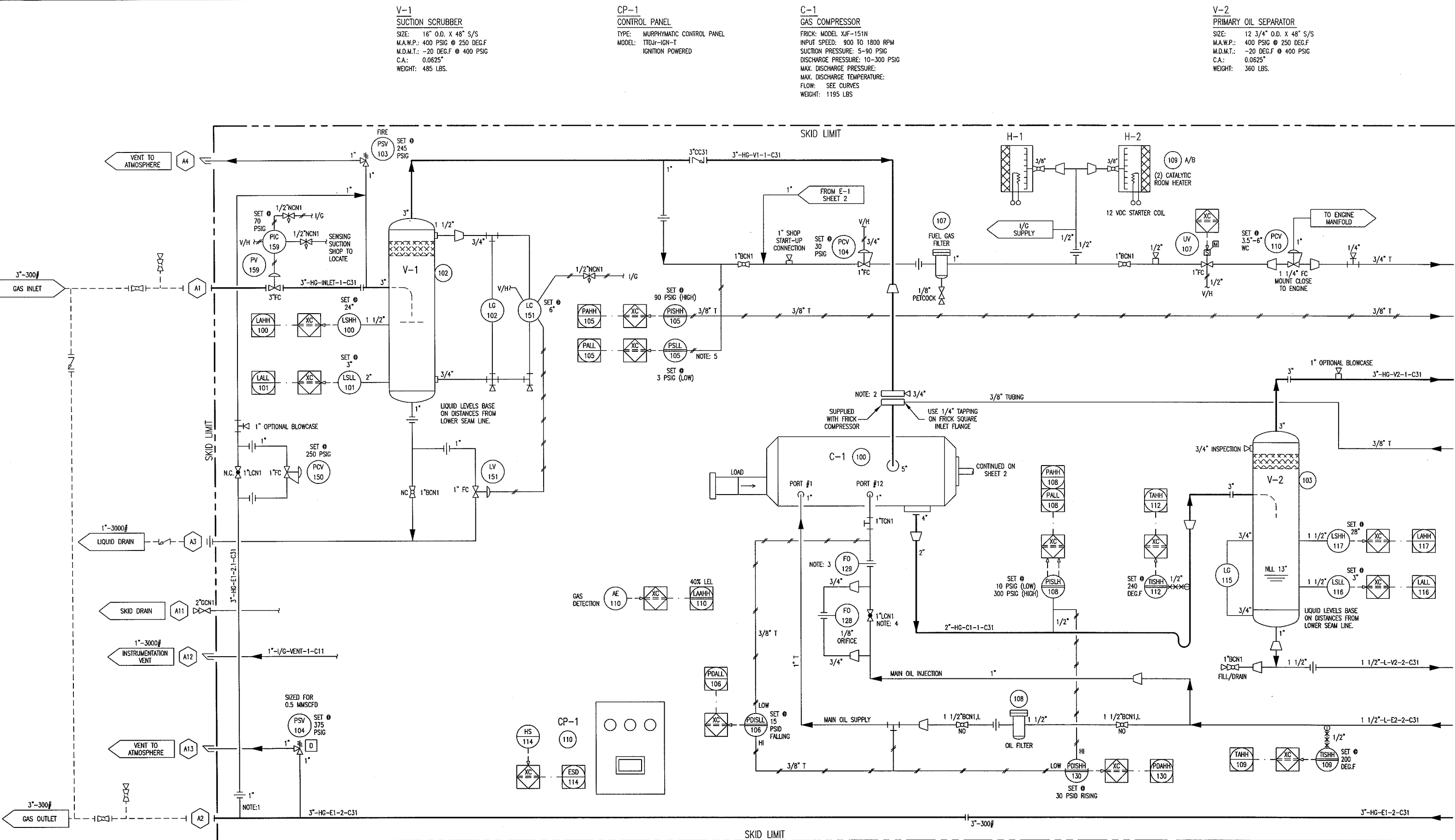


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SKID GENERAL NOTES:

- ELECTRICAL CLASSIFICATION: CLASS 1, DIV. 2, GROUP D
- FIRE AND GAS DETECTION: NET SAFETY LEL
- MINIMUM DESIGN AMBIENT TEMPERATURE: 50 DEG.F
- MAXIMUM DESIGN AMBIENT TEMPERATURE: 90 DEG.F
- SITE ELEVATION: 2500 FT.
- ATMOSPHERIC PRESSURE: 13.4 PSIA
- COMPRESSOR OIL TYPE: S5-150 (18 USGAL)
- ENGINE OIL TYPE: ESSO C40, OR EQUAL (14 USGAL)
- ENGINE GLYCOL CHARGE: 50 / 50 EGLY (22 USGAL)

NOTE:

- NOTE: 1 TAKE CONNECTION FROM THE TOP OF PIPE
- NOTE: 2 INTEGRAL STRAINER SUPPLIED WITH FRICK COMPRESSOR
- NOTE: 3 ORIFICE SUPPLIED WITH COMPRESSOR
- NOTE: 4 ADJUST OIL INJECTION TO CONTROL DISCHARGE TEMPERATURE.
- NOTE: 5 CCS SWITCH TO CONTROL LOW SUCTION SHUTDOWN
- NOTE: 6 ALL TUBING TO BE 316SS WITH SS PRIMARY & SECONDARY FERRULES

REV.	DESCRIPTION	DATE	BY	APPR.
3	FINAL AS BUILT	SEPT 15/05	GH	AR
2	AS BUILT	APR 22/05	RH	AR
1	ISSUED FOR CONSTRUCTION	FEB 18/05	CD	AR

PERMIT TO PRACTICE STAMP

ENGINEER STAMP

TOROMONT

PROCESS SYSTEMS

DRAWN BY: B. DAWOOD
CHKD. BY: A. ROSSI
APPR. BY: A. ROSSI
CUST. PO No:

DATE: FEB 18/05
SCALE: N/A
W.D. No: 11726101

TITLE: P & I FLOW DIAGRAM

FOR: HUSKY ENERGY INC.
90 HP WELLHEAD BOOSTER UNIT
(FRICK XJF 151 N COMPRESSOR)

