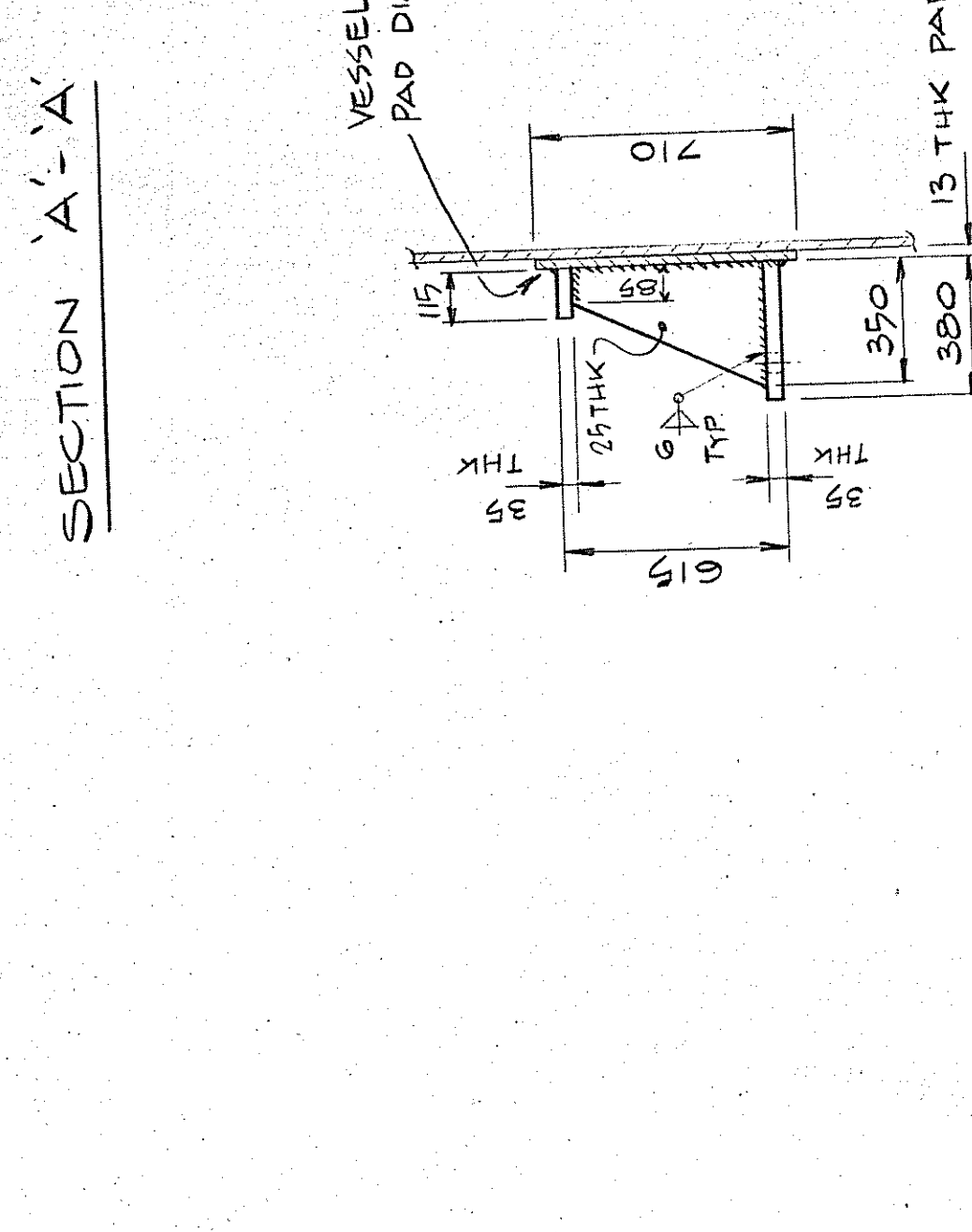
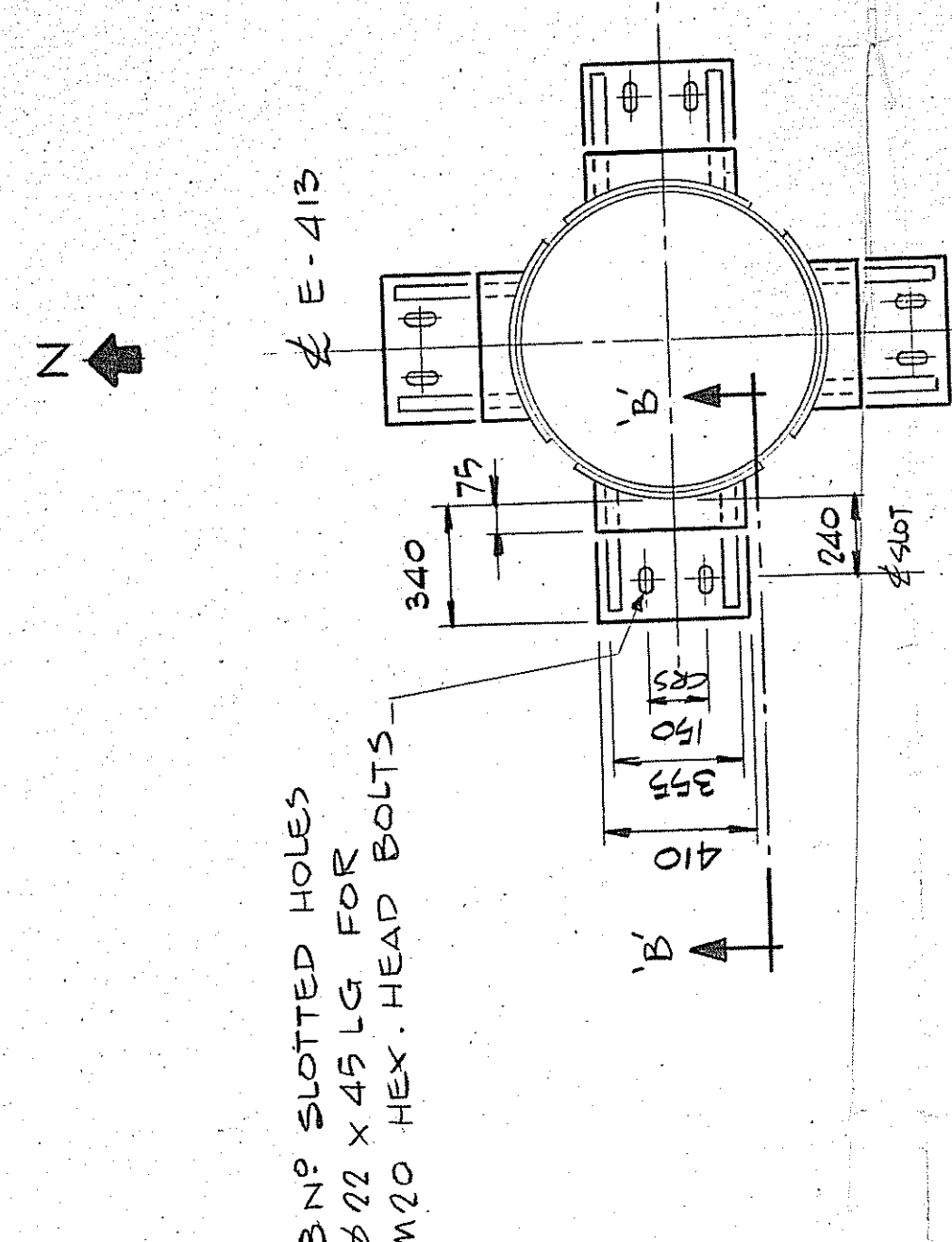
