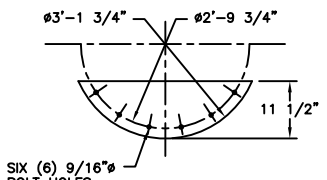
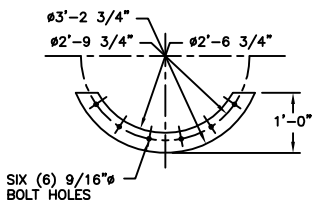
1 CIRCS. & LONG SEAMS	3 NOZZLE c/w INT. PROJ. ("H")	5 NOZZLE (CF OR SF)	7C NOZZLE c/w FULL BEVEL REPAD	8 TACK WELD	9A STRAIGHT BORE NOZZLE	18 ALL ATTACHMENTS	21 RADIUS REQUIREMENT FOR INTERNAL COATING
TRANSITION AS REQUIRED 3:1 MINIMUM AS PER UW-13						INTERNALS & EXTERNALS	
OPS–WP4–CVN–PWHT OPS–WP6–CVN–PWHT	OPS–WP4–CVN–PWHT OPS–WP6–CVN–PWHT	OPS–WP4–CVN–PWHT OPS–WP6–CVN–PWHT	OPS–WP4–CVN–PWHT OPS–WP6–CVN–PWHT	OPS–WP4–CVN–PWHT OPS–WP6–CVN–PWHT	OPS–WP4–CVN–PWHT OPS–WP6–CVN–PWHT	OPS–WP4–CVN–PWHT OPS–WP6–CVN–PWHT	RADIUS ALL INSIDE EDGES OF SQUARE CUT HOLES, NOZZLES & CPLGS. TO 1/8" MIN. RADIUS AS SHOWN

FCAW NOT PERMITTED

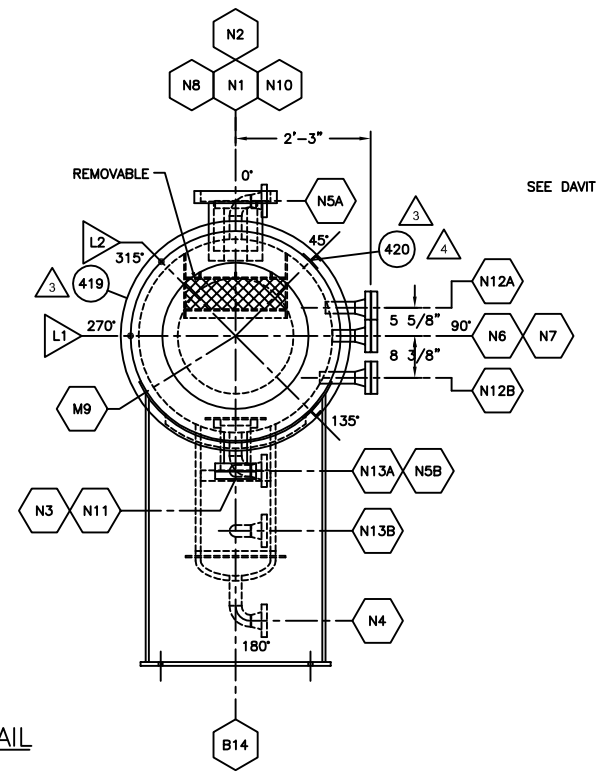
VESSEL TO BE INTERNALLY COATED. RADIUS ALL INTERNALS AS PER WD21 INCLUDING STRUCTURAL