DWG. No: 11726-101
SHEET No: 1 OF 3
REV: 3

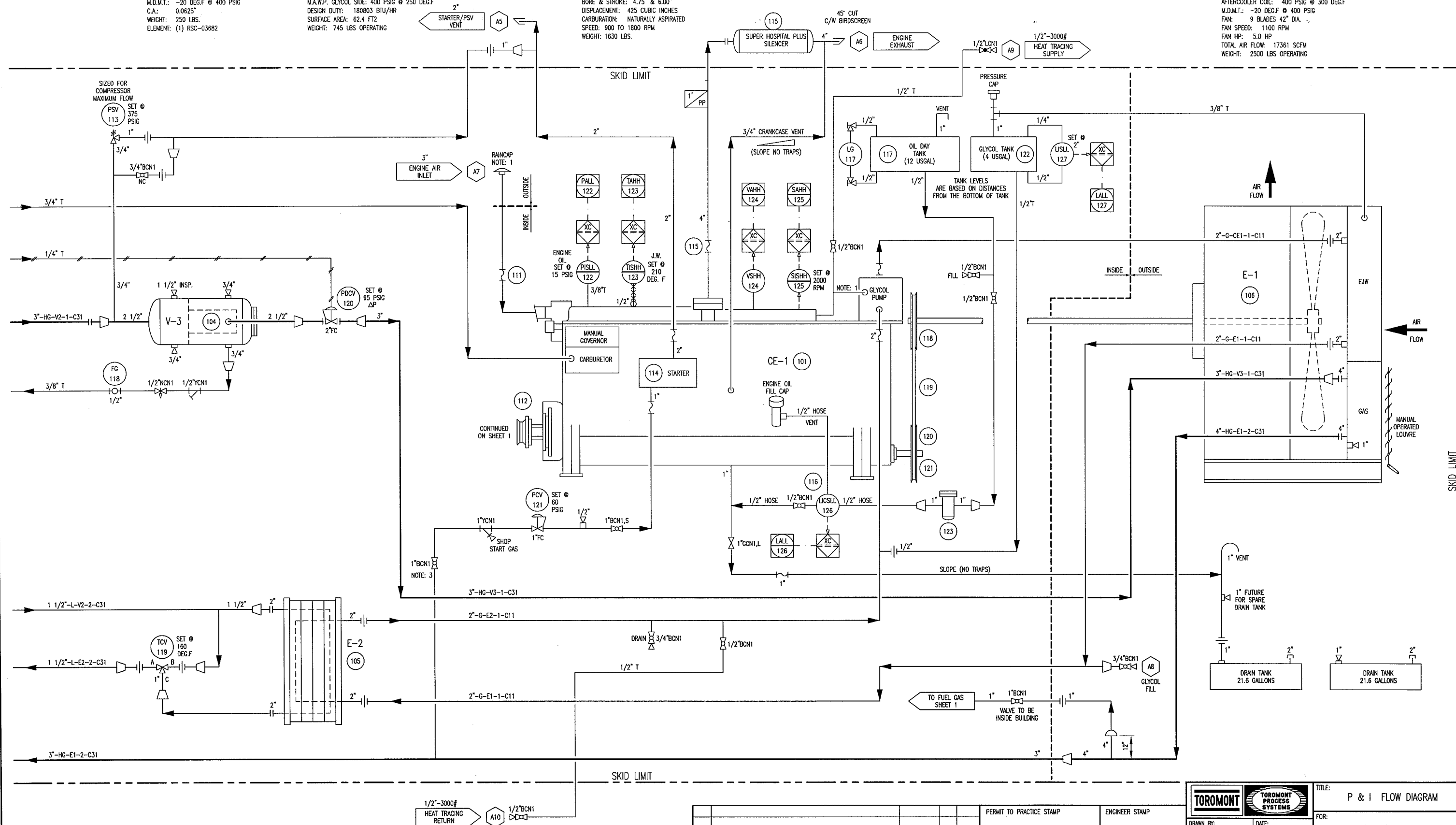
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V-3
SECONDARY OIL SEPARATOR
CHIL-CON: MODEL COSM-070-T
SIZE: 12 3/4" O.D. X 36 3/8" O.A.L.
M.A.W.P.: 400 PSIG @ 400 DEG.F
M.D.M.T.: -20 DEG.F @ 400 PSIG
C.A.: 0.0625"
WEIGHT: 250 LBS.
ELEMENT: (1) RSC-03682

E-2
OIL COOLER
MODEL: MEX VX20-FN1-75
PLATES: 31
M.A.W.P. OIL SIDE: 400 PSIG @ 250 DEG.F
M.A.W.P. GLYCOL SIDE: 400 PSIG @ 250 DEG.F
DESIGN DUTY: 180803 BTU/HR
SURFACE AREA: 62.4 FT²
WEIGHT: 745 LBS OPERATING

CE-1
COMPRESSOR ENGINE
CATERPILLAR MODEL 3304NA
90 HP @ 1800 RPM
NO. OF CYLINDERS: 4
BORE & STROKE: 4.75" & 6.00"
DISPLACEMENT: 425 CUBIC INCHES
CARBURATION: NATURALLY ASPIRATED
SPEED: 900 TO 1800 RPM
WEIGHT: 1630 LBS.

E-1
GLYCOL COOLER/AFTERCOOLER
TYPE: AIR-X
MODEL: 42 VI
GLYCOL COIL: 14 PSIG @ 300 DEG.F
AFTERCOOLER COIL: 400 PSIG @ 300 DEG.F
M.D.M.T.: -20 DEG.F @ 400 PSIG
FAN: 9 BLADES 42" DIA.
FAN SPEED: 1100 RPM
FAN HP: 5.0 HP
TOTAL AIR FLOW: 17361 SCFM
WEIGHT: 2500 LBS OPERATING



