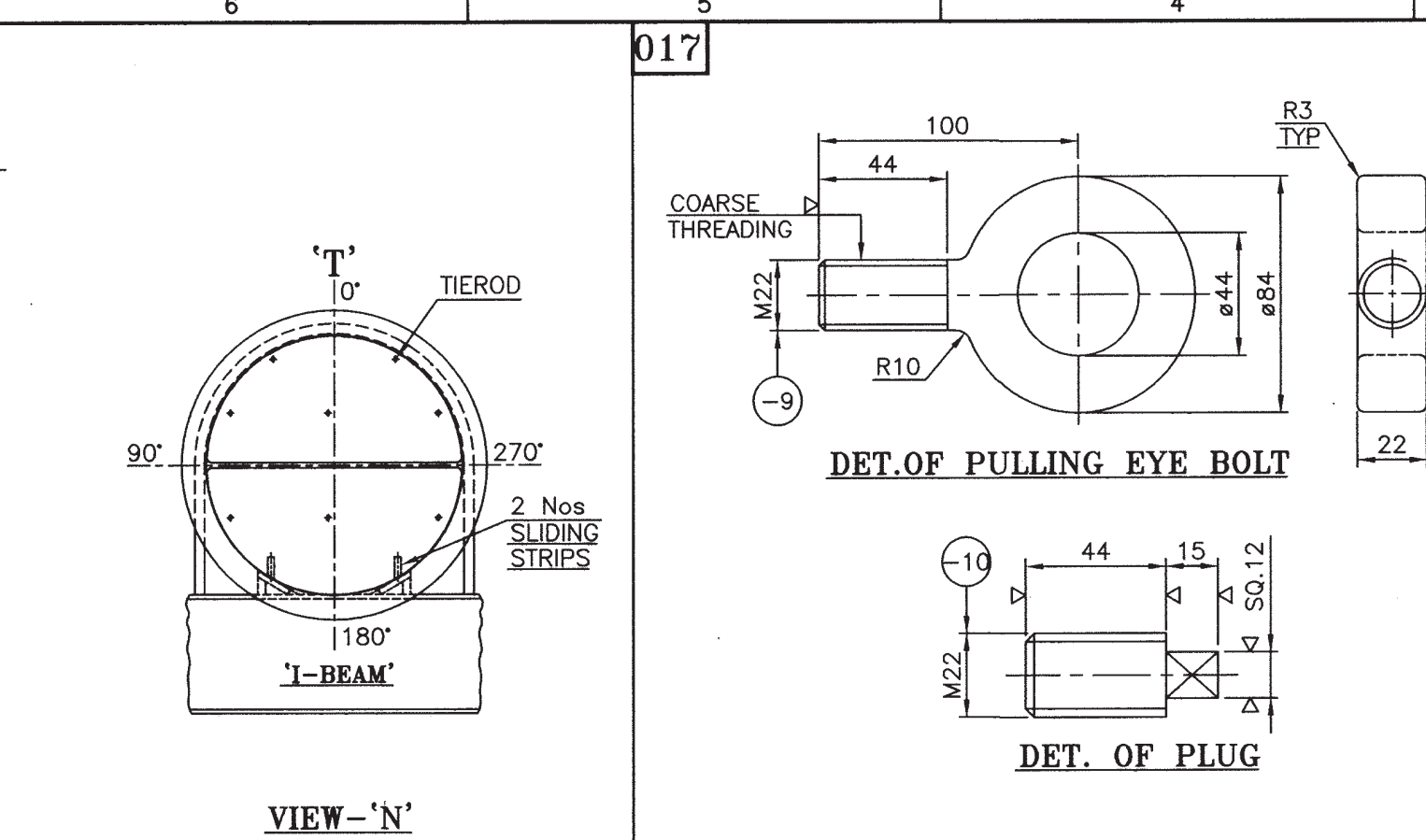
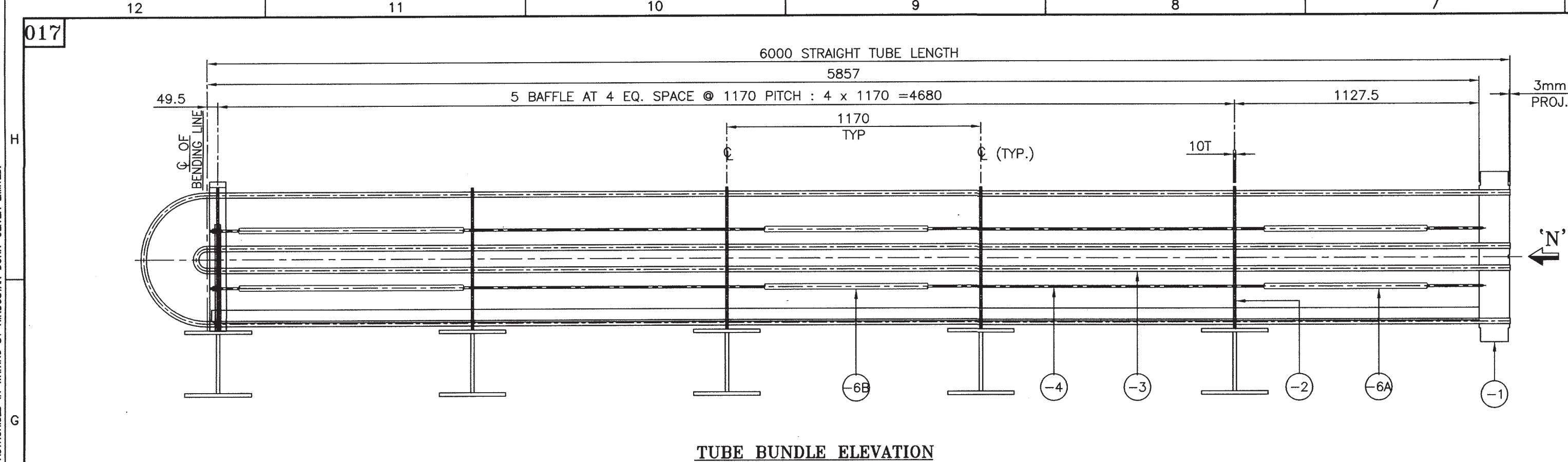


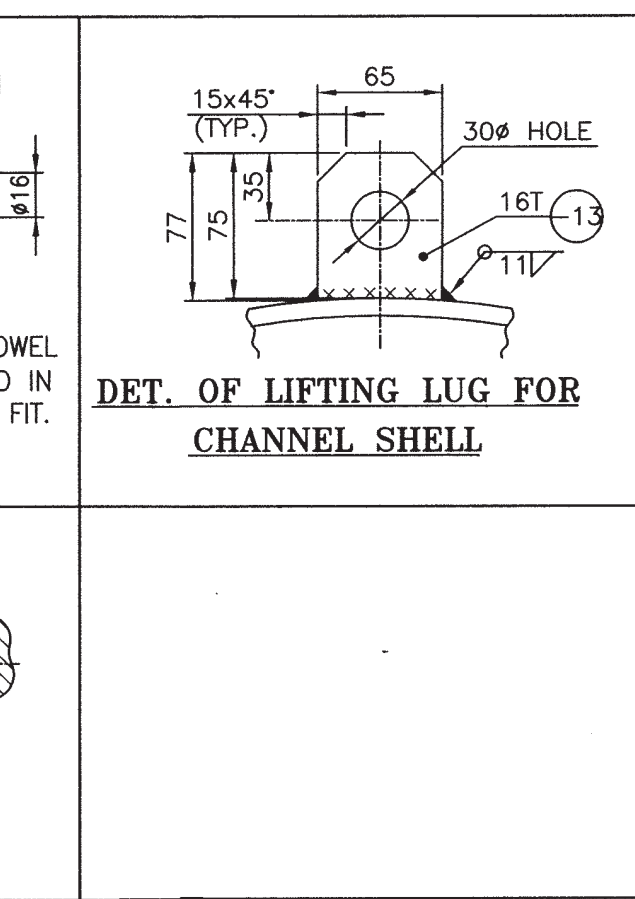
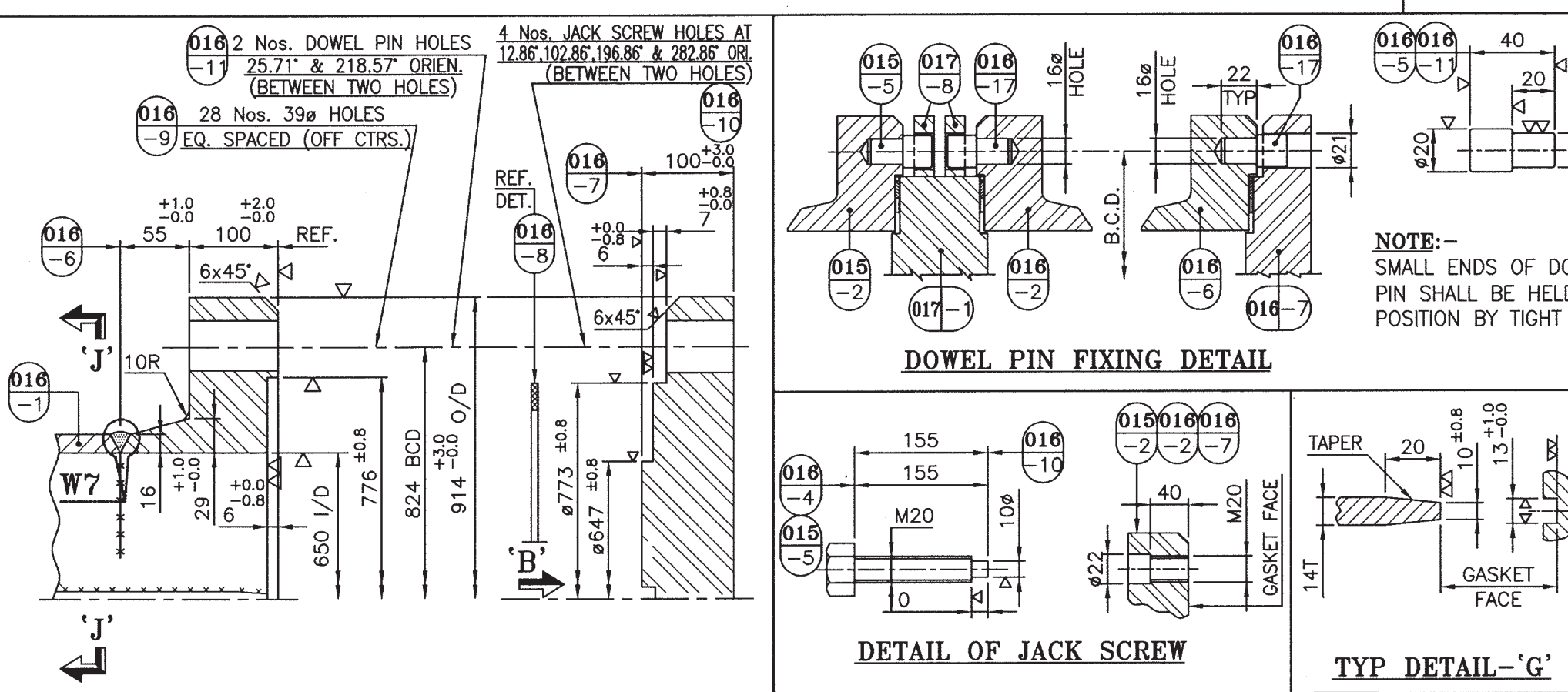
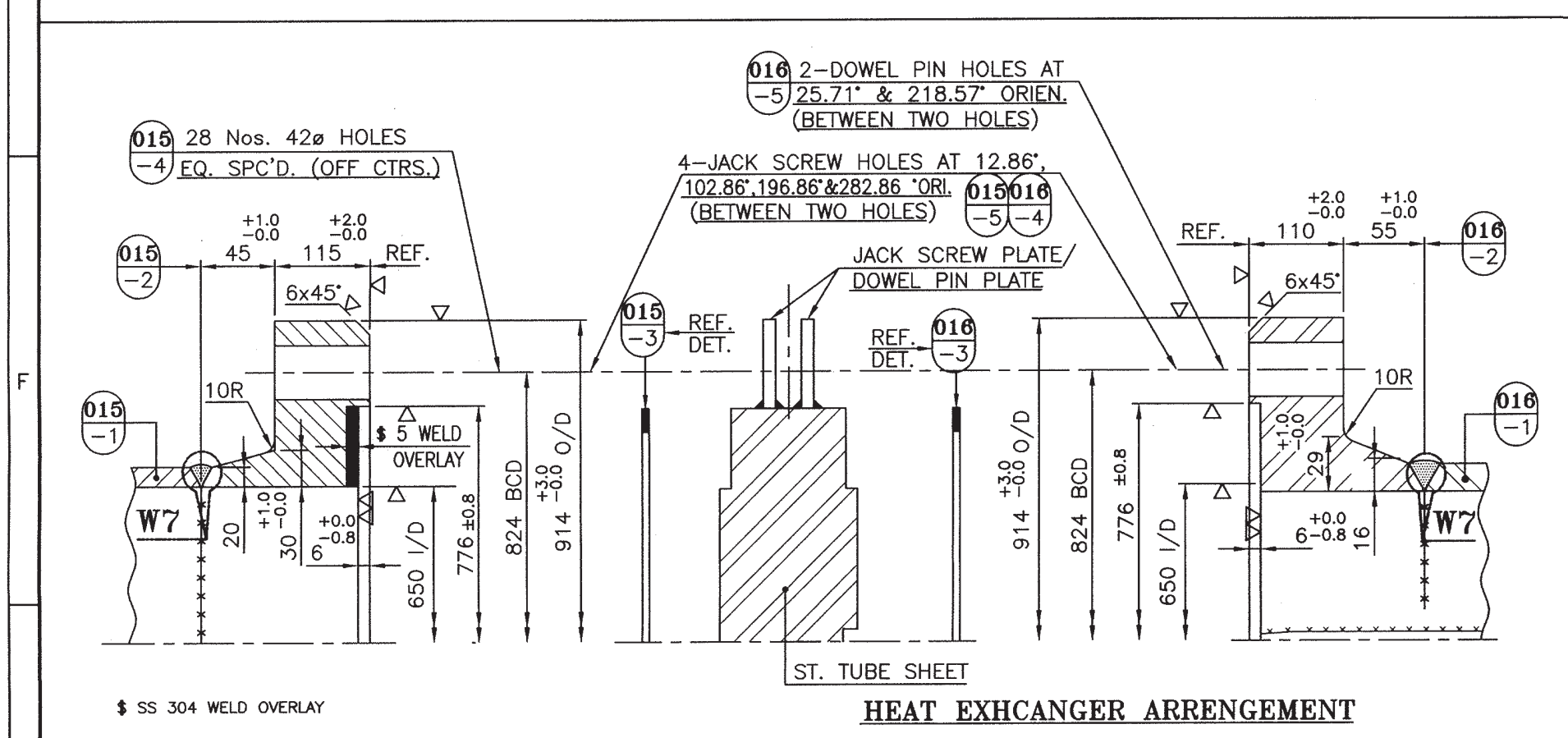
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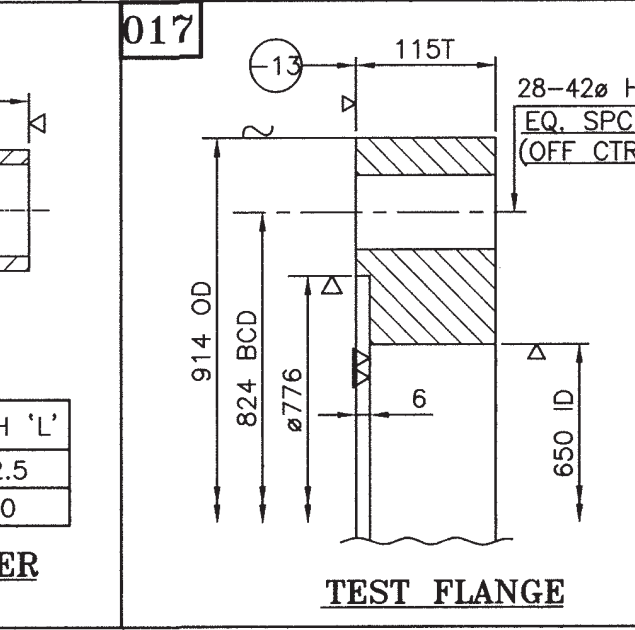
