EPC for Onshore Processing Facilities and Associated Onshore Pipelines for Aung Sinkha Development Project (ASK) Phase 1A

DATASHEET
FOR
BARRED TEE

A1	2-Jul-26	LF	WYW	Issued for Review	LZL	LPP		
REV	**DATE**	**MEC**	**PLR**	**DESCRIPTION**	**CHECK**	**APPR.**	**CHECK**	**APPR.**
		BY			**ENGINEERING APPROVAL**		**COMPANY APPROVAL**	

REVISION CODE: A = Issued for Review – B = Issued for Approval – C = Approved for Construction

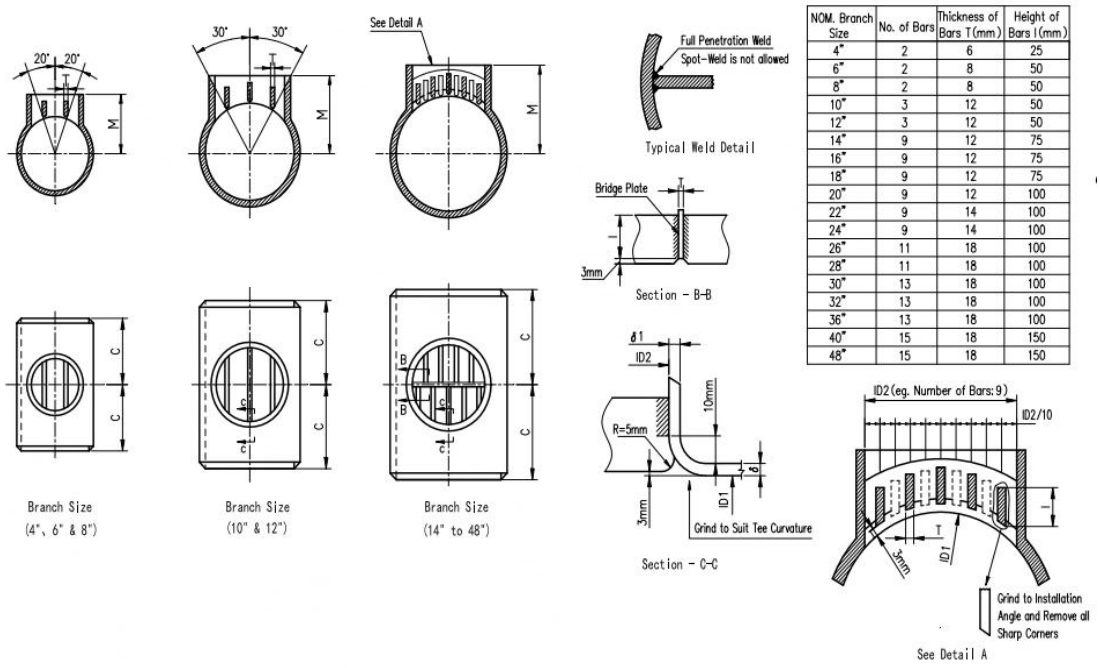
PTTEP	**PTTEP INTERNATIONAL LIMITED**	
	EPC for Onshore Processing Facilities and Associated Onshore Pipelines for Aung Sinkha Development Project (ASK) Phase 1A	
	MM-ASK-1A-APL01-PLR-DTS-0002	REV A1

