18x500x748.3	Casting	2	44.3	88.6	衬板
48		-18x500x480.4	Casting	2	25.4	50.8	衬板
47		-18x500x717.5	Casting	2	42.1	84.2	衬板
46		-18x500x449.5	Casting	2	23.2	46.4	衬板
45		-18x500x686.6	Casting	2	39.9	79.8	衬板
44		-18x500x418.7	Casting	2	21.0	42	衬板
43		-18x500x655.8	Casting	2	37.8	75.6	衬板
42		-18x500x892.9	Casting	2	54.5	109	衬板
41		-18x703.6x677.8	Casting	1	35.2	35.2	衬板
40		-18x500x538	Casting	2	21.7	43.4	衬板
39		-18x500x712.1	Casting	2	30.7	61.4	衬板
38		-18x500x704.9	Casting	2	40.9	81.8	衬板
37		-18x500x445.2	Casting	2	22.6	45.2	衬板
36		-18x500x690.5	Casting	2	39.9	79.8	衬板
35		-18x500x500	Casting	8	35.3	282.4	衬板
34		-18x500x430.8	Casting	2	21.6	43.2	衬板
33		-18x500x676.1	Casting	2	38.9	77.8	衬板
32		-18x500x921.4	Casting	2	56.2	112.4	衬板
31		-18x500x661.7	Casting	2	37.9	75.8	衬板
30		-18x500x402	Casting	2	19.5	39	衬板
29		-18x500x647.3	Casting	2	36.9	73.8	衬板
28		-18x500x892.6	Casting	2	54.2	108.4	衬板
27		-18x620x470	Casting	10	40.9	409	衬板
26		-18x500x500	Casting	2	35.3	70.6	衬板
25		-18x500x500	Casting	4	35.3	141.2	衬板
24		-18x500x383.2	Casting	2	19.9	39.8	衬板
23		-18x500x423.7	Casting	2	21.3	42.6	衬板
22		-18x500x581.8	Casting	2	33.9	67.8	衬板
21		-18x500x660.8	Casting	2	38.1	76.2	衬板
20		-18x500x780.3	Casting	2	47.9	95.8	衬板
19		-18x500x897.9	Casting	2	54.9	109.8	衬板
18		-18x500x473.8	Casting	2	26.3	52.6	衬板
17		-18x500x630	Casting	2	35.9	71.8	衬板
16		-18x500x672.3	Casting	2	40.3	80.6	衬板
15		-18x500x867.2	Casting	2	52.7	105.4	衬板
14		-18x500x870.9	Casting	2	54.3	108.6	衬板
13		-18x500x599.1	Casting	2	33.8	67.6	衬板
12		-18x500x564.4	Casting	2	32.7	65.4	衬板
11		-18x500x836.2	Casting	2	50.5	101	衬板
10		-18x500x762.9	Casting	2	46.7	93.4	衬板
9		-18x500x500	Casting	46	35.3	1623.8	衬板
8		-18x500x568.3	Casting	2	31.6	63.2	衬板
7		-18x500x456.4	Casting	2	25	50	衬板
6		-18x500x805.4	Casting	2	48.3	96.6	衬板
5		-18x500x654.9	Casting	2	39	78	衬板
4		-18x500x537.5	Casting	2	29.4	58.8	衬板
3		-18x500x853.5	Casting	2	53.1	106.2	衬板
2		-18x500x774.5	Casting	2	46.1	92.2	衬板
1		-18x500x500	Casting	214	35.3	7554.2	衬板

序号 MARK	图号或标准 DRAWING NO & STANDARD	名称 规格 DESCRIPTION	材料 MATERIAL	数量 QTY	单重 PER WT	总重 TOTAL WT	备注 REMARKS
PROJECT: Alabama 2000t/h Ship Unloader			DESIGN STAGE:		SCALE: 1:40		
ITEM NAME: 衬板 Scaleboard			DRAW NO: UL25170303A				
ZPMC	DSGN	设计人	QC/KZ	TRACE		APP.	
	DRAW	制图人	QC/KZ	CHK		QTY/SET	13753.1
	CHK		VER.			SET/CRANE	1



B5	GB5802-86	Chain ?10 l=1m	Purchase 外购成品	1	2.26	2.26	链条?10 l=1m
B4	沪Q/JB44-66	Buckle 0.2	Purchase 外购成品	4	0.03	0.12	卸扣0.2
B3	SPL6170-2000	Hexangular Nut M24 SPL 8H		4	0.01	0.04	六角螺母M24 SPL
B2	GB5782-86	Bolt M24x110 8.8S		4	1	4	螺栓M24x110
B1		Vibratile Motor JV174	Purchase 外购成品	1	245	245	JV174振动电机
2	GB709-88	-8x95x70 Q235-A		1	0.3	0.30	钢板
1	GB709-88	-30x30x50 Q235-A		8	0.35	2.8	钢板

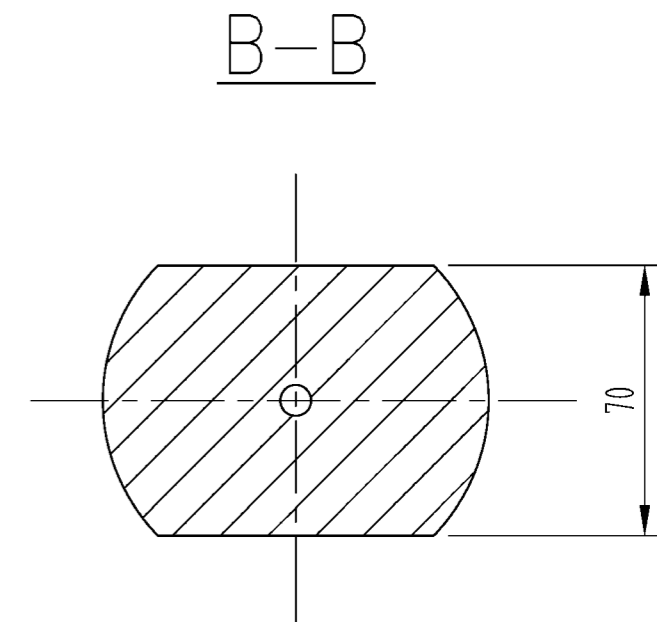
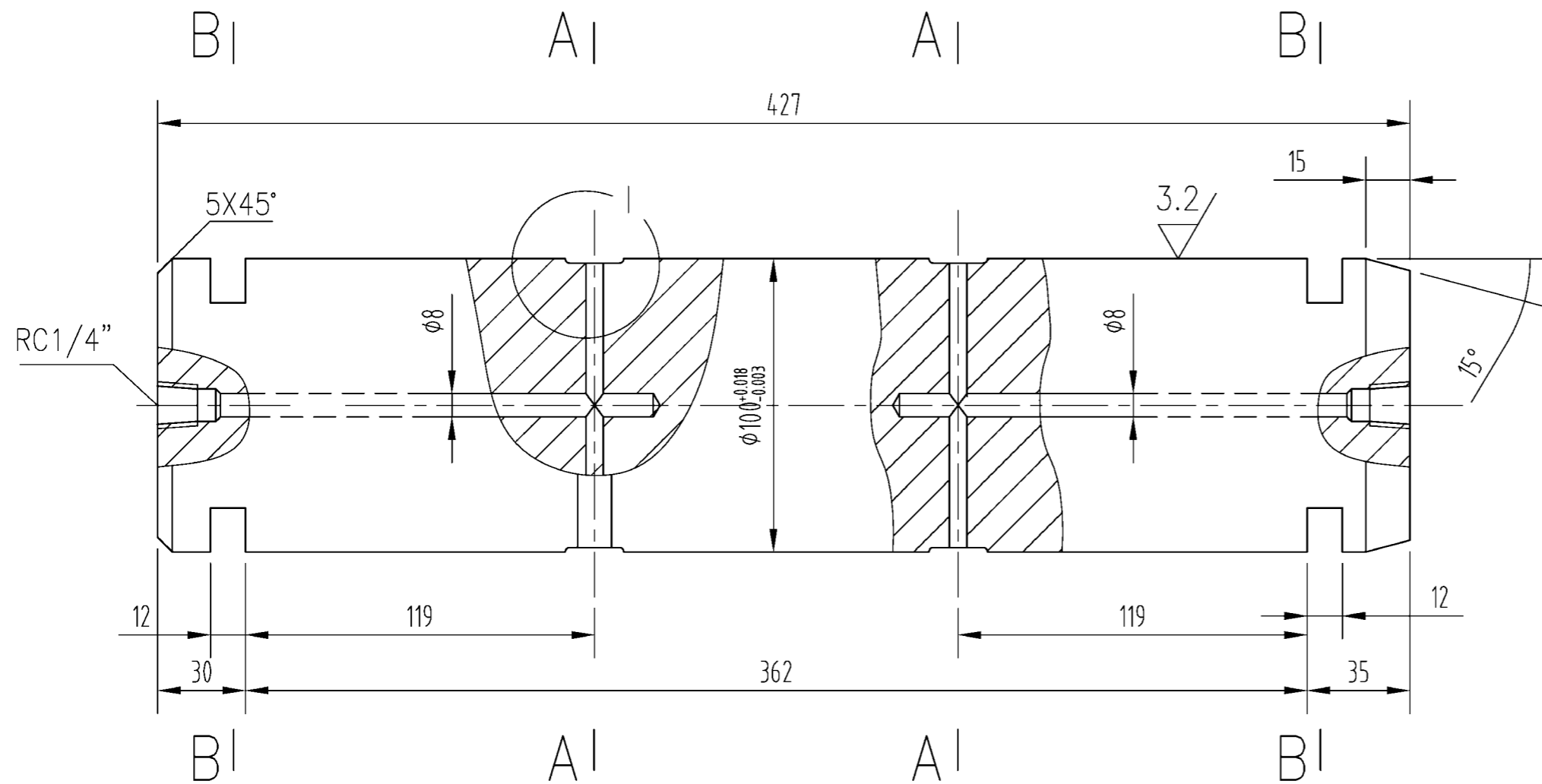
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	
PROJECT: Alabama 2000t/h Ship Unloader			DESIGN STAGE:		SCALE: 1:5		
ITEM NAME: 振动电机装配 Vibratile Motor Assembly			DRAW NO: UL25170305				
ZPMC	DSGN	李顺	03/12	TRACE		APP.	
	DRAW	王根民	03/12	CHCK		Q'TY/SET	254.52
	CHCK			VER.		SET/CRANE	1



B15	GB9877.1-88	油封 115*140*12		24		
B14	GB71-85	Fastened Bolts M8x25 紧定螺钉 M8X25	不锈钢 Stainless Steel	4		
B13	GB955-87	Washer 20 垫圈 20	65Mn	12	0.008	0.1
B12	GB5783-86	Bolt M20x50 螺栓 M20X50	8.8S	12	0.145	1.7
B11	GB41-86	Nut M12 螺母 M12	不锈钢 Stainless Steel	6	0.012	0.07
B10	GB5783-86	Bolt M12x40 螺栓 M12X40	不锈钢 Stainless Steel	6	0.038	0.2
B9		Rope Clip 22KTH 绳夹 22KTH		6	1.12	2.24
B8	GB5974.2-86	套环 40 宽 70	Q235	2		
B7	GB1102-74	钢丝绳 6W(19)-21.5-1700 Wire Rope 6W(19)-21.5-1700	约 130m About 130m	1	228	228
B6	镇江锚链厂 Zhenjiang Anchor, Co	链条 M2-050-B10(含卸扣, 拉力 100吨) Chain M2-050-B10(Fastened 100t)	L=6890	2	334	668
B5	JIS B0203	fitting P-Pt1/4" 油嘴 P-Pt1/4"		12	0.1	1.2
B4	GB955-87	Washer 16 垫圈 16	65Mn	56	0.005	0.3
B3	GB5783-86	Bolt M16-30 螺栓 M16-30	8.8S	56	0.053	3
B2	GB283-87	Bearing 42220E 轴承 42220E	100X180X34	24	3.57	86
B1	镇江市黄墟锚链厂 Zhenjiang Huangxu Anchor, Co	Double Panel Compressed Sheave 双幅板压制滑轮	HLA-020	12	31	372

17	UL25170417	Base Cover 支座套	35#	2	10.5	21
16	UL25170416	Sliding Bearing 滑动轴承	ZQAL9-4	2	3.1	6.2
15	UL25170415	Material Baffle Bucket Base 挡料斗支座	Welding 焊接件	2	87.5	175
14	UL25170414	Hoist Hinge Base 起重链支座	Welding 焊接件	2	30.9	61.8
13	UL25170413	Sheave Shaft(4) 滑轮轴(4)	35CrMo	2	30	60
12	UL25170412	Sheave Shaft(3) 滑轮轴(3)	35CrMo	2	19	38
11	UL25170411(A)	Sheave Base(2) 滑轮座(2)	Welding 焊接件	2	252.8	505.6
10	UL25170410	Adjusting Washer 调整垫片	Q235	12	0.15	1.8
9	UL25170409	Safety Cover 防护罩	Welding 焊接件	2	28	56
8	UL25170408	Bushing(3) 轴套(3)	Q235	10	0.7	
7	UL25170407	Sheave Shaft(2) 滑轮轴(2)	35CrMo	2	18	36
6	UL25170406A/B	Sheave Base(1) 滑轮座(1)	Welding 焊接件	2	151.4	302.8
5	UL25170405	Bushing(2) 轴套(2)	Q235	2	0.7	1.4
4	UL25170404	Bushing(1) 轴套(1)	Q235	6	0.4	2.4
	UL25170403	Material Baffle Bucket 挡料斗体	Welding 焊接件	1	11026	11026
2	UL25170402	Sheave Shaft(1) 滑轮轴(1)	35CrMo	2	26	52
1	UL25170401	Clip Panel(1) 卡板(1)	Q235	28	0.6	16.8
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total
PROJECT: Alabama 2000t/h Ship Unloader				DESIGN STAGE:	SCALE: 1:60	
ITEM NAME: 挡料板及缠绕 Material Baffle And Wrap			DRAW NO: UL25170400(2/2)		PROJ.	
ZPMC	DSGN	李顺	05/12	TRACE		APP.
	DRAW	王根民	05/12	CHCK		Q'TY/SET 14425
	CHCK			VER.		SET/CRANE 1

Others
其余: $\nabla 12.5$

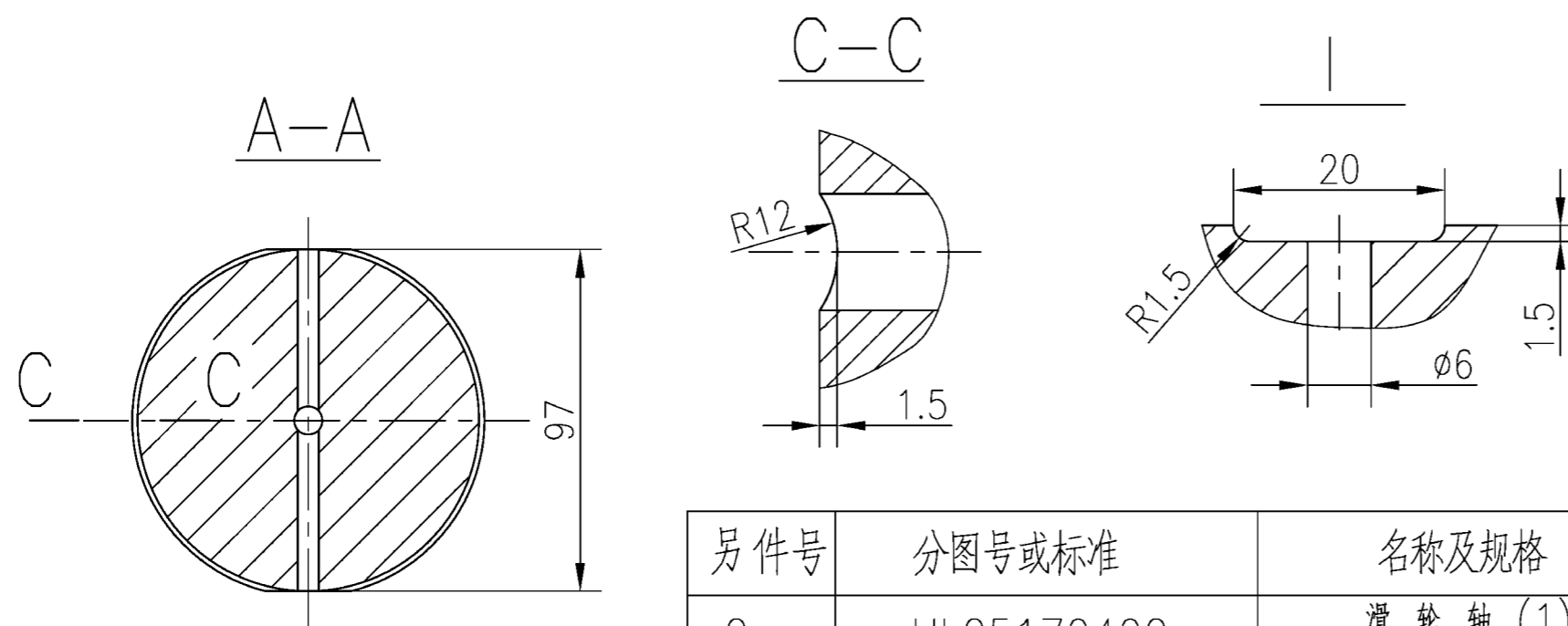


技术条件

1. 热处理: 调质HB225~255
2. 锐边倒钝
3. 未注圆角均为R1
4. 未注倒角均为1X45°.

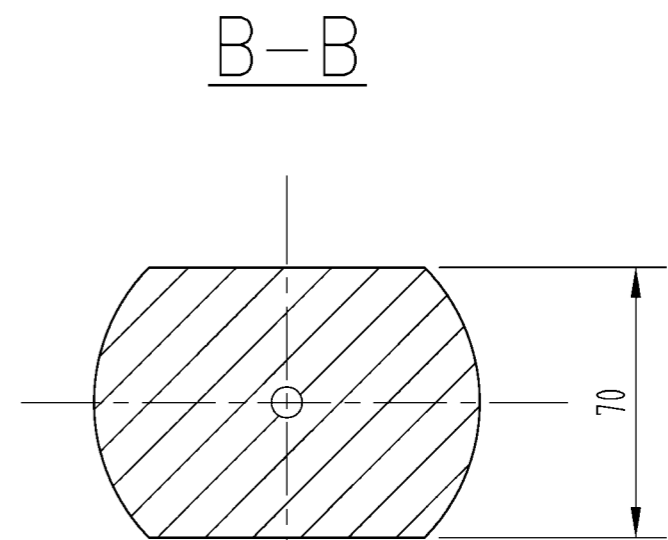
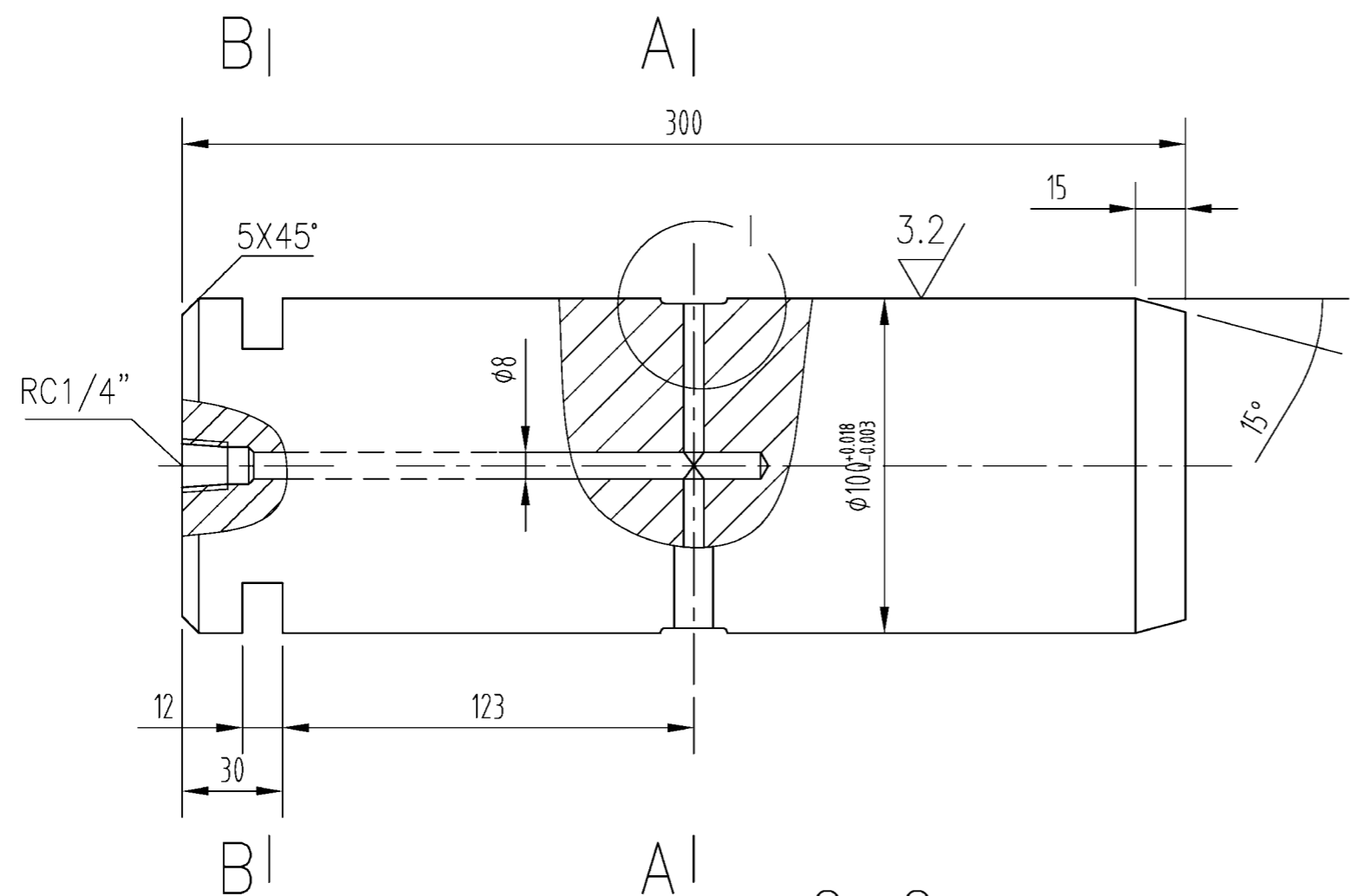
Technology Requirement

1. The heat treatment: the quality modulation to HB225~255
2. All the acute angle should be filleted.
3. All the non-noted round angles are R1
4. All the non-noted fillets are R1



另件号	分图号或标准	名称及规格	材料或型号	每套数量	单重	共重	比例
2	UL25170402	滑轮轴 (1) Sheave Shaft(1)	35CrMo	2	26	52	1:3
上海 振华港口机械公司		制图	王季顺	工艺	描图		
		校对	王根民	标准			

Others:
其余: $\nabla 12.5$

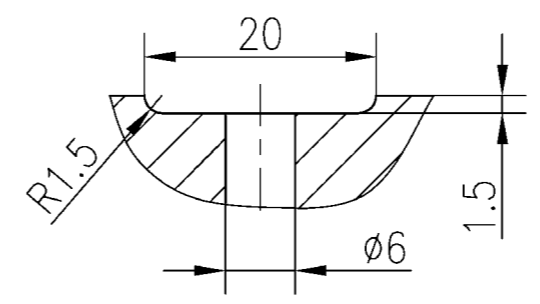
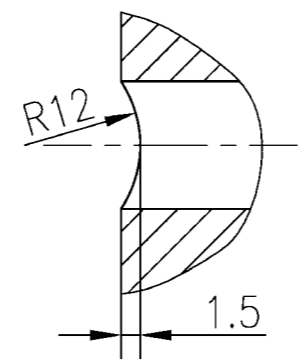
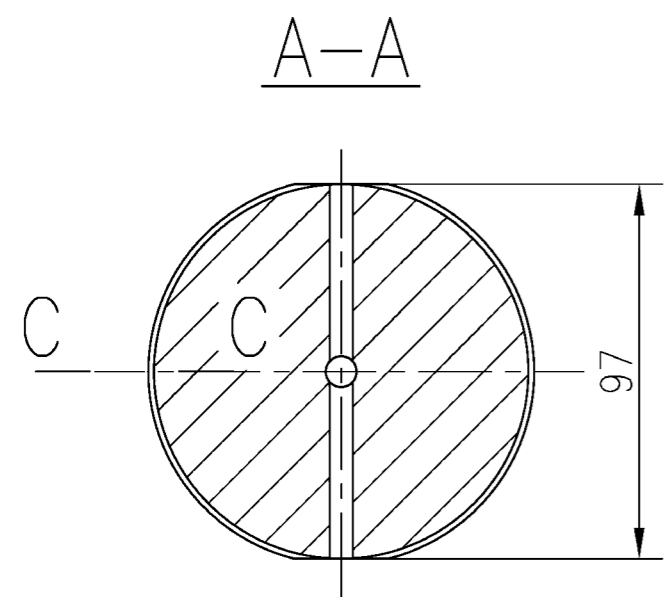


Technology Requirement

1. The heat treatment: the quality modulation to HB225-255
2. All the acute angle should be filleted.
3. All the non-noted round angles are R1
4. All the non-noted fillets are 1x45°

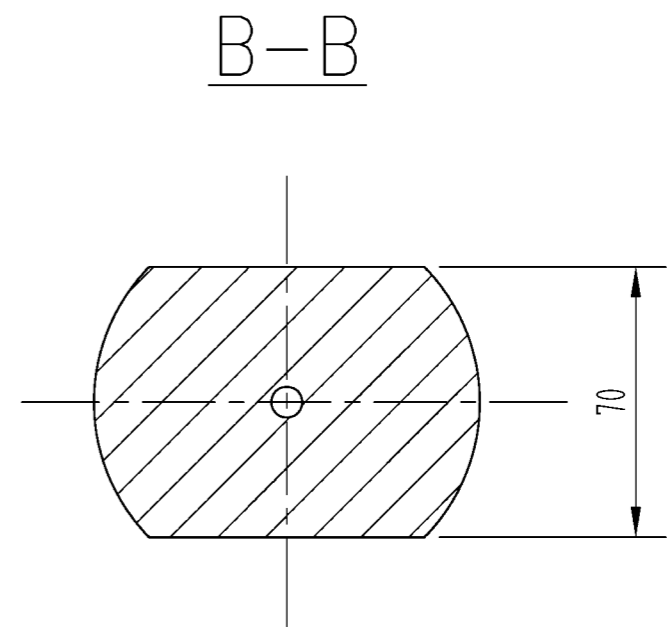
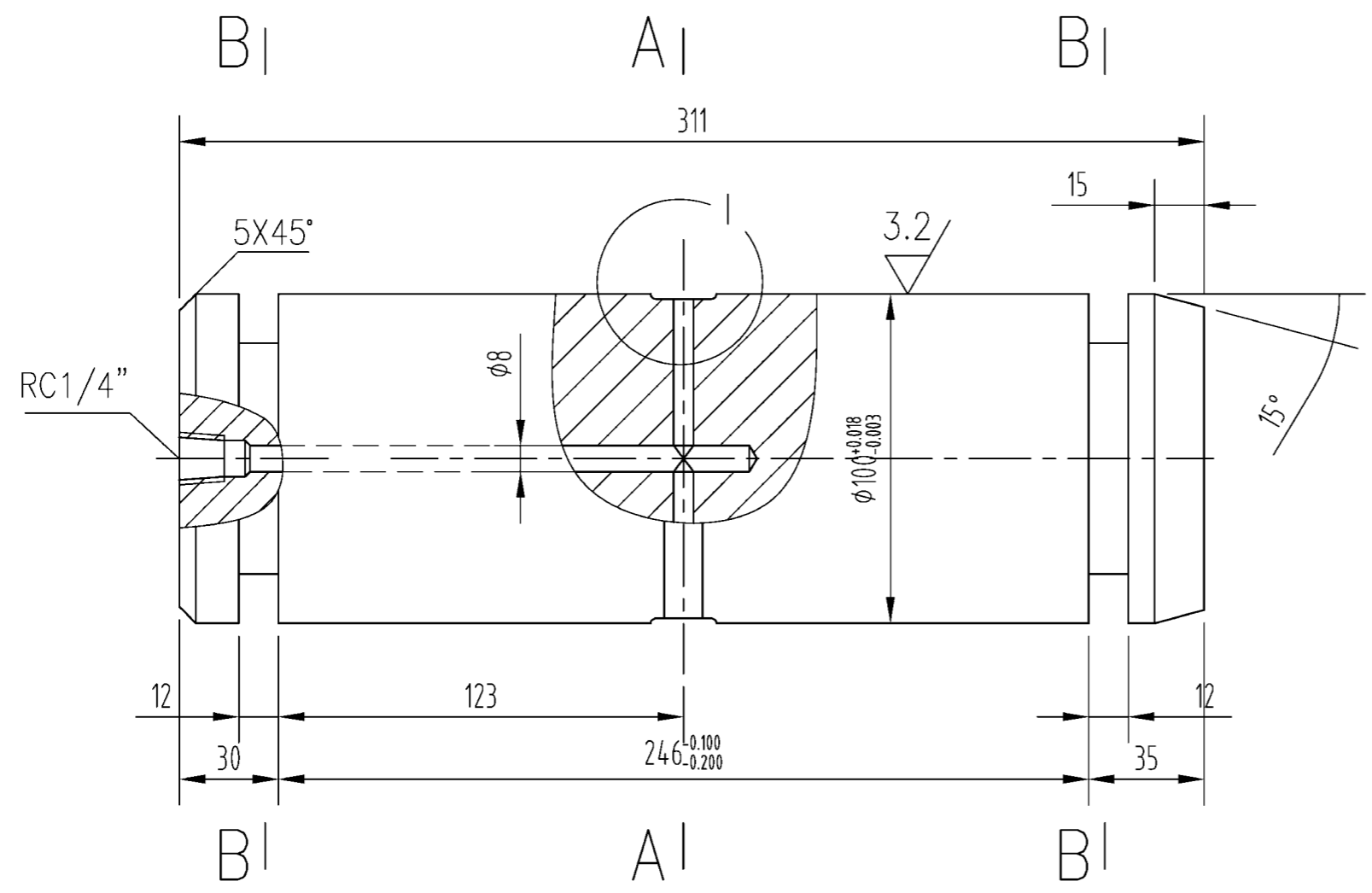
技术条件

1. 热处理: 调质HB225~255
2. 锐边倒钝
3. 未注圆角均为R1
4. 未注倒角均为1X45°.



另件号	分图号或标准	名称及规格	材料或型号	每套数量	单重	共重	比例
7	UL25170407	滑轮轴 (2) Sheave Shaft(2)	35CrMo	2	18	36	1:3
上海 振华港口机械公司		制图	王季娟	工艺	描图		
		校对	王根民	标准			

Others:
其余: $\sqrt{12.5}$

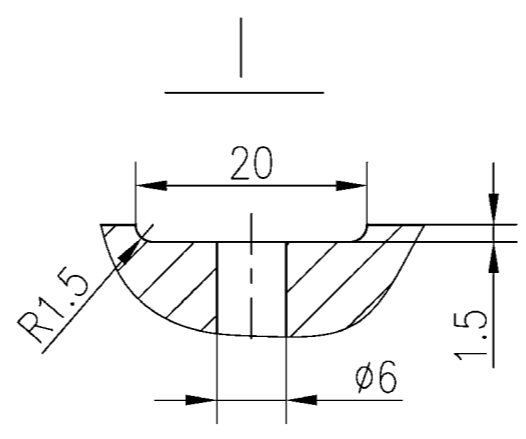
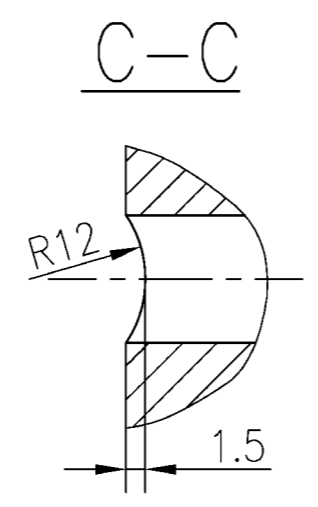
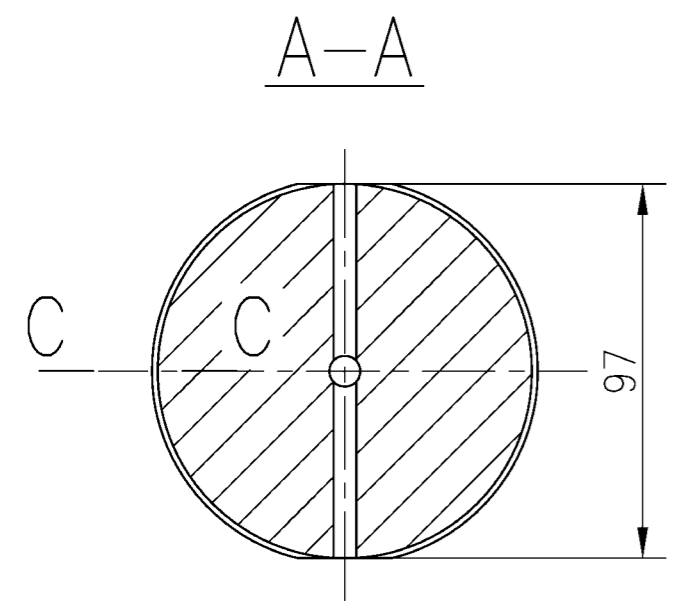


Technology Requirement

1. The heat treatment: the quality modulation to HB225-255
2. All the acute angle should be filleted.
3. All the non-noted round angles are R1
4. All the non-noted fillets are 1x45°

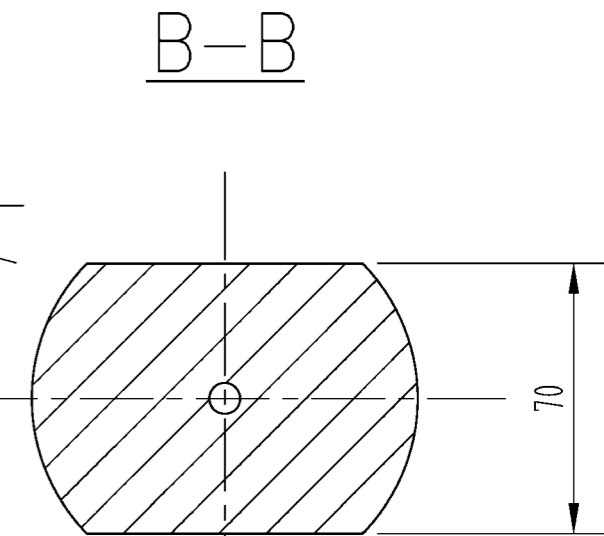
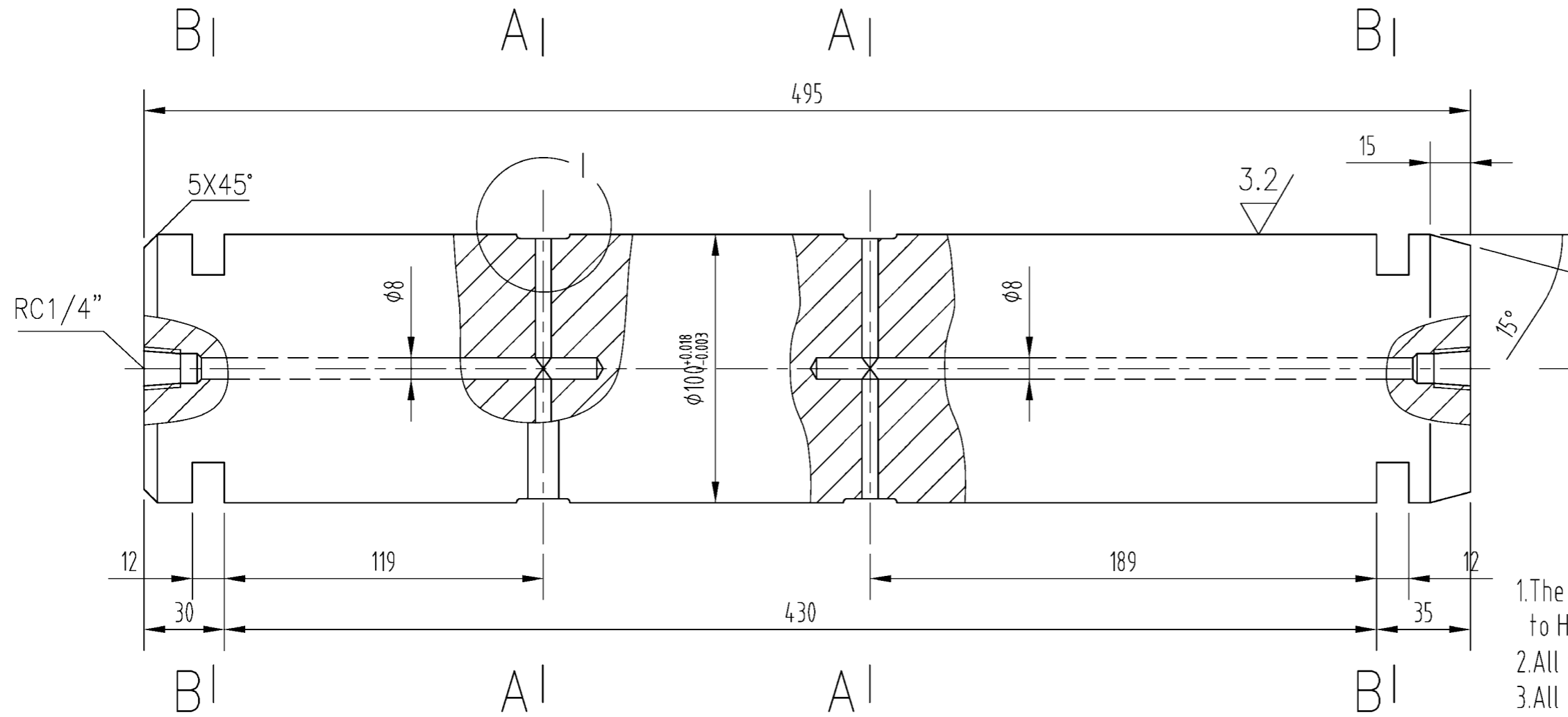
技术条件

1. 热处理: 调质HB225~255
2. 锐边倒钝
3. 未注圆角均为R1
4. 未注倒角均为1X45°.



另件号	分图号或标准	名称及规格	材料或型号	每套数量	单重	共重	比例
12	UL25170412	滑轮轴 (3) Sheave Shaft(3)	35CrMo	2	19	38	1:3
上海 振华港口机械公司		制图	李颖	工艺	描图		
		校对	王爱民	标准			

Others:
其余: $\sqrt{12.5}$

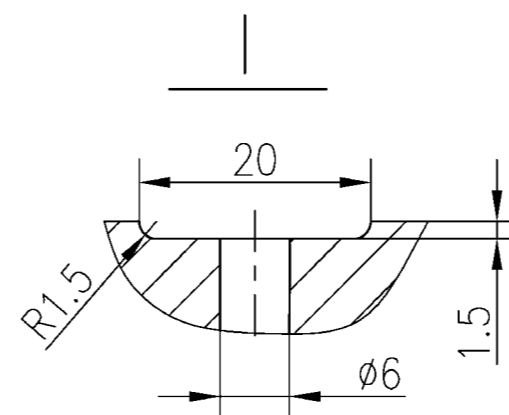
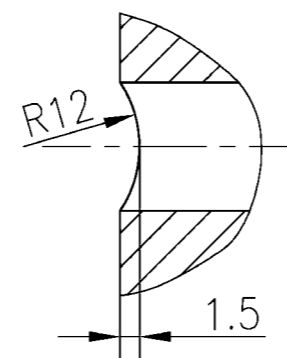
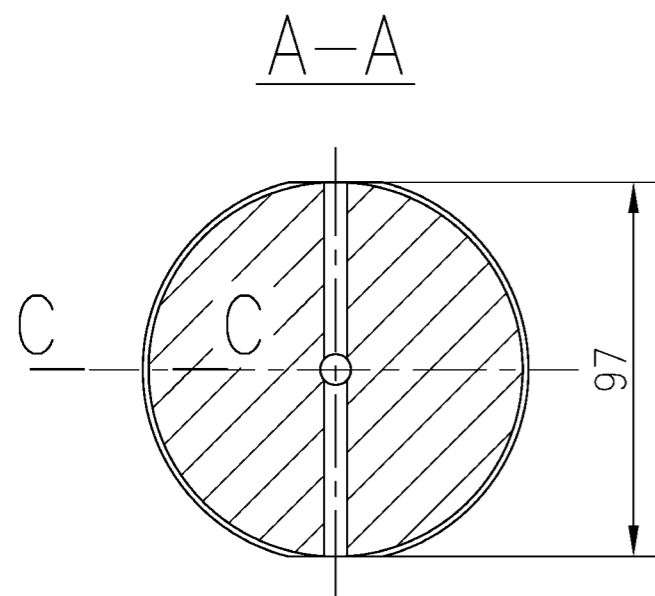


Technology Requirement

1. The heat treatment: the quality modulation to HB225~255
2. All the acute angle should be filleted.
3. All the non-noted round angles are R1
4. All the non-noted fillets are 1x45°

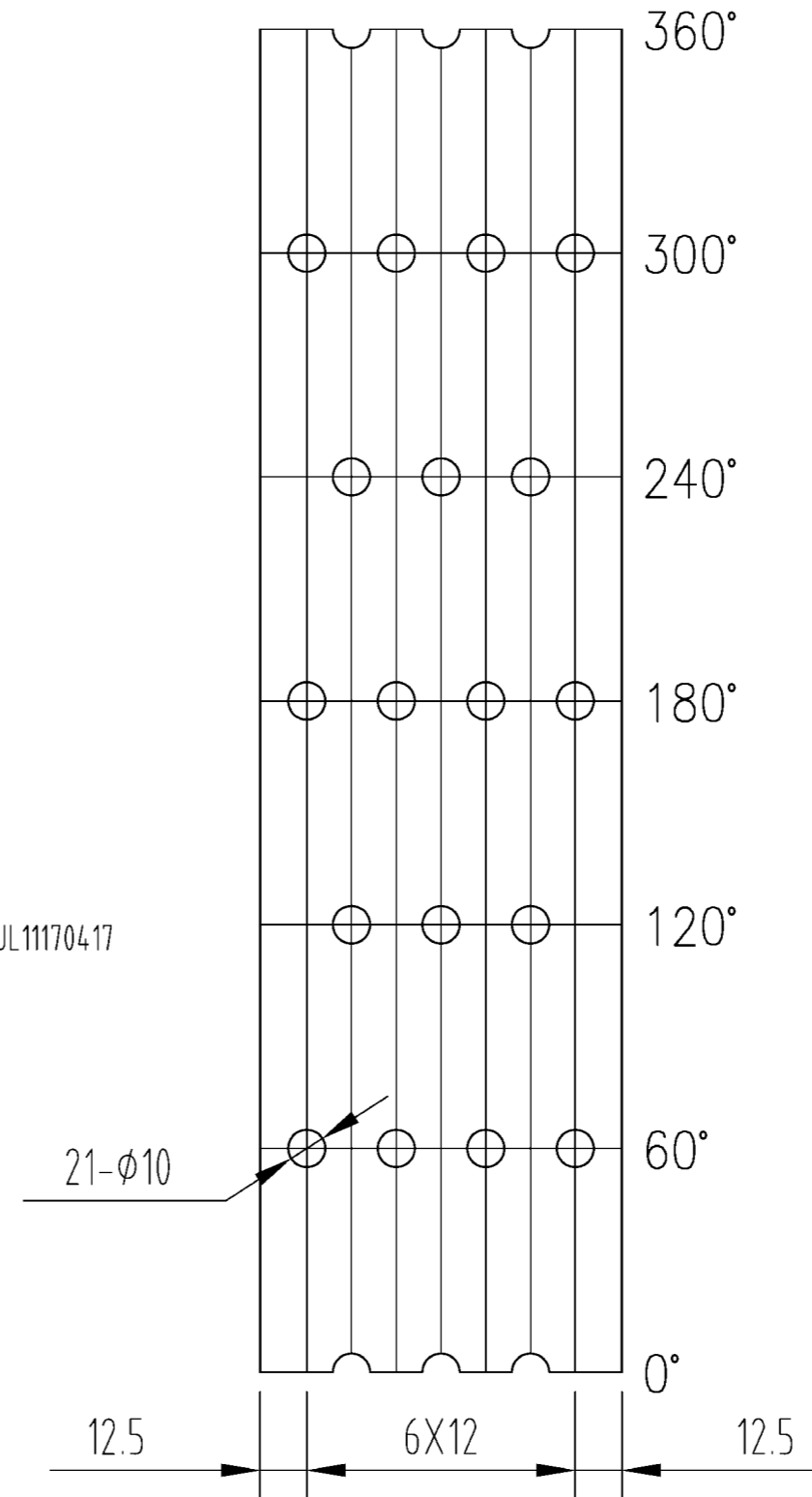
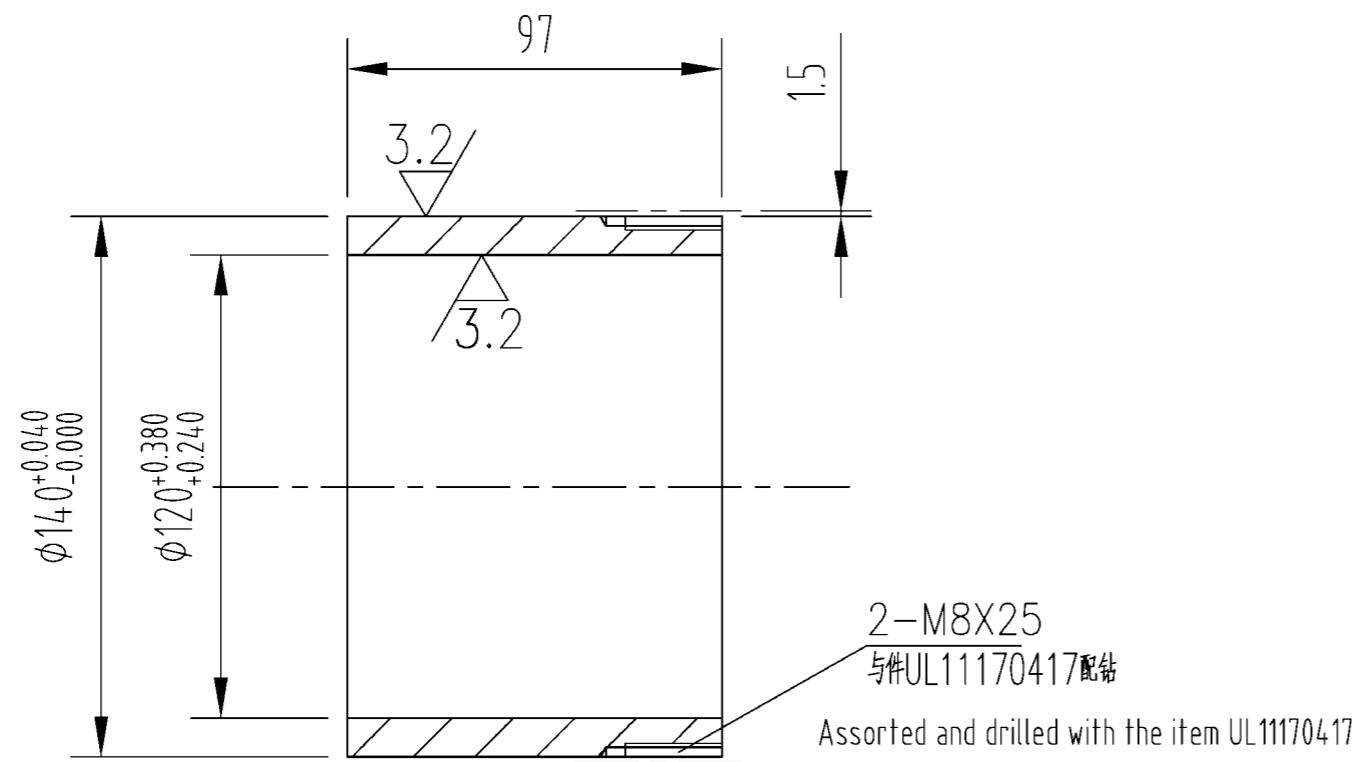
技术条件

1. 热处理: 调质HB225~255
2. 锐边倒钝
3. 未注圆角均为R1
4. 未注倒角均为1X45°.



