



O	2010,12,08	DRAWING FOR CONSTRUCTION		Wang L.	Zheng Bo He Tao		
A	2010,09,30	ISSUED FOR APPROAL		Wang L.	Zheng Bo He Tao		
REV.	ISSUE DATE	DESCRIPTION		DRWN.	CHKD. APPVD.		
REVISION LIST							
			QIDONG DAJIANG SHIPBUILDING CO., LTD.	HULL No.	DJ1001-1006		
				GL Reg. No.: 116059~116064			
				DETAIL DESIGN M-49			
				GS-LG5KA-475-001			
DISC.	SIGNATURES		机舱热油管系 THERMAL OIL PIPING SYSTEM IN E/R	SCALE		SHEET	1 OF 13
DISCIPLINE SIGNATURES							
DRWN.	Wang L.			TIGER 5000 5,000CBM LPG CARRIER			
CHKD.	Zheng Bo						
APPVD.	He Tao						
			REV.	O	ISSUE DATE	2010,12,08	
SINOPACIFIC							

SINOPACIFIC			GS—LG5KA—475—001			M—49			SHEET 2 OF 13		
16	TSV16 1202	直通截止阀(金属波纹管密封)	50	球墨铸铁	1	11.7	11.7		AALBORG		
		STOP VALVE(BELLOW SEAL)		NODULAR IRON							
15	TSV15 1401	直通截止阀(金属波纹管密封)	50	球墨铸铁	1	11.7	11.7		AALBORG		
		STOP VALVE(BELLOW SEAL)		NODULAR IRON							
14	TSV14 1402	直通截止阀(金属波纹管密封)	50	球墨铸铁	1	11.7	11.7		AALBORG		
		STOP VALVE(BELLOW SEAL)		NODULAR IRON							
13	TSV13 1011	直通截止阀(金属波纹管密封)	80	球墨铸铁	1	21	21		AALBORG		
		STOP VALVE(BELLOW SEAL)		NODULAR IRON							
12	TSV12 1031	直通截止阀(金属波纹管密封)	80	球墨铸铁	1	21	21		AALBORG		
		STOP VALVE(BELLOW SEAL)		NODULAR IRON							
11	TSV11 1104	流量控制阀	10	钢	1	0.4	0.4		AALBORG		
		FLOW CONTROL VALVE		STEEL							
10	TSV10 1105	流量控制阀	10	钢	1	0.4	0.4		AALBORG		
		FLOW CONTROL VALVE		STEEL							
9	TSV9 1204	流量控制阀	10	钢	1	0.4	0.4		AALBORG		
		FLOW CONTROL VALVE		STEEL							
8	TSV8 1205	流量控制阀	10	钢	1	0.4	0.4		AALBORG		
		FLOW CONTROL VALVE		STEEL							
7	TSV7 AS25032 GB/T591—1993	直通截止止回阀	25	铸铁	1	8.4	8.4				
		STOP CHECK VALVE		CAST IRON							
6	TSV6 PN16	直通截止止回阀(金属波纹管密封)	25	铸钢	1				GL CERT. CLASS II		
		STOP CHECK VALVE(BELLOW SEAL)		CAST STEEL							
5	TSV5 1518	直通截止止回阀(金属波纹管密封)	25	球墨铸铁	1	5.1	5.1		AALBORG		
		STOP CHECK VALVE(BELLOW SEAL)		NODULAR IRON							
4	TSV4 1022	直通截止止回阀(金属波纹管密封)	65	球墨铸铁	1	14.7	14.7		AALBORG		
		STOP CHECK VALVE(BELLOW SEAL)		NODULAR IRON							
3	TSV3 1040	直通截止止回阀(金属波纹管密封)	65	球墨铸铁	1	14.7	14.7		AALBORG		
		STOP CHECK VALVE(BELLOW SEAL)		NODULAR IRON							
2	TSV2 1108	直通截止止回阀(金属波纹管密封)	65	球墨铸铁	1	14.7	14.7		AALBORG		
		STOP CHECK VALVE(BELLOW SEAL)		NODULAR IRON							
1	TSV1 1203	直通截止止回阀(金属波纹管密封)	65	球墨铸铁	1	14.7	14.7		AALBORG		
		STOP CHECK VALVE(BELLOW SEAL)		NODULAR IRON							
序号	代 号	名 称	口径 (mm)	材 料	数量	单件 (kg)	总计 (kg)	附 注			
NO.	STANDARD OR DRAWING NO.	NAME	NOM. DIA. (mm)	MATERIAL	QTY.	WEIGHT (kg)		REMARKS			