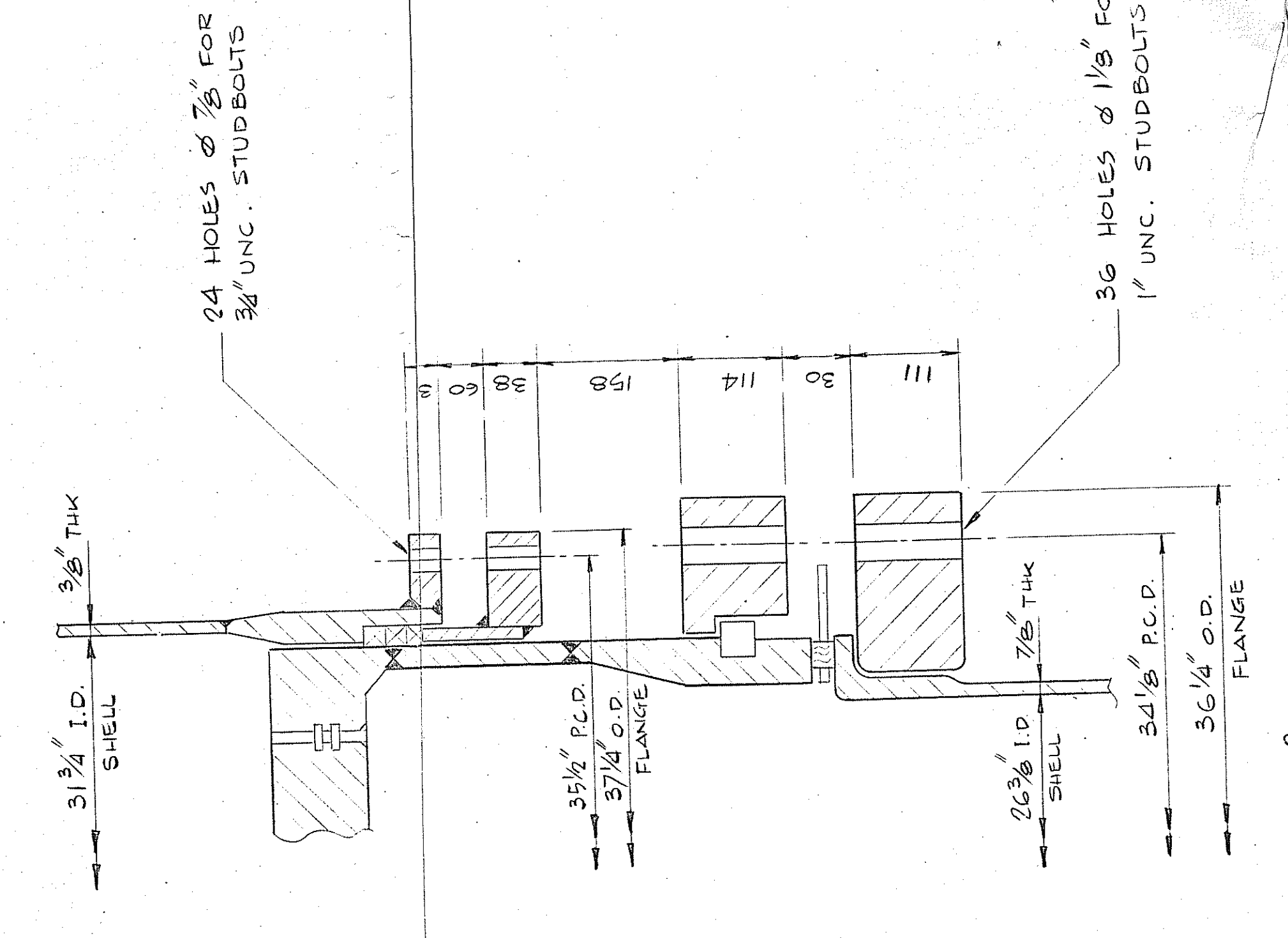