另件号	分图号或标准	名称及规格	材料或型号	每套数量	单重	共重	比例
13	UL25170413	滑轮轴(4) Sheave Shaft(4)	35CrMo	2	30	60	1:3
上海 振华港口机械公司		制图	王季顺	张凡	工艺		描图
		校对	王景民	张凡	标准		描校

Others:
其余: $\sqrt{12.5}$



Technology Requirement

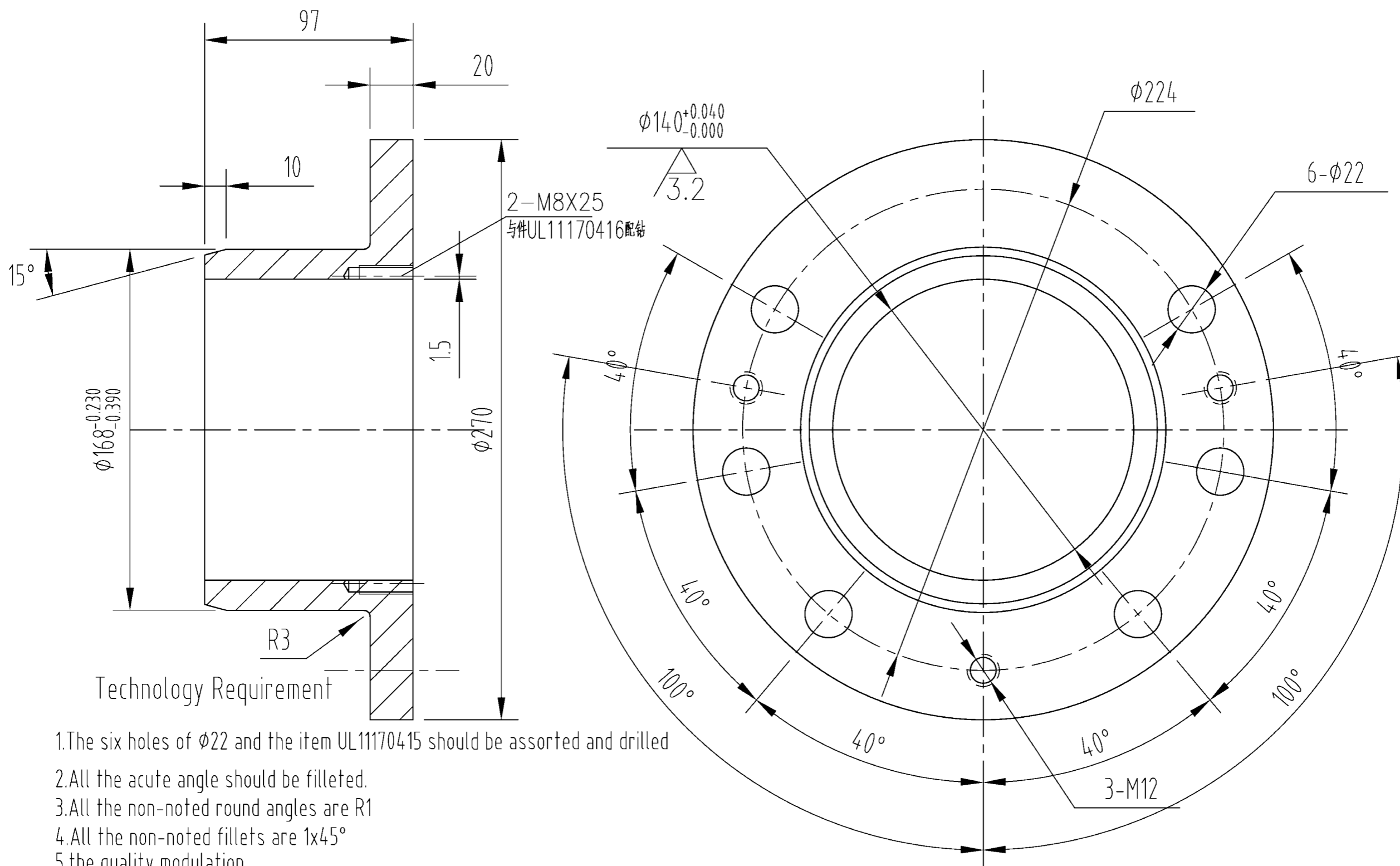
1. All the holes of $\phi 10$ are filled with plumbaginous sticks
2. All the fillets are $1 \times 45^\circ$

技术条件

1. $\phi 10$ 孔全部填满石墨棒
2. 全部倒角 $1 \times 45^\circ$

另件号	分图号或标准	名称及规格			材料或型号		每套数量	单重	共重	比例
16	UL25170416	滑动轴承 Sliding Bearing			ZQAL9-4		2	3.1	6.2	1:3
上海 振华港口机械公司		制图	李季	李季	工艺			描图		
		校对	李季	李季	标准			描校		

Others:
其余: $\sqrt{12.5}$

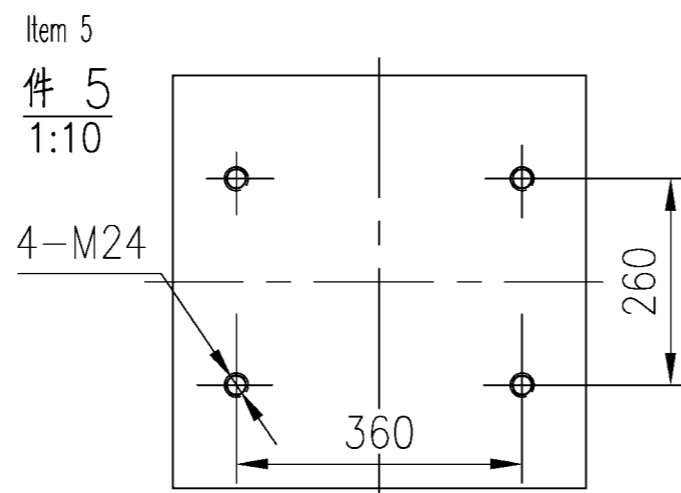
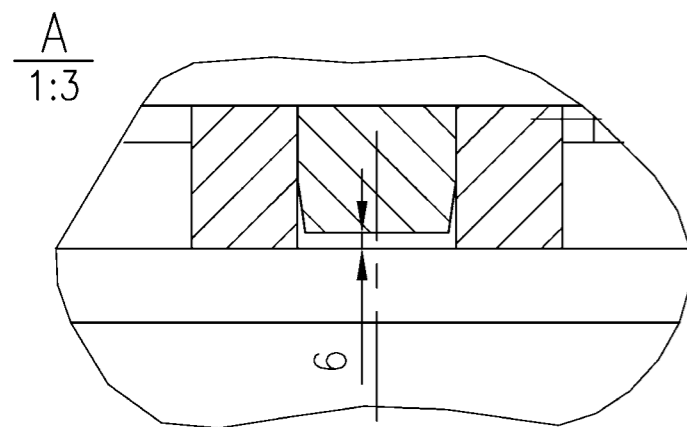
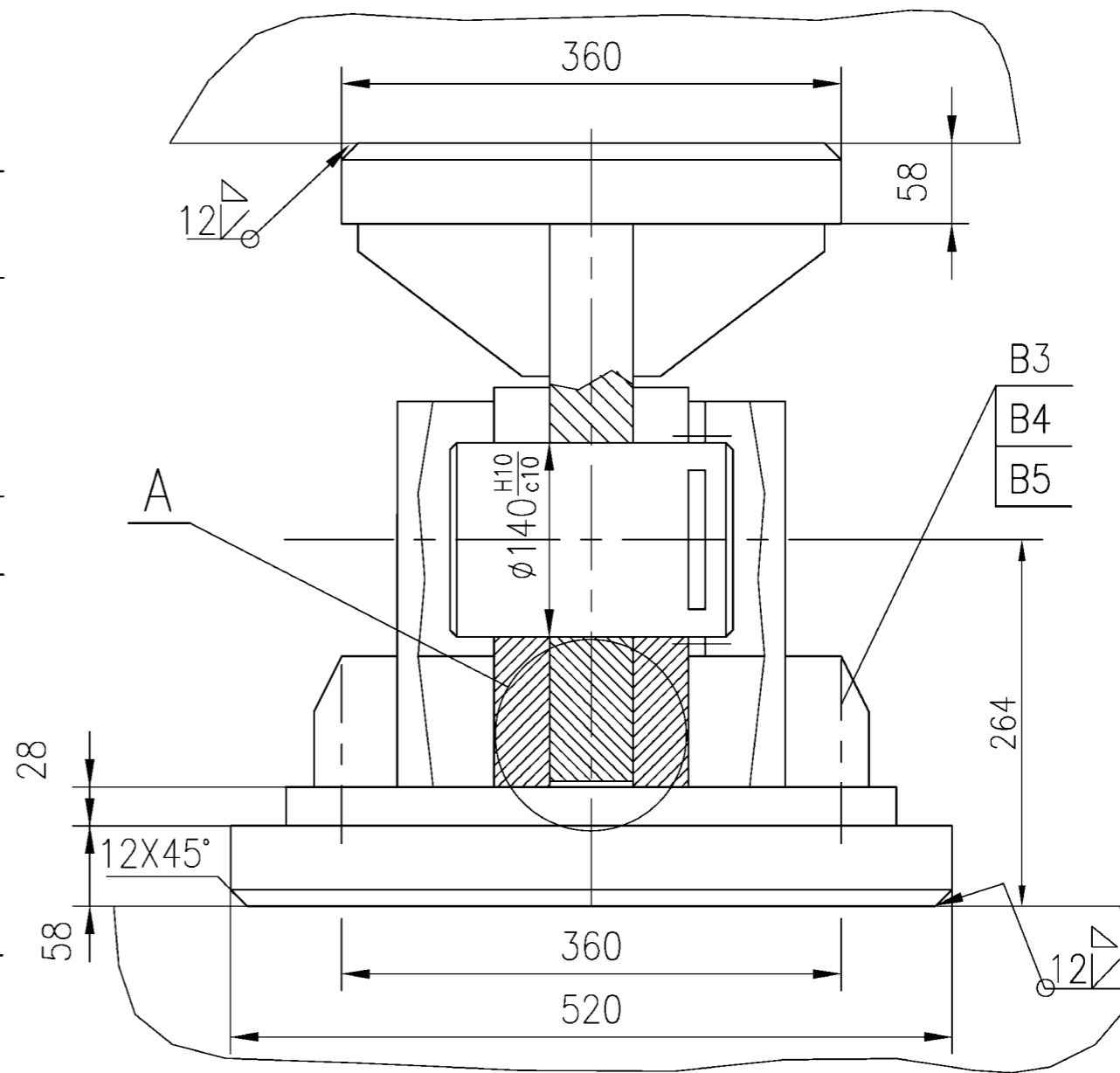
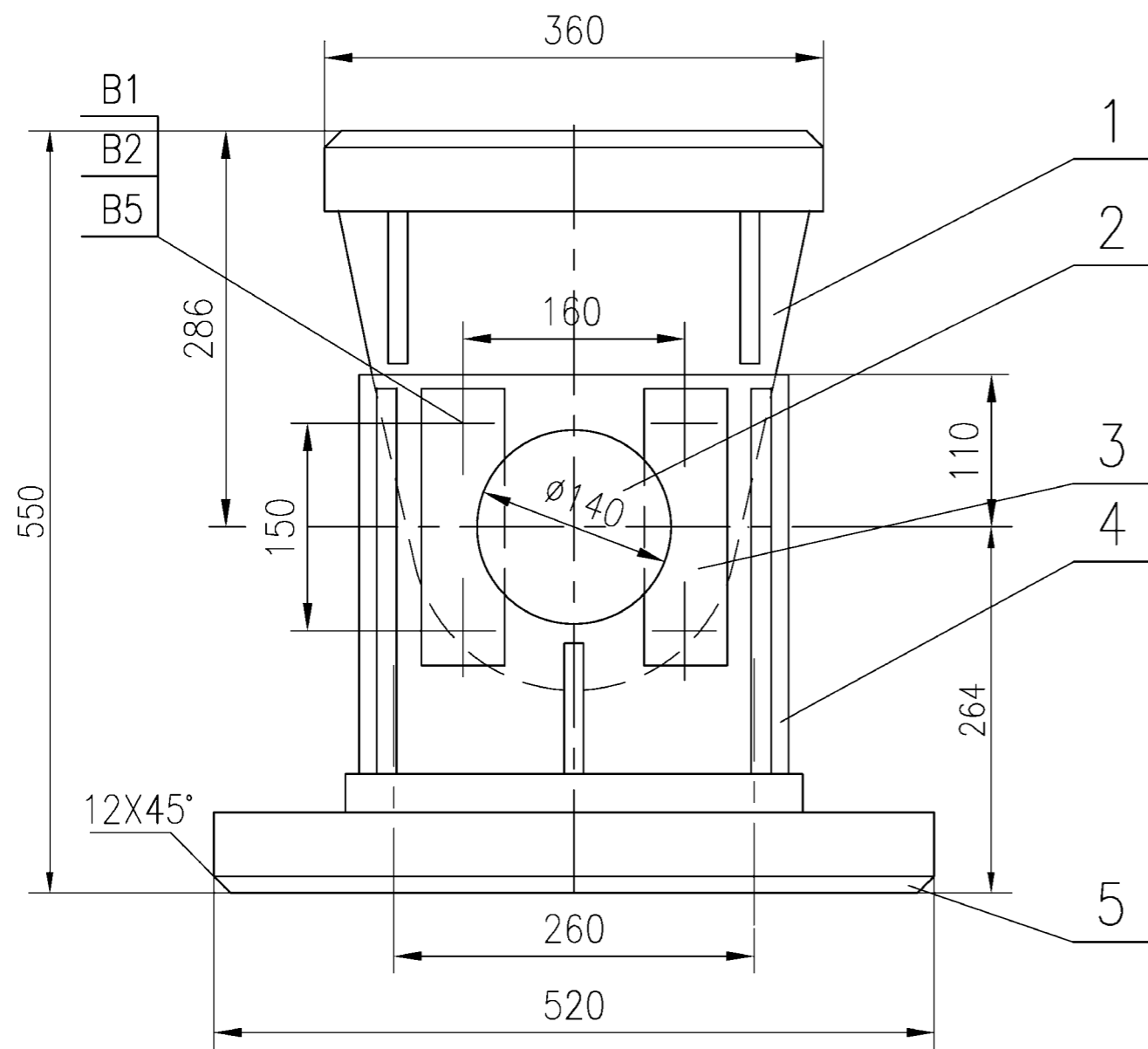


1. The six holes of $\phi 22$ and the item UL11170415 should be assorted and drilled
2. All the acute angle should be filleted.
3. All the non-noted round angles are R1
4. All the non-noted fillets are $1 \times 45^\circ$
5. the quality modulation

技术条件

1. 6- $\phi 22$ 与UL11170415配钻
2. 锐边倒钝
3. 未注圆角均为R1
4. 未注倒角均为 $1 \times 45^\circ$.
5. 调质

另件号	分图号或标准	名称及规格			材料或型号	每套数量	单重	共重	比例
17	UL25170417	支座套 Base Cover			35#	2	10.5	21	1:3
上海 振华港口机械公司		制图	李顺	03/12	工艺			描图	
		校对	王根民	03/12	标准			描校	



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	
5		-58X520X520	A709/50-2	1		123	
4	UL25170504	Support Double Ear-plate	Welding 焊接件	1		91	支承双耳板
3	UL25170503	Baffle	Q235	2	1.07	2.2	挡板
2	UL25170502	Hinge Shaft	45	1		24	铰轴
1	UL25170501	Support Single Ear-plate	Welding 焊接件	1		97.9	支承单耳板

PROJECT: Alabama 2000t/h Ship Unloader

DESIGN STAGE:

SCALE: 1:5

ITEM NAME: 漏斗海侧铰支座
Hopper Hinge of Sea Side

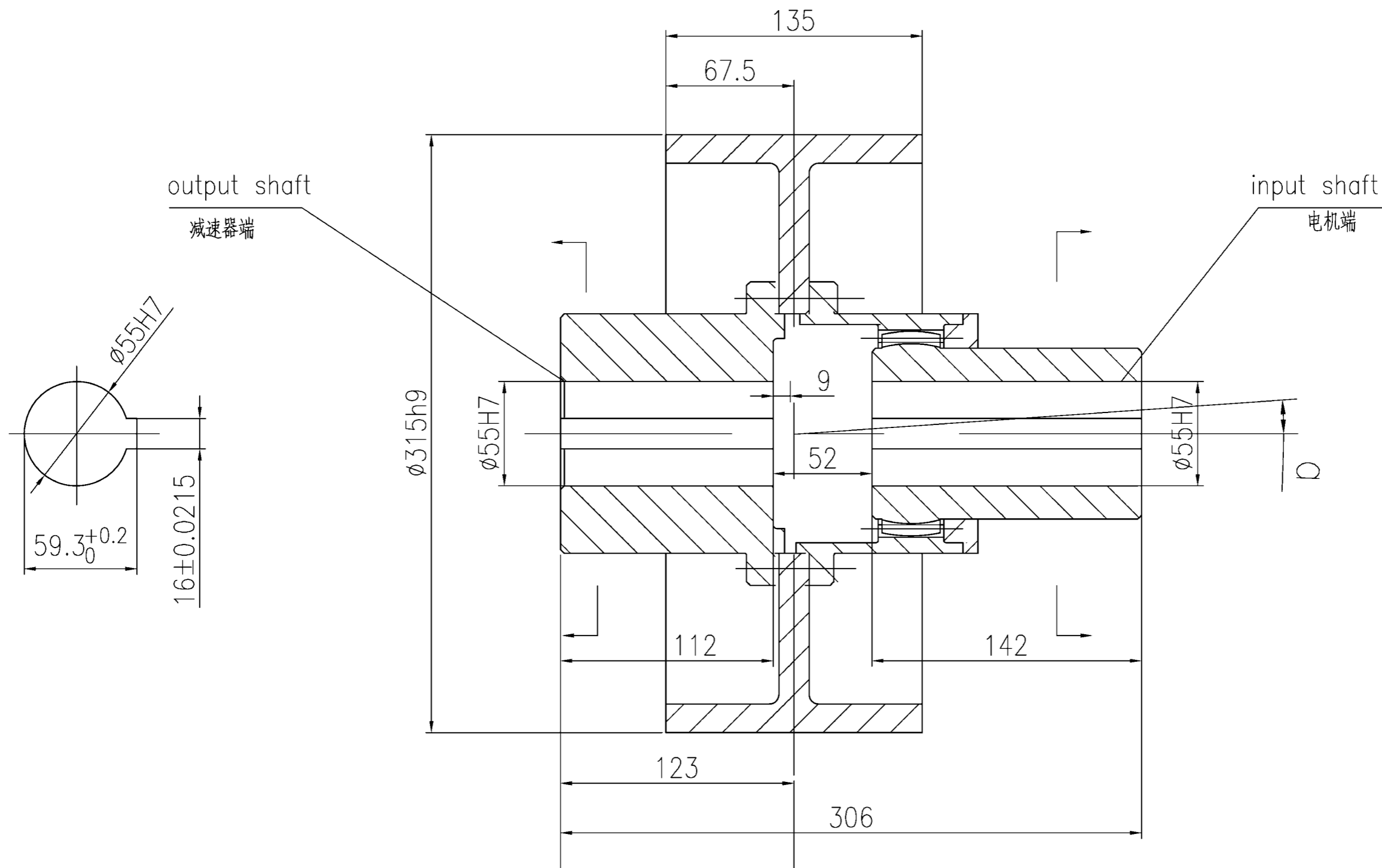
DRAW NO: UL25170500

B5		Wire Rope $\phi 2 \times 1000$	Stainless Steel	1			不锈钢 $\phi 2 \times 1000$
B4	GB95-85	Washer24	100HV	4	0.0135	0.05	垫圈 24
B3	GB32.1-88	Bolt M24x70	8.8S	4	0.3	1.2	螺栓 M24X70
B2	GB95-85	Washer20	100HV	4	0.0077	0.03	垫圈 20
B1	GB32.1-88	Bolt M20x50	8.8S	4	0.14	0.56	螺栓 M20X50

ZPMC

DSGN	李顺	05/12	TRACE
DRAW	王良民	05/12	CHCK
CHCK			VER.

APP.	
Q'TY/SET	338
SET/CRANE	2



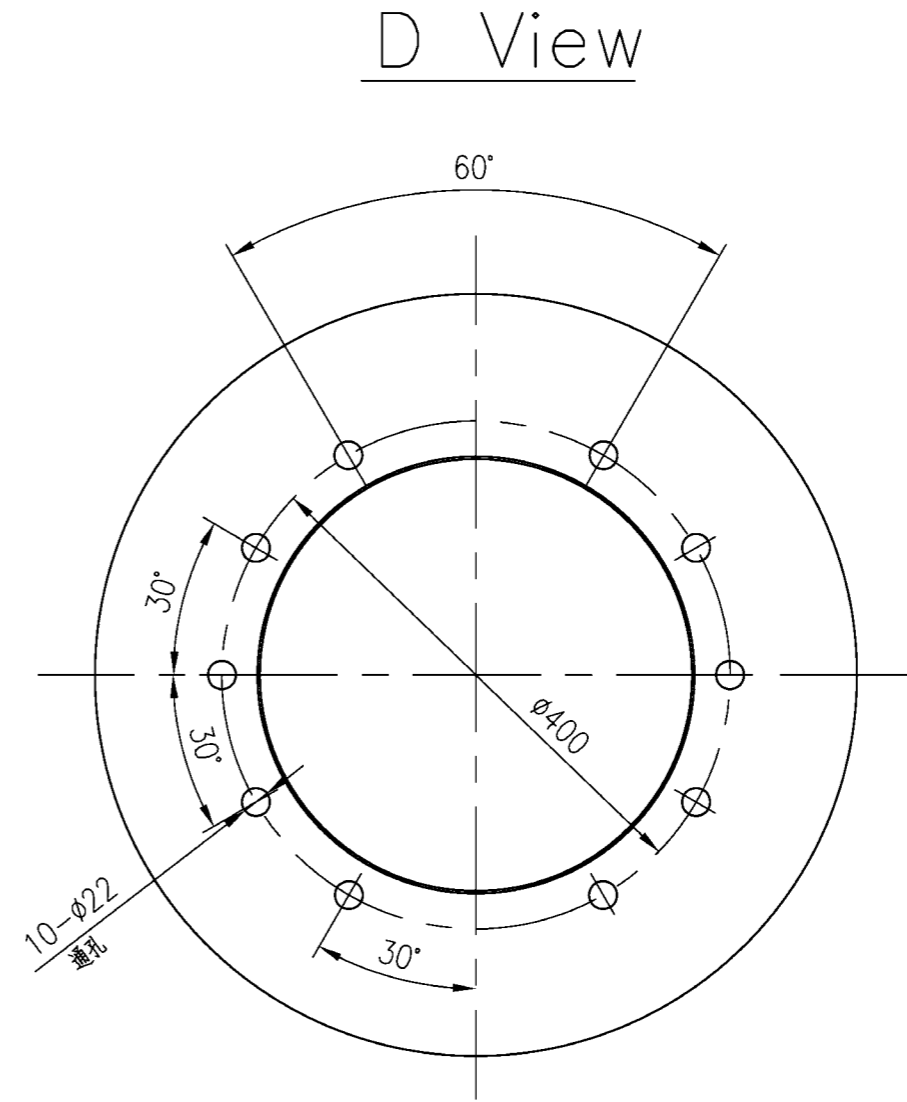
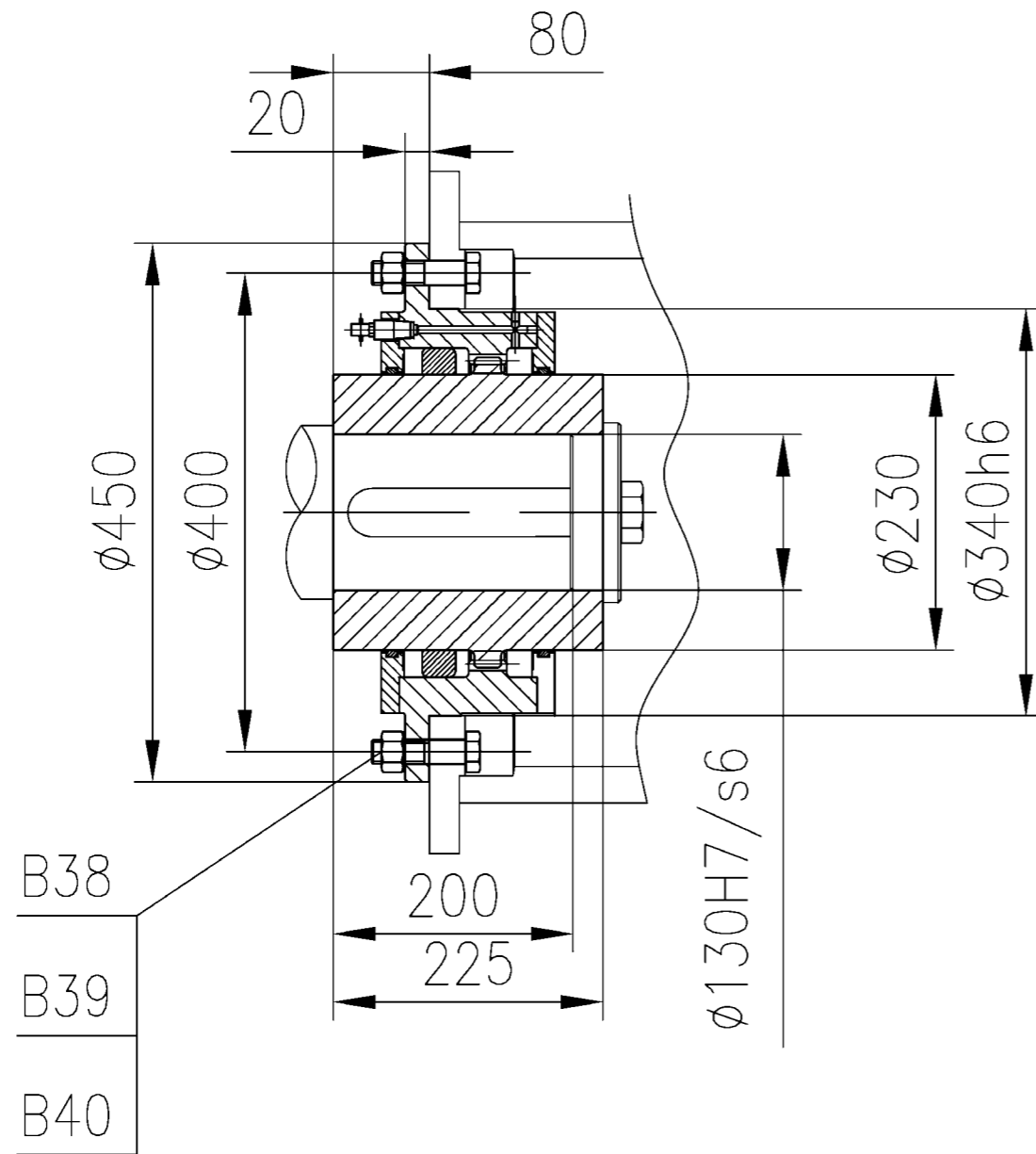
Transmitted torque: 6300Nm
 Max. speed: 2400rpm.
 Permit Angle misalignment: 1°30'

Shaft-joint NGCLZ7 $\frac{YA55X142}{YA55X112}$

JB/ZQ4645-86

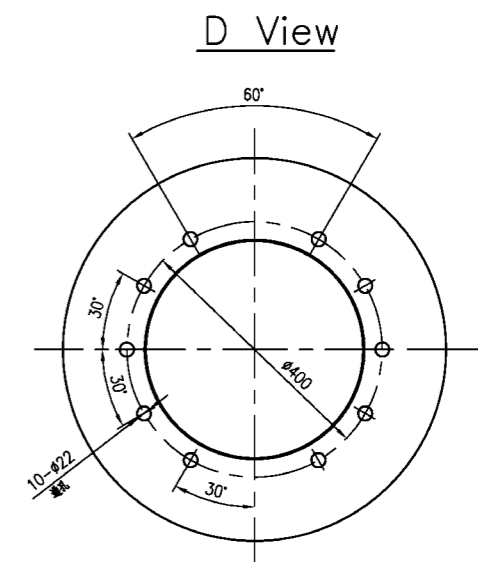
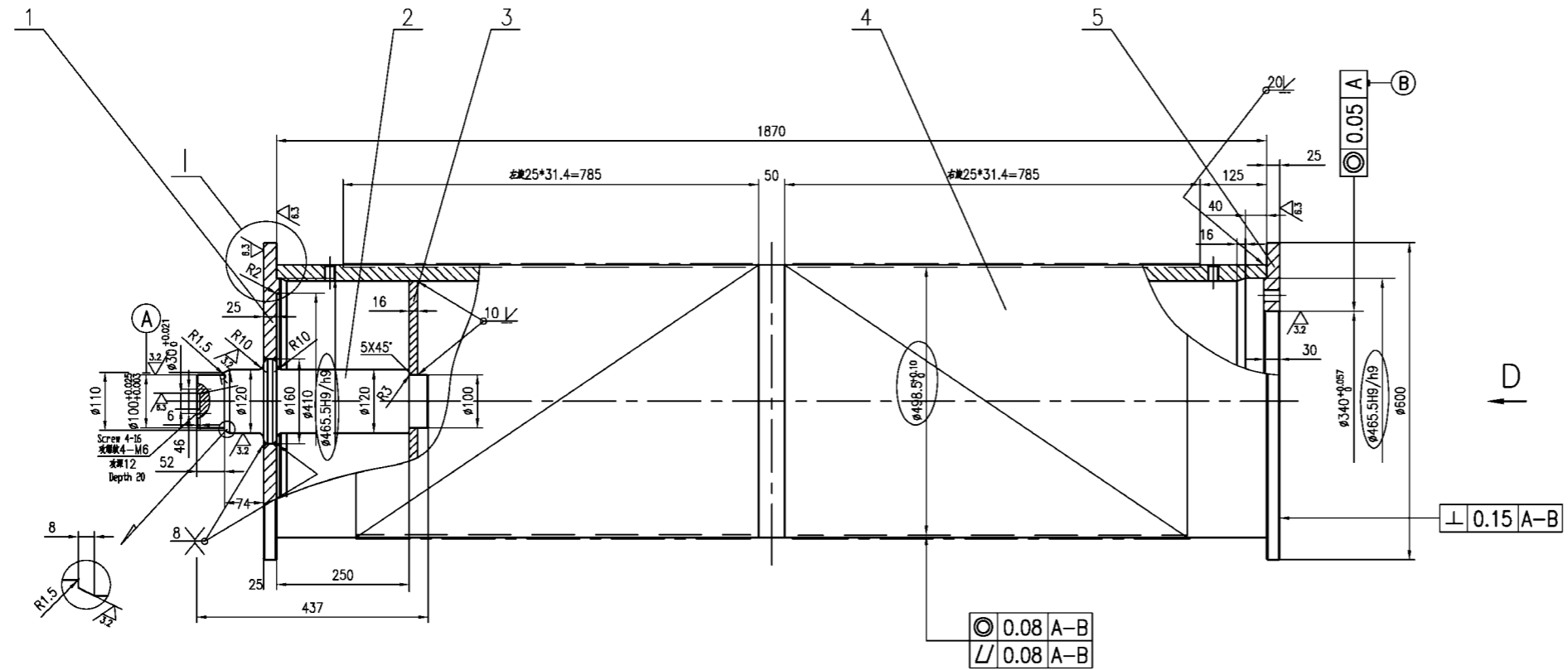
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
B24	UL251706-B24	NGICLZ7型带制动轮鼓形齿式联轴器	订货图	40kg	1	1:2.5
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

卷筒联轴节 DC03B/YA130X225



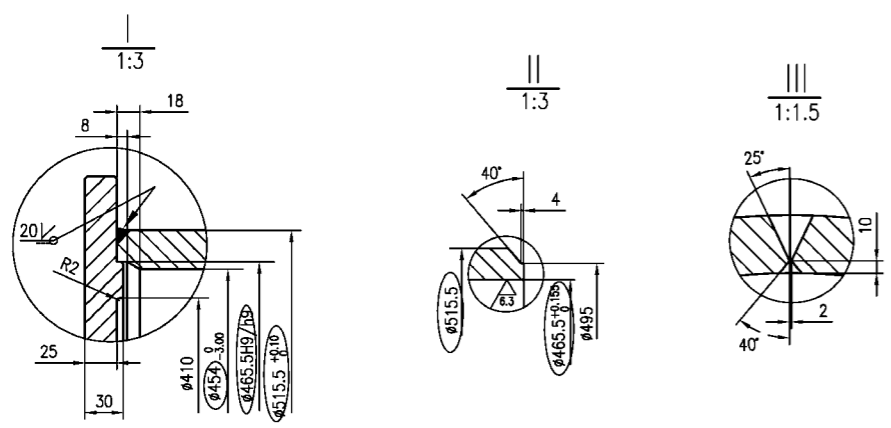
Transmitted torque: 31500Nm
 Radial load: 35500N
 Max. speed: 200rpm.
 Wear allowance: 1.0mm
 Axial clearance: $\pm 2.5\text{mm}$

B40	GB97.2-86	垫圈 20		45	10	
B39	GB889-86	螺母M20		10H	10	
B38	GB5783-86	螺栓M20X75		8.8S	10	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
B25	UL251706-B25	drum coupling	DC03B/YA130X225	40kg	1	1:2.5
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

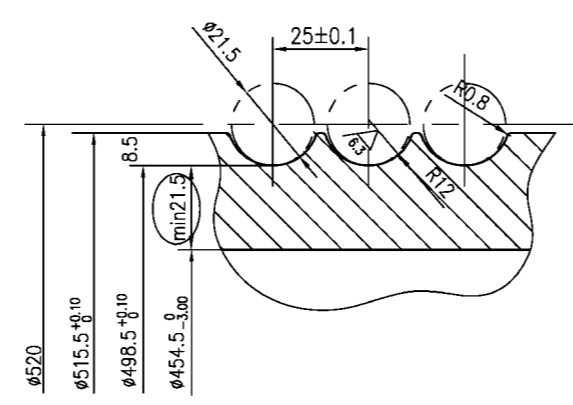


The screw holes' processing sketch on the ending drum groove

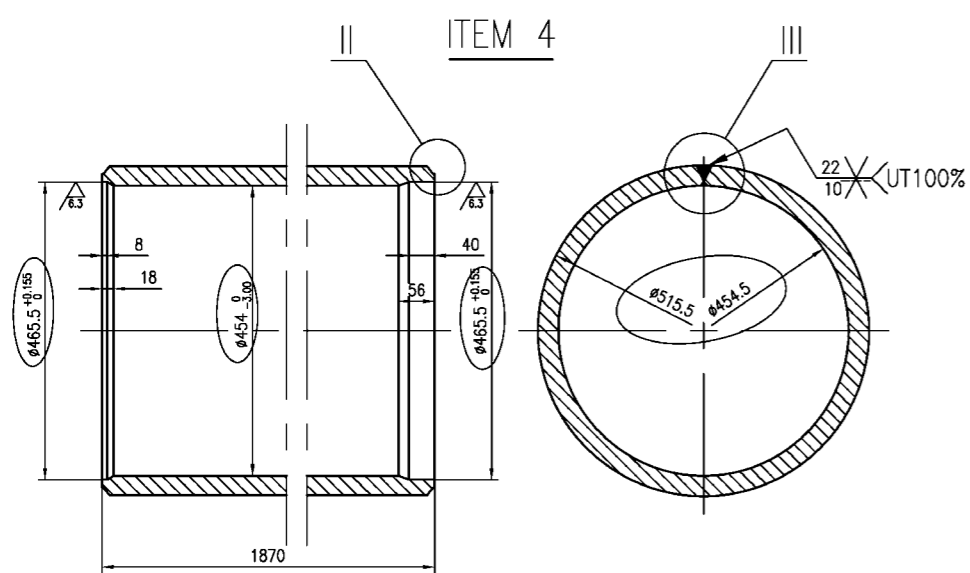
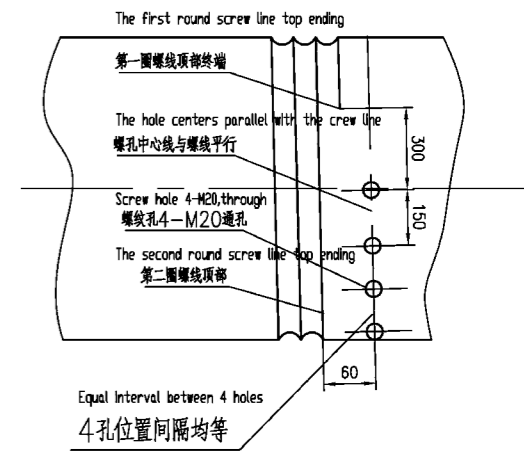
卷筒绳槽两侧终端螺孔加工示意图



The drum groove Zoom View
卷筒绳槽放大图
1:10



技术参数 Technology Parameters		
名义直径	Diameter	φ520mm
钢丝绳直径	Rope Diameter	φ21.5mm
绳槽圈数	Number of Groove Loop	2x31.4
槽距	Groove Distance	25mm
旋向	Screw Direction	左右向各1侧 Each for Left,Right Direction



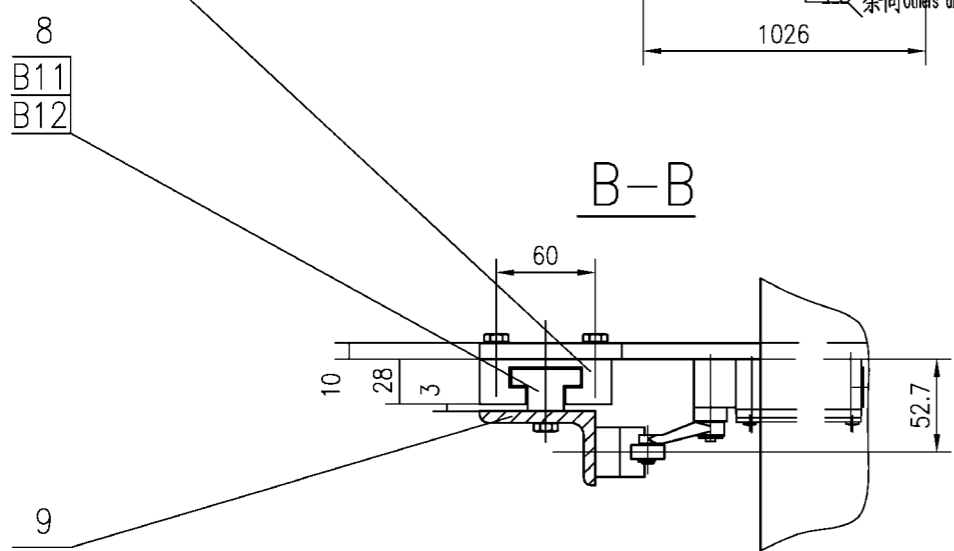
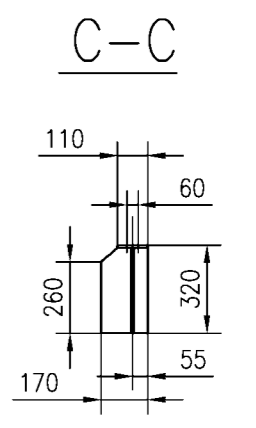
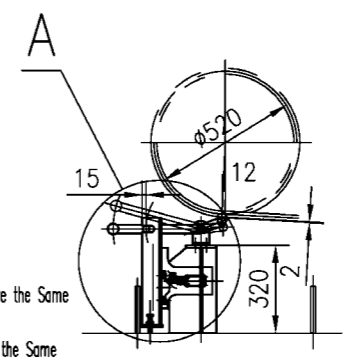
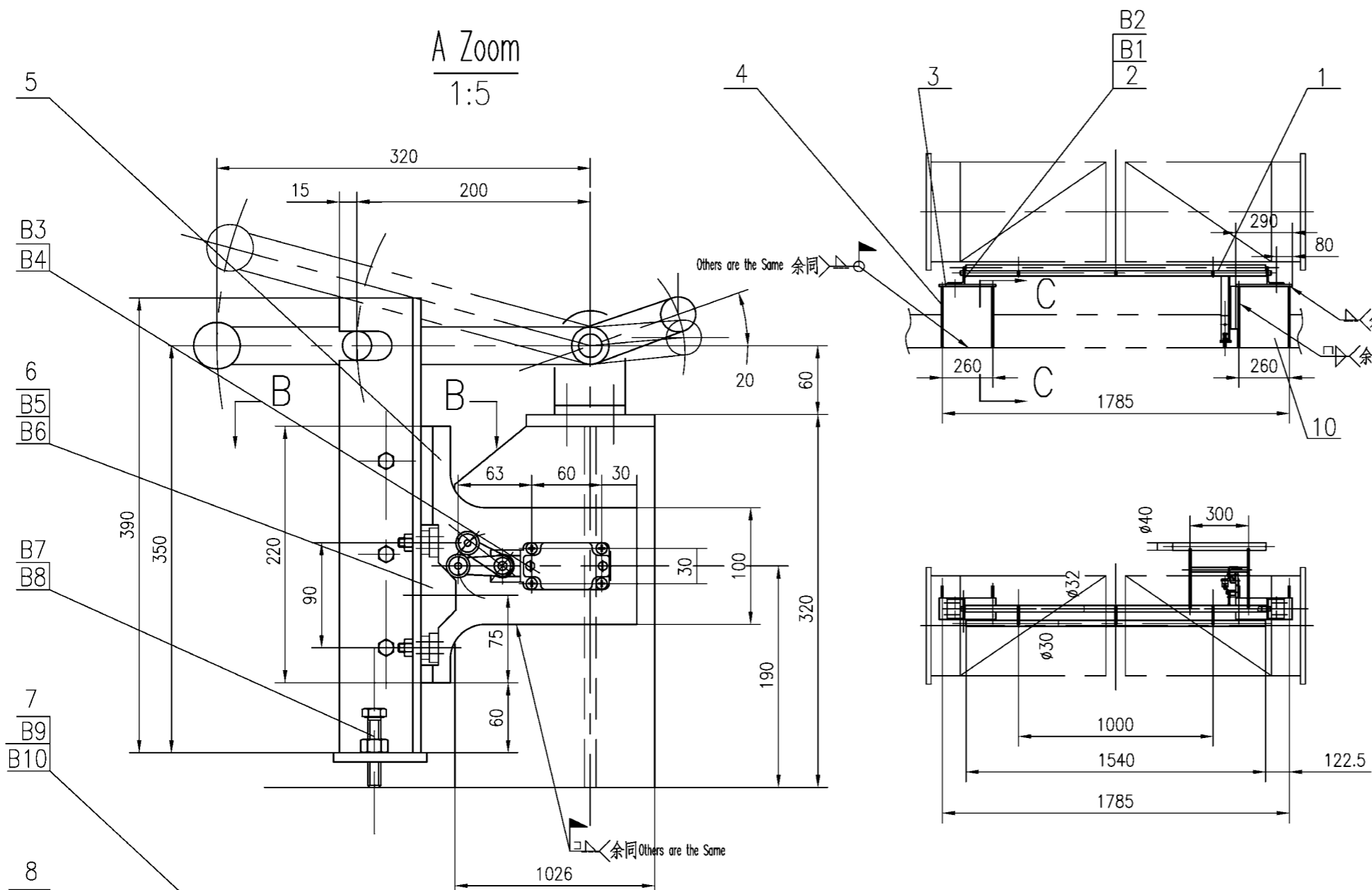
技术要求

1. 焊条采用E5015, 焊前烘干, 焊丝不低于H10Mn2G+331(焊剂).
2. 卷筒绳槽按左右加工, 方向按视图要求.
3. 件4由钢板卷曲焊接而成.
4. 圆筒(件4)上的对接焊缝和圆筒与轴(件2)以及法兰(件1, 件6)的坡口焊缝均应射线探伤.
5. 各件焊接后经退火再按图加工.
6. 加工后进行静平衡测定并校正.
7. 轴端和孔口倒角2X45°.
8. 压板所压钢丝绳必须保证位于卷筒光面上.

Technology Requirement

1. The type of welding stick adopted is E5015, drying before welding, the solder should be better than H10Mn2G+331.
2. The drum groove is processed by left and right screw, the direction as views in the drawing.
3. The item4 is bended to be a loop and welded.
4. The welding line of drum body's(item4) and with shaft(item2)and flanges'(item1,item6)slope welding, should be ray-tested.
5. All the welded should be anneal before processing.
6. It should be taken balance test and adjusted after processed.
7. The shaft ending and hole should filled 2x45°.
8. The wire rope compressed by the panel should be located on the smooth surface of the drum.

5	-30Xφ600/φ340	A709/50-2	1	33	33		
4	-31X1555X1870	A709/50-2	1	680	680		
3	-16Xφ474/φ100	Q235	1	21.2	21.2		
2	φ160-437	35	1	38.1	38.1		
1	-30Xφ600/φ160	A709/50-2	1	53	53		
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
PROJECT: Akabama 2000t/h Ship Unloader			DESIGN STAGE:	SCALE: 1:6			
ITEM NAME: 卷筒 Drum			DRAW NO: UL25170602a				
DSGN	李学斌	05.12	TRACE		APP.		
DRAW	王根根	05.12	CHK		Q'TY/SET	825kg	
CHCK			VER.		SET/CRANE	1	

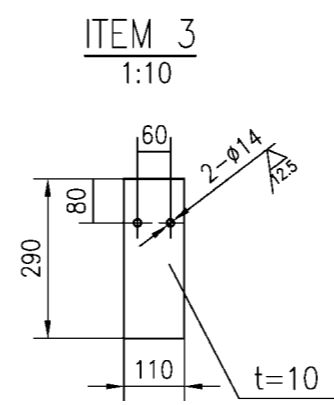
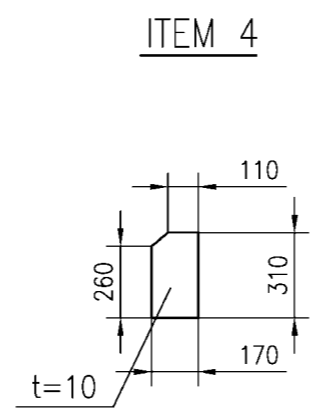


技术要求

1. 将件3,4按图示位置焊接成机架。
2. 将行程开关和件7安装在件5上。
3. 将件6安装在件9上,并将件9套入件1的杠杆上。
4. 套入导轨并调整件5位置后焊在机架上。
5. 调整行程开关挡块件6位置后用螺钉固定。

Technology Requirement

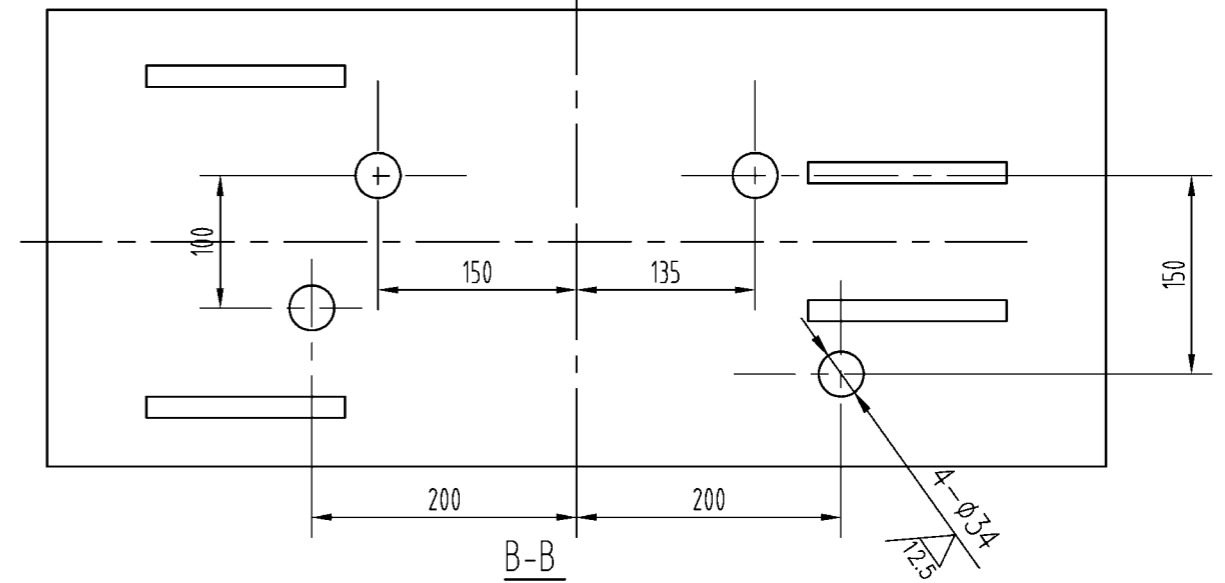
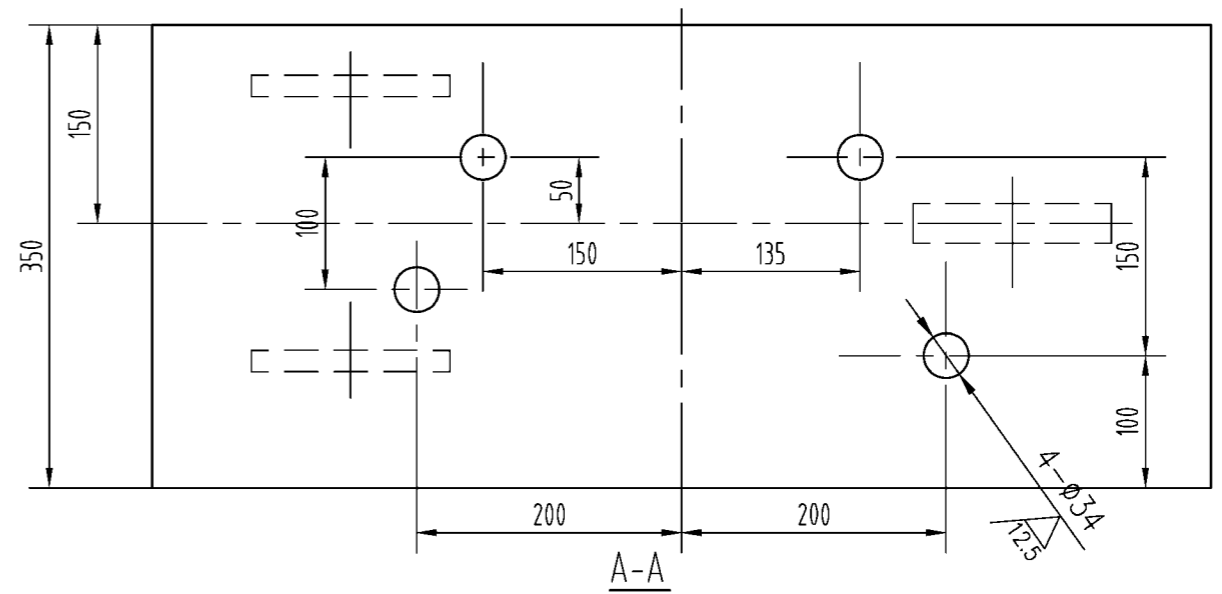
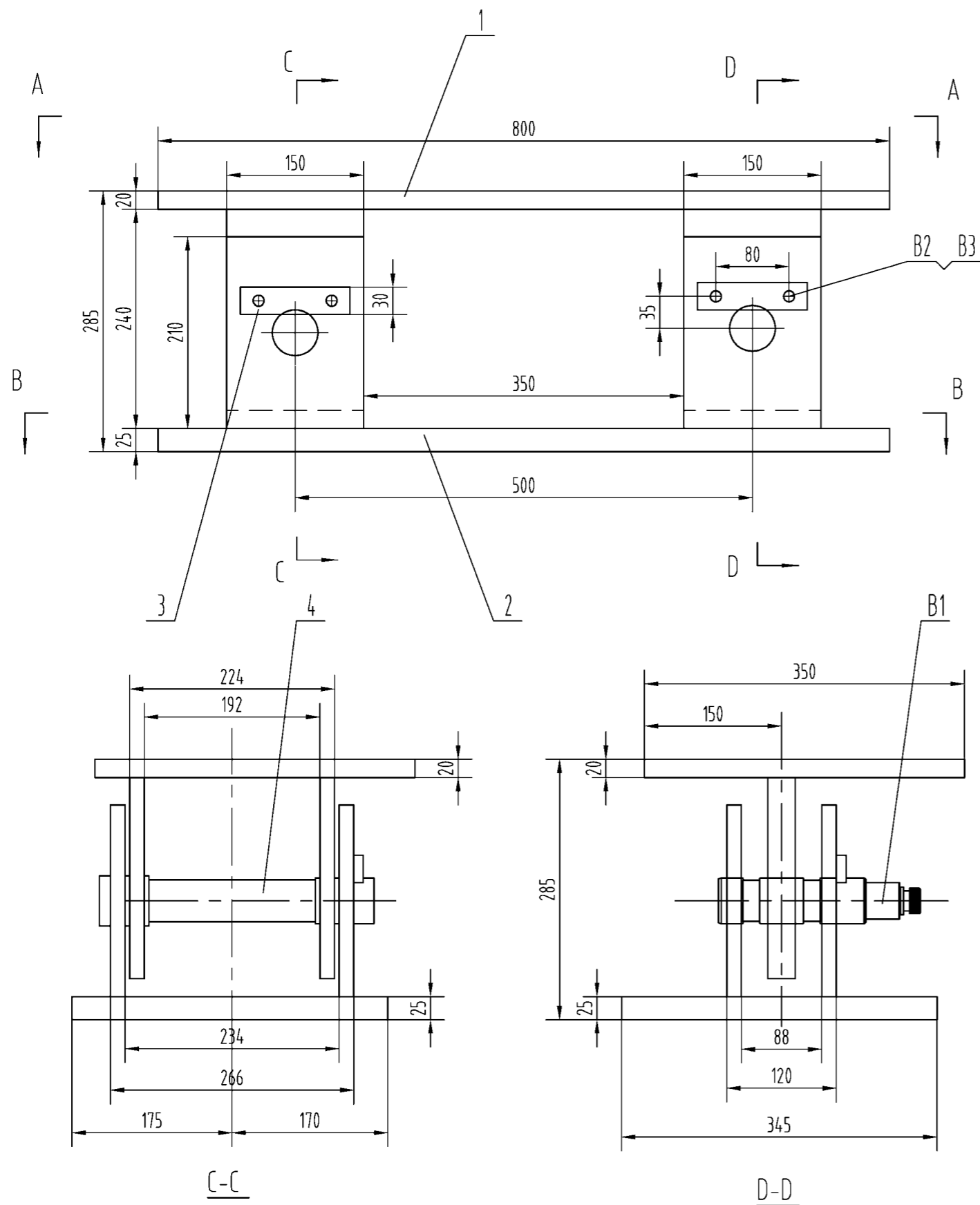
1. Welding item 3, 4 to be the machine support according to the drawing.
2. Install the routing switch and item 7 to item 5.
3. Install item 6 to item 9, and envelop item 9 into item 1.
4. Install the guiding rail and adjust the location of item 5 and welding to the machine support.
5. Adjust routing switch block item 6 and fastened it with bolts.



B12	GB861.1-87	Washer 8	65Mn	3	0.001	0.003	垫圈 8
B11	GB5782-86	Bolt M8X25	Stainless Steel 不锈钢	3	0.009	0.03	螺栓 M8X25
B10	GB861.1-87	Washer 8	65Mn	4	0.001	0.004	垫圈 8
B9	GB5782-86	Bolt M8X25	Stainless Steel 不锈钢	4	0.009	0.04	螺栓 M8X25
B8	GB889-86	Nut M12	10H	1	0.01	0.01	螺母 M12
B7	GB5782-86	Bolt M12X60	Stainless Steel 不锈钢	1	0.06	0.06	螺栓 M12X60
B6	GB889-86	Nut M8	10H	2	0.004	0.01	螺母 M8
B5	GB70-85	Bolt M8X30	Stainless Steel 不锈钢	2	0.01	0.02	螺钉 M8X30
B4	GB818-85	Bolt M5X40	Stainless Steel 不锈钢	4	0.05	0.20	螺钉 M5X40
B3		Routing Switch Z4V7H335-11z		1			行程开关 Z4V7H335-11z
B2	GB889-86	Nut M12	10H	4	0.01	0.04	螺母 M12
B1	GB5782-86	Bolt M12X40	Stainless Steel 不锈钢	4	0.04	0.16	螺栓 M12X40

10		-10X250X310	Q235	2	6.08	12.2	
9	UL2517060707	Angle-type Steel	Welding 焊接件	1	2.31	2.31	角钢
8	UL2517060706	Guiding Panel	45	1	1.28	1.28	导向板
7	UL2517060705	Guiding Rail	45	1	3.29	3.29	导轨
6	UL2517060704	Block	45	1	0.36	0.36	挡块
5	UL2517060703	Support Panel	Q235	1	2.9	2.9	支承板
4		-10X170X310	Q235	4	4.02	16.1	
3		-10X110X290	Q235	2	2.50	5.0	
2	UL2517060702	Trestle	∠90X90X8X100	2	1.05	2.10	支架
1	UL2517060701	Lever Support	Welding 焊接件	1	18.4	18.4	杠杆架

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	
PROJECT: Alabama 2000t/h Ship Unloader			DESIGN STAGE:		SCALE: 1:20		
ITEM NAME: 安全装置 Safety Installation			DRAW NO: UL25170607				
ZPMC	DSGN	李季	05.12	TRACE		APP.	
	DRAW	王振民	05.12	CHCK		Q'TY/SET	65kg
	CHCK			VER.		SET/CRANE	1



B3	GB93-87	washer 10		4			垫圈 10
B2	GB5782-86	Blot M10x25		4			螺栓M10x25
B1	LB216-100KN	Transducer		1	3		传感器
4	UL2517061004	Shaft	45	1	4.6	4.6	销轴
3	UL2517061003	Axillare	Q235	2	0.25	0.5	卡轴板
2	UL2517061002	Base	Q235	1	66.8	66.8	下座
1	UL2517061001	Base	Q235	1	59	59	上座
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
				WEIGHT			

PROJECT:

DESIGN STAGE:

SCALE: 1:6

ITEM NAME:

传感器支座

DRAW NO: UL25170610

ZPMC

DSGN

DRAW

CHCK

TRACE

CHCK

VER.