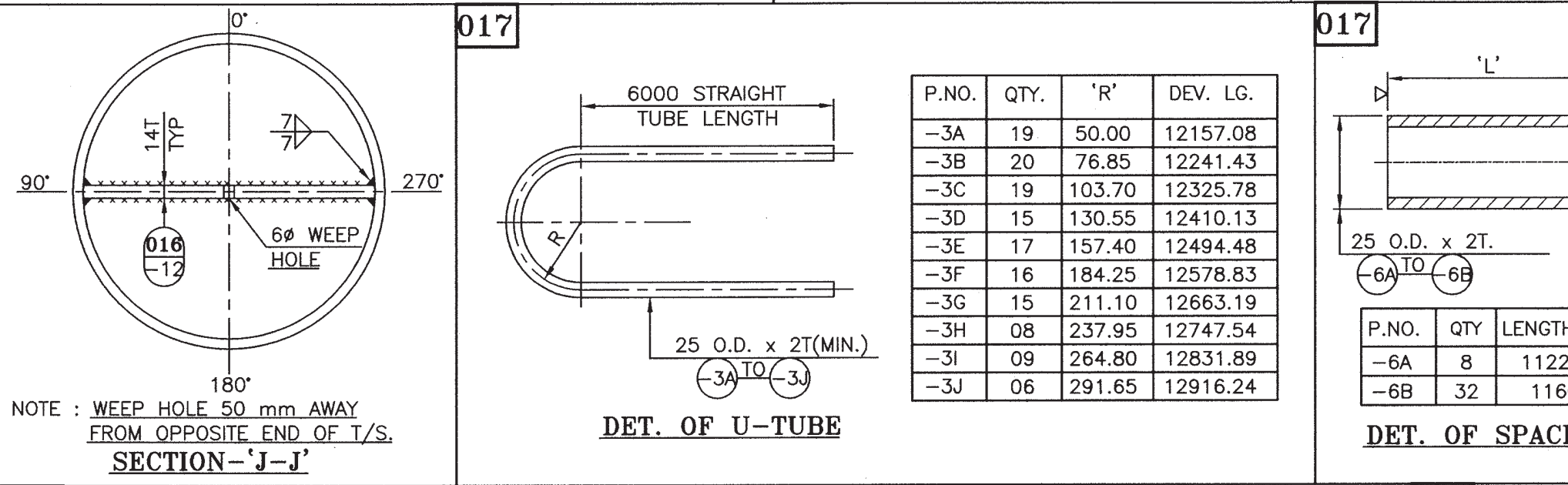
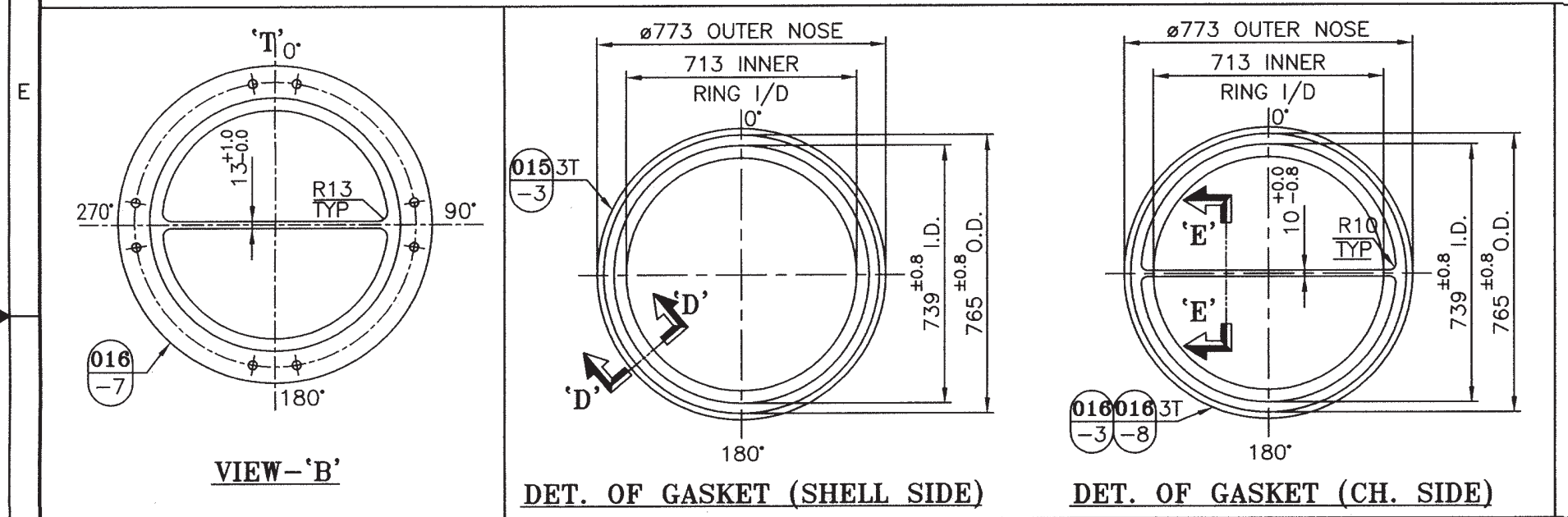
F11) TESTING WATER SHALL BE CLEAN POTABLE. SEAWATER SHALL NOT BE USED.
F12) THE EQUIPMENT ITEM NO., P.O. NO., AND PURCHASER NAME AND ADDRESS SHALL BE PAINTED IN BOLD LETTERS WRITTEN WITH STENCIL, ON THE HEAT EXCHANGER.
F13) 'T' DENOTES MACH MARK FOR ASSY SHALL BE PUNCHED ON ALL MATING PARTS.
F14) IN ADDITION TO STAMPING, SPEC. & MFR. SYMBOL AS SPECIFIED IN ASME MATERIAL SPEC. ON ONE OF THE ENDS OF THE SIZE OF STUD SHALL BE CLEARLY PUNCH MARKED. SIMILARLY SIZE SHALL BE PUNCH ON ONE OF THE FACES OF NUT. ALL ALLOY STEEL STUD/NUTS SHALL BE IDENTIFIED BY RED COLOUR MARKING AT THE STUD END/FACE OF NUT.

EXAMINATION
Q1) NDE REQUIREMENT:-a) ALL BUTT WELD JOINT SHALL BE 100% RADIOGRAPHY.
Q2) HARDNESS OF BASE METAL HAZ & WELD METAL TO BE LIMITED TO 200 BHN AS PER 6-15-91-AFTER PWHT.