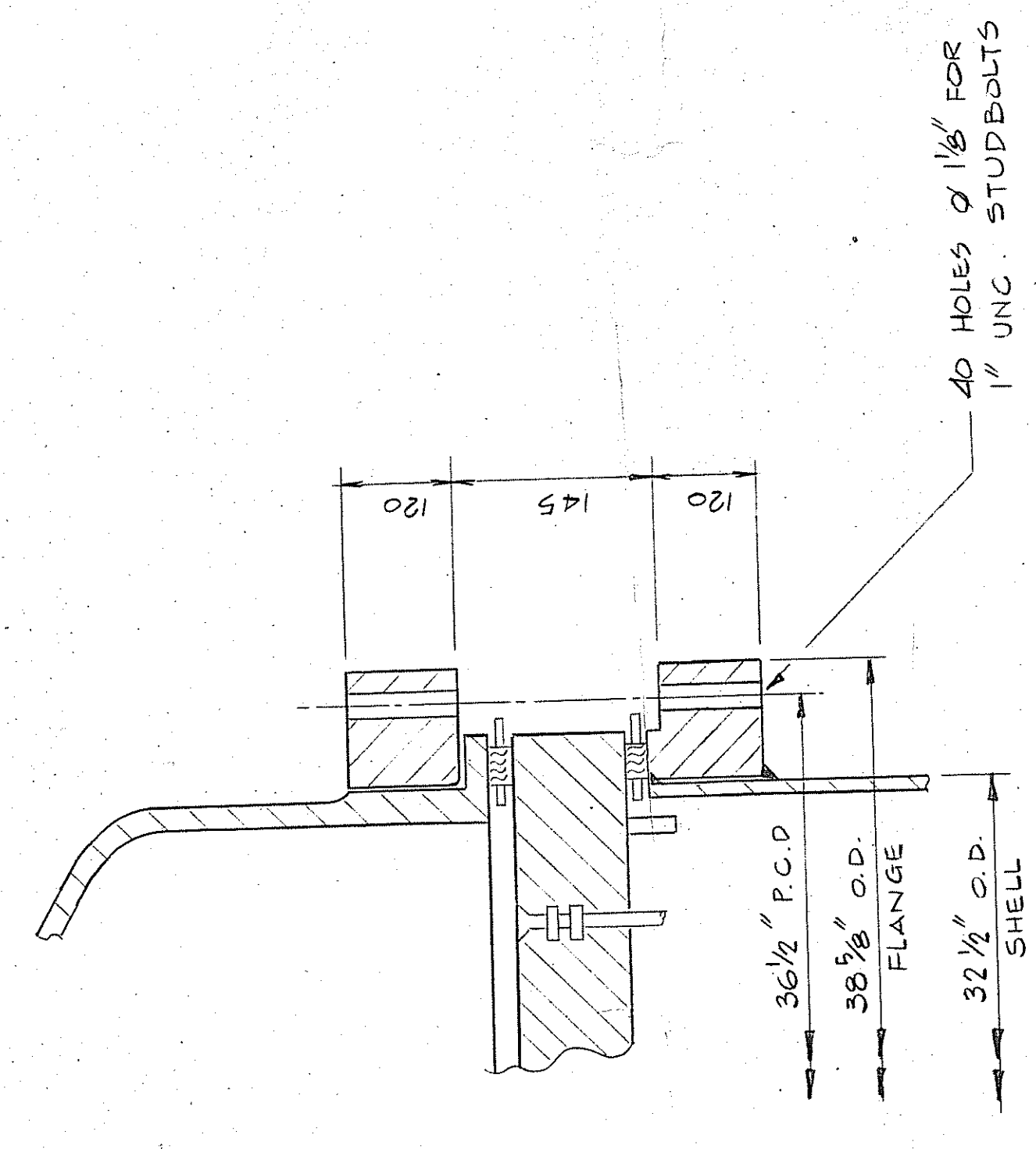
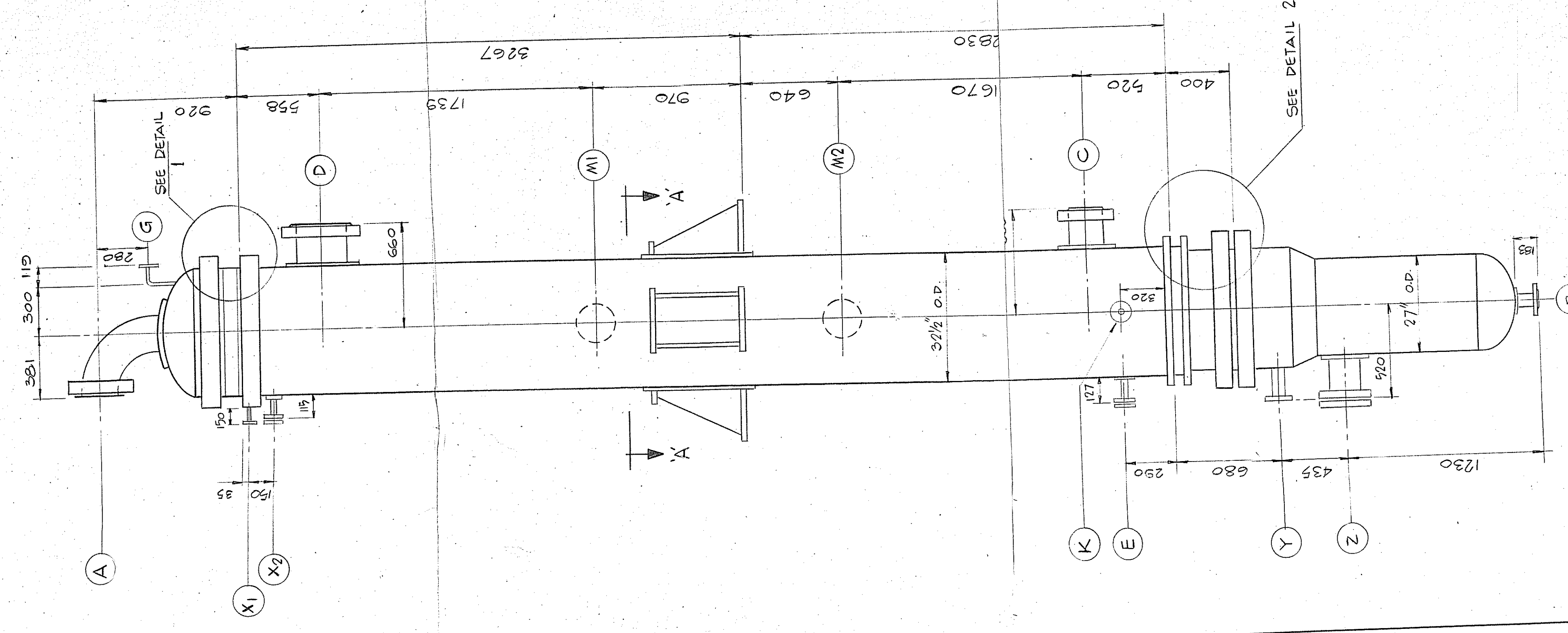