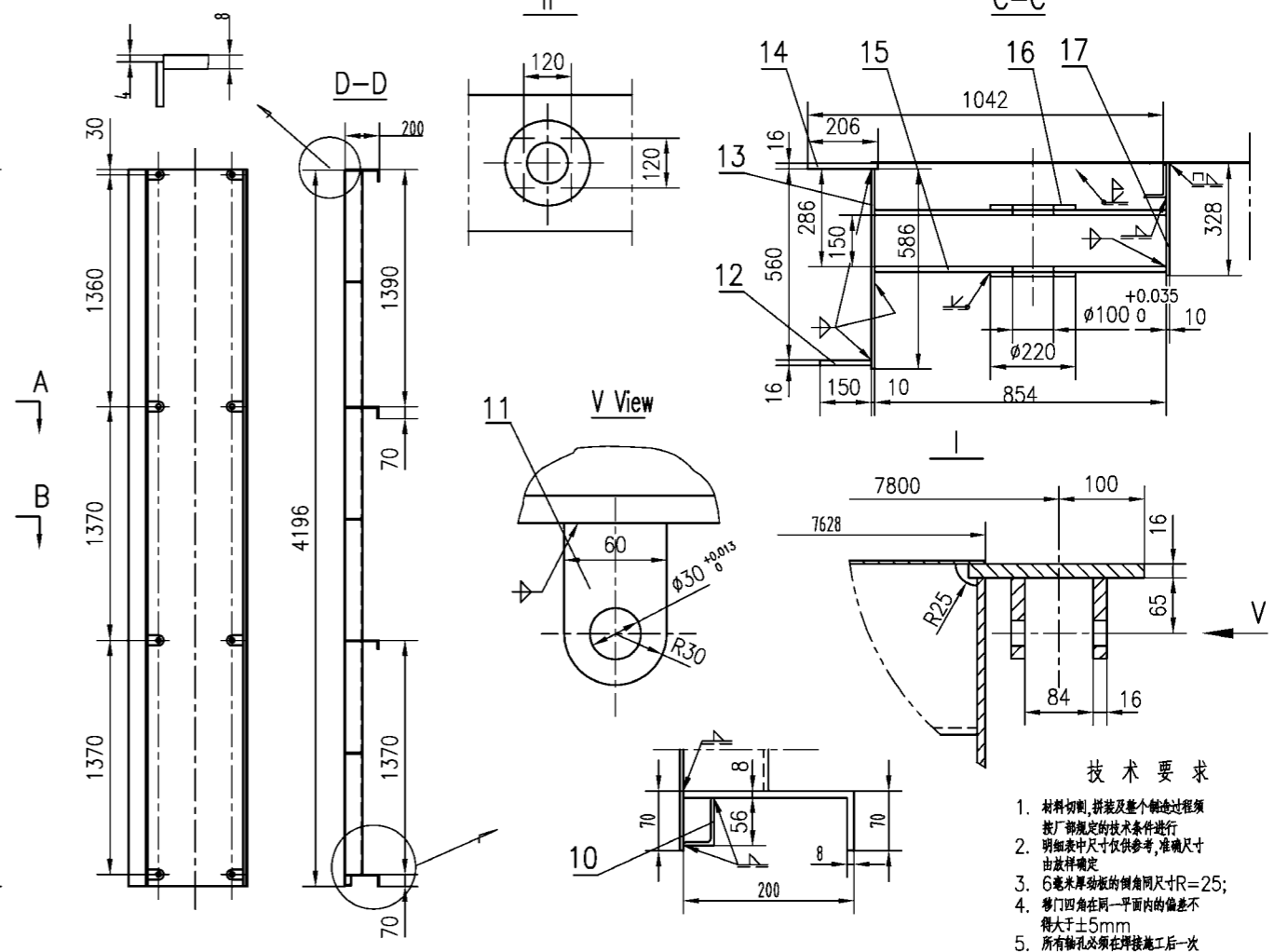
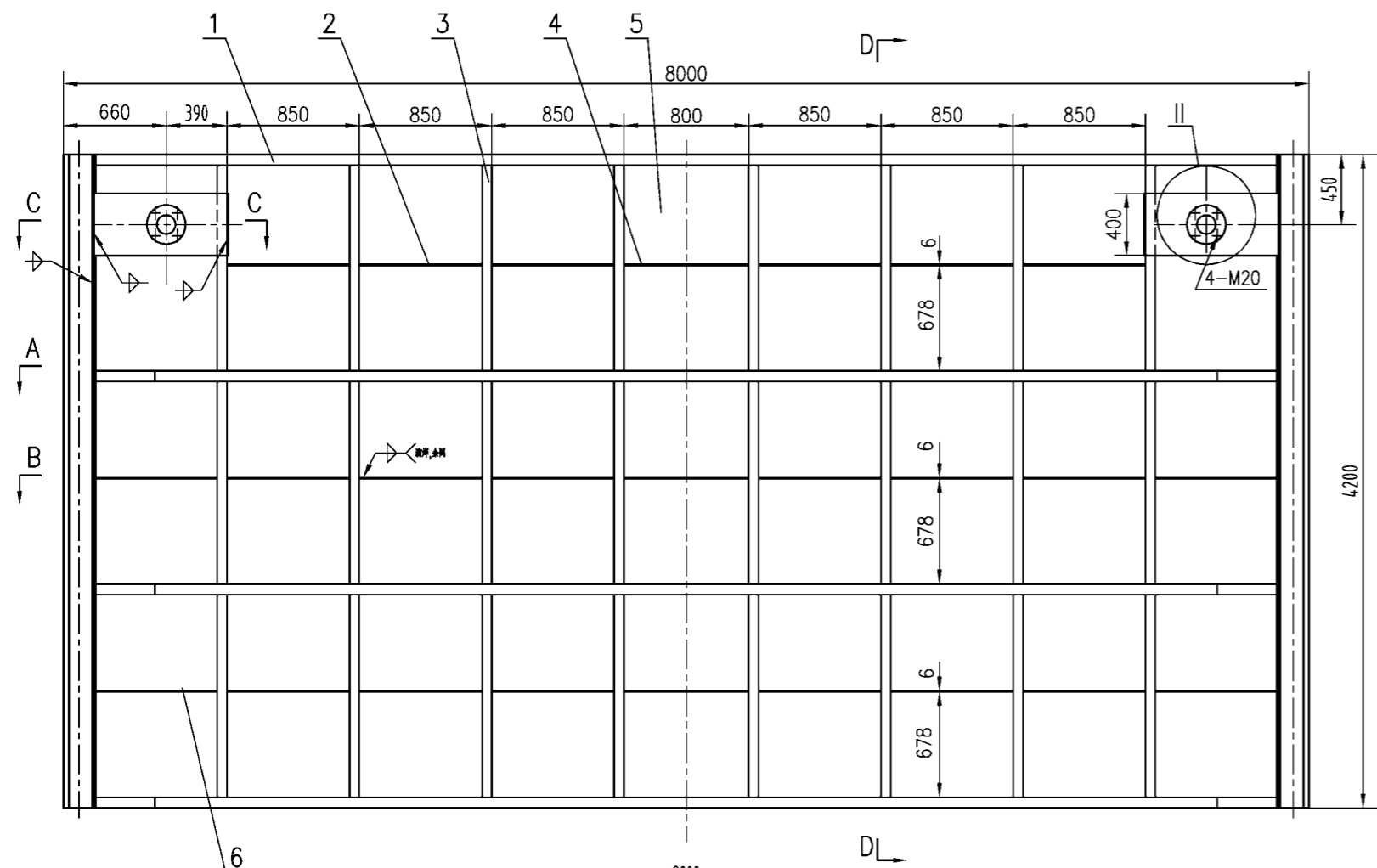
APP.

Q'TY/SET

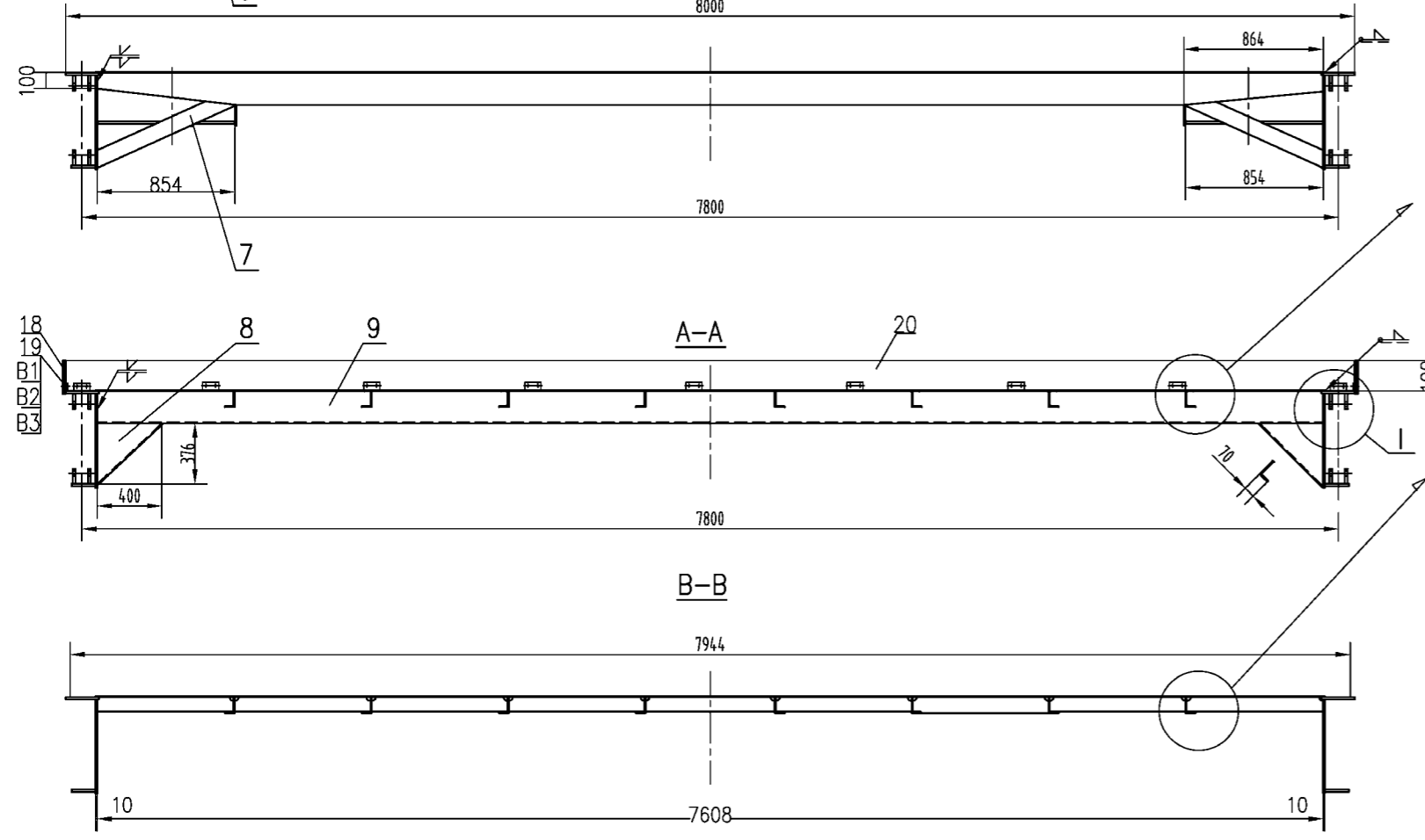
SET/CRANE

135

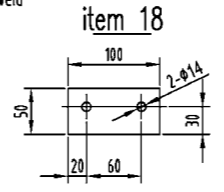
1



- 技术要求**
1. 材料切割, 拼装及整个制造过程须按厂规定的技术条件进行
 2. 明细表中尺寸仅供参考, 准确尺寸由放样确定
 3. 6毫米厚肋板的倒角尺寸R=25;
 4. 移门四角在同一平面内的偏差不得大于±5mm
 5. 所有轴孔必须在焊接施工后一次钻孔而成
 6. 裸露焊缝全为满焊



- Technology Requirement**
1. The cutting and fixing material should be follows ZPMC technology requirement;
 2. The shaft holes should be filleted 2x45°
 3. The 6mm thick stiffener panel filleted R=25;
 4. The tolerance 4° corners of mobile door on the plane should be less than ±5mm
 5. All the shaft hole must be boring after welding processing.
 6. continuous weld

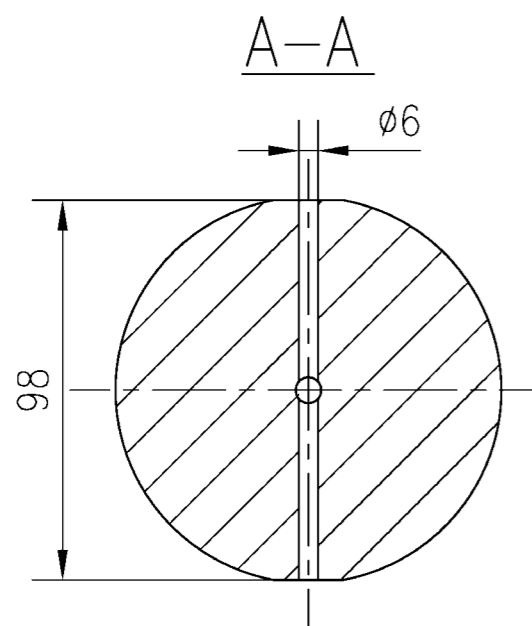
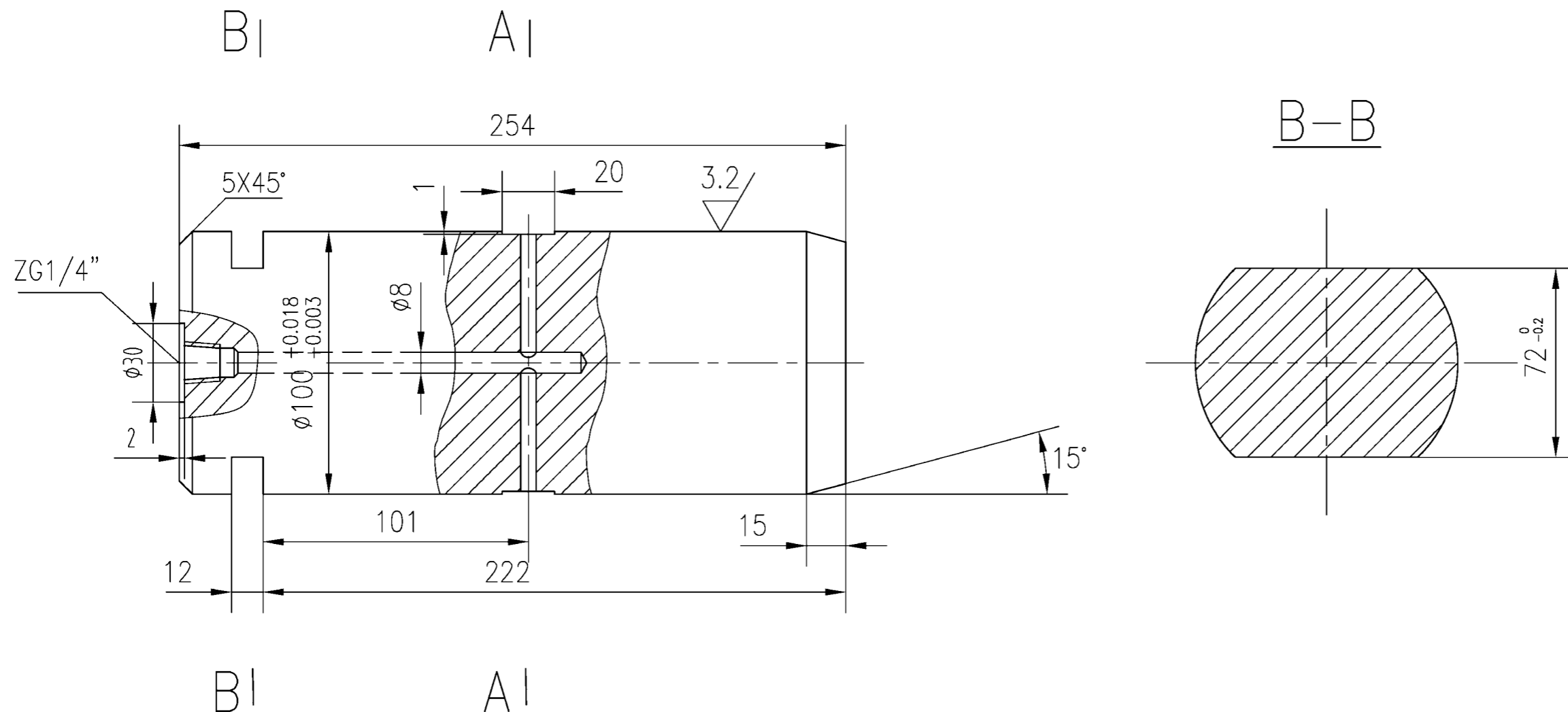


NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each WEIGHT	total WEIGHT	NOTE
17		-10X328X400	Q235	2	10.2	20.4	
16		-10Xφ220/φ100	Q235	4	2.4	9.6	
15		-16X400X854	Q235	4	42.9	85.8	
14		-16X206X4200	Q235	2	108.7	217.4	
13		-10X586X4200	Q235	2	193.2	386.4	
12		-16X150X4200	Q235	2	79.1	158.2	
11		-16X60X95	Q235	16	0.6	9.3	
10		L56X36X4-7608	Q235	1	19.2	19.2	
9		-8X262X7608	Q235	3	125.2	375.6	
8		-10X344X549	Q235	6	7	42	
7		L100X63X8-949	Q235	2	8.7	17.4	
6		-6X92X846	Q235	4	3.7	14.7	
5		-8X4196X7628	Q235	1	1005	1005	
4		-6X92X800	Q235	3	3.4	10.2	
3		L100X63X8-1382	Q235	24	13.7	328.8	
2		-6X92X842	Q235	18	3.6	64.8	
1		-8X262X7608	Q235	1	118.6	118.6	

PROJECT: Alabama 2000t/h Ship Unloader		DESIGN STAGE:		SCALE: 1:30	
ITEM NAME: 移门 Mobile Door		DRAW NO: UL25170702			
ZPMC	DSGN	李季	05/12	TRACE	APP.
	DRAW	王根民	05/12	CHCK	Q'TY/SET
	CHCK			VER.	SET/CRANE
					1
					2884

NO.	ITEM NO.	DESCRIPTION	MATERIAL	QTY	WEIGHT	UNIT	REMARKS
B3	GB95-85	垫圈 Washer 12	不锈钢 sta. steel	38		20	-20x205x8040 硬橡胶板 hard rubber 1件
B2	GB889-86	螺母 Nut M12	不锈钢 sta. steel	38		19	-20x205x4220 硬橡胶板 hard rubber 2件
B1	GB5780-86	螺栓 Bolt M12x40	不锈钢 sta. steel	38		18	-12x50x100 Q235 19件

Others
其余: $\sqrt{12.5}$



技术条件

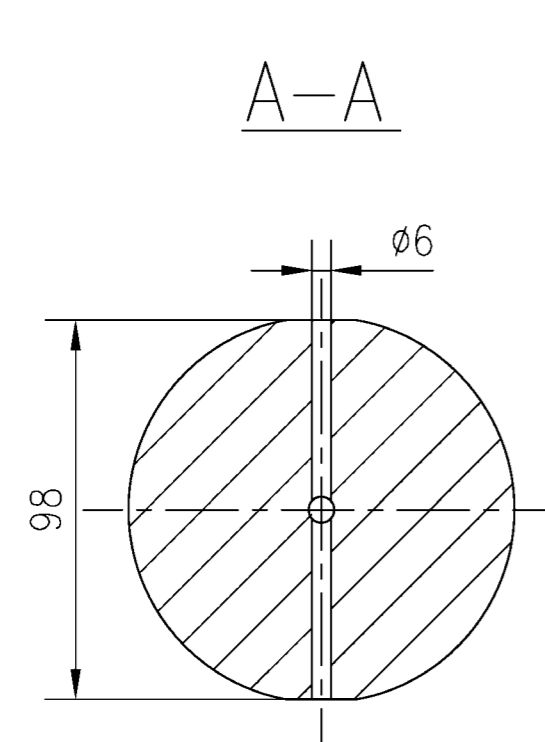
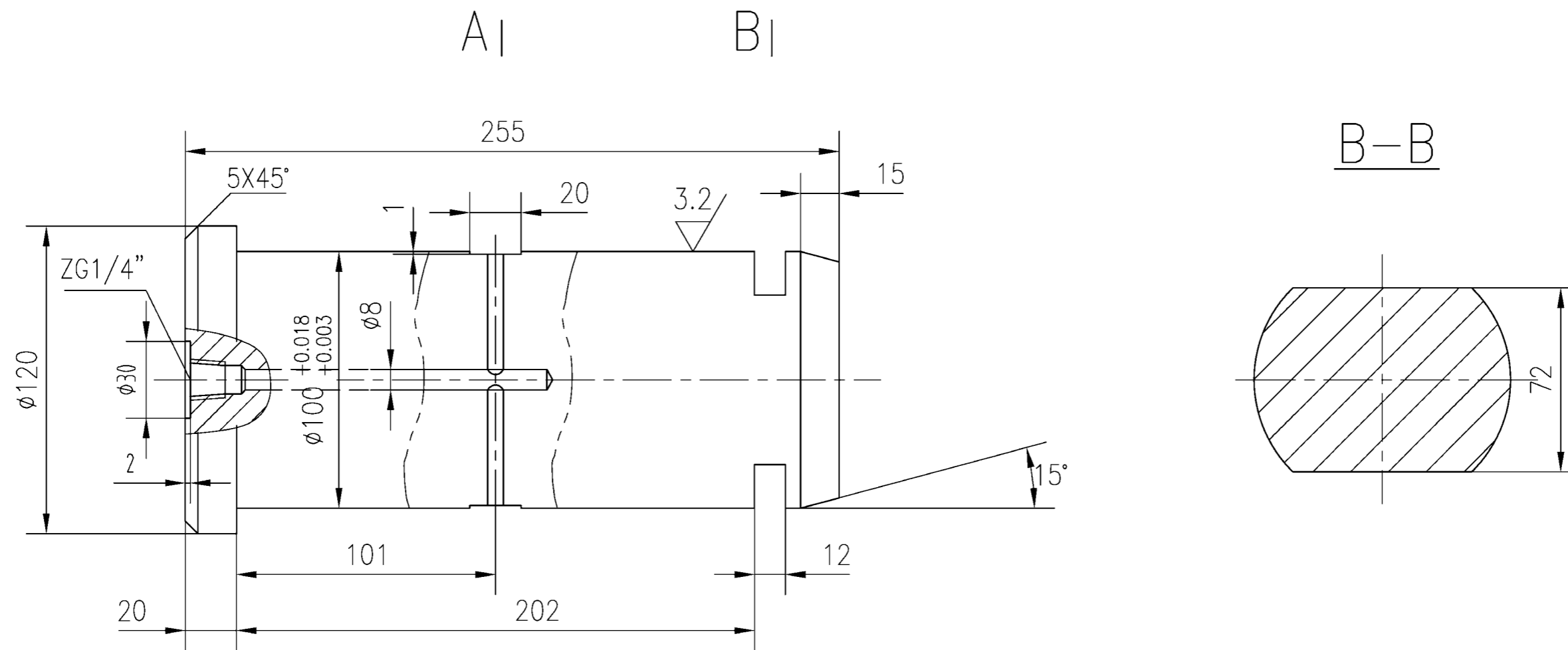
1. 热处理: 调质HB225~255
2. 锐边倒钝
3. 未注圆角均为R1
4. 未注倒角均为1X45°.

Technology Requirement

1. Heat treatment: Adjusting Quality HB225 ~ 255
2. Acute angle fillet obtuse.
3. The non-noted round angle is R1
4. The non-noted angle is 1x45°

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
5	UL25170705	滑轮轴 (1) Sheave Shaft(1)	45	15	2	1:3
ZPMC	DRAW	李颖	张	TECH.		TRACE
	CHCK	王	张	STDD		CHCK

Others
其余: $\frac{12.5}{\nabla}$



技术条件

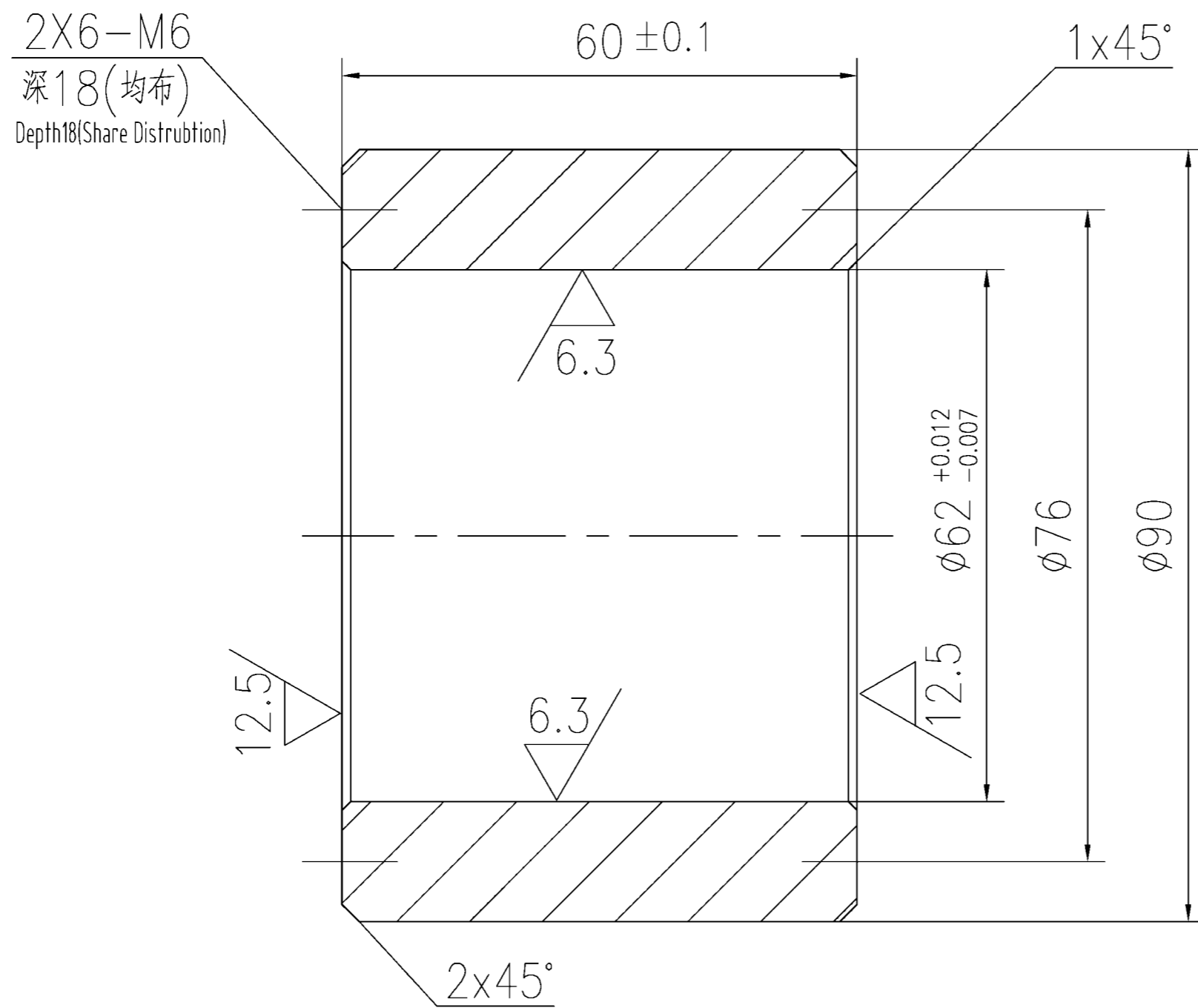
Technology Requirement

1. 热处理: 调质HB225~255
2. 锐边倒钝
3. 未注圆角均为R1
4. 未注倒角均为1X45°.

1. Heat treatment: Adjusting Quality HB225~255
2. Acute angle fillet obtuse.
3. The non-noted round angle is R1
4. The non-noted angle is 1x45°

另件号	分图号或标准	名称及规格			材料或型号	每套数量	单重	共重	比例
9	UL25170709	滑轮轴(2) Sheave Shaft(2)			45	1	17	17	1:3
上海 振华港口机械公司		制图	李颖	02/12	工艺		描图		
		校对	王根民	02/12	标准		描校		

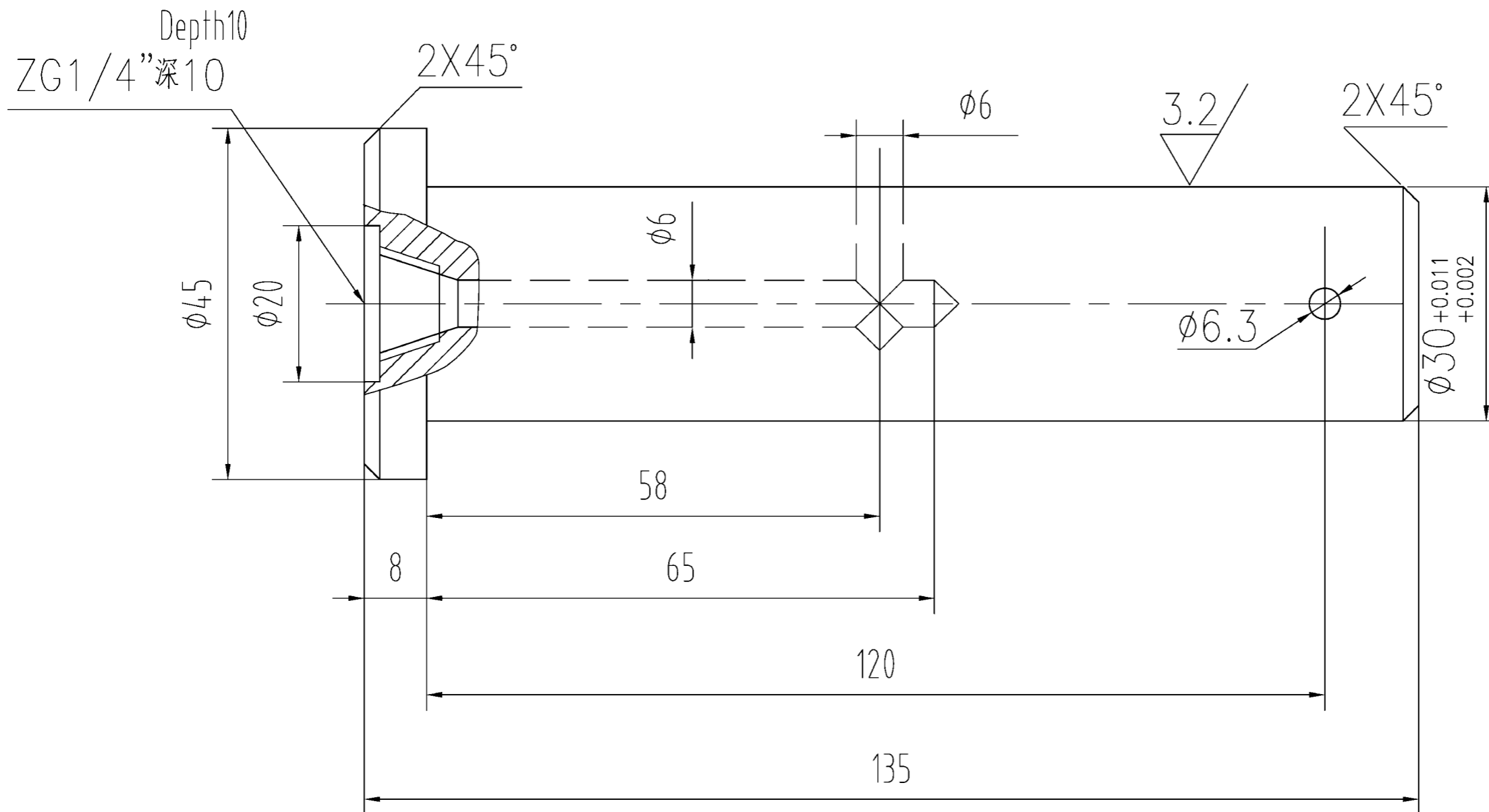
Others
其余 $\frac{25}{\nabla}$



热处理: 调质 HB225~255
Heat treatment: Adjusting Quality HB225~255

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
10	UL25170710	滚轮 Idler wheel	45	1.6	16	1:1
ZPMC	DRAW	李颖	张	TECH.		TRACE
	CHCK	王	张	STDD		CHCK

Others
其余 $\frac{25}{\nabla}$



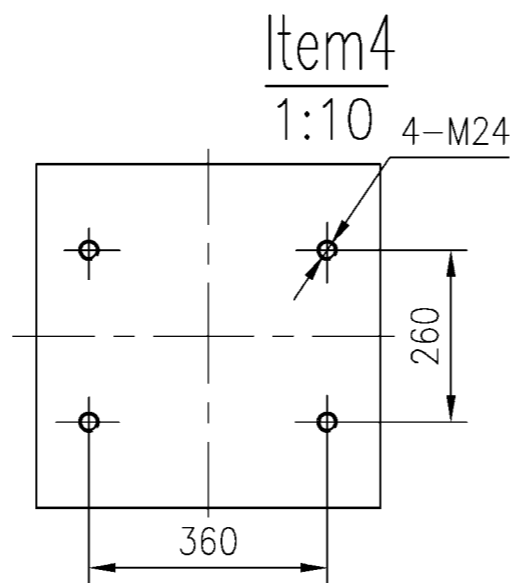
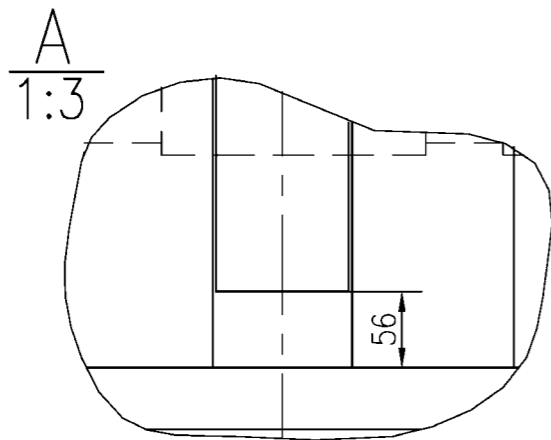
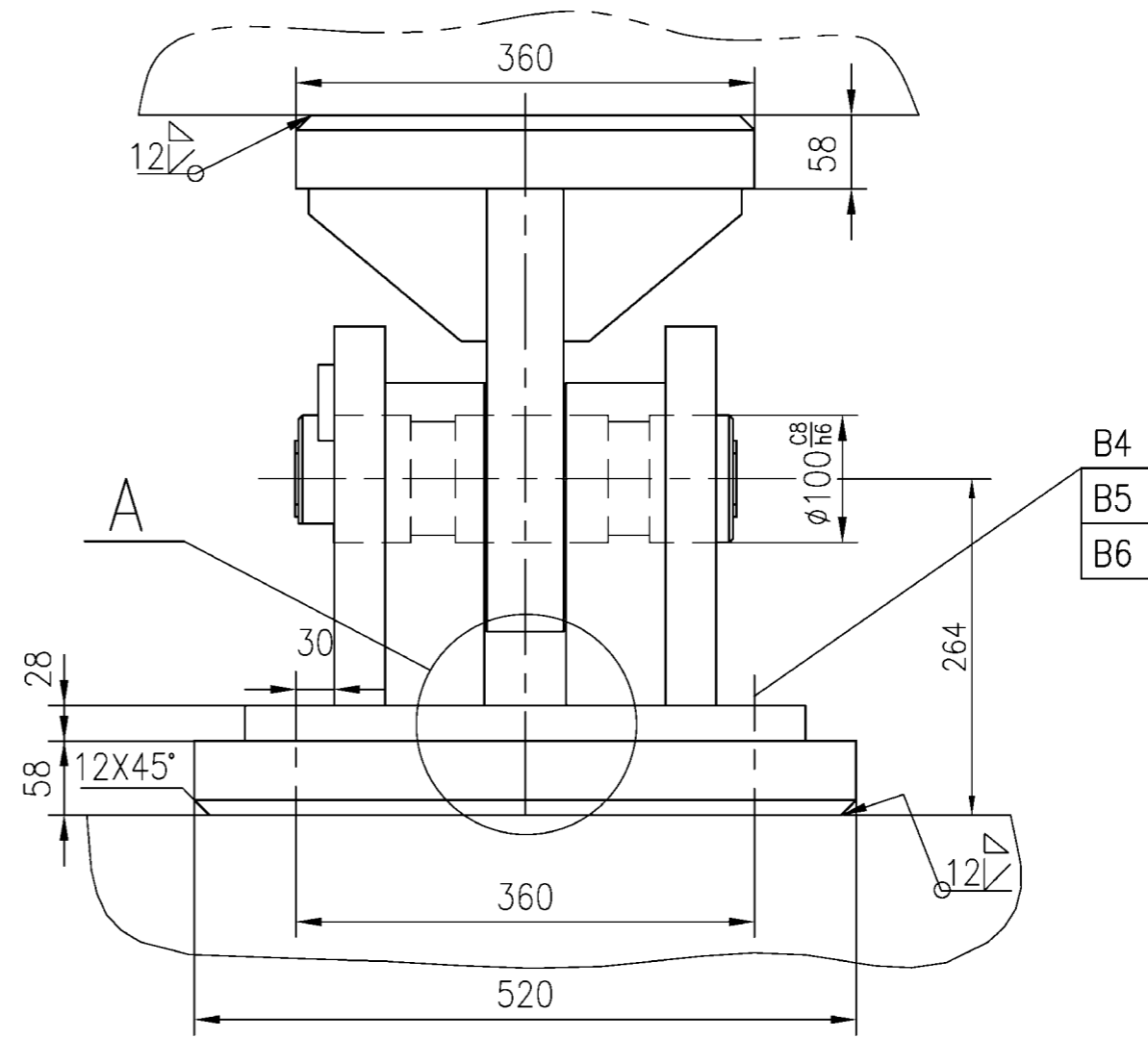
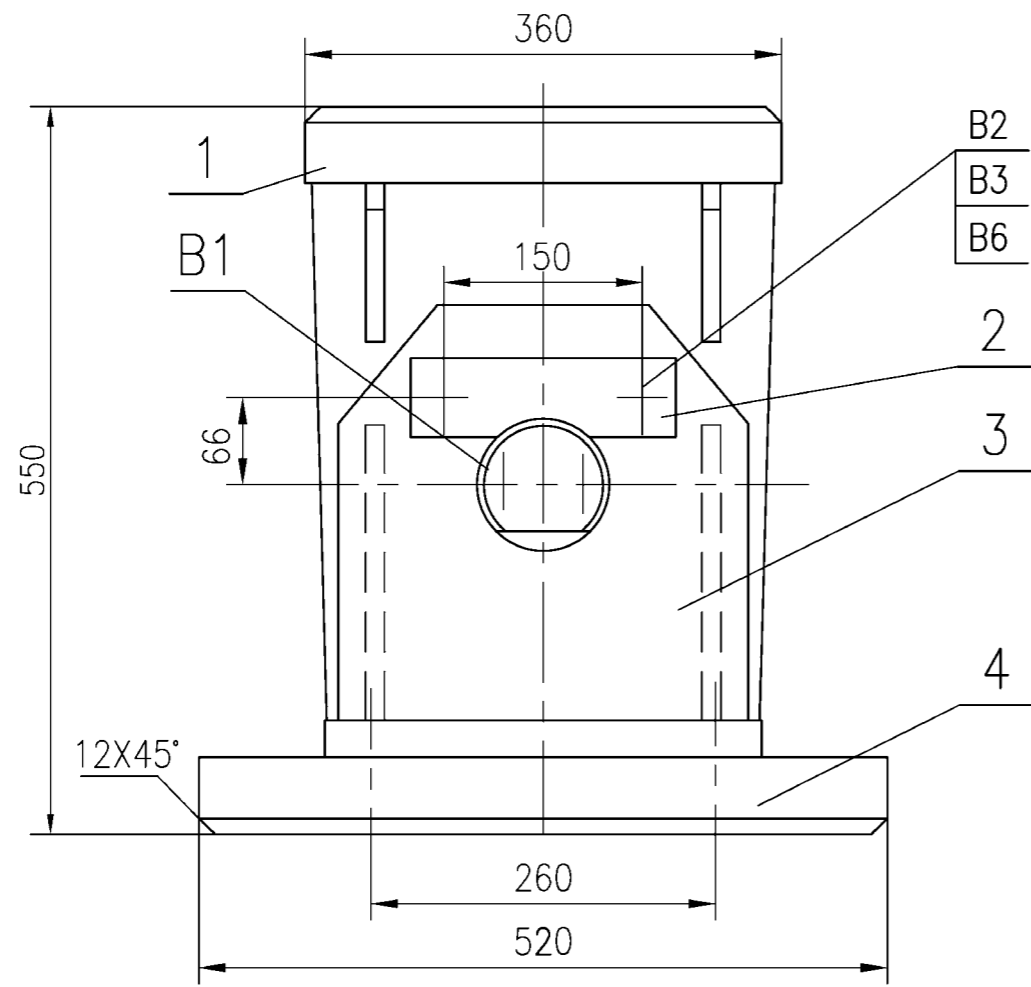
技术要求

- 1, 热处理: 调质HB225~255.
- 2, 锐边倒角: 1X45°

Technology Requirement

1. Heat treatment: Adjusting Quality HB225~255
2. Acute angle fillet 1x45°.

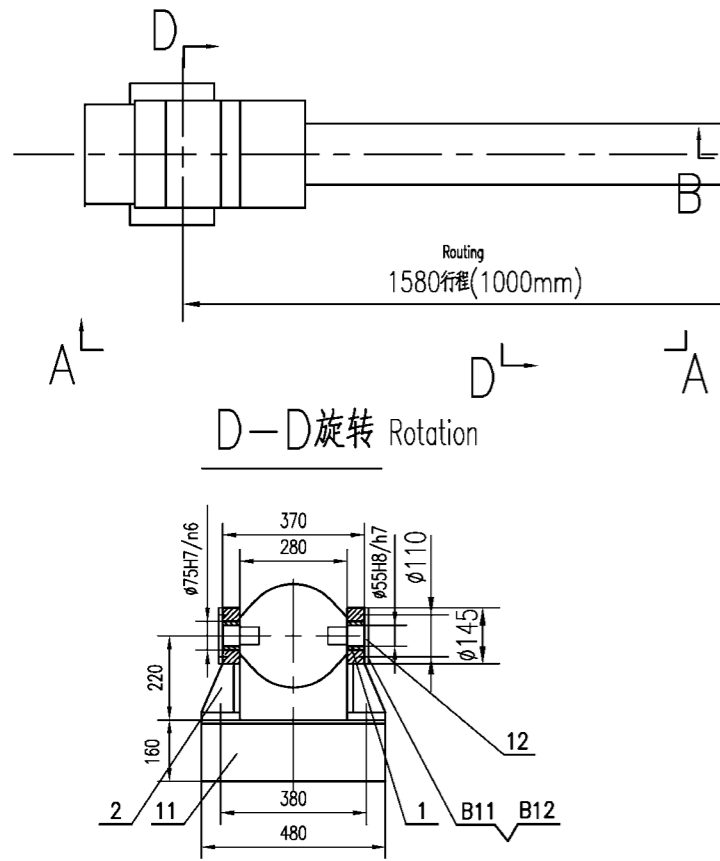
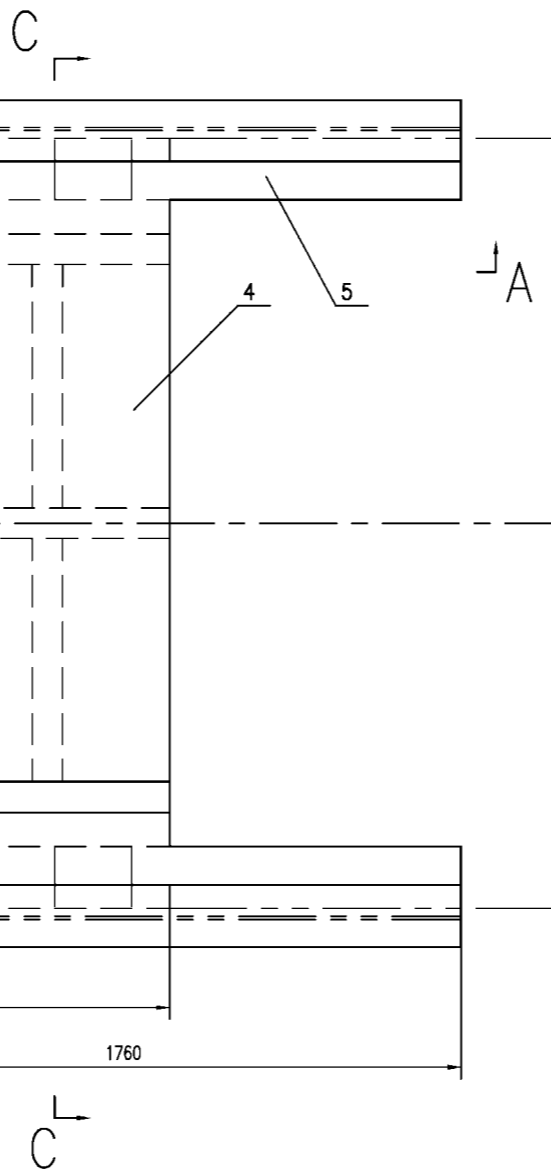
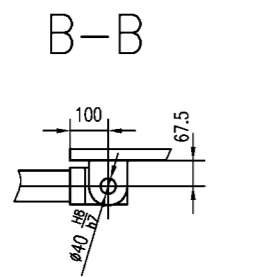
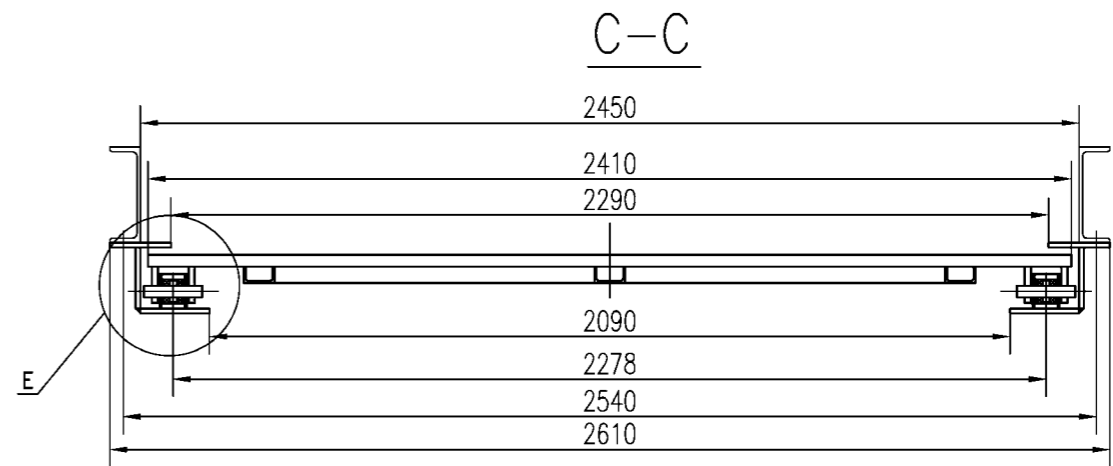
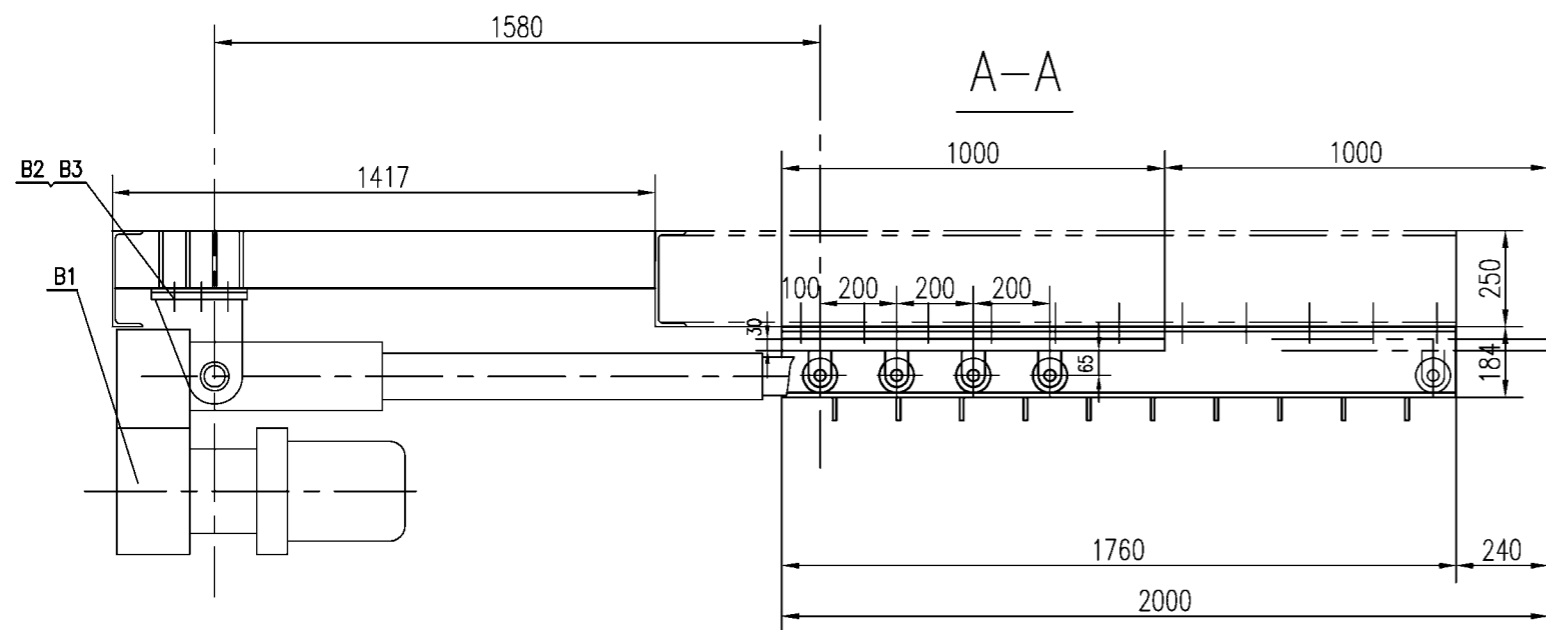
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
14	UL25170714	滚轮轴 Idler Wheel Shaft	45	0.72	18	1:1
ZPMC	DRAW	李顺	张	TECH.		TRACE
	CHCK	李顺	张	STDD		CHCK



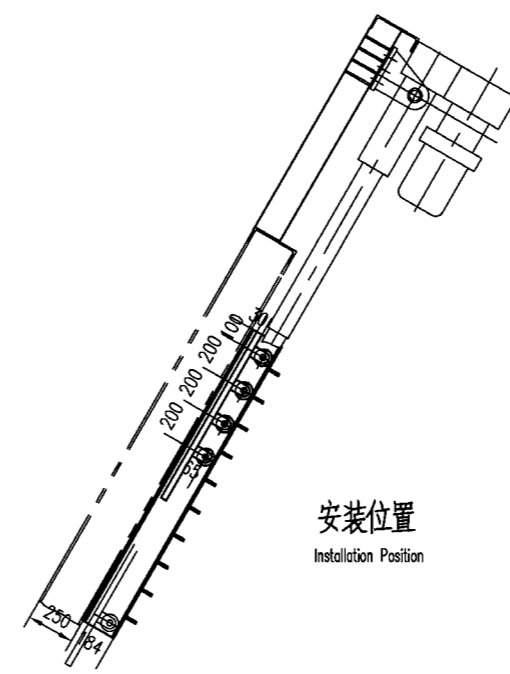
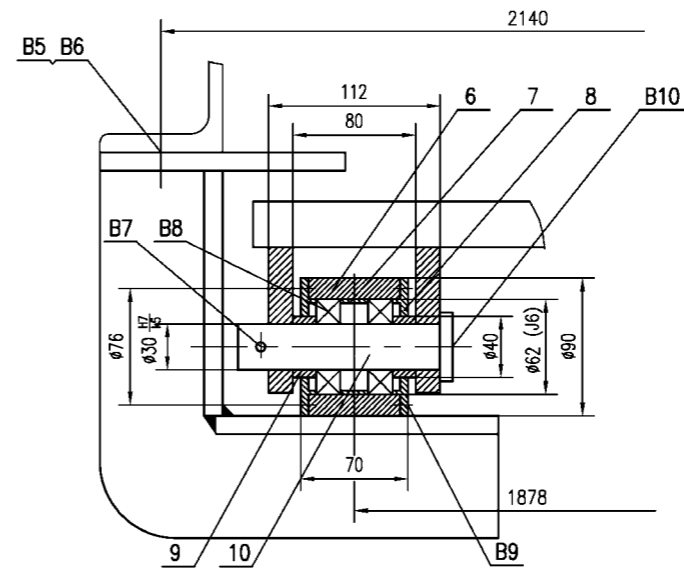
B6		Stainless Steel Rope $\phi 2 \times 1000$		1			不锈钢 $\phi 2 \times 1000$
B5	GB95-85	Washer24	100HV	4	0.0135	0.05	垫圈 24
B4	GB32.1-88	Bolt M24x70	8.8S	4	0.3	1.2	螺栓 M24X70
B3	GB95-85	Washer20	100HV	2	0.0077	0.015	垫圈 20
B2	GB32.1-88	Bolt M20x50	8.8S	2	0.14	0.28	螺栓M20X50
B1		Hinge Type Weight Sensor	LB220 1000KN	1		19.6	铰轴式测重传感器 进口

4		-58X520X520	A709/50-2	1		123	
3	UL25170903	Weight Measure Base Double Ear-plate	Welding 焊接件	1		96	测重支座双耳板
2	UL25170902	Baffle	Q235	1		0.88	挡 板
1	UL25170901	Weight Measure Base Single Ear-plate	Welding 焊接件	1		116	测重支座单耳板
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
					WEIGHT		

PROJECT: Alabama 2000t/h Ship Unloader			DESIGN STAGE:		SCALE: 1:5		
ITEM NAME: 铰轴式测重支座 Hinge Type Weight Measure Base			DRAW NO: UL25170900				
ZPMC	DSGN	李季	VS/NZ	TRACE		APP.	
	DRAW	王根民	VS/NZ	CHCK		Q'TY/SET	358
	CHCK			VER.		SET/CRANE	2



E
1:2.5



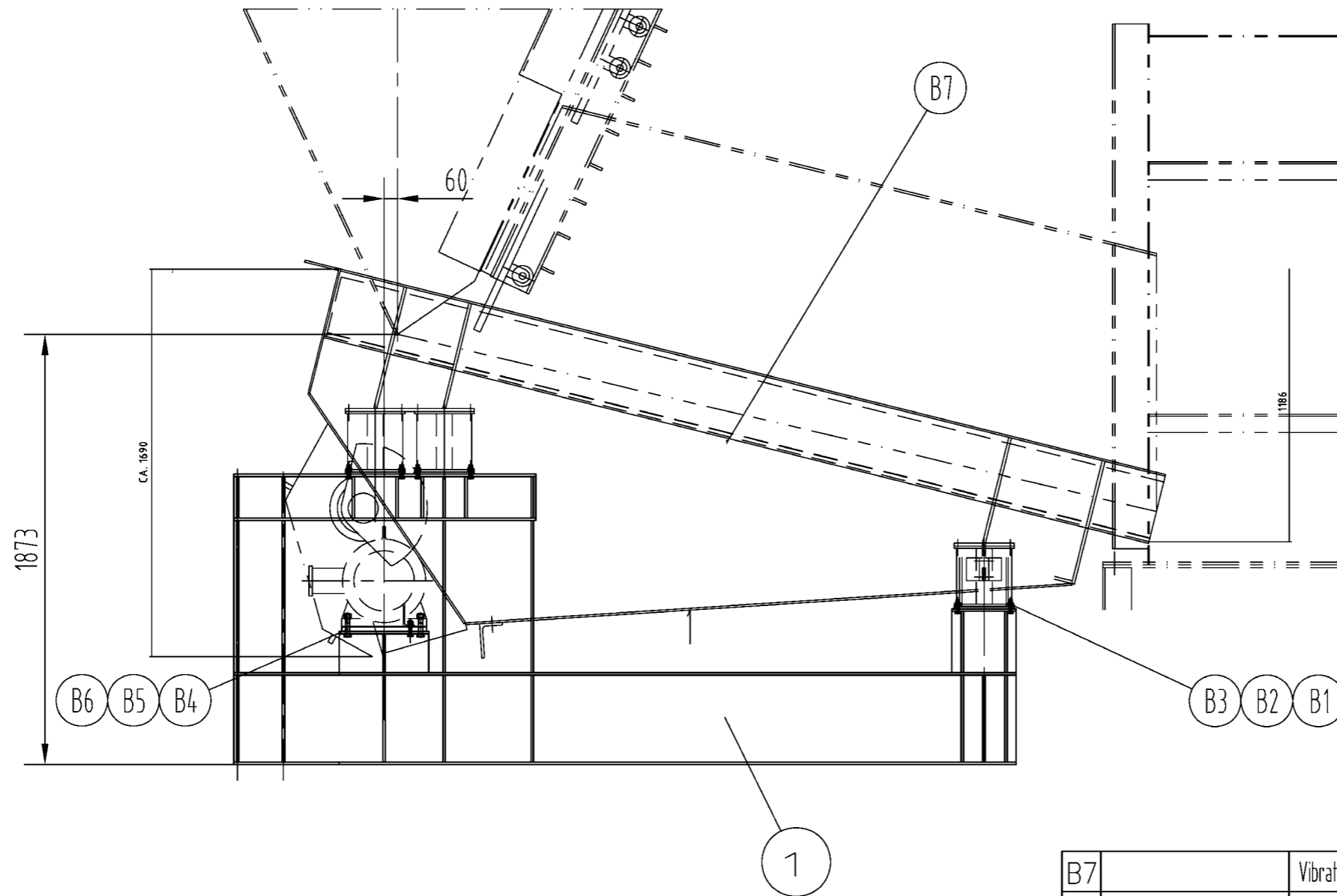
技术要求
 1. 本总成在与漏斗本体安装时,要求各滚轮轴承处涂抹黄油,转动灵活;
 2. 斗门移动部分与固定部分的间隙两侧须均匀;
 3. 电动推杆与斗门的连接须保证二者中心线一致,推杆工作时,斗门能上下自如,避免歪斜卡住.