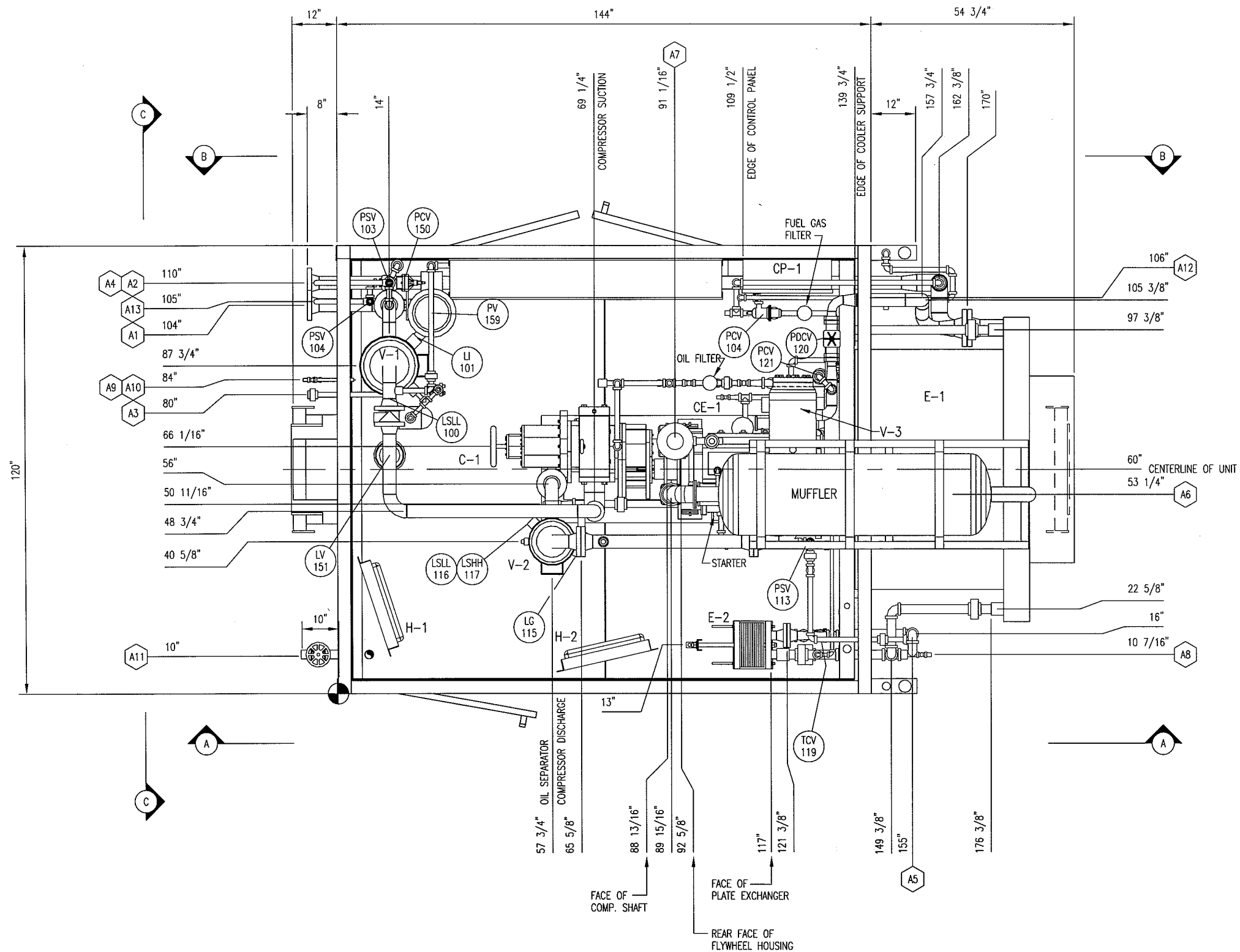
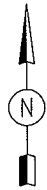
NOTE: 1 SUPPLIED WITH ENGINE
NOTE: 2 ALL TUBING TO BE 316SS WITH SS PRIMARY & SECONDARY FERRULES
NOTE: 3 OPEN ONLY DURING STARTUP

REV.	DESCRIPTION	DATE	BY	APPR.
3	FINAL AS BUILT	SEPT 15/05	GH	AR
2	AS BUILT	APR 22/05	RH	AR
1	ISSUED FOR CONSTRUCTION	FEB 18/05	CD	AR

PERMIT TO PRACTICE STAMP	ENGINEER STAMP

TOROMONT PROCESS SYSTEMS	TITLE: P & I FLOW DIAGRAM
DRAWN BY: B. DAWOOD CHKD. BY: A. ROSSI APPR. BY: A. ROSSI CUST. PO No:	DATE: FEB 18/05 SCALE: N/A W.O. No: 11726101
FOR: HUSKY ENERGY INC. 90 HP WELLHEAD BOOSTER UNIT (FRICK XJF 151 N COMPRESSOR)	DWG. No: 11726-101 SHEET No: 2 OF 3 REV: 3

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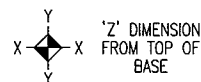


NOZZLE SCHEDULE

MARK	SERVICE	SIZE	RATING	TYPE
A1	GAS INLET	3"	300#	RFWN
A2	GAS OUTLET	3"	300#	RFWN
A3	LIQUID DRAIN	3/4"	3000#	NPT
A4	PSV-103 VENT TO ATMOSPHERE	1"	-	STUB
A5	STARTER/PSV VENT	2"	-	STUB
A6	ENGINE EXHAUST	4"	-	STUB
A7	ENGINE AIR INLET	3"	-	STUB
A8	GLYCOL FILL	3/4"	2000#	NPT
A9	HEAT TRACING SUPPLY	1/2"	3000#	NPT
A10	HEAT TRACING RETURN	1/2"	3000#	NPT
A11	SKID DRAIN	2"	STUB	NPT
A12	INSTRUMENT VENT	3/4"	-	STUB
A13	PSV-104 VENT TO ATMOSPHERE	1"	-	STUB

GENERAL NOTES:

- ALL TAIL DIMENSIONS FROM REFERENCE POINT.
- SHIPPING LENGTH: 212"
SHIPPING WIDTH: 126"
SHIPPING HEIGHT: 130"
- SHIPPING WEIGHT: 17800 LBS
- OPERATING WEIGHT: 18000 LBS
- OVERALL SKID DEPTH: 8 3/16"
- NOZZLE ELEVATIONS ARE FROM CENTERLINE OF PIPE TO TOP OF BASE (REFERENCE POINT).
- (*) DENOTES ELEVATION FROM FACE OF FLANGE TO TOP OF BASE (REFERENCE POINT).
- CENTER OF GRAVITY:
'X' FROM REFERENCE POINT: 96 3/8"
'Y' FROM REFERENCE POINT: 61 1/8"
'Z' FROM REFERENCE POINT: 28 1/2"