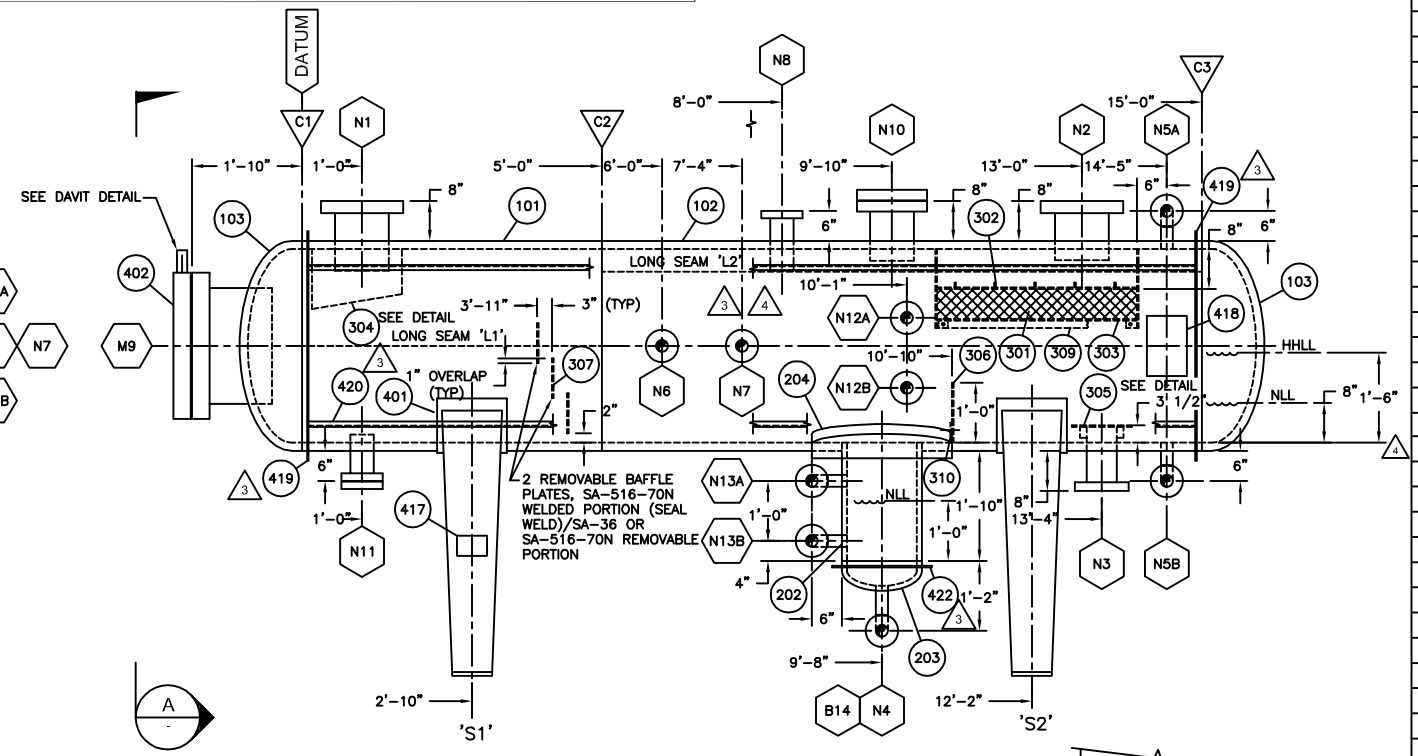
306 WEIR PLATE DETAIL



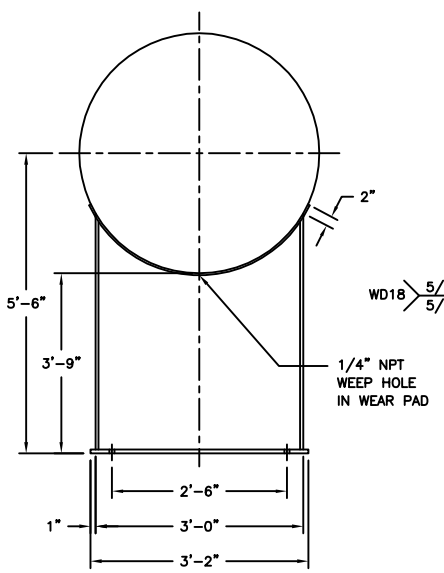
310 WEIR BOLTING RING DETAIL



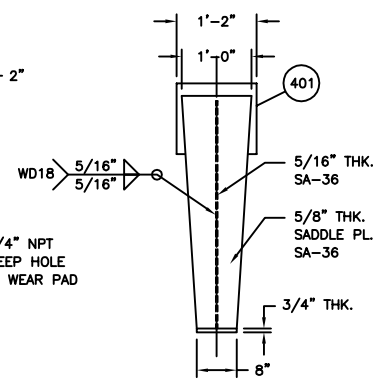
ORIENTATION
VIEW 'A'