Technology Requirement
 1.The butter should be smeared in each bearings to make it work smoothly, when the assembly equipped on the hopper.
 2.The clearance between the mobile parts and the fixed parts.
 3.The centre lines should be aligned between the electric bar and the hopper door, when it works, the door can move easily,avoiding stuck.

B12	GB93-87	Washer12		12		垫圈12
B11	GB5782-86	Bolt M12x40		12		螺栓M12x40
B10	JISB0203	Flat Oil Mouth PT1/4"		8	0.08	平头油嘴PT1/4"
B9	GB68-85	Deep Nut M6x10	Stainless Steel 不锈钢	96	0.29	深六角 M6x10
B8	GB283-87	Bearing 42206E	62x30x16	16	3.42	轴承42206E
B7	GB91-86	Uncork Pin 6x50	Q235	8	0.08	开口销 6x50
B6	GB889-86	Locked Nut M12		35	22	锁紧螺母M12
B5	GB5782-86	Bolt M20x40		35	22	螺栓M20x40
B4	GB91-86	Uncork Pin 8x70	Q235	1	0.03	开口销 8x70
B3	GB889-86	Locked Nut M16		35	6	锁紧螺母M16
B2	GB5782-86	Bolt M16x50		35	6	螺栓M16x50
B1	BSDbM6000-1000-30	Electric Bar(Contains limits)		1	250	电动行程开关M6000/132/AB8

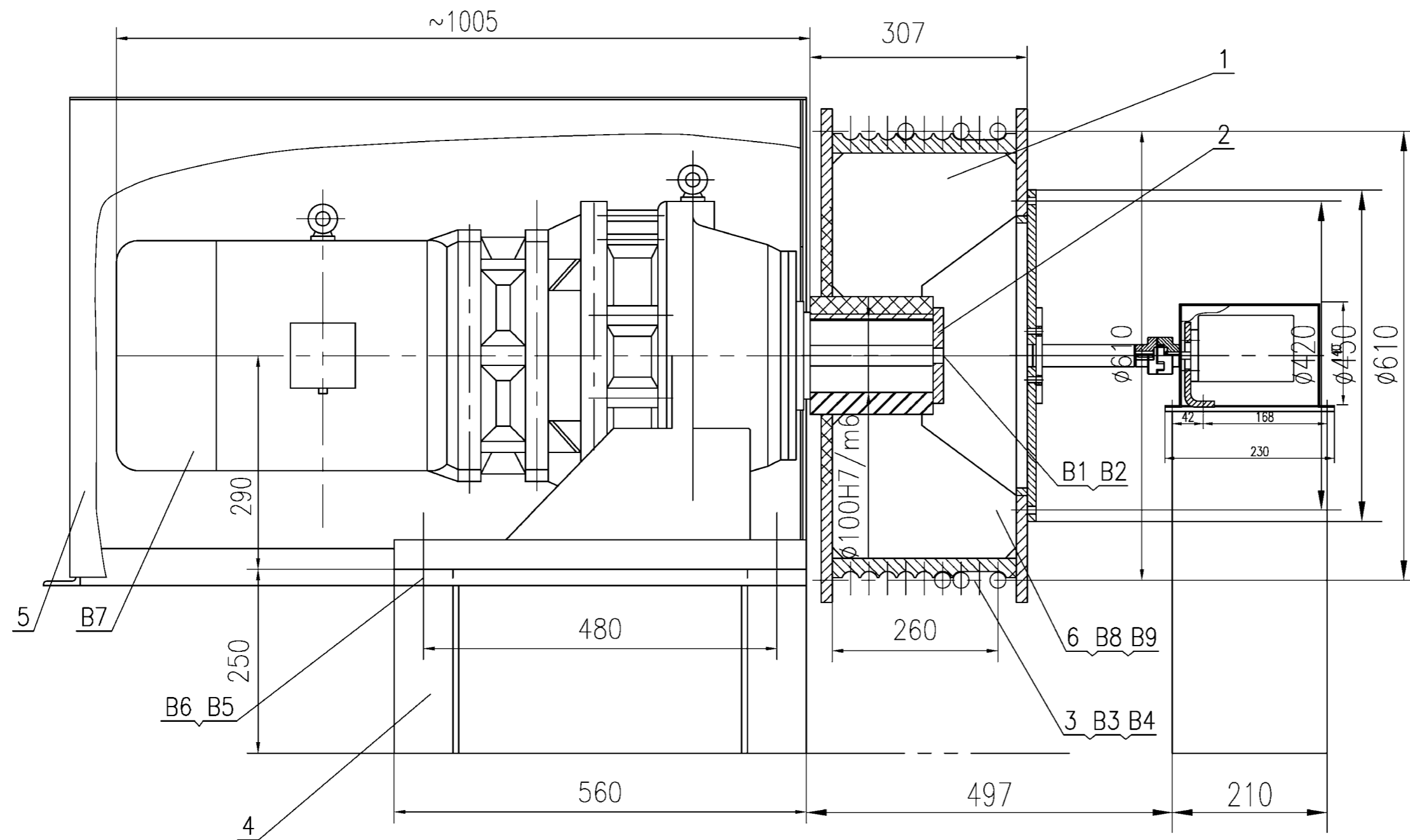
11	UL25171112	Half Hinge Shaft		45	2	2.5	5	半铰轴
11	UL25171111	Base	Q235	1			66.8	底座
10	UL25171110	Shaft	45	8	0.72		5.76	轴
9	UL25171109	Bushing3	Q235	16	0.06		0.96	轴套3
8	UL25171108	Ending Cover	Q235	16	0.5		8	端盖
7	UL25171107	Bushing2	Q235	8	0.07		0.56	轴套2
6	UL25171106	Idler Wheel	45	8	1.6		12.8	滚轮
5	UL25171105	Rail	Welding 焊接件	2	125.8		251.6	导轨
4	UL25171104	Door Plate	Welding 焊接件	1			646.9	门板
3	UL25171103	Pin	45	1	1		1	销轴
2	UL25171102	Support Base	Q235	2	8.37		16.7	支座
1	UL25171101	Bushing1	ZQAL9-4	2	0.72		1.44	轴套1

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	WEIGHT	NOTE
PROJECT: Alabama 2000t/h Ship Unloader		DESIGN STAGE:		SCALE: 1:10				
ITEM NAME: 斗门装置 Hopper Door Mechanism		DRAW NO: UL25171100						
ZPMC	DSGN 设计	审核	454Z	TRACE			APP.	
	DRAW 制图	复核	454Z	CHK			Q'TY/SET	1514.4
	CHK			VER.			SET/CRANE	1



B7		Vibratile Feeder Power		1			振动给料机 进口 import
B6	GB5782-86	Bolt M18X90		4			螺栓 M18X90
B5	GB93-87	Washer 18		4			垫圈 18
B4	GB6170-86	Nut M18		4			螺母 M18
B3	GB5782-86	Bolt M14X50		28			螺栓 M14X50
B2	GB93-87	Washer 14		28			垫圈 14
B1	GB6170-86	Nut M14		28			螺母 M14
1	UL25171301	Base		1	1620	1620	支架
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE

PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE: 1:25	
ITEM NAME: 振动给料器按装 Vibratile Feeding Installation		DRAW NO: UL25171300			
ZPMC	DSGN	李季	05/12	TRACE	APP. 1
	DRAW	李俊民	05/12	CHCK	Q'TY/SET 8620
	CHCK			VER.	SET/CRANE 1



主要技术参数	
电机功率	5.5Kw M2ARF/S132
减速器速比	289
卷筒直径	610mm
卷筒旋向	左旋
钢丝绳直径	φ21.5mm

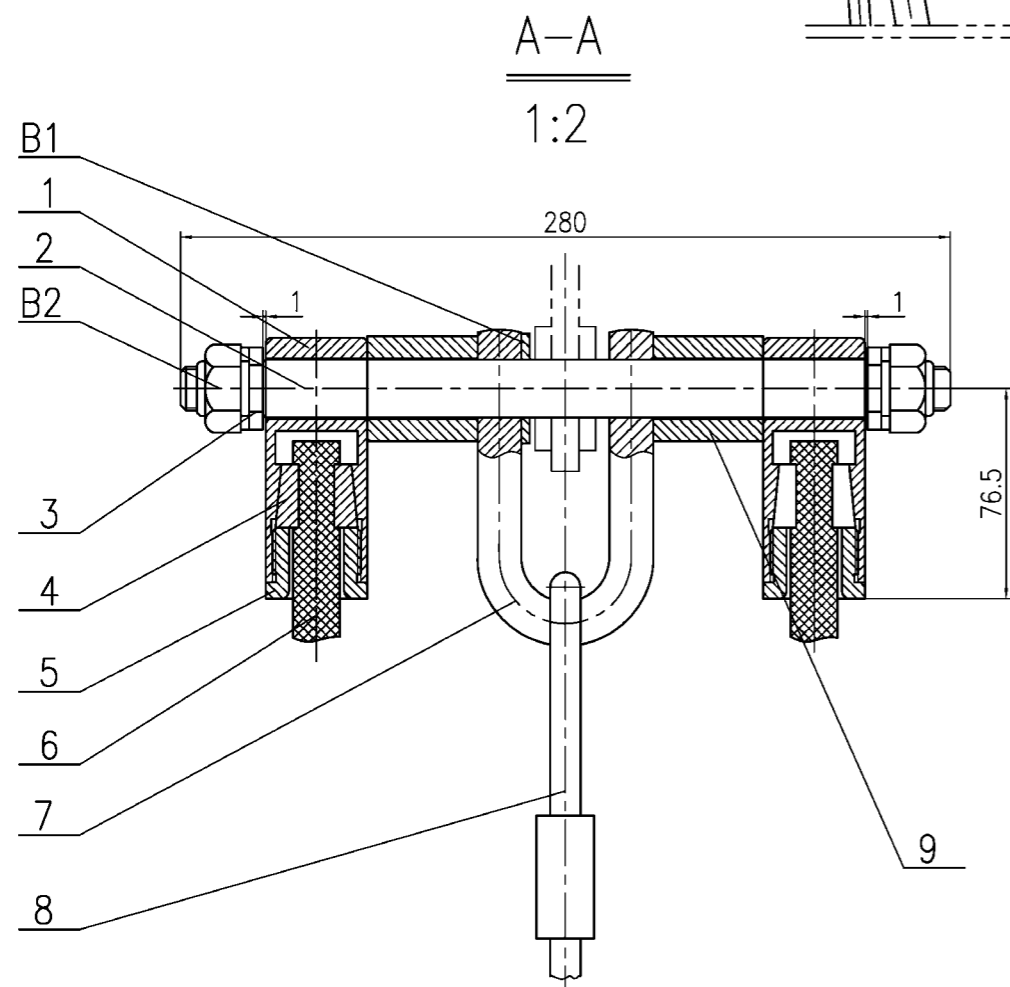
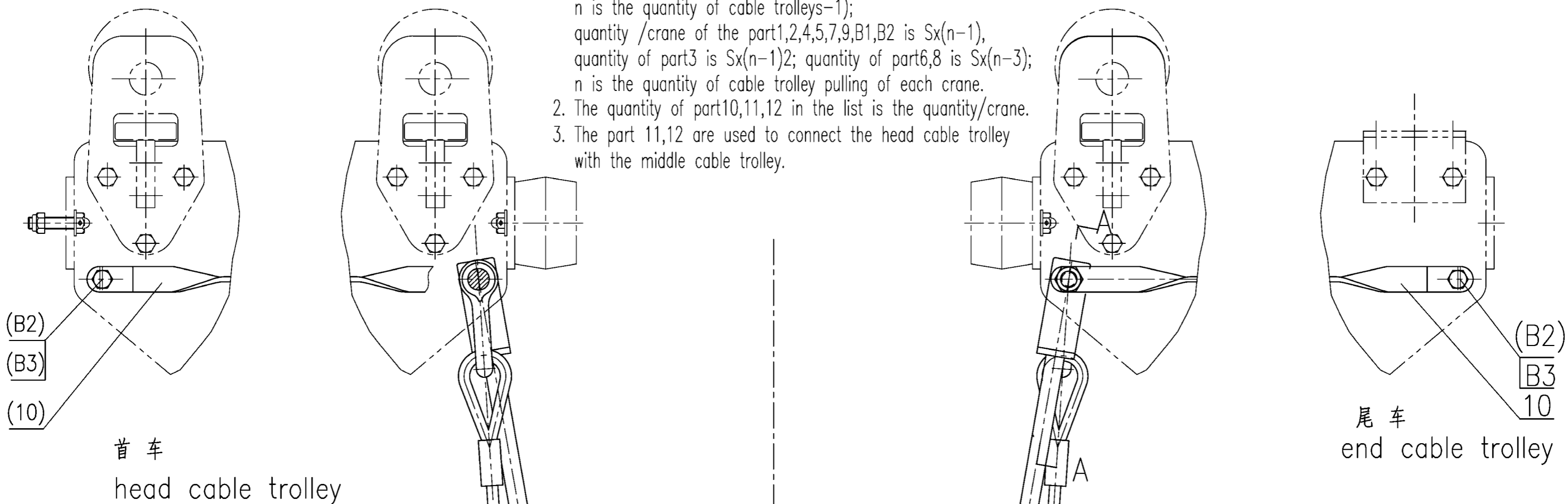
Main Techology Parameters	
Motor Power	5.5Kw M2ARF/S132
Reducer Ratio	289
Drum Diameter	610mm
Drum Screw Direction	Left
Wire Rope Diameter	φ21.5 mm

B11		Stainless Wire Rope φ1		1.2m	0.01	不锈钢丝φ1
B10	GB32.1-86	Bolt M8x20		8	0.11	螺栓M8x20
B9		Stainless Wire Rope φ1		1.2m	0.01	不锈钢丝φ1
B8	GB32.1-86	Bolt M8x15		8	0.11	螺栓M8x15
B7	BWD-163-17x17(289)-5.5kw Double Cycloid Reducer			1		双级摆线针轮减速器
B6	GB889-86	Nylon Nut M27		4	0.13	尼龙螺母M27
B5	GB5782-86	Bolt M27x85		4	1.9	螺栓M27x85
B4		Stainless Wire Rope φ2		0.3m	0.03	不锈钢丝φ2
B3	GB32.1-86	Bolt M20x60	8.8	3	0.18	螺栓M20x60 达克罗
B2	GB955-87	垫圈20	65Mn	1	0.01	达克罗
B1	GB5783-86	Bolt M20x40	8.8	2	0.11	螺栓M20x40 达克罗

7	UL251714010700	Cam Locating Installation	Assembly 组件	1	3.7	3.7	凸轮限位装置
6	UL2517140106	Cover Panel	Q235	1	3.7	3.7	盖板
5	UL2517140105	Cover Shell	Q235	1	57	57	罩壳
4	UL2517140104	Base	Q235	1	85	85	支座
3	UL2517140103	Wire Rope Compressed Panel	16Mn	3	0.6	1.8	钢丝绳压板
2	UL2517140102	Compressed Panel	Q235	1	1.4	1.4	压板
1	UL2517140101	Drum	16Mn	1	180	180	卷筒
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
			PROJECT: Alabama 2000t/h Ship Unloader	DESIGN STAGE:	SCALE: 1:6		
ITEM NAME: 驱动装置 Drive device			DRAW NO: UL25171401				
ZPMC	DSGN	李季顺	0.5/0/0	TRACE			
	DRAW	王根民	0.5/0/0	CHCK	Q'TY/SET		
	CHCK			VER.	SET/CRANE 330		

NOTE

1. It is the pulling set between 2 cable trolleys, n is the quantity of cable trolleys-1; quantity /crane of the part1,2,4,5,7,9,B1,B2 is $Sx(n-1)$, quantity of part3 is $Sx(n-1)2$; quantity of part6,8 is $Sx(n-3)$; n is the quantity of cable trolley pulling of each crane.
2. The quantity of part10,11,12 in the list is the quantity/crane.
3. The part 11,12 are used to connect the head cable trolley with the middle cable trolley.

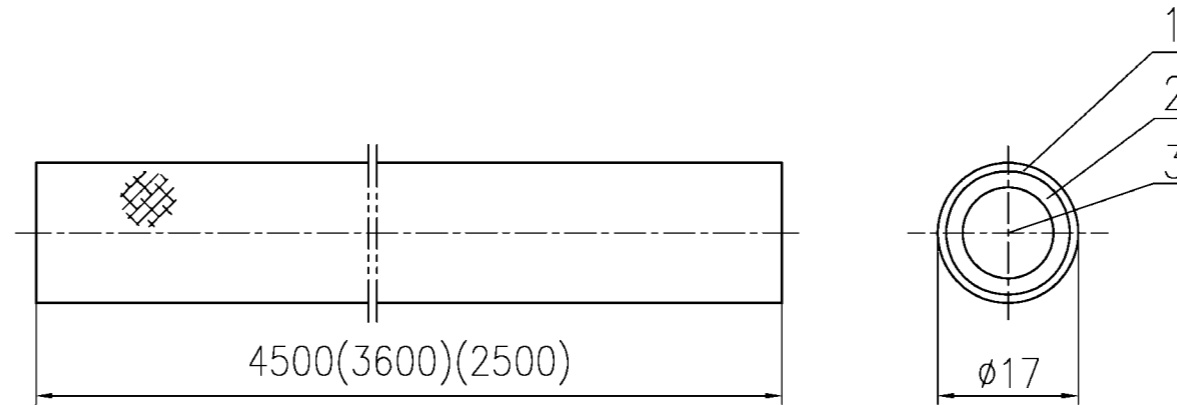


说明

1. 本图为二台电缆车间的拖携装置，为一组，每台卸船机数量为(电缆车数-1)组，件1,2,4,5,7,9,B1,B2每台卸船机数量为每套数量 $X(n-1)$ ，件3每台机数量为每套数量 $x(n-1)-2$ 。件6,8每台机数量为每套数量 $x(n-3)$ 。
2. 件10,件11,件12明细表中的数量为整机数量。
3. 件11,件12用于电缆首车和中车过渡段。

B3	GB5781-82	螺栓M16X60 Bolt	Dacro	2	0.11	0.22	
B2	GB889-86	尼龙锁紧螺母M16 Nut	Dacro	2	0.036	0.072	
B2	GB6182-86	尼龙锁紧螺母M16 Nut	Dacro	4	0.036	0.144	
B1	GB97.1-85	平垫圈20 Washer	140HV	8	0.017	0.14	热镀锌 Hot galvanize
10	ULTX110	斜连板 skew plate	Q235	2	0.47	0.94	
9	ULTX109	套 sheath		4	0.036	0.144	借用 borrow
8	UL25210402	钢丝绳 steel rope		1	6.2	6.2	
7	ULTX107	家具卸扣1.4 unloaded lock1.4		2	0.66	1.32	沪/JB44-66
6	UL25210401	松紧绳 lock sheath		2	1.3	2.6	
5	ULTX105	锁套 lock sheath	45	4	0.1	0.4	借用 borrow
4	ULTX104	锥套 winble sheath	尼龙1010 Nylon1010	4	0.015	0.06	借用 borrow
3	ULTX103	连板 joint plate	Q235	2	0.47	0.94	借用 borrow
2	ULTX102	螺杆 screw	40Cr	2	0.56	1.12	借用 borrow
1	ULTX101	悬铃 hanging ring	45	4	0.26	1.04	借用 borrow

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each total		NOTE
					WEIGHT		
PROJECT:			DESIGN STAGE:		SCALE: 1:3		
ITEM NAME: 电缆车拖携装置 cable trolley pulling			DRAW NO: UL25210400				
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	18	
	CHCK		VER.		SET/CRANE	15.2	



{ L=2500,L=3600 每台卸船机各制作1x2件.
 1x2 pieces each set/crane.
 { L=4500 每台卸船机制作16x2件.
 16x2 pieces each set/crane.

TECHNIQUE NOTE

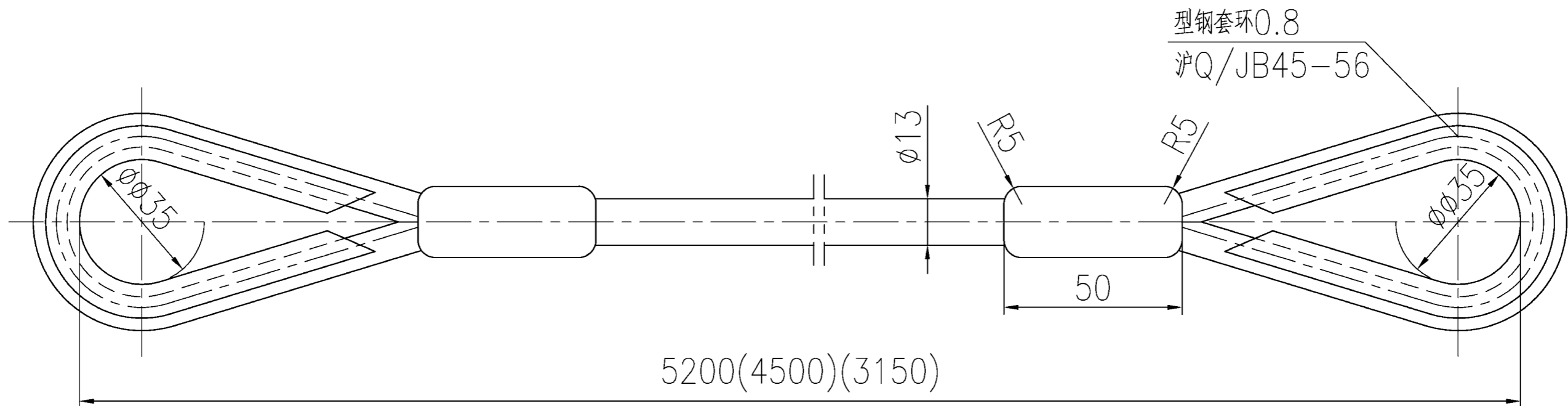
- 1 Straight figure and flat surface.
- 2 Tolerance of outside diameter is $\pm 0.5\text{mm}$, tolerance of length is $\pm 0.3\text{m}$.
- 3 The travel and technics parameter refer to R-TB standard.
- 4 Refining,setting,sulfuration and surface treatment of the rubber refer to P-109.
- 5 Single tensile breaking strength $>22.0\text{MPa}$.

技术要求

1. 编织花纹要直,外表平正.
2. 外径公差 $\pm 0.5\text{mm}$,长度公差 $\pm 0.3\text{m}$.
3. 行程及锭X股及工艺参数按R-TB产品成型工艺规程.
4. 橡胶的混炼,配合,挤出,硫化,表面处理按P-109. 橡胶园条制备工艺规程.
5. 单根拉断强度 $>22.0\text{MPa}$

本图来自上海平成橡胶制品有限公司12-961226

3		橡胶弹力层 rubber elasticity layer 橡胶 rubber					
2		PST 编织层	纤维 thread				
1		PA 编织层	聚酰胺				
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	W'ONEW'TAL	SCALE	
6	UL25210401	松紧绳 elasticity rope	组合件 assembled	18x2	1.3	46.8	1:1
ZPMC	DRAW		TECH.		TRACE		
	CHCK		STDD		CHCK		



NOTE

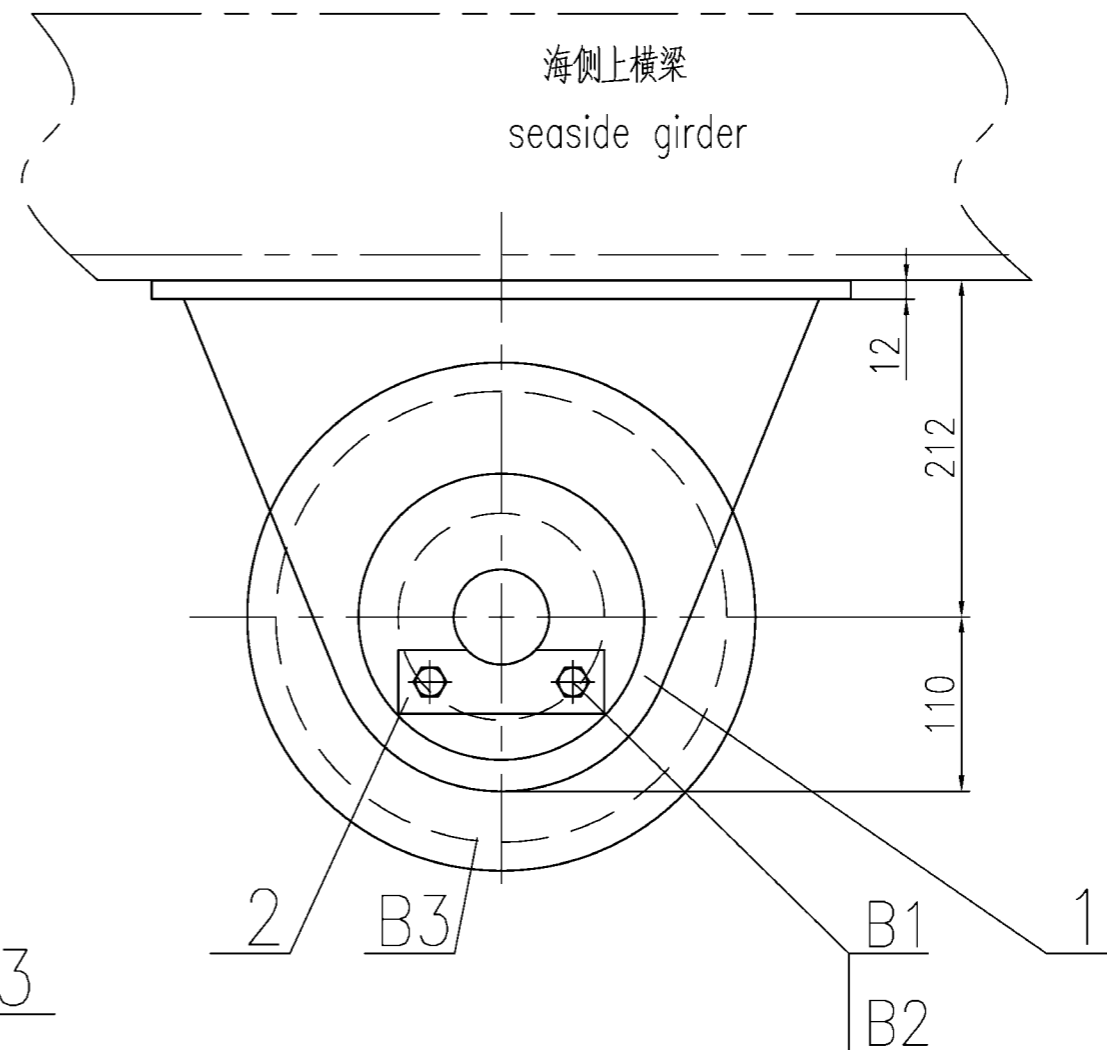
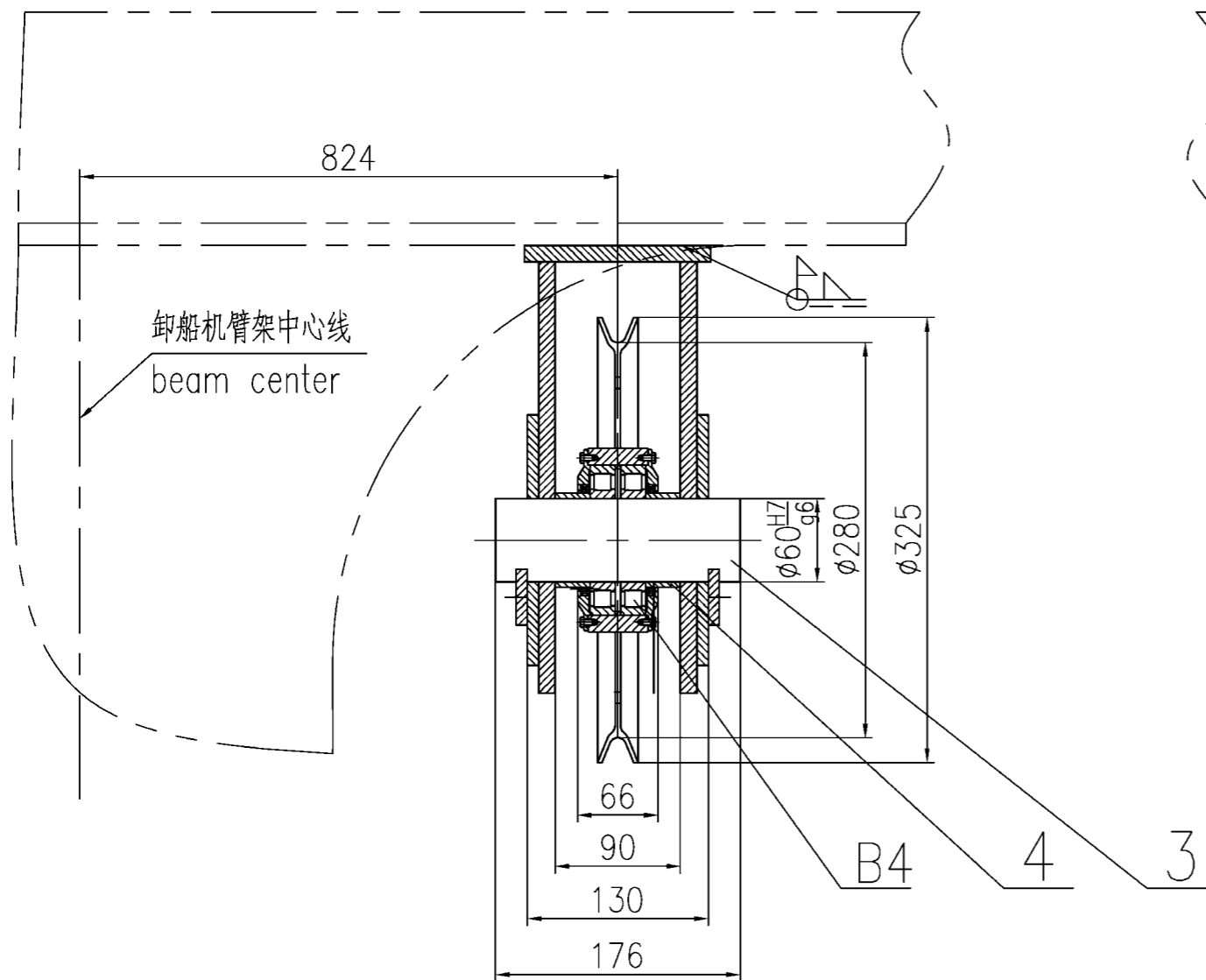
- 50 is used to be referred, the outside diameter is decided by the producer; it should be satisfied that if the steel rope is broken, the pressure head don't loose, and the steel rope wouldn't appear outside.
- The steel rope 6x37(stainless steel and cover plastic).

{ L=4500, L=3150 每台卸船机各制作1件.
 1 pieces each set/crane.
 { L=5200 每台卸船机制作16件.
 16 pieces each set/crane.

说明

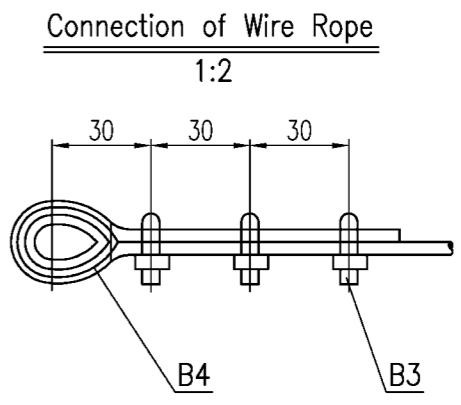
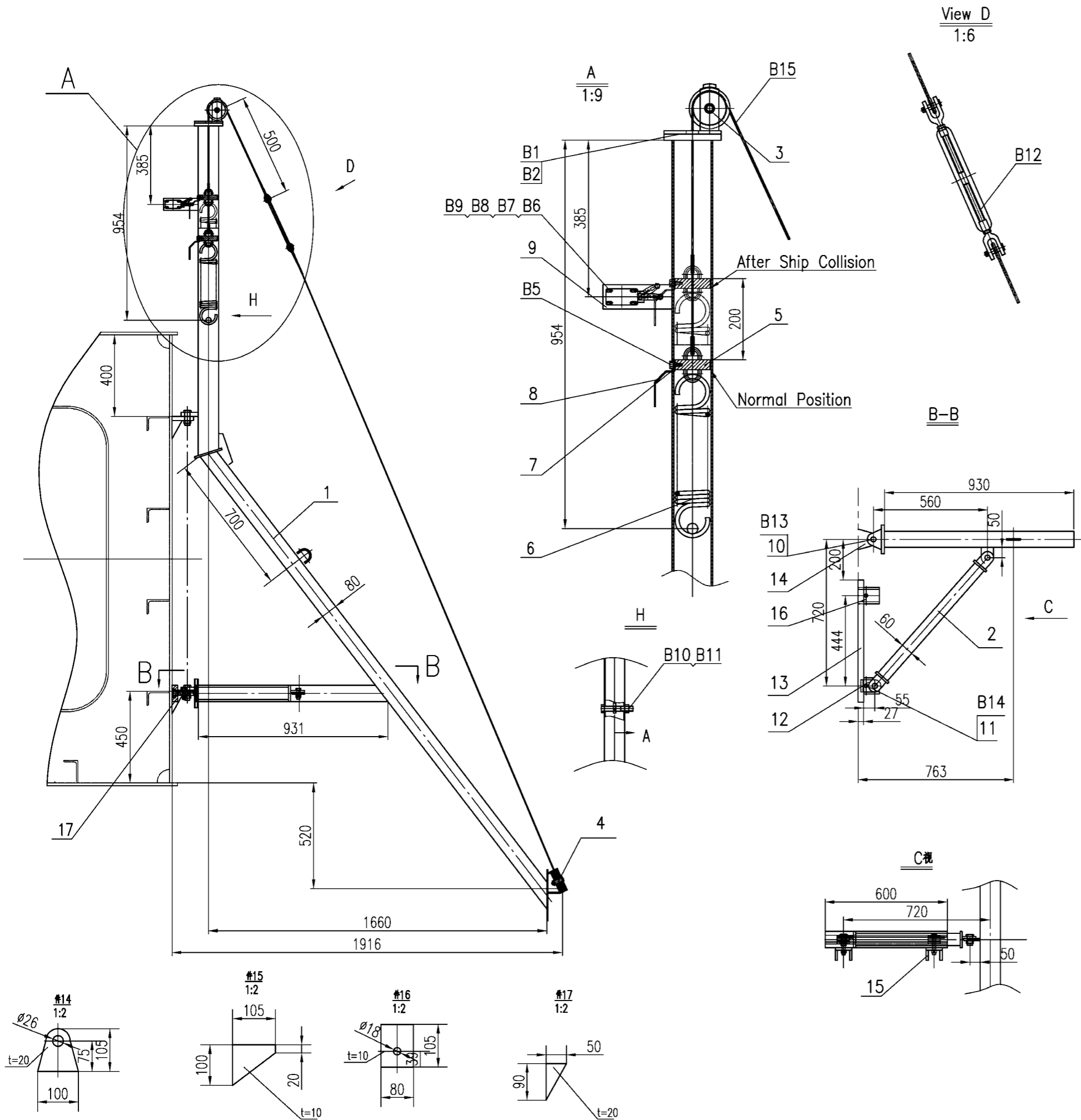
- 50为压头参考尺寸, 外径可由压头单位定, 无论采用何种形式压制, 均无原则满足钢丝绳破坏而压头处不松, 压头处不得有钢丝头外露.
- 钢丝绳6x37(不锈钢, 套塑)(GB1102-74)

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	W'ONE	W'TAL	SCALE
8	UL25210402	钢丝绳 Steel rope	外购钢丝绳改制 made with the bought product	18		6.2	1:2
ZPMC	DRAW						TRACE
	CHCK						CHCK



B4	GB283-87	轴承2212 bearing	φ60xφ110x22	2	0.78	1.56	
B3		热轧滑轮φ280 pulley	WJ1202	1	11	11	
B2	GB955-87	垫圈12 washer	65Mn	4	0.02	0.1	不锈钢stainless steel
B1	GB5783-86	螺栓M12x25 bolt	8.8级	4	0.1	0.4	不锈钢stainless steel
4	UL25280204	格套 sheath	Q235	2	0.2	0.4	
3	UL25280203	销轴 pin	45	1	4.2	4.2	
2	UL25280202	卡轴板 baffle plate	Q235	2	0.33	0.66	
1	UL25280201	滑轮支座sheave abutment	焊接件welding	1	31.2	31.2	

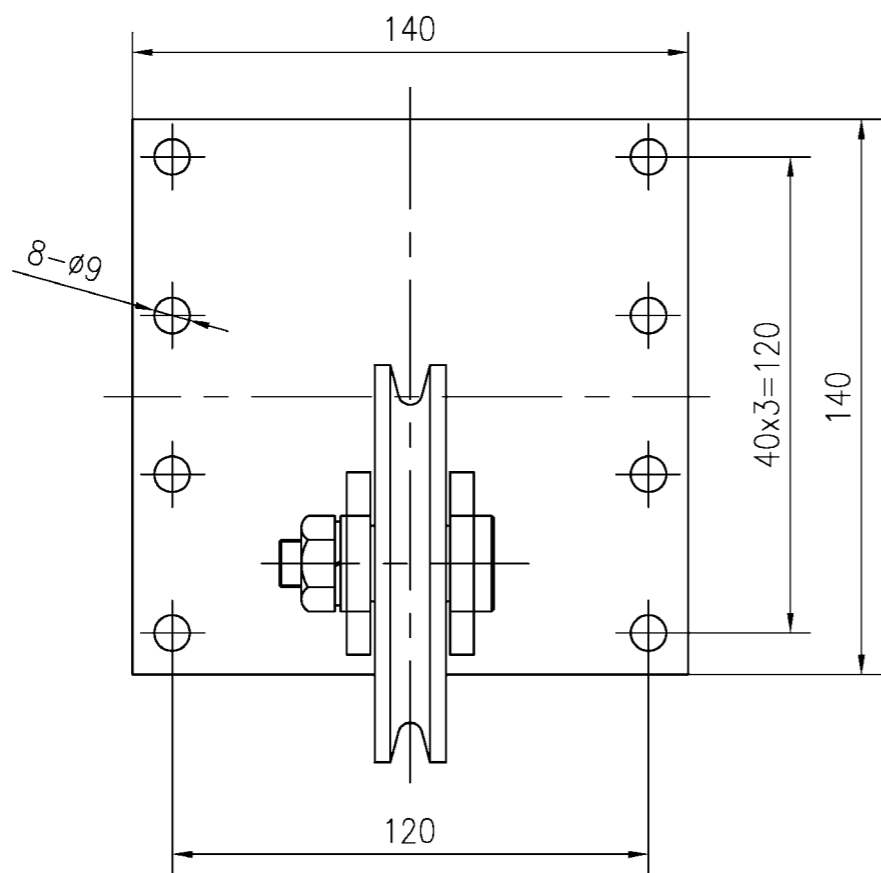
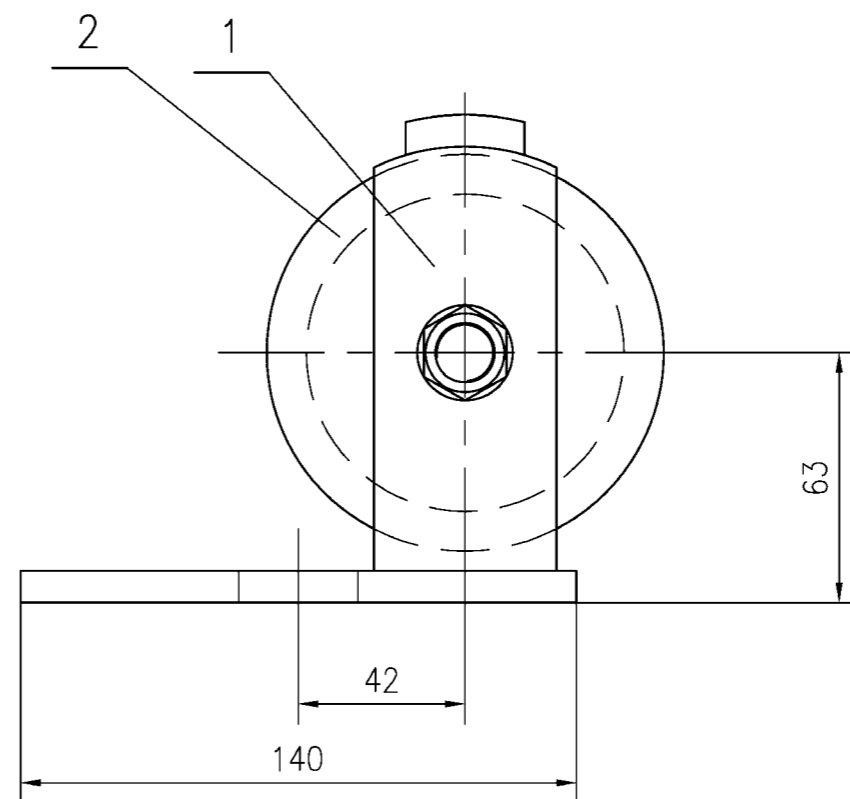
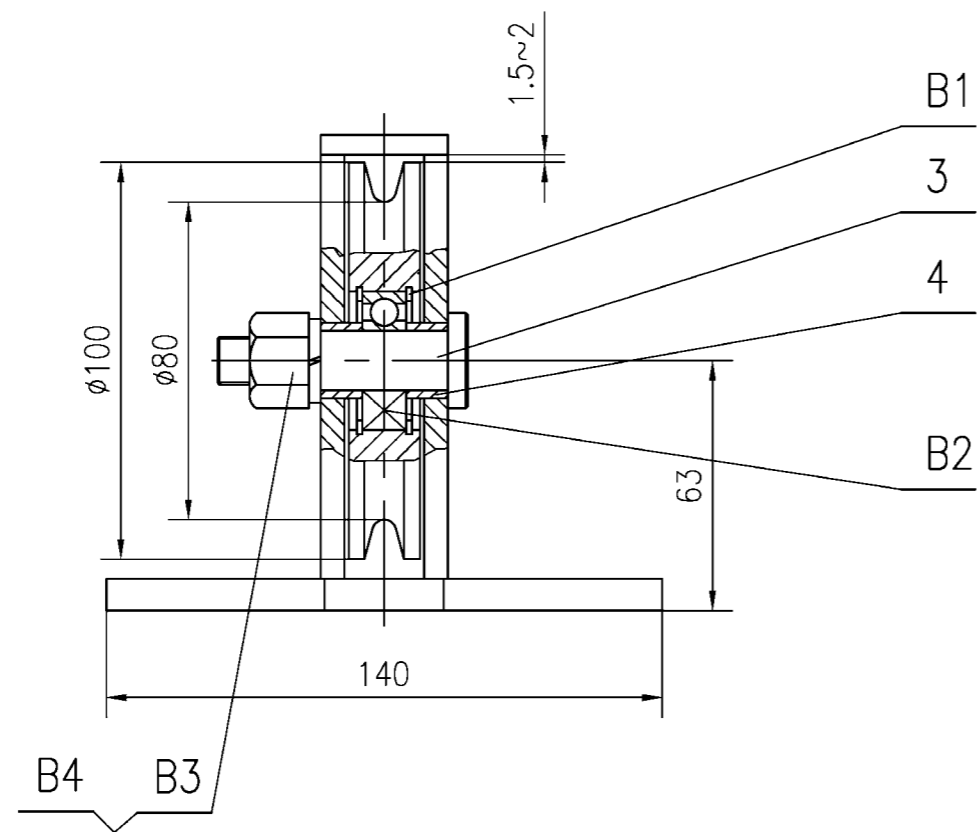
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
					WEIGHT		
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:5		
ITEM NAME: 滑轮装置Pulley			DRAW NO: UL25280200				
ZPMC	DSGN		TRACE			APP.	
	DRAW		CHCK			Q'TY/SET	1
	CHCK		VER.			SET/CRANE	49.1



B15	GB1102-74	钢丝绳 Wire Rope 1x19-5.0-170-I	不锈钢						L=1m
B14	GB6170-86	螺母 M16	达克罗	1					
B13	GB6170-86	螺母 M24	达克罗	4					
B12	美标U型开口式螺旋扣	Rigging screw 螺旋扣 3/8x6	Gal.	1					
B11	GB5782-86	Bolt 螺栓M24x140	Dacro.	1					
B10	GB889-86	Nut 螺母M24	Dacro.	1					
B9	GB93-87	Washer 垫圈 5	Sta Stl.	4					
B8	GB889-86	Nut 螺母M5	Sta Stl.	4					
B7	GB5781-86	Bolt 螺栓M5X35	Sta Stl.	4					
B6		Limit Switch 限位开关 Z4V7H 335-112		1					
B5	GB5783-86	Bolt 螺栓M8X15	Sta Stl.	1					
B4	GB5974.1-86	Loop 套环 6	Gal.	3					
B3	GB5976-86	Rope Clamp 绳夹 6KT	Gal.	9					
B2	GB955-87	垫圈 8	不锈钢	8					
B1	GB5783-86	螺栓 M8X25	不锈钢	8					
17		20x50x90	Q235	2	0.1	0.2			
16		10x80x105	Q235	2	0.6	1.2			
15		10x100x105	Q235	4	0.5	2			
14		20x100x105	Q235	2	0.6	1.2			
13	UL25310113	railway 导轨	Q235	1	3.3	3.3			
12	UL25310112	pathfinding plate 导向板	Q235	1	1	1			
11	UL25310111	Pin2 安全销2	Q235	1	0.5	0.5			
10	UL25310110	Pin 安全销1	Q235	4	1	4			
9	UL25310109	Plate 支板	Q235	1	0.4	0.4			
8	UL25310108	Touch Plate 撞板	Q235	1	0.18	0.18			
7	UL25310107	Washer 锁紧垫片	Q235	1	0.01	0.01			
6	UL25310106	Spring 弹簧	60Si2MnA	1	3.8	3.8			
5	UL25310105	Connection Block 连接块	Q235	1	1.4	1.4			
4	UL25310104	Pulley Ass 滑轮装配 2	Ass.	1	3.4	3.4			
3	UL25310103	Pulley Ass 滑轮装配 1	Ass.	1	2.6	2.6			
2	UL25310102	Moveable Frame 活动支架	Welding	1	11	11			
1	UL25310101	Frame 支架	Ass.	1	55	55			

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each WEIGHT	total WEIGHT	NOTE
PROJECT: Alabama 2000t/h shipunloader			DESIGN STAGE:		SCALE: 1:15		
ITEM NAME: 张紧架1 Support 1			DRAW NO: UL25310100		PROJ.		
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	1	
	CHCK		VER.		SET/CRANE	88Kg	

revision no.	Sub no.	description	date	sign
01	D31		2005.03.18	chenjie

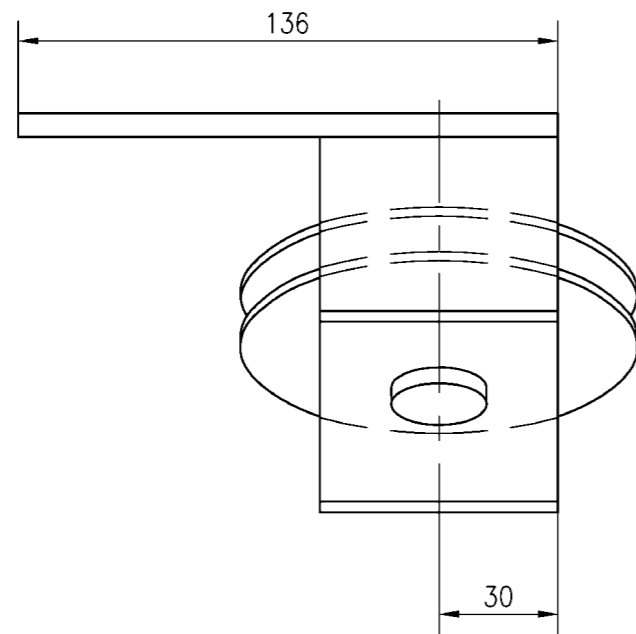
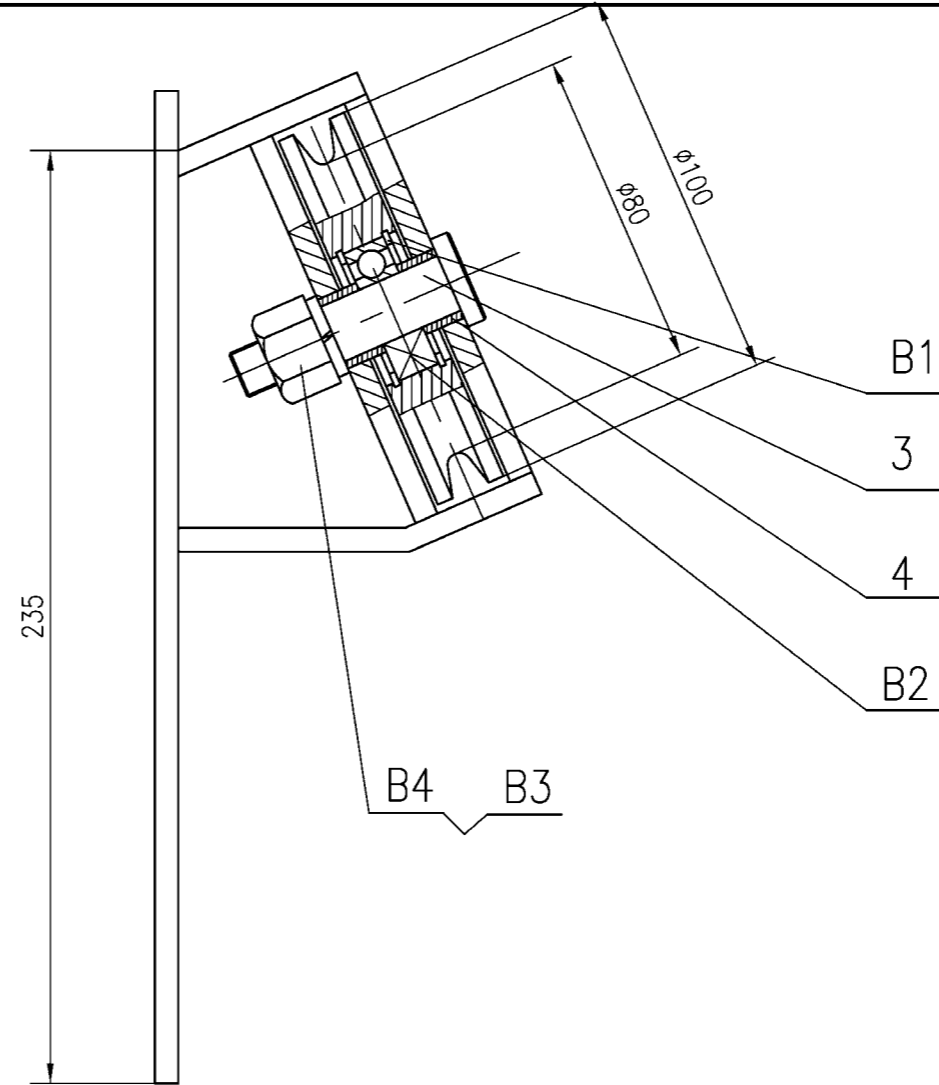
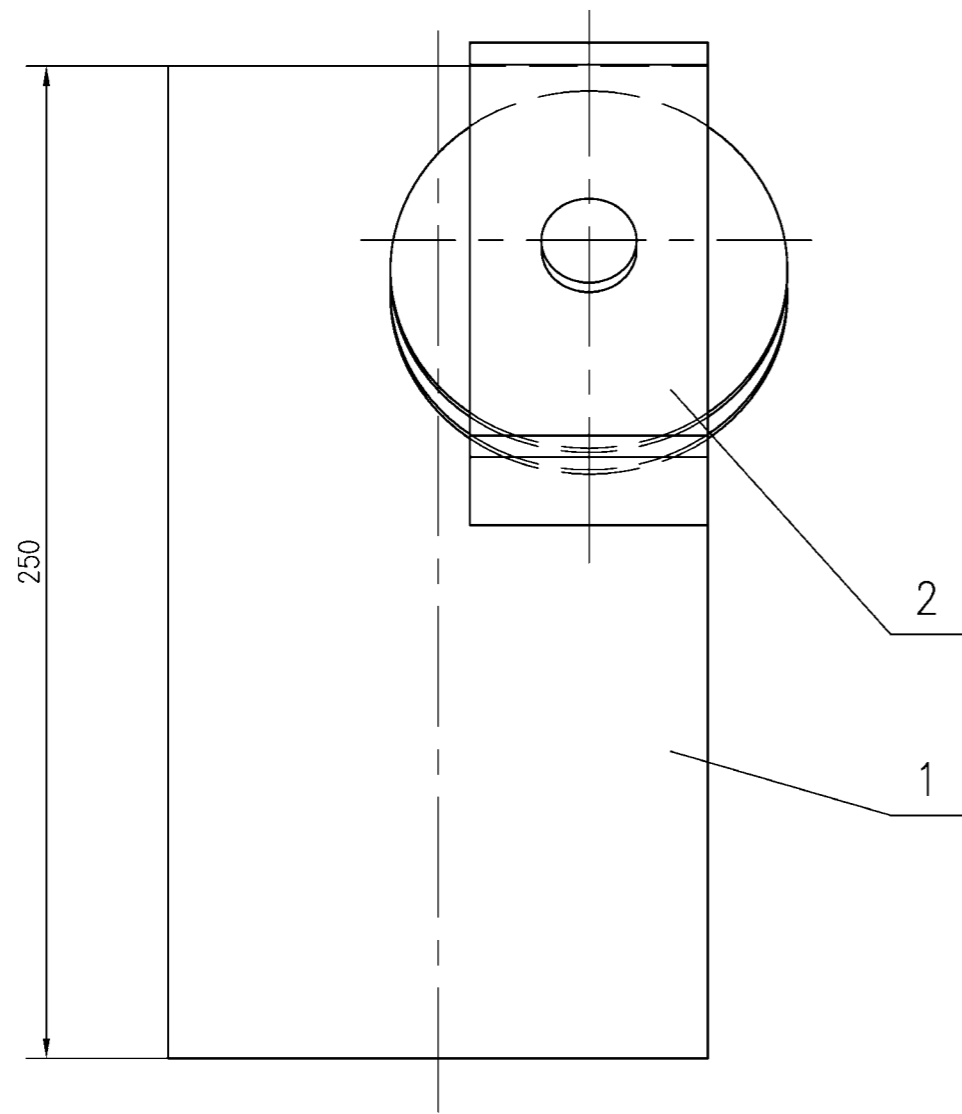


B4	GB97.1-85	Washer 12	Sta Stl不锈钢	1			
B3	GB889-86	Nut M12	Sta Stl不锈钢	1			
B2	GB279-88	Bearing 180202	防腐型不锈钢	1			φ15Xφ35X11
B1	GB893.1-86	Retaining ring 35	65Mn	2			
4	UL2531010304	Sleeve	Q235	2	0.01	0.02	
3	UL2531010303	Shaft	不锈钢	1	0.08	0.08	
2	UL2531010302	Pully	Q235	1	0.72	0.72	
1	UL2531010301	Support	Welded	1	1.8	1.8	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	

PROJECT: DESIGN STAGE: SCALE: 1:2

ITEM NAME: pulley Ass 滑轮装配 1 DRAW NO: UL25310103

ZPMC	DSGN		TRACE		APP.	
	DRAW		CHCK		Q'TY/SET	2
	CHCK		VER.		SET/CRANE	2.6x2



B4	GB97.1-85	Washer 12	不锈钢	1			
B3	GB889-86	Nut M12	不锈钢	1			
B2	GB279-88	Bearing 180202	防腐型不锈钢	1			$\phi 15 \times \phi 35 \times 11$
B1	GB893.1-86	Retaining ring 35	65Mn	2			
4	UL2531010304	Sleeve	Q235	2	0.01	0.02	借用
3	UL2531010303	Shaft	不锈钢	1	0.08	0.08	借用
2	UL2531010302	Pulley	Q235	1	0.72	0.72	借用
1	UL2531010401	Support	Welded	1	2.6	2.6	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	

PROJECT: Alabama 2000t/h shipunloader

DESIGN STAGE:

SCALE: 1:2

ITEM NAME:

pulley Ass 滑轮装配 2

DRAW NO:

UL25310104

ZPMC

DSGN

DRAW

CHCK

TRACE

CHCK

VER.