SINOPACIFIC			GS—LG5KA—475—001			M—49		SHEET 3 OF 13	
32	TSV34 AS16020 GB/T590—1993	直通截止阀	20	铸铁	1	6.17	6.17		
		STOP VALVE		CAST IRON					
31	TSV33 1301	直通截止阀	25	球墨铸铁	1	5.1	5.1	AALBORG NORMAL CLOSED	
		STOP VALVE		NODULAR IRON					
30	TSV32 AS16032 GB/T590—1993	直通截止阀	32	铸铁	1	8.6	8.6		
		STOP VALVE		CAST IRON					
29	TSV31 AS16050 GB/T590—1993	直通截止阀	50	铸铁	1	14.2	14.2		
		STOP VALVE		CAST IRON					
28	TSV30 1013	直通截止阀(金属波纹管密封)	15	球墨铸铁	1	3.7	3.7	AALBORG	
		STOP VALVE(BELLOW SEAL)		NODULAR IRON					
27	TSV29 1023	直通截止阀(金属波纹管密封)	15	球墨铸铁	1	3.7	3.7	AALBORG	
		STOP VALVE(BELLOW SEAL)		NODULAR IRON					
26	TSV28 1033	直通截止阀(金属波纹管密封)	15	球墨铸铁	1	3.7	3.7	AALBORG	
		STOP VALVE(BELLOW SEAL)		NODULAR IRON					
25	TSV25~TSV27 PN16	直通截止阀(金属波纹管密封)	25	铸钢	3			GL CERT. CLASS II	
		STOP VALVE(BELLOW SEAL)		CAST STEEL					
24	TSV24 1107	直通截止阀(金属波纹管密封)	25	球墨铸铁	1	5.1	5.1	AALBORG	
		STOP VALVE(BELLOW SEAL)		NODULAR IRON					
23	TSV23 1206	直通截止阀(金属波纹管密封)	25	球墨铸铁	1	5.1	5.1	AALBORG NORMAL CLOSED	
		STOP VALVE(BELLOW SEAL)		NODULAR IRON					
22	TSV22 1511	直通截止阀(金属波纹管密封)	25	球墨铸铁	1	5.1	5.1	AALBORG	
		STOP VALVE(BELLOW SEAL)		NODULAR IRON					
21	TSV21 1517	直通截止阀(金属波纹管密封)	25	球墨铸铁	1	5.1	5.1	AALBORG	
		STOP VALVE(BELLOW SEAL)		NODULAR IRON					
20	TSV20 PN16	直通截止阀(金属波纹管密封)	32	铸钢	1			GL CERT. CLASS II	
		STOP VALVE(BELLOW SEAL)		CAST STEEL					
19	TSV19 1207	直通截止阀(金属波纹管密封)	40	球墨铸铁	1	8.8	8.8	AALBORG NORMAL CLOSED	
		STOP VALVE(BELLOW SEAL)		NODULAR IRON					
18	TSV18 1403	直通截止阀(金属波纹管密封)	40	球墨铸铁	1	8.8	8.8	AALBORG NORMAL CLOSED	
		STOP VALVE(BELLOW SEAL)		NODULAR IRON					
17	TSV17 1109	直通截止阀(金属波纹管密封)	50	球墨铸铁	1	11.7	11.7	AALBORG	
		STOP VALVE(BELLOW SEAL)		NODULAR IRON					
序号	代 号	名 称	口径 (mm)	材 料	数量	单件 (kg)	总计 (kg)	附 注	
NO.	STANDARD OR DRAWING NO.	NAME	NOM. DIA. (mm)	MATERIAL	QTY.	WEIGHT (kg)		REMARKS	