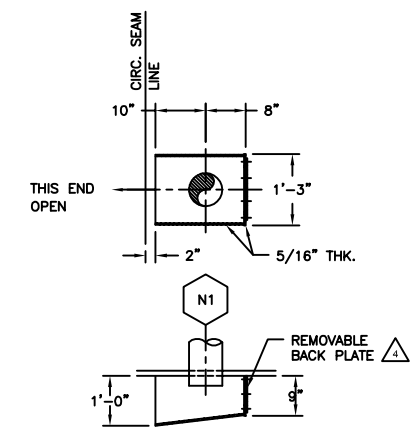


ELEVATION

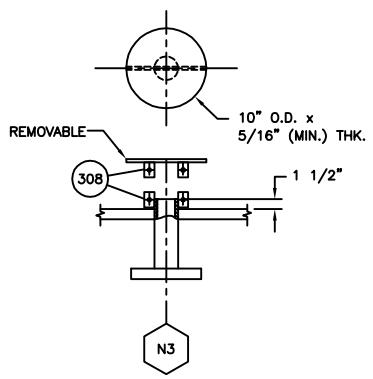


SADDLE DETAIL
NTS

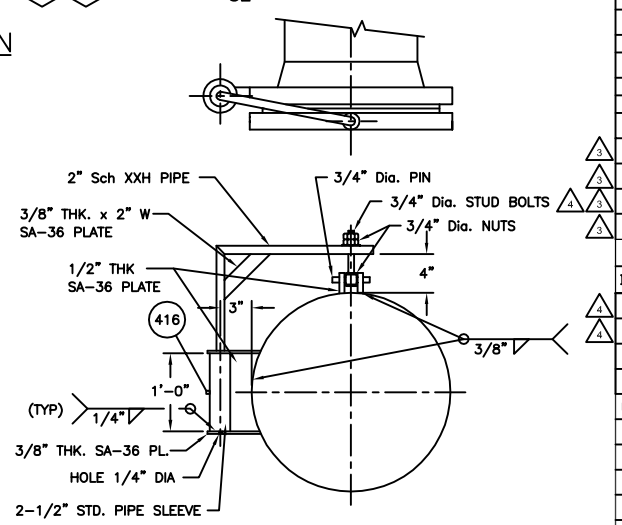




304 INLET DIVERTER DETAIL
NTS



305 VORTEX BREAKER DETAIL
NTS



DAVIT DETAIL
NTS

NOTES:
1. VESSEL TO BE INTERNALLY COATED 12–15 MILS OF DEVOE 253.
2. WEARPADS TO BE AIR/SOAP TESTED TO 100 PSI AS PER (V–1:4.4.16).
3. NO FCAW.
4. PREHEAT MANADATORY TO 200° F.

SPECIAL MATERIAL
CONSULT QC/SPECS
COLOUR CODE: WHITE

DWG. RELEASE
FABRICATION COPY NO: __ OF __
DATE:
SIGNED:

No.	DATE	REVISIONS	BY
0	Mar 28, 2002	PRELIMINARY	O.P.
P/Q	April 08, 2002	CHECKED BY PE/QC	O.P.
2	April 10, 2002	ISSUED FOR CONSTRUCTION	O.P.
3	April 29, 2002	ADDED ITEMS 419, 420, 421 & 422	O.P.
4	June 20, 2002	AS BUILT	O.P.

THIS DRAWING IS THE PROPERTY OF OPSCO ENERGY INDUSTRIES LTD. AND LOANED TO THE RECIPIENT FOR HIS CONFIDENTIAL USE ONLY. IN CONSIDERATION OF THE LOAN OF THIS DRAWING, THE RECIPIENT PROMISES AND AGREES THAT IT SHALL NOT BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF OPSCO ENERGY INDUSTRIES LTD., THAT IT SHALL BE RETURNED UPON REQUEST, AND THAT IT SHALL NOT BE REPRODUCED, COPIED, LENT OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY, NOR USED FOR ANY PURPOSE OTHER THAN THAT INTENDED WITHOUT THE WRITTEN PERMISSION OF OPSCO ENERGY INDUSTRIES LTD.