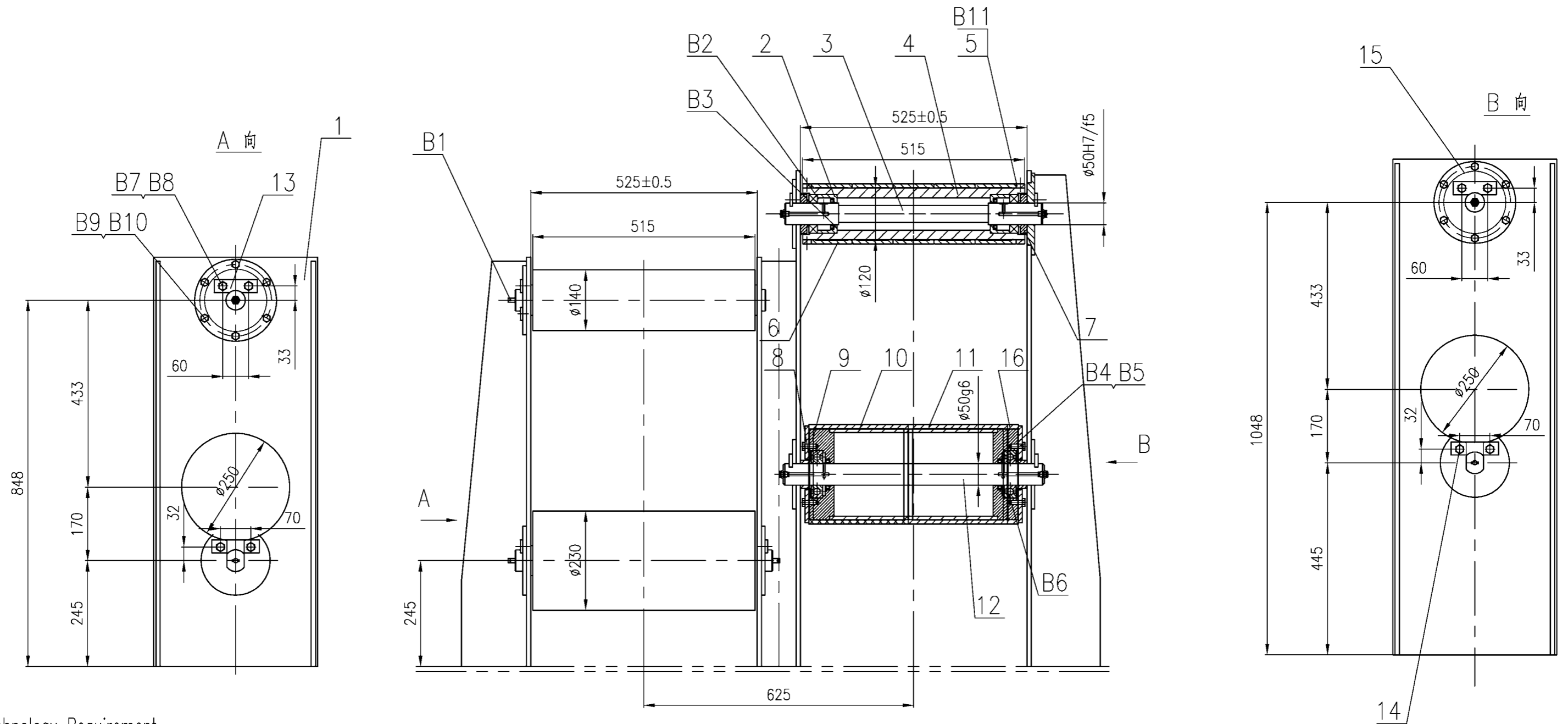
APP.

Q'TY/SET

SET/CRANE

2

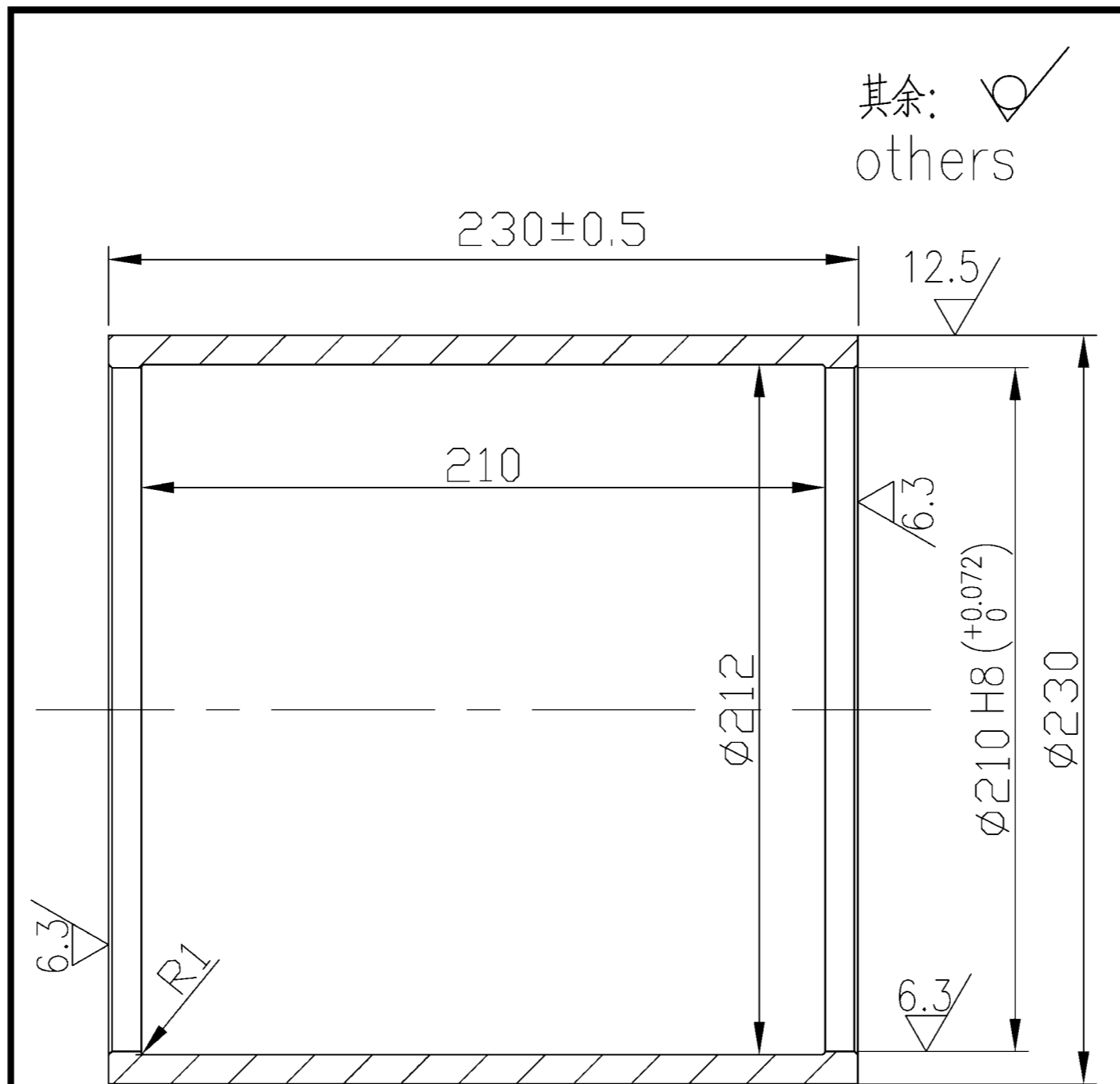
3.4x2



Technology Requirement

- 1.the roller to be possible to carry on the adjustment according to the steel wire actual situation
- 2.When installs, the sliding bearing returns to the fuel tank to be supposed in the flank, the symmetry but sets the bearing 42,210 inner loops slanting mouths should in the inside, But installs relatively

B11	GB79-85	螺栓 0x15	16																	
B10	GB862.1-87	垫圈 0	12																	
B9	GB5782-86	螺栓 M10X20	12																	
B8	GB862.1-87	垫圈 2	16																	
B7	GB5782-86	螺栓 M12X25	16																	
B6	GB276-82	轴承 310	4			50X110X27														
B5	GB862.2-87	外圈 六角头螺栓 M10X25	24																	
B4	GB5781-86	全螺纹六角头螺栓 M10X25	24																	
B3	GB9877.1-88	内包带架油封 B55*72*8	8																	
B2	GB283-87	bearing 轴承 42210	4	0.31	1.24															
B1		nozzle 油嘴 PT1/4'	8																	
17																				
16	UL2513010116	托辊防尘层3 wearable sleeve3	40Cr	2																
15	UL2513010115	支承盖 supporting cover	Q235	2	2.7	5.4														
14	UL2513010114	轴端挡块2 shaft end Baffle2	Q235	4	0.13	0.52														
13	UL2513010113	轴端挡块1 shaft end Baffle1	Q235	4	0.13	0.52														
12	UL2513010112	轴 shaft	45	2	6	12														
11	UL2513010111a	托辊防尘层2 wearable sleeve2	40Cr	4	5	20														
10	UL2513010110	托辊 roller	焊接件	2	13.6	27.2														
9	UL2513010109	端盖 end cover	Q235	4	1.2	4.8														
8	UL2513010108	轴套 shaft cover	Q235	4	0.35	1.4														
7	UL2513010107	防尘罩 dustproof Cover	Q235B	4	0.58	2.32														
6	UL2513010106	托辊防尘层1 wearable sleeve1	40Cr	10	4.3	43														
5	UL2513010105	挡圈 block ring	20	4	0.64	2.56														
4	UL2513010104	上托辊 up roller		20	2	39	78													
3	UL2513010103	上托辊轴 up roller shaft		45	2	8.1	16.2													
2	UL2513010102	挡油圈 oil block ring	Q235B	4	0.93	3.72														
1	UL2513010101	托辊架 roller pedestal	焊接件	1	165	165														
NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	WEIGHT		NOTE													
					each	total														
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:			SCALE: 1:7														
ITEM NAME: main steel wire roller group			DRAW NO: UL2513010100			PROJ.														
ZPMC	DSGN		TRACE		APP.															
	DRAW		CHCK		Q'TY/SET	399Kg														
	CHCK		VER.		SET/CRANE	1														



其余: \checkmark
others

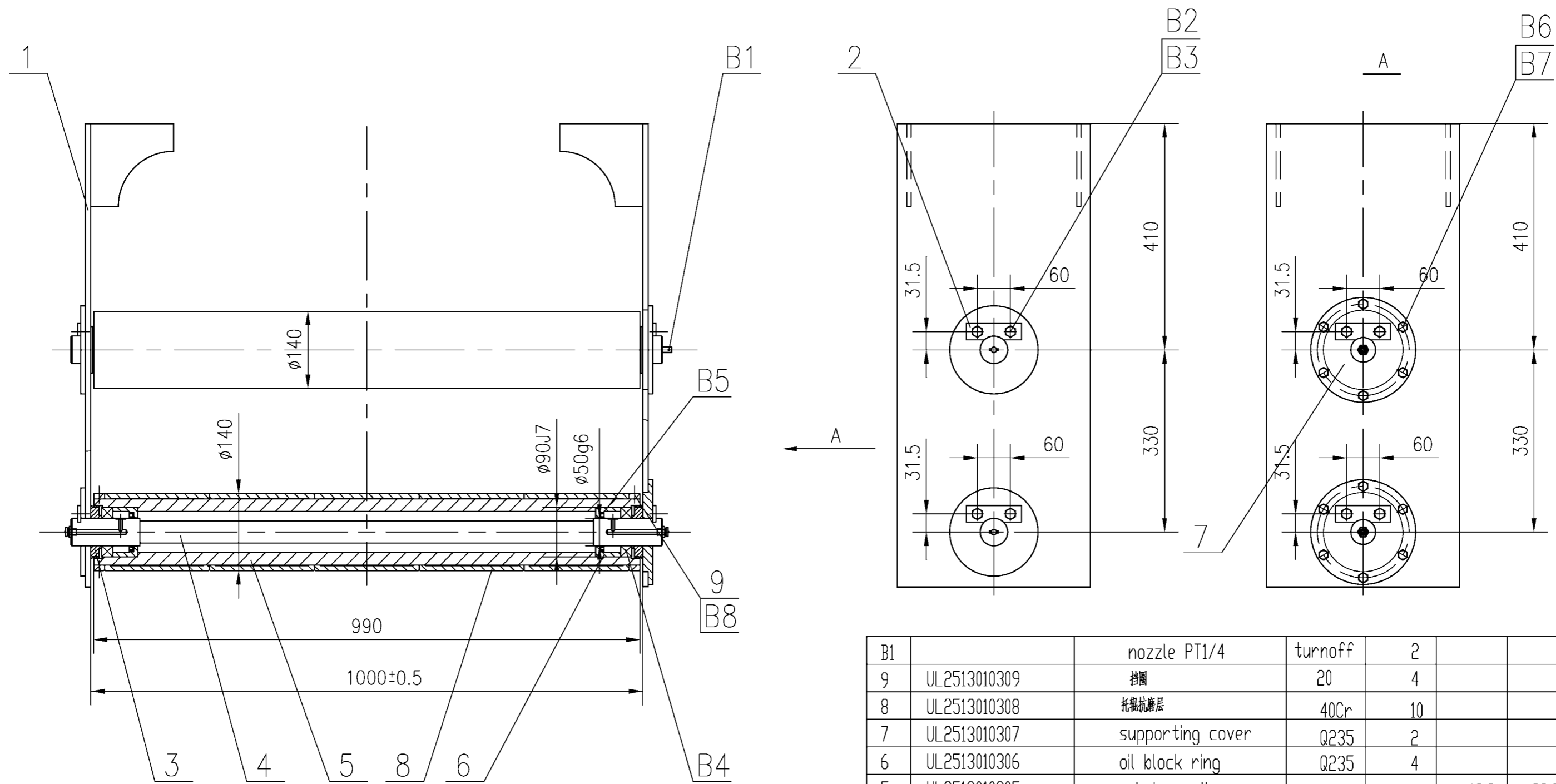
技术要求

- 1.未注倒角: $1 \times 45^\circ$.
- 2.热处理: HRC35~40

Technology Requirement

- 1.All the non-noted fillets are $1 \times 45^\circ$
- 2.Adjusting Quality HB35~40

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
11	UL2513010111a	托辊抗磨层2 wearable sleeve 2	40Cr	5.0	4	1:4
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



Technology Requirement

When installs, the sliding bearing returns to the fuel tank to be supposed in the flank, the symmetry but sets the bearing 42,210 inner loops slanting mouths should in the inside, But installs relatively

B8	GB79-85	bolt	螺栓10x15		16			
B7	GB862.1-87	washer	垫圈10		12			
B6	GB5782-86	bolt	螺栓M10X20		12			
B5	GB9877.1-88	seal	内包骨架油封B55*72*8		4			
B4	GB283-87		bearing42210	turnoff	4	0.31	1.24	
B3	GB862.1-87		washer12	65Mn	8			
B2	GB5782-86		boltM12X25	Q235	8			stainless steel

B1		nozzle PT1/4	turnoff	2			
9	UL2513010309	挡圈	20	4			
8	UL2513010308	托辊抗磨层	40Cr	10			
7	UL2513010307	supporting cover	Q235	2			
6	UL2513010306	oil block ring	Q235	4			
5	UL2513010305	below roller	45	2	49.9	99.8	
4	UL2513010304	below roller shaft	45	2	11.4	22.8	
3	UL2513010303	dustproof cover	Q235	4	0.56	2.24	
2	UL2513010302	shaft end baffel	Q235	4	0.13	0.52	
1	UL2513010301	roller pedestal	welding	1	43.6	43.6	

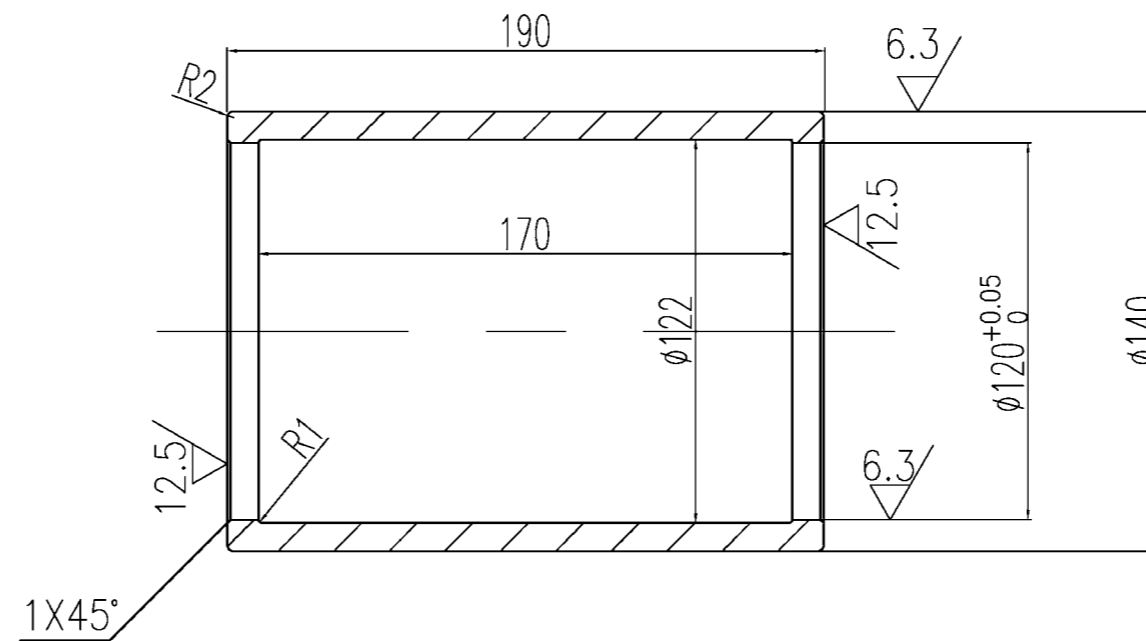
NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	WEIGHT		NOTE
					each	total	

PROJECT: Alabama 2000t/h ship unloader DESIGN STAGE: SCALE: 1:8

ITEM NAME: asst.trolley steel wire roller group DRAW NO: UL2513010300 PROJ.

ZPMC	DSGN		TRACE		APP.	
	DRAW		CHCK		Q'TY/SET	170.2Kg
	CHCK		VER.		SET/CRANE	2

其余: 
others



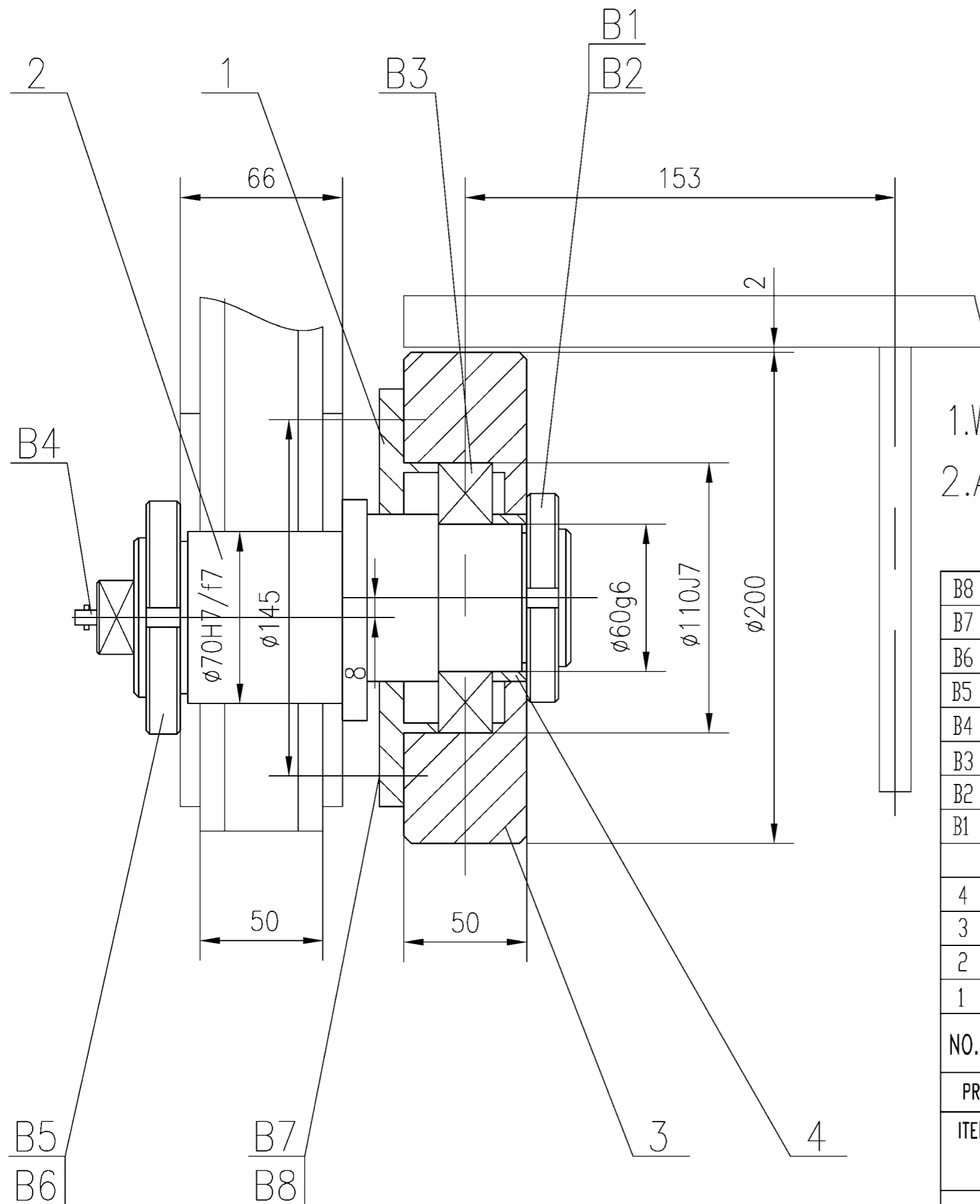
技术要求

- 1.未注倒角:1X45°.
- 2.热处理: HRC35~40

Technology Requirement

- 1.All the non-noted fillets are 1x45°
- 2.Adjusting Quality HB35~40

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
6	UL2513010308	托辊抗磨层 wearable sleeve	40Cr	20	4.3 43	1:4
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



Technology Requirement

1. When assembly the bearing planted agent pours full oil.
2. After the hoop assembly should rotate nimbly

B8	GB862.1-87	washer12	65Mn	4			
B7	GB5781-86	boltM12X40	Q235	4			stainless steel
B6	GB858-88	washer64	Q235	1			
B5	GB812-88	nutM64X2	45	1	0.35	0.35	
B4		nozzle PT1/4	成品	1			
B3	GB276-82	bearing212	成品	1	0.78	0.78	
B2	GB858-88	washer56	Q235	1			
B1	GB812-88	nutM56X2	45	1	0.29	0.29	
4	UL2513010404	shaft cover	Q235	1	0.09	0.09	
3	UL2513010403	idler wheel	45	1	9.1	9.1	
2	UL2513010402	partiality shaft	45	1	5.1	5.1	
1	UL2513010401	cover	Q235	1	1.6	1.6	
NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	WEIGHT		NOTE
					each	total	

PROJECT: Alabama 2000t/h ship unloader

DESIGN STAGE:

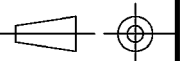
SCALE:

ITEM NAME:

below idler wheel group

DRAW NO: UL2513010400

PROJ.



ZPMC

DSGN

DRAW

CHCK

TRACE

CHCK

VER.

APP.

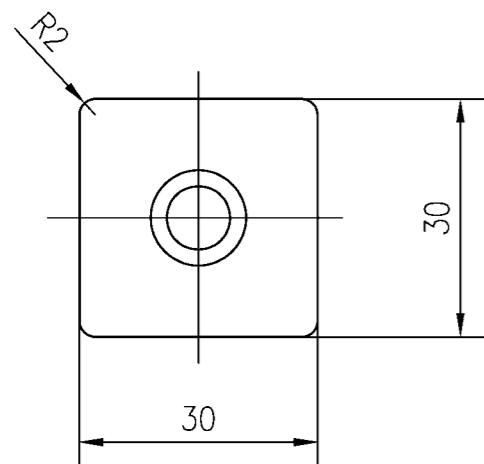
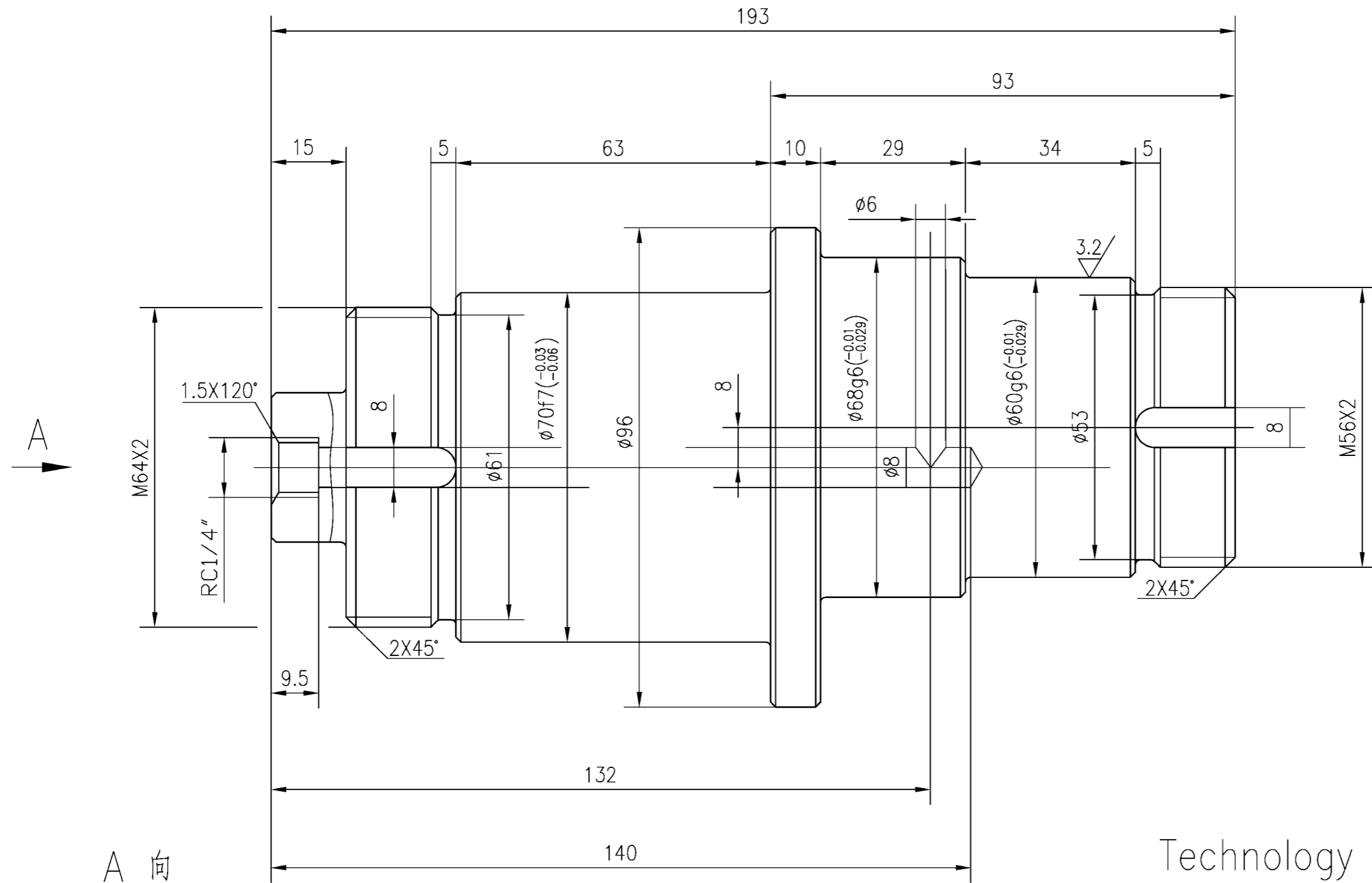
Q'TY/SET

SET/CRANE

1:2

17.3Kg

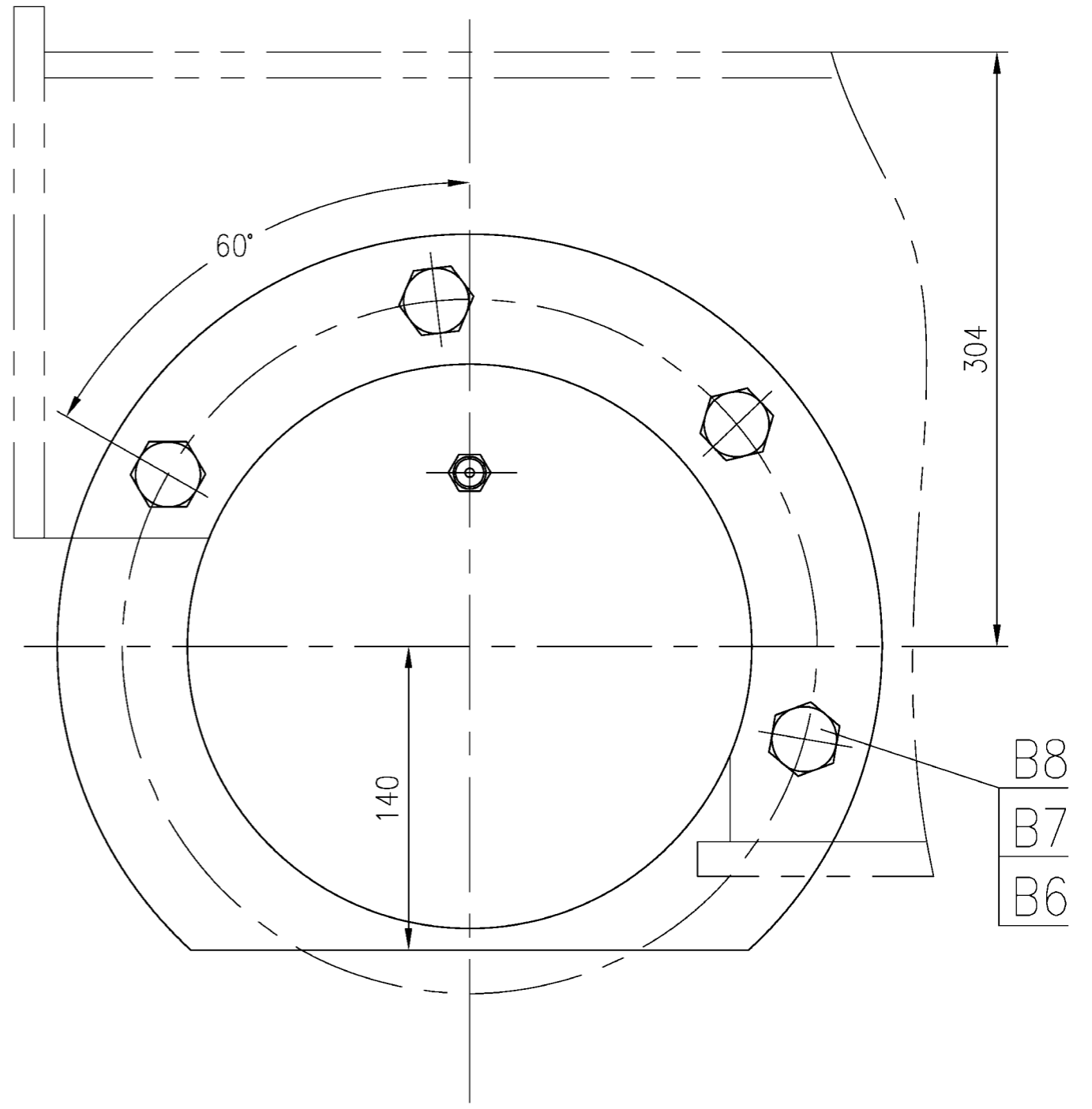
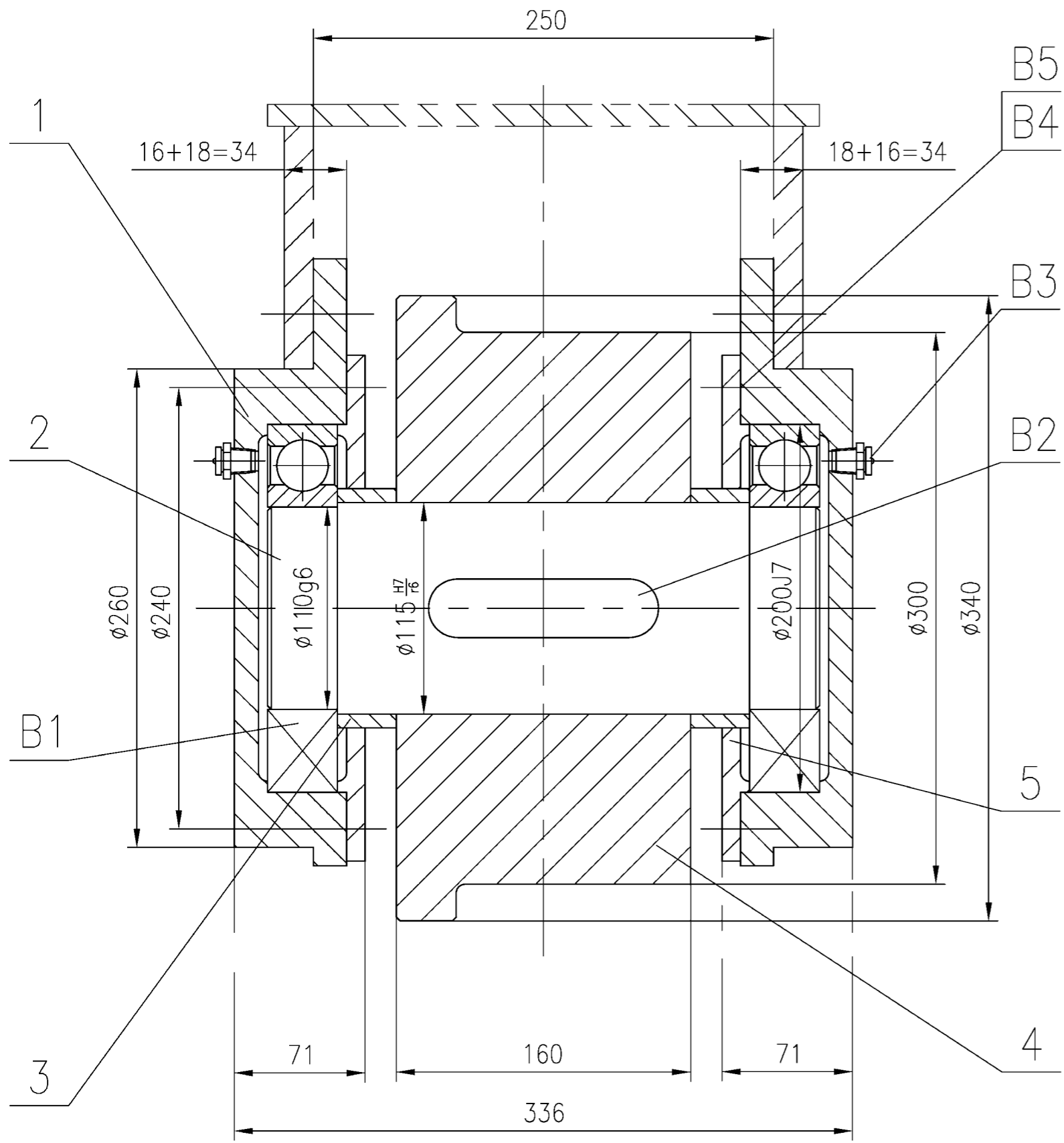
2



Technology Requirement

1. All the non-noted fillets are 1X45°.
2. All the non-noted round angles are R1
3. Adjusting Quality HB220~250

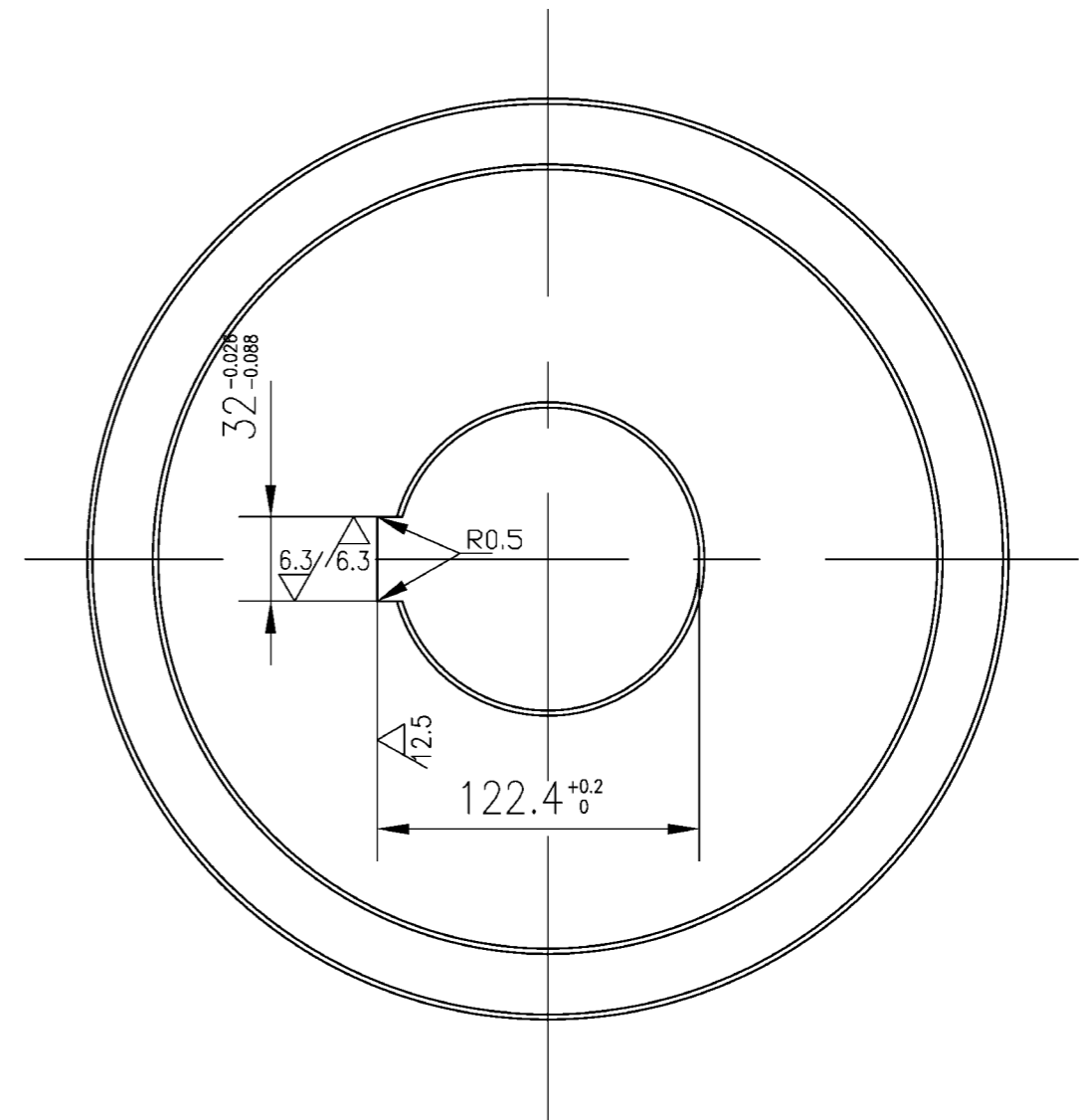
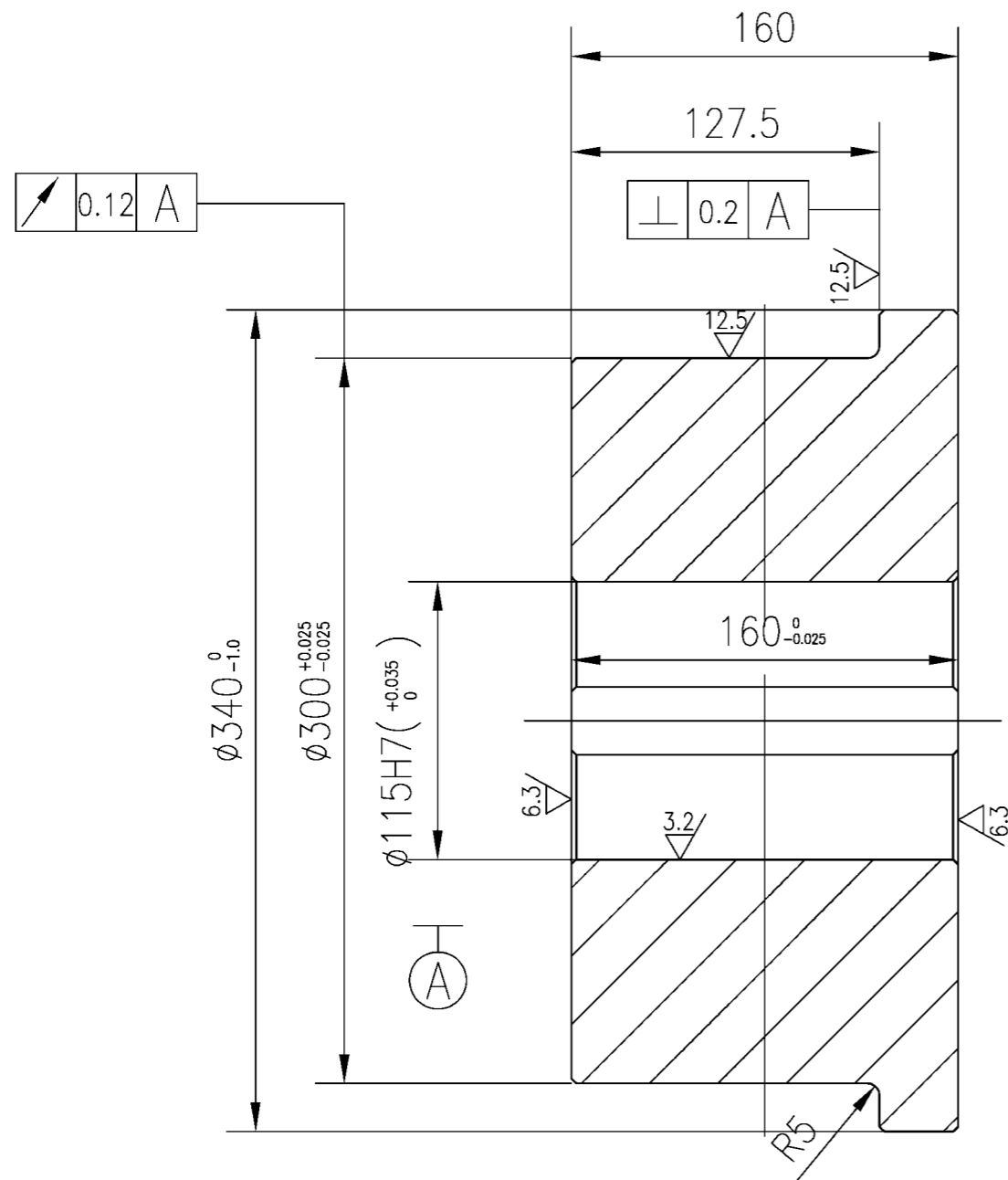
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
2	UL2513010402	partiality shaft	45	5.1Kg	2	1:1
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



B8	GB6182-86	nutM20	10H	8	0.05	0.4	锁紧螺母
B7	GB862.1-87	washer20	65Mn	8	0.006	0.04	
B6	GB5782-86	boltM20X60	8.8s	8	0.18	1.44	
B5		steel wireφ2.5	Q235B	2			
B4	GB32.1-88	boltM12X30	8.8s	12	0.027	0.324	
B3	JISB0203	nozzle PT1/4"	turnoff	2			
B2	GB1564-79	bondA32X125	45	1	0.66	0.66	
B1	GB276-82	bearing222	turnoff	2	4.38	8.76	110X200X38

5	UL2513010605	cover	Q235B	2	3.7	7.4	
4	UL2513010604	wheel	42CrMo	1	85.1	85.1	
3	UL2513010603	shaft cover	Q235B	2	0.72	1.44	
2	UL2513010602	wheel shaft	45	1	23.6	23.6	
1	UL2513010601	bearing cover	Q235B	2	19.2	38.4	

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:		SCALE: 1:2		
ITEM NAME: asst.trolley wheel group			DRAW NO: UL2513010600				
ZPMC		DSGN		TRACE		APP.	
		DRAW		CHCK		Q'TY/SET	167.6kg
		CHCK		VER.		SET/CRANE	4

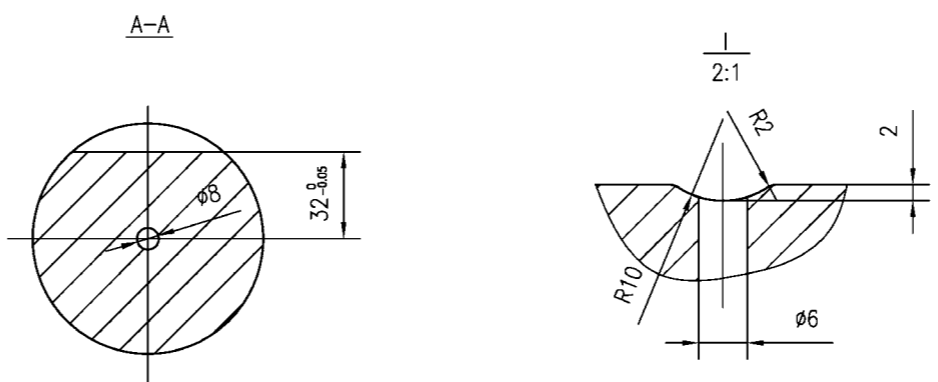
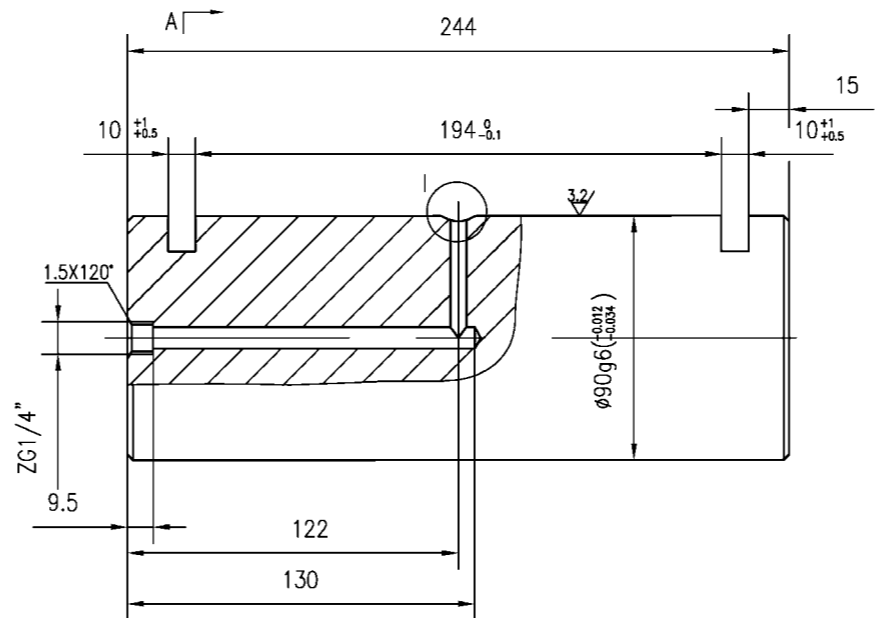


Technology Requirement

- All the non-noted fillets are $2 \times 45^\circ$
- The wheel roller face must not have flaw and so on crack
- heat treatment: the wheel rim roller face quenches HB320–360
The quenching depth is not smaller than 15mm
Its quenching hard and not quenching hard between should be steady transition
- When processing, Should make the symbol in the reduced plane

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL2513010604	wheel	42CrMo	85.1Kg	4	1:3
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

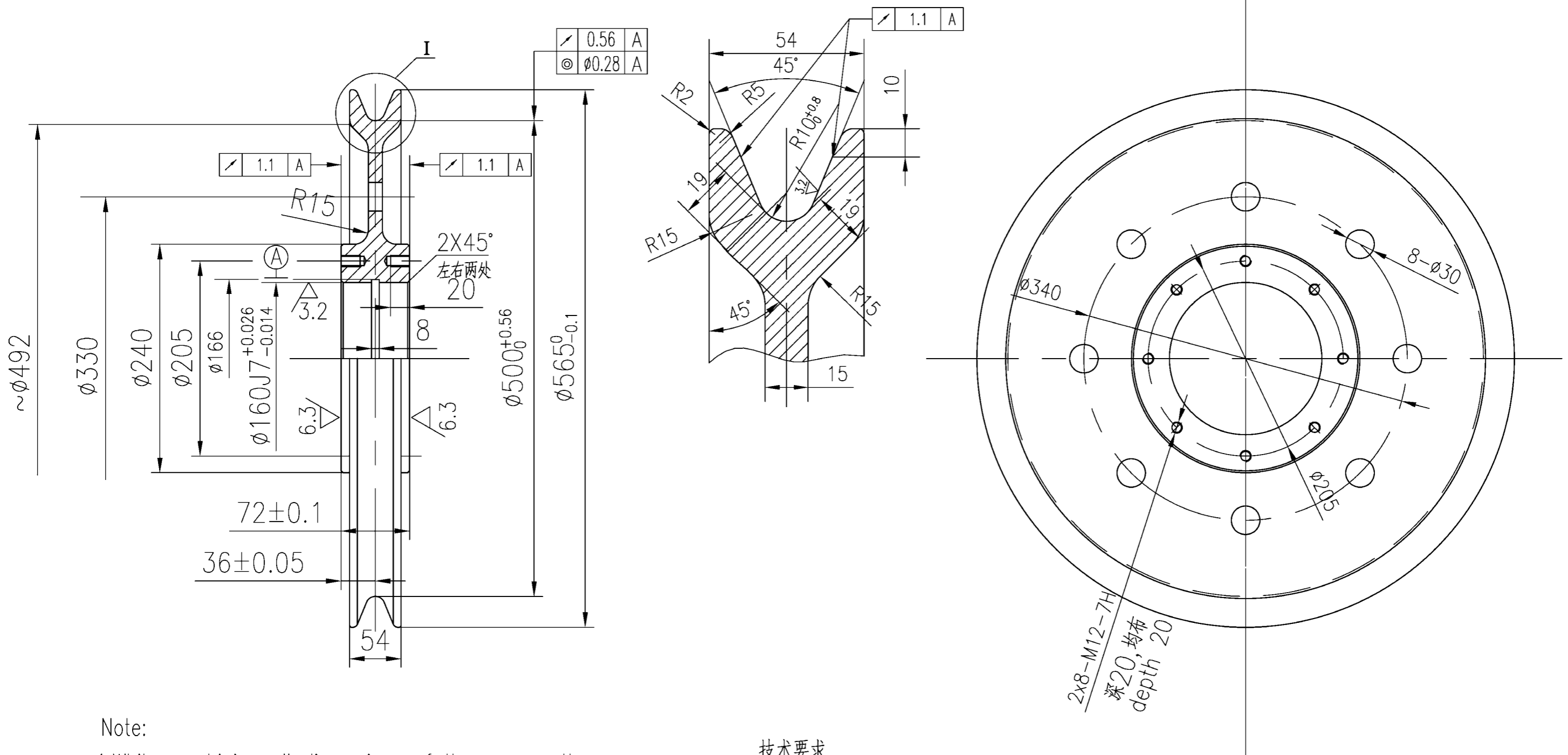
others $\nabla^{12.5}$



Technology Requirement

- 1.All the non-noted fillets are 2X45°.
- 2.Adjusting Quality HB220-250

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL2513010702	poppethead	45	10.5Kg	2/piece	1:3
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



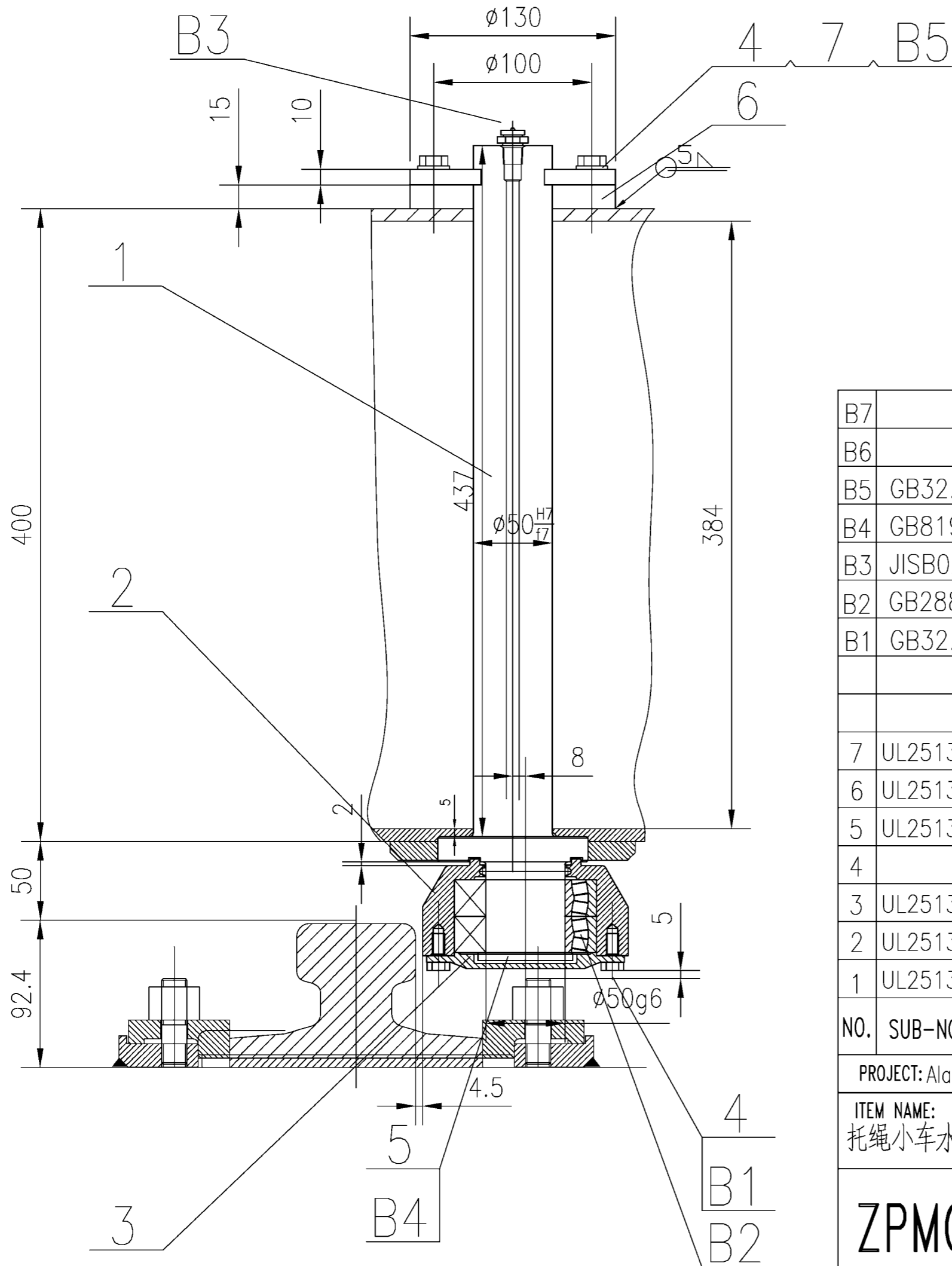
Note:

1. While machining all dimensions of the groove, the hub and the holes in the web should comply with the dimensions and tolerances in the drawing.
2. The sheave groove will be deep harden HB321. The harden depth is 3~6mm.
3. Low-temperature stress-relief temper after hardening.
4. This sheave is rolled.