SINOPACIFIC			GS-LG5KA-475-001		M-49		SHEET 4 OF 13	
42	TSV45 PN16	直角截止回阀(金属波纹管密封) ANGLE STOP CHECK VALVE(BELLOW SEAL)	20	铸钢 CAST STEEL	1			GL CERT. CLASS II
41	TSV44 PN16	板型止回阀(金属波纹管密封) PLATE CHECK VALVE(BELLOW SEAL)	40	铸钢 CAST STEEL	1			GL CERT. CLASS II
40	TSV43 1101	气动三通快关阀(金属波纹管密封) QUICK CLOSING 3-WAY VALVE(BELLOW SEAL)	65	球墨铸铁 NODULAR IRON	1	47	47	AALBORG WITH LIMIT SWITCH
39	TSV42 1201	气动三通快关阀(金属波纹管密封) QUICK CLOSING 3-WAY VALVE(BELLOW SEAL)	65	球墨铸铁 NODULAR IRON	1	47	47	AALBORG WITH LIMIT SWITCH
38	TSV41 1302	自闭式泄放阀(金属波纹管密封) SELF CLOSING DRAIN VALVE(BELLOW SEAL)	25	铸钢 CAST STEEL	1	5.3	5.3	AALBORG NORMAL CLOSED
37	TSV40 1304	气动快开阀(金属波纹管密封) QUICK OPENING 2-WAY VALVE(BELLOW SEAL)	40	球墨铸铁 NODULAR IRON	1	22	22	AALBORG WITH LIMIT SWITCH
36	TSV38~TSV39 PN16	直角截止阀(金属波纹管密封) ANGLE STOP VALVE(BELLOW SEAL)	32	铸钢 CAST STEEL	2			GL CERT. CLASS II
35	TSV37 1400	二通电磁阀(金属波纹管密封) ELECTRIC 2-WAY CONTROL VALVE(BELLOW SEAL)	40	球墨铸铁 NODULAR IRON	1	19.5	19.5	AALBORG
34	TSV36 1106	直角安全阀 ANGLE SAFETY VALVE	25/40	球墨铸铁 NODULAR IRON	1	10	10	AALBORG
33	TSV35 1208	直角安全阀 ANGLE SAFETY VALVE	25/40	球墨铸铁 NODULAR IRON	1	10	10	AALBORG
序号	代 号	名 称	口径 (mm)	材 料	数量	单件 (kg)	总计 (kg)	附 注
NO.	STANDARD OR DRAWING NO.	NAME	NOM. DIA. (mm)	MATERIAL	QTY.	WEIGHT (kg)		REMARKS

SINOPACIFIC			GS-LG5KA-475-001		M-49		SHEET 5 OF 13	
16	TSF16 1404~1405	压力传感器及旋塞	1/2"	组合件	1			AALBORG
		PRESSURE TRANSMITTER WITH COCK		ASSEMBLY				
15	TSF15 1018	膨胀接头	65	钢	1	7.3	7.3	AALBORG
		EXPANSION JOINT		STEEL				
14	TSF14 1017	膨胀接头	80	钢	1	9.1	9.1	AALBORG
		EXPANSION JOINT		STEEL				
13	TSF13 1512	滤器	25	球墨铸铁	1	5.5	5.5	AALBORG
		STRAINER		NODULAR IRON				
12	TSF12 1012	滤器	80	球墨铸铁	1	21	21	AALBORG
		STRAINER		NODULAR IRON				
11	TSF11 1032	滤器	80	球墨铸铁	1	21	21	AALBORG
		STRAINER		NODULAR IRON				
10	TSF10	真空压力表及旋塞		组合件	1			
		COMPOUND GAUGE WITH COCK		ASSEMBLY				
9	TSF9 1513~1514	真空压力表及旋塞	1/2"	组合件	1	1.45	1.45	AALBORG
		COMPOUND GAUGE WITH COCK		ASSEMBLY				
8	TSF8 1515~1516	压力表及旋塞	1/2"	组合件	1	1.45	1.45	AALBORG
		PRESSURE GAUGE WITH COCK		ASSEMBLY				
7	TSF7 1037~1039	压力表及旋塞		组合件	1			AALBORG
		PRESSURE GAUGE WITH COCK		ASSEMBLY				
6	TSF6 1034~1036	压力表及旋塞		组合件	1			AALBORG
		PRESSURE GAUGE WITH COCK		ASSEMBLY				
5	TSF5 1019~1021	压力表及旋塞		组合件	1			AALBORG
		PRESSURE GAUGE WITH COCK		ASSEMBLY				
4	TSF4 1014~1016	压力表及旋塞		组合件	1			AALBORG
		PRESSURE GAUGE WITH COCK		ASSEMBLY				
3	TSF3	压力表及旋塞		组合件	1			
		PRESSURE GAUGE WITH COCK		ASSEMBLY				
2	TSF2 40S17	液位开关		组合件	1	2.5	2.5	AALBORG
		LEVEL SWITCH		ASSEMBLY				
1	TSF1 40S14	液位开关		组合件	1	2.5	2.5	AALBORG
		LEVEL SWITCH		ASSEMBLY				
序号	代 号	名 称	口径 (mm)	材 料	数量	单件 (kg)	总计 (kg)	附 注
NO.	STANDARD OR DRAWING NO.	NAME	NOM. DIA. (mm)	MATERIAL	QTY.	WEIGHT (kg)		REMARKS