REV.	DESCRIPTION	DATE	BY	APPR.
3	FINAL AS BUILT	SEPT 15/05	GH	AR
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1	ISSUED FOR CONSTRUCTION	FEB 18/05	CD	AR

PERMIT TO PRACTICE STAMP

ENGINEER STAMP



TITLE:

GENERAL ARRANGEMENT

FOR:

HUSKY ENERGY INC.
90 HP WELLHEAD
BOOSTER UNIT
FRICK XJF 151N COMPRESSOR

DRAWN BY:

GORD HOWE

DATE:

FEB 18/05

CHKD. BY:

A. ROSSI

SCALE:

3/4" = 1'-0"

APPR. BY:

A. ROSSI

W.O. No:

11726201

CUST. PO No:

DWG. No:

11726-201

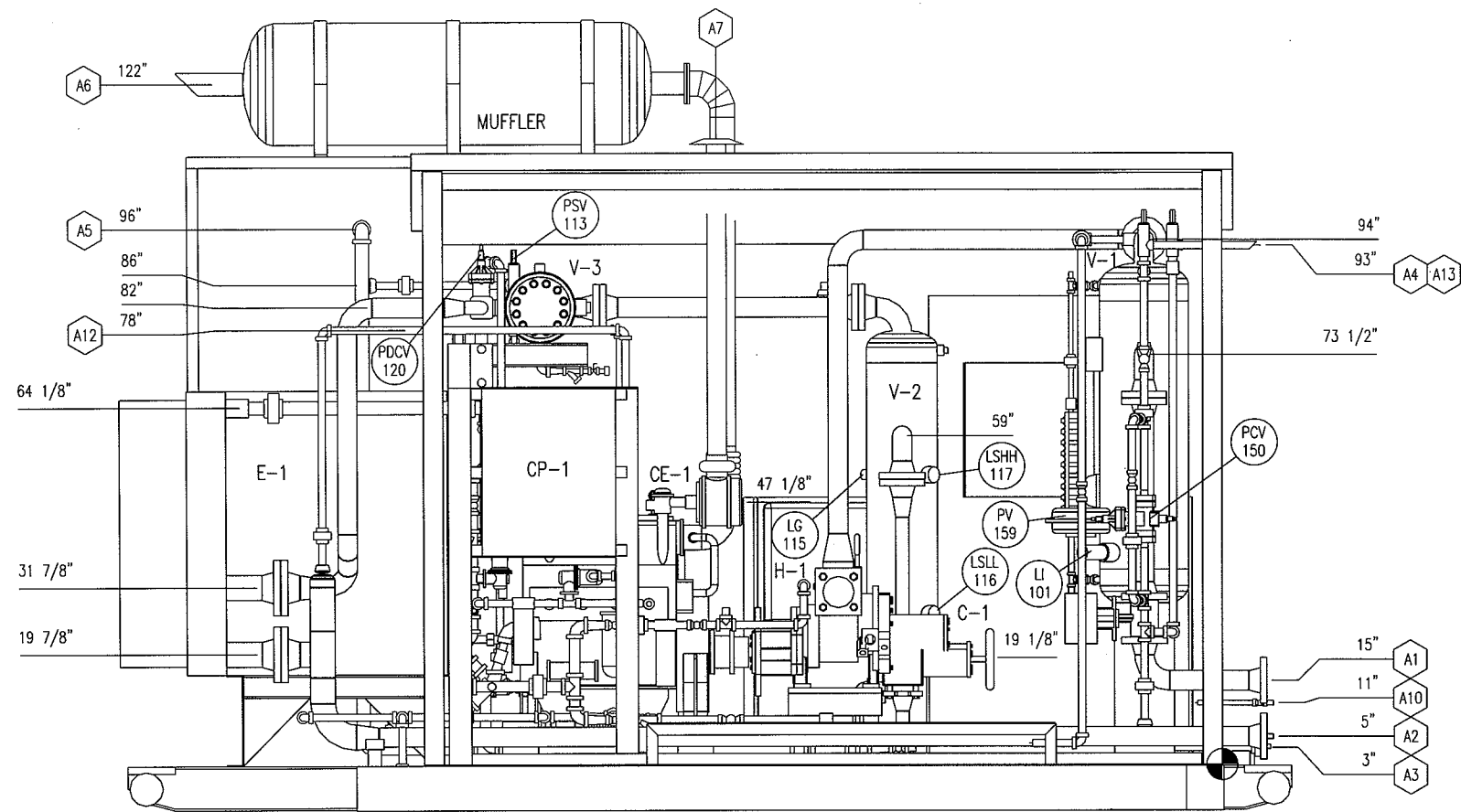
SHEET No:

1 OF 3

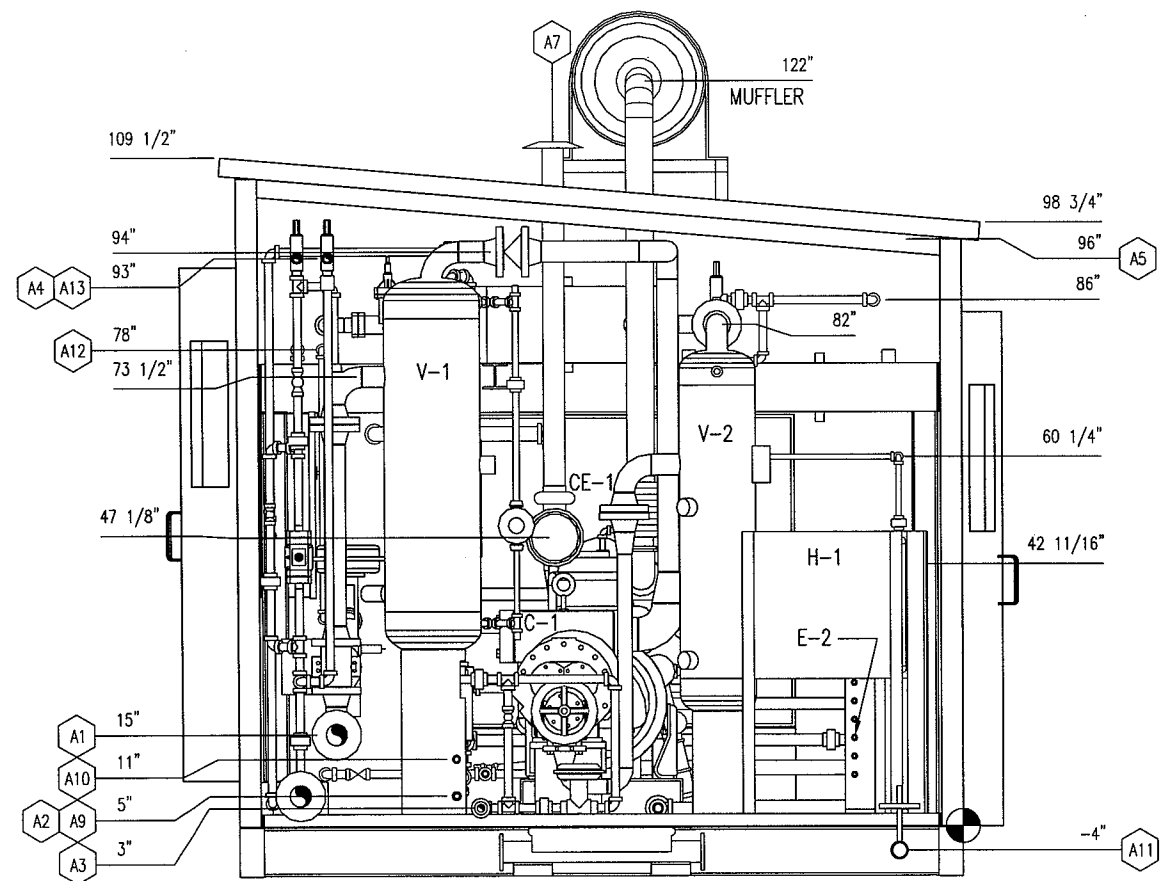
REV:

3

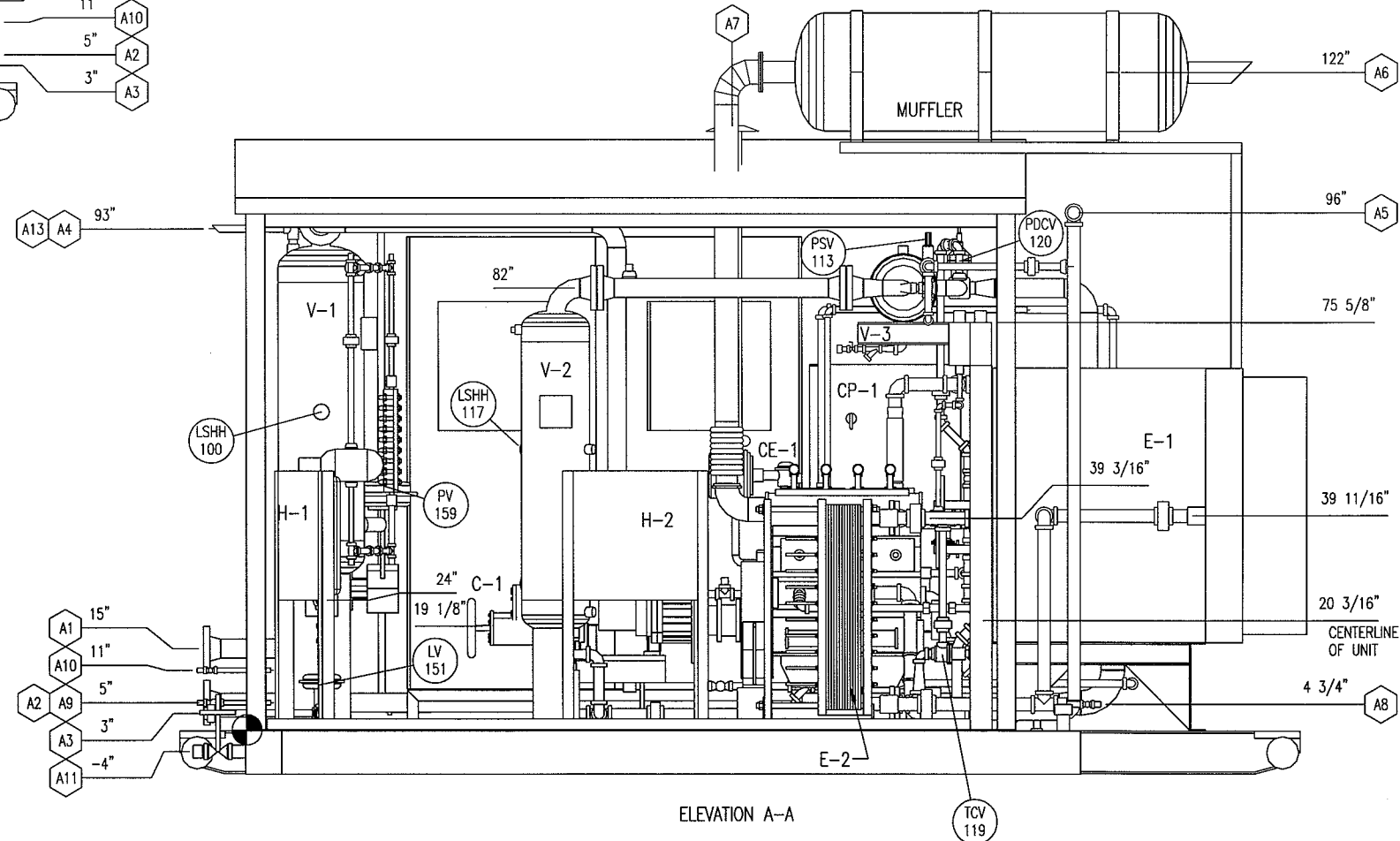
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ELEVATION B-B