技术要求

1. 绳槽轮廓尺寸和腹板孔以及轮毂切削加工, 必须满足图示尺寸和公差要求.
2. 绳槽表面淬火, 表面硬度 \geq HB321; 淬深 3~6mm.
3. 淬火后应做低温回火的消应力处理.
4. 此滑轮为锻造滑轮.

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/crane	WEIGHT	SCALE
1	UL2513010707	Sheave 滑轮	35CrMo	2	50	1:6
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



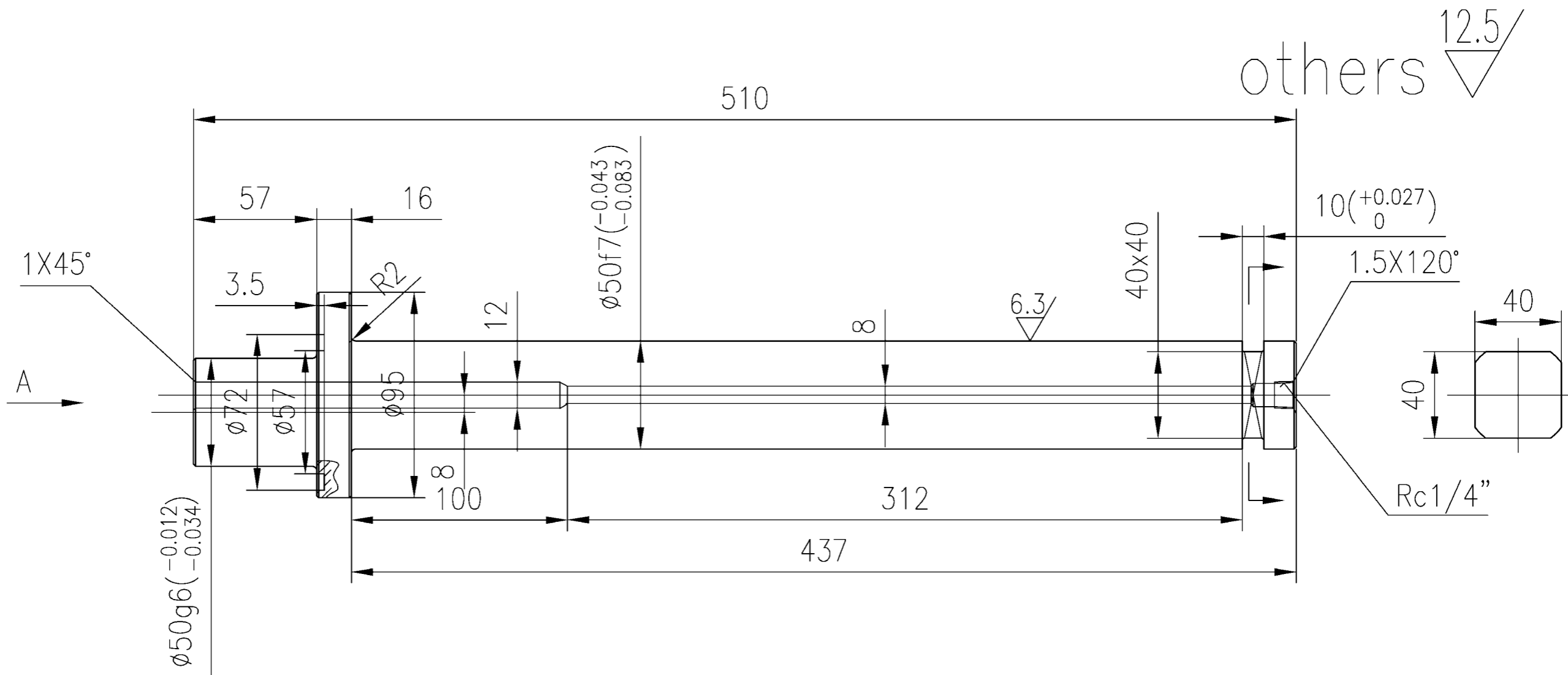
技术要求

1. 偏心轴的偏心距为8mm.

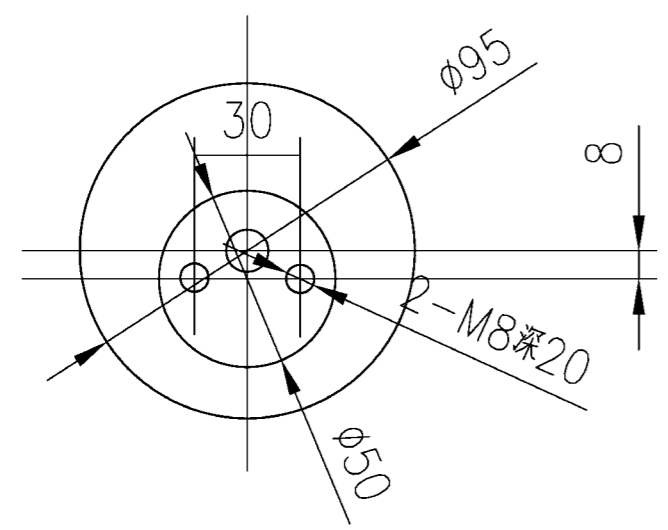
technical requirement

1. eccentricity distance 8mm

B7							
B6							
B5	GB32.1-88	螺栓M10X25	不锈钢	6	0.02	0.12	
B4	GB819-85	螺钉M8X20	级4.8	2			
B3	JISB0203	油嘴 PT1/4"	成品	1			
B2	GB288-87	轴承53510	成品	2	0.62	1.24	50X90X23
B1	GB32.1-88	螺栓M8X20	不锈钢	6	0.02	0.12	
7	UL2513010806A	卡板 stop plate	Q235B	2	0.6	1.2	
6	UL2513010805A	盖板 cover	Q235B	1	3.5	3.5	
5	UL2513010804A	轴端盖板 shaft cover	Q235B	1	0.11	0.11	
4		钢丝绳 $\phi 2.5$		适量			
3	UL2513010803A	闷盖 end cover	Q235B	1	0.4	0.4	
2	UL2513010802A	水平轮 level wheel	45	1	3.6	3.6	
1	UL2513010801A	轴 shaft	45	1	8.0	8.0	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	
PROJECT: Alabama 2000t/h ship unloader			DESIGN STAGE:	SCALE: 1:5			
ITEM NAME: 托绳小车水平轮 level wheel			DRAW NO: UL2513010800A				
ZPMC	DSGN		TRACE		APP.		
	DRAW		CHCK		Q'TY/SET	14kg	
	CHCK		VER.		SET/CRANE	16	



A向



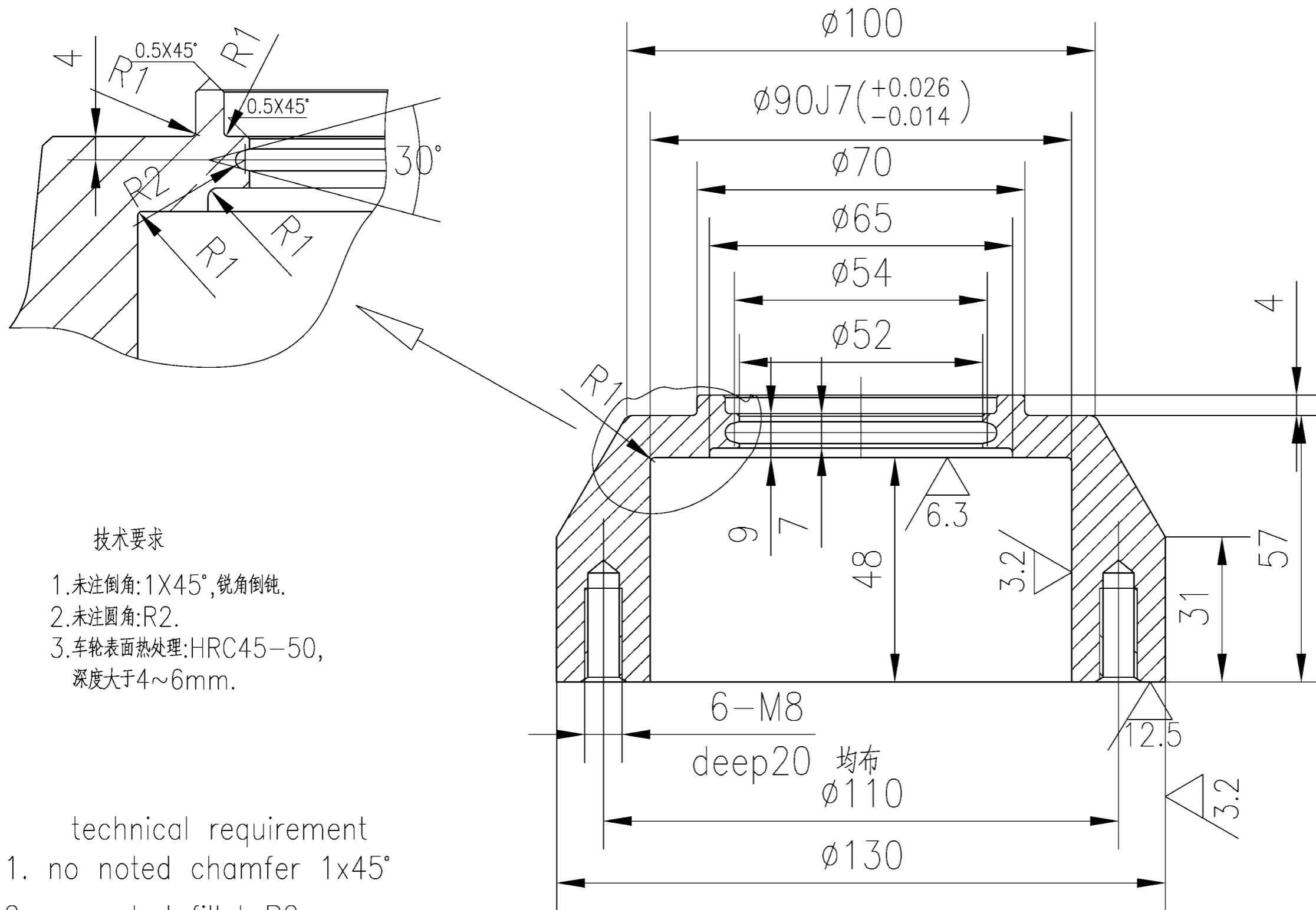
技术要求

1. 未注倒角: 1X45°.
2. 未注圆角: R2.
3. 调质处理: HB220-250

technical requirement

1. no noted chamfer 1x45°
2. no noted fillet R2
3. Adjusting Quality HB220~250

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
1	UL2513010801A	轴 shaft	45	8.0	16	1:3
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



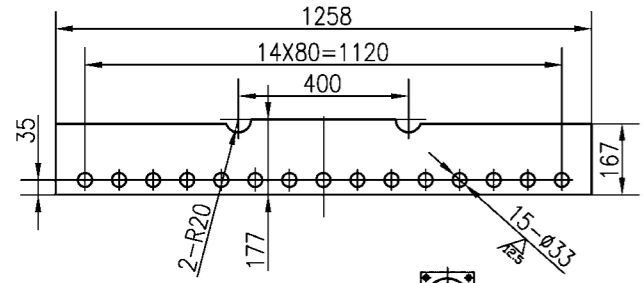
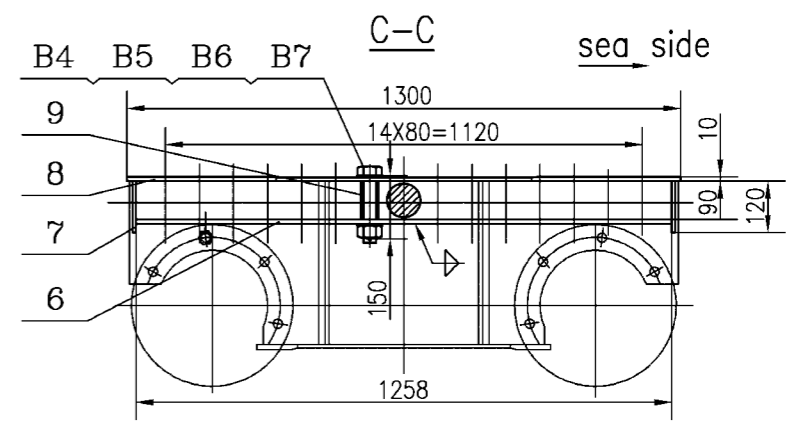
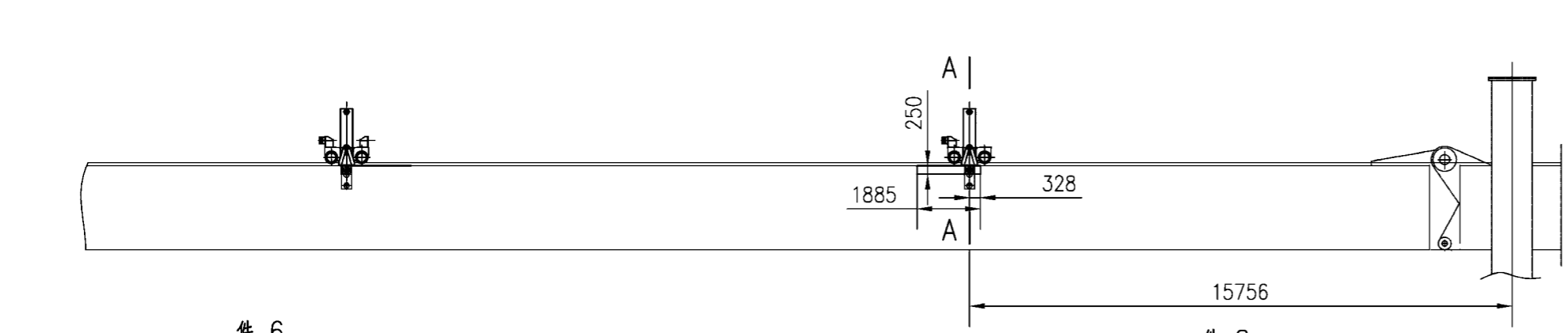
技术要求

1. 未注倒角: $1 \times 45^\circ$, 锐角倒钝.
2. 未注圆角: R2.
3. 车轮表面热处理: HRC45-50, 深度大于4~6mm.

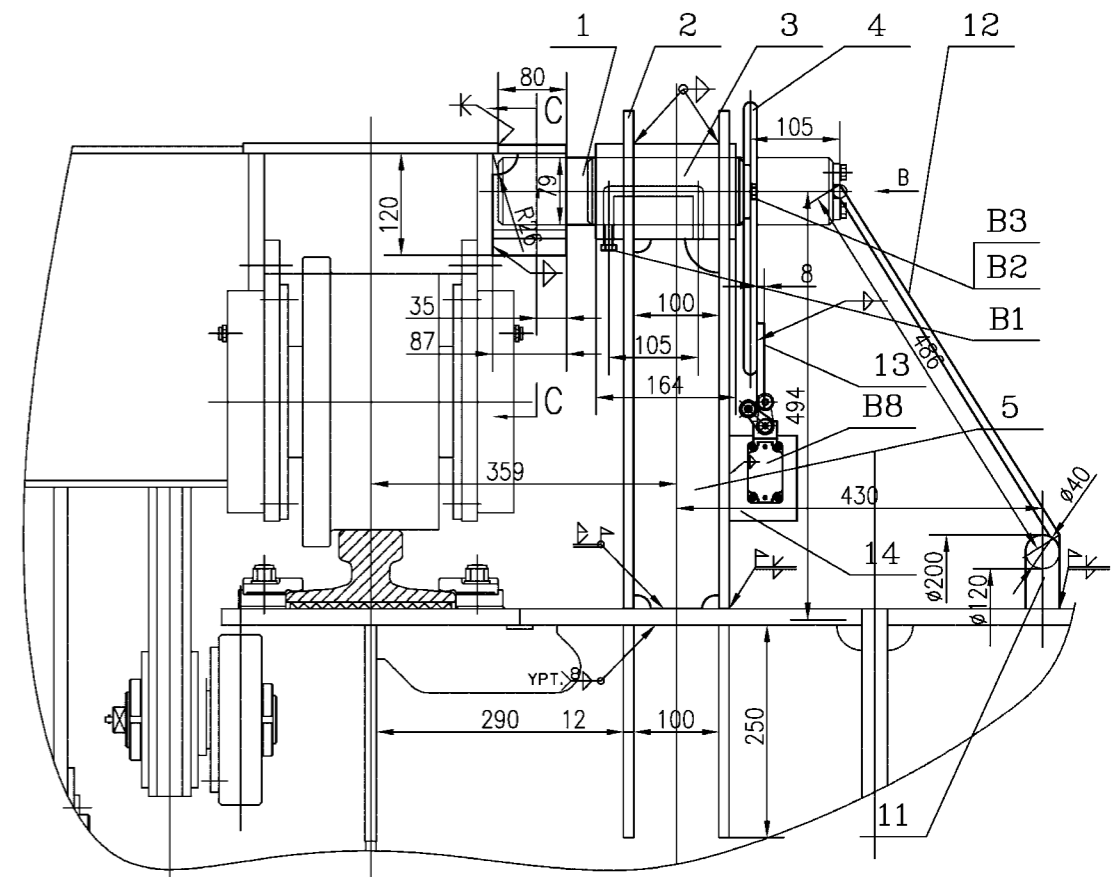
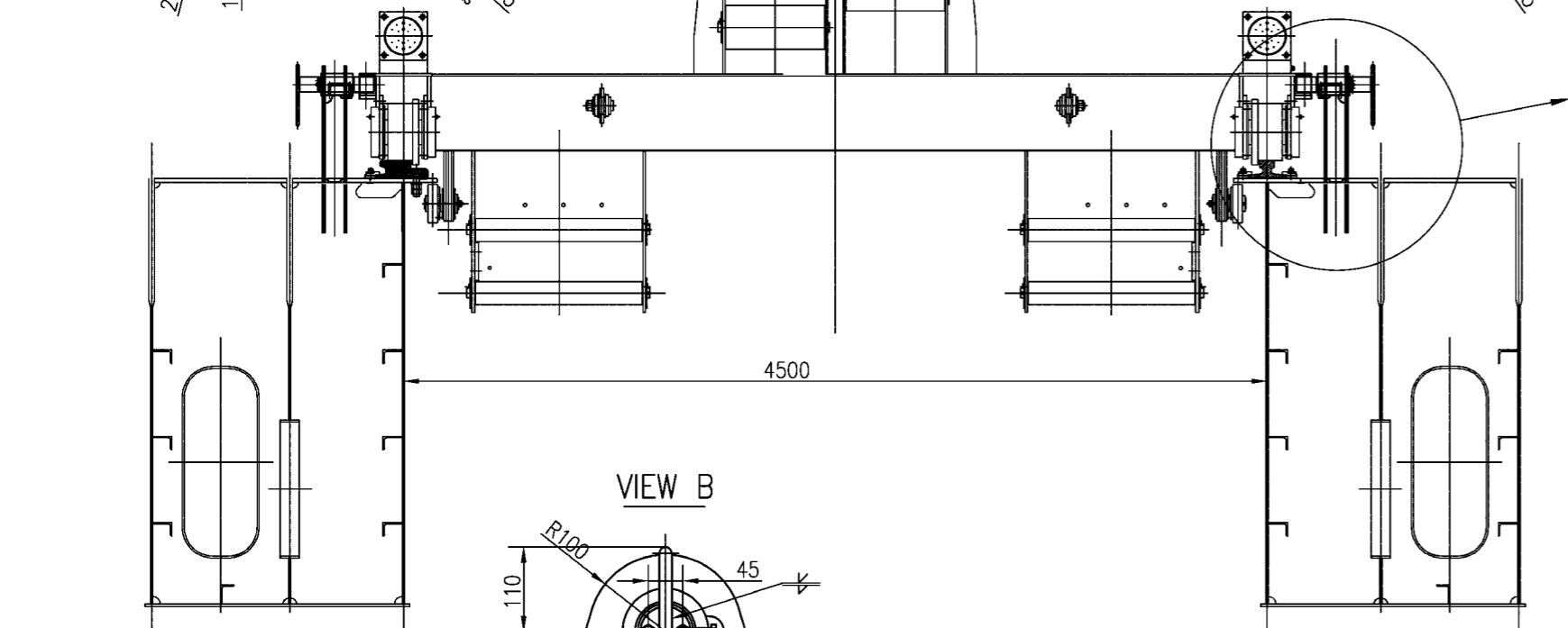
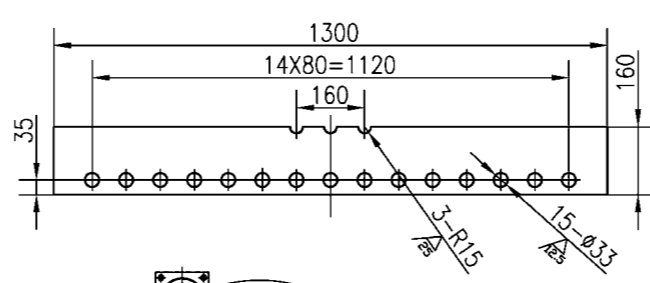
technical requirement

1. no noted chamfer $1 \times 45^\circ$
2. no noted fillet R2
3. heat treatment: wheel face quenches HRC45~50
The quenching depth 4~6mm

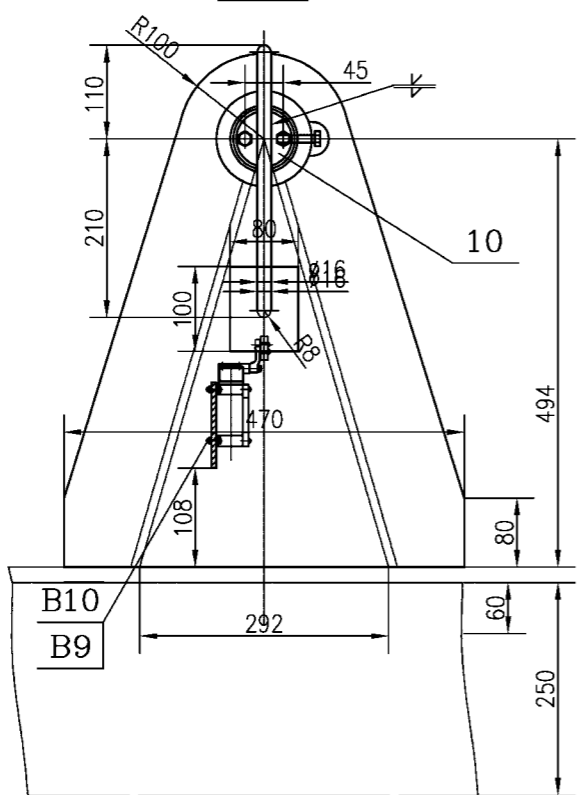
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
2	UL2513010802A	水平轮	45	3.6	16	1:1
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



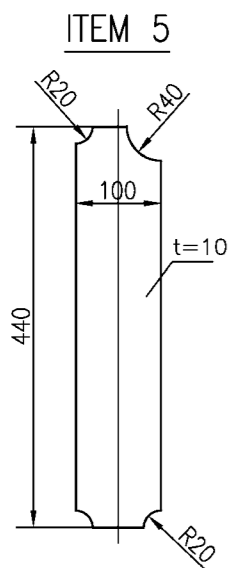
A-A



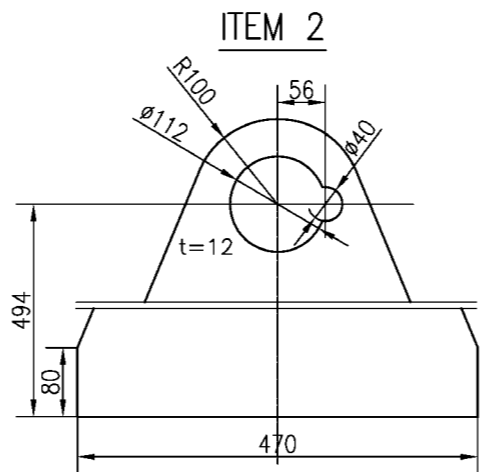
VIEW B



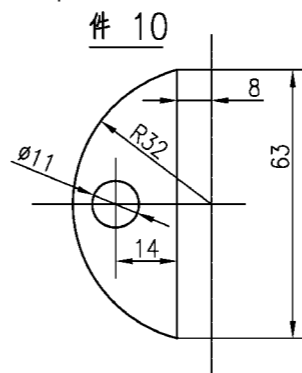
note:
Anchor on summer beam position concrete scene determination



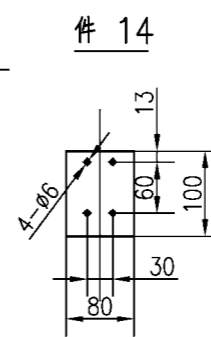
ITEM 2



件 10



件 14



B6	GB97.2-85	washer 30		4					达达/Dacr.
B5	GB6178-86	nutM30		2					达达/Dacr.
B4	GB31.1-88	boltM30X170		2	1	2			达达/Dacr.
B3	GB97.2-85	washer10		4					stainless steel
B2	GB5782-88	boltM10X30		4					stainless steel
B1	GB5782-88	boltM10X45		2					stainless steel
14	-6x80x100	Q235		2	0.4	0.8			
13	-8x80x100	Q235		2	0.5	1			
12	Φ42xL=490mm	Q235		2					
11	Φ40-252	Q235		2					
10	-8x25x63	Q235		4	0.07	0.28			
9	Φ42x6-90	20		2	0.34	.68			
8	-10X80X1300	A709-50-2		2	16	32			
7	-10X120X87	A709-50-2		4	1.5	6			
6	-10X87X1258	A709-50-2		2	15	30			
5	-10X100X440	A709-50-2		4	3.6	15			
4	ø16-320	Q235		2	0.55	1.1			
3	UL2513020802	shaft cover	Q235	2	6	12			
2	-12X470X594	A709-50-2		4	18	72			
1	UL2513020801	pin		45	2	11	22		

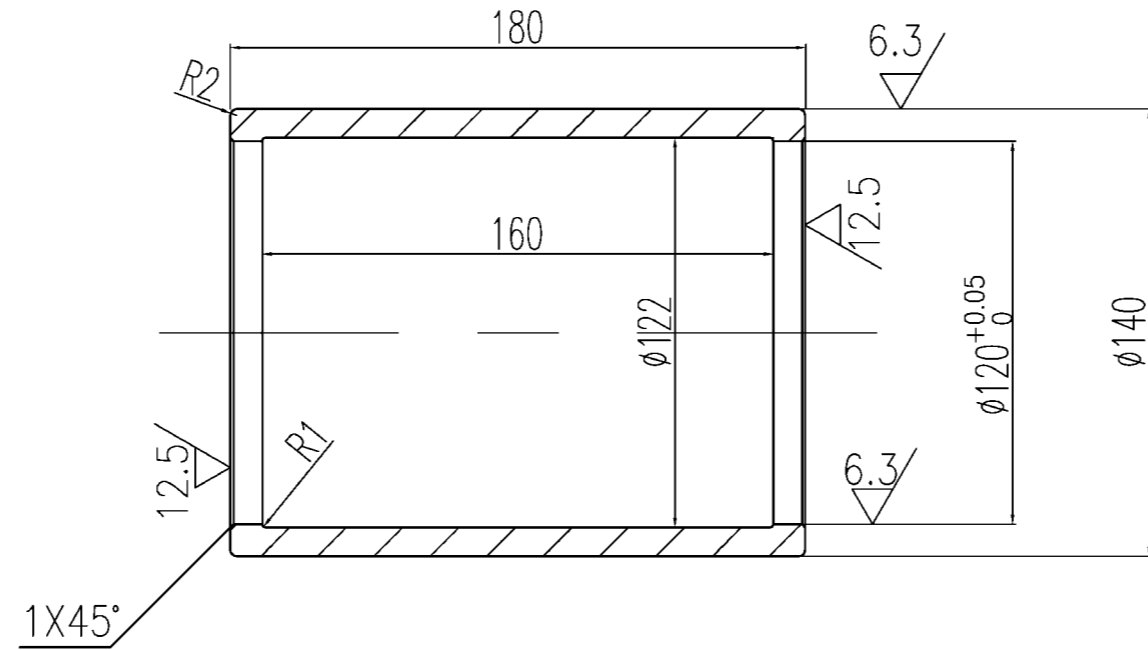
PROJECT: Alabama 2000t/h ship unloader DESIGN STAGE: SCALE:

ITEM NAME: asst.trolley | anchor-hold DRAW NO: UL2513020800

B10	GB889-86	nutM5		8			#8
B9	GB5780-86	boltM5X15		8			#4.8
B8		limited switchZ4VH335-11Z		2			
B7	GB91-86	split pin销 6.3X60		2			stainless steel

ZPMC	DSGN		TRACE		APP.
	DRAW		CHK		Q'TY/SET 356
	CHK		VER.		SET/CRANE 1

其余: 
others



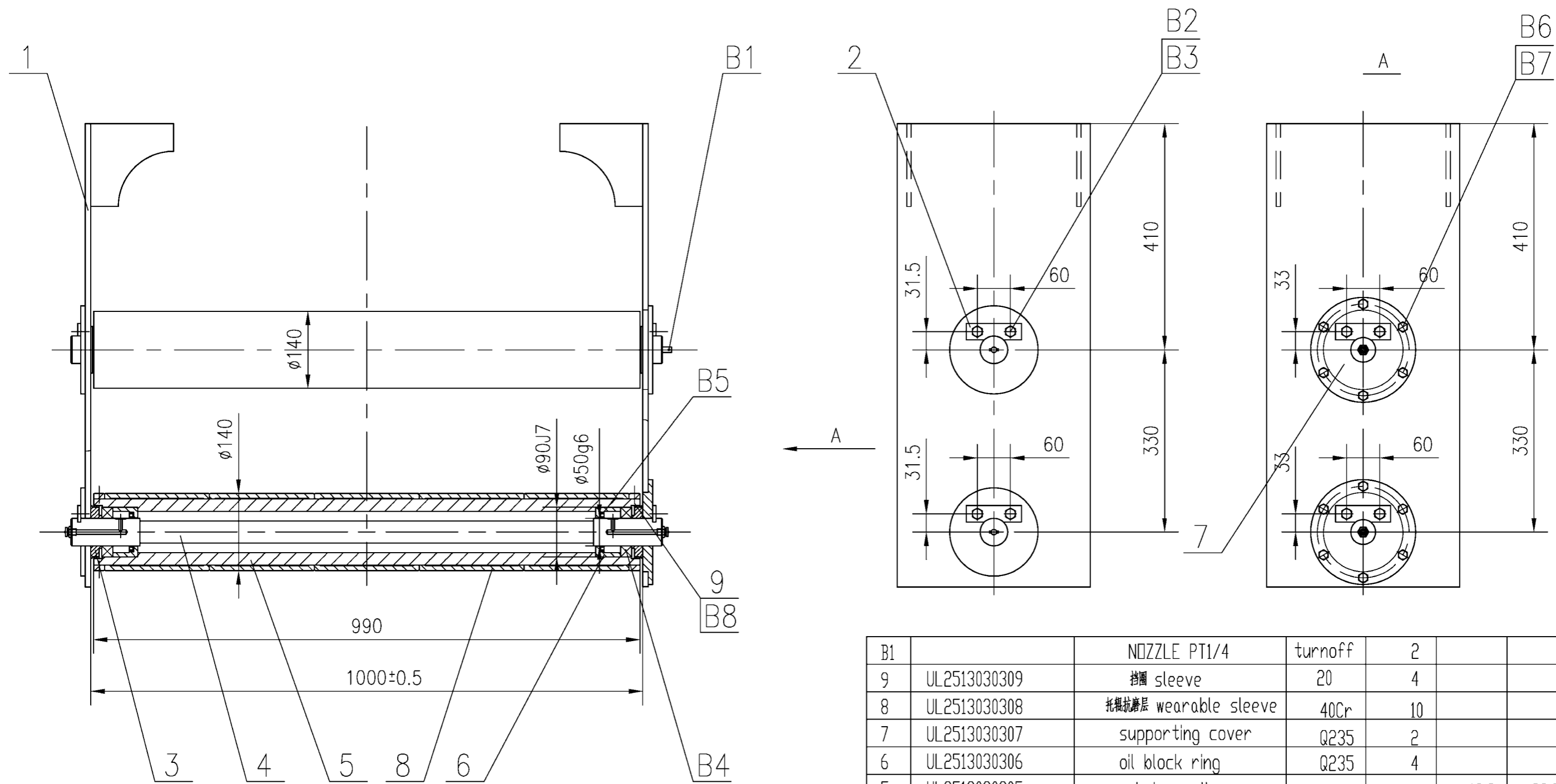
技术要求

- 1.未注倒角: $1 \times 45^\circ$.
- 2.热处理: HRC35~40

Technology Requirement

- 1.All the non-noted fillets are $1 \times 45^\circ$
- 2.Adjusting Quality HB35~40

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
6	UL2513030106	托辊抗磨层 wearable sleeve 1	40Cr	10	4.3 43	1:4
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



Technology Requirement

When installs, the sliding bearing returns to the fuel tank to be supposed in the flank, the symmetry but sets the bearing 42,210 inner loops slanting mouths should in the inside, But installs relatively

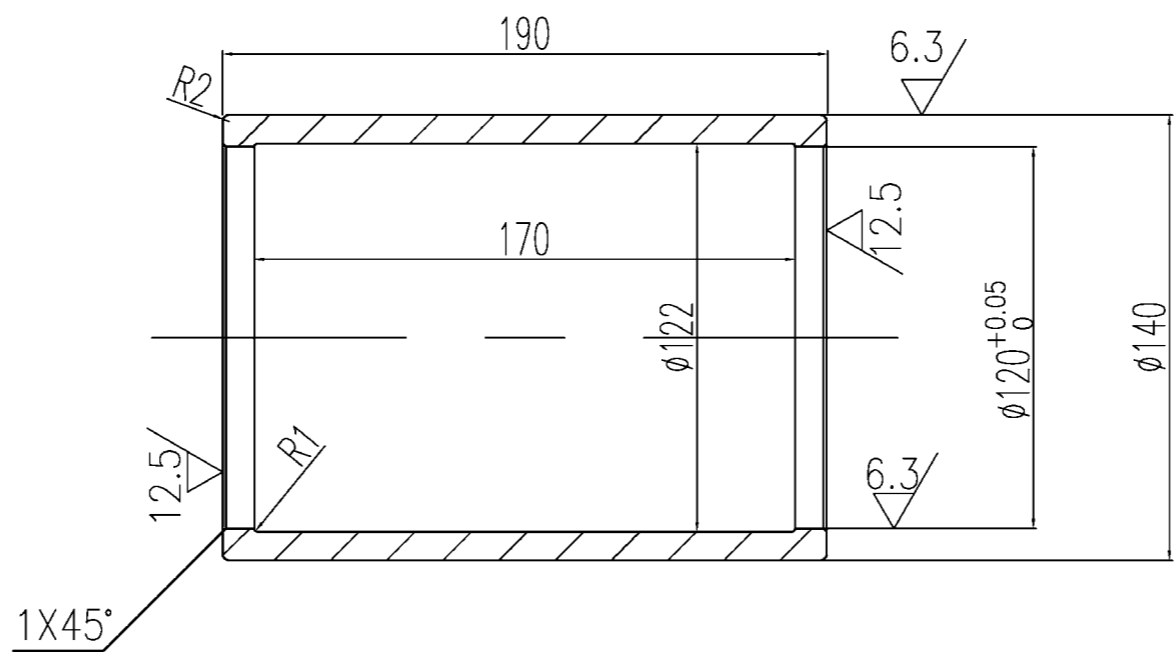
B1		NOZZLE PT1/4	turnoff	2		
9	UL2513030309	挡圈 sleeve	20	4		
8	UL2513030308	托辊抗磨层 wearable sleeve	40Cr	10		
7	UL2513030307	supporting cover	Q235	2		
6	UL2513030306	oil block ring	Q235	4		
5	UL2513030305	below roller	45	2	49.9	99.8
4	UL2513030304	below roller shaft	45	2	11.4	22.8
3	UL2513030303	dustproof cover	Q235	4	0.56	2.24
2	UL2513030302	shaft end baffel	Q235	4	0.13	0.52
1	UL2513030301	roller pedestal	welding	1	43.6	43.6

NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	WEIGHT		NOTE
					each	total	

B8	GB79-85	bolt	螺栓10x15		16		
B7	GB862.1-87	washer	垫圈10		12		
B6	GB5782-86	bolt	螺栓M10X20		12		
B5	GB9877.1-88	seal	内包骨架油封B55*72*8		4		
B4	GB283-87		bearing42210	turnoff	4	0.31	1.24
B3	GB862.1-87		washer12	65Mn	8		
B2	GB5782-86		boltM12X25	Q235	8		stainless steel

PROJECT: Alabama 2000t/h ship unloader		DESIGN STAGE:		SCALE: 1:8	
ITEM NAME: asst.trolley steel wire roller group			DRAW NO: UL2513030300		PROJ.
ZPMC	DSGN		TRACE		APP.
	DRAW		CHCK		Q'TY/SET 170.2Kg
	CHCK		VER.		SET/CRANE 2

其余: 
others



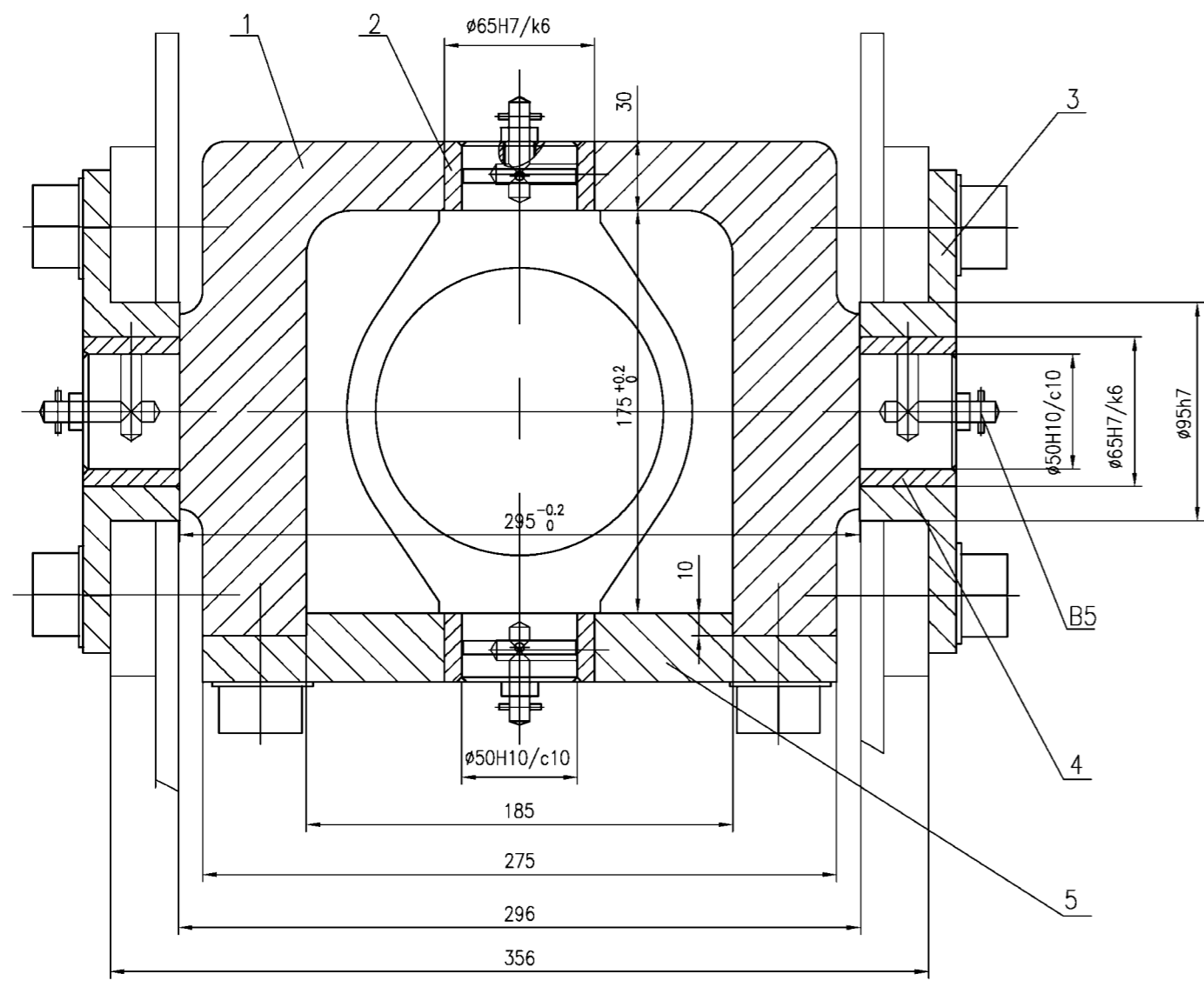
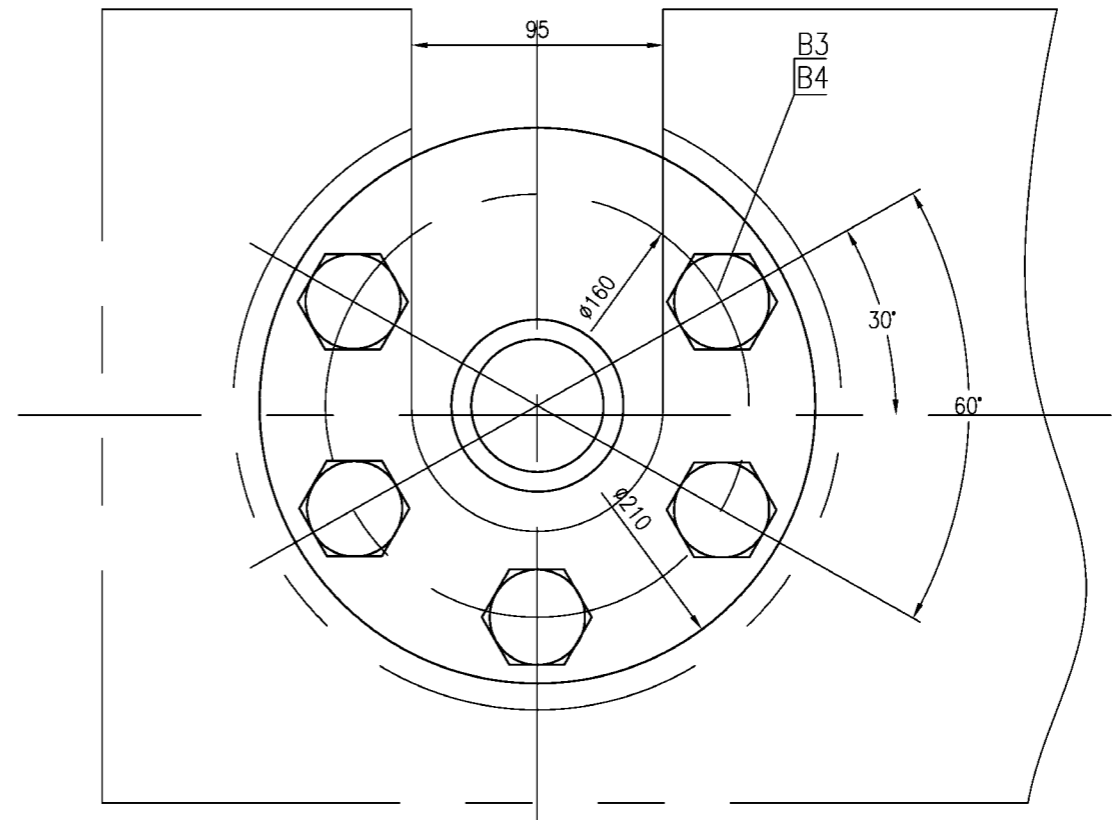
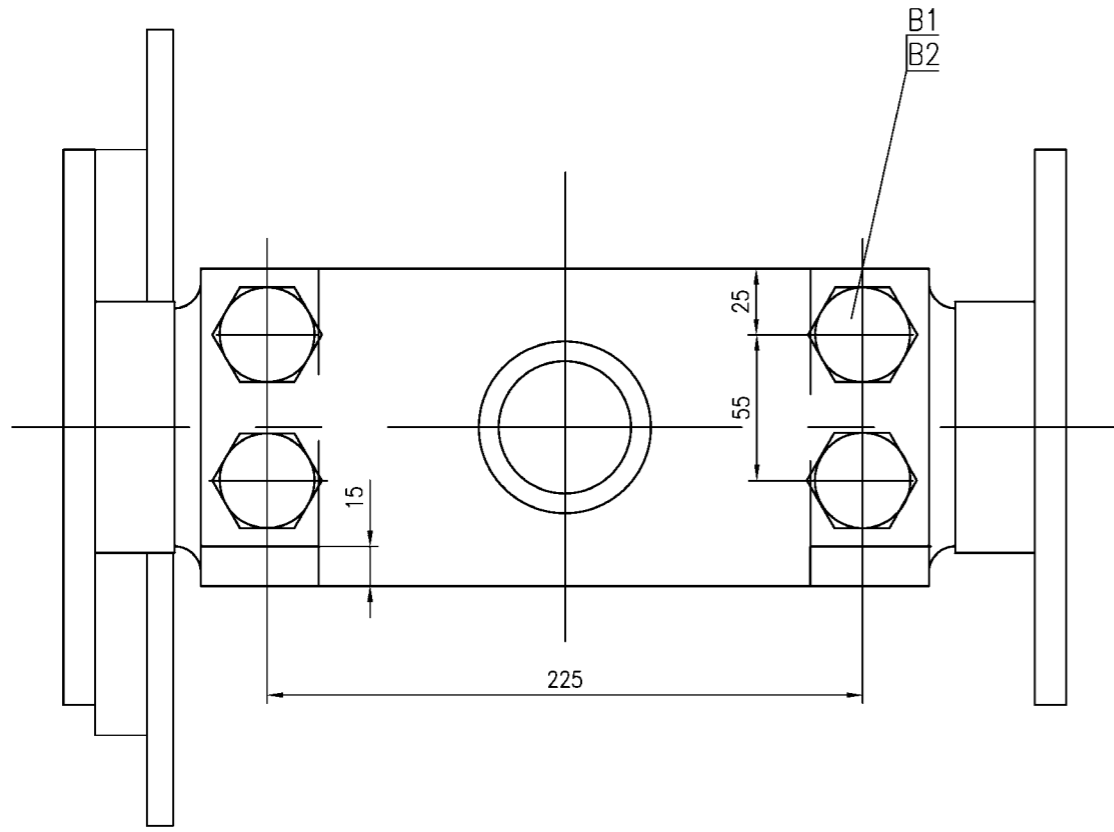
技术要求

- 1.未注倒角:1X45°.
- 2.热处理: HRC35~40

Technology Requirement

- 1.All the non-noted fillets are 1x45°
- 2.Adjusting Quality HB35~40

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
6	UL2513030308	托辊抗磨层 wearable sleeve	40Cr	20	4.3 43	1:4
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



Technology Requirement

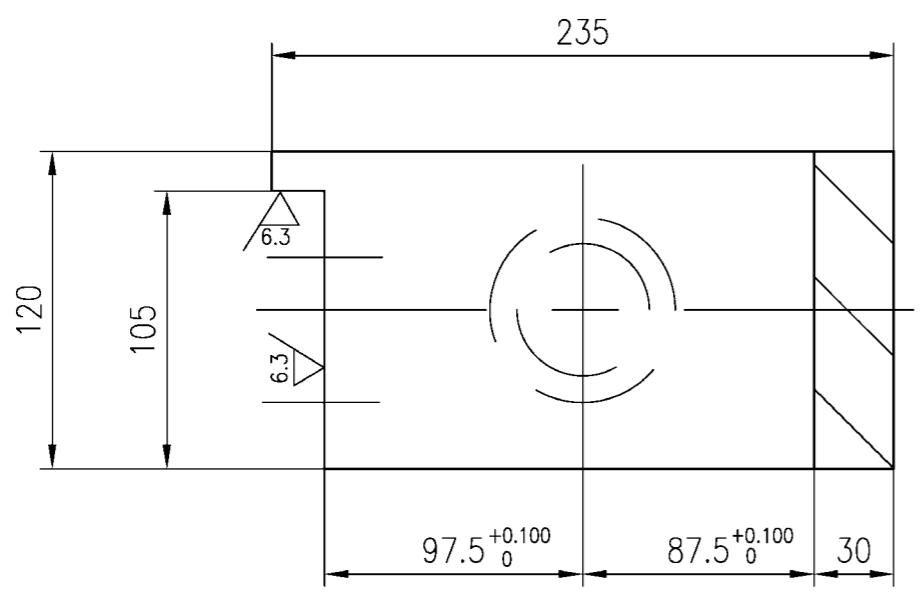
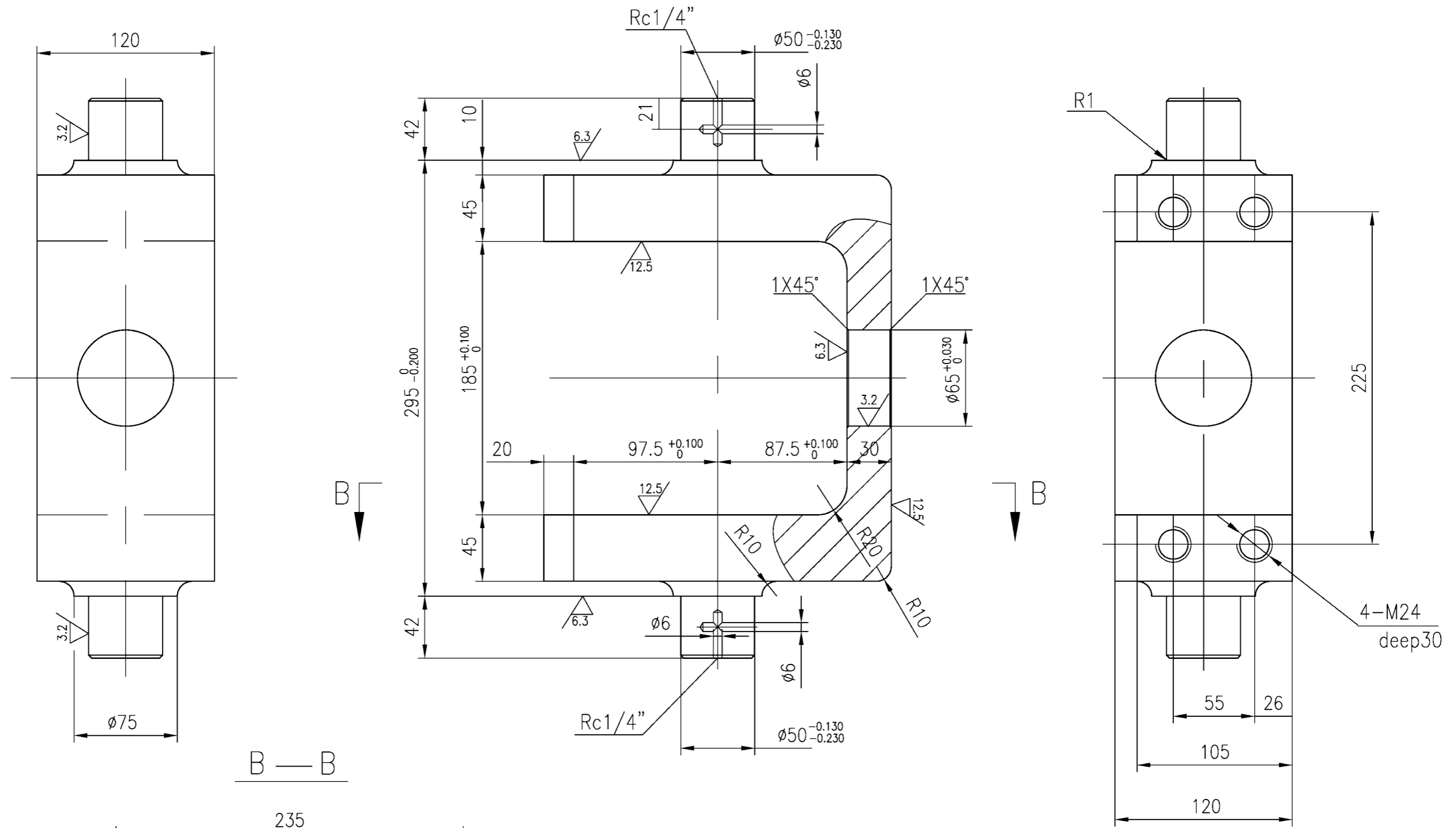
1. Drills the grease cup on the cylinder articulation axis by to install the smooth talker
2. item 1,5 installs the cylinder to ream must wait two localizations to be solid carried forward the whole processing

B5		nozzle PT1/4	assembly	4	0.1	0.4	
B4	GB862.1-87	washer20	65Mn	10	0.004	0.04	
B3	GB5783-86	boltM20X40	stainless steel	10	0.116	1.16	
B2	GB/T1230-91	washer24	45	4	0.056	0.224	
B1	GB/T1228-91	boltM24X50	45	4	0.26	0.96	
5	UL2513050105	baffle	45	1		5.6	
4	UL2513050104	copper coverll	ZQAL9-4	2	0.5	1	
3	UL2513050103	cover	35	2	3.6	7.2	
2	UL2513050102	copper coverl	ZQAL9-4	2	0.45	0.9	
1	UL2513050101	ream	ZG270-500	1		24.5	

NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	WEIGHT		NOTE
					each	total	

PROJECT:			DESIGN STAGE:		SCALE: 1:2	
ITEM NAME: dual ream			DRAW NO: UL2513050100			PROJ.