SINOPACIFIC			GS-LG5KA-475-001		M-49		SHEET 6 OF 13	
30	TSF36	液位开关 LEVEL SWITCH		组合件 ASSEMBLY	1			
29	TSF33 1002	温度阻塞管 TEMPERATURE BLOCKING PIPE		组合件 ASSEMBLY	1	20	20	
28	TSF32	除气筒 DE-AERATING PIPE		组合件 ASSEMBLY	1			(MOUNTING HORIZONTAL ONLY)
27	TSF31 1001	除气筒 DE-AERATING PIPE		组合件 ASSEMBLY	1	8.8	8.8	
26	TSF30 91S2	压差开关 DIFFERENTIAL PRESS.SWICH		组合件 ASSEMBLY	1	1.8	1.8	AALBORG 0~0.6MPa
25	TSF29 142S7	压差开关 DIFFERENTIAL PRESS.SWICH		组合件 ASSEMBLY	1	1.8	1.8	AALBORG 0~0.6MPa
24	TSF28 141S16	高温报警 HIGH TEMP. ALARM		组合件 ASSEMBLY	1	0.8	0.8	AALBORG Max.300 C
23	TSF27 141S18	低温报警 LOW TEMP. ALARM		组合件 ASSEMBLY	1	0.8	0.8	AALBORG Max.300 C
22	TSF26 1024~1025	压力开关及旋塞 PRESSURE SWITCH WITH COCK	1/2"	组合件 ASSEMBLY	1			AALBORG
21	TSF25	漏斗 HOPPER	32	组合件 ASSEMBLY	1			
20	TSF24 40B2	温度传感器 TEMPERATURE TRANSMITTER		组合件 ASSEMBLY	1	0.5	0.5	AALBORG
19	TSF21~TSF23	温度传感器 TEMPERATURE TRANSMITTER		组合件 ASSEMBLY	3			
18	TSF20 BS10025 GB/T4450-1995	双眼盲板法兰 SPECTACLE FLANGE	25	钢 STEEL	1	2.28	2.28	
17	TSF17~TSF18 AS6032 CB/T3657-1994	油污水通岸接头 OILY WATER SHORE CONN.	32	钢 STEEL	2	12.6	25.2	GL CERT. CLASS II
序号	代 号	名 称	口径 (mm)	材 料	数量	单件 (kg)	总计 (kg)	附 注
NO.	STANDARD OR DRAWING NO.	NAME	NOM. DIA. (mm)	MATERIAL	QTY.	WEIGHT (kg)		REMARKS