ELEVATION C-C



ELEVATION A-A

REV.	DESCRIPTION	DATE	BY	APPR.
3	FINAL AS BUILT	SEPT 15/05	GH	AR
2	AS BUILT	APR 22/05	RH	AR
1	ISSUED FOR CONSTRUCTION	FEB 18/05	CD	AR

PERMIT TO PRACTICE STAMP

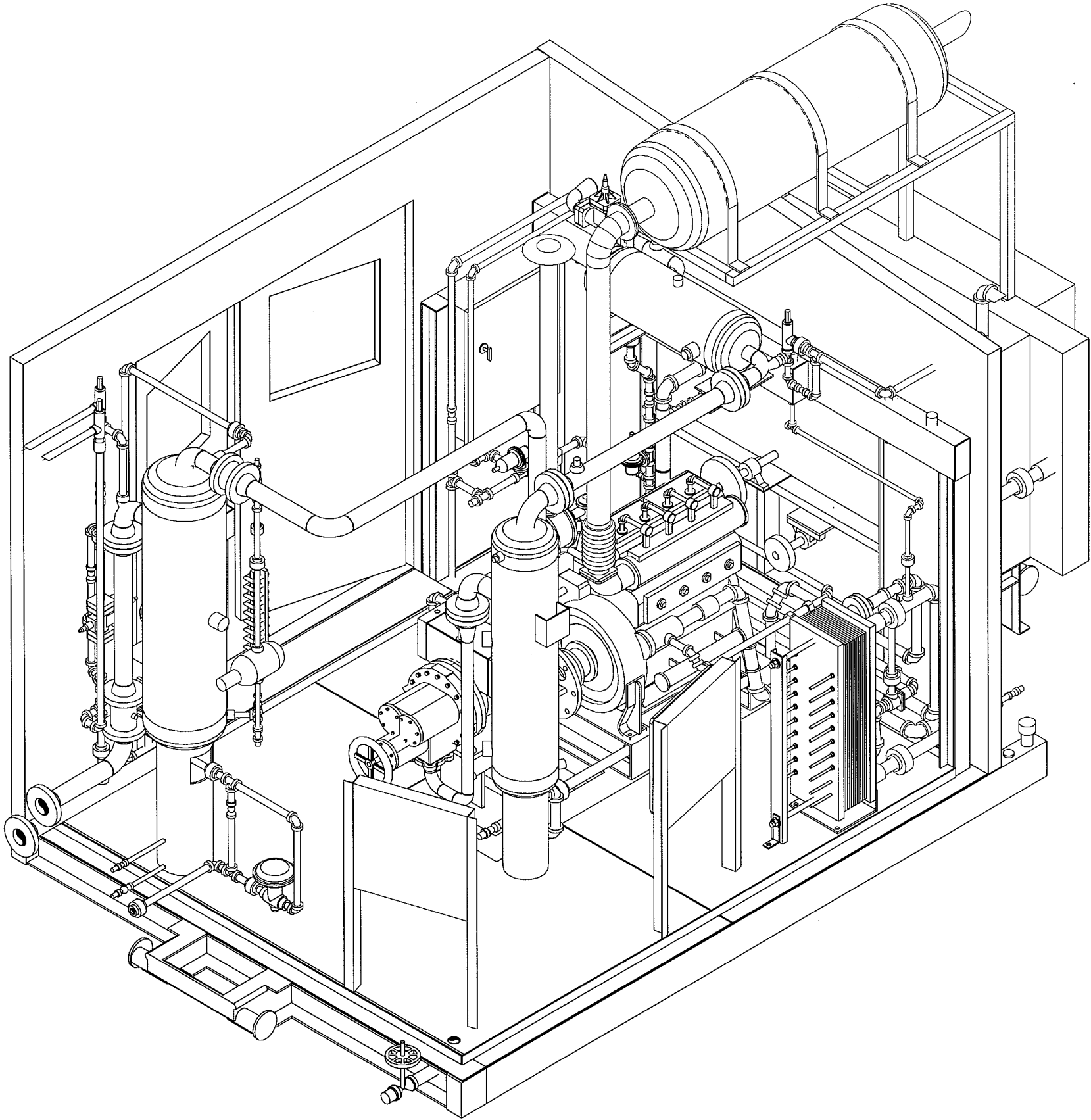
ENGINEER STAMP

TOROMONT
TOROMONT PROCESS SYSTEMS
DRAWN BY: GORD HOWE
CHKD. BY: A. ROSSI
APPR. BY: A. ROSSI
CUST. PO No:

DATE: FEB 18/05
SCALE: 3/4" = 1'-0"
W.O. No: 11726201

TITLE: ELEVATIONS
FOR: HUSKY ENERGY INC.
90 HP WELLHEAD BOOSTER UNIT
FRICK XJF 151N COMPRESSOR
DWG. No: 11726-201
SHEET No: 2 OF 3
REV: 3

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REV.	DESCRIPTION	DATE	BY	APPR.
3	FINAL AS BUILT	SEPT 15/05	GH	AR
2	AS BUILT	APR 22/05	RH	AR
1	ISSUED FOR CONSTRUCTION	FEB 18/05	CD	AR