ZPMC	DSGN		TRACE		APP.	
	DRAW		CHCK		Q'TY/SET	42Kg
	CHCK		VER.		SET/CRANE	2

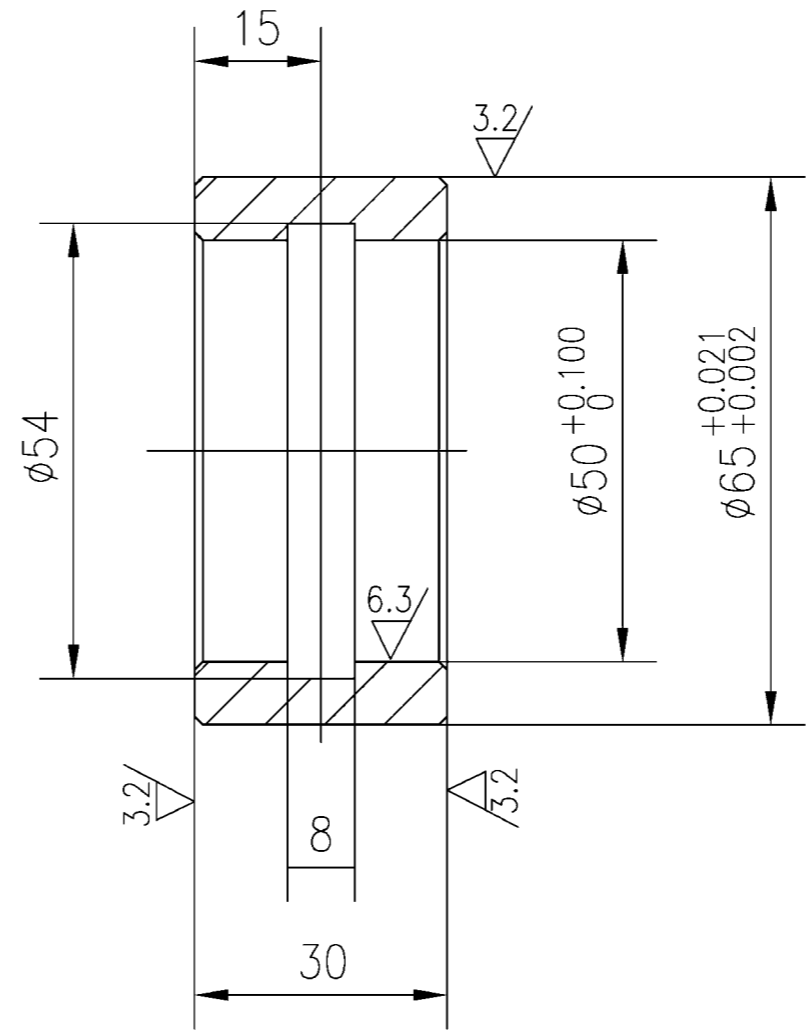


Technology Requirement

1. Hole $\phi 65^{+0.030}$ and UL2513050105 hole $\phi 65^{+0.030}$ processes together
2. Adjusting Quality HB156~207

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL2513050101	ream	ZG270-500	24.5	2	1:3
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

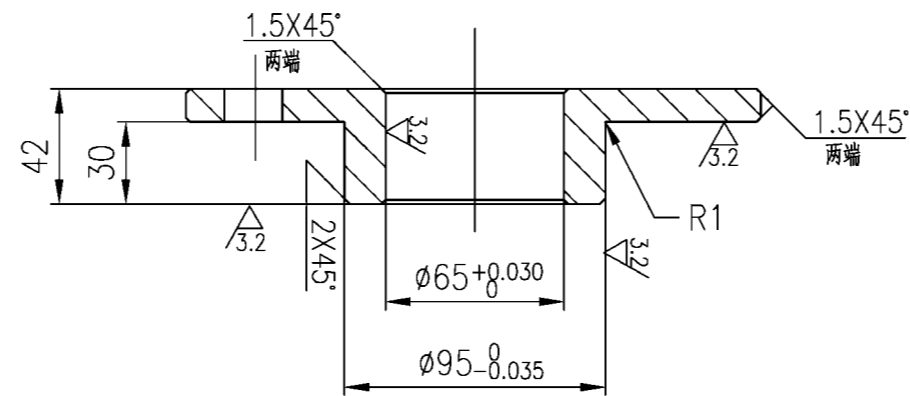
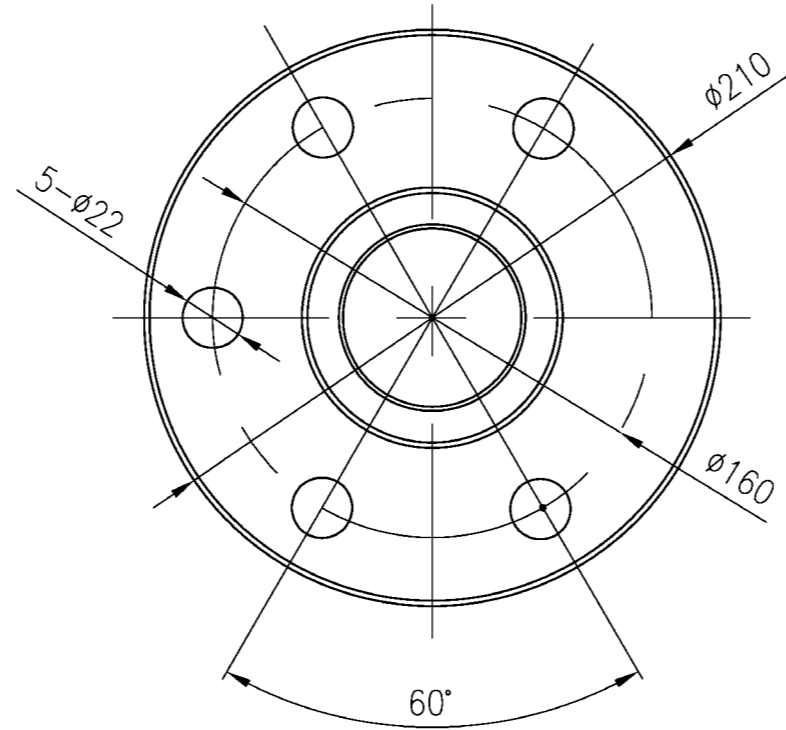
others^{12.5} ✓



All the non-noted fillets are 1x45°

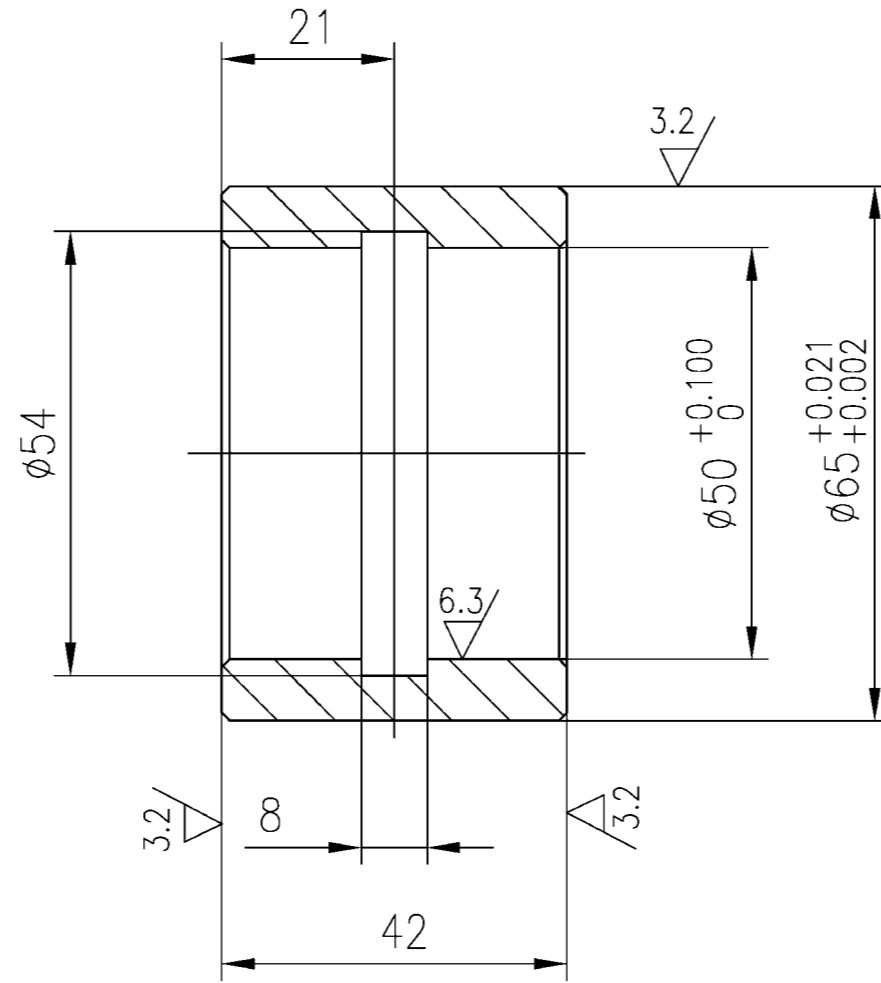
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL2513050102	copper cover I	ZQAL9-4	0.45Kg	4/piece	1:1
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

other $\nabla^{12.5}$



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL2513050103	cover	35	3.6Kg	4/piece	1:3
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

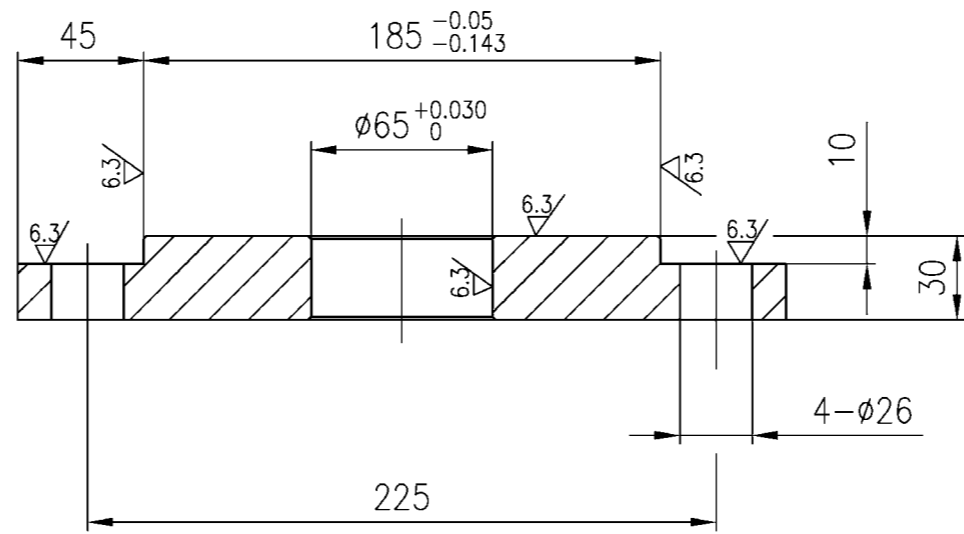
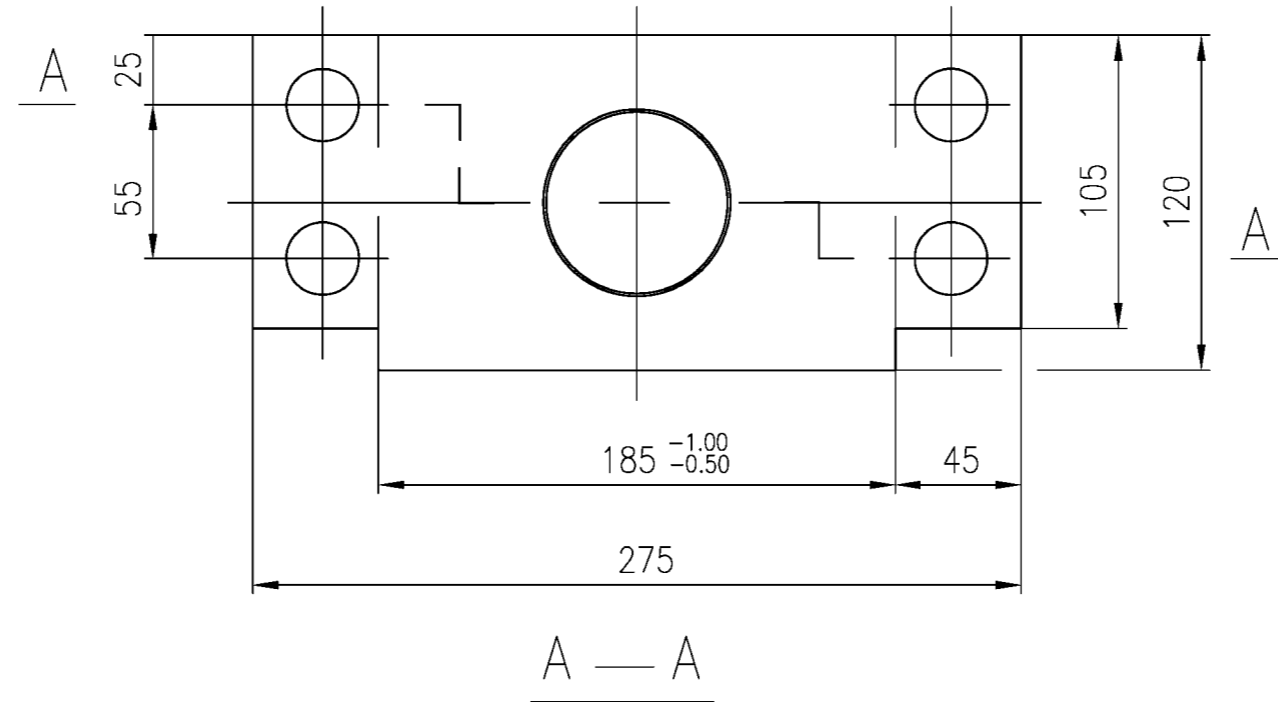
others $\sqrt{12.5}$



All the non-noted fillets are $1 \times 45^\circ$

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL2513050104	copper cover II	ZQAL9-4	0.5Kg	4/♠	1:1
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

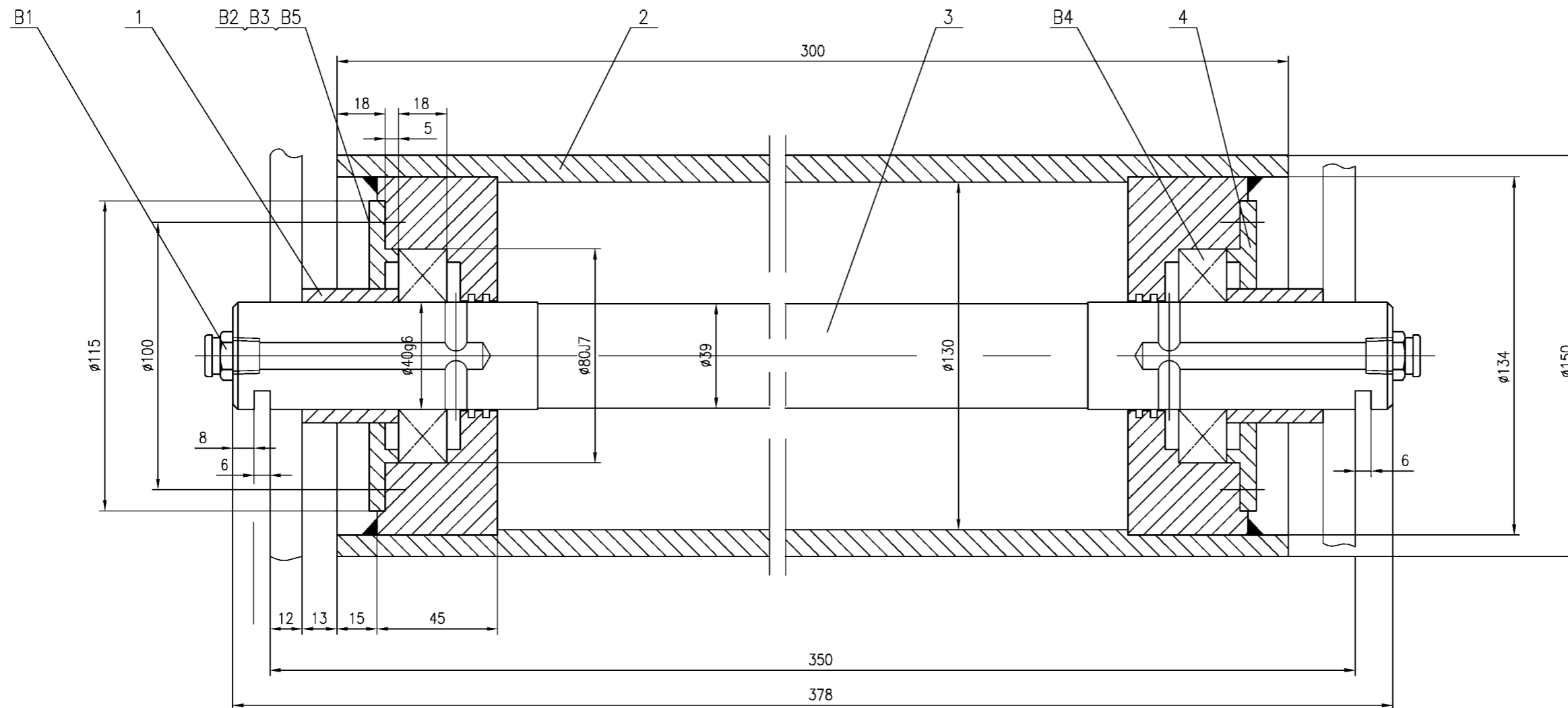
others ∇ 12.5



Technology Requirement

- 1.Hole $\phi 65^{+0.030}_0$ and UL2513050105 hole $\phi 65^{+0.030}_0$ processes together
- 2.Adjusting Quality HB217~255
- 3.All the non-noted fillets are 1x45°

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL2513050105	pedestal	45	5.6Kg	2/台	1:3
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	



When the bearing assembles, Side the inner loop does not have keeps off one lateral in

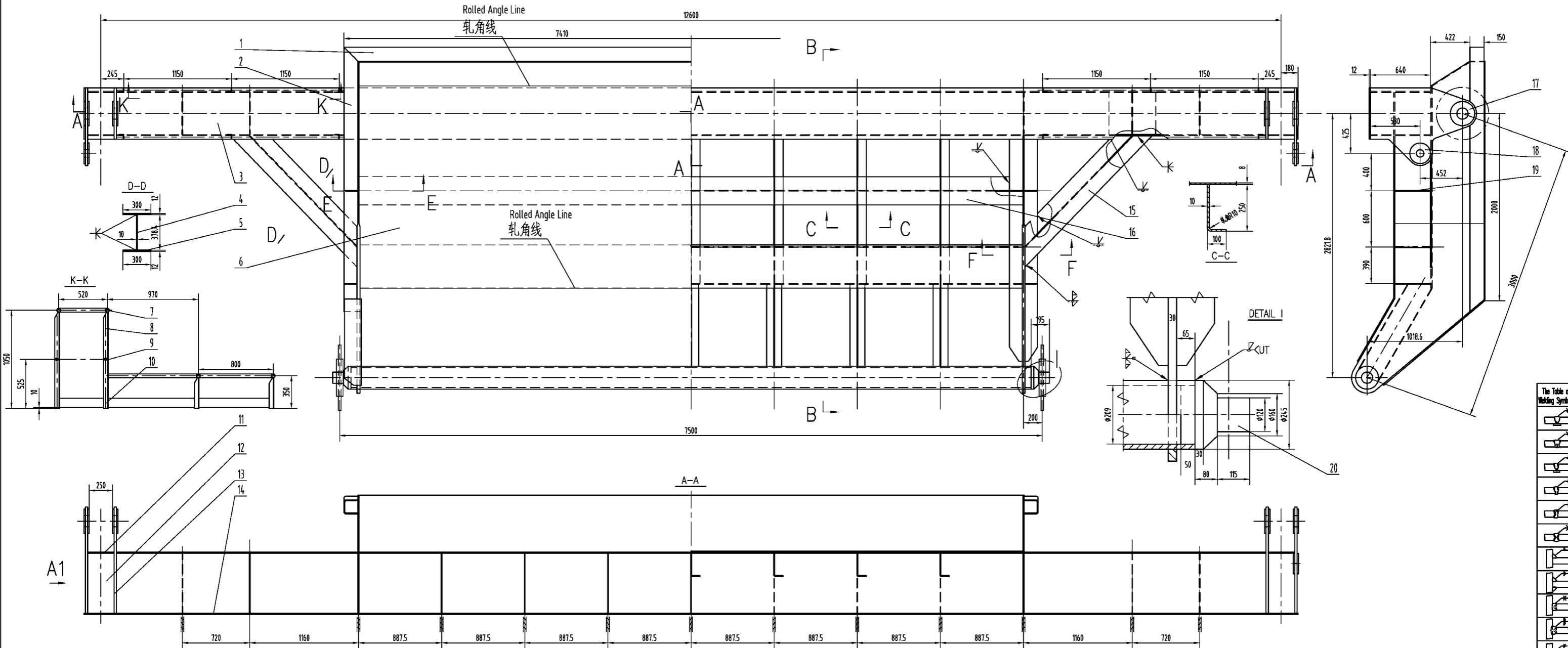
4	UL2513051304	bearing cover	Q235	2	0.47	0.94	
3	UL2513051303	shaft	45	1		3.6	
2	UL2513051302	roller sleeve	welding	1		17.4	
1	UL2513051301	shaft cover	Q235	2	0.18	0.36	
NO.	SUB-NO. or STDD	NAME & SIZE	MATERIAL	QTY	WEIGHT		NOTE
					each	total	

PROJECT: DESIGN STAGE: SCALE: 1:1.5

ITEM NAME: roller group DRAW NO: UL2513051300 PROJ.

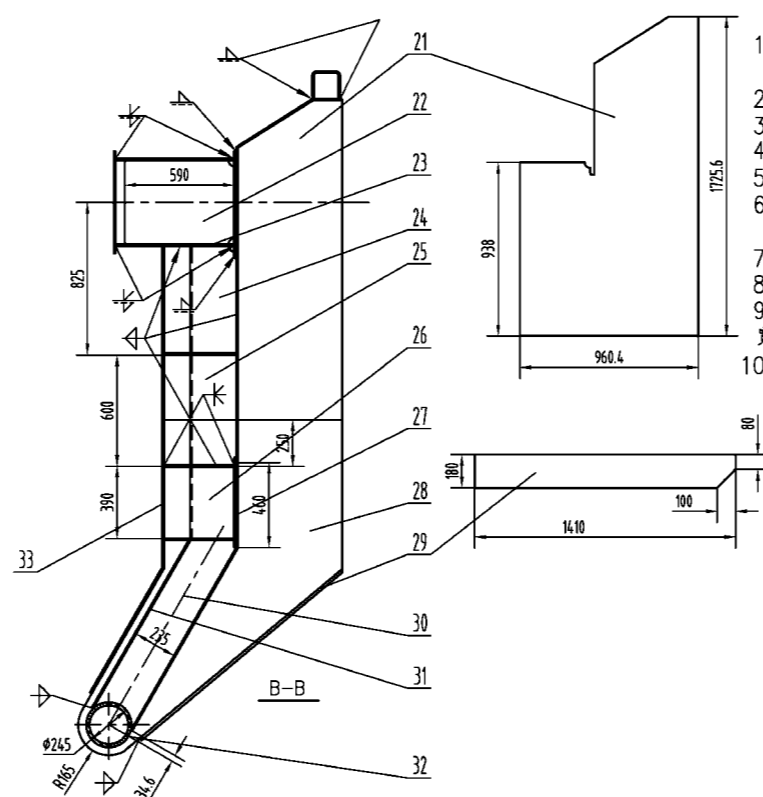
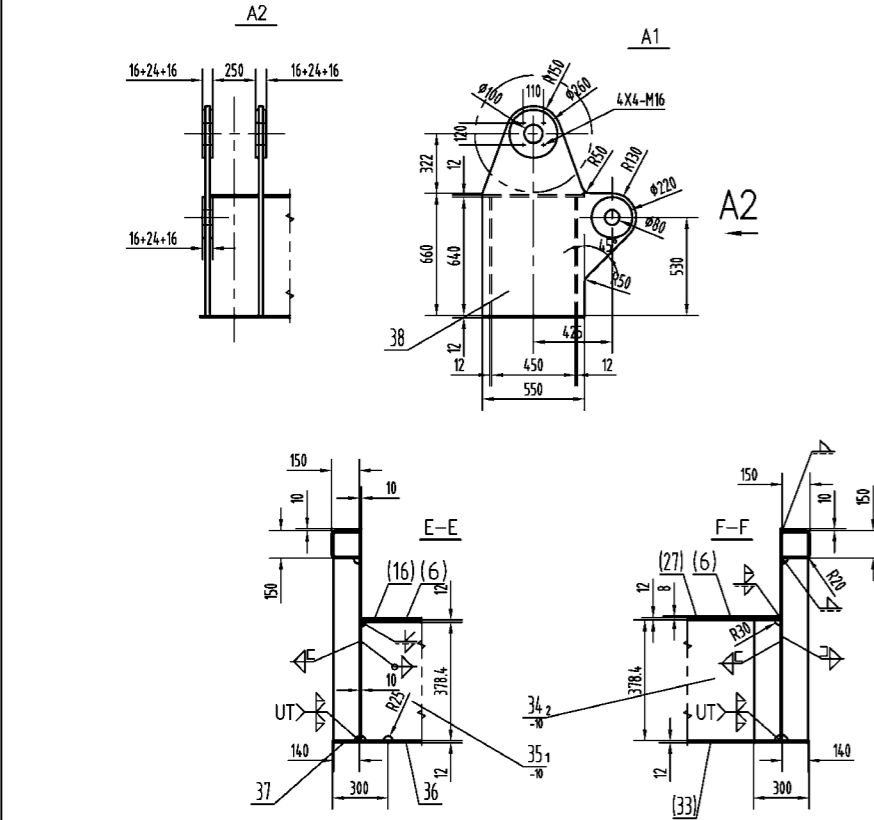
B5		steel wire	1.5	2	0.001	0.002	
B4	GB283-87	bearing	42208	2	0.4	0.8	(SKF)NJ208EC
B3	GB97.1-85	washer	8 stainless steel	12	0.002	0.004	
B2	GB32.1-88	bolt	M8X25 stainless steel	12	0.01	0.02	
B1		nozzle	PT1/4" A1186	2	0.1	0.2	

ZPMC	DSGN		TRACE		APP.	
	DRAW		CHCK		Q'TY/SET	22.3Kg
	CHCK		VER.		SET/CRANE	2



The Table of Welding Symbols

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20



技术条件
 1. A709-50-2之间的焊接采用E5015焊条, 其余采用E4315焊条;
 2. 未注明焊缝按同类焊缝施焊, 未注明贴角焊缝高度取连接薄板厚度的0.8倍;
 3. 腹板与翼板焊接尽量采用自动焊, 手工补焊, 坡口按厂标规定;
 4. 所有外露的气割边缘, 切割断面光滑度均要达到优良或磨平;
 5. 凡有厚薄板对接, 都应有1:2.5~1:4的斜度;
 6. 对接焊缝按100%进行探伤, 并按5%~10%进行拍片, 质量达到厂标JQ/GJ03.02.04-92规定的I级品;
 7. 图中未注明的均按厂焊接件通用技术条件进行制造与检验;
 8. 明细表中尺寸供参考, 准确尺寸按样定;
 9. 所有腹板均以中对中拼接, 所有翼板均以内侧对齐拼接, 横隔板的宽度尺寸应按所在截面相应调整;
 10. 裸露焊缝全部为满焊

Technology Requirement
 1. The type of welding stick adopted is E5015 between A709-50-2, the others is E4315;
 2. The non-noted welding line are as same as the similar, the non-noted corner-welding height should be 0.8 thickness;
 3. It is better adopting auto-welding, manual makeup between web and flange, sloping welding follows ZPMC standard;
 4. All the exposed cut brim should be ground to the first class or smooth.
 5. It should have 1:2.5~1:4 slope, when welding the thin plates;
 6. The cross-joint welding should be 100%UT, and 5%~10% photograph, the quality should be reach JQ/GJ03.02.04-92 the first class;
 7. The non-noted welding should be adopted the general technology to fabricate and examine;
 8. The dimension of the material in the list is for reference, the exact dimension is decided by the mold.
 9. All the webs align from centre, all the flanges align on inside surface, the cross panel's dimension should adjust according to the sections;

序号	图号或标准	名称	规格	材料	数量	单重	总重	备注
MARK	DRAWING NO & STANDARD	DESCRIPTION	MATERIAL	QTY	PER WT	TOTAL WT	REMARKS	
38		-24x830x1132	A109-50-2	2	112.5	225.00	225.00	钢板
37		-12x300x2520	A109-50-2	2	71.2	142.40	142.40	钢板
36		-12x300x6800	A109-50-2	1	192.2	192.20	192.20	钢板
35		-10x378.4x7090	A109-50-2	1	356.2	712.40	712.40	钢板
34		-10x378.4x7070	A109-50-2	2	355.2	710.40	710.40	钢板
33		-12x460x6800	A109-50-2	1	294.7	294.70	294.70	钢板
32		Seamless Pipe 725x18 l=7260	20	1	731.59	731.59	731.59	球扁钢
31		-10x160x104.8	A109-50-2	7	13.2	92.40	92.40	钢板
30		-10x235x116.7	A109-50-2	7	19.3	135.10	135.10	钢板
29		-16x180x14.10	A109-50-2	2	31	62.00	62.00	钢板
28		-30x14.23x18.12	A109-50-2	2	329.8	659.60	659.60	钢板
27		-12x460x7070	A109-50-2	1	306.4	306.40	306.40	钢板
26		-10x334x38.4	A109-50-2	7	10.1	70.70	70.70	钢板

序号	图号或标准	名称	规格	材料	数量	单重	总重	备注
MARK	DRAWING NO & STANDARD	DESCRIPTION	MATERIAL	QTY	PER WT	TOTAL WT	REMARKS	
25		-10x334x594	A109-50-2	7	15.6	109.20	109.20	钢板
24		-10x334x578	A109-50-2	7	15.2	106.40	106.40	钢板
23		-12x640x12270	A109-50-2	2	739.7	1479.40	1479.40	钢板
22		-10x450x590	A109-50-2	13	20.8	270.40	270.40	钢板
21		-10x960x1726	A109-50-2	2	101.25	202.50	202.50	钢板
20	UL2517040301	Line Shaft	20	2	4.5	9.0	9.0	轴销
19		-10x140x378	A109-50-2	4	4.15	16.60	16.60	钢板
18		-16 F=?220/?80	A109-50-2	4	4.14	16.56	16.56	钢板
17		-16 F=?260/?100	A109-50-2	8	5.25	42.00	42.00	钢板
16		-12x300x7090	A109-50-2	1	200.4	200.40	200.40	钢板
15		-12x300x1900	A109-50-2	2	52	104.00	104.00	钢板
14		-12x550x12960	A109-50-2	1	671.5	671.50	671.50	钢板
13		-24x550x1132	A109-50-2	2	98	196.00	196.00	钢板
12		-12x282x640	A109-50-2	4	15.9	63.60	63.60	钢板
11		-12x282x550	A109-50-2	2	13.7	27.40	27.40	钢板
10		Flat Steel 100x5 l=2430	Q235-A	4	9.52	38.10	38.10	扁钢
9		Zinc Pipe 726.8 l=2430	Q235-A	4	4.08	16.32	16.32	镀锌管
8		L 50x50x5 l=1029	Q235-A	12	3.87	46.54	46.54	角钢
7		Zinc Pipe 742.3 l=2430	Q235-A	4	7.91	31.64	31.64	镀锌管
6		-8x7090x3939	A109-50-2	1	1753.8	1753.80	1753.80	钢板
5		-12x300x1758	A109-50-2	1	4.8	48.00	48.00	钢板
4		-10x378x1652	A109-50-2	2	4.9	98.00	98.00	钢板
3		-12x550x12270	A109-50-2	1	635.7	635.70	635.70	钢板
2		-10x417x2824	A109-50-2	2	92.4	184.80	184.80	钢板
1		-10x417x7410	A109-50-2	1	242.6	242.60	242.60	钢板

PROJECT: Alabama 2000t/h Ship Unloader DESIGN STAGE: SCALE: 1:20

ITEM NAME: 挡料斗斗体 DRAW NO: UL2517040300a PROJ.:

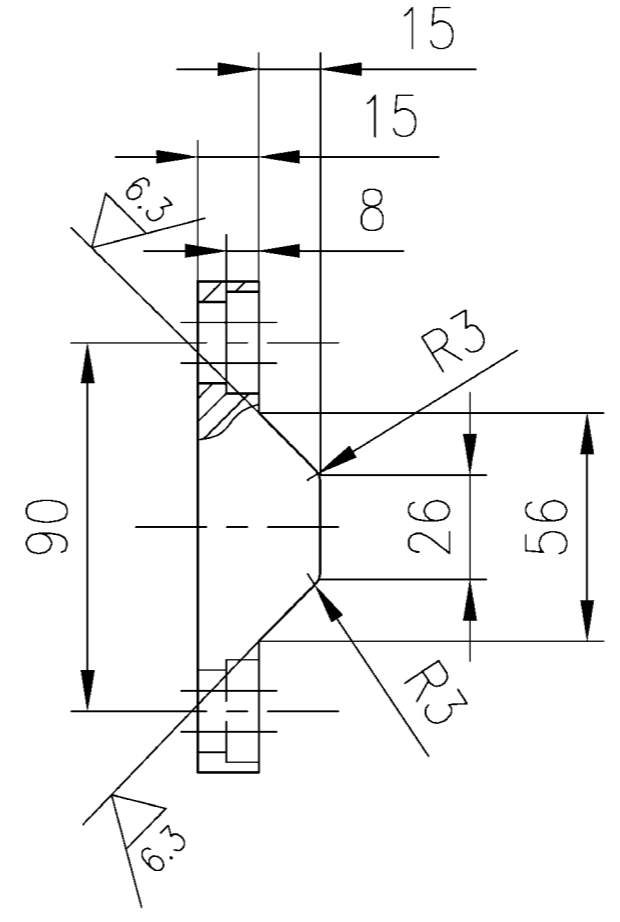
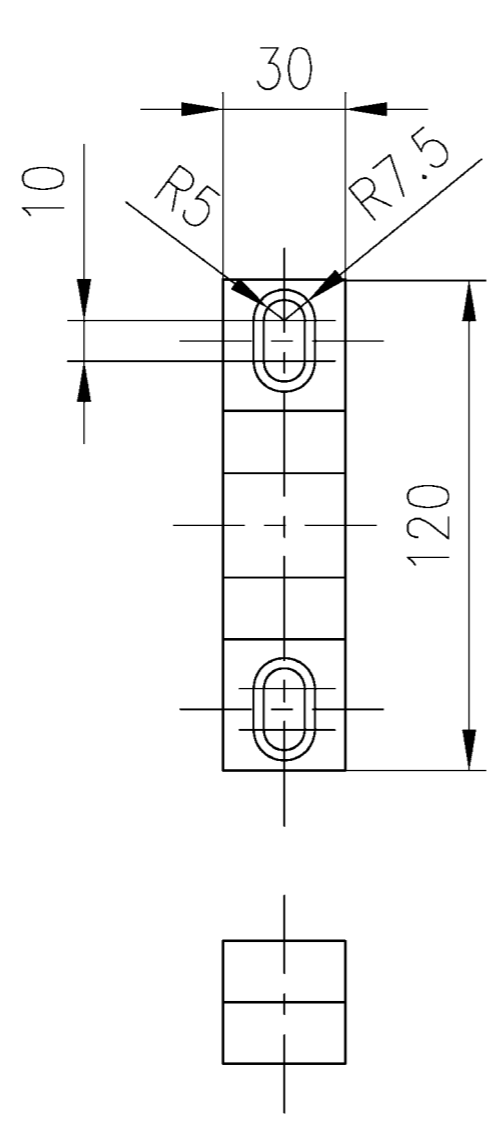
Material Baffle Bucket

ZPMC DSGN: 李学刚 05/12 TRACE APP.:

DRAW: 王根民 05/12 CHCK QTY/SET: 11026.35

CHK: VER. SET/CRANE: 1

Total
其余 12.5/▽

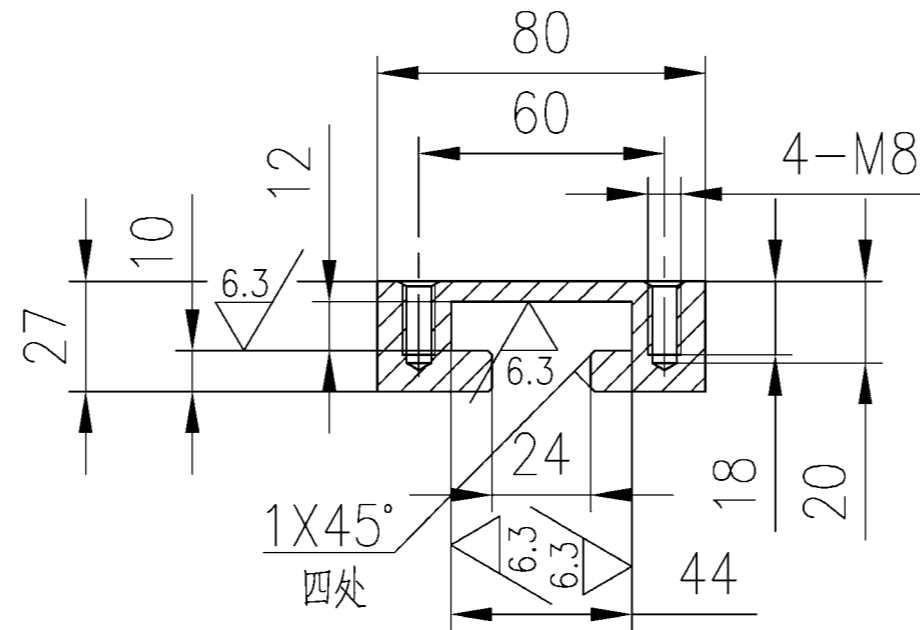
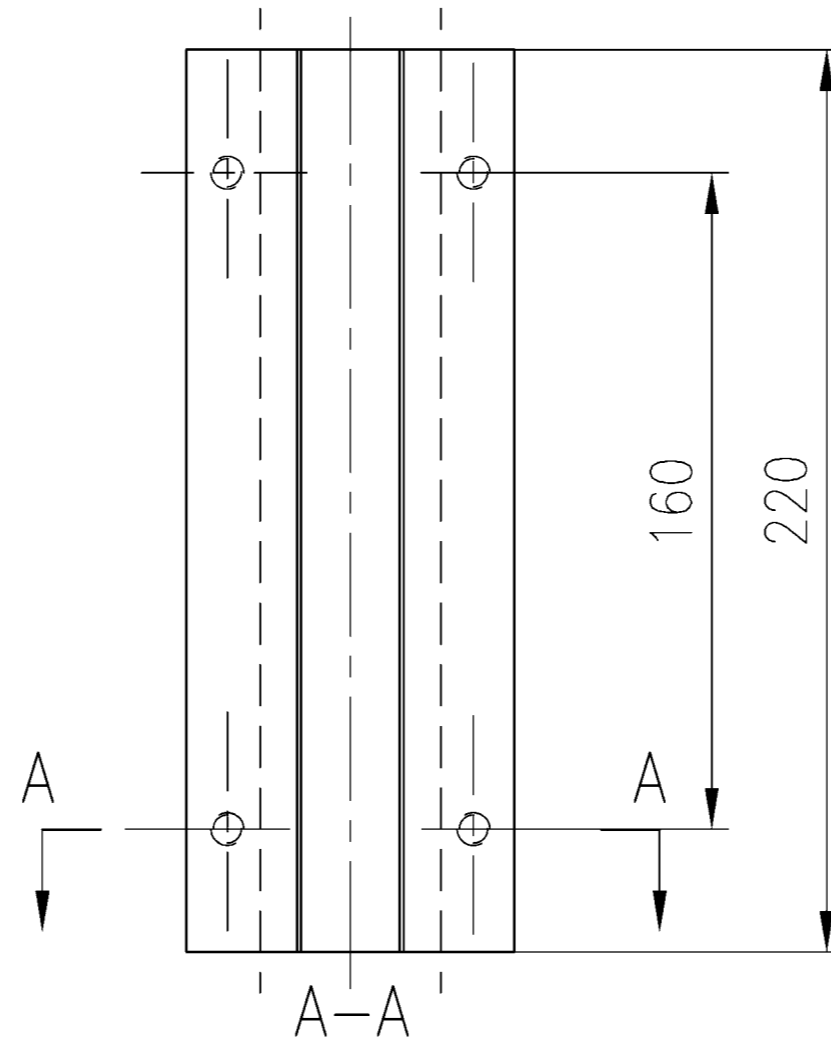


Adjusting Quality HB220~240

调质 HB220~240

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
6	UL2517060704	挡块 Block	45	0.36kg	1	1:2
ZPMC	DRAW	李顺	张	TECH.		TRACE
	CHCK	李顺	张	STDD		CHCK

Others
其余 $\nabla 12.5$



Technology Requirement

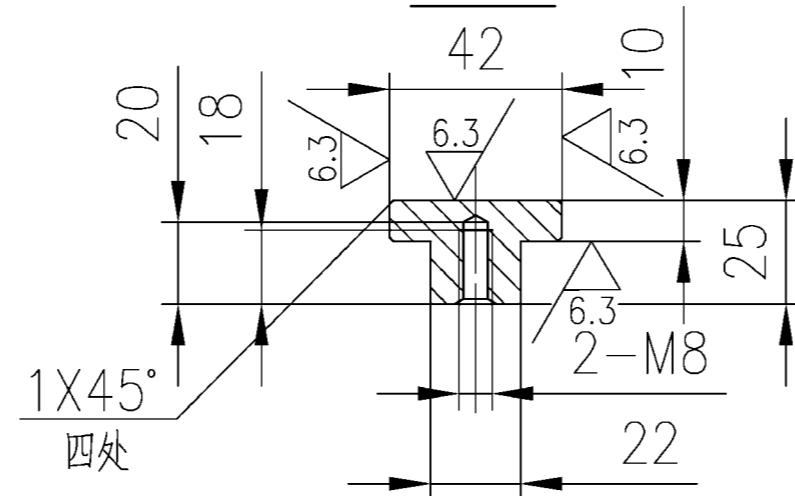
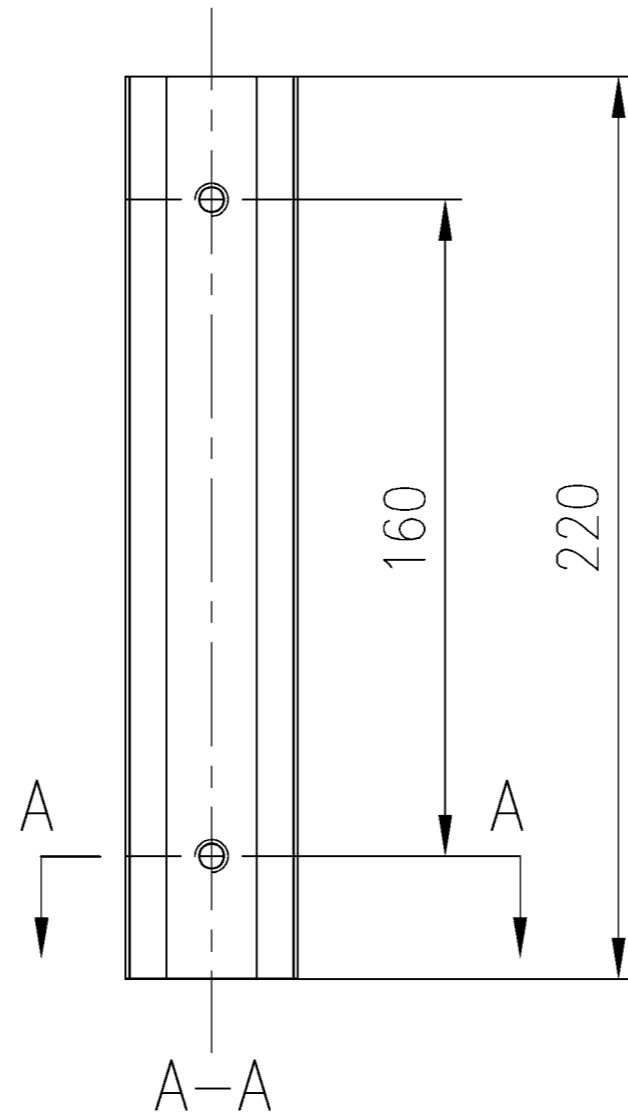
Adjusting Quality HB220~240
Each side fillet 0.5x45°

技术要求

调质 HB220~240
四周倒棱0.5X45°

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
7	UL2517060705	导轨 Guiding Rail	45	3.29kg	1	1:2
ZPMC	DRAW	李颖	王江	TECH.	TRACE	
	CHCK	王根民	王江	STDD	CHCK	