SINOPACIFIC		GS-LG5KA-475-001		M-49		SHEET 8 OF 13
热油溢流管	40	ø48x4	无缝钢管	1	6	CLASS II
THERMAL OIL OVERFLOW PIPE			SEAMLESS STEEL PIPE			TS56(DN40)B
热油泄放管	15	ø22x3	无缝钢管	2	4	CLASS II
THERMAL OIL DRAIN PIPE			SEAMLESS STEEL PIPE			TS54(DN15)B~TS55(DN15)B
热油泄放管	25	ø34x3.5	无缝钢管	15	60	CLASS II
THERMAL OIL DRAIN PIPE			SEAMLESS STEEL PIPE			TS53(DN25)B
热油泄放管	32	ø42x3.5	无缝钢管	1	4	CLASS II
THERMAL OIL DRAIN PIPE			SEAMLESS STEEL PIPE			TS52(DN32)B
热油泄放管	40	ø48x4	无缝钢管	10	51	CLASS II
THERMAL OIL DRAIN PIPE			SEAMLESS STEEL PIPE			TS49(DN40)B~TS51(DN40)B
热油输送管	25	ø34x3.5	无缝钢管	40	152	CLASS II
THERMAL OIL TRANS. PIPE			SEAMLESS STEEL PIPE			TS41(DN25)B~TS47(DN25)B
热油输送管	32	ø42x3.5	无缝钢管	25	96	CLASS II
THERMAL OIL TRANS. PIPE			SEAMLESS STEEL PIPE			TS39(DN32)B~TS40(DN32)B
热油加热管	15	ø22x3	无缝钢管	1	2	CLASS II
THERMAL OIL HEATING PIPE			SEAMLESS STEEL PIPE			TS38(DN15)B
热油加热管	25	ø34x3.5	无缝钢管	20	61	CLASS II
THERMAL OIL HEATING PIPE			SEAMLESS STEEL PIPE			TS33(DN25)B~TS37(DN25)B
热油加热管	32	ø42x3.5	无缝钢管	10	39	CLASS II
THERMAL OIL HEATING PIPE			SEAMLESS STEEL PIPE			TS31(DN32)B~TS32(DN32)B
热油加热管	40	ø48x4	无缝钢管	15	76	CLASS II
THERMAL OIL HEATING PIPE			SEAMLESS STEEL PIPE			TS26(DN40)B~TS30(DN40)B
热油加热管	65	ø76x5	无缝钢管	50	607	CLASS II
THERMAL OIL HEATING PIPE			SEAMLESS STEEL PIPE			TS10(DN65)B~TS25(DN65)B
热油加热管	80	ø89x5.5	无缝钢管	15	197	CLASS II
THERMAL OIL HEATING PIPE			SEAMLESS STEEL PIPE			TS7(DN80)B~TS9(DN80)B
淡水管	20	ø27x3	无缝钢管(镀锌)	10	31	CLASS III
FRESH WATER PIPE			GALV. SEAMLESS STEEL PIPE			TS4(DN20)B~TS6(DN20)B
淡水管	32	ø42x3.5	无缝钢管(镀锌)	10	39	CLASS III
FRESH WATER PIPE			GALV. SEAMLESS STEEL PIPE			TS2(DN32)B~TS3(DN32)B
淡水管	50	ø60x4	无缝钢管(镀锌)	1	7	CLASS III
FRESH WATER PIPE			GALV. SEAMLESS STEEL PIPE			TS1(DN50)B
管子用途	口径	管子规格	材料	估计长度	估计重量	附注
PURPOSE OF PIPES	NOM. DIA. (mm)	O.D.xTHICK (mmxmm)	MATERIAL	LENGTH (m)	ABOUT WEIGHT (kg)	REMARKS

SINOPACIFIC			GS-LG5KA-475-001			M-49		SHEET 10 OF 13	
透气管	25	0.4	32	法兰	ISO 0.6 MPa	非石棉	钢镀锌	0.60	FUNCTION TEST
VENT PIPE				FLANGE	GB2501-1989	NON-ASBESTOS	GALV. ST.		
淡水管	ALL	0.6	32	法兰	ISO 1.0 MPa	非石棉	钢镀锌	0.9	FUNCTION TEST
FRESH PIPE				FLANGE	GB2501-1989	NON-ASBESTOS	GALV. ST.		
热油泄放管	ALL	1.0	280	套筒焊				1.5	FUNCTION TEST
THERMAL OIL DRAIN PIPE				SLEEVE WELDED					
热油溢流管	40	1.0	280	套筒焊				1.5	FUNCTION TEST
THERMAL OIL OVERFLOW PIPE				SLEEVE WELDED					
热油加热管	DN>50	1.0	280	对接焊					
THERMAL OIL HEATING PIPE				BUTT WELDED					
热油加热管	DN≤50	1.0	280	套筒焊				1.5	FUNCTION TEST
THERMAL OIL HEATING PIPE				SLEEVE WELDED					
热油输送管	25	0.4	32	套筒焊				0.60	FUNCTION TEST
THERMAL OIL TRANS. PIPE				SLEEVE WELDED					
管子用途	口径	压力	温度	型式	标准	垫片	螺栓螺母	车间	船上
PURPOSE OF PIPES	NOM. DIA. (mm)	PRESS. (MPa)	TEMP. (°C)	TYPE	STANDARD	GASKET	BOLT & NUT	WORKSHOP	ON BOARD
		工作介质 WORKING MEDIUM		管子连接 PIPE CONNECTION				压力试验(MPa) PRESSURE TEST	

说明(NOTES):

1. 未编号的附件均为设备带.

ACCESSORIES WHICH ARE NOT NUMBERED ARE SUPPLIED
BY EQUIPMENT'S MAKER.

2. 管路符号(PIPE SYMBOL:):

热油管路

THERMAL OIL PIPE



淡水管路

FRESH WATER PIPE



透气管路

VENT PIPE



3. 详图X (DETAIL X):