Q3) D.P. TEST SHALL BE CARRIED OUT ON
a) KNUCKLE PORTION OF DISHED END-BOTH INSIDE & OUTSIDE AND WELD EDGES AFTER HEAT TREATMENT.
b) ALL NOZZLE TO SHELL WELDS.
c) ALL ATTACHMENT FINAL WELD.
Q4) WHEN RADIOGRAPHY IS CARRIED AT BEFORE PWHT. THEN UT SHALL BE CARRIED OUT WELD AFTER PWHT.

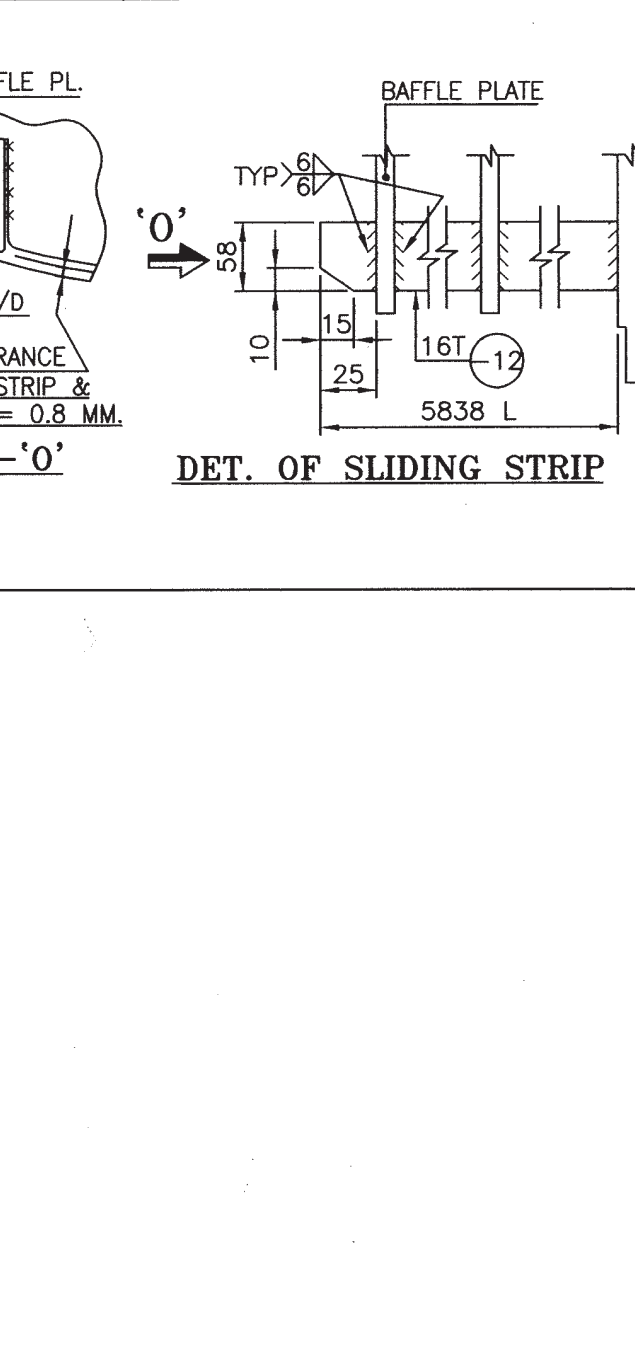
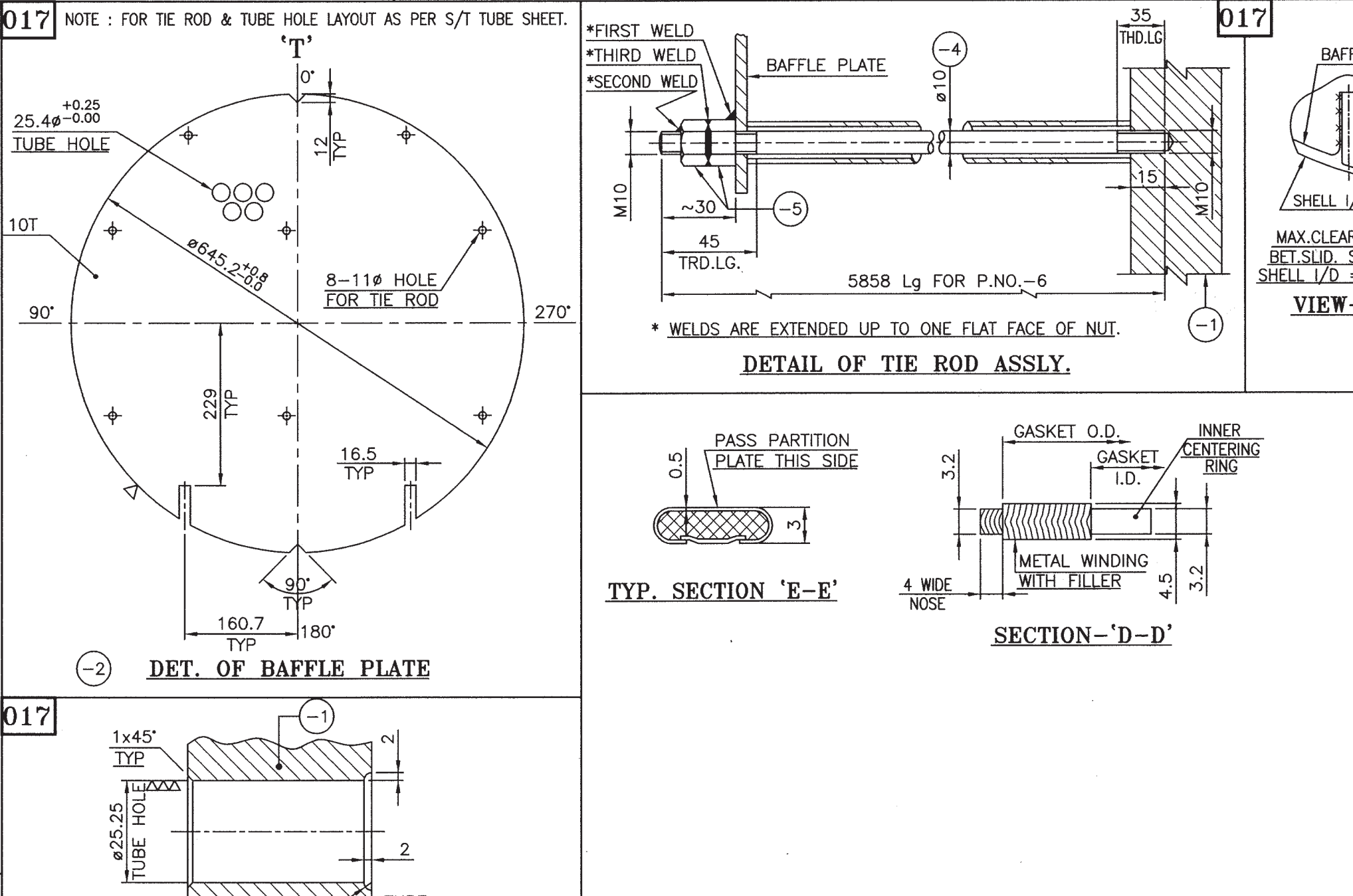
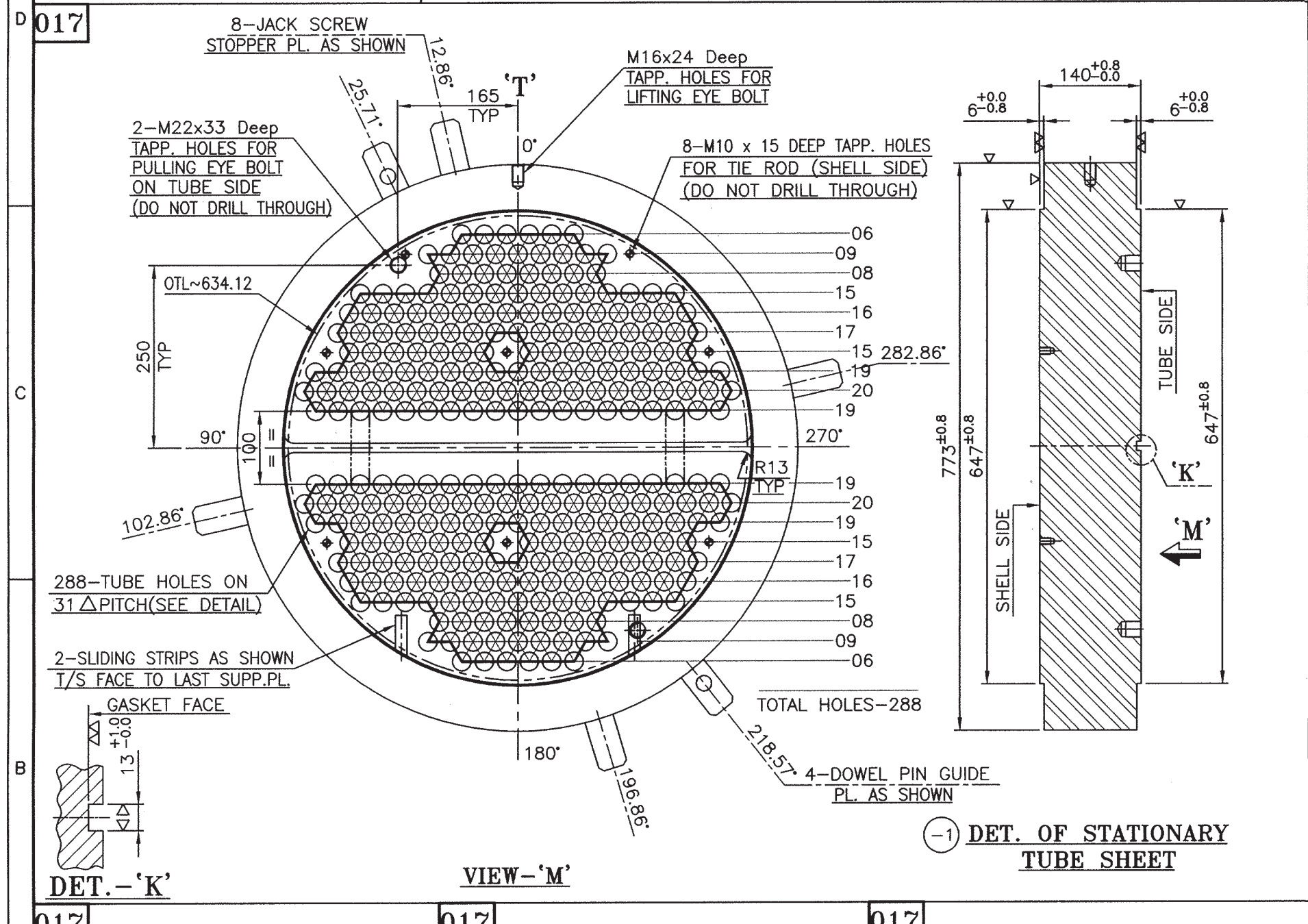
GEN. NOTES FOR TUBE BUNDLE:-
1) TUBE TO TUBESHEET JOINT SHALL BE COMPLIED WITH REQUIREMENTS OF 6-15-003-R3 WHICH SHALL BE ENSURED BY MEASURING THE INSIDE DIA. OF TUBES.
2) TUBESHEET FACES SHALL BE FLAT WITHIN ± 1.5 MM (CAMBER)
3) ONE NO. TEST RING TO BE SUPPLIED AS PER MFG. DESIGN (WITH RED OXIDE PAINT) DURING DESPATCHED OF HEAT EXCHANGER.
4) TUBE HOLE IN TUBE SHEET SHALL HAVE SMOOTH FINISH TO 63 AARH.