71801581
71801584
71801660

DESCRIPTION
MATERIAL
DATE
BY
CHKD
APPD
REVISED



- GENERAL NOTES
- 1/ ALL DIMENSIONS GIVEN ON THIS DRAWING REFLECT THE 'AS BUILT' STATUS OF VESSEL E-413
 - 2/ VESSEL BODY FLANGES ARE SHOWN WITH O.D. AND P.C.D. IN IMPERIAL DIMENSIONS FOR PURPOSES OF RE-MATCHING

NOZZLE DATA					SERVICE
MARK	SIZE	RATING	FACING	WALL THK	
A	10" NB	300 #	L.J.	EX-STG	PROCESS IN
B	3" NB	300 #	R.F.	SCH 40	PROCESS OUT
C	8" NB	150 #	R.F.	SCH 40	CONDENSATE IN
D	14" NB	150 #	R.F.	SCH 40	STEAM & WATER OUT
E	1/2" NB	150 #	R.F.	SCH 40	BLOWDOWN CONN. (BLANKED)
G	1" NB	300 #	L.J.	SCH 160	CAUSTIC CONN. (BLANKED)
M1	6" NB	150 #	R.F.	PAD	INSPECTION (BLANKED)
M2	6" NB	150 #	R.F.	PAD	INSPECTION (BLANKED)
X2	1" NB	150 #	R.F.	SCH 80	VENT (BLANKED)
K	1" NB	150 #	R.F.	SCH 80	DRAIN CONN. (BLANKED)
Y	3" NB	300 #	R.F.	SCH 40	WATER INLET
Z	8" NB	300 #	R.F.	SCH 40	INSPECTION (BLANKED)