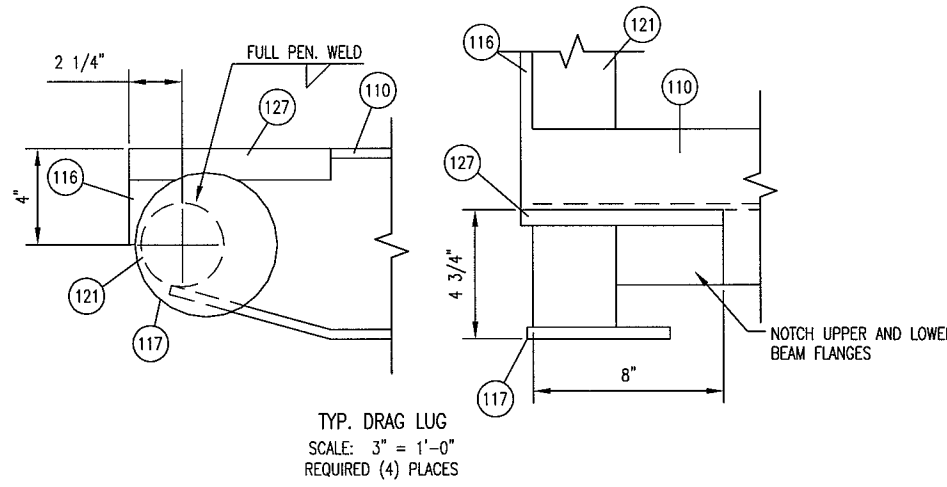
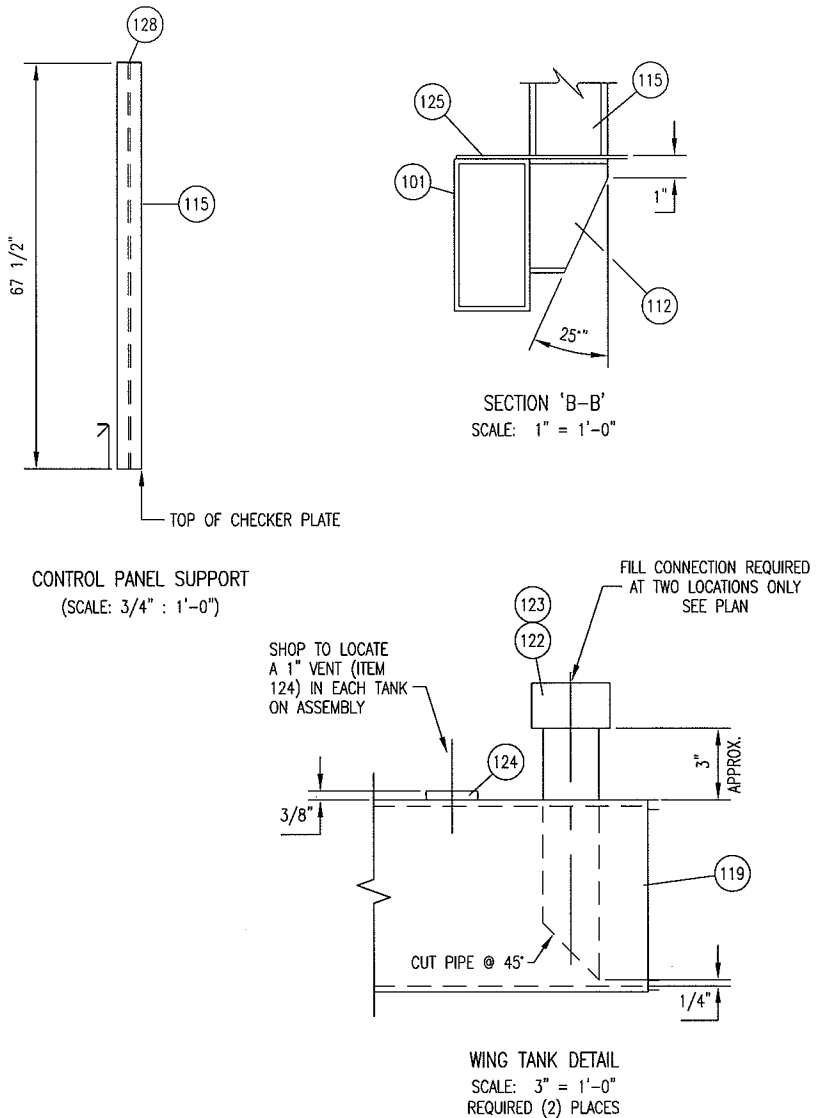
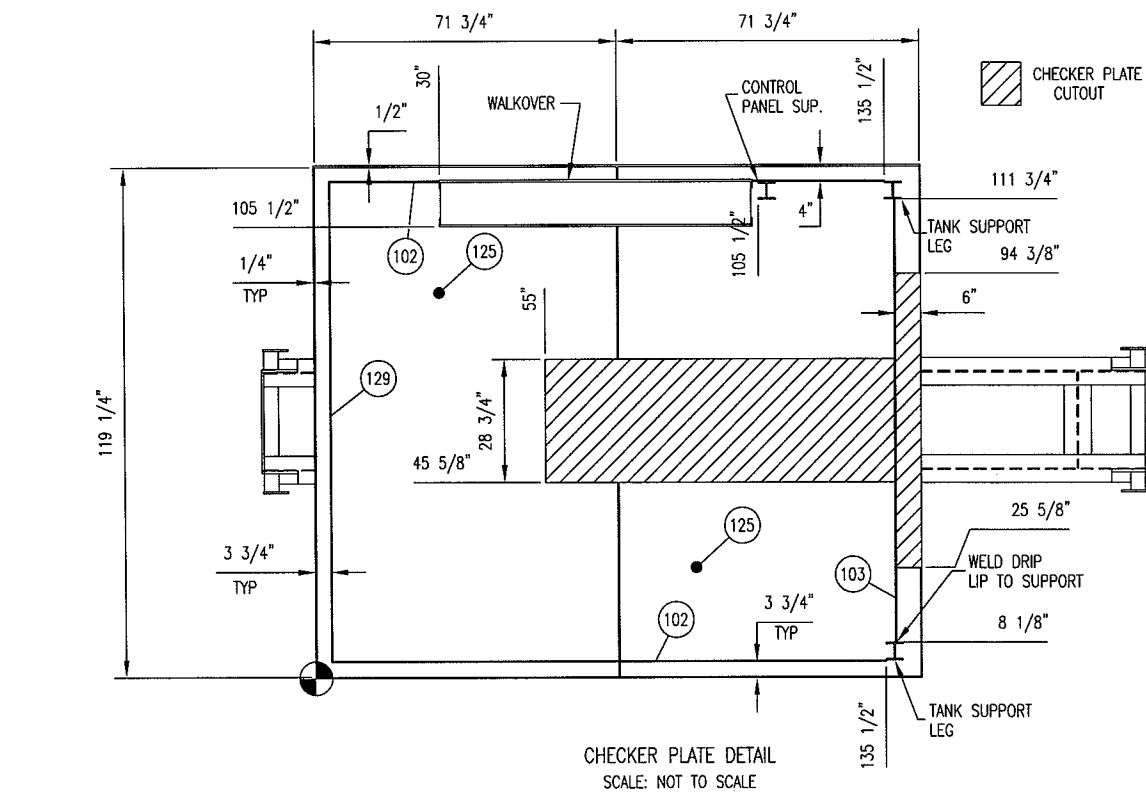
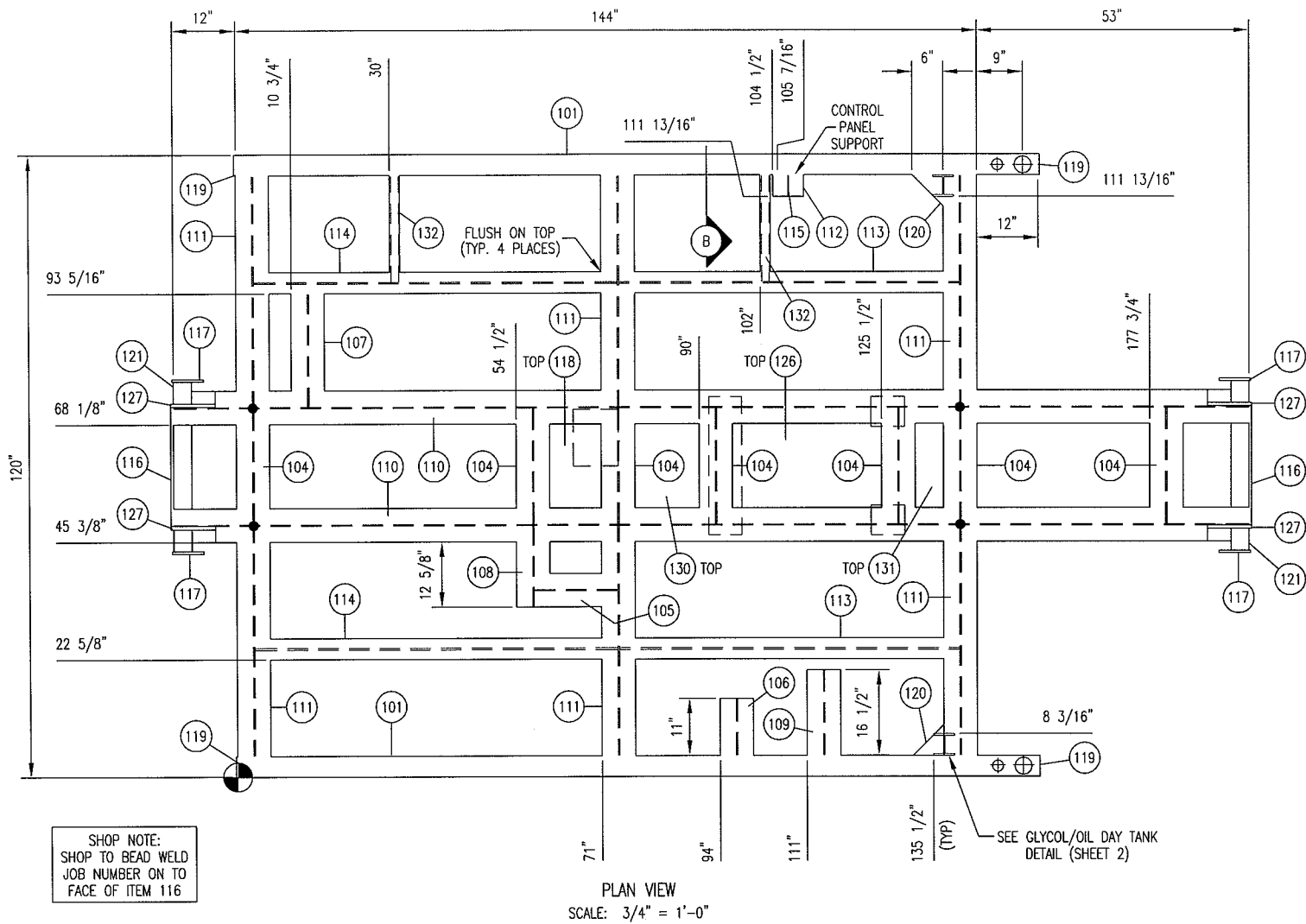
PERMIT TO PRACTICE STAMP