ENGINEERS RECORD		DATE
DRAWN BY	O'Neill Pereira	Mar 25, 2002
CHECKED BY		
APPROVED BY		

BILL OF MATERIAL

ITEM	QTY.	SIZE	TYPE	RATING	SCH.	MAT'L SPEC	DESCRIPTION
100. VESSEL							
101	1	42" O.D.	ROLLED PLATE			SA-516-70N	42" O.D. X 5'-0" LG X 1.625" NOM. THK. CAN
102	1	42" O.D.	ROLLED PLATE			SA-516-70N	42" O.D. X 10'-0" LG X 1.625" NOM. THK. CAN
103	2	42" O.D.	FORMED PLATE			SA-516-70N	42" O.D. X 1.625" NOM THK. 2:1 S.E. HEAD (1.500" FORMED MIN.)
200. CONNECTIONS							
201	1	18"	RFHB	600#		SA-105N	ANSI FLANGE, 16" LONG (HEAVY BORE)
202	AS REQ'D	16"	PIPE		100	SA 106B	SMLS PIPE (16" O.D. BOOT) X 1.031" WT.
203	1	16" O.D.	FORMED PLATE			SA-516-70N	16" OD x 1" NOM. THK 2:1 S.E. HEAD (0.9375" FORMED MIN.)
204	1	1 1/2" THK.	ROLLED PLATE			SA-516-70N	28" O.D. x 1 1/2" NOM. THK. REPAD ON SHELL (BOOT)
205	2	8"	RFLWN	600#		SA-105N	ANSI FLANGE, 14" LONG
206	1	6"	RFLWN	600#		SA-105N	ANSI FLANGE, 12" LONG
207	1	4"	RFLWN	600#		SA-105N	ANSI FLANGE, 12" LONG
208	2	3"	RFLWN	600#		SA-105N	ANSI FLANGE, 12" LONG
209	9	2"	RFWN	600#	160	SA-105N	ANSI FLANGE
210	5	2"	BW		160	SA-234-WPB	90° ELBOW LR
211	AS REQ'D	2"	PIPE		160	SA-106B OR SA 336 GR. 6	SEAMLESS PIPE
300. INTERNAL ASSEMBLIES							
301	2	10" WIDE x 40" LONG					REMOVABLE DEMISTER 6" THK. 12#/Cu.Ft., 316L SS MESH SS GRID
302	AS REQ'D	5/16" THK (MIN.)	PLATE			SA-516-70N	DEMISTER STIFFNER
303	AS REQ'D	5/16" THK (MIN.)	PLATE			SA-516-70N	DEMISTER ASSEMBLY
304	AS REQ'D	5/16" THK (MIN.)	PLATE			SA-36	REMOVABLE INLET DIVERTER
305	AS REQ'D	5/16" THK (MIN.)	PLATE			SA-36	REMOVABLE VORTEX BREAKER (10" O.D.)
306	1	5/16" THK (MIN.)	PLATE			SA-36	REMOVABLE WEIR PLATE 37 3/4"ø x 11 1/2" HIGH (SEE DETAIL)
307	3	5/16" THK (MIN.)	PLATE			SA-516-70N/ SA-36	BAFFLE PLATES 8" WIDE (1 No. WELDED & 2 Nos. REMOVABLE – AS SHOWN)
308	AS REQ'D	5/16" THK (MIN.)	PLATE			SA-516-70N	SUPPORT TABS
309	AS REQ'D	5/16" THK (MIN.)	PLATE			SA-36	DEMISTER SUPPORT BAR, 1 1/2" WIDE x LENGTH AS REQ'D.
310	AS REQ'D	5/16" THK (MIN.)	PLATE			SA-516-70N	WEIR BOLTING RING, 38 3/4"ø x 12" HIGH (SEE DETAIL)
400. EXTERNAL ASSEMBLIES							
401	2	3/8" THK	ROLLED PLATE			SA-516-70N	SADDLE WEAR PLATE C/W 1/4"ø WEEP HOLE 14"W x 48" LONG
402	1	18"	RF	600#		SA-105N	BLIND FLANGE
403	1	18"		600#		316 SS	RF MANWAY GASKET
404	1 SET	1 5/8"ø x 10 3/4" L ST.				SA-193-B7M SA-194-2HM	STUDS (20 Nos.) & NUTS (40 Nos.)
405	1	6"	RF	600#		SA-105N	BLIND FLANGE
406	1	6"		600#		316 SS	RF GASKET
407	1 SET	1"ø x 6 3/4" LONG STUDS				SA-193-B7M SA-194-2HM	STUDS (12 Nos.) & NUTS (24 Nos.)
408	1	3"	RF	600#		SA-105N	BLIND FLANGE
409	1	3"		600#		316 SS	RF GASKET
410	1 SET	3/4"ø x 5" LONG STUDS				SA-193-B7M SA-194-2HM	STUDS (8 Nos.) & NUTS (16 Nos.)
411	2	2"	RF	600#		SA-105N	ANSI HUB FLANGE C/W 1" D&T
412	1	2"	RF	600#		SA-105N	ANSI BLIND FLANGE C/W 3/4" D&T
413	1	2"	RF	600#		SA-105N	ANSI BLIND FLANGE C/W 1/2" D&T
414	4	2"		600#		316 SS	RF GASKET
415	4 SETS	5/8"ø x 4 1/4" L ST.				SA-193-B7M SA-194-2HM	STUDS (8 Nos.) & NUTS (16 Nos.) FOR 2" 600# FLANGE
416	1	1/8" NPT					DOCAP GREASE NIPPLE
417	1	6" x 4"				SA-516-70N	NAMEPLATE BRACKET
418	1	5/16" THK. (MIN.)	ROLLED PLATE			SA-516-70N	BRIDLE SUPPORT PLATE 8" W X 12" LONG C/W 1/4"ø WEEP HOLE
419	2	5/16" THK (MIN.)	PLATE			SA-516-70N	2" WIDE INSULATION SUPPORT RING ON SHELL
420	AS REQ'D	1 1/2" x 1/4" THK.				44W	INSULATION SUPPORT ANGLE IRON
422	1	5/16" THK (MIN.)	PLATE			SA-516-70N	2" WIDE INSULATION SUPPORT RING ON BOOT