PRELIMINARY

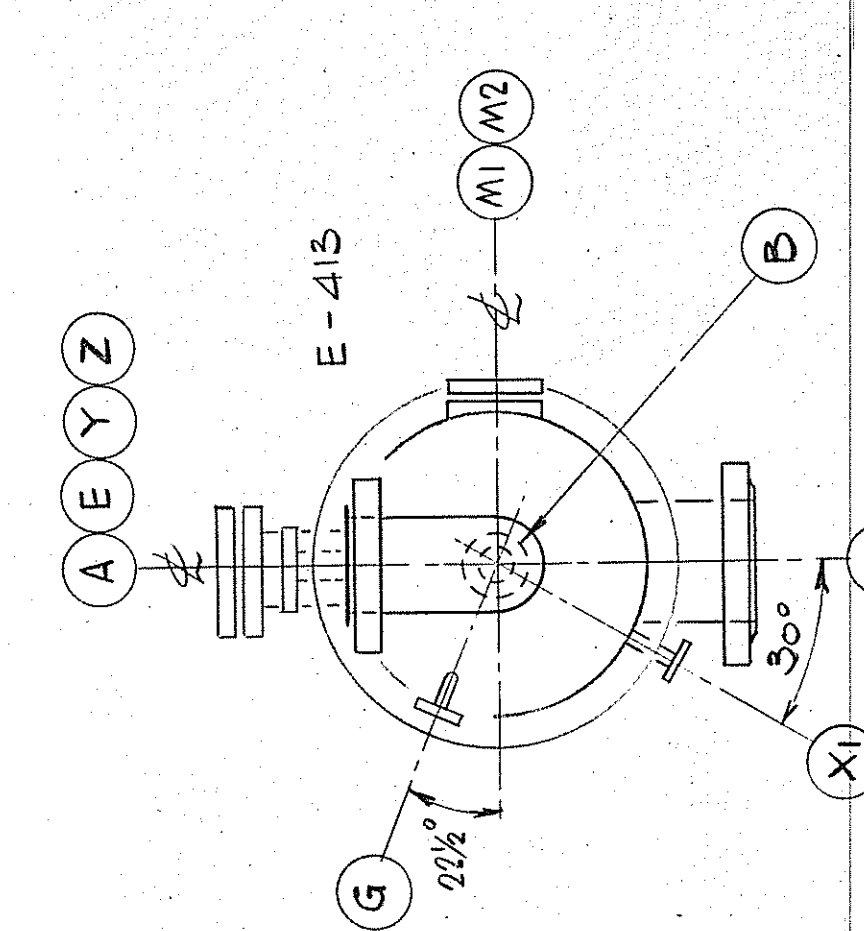


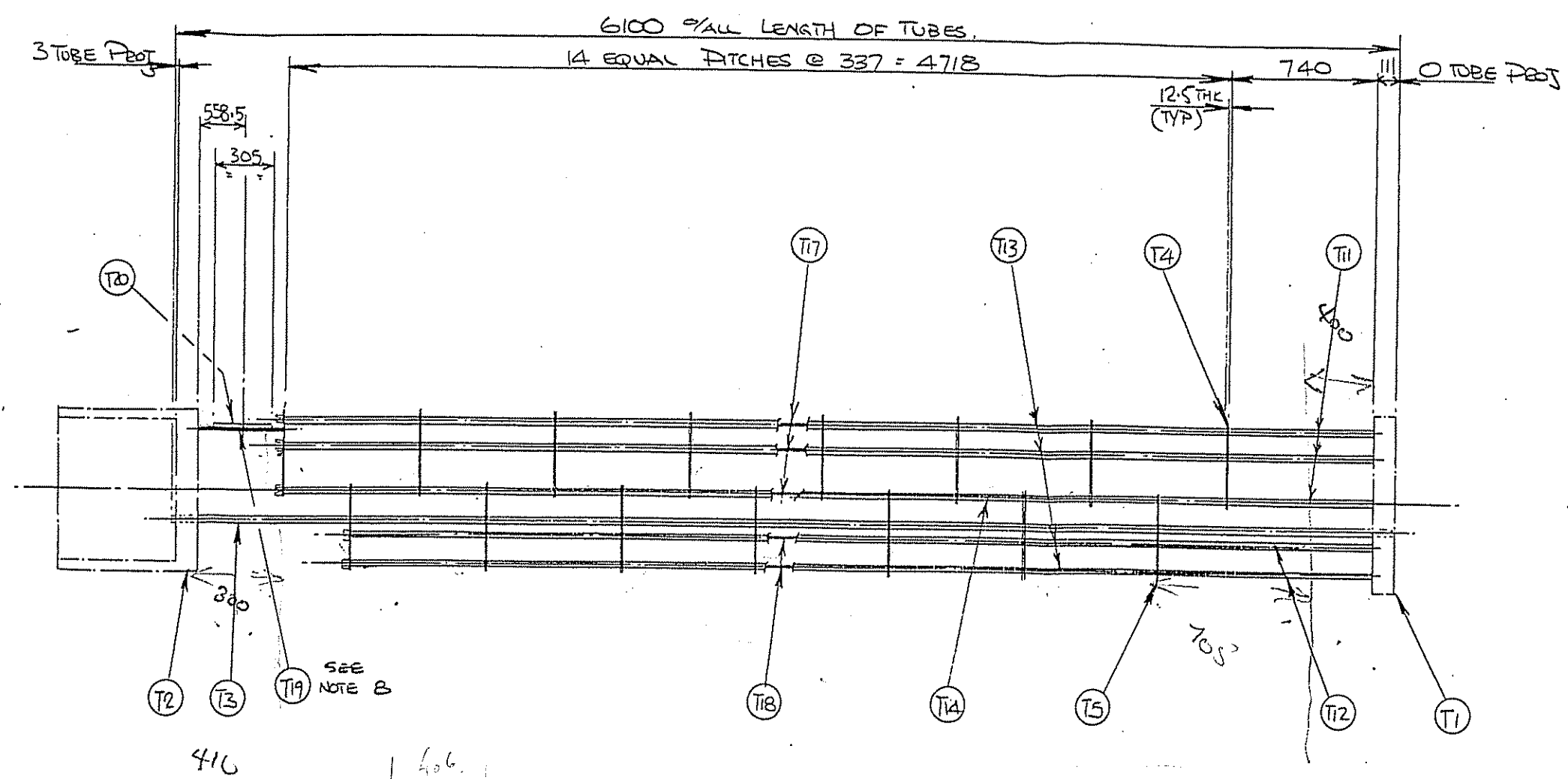
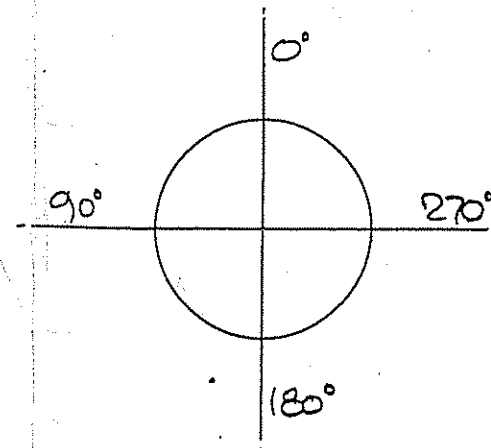
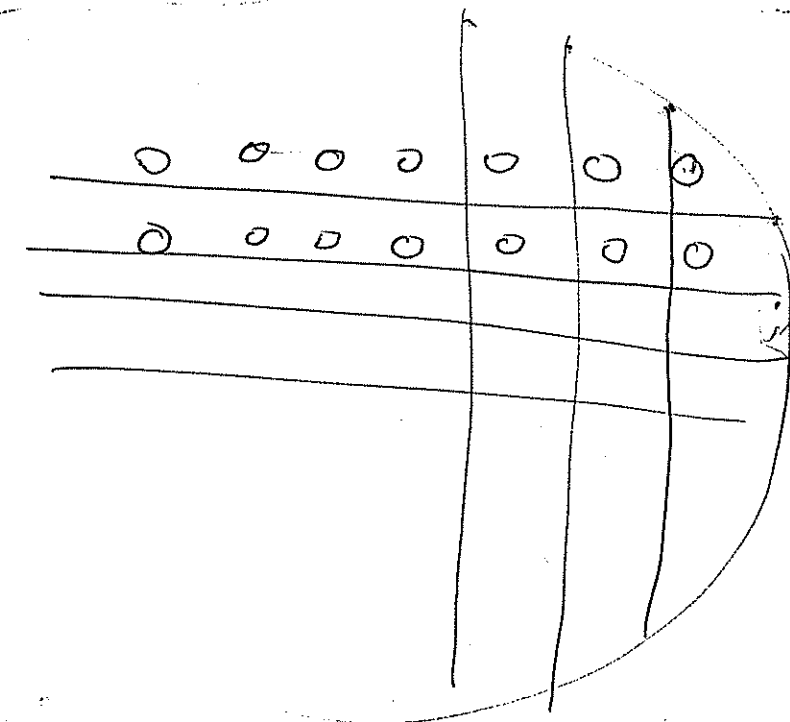
I.C.I. CHEMICALS & POLYMERS LTD. -
TESSIDE OPERATIONS - ENGINEERING
- WILTON, MIDDLESBROUGH, CLEVELAND.