5) AFTER HYDROTEST EQUIP. SHALL BE COMPLETELY DRIED BY PASSING HOT AIR ON BOTH SHELL & TUBE SIDE.
6) AFTER DRYING, THE EQUIPMENT SHALL BE PURGED AND FILLED WITH DRY N₂ AT 0.25 Kg/cm² THE EQUIPMENT SHALL BE PROVIDED WITH PRESSURE GAUGE TO MONITOR NITROGEN PRESSURE AND 1/2" NON RETURN VALVE.
7) THREADS ON EXTERNAL BOLTING, PLUGS ETC. SHALL BE LUBRICATED WITH GRAPHITE GREASE.

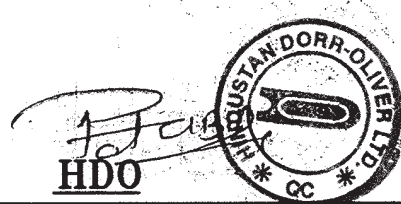
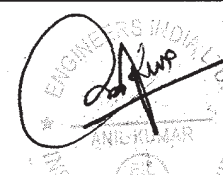


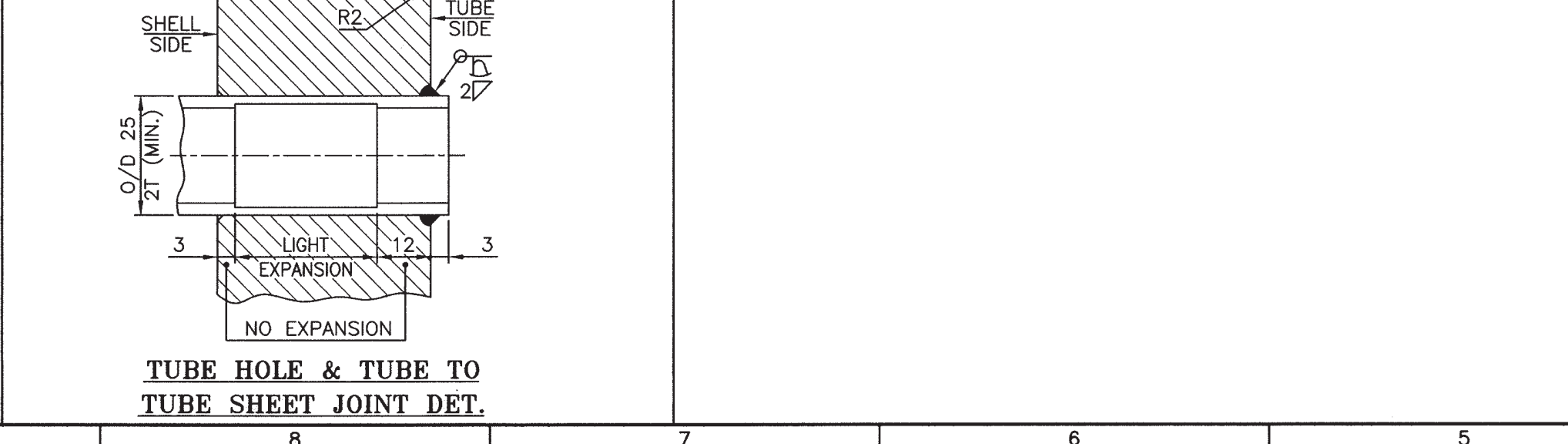
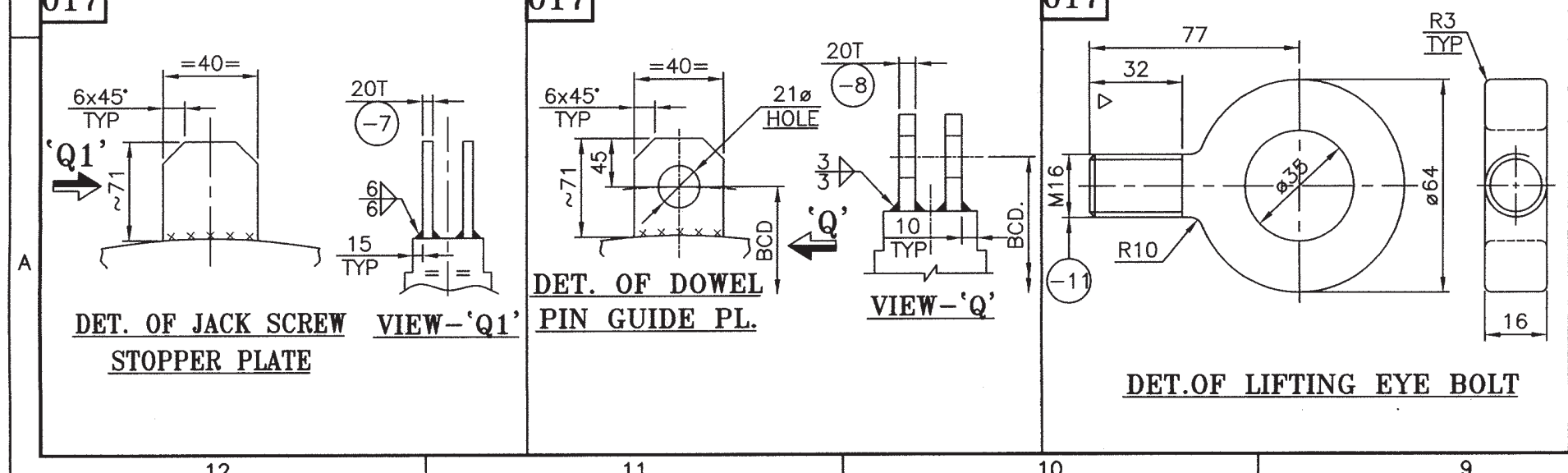
4.5T SS 304L SPIRAL WOUND GASKET WITH GRAFOIL FILLER AND SS 304 L INNER CENTERING RING.					