Others
其余 12.5/



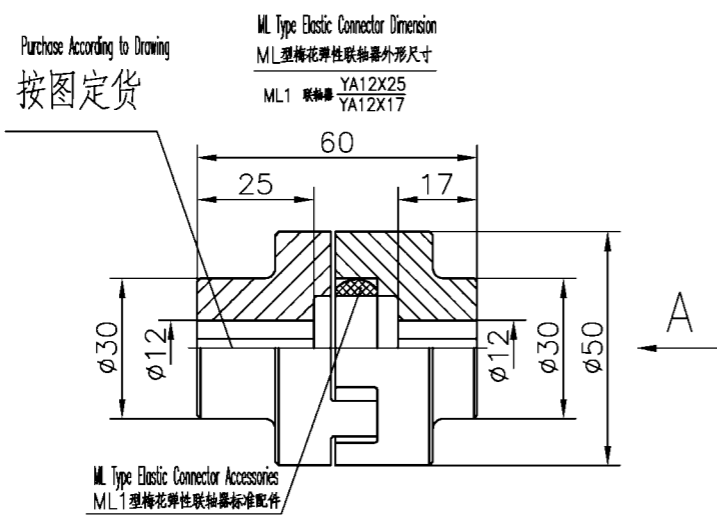
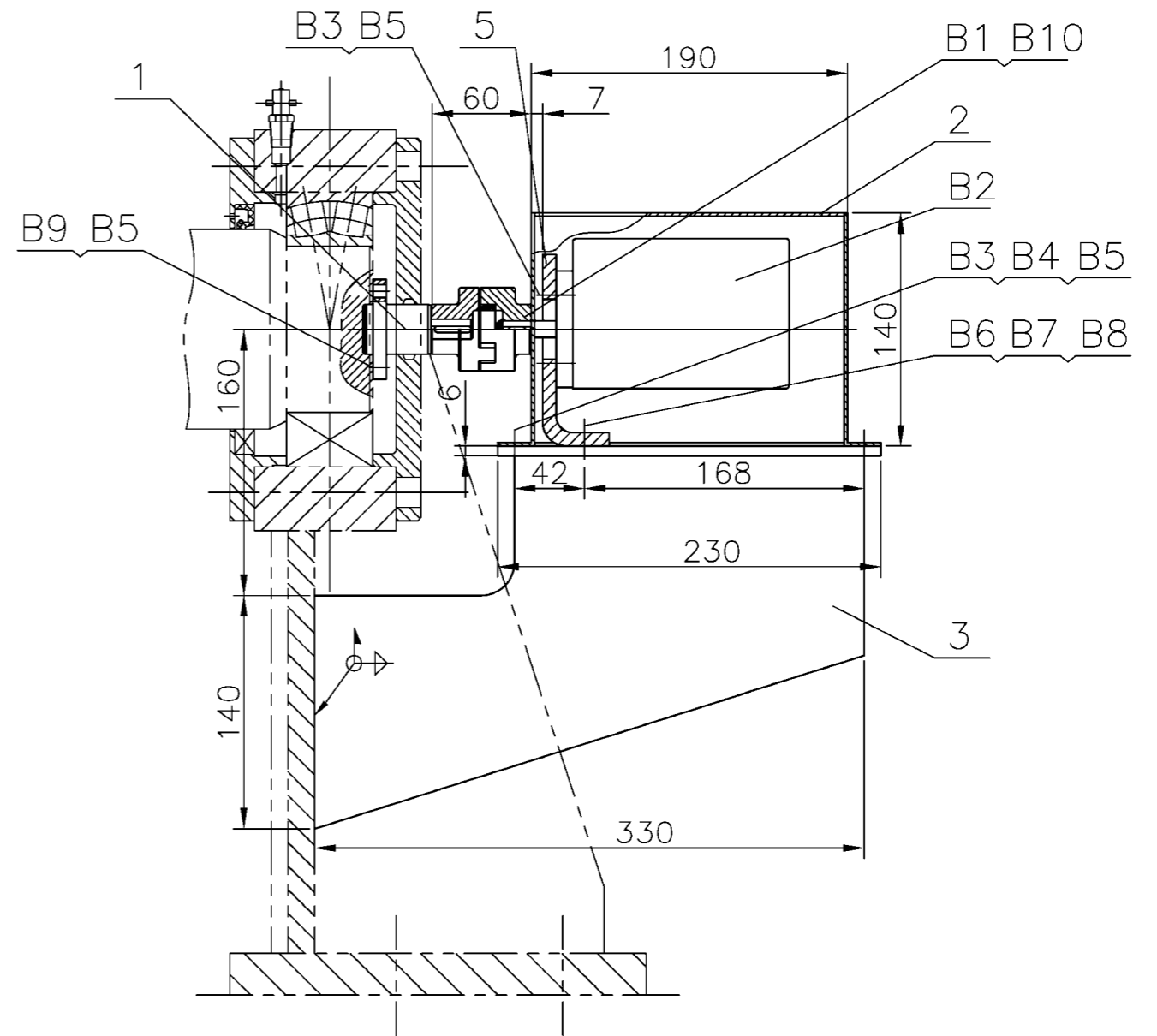
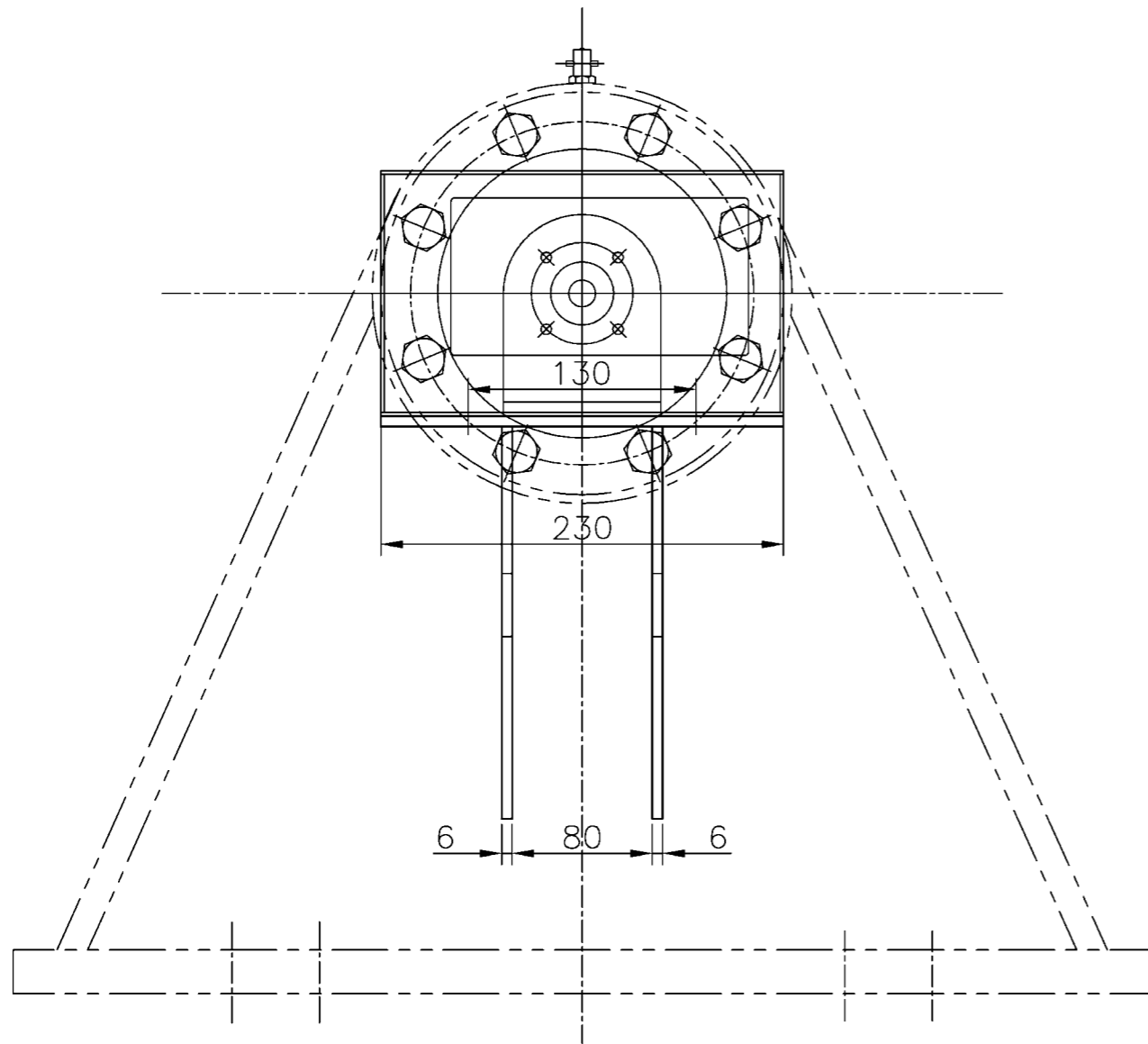
Technology Requirement

Adjusting Quality HB220~240
Each side fillet 0.5x45°

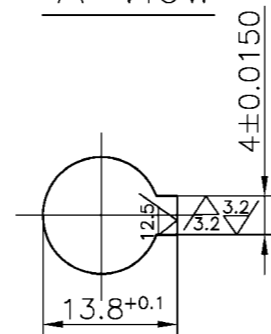
技术要求

调质 HB220~240
四周倒棱0.5X45°

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
8	UL2517060706	导向板 Guiding Panel	45	1.28kg	1	1:2
ZPMC	DRAW	李季	李季	TECH.	TRACE	
	CHCK	李根民	李根民	STDD	CHCK	



A View



B5	GB97.2-85	Washer 6	Stainless Steel 不锈钢	12	0.001	0.012	垫圈6
B4	GB6170-86	Nut M6	Stainless Steel 不锈钢	8	0.002	0.016	螺母M6
B3	GB5783-86	Bolt M6X20	Stainless Steel 不锈钢	8	0.005	0.04	螺栓M6X20
B2		Cam Locating Installation		1			凸轮限位开关
B1		ML Type Elastic Connector	YA12X25 YA12X17	1	0.5	0.5	ML 型梅花弹性联轴器 按图订货 ML1 联轴器
5	UL2317060804	Connecting Panel	Q235	1	0.8	0.8	连接板
3	UL2317060803	Base	Welding 焊接件	1	3.7	3.7	支座
2	UL2317060802	Cover Shell	Welding 焊接件	1	2.6	2.6	罩壳
1	UL2317060801	Shaft	45	1	0.5	0.5	轴

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	

PROJECT: Alabama 2000t/h Ship Unloader

DESIGN STAGE:

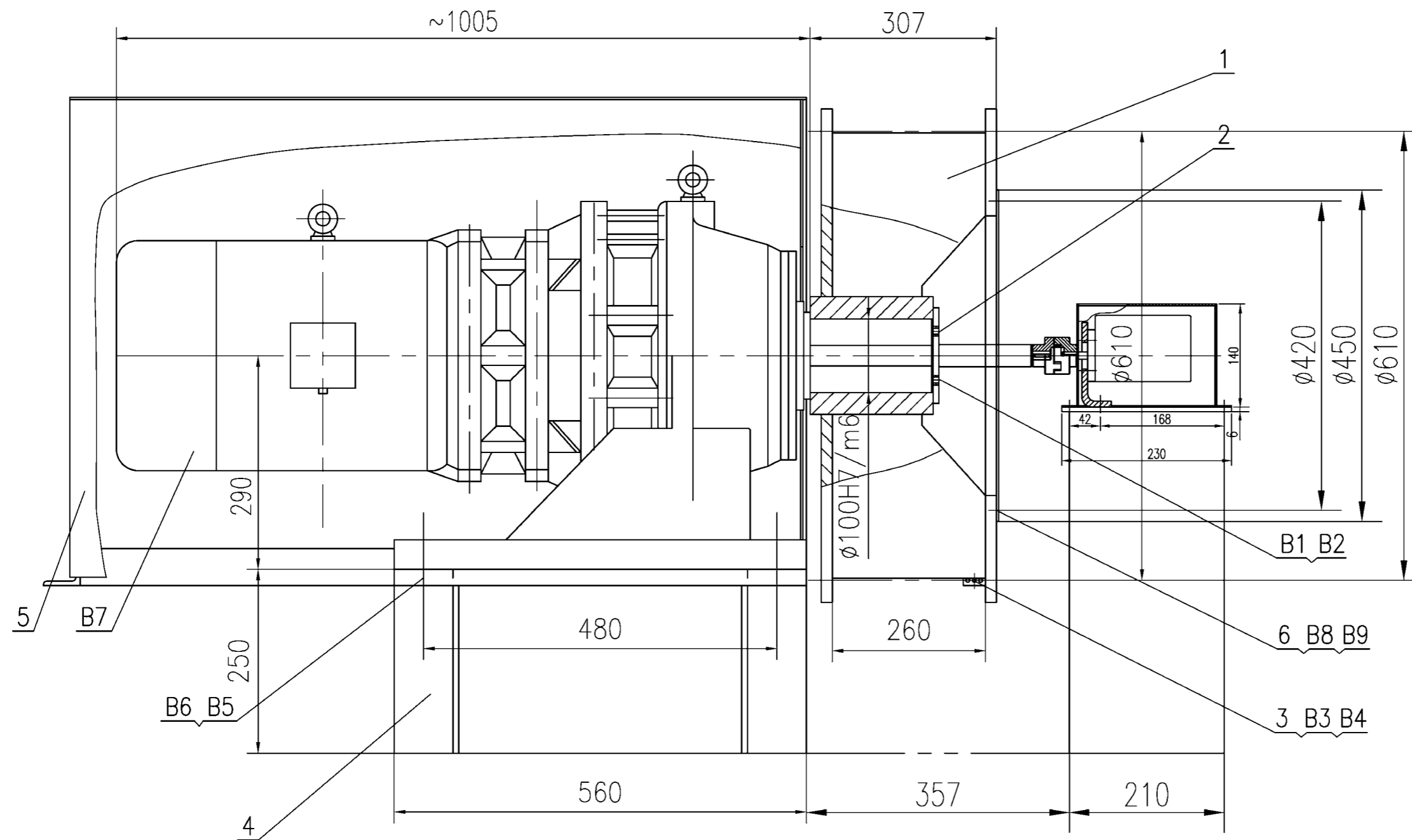
SCALE:

ITEM NAME: 凸轮限位装置
Cam Locating Installation

DRAW NO: UL2517060800

B10	GB1095-79	Key 4X22	45	1			键4X22
B9	GB5783-86	Bolt M6X20	Stainless Steel 不锈钢	4	0.005	0.02	螺栓M6X20
B8	GB97.2-85	Washer 8	Stainless Steel 不锈钢	2	0.001	0.002	垫圈8
B7	GB6170-86	Nut M8	Stainless Steel 不锈钢	2	0.002	0.004	螺母M8
B6	GB5782-86	Bolt M8X25	Stainless Steel 不锈钢	2	0.005	0.01	螺栓M8X25

ZPMC	DSGN	李季	05.12	TRACE		APP.	
	DRAW	王根民	05.12	CHCK		Q'TY/SET	1
	CHCK			VER.		SET/CRANE	8.2



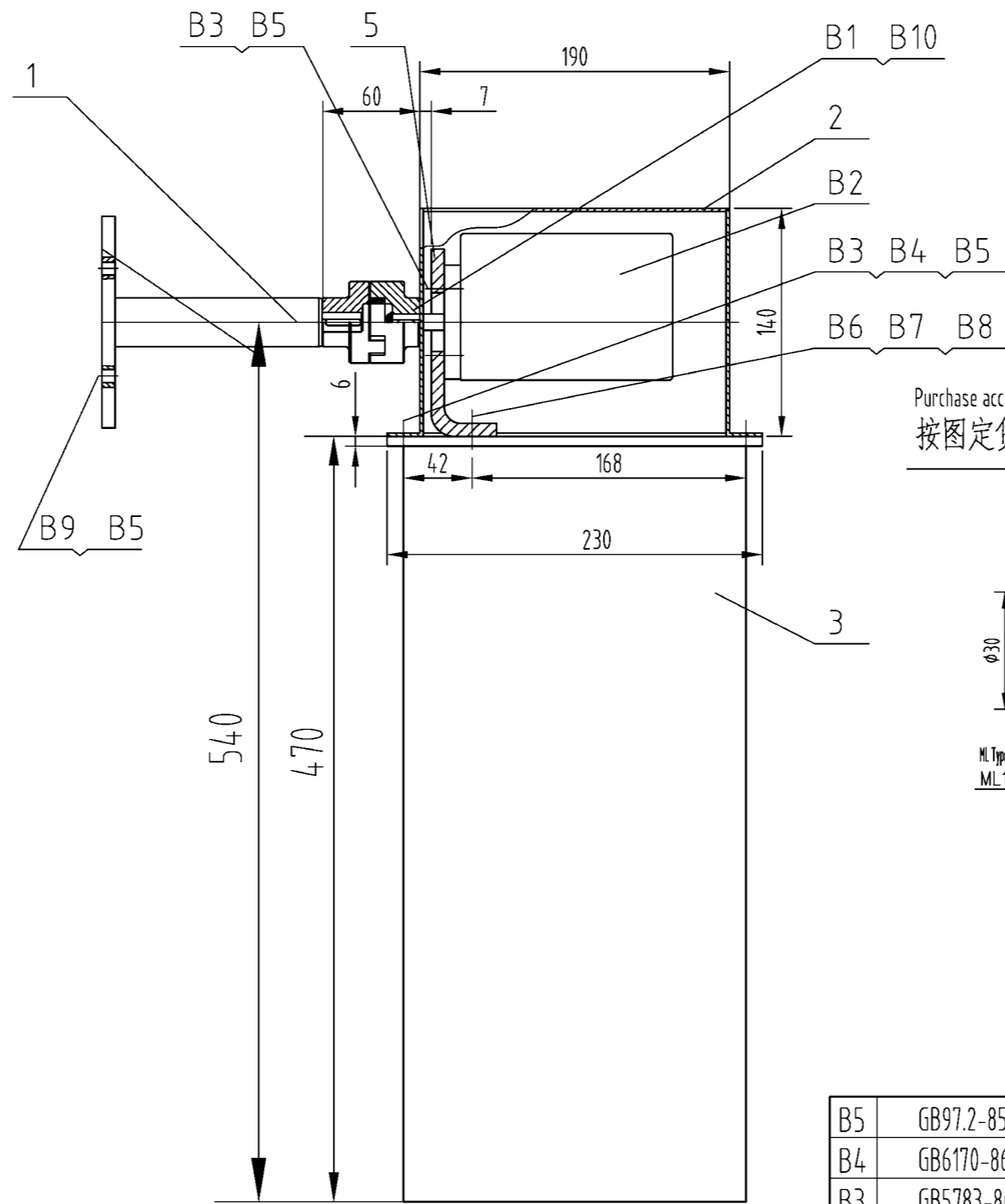
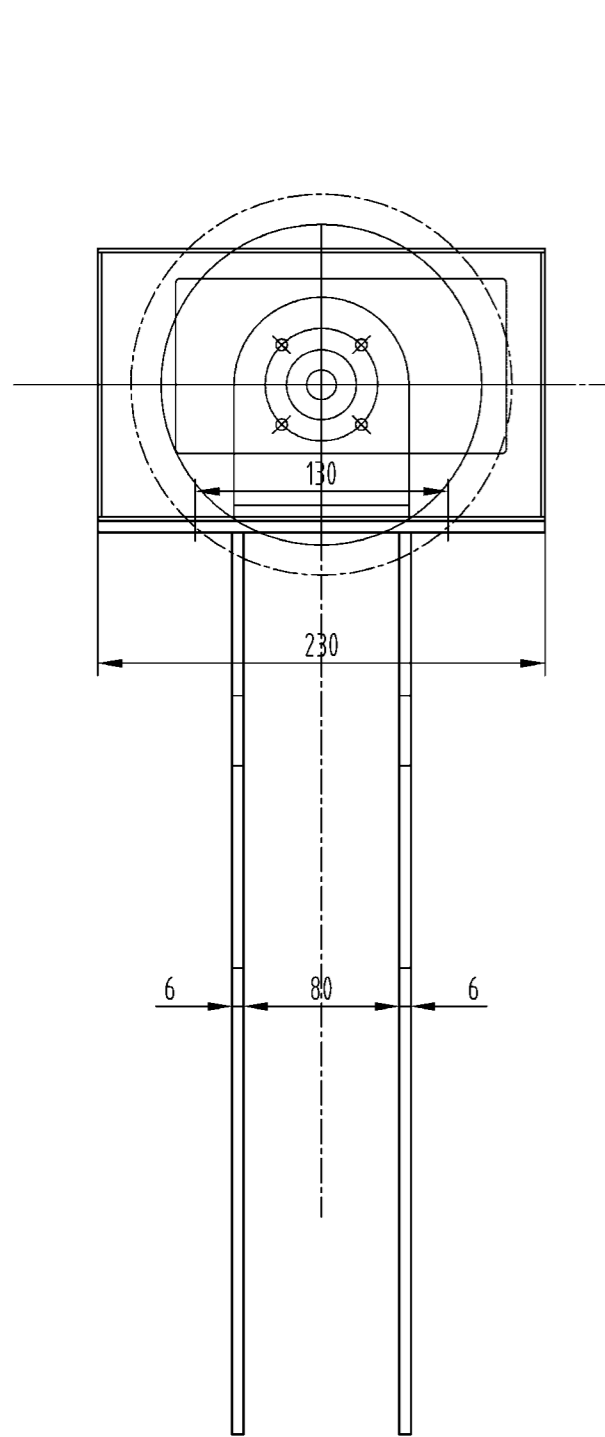
主要技术参数	
电机功率	5.5Kw M2ARF/S132
减速器速比	289
卷筒直径	610mm
卷筒旋向	左旋
钢丝绳直径	φ21.5mm

Main Techology Parameters	
Motor Power	5.5Kw M2ARF/S132
Reducer Ratio	289
Drum Diameter	610mm
Drum Screw Direction	Left Direction
Wire Rope Diameter	φ21.5 mm

B11		Stainless Wire Rope φ1		1.2m	0.01	不锈钢丝φ1
B10	GB32.1-86	Bolt M8x20		8	0.11	螺栓M8x20
B9		Wire Rope φ1		1.2m	0.01	不锈钢丝φ1
B8	GB32.1-86	Bolt M8x15		8	0.11	螺栓M8x15
B7	BWD-163-17x17(289)-5.5kw Double Cycloid Reducer			1		双级摆线针轮减速器 按图定货: UL2517070400-B7
B6	GB889-86	Nylon Nut M27		4	0.13	尼龙螺母M27
B5	GB5782-86	Bolt M27x85		4	1.9	螺栓M27x85
B4		Wire Rope φ2		0.3m	0.03	不锈钢丝φ2
B3	GB32.1-86	Bolt M20x60	8.8	3	0.18	螺栓M20x60 达克罗 Darklou
B2	GB955-87	轴套20	65Mn	1	0.01	达克罗 Darklou
B1	GB5783-86	Bolt M20x40	8.8	2	0.11	螺栓M20x40 达克罗 Darklou

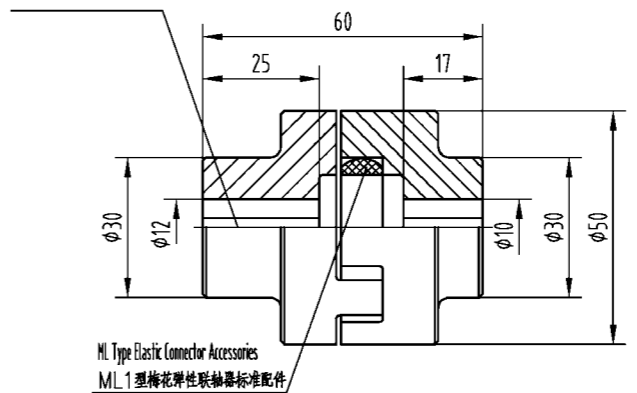
7	UL2517070407	Cam Locating Installation	Assembly 组件	1	3.7	3.7	凸轮限位装置
6	UL2517070406	Cover Panel	Q235	1	3.7	3.7	盖板
5	UL2517070405	Cover Shell	Q235	1	57	57	罩壳
4	UL2517070404	Base	Q235	1	85	85	支座
3	UL2517070403	Wire Rope Compress Panel	16Mn	3	0.6	1.8	钢丝绳压板
2	UL2517070402	Compress Panel	Q235	1	1.4	1.4	压板
1	UL2517070401	Drum	16Mn	1	180	180	卷筒
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	each	total	NOTE
					WEIGHT		

PROJECT:			DESIGN STAGE:				SCALE: 1:6	
ITEM NAME: 驱动装置 drive device			DRAW NO: UL2517070400					
ZPMC	DSGN	李季	05/12	TRACE			APP.	
	DRAW	王良民	05/12	CHCK			Q'TY/SET	
	CHCK			VER.			SET/CRANE 330	



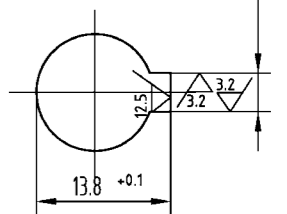
Purchase acc. Drawing
按图定货

ML Type Elastic Connector Shape Dimension
ML 型梅花弹性联轴器外形尺寸
ML1 联轴器 YA12X25
YA10X17



ML Type Elastic Connector Accessories
ML 1 型梅花弹性联轴器标准配件

A View



B5	GB97.2-85	Washer 6	Stainless Steel 不锈钢	12	0.001	0.012	垫圈6
B4	GB6170-86	Nut M6	Stainless Steel 不锈钢	8	0.002	0.016	螺母M6
B3	GB5783-86	Bolt M6X20	Stainless Steel 不锈钢	8	0.005	0.04	螺栓M6X20
B2		Cam Locating Switch		1			凸轮限位开关
B1		ML Type Elastic Connector	YA12X25 YA10X17	1	0.5	0.5	ML 型梅花弹性联轴器 按图定货 ML 1 联轴器
5	UL251707040704	Connecting Panel	Q235	1	0.8	0.8	连接板
3	UL251707040703	Base	Welding 焊接件	1	3.7	3.7	支座
2	UL251707040702	Cover Shell	Welding 焊接件	1	2.6	2.6	罩壳
1	UL251707040701	Shaft	45	1	0.5	0.5	轴

NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	

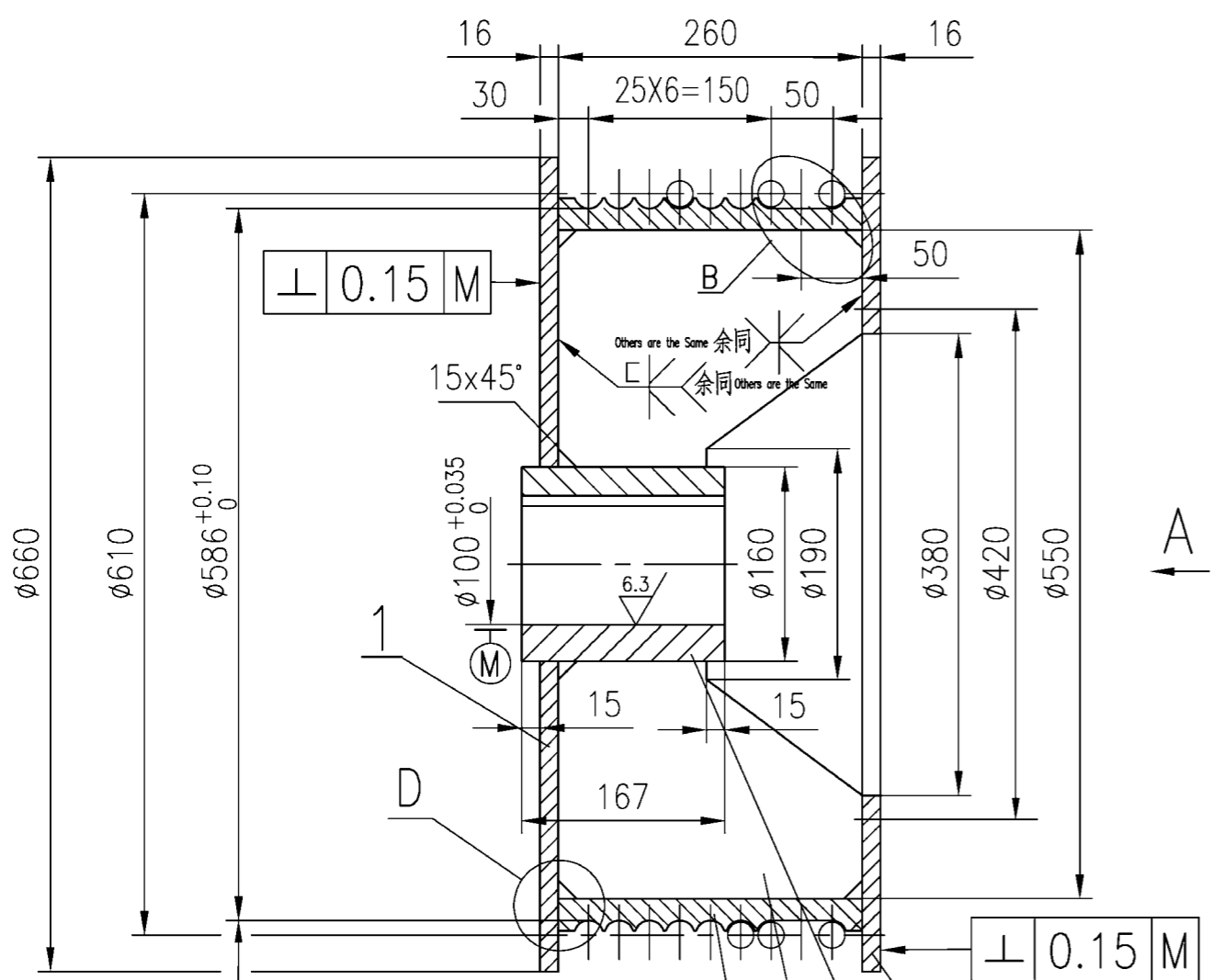
PROJECT: Alabama 2000t/h Ship Unloader DESIGN STAGE: SCALE:

ITEM NAME: 凸轮限位装置
Cam Locating Installation DRAW NO: UL251707040700

B10	GB1095-79	Key 4X22	45	1			键4X22
B9	GB5783-86	Bolt M6X20	Stainless Steel 不锈钢	4	0.005	0.02	螺栓M6X20
B8	GB97.2-85	Washer 8	Stainless Steel 不锈钢	2	0.001	0.002	垫圈8
B7	GB6170-86	Nut M8	Stainless Steel 不锈钢	2	0.002	0.004	螺母M8
B6	GB5782-86	Bolt M8X25	Stainless Steel 不锈钢	2	0.005	0.01	螺栓M8X25

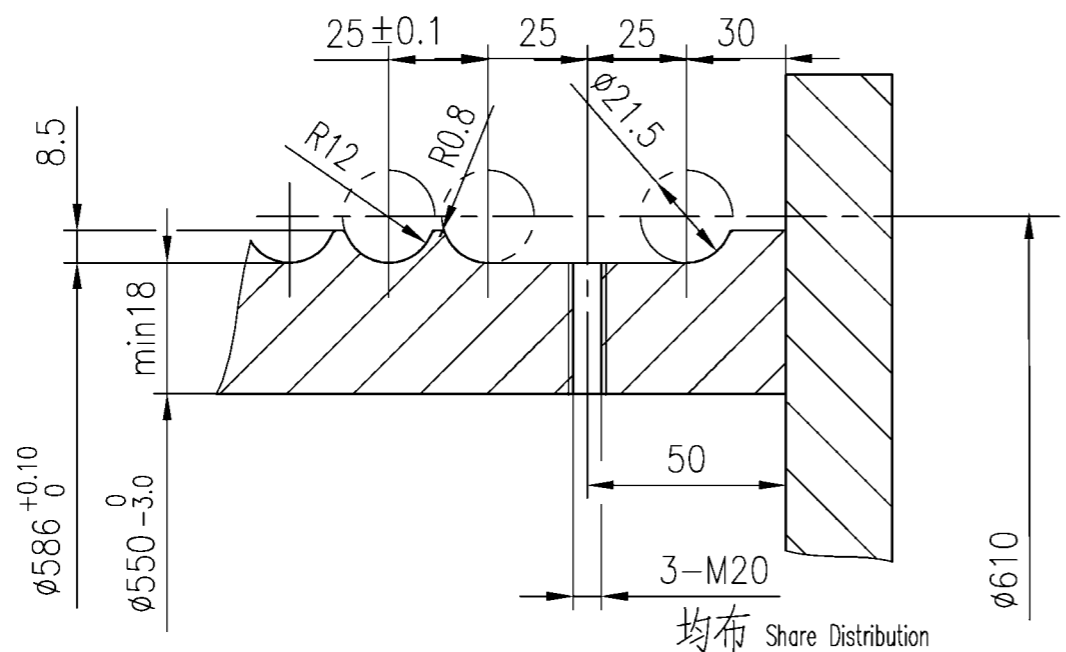
ZPMC	DSGN	李季	05.12	TRACE		APP.	
	DRAW	王叔民	05.12	CHCK		Q'TY/SET	1
	CHCK			VER.		SET/CRANE	8.2

Others 12.5
其余



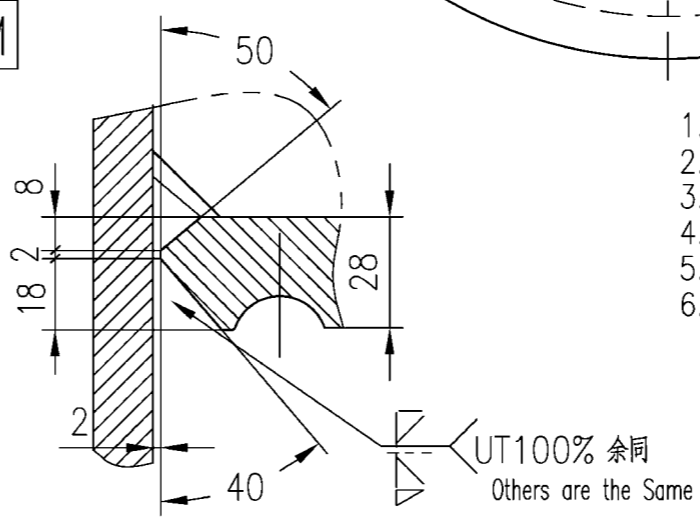
◎	0.08	M
∕	0.08	M

B Zoom
1:2

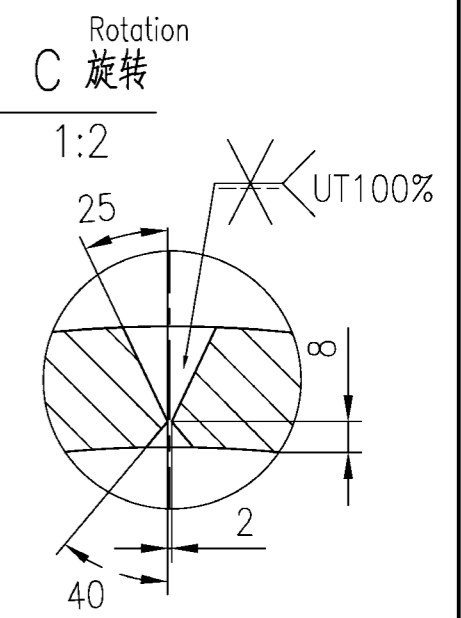
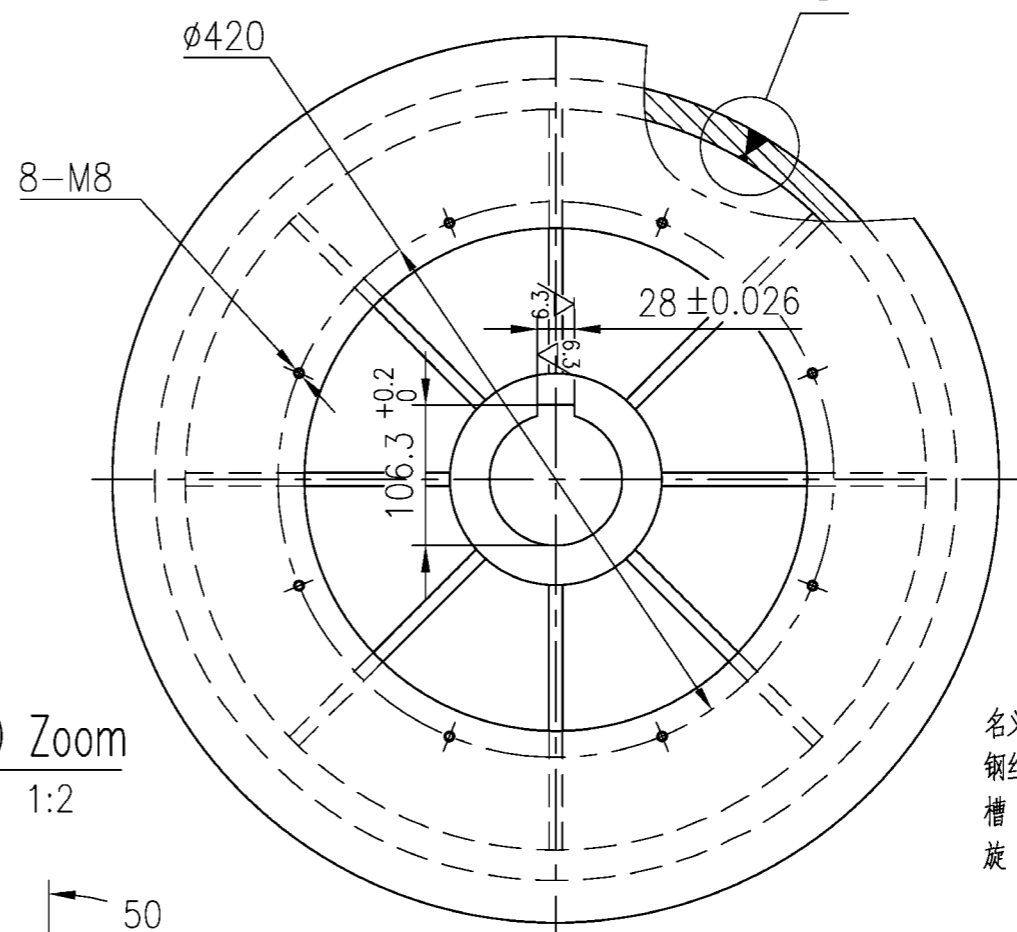


A

D Zoom
1:2



A View



技术参数 Technology Parameters

名义直径	Diameter	φ610mm
钢丝绳直径	Rope Diameter	φ21.5mm
槽距	Groove Distance	25mm
旋向	Screw Direction	左向 Left

技术要求

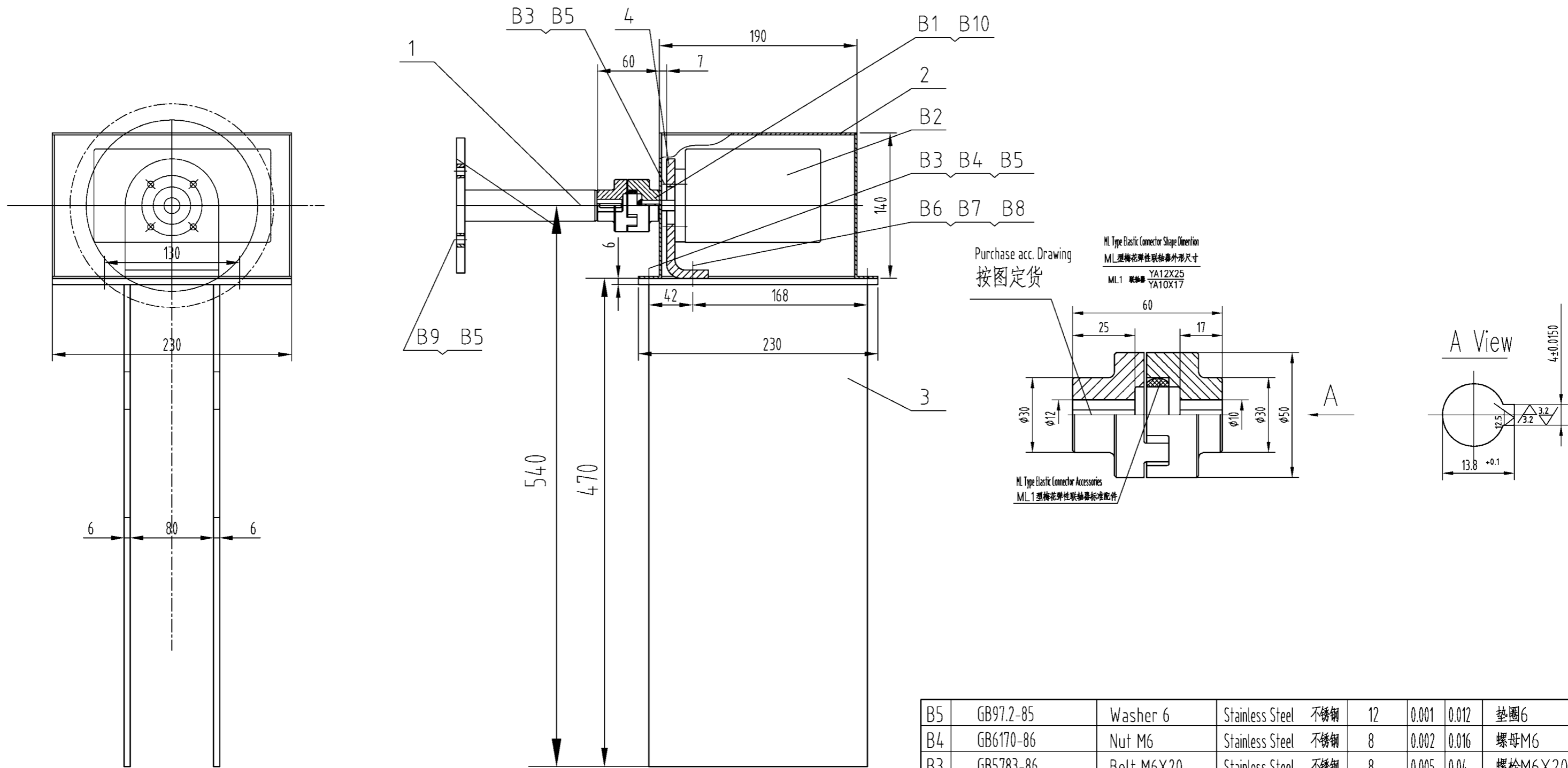
1. 焊条采用E5015, 焊前烘干, 焊丝不低于H10Mn2G+331(焊剂).
2. 件2由钢板卷曲焊接而成.
3. 圆筒(件2)上的对接焊缝和圆筒与件1以及件5的坡口焊缝均射线探伤.
4. 各件焊接后经退火再按图加工.
5. 加工后进行静平衡测定并校正.
6. 件4两端倒角2x45°.

Technology Requirement

1. The type of welding stick adopted is E5015, drying before welding, the solder should be better than H10Mn2G+331.
2. The item2 is bended to be a loop and welded.
3. The welding line of drum body's(item2) and with item1 and item5 and slope welding, should be ray-tested.
4. All the welded should be anneal before processing.
5. It should be taken balance test and adjusted after processed.
6. The shaft ending and hole should filled 2x45°.

5		-16xφ660xφ380	16Mn	1	28.7	28.7	
4		φ160/φ100-167	16Mn	1	16	16	
3		-10x195x260	Q235	8	3.2	25	
2		-28x260x1816	16Mn	1	82	82	
1		-16xφ660xφ160	16Mn	1	40.4	40.4	
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE	
1	UL2517140101	卷筒 Left		1	192	1:6	

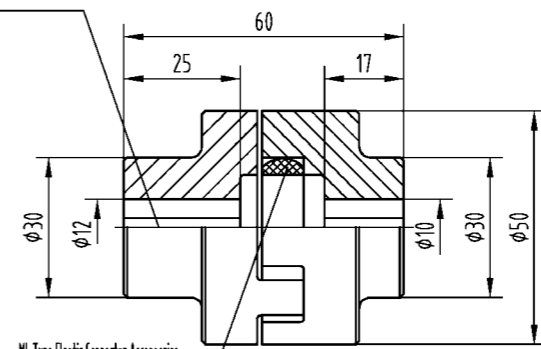
ZPMC	DRAW	李顺	05/12	TECH.		TRACE	
	CHCK	王根民	05/12	STDD		CHCK	



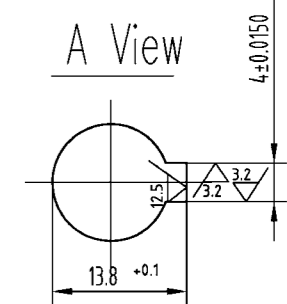
Purchase acc. Drawing
按图定货

ML Type Elastic Connector Shape Dimension
ML 型梅花弹性联轴器外形尺寸

ML1 联轴器 YA12X25
YA10X17



ML Type Elastic Connector Accessories
ML 1 型梅花弹性联轴器标准配件



B10	GB1095-79	Key 4X22	45	1			键4X22
B9	GB5783-86	Bolt M6X20	Stainless Steel 不锈钢	4	0.005	0.02	螺栓M6X20
B8	GB97.2-85	Washer 8	Stainless Steel 不锈钢	2	0.001	0.002	垫圈8
B7	GB6170-86	Nut M8	Stainless Steel 不锈钢	2	0.002	0.004	螺母M8
B6	GB5782-86	Bolt M8X25	Stainless Steel 不锈钢	2	0.005	0.01	螺栓M8X25

B5	GB97.2-85	Washer 6	Stainless Steel 不锈钢	12	0.001	0.012	垫圈6
B4	GB6170-86	Nut M6	Stainless Steel 不锈钢	8	0.002	0.016	螺母M6
B3	GB5783-86	Bolt M6X20	Stainless Steel 不锈钢	8	0.005	0.04	螺栓M6X20
B2		Cam Locating Switch		1			凸轮限位开关
B1		ML Type Elastic Connector	ML 1 联轴器 YA12X25 YA10X17	1	0.5	0.5	ML 型梅花弹性联轴器 按图定货 ML 1 联轴器
4	UL251714.010704	Connecting Panel	Q235	1	0.8	0.8	连接板
3	UL251714.010703	Base	Welding 焊接件	1	3.7	3.7	支座
2	UL251714.010702	Cover Shell	Welding 焊接件	1	2.6	2.6	罩壳
1	UL251714.010701	Shaft	45	1	0.5	0.5	轴

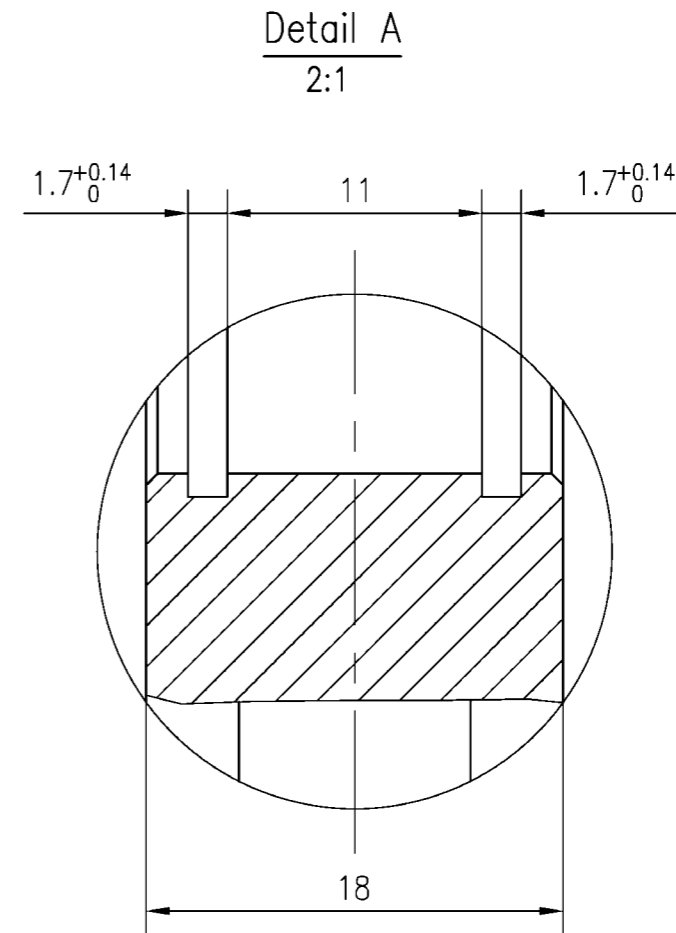
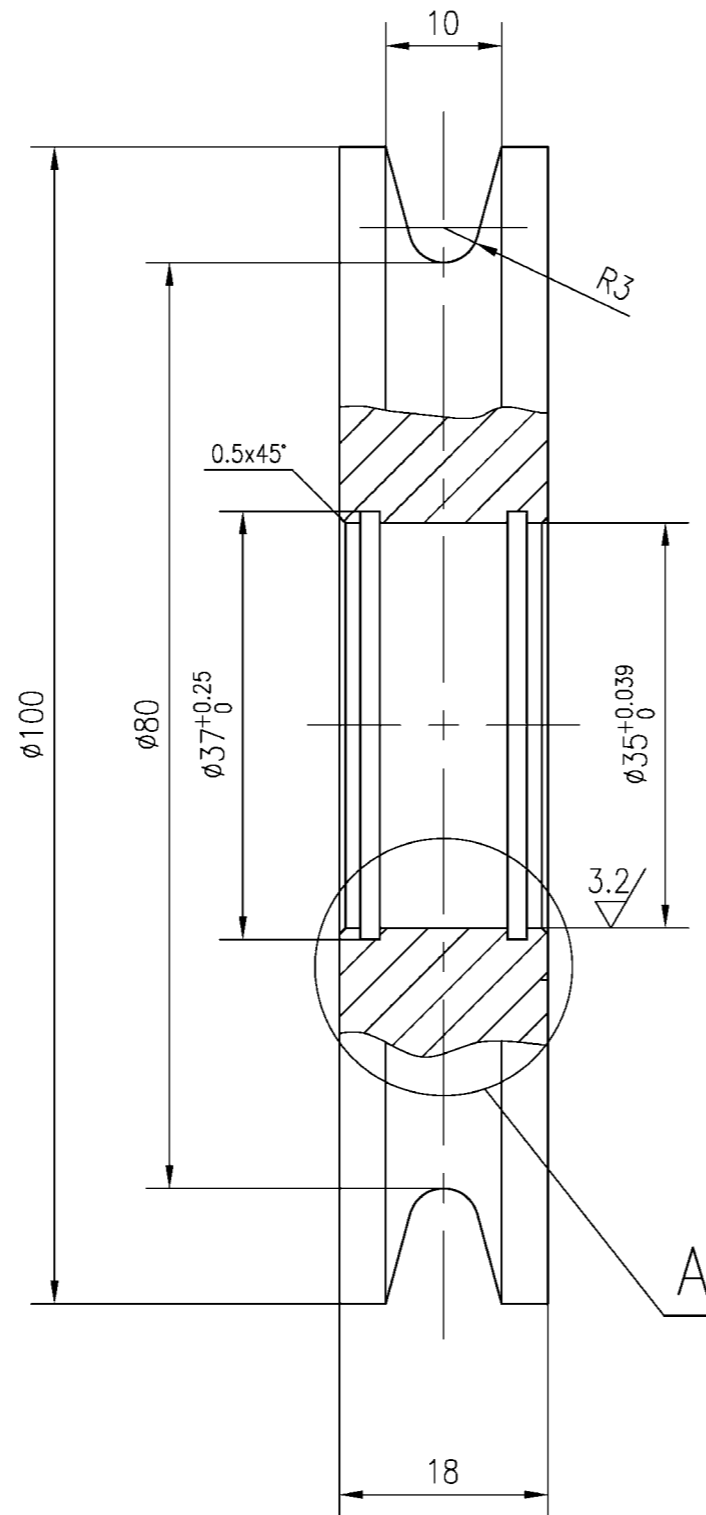
NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	QTY/set	WEIGHT		NOTE
					each	total	

PROJECT: Alabama 2000t/h Ship Unloader DESIGN STAGE: SCALE:

ITEM NAME: 凸轮限位装置
Cam Locating Installation DRAW NO: UL251714.010700

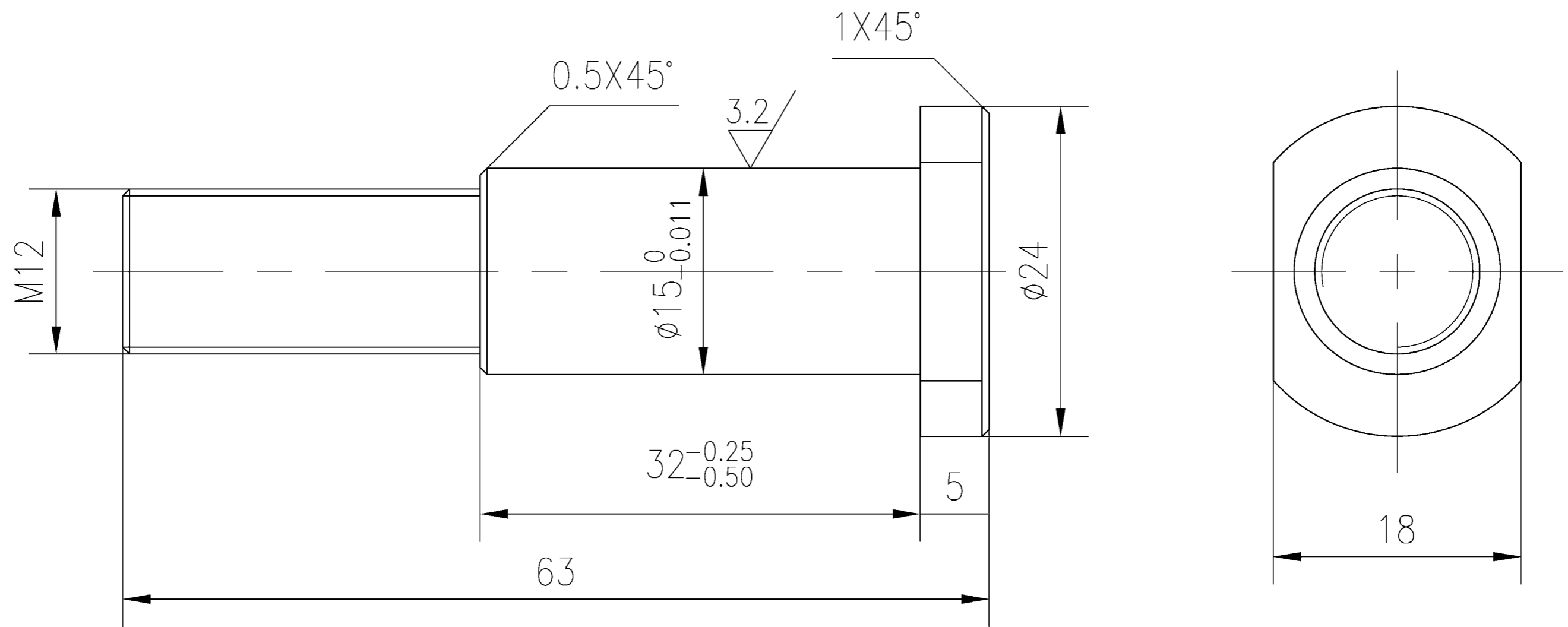
ZPMC	DSGN	李顺	05/12	TRACE		APP.	
	DRAW	李顺	05/12	CHCK		Q'TY/SET	1
	CHCK			VER.		SET/CRANE	8.2

Other $\nabla^{12.5}$



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL2531010302	Pulley	UHMWPE	9	0.72 6.48	1:1
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	

others $\nabla^{12.5}$



NO.	SUB-NO. or STDD	NAME & SIZE	MTRL or STYLE	Q'TY/SET	SET/CRANE	SCALE
	UL2531010303	Shaft	不锈钢	9	0.08 0.72	2:1
ZPMC	DRAW		TECH.		TRACE	
	CHCK		STDD		CHCK	