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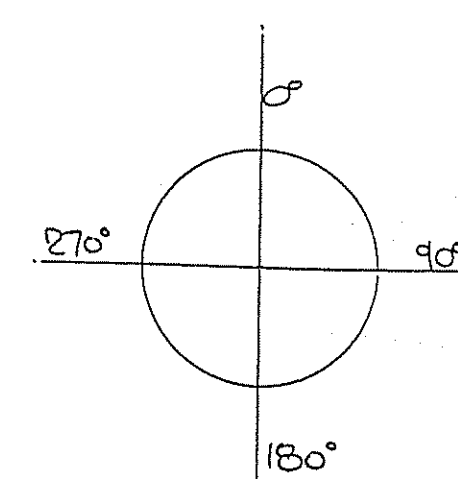
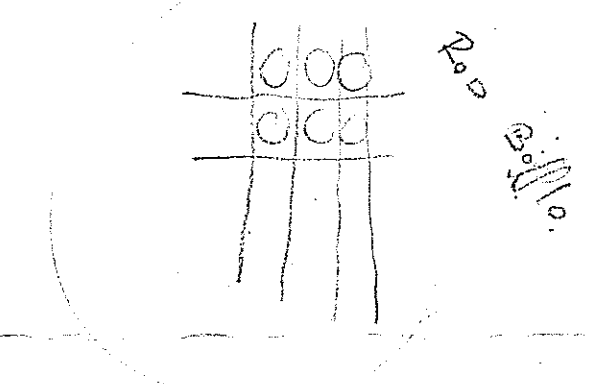
DATE	15/05/80	PLANT	TA-T7	TITLE	'AS BUILT' G.A. OF E-413	DRG. SIZE	DE
CHKD	D. NASSAU	BUSINESS AREA	OXIDATION		REACTOR CONDENSER		
APPD		MAT. LOT					
SCALE	1:20	PROJECT NO.					
REVISED							
ISSUE							

PLAN VIEW
(TRUE ORIENTATION)