2	-13	TESTING FLANGE	1	SA 516 GR 70	115T x 650 I/D x 914 O/D (USED-125HK, M/C)
	-12	SLIDING STRIPS	2	SA 240 GR 304L	16T x 58W x 5838 Lg
	-11	LIFTING EYE BOLT	1	SA 182 F 304L	M16 x AS PER DRG.
	-10	PLUG	2	SA 182 F 304L	ø25 x 65 Lg
	-9	PULLING EYE BOLT	2	SA 182 F 304L	M22 x AS PER DRG.
	-8	DOWEL PIN GUIDE PLATE	4	SA 240 GR 304L	25T x 40W x 71 Lg
2	-7	JACK SCREW STOPPER PL.	8	SA 240 GR 304L	20T x 40W x 71 Lg (USED-25THK, M/C)
	-6A	SPACER	8	SA 213 TP 304L	25 O/D x 2T x REF.TABLE
	-5	HEX. NUT	16	SS 304 L	M10 (STD)
	-4	TIE ROD	8	SS 304 L	ø10 x 5858 Lg (USED-28THK, M/C)
	-3A	TUBES	144	SA 213 TP 304L	25 O/D x 2T (MIN.) x REF.TABLE
	-2	BAFFLE PLATE	5	SA 240 GR 304L	10T x AS PER DRG.



MOLES (D, (S.)	-1	ST. TUBE SHEET	1	SA 965 F 304L	AS PER DRG.
	017	TUBE BUNDLE ASSLY			
	-13	LIFTING LUG	2	SA 240 GR 304L	16T x 65W x 77 Lg
	2	-12 PARTITION PLATE	1	SA 240 GR 304L	REQ.-14T/USED-16T x 650W x 953 Lg
	2	-11 DOWEL PIN	2	SS 304 L	a22 x 45 Lg (USED-42THK. W/C)
	-10	JACK SCREW	4	SS 304 L	M20 x 155 Lg (REF. DETAIL)
	-9	STUD WITH 2HXY HEX NUTS	28	SA 302 GR Q2/ S194 GR 8	M36 x 3P x 300 Lg (FULL THRD.)
	-8	GASKET (L.H.)	1	00	4.5T x AS PER DRG.
	-7	CHANNEL COVER	1	SA 965 F 304L	AS PER DRG.
	-6	GIRTH FLANGE (L.H.)	1	SA 965 F 304L	AS PER DRG.
	2	-5 DOWEL PIN	2	SS 304 L	a22 x 45 Lg (USED-42THK. W/C)
	-4	JACK SCREW	4	SA 302 GR Q2/ S194 GR 8	M20 x 155 Lg (REF. DETAIL)
	-3	GASKET (R.H.)	1	00	4.5T x AS PER DRG.
	-2	GIRTH FLANGE (R.H.)	1	SA 965 F 304L	AS PER DRG.
	-1	SHELL	1	SA 240 GR 304L	16T x 643W x 2092 DEV Lg
016	CH SHELL ASSLY				
-6	GUSSET PLATE	5	SA 516 GR 70	20T x CUT TO SUIT	
2	-6 JACK SCREW	4	SS 304 L	M20 x 155 Lg (REF. DETAIL) (16SD-42THK. W/C)	



2		-4		STUD WITH 2HXY HEX NUTS	28	SA 320 GR 88 Q2 / SA 194 GR 8	M39 x 3P x 465 Lg (FULL THRO.)			
-3		GASKET		1	00		4.5T x AS PER DRG.			
-2		GIRTH FLANGE		1	SA 266 CL 4HSS304L WD	AS PER DRG.				
-1		SHELL		1	SA 516 GR 70	20T x 590W x 2105 DEV. Lg				
015		MAIN SHELL ASSLY (FOR ITEM NO:-112-EE-115A) 8260A								
REV NO	SR. NO	DESCRIPTION			QTY	MATERIAL		SIZE	REMARK	
BILL OF MATERIAL										
2	AS BUILT DONE. BOM REVISED AS MARKED.						KBP	WS	S.B.	29.03.12
1	DRG. REVISED AS PER CLIENT'S COMMENT AS MARKED.△						KBP	WS	S.B.	07.03.11
0	ISSUED FOR APPROVAL						KBP	WS	BPP	30.10.10
NO.	DESCRIPTION						BY	CHD.	APPD.	DATE
REVISIONS										
AS BUILT										
										
										
VENDOR DOCUMENT REVIEW										
P.R. NO:- 6907-112-EE-PR-6283/6027- R0. DTD: 25.08.2010.										
P.O. NO:- 6907-6283/5533/6027 Dated: 11.08.2010										
MFR'S SERIAL NO:- 8260A						EIL JOB NO:- 6907				
CLIENT						PLANT				
B.C.P.L, ASSAM						ECU				
PROJECT MANAGEMENT CONSULTANT:						ENGINEERS INDIA LIMITED				
इंडियन लिमिटेड						INDIA LIMITED				



TUBE BUNDLE ASSLY AND OTHER DETAIL FOR COLD BLOWDOWN CUM METHANOL VAPOURIZER				
ITEM No : 112-EE-115 A				
HINDUSTAN DORR-OLIVER LTD. ENGINEERING DIVISION MUMBAI • CHENNAI • AHMEDABAD				
DRAWN	DATE	BY	SIGN	
CHECKED	08.08.2010	K.B.P.	K.B. Pandit	
APPROVED	08.08.2010	V.V.S.	V.V.S	
SCALE	N.T.S.	PROJECTION	1:1	
MADE FROM	6907-113-16-46-DS-4125-R0	DWG. SIZE	A1	
ORDER NO.	BYC-210988	DWG. NO.	AE-1-8260A	
SHT. NO.	2 OF 5	REV.	2	