NOZZLE SCHEDULE

MARK	SIZE	RATING	TYPE	SERVICE	W.D.	FILLET WELD SIZE W41	W42	W43	PROJECTION H (MIN.)	EXT. PROJ.	ITEM
N1	8"	600#	RFLWN	GAS INLET	3,21	3/8"	–	5/8"	3 1/2"	A/S	205
N2	8"	600#	RFLWN	GAS OUTLET	3,21	3/8"	–	5/8"	3 1/2"	A/S	205
N3	4"	600#	RFLWN	CONDENSATE DUMP	3,21	3/8"	–	5/8"	1 1/2"	A/S	207
N4	2"	600#	RFWN	DRAIN	5,9A	3/8"	–	BW	CF	A/S	209, 210, 211
N5A/B	2"	600#	RFWN	BRIDLE CONN.	5,9A	3/8"	–	BW	SF	A/S	209, 210, 211
N6	2"	600#	RFWN	PI/PSHH	5,9A	3/8"	–	BW	SF	A/S	209, 211, 413, 414, 415
N7	2"	600#	RFWN	TEMPERATURE INDICATOR	5,9A	3/8"	–	BW	SF	A/S	209, 211, 412, 414, 415
N8	3"	600#	RFLWN	PSV	3,21	1/2"	–	3/4"	4 3/8"	A/S	208
M9	18"	600#	RFHB	MANWAY	3,21	3/8"	–	5/8"	2"	A/S	201, 402, 403, 404
N10	6"	600#	RFLWN	VENT	3,21	3/8"	–	5/8"	1"	A/S	206, 405, 406, 407
N11	3"	600#	RFLWN	CONDENSATE RECYCLYE	3,21	1/2"	–	3/4"	1 5/8"	A/S	208, 408, 409, 410
N12A/B	2"	600#	RFWN	LSHH	5,9A	3/8'	–	BW	SF	A/S	209, 211, 411, 414, 415
N13A/B	2"	600#	RFWN	WATER LC	5,9A	3/8"	–	BW	CF	A/S	209, 210, 211
B14	16"	–	PIPE	PIPE BOOT	1,7C,21	3/8"	1"	BW	CF	A/S	202, 203, 204

BW = BACKWELD
SF = SQUARE–CUT FLUSH
CF = CONTOUR–CUT FLUSH
WD = WELD DESIGN
A/S = AS SHOWN

DESIGN DATA

DESIGN & CONSTRUCTION	Vessel to be designed and constructed in accordance with ASME Boiler and Pressure Vessel Code Section VIII Div. 1			Code Year:2001	Addenda:2001
MDMT	–20°F. Material impact testing required on Items 101, 102, 103 & 201. Production charpy testing required as per UCS–66(a) & UCS–67(a). All other items are exempt from impact testing per UG–20(f) [1–5]				
MAWP	1355 PSIG	9343 Kpa	SERIAL No.		01–3692–1
DESIGN TEMPERATURE	92 °F	89 °C	CRN		P8918.2
HYDROTEST PRESS.	2032 PSIG	14011 Kpa	TAG No.		V–101
CORR. ALLOWANCE	0.1250 Inch	3.2 mm	YEAR BUILT		2002
VOLUME	160 Cu.Ft.	4.5 Cu.M.	INSPECTION By		A.B.S.A.
RADIOGRAPHY *	RT–1 (100%)		APPROX. SHIPPING WT.		18,000 Lbs
CRN DRAWING No.	V–02–3692–2220 R.2		FINAL JOINT EFF.		100%
STRESS RELIEVE	YES, 1150°F for 1 Hr & 45 Mins.				

Note: * Full on Long Seams & Circ Seams, and All Butt Welded Nozzles as per UW11(a) and UW51

CLIENT: PAN CANADIAN ENERGY C/O DPH ENGINEERING

PROJECT: 42" O.D. x 15'–0" S/S INLET SEPARATOR & CONDENSATE CONDITIONER PACKAGE (O–103)

TITLE: 42" O.D. x 15'–0" S/S INLET SEPARATOR

Scale	JOB No.	DWG. No.	REV.
1:18	JM–02–3692	V–02–3692–2220	4

3692V–42.Dwg