ELEVATION



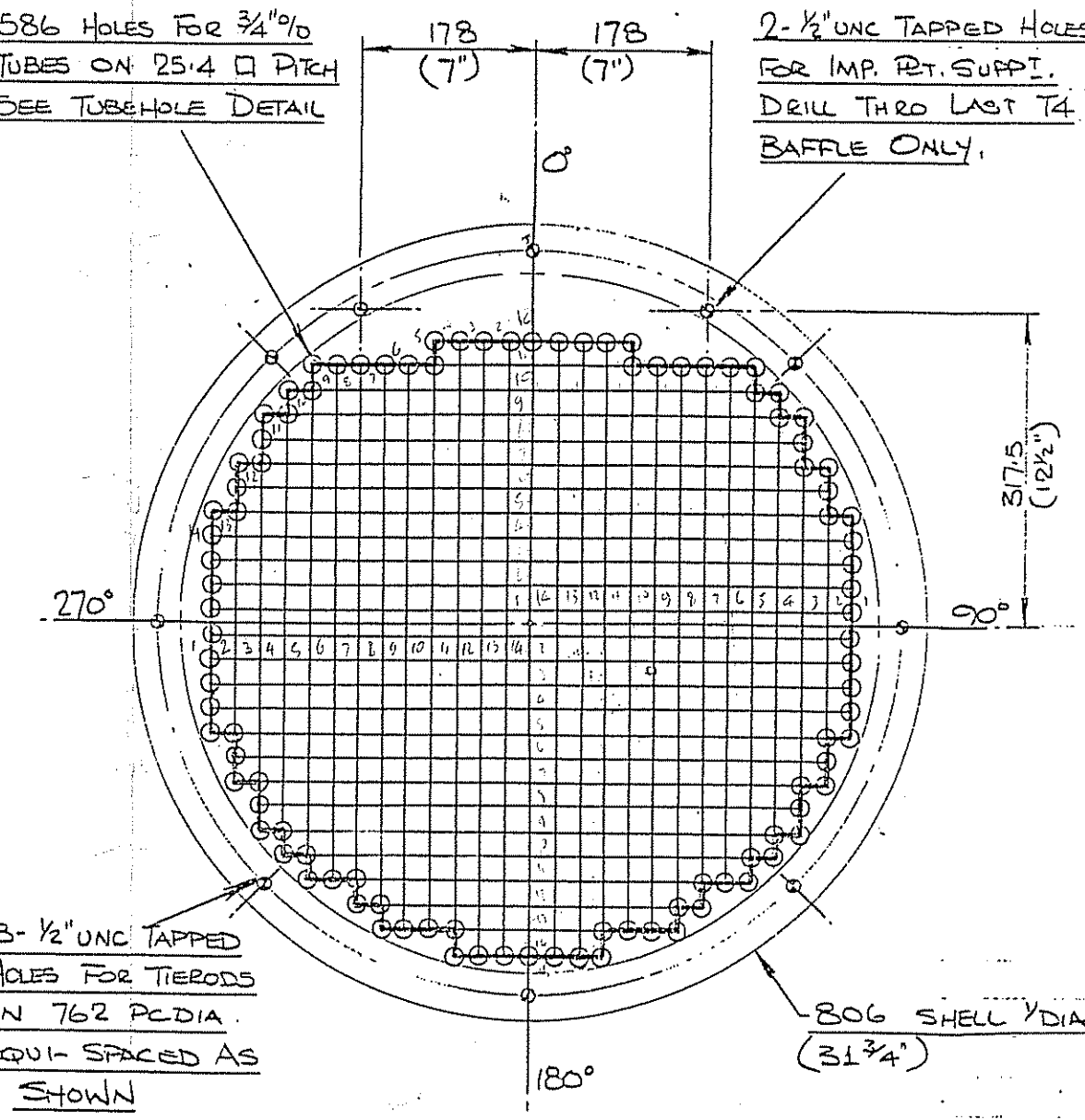
BILL OF MATERIAL FOR ONE ASSEMBLY AS DRAWN

REF. NO.	QTY	MATERIAL	TYPE	DESCRIPTION	REQ. NO.
T1	1	IMI-125 (85542)	T	STATIONARY TUBESHEET	
T2	1	IMI-125 (85542)	T	STATIONARY TUBESHEET	
T3	586	B 232 G 2	T	TUBES: 3/4" x 18 SWG (MM) x 6100 LG	13/1
T4	8	A 240 TP 304	SST	BAFFLE PLATE	12/1
T5	7	A 240 TP 304	SST	BAFFLE PLATE	12/1
T11	5	A 213 TP 316	SST	SPACER: 3/4" x 18 SWG x 740 LG	23/1
T12	3	A 213 TP 316	SST	SPACER: 3/4" x 18 SWG x 1077 LG	23/1
T13	39	A 213 TP 316	SST	SPACER: 3/4" x 18 SWG x 6615 LG	23/1
T14	28	A 213 TP 316	SST	SPACER: 3/4" x 18 SWG x 3245 LG	23/1
T17	5	TP 304	SST	TIE RODS: 12.5 DIA x 5510 LG	24/1
T18	3	TP 304	SST	TIE RODS: 12.5 DIA x 5175 LG	24/1
T19	2	TP 304	SST	TIE RODS: 12.5 DIA x 475 LG	24/1
T20	1	A 240 TP 304	SST	IMPERMEABLE PLATE	12/2

GENERAL NOTES

- FOR SHELL/CHANNEL, TEST DETAILS & DESIGN DATA SEE MBT DES. NO. 85/1908/EF 21
- ONE ASSEMBLY REQD AS DRAWN MARK- E413.
- MACHINE FINISH AS FOLLOWS:-
 VVV 63 μ MICROINCHES (GASKET FINISH)
 VV 125 250 μ MICROINCHES (SMOOTH FINISH)
 V 500-1000 μ MICROINCHES (MACHINE FINISH)
- BAFFLE PLATE EDGES TO BE DEBURRED & TUBEHOLES TO HAVE A WORKMANLIKE FINISH
- TUBE END ATTACHMENT:- STRENGTH WELDED.
- WEIGHT OF TUBEBUNDLE =
- MATERIALS MARKED THUS * HAVE TO BE SALVAGED FROM EXISTING BUNDLE & REUSED.
- TIE RODS "T19" TO RUN FROM T8HT "T2" TO LAST "T4" BAFFLE ONLY. ENDS TO BE FREE IN BAFFLE.