	中国电工 CNEEC CPECC	DOCUMENT NO. MM-ASK-1A-APL01-PLR-DTS-0002 REVISION NO. A1 SHEET 2 of 4		Revision
	PARAMETER	**UNIT**	**VALUE**	
1	**GENERAL DESIGN DATA**			
2	TAG NO.	-	BRT-20000/BRT-20001	A1
3	LOCATION	-	ABV01	A1
4	QUANTITY	-	2	
5	DESIGN CODE	-	MSS-SP-75 and ASME B31.8 latest edition	A1
6	DESIGN PRESSURE	barg	70	A1
7	DESIGN TEMPERATURE (MIN. / MAX.)	°C	-29/70	A1
8	CORROSION ALLOWANCE （MAIN /BRANCH)	mm	5.6/6	A1
9	DESIGN LIFE (OPERATIONAL)	years	20	
10	DESIGN FACTOR	-	0.6	A1
11	PRESSURE CLASS RATING	-	#600	A1
12	SERVICE	-	Gas & Condensate	A1
13	DIMENSIONS - SIZE	NPS	20" x 20" ×12"	A1
14	- WALL THICKNESS (MAIN / BRANCH)	mm	(NOTE 3)	
15	- HEIGHT OF BARS	mm	As per Figure 1	A1
16	- REFERENCE DRAWING	-	Figure 1	
17	BAR THICKNESS	mm	VTA (NOTE 4)	
18	DRY WEIGHT	kg	VTA	
19	WELD TEST RING	-	3 Pieces (NOTE 7)	
20	SURFACE PREPARATION AND COATING	-	As per 10008-STD-6-COR-003	A1
21	**MATCHING PIPE**			
22	DESIGN CODE		ASME B31.8 latest edition	A1
23	INSIDE DIAMETER (MAIN / BRANCH)	mm	508 / 323.8	A1
24	LINE PIPE WALL THK. (MAIN / BRANCH)	mm	14.3 / 21.44	A1
25	MATERIAL (MAIN / BRANCH)	-	API 5L PLS 2 X65 / ASTM A333 Gr 6 seamless	A1
26	CONNECTION TYPE	-	Butt-Welded	
27	PIPE ORIENTATION	-	Horizontal	
28	**MATERIAL REQUIREMENTS (NOTE 5)**			
29	TEE MATERIAL	-	ASTM A694 F65	
30	LINE PIPE MATERIAL	-	API 5L PSL 2 X65 (LSAW)	A1
31	PLATE MATERIAL	-	ASTM A283	
32	**INSPECTION AND TESTING REQUIREMENTS**			
33	INSPECTION & TESTING	-	10008-STD-6-PLR-011 and MM-ASK-1A-APL01-PLR-SPE-0001	A1
34	NDT	-	100% in accordance with ASME BPVC SECTION V	
35	MILL HYDROTEST PRESSURE	barg	87.5	A1
36	TEST CERTIFICATE REQUIREMENTS	-	BS EN 10204 - TYPE 3.2,Note 5	A1
37	CHARPY V IMPACT TEST	-		
38	TEST TEMPERATURE	°C	-29	A1
39	ABSORBED ENERGY (MIN. AVERAGE)	J	54	
40	ABSORBED ENERGY (MIN. SINGLE)	J	40	
41	HARDNESS TEST	-	250HV10	

	中国电工 CNEEC CPECC	DOCUMENT NO. MM-ASK-1A-APL01-PLR-DTS-0002 REVISION NO. A1 SHEET 3 of 4		Revision
	PARAMETER	**UNIT**	**VALUE**	
1	**GENERAL DESIGN DATA**			
2	TAG NO.	-	BRT-25001	A1
3	LOCATION	-	INLET FACILITY	A1
4	QUANTITY	-	1	
5	DESIGN CODE	-	MSS-SP-75 and ASME B31.8 latest edition	A1
6	DESIGN PRESSURE	barg	70	A1
7	DESIGN TEMPERATURE (MIN. / MAX.)	°C	-29~70	A1
8	CORROSION ALLOWANCE （MAIN /BRANCH)	mm	5.6/6	A1
9	DESIGN LIFE (OPERATIONAL)	years	20	
10	DESIGN FACTOR	-	0.6	A1
11	PRESSURE CLASS RATING	-	#600	A1
12	SERVICE	-	Gas & Condensate	A1
13	DIMENSIONS - SIZE	NPS	20" x 20" ×18"	A1
14	- WALL THICKNESS (MAIN / BRANCH)	mm	(NOTE 3)	
15	- HEIGHT OF BARS	mm	As per Figure 1	A1
16	- REFERENCE DRAWING	-	Figure 1	
17	BAR THICKNESS	mm	VTA (NOTE 4)	
18	DRY WEIGHT	kg	VTA	
19	WELD TEST RING	-	3 Pieces (NOTE 7)	
20	SURFACE PREPARATION AND COATING	-	As per 10008-STD-6-COR-003	A1
21	**MATCHING PIPE**			
22	DESIGN CODE		ASME B31.8 latest edition	A1
23	INSIDE DIAMETER (MAIN / BRANCH)	mm	508 / 457.2	A1
24	LINE PIPE WALL THK. (MAIN / BRANCH)	mm	14.3 / 29.4	A1
25	MATERIAL (MAIN / BRANCH)	-	API 5L PSL 2 X65 / ASTM A333 Gr 6 seamless	A1
26	CONNECTION TYPE	-	Butt-Welded	
27	PIPE ORIENTATION	-	Horizontal	
28	**MATERIAL REQUIREMENTS (NOTE 5)**			
29	TEE MATERIAL	-	ASTM A694 F65	
30	LINE PIPE MATERIAL	-	API 5L PSL 2 X65 (LSAW)	A1
31	PLATE MATERIAL	-	ASTM A283	
32	**INSPECTION AND TESTING REQUIREMENTS**			
33	INSPECTION & TESTING	-	10008-STD-6-PLR-011 and MM-ASK-1A-APL01-PLR-SPE-0001	A1
34	NDT	-	100% in accordance with ASME BPVC SECTION V	
35	MILL HYDROTEST PRESSURE	barg	87.5	A1
36	TEST CERTIFICATE REQUIREMENTS	-	BS EN 10204 - TYPE 3.2,Note 5	A1
37	CHARPY V IMPACT TEST	-		
38	TEST TEMPERATURE	°C	-29	A1
39	ABSORBED ENERGY (MIN. AVERAGE)	J	54	
40	ABSORBED ENERGY (MIN. SINGLE)	J	40	
41	HARDNESS TEST	-	250HV10	

TYPICAL DRAWING

FIGURE 1: TYPICAL BARRED TEE DETAILS



NOM. Branch Size	No. of Bars	Thickness of Bars T(mm)	Height of Bars l(mm)
4"	2	6	25
6"	2	8	50
8"	2	8	50
10"	3	12	50
12"	3	12	50
14"	9	12	75
16"	9	12	75
18"	9	12	75
20"	9	12	100
22"	9	14	100
24"	9	14	100
26"	11	18	100
28"	11	18	100
30"	13	18	100
32"	13	18	100
36"	13	18	100
40"	15	18	150
48"	15	18	150

NOTES:

1 VTA = VENDOR to advise.

2 All barred tee's shall be suitable for pigging operations. The VENDOR shall verify the internal diameter of each fabricated barred tee in order to match internal diameter of the connecting pipe. The minimum internal diameter of the completed barred tees shall be confirmed for smooth passage of pigs by passing an internal gauge through the full length of the bore. The pig gauge shall have 2 equispaced and parallel 6 mm thick aluminium circular plates, each at least 96% of, or 4 mm less than, the internal nominal bore of the matching line pipe, whichever is the greater, separated by a rigid bar of total length once the specified Nominal ID A1

3 The minimum wall thickness of barred tee shall not be less than the connecting pipe. The wall thickness shall be calculated and guaranteed by VENDOR. The design shall be adequate for test pressure.

4 Bar thickness in Figure 1 is preliminary only. VENDOR to advise the actual thickness based on vibration analysis, but must not be less than 1/2". The bar shall be full penetration welded before final heat treatment. The analysis shall be submitted for review.

5 All materials shall be supplied with mill test certificates.Material traceability shall be in accordance with 10008-STD-6-GEN-007 "Material Traceability". A1

6 All welds, welding procedure qualifications, and welder qualifications shall be strictly in accordance with ASME BPVC Section IX, API Standard 1104, 10008-STD-6-PLR-011, and MM-ASK-1A-APL01-PLR-SPE-0001.

7 VENDOR shall provide 3 pieces of weld test rings (350 mm length) for each heat no. of barred tee material.

8 Barred tee to be supplied with a SS 316L tag stamped securely fixed to the body of the tee. the tag nos. shall be in upper case, sans serif font of size minimum 4mm, black in colour, and on white background. A1

9 VENDOR shall provide design calculations using non-linear Finite Element Analysis as per ASME VIII, Division 2, Appendix 4 or an approved equivalent standard, together with fabrication drawings, all for for CONTRACTOR/COMPANY review and approval. A1

10 Inside surfaces of bars / welds shall be ground smooth.

11 Severe sour service shall be considered.All material shall comply with the COMPANY specification 10008-STD-6-COR-032 "Material for Sour Service". A1