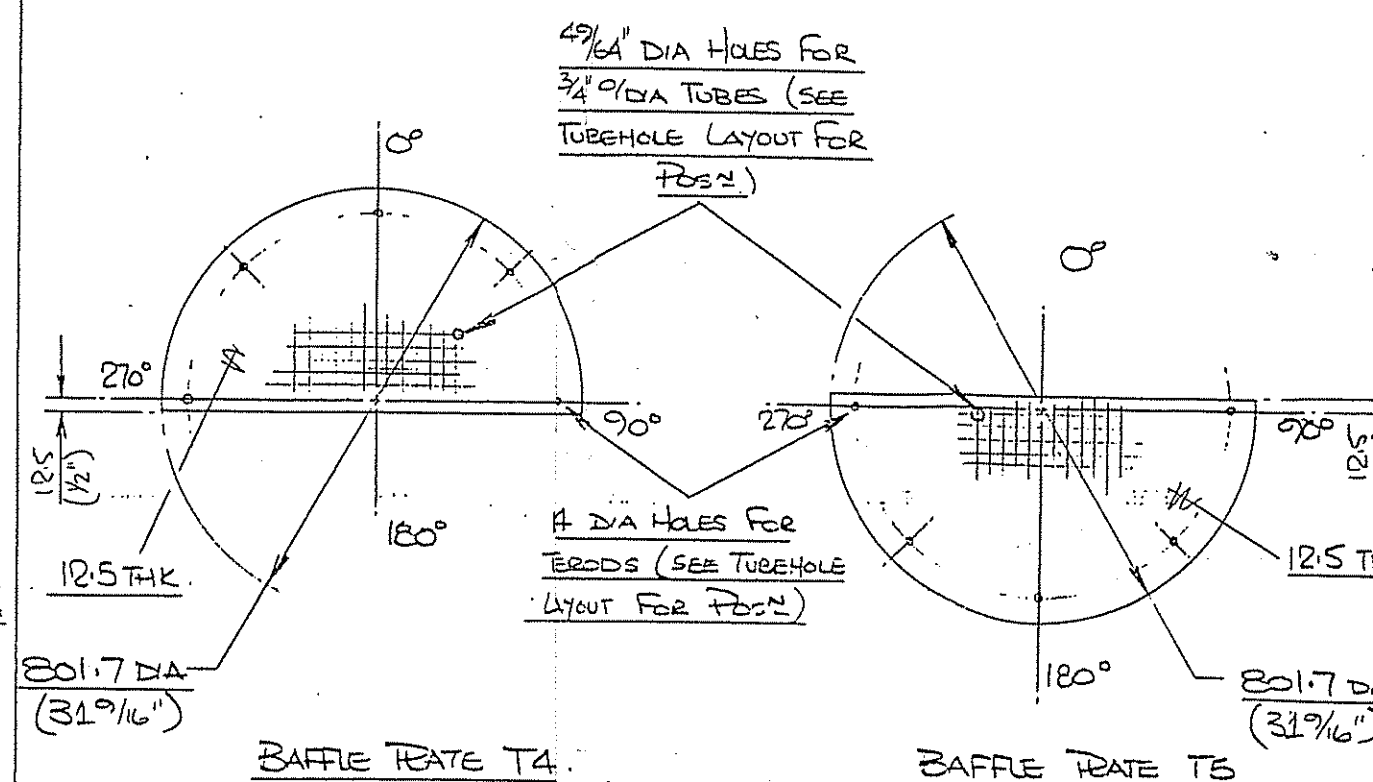
586 HOLES FOR 3/4" DIA TUBES ON 25.4 PITCH SEE TUBEHOLE DETAIL



8- 1/2" UNC TAPPED HOLES FOR TIE RODS ON 762 PCDIA. EQUI-SPACED AS SHOWN

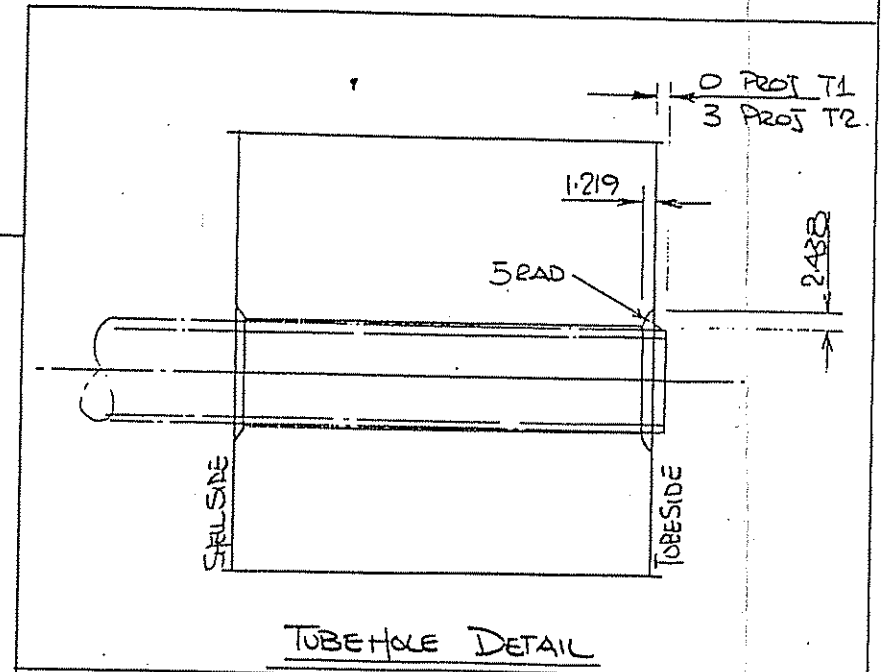
2- 1/2" UNC TAPPED HOLES FOR IMP. RT. SUPPLY. DRILL THRO LAST T4 BAFFLE ONLY.

UNSERVICED COPY

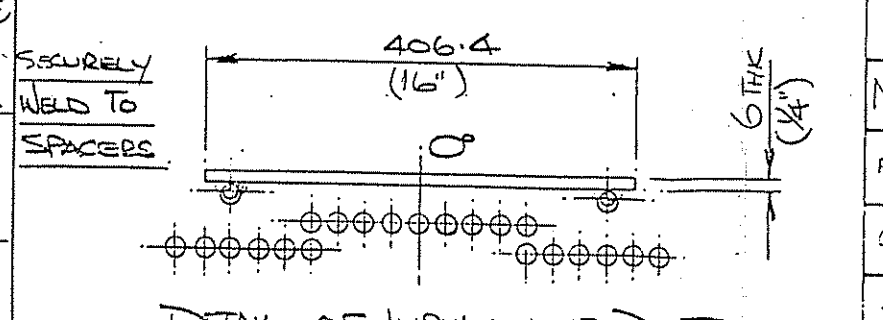


BAFFLE PLATE T4

BAFFLE PLATE T5



TUBEHOLE DETAIL



DETAIL OF IMPINGEMENT RT T20

REVISION	0	TO CLIENT FOR APPROVAL
DATE		RELEASED FOR CONSTRUCTION
ALTERED BY		
APPROVED BY		

MOTHERWELL EDGE THERMAL LTD

PURCHASER	ICI BPA N° D117/15/4100
CONTRACT	BILLINGHAM
TITLE	DETAILS OF BRACEMENT TUBEBUNDLE FOR UNIT N° E413.
PURCHASER'S ORDER NO	62/2454-16/INI/WS.
CONTRACT NO	85/1908
DRAWING NO	85/P08 EF 24.
DRAWN BY	CPK/LNG
CHECKED BY	CPK
APPROVED BY	CPK
SCALE	1:1
REVISION	0.