ENGINEER STAMP

TOROMONT		TOROMONT PROCESS SYSTEMS	
DRAWN BY: GORD HOWE		DATE: FEB 18/05	
CHKD. BY: A. ROSSI		SCALE: 1"=1'	
APPR. BY: A. ROSSI		W.D. No: 11726201	
CUST. PO No:			

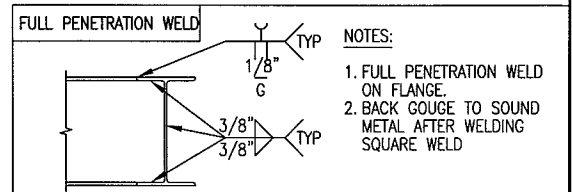
TITLE: 3D MODEL	
FOR: HUSKY ENERGY INC. 90 HP WELLHEAD BOOSTER UNIT FRICK XJF 151N COMPRESSOR	
DWG. No: 11726-201	SHEET No: 3 OF 3
REV: 3	

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BILL OF MATERIAL		
ITEM	QTY	DESCRIPTION
101	2	H.S.S.: 8 X 4 X 0.250" THK X 156" LG
102	2	FLAT BAR: 1/4" THK 2" X 131 3/4" LG
103	1	FLAT BAR: 1/4" THK 2" X 103 5/8" LG
104	7	W 8 X 24 X 22 1/2" LG
105	1	W 8 X 24 X 16 1/4" LG
106	1	W 8 X 24 X 11" LG
107	1	W 8 X 24 X 21 3/4" LG
108	1	W 8 X 24 X 15 3/4" LG
109	1	W 8 X 24 X 16 1/2" LG
110	2	W 8 X 24 X 209" LG
111	6	W 8 X 24 X 44 1/2" LG
112	1	W 6 X 15 X 4 3/16" LG
113	2	W 4 X 13 X 66 1/4" LG
114	2	W 4 X 13 X 70 3/4" LG
115	1	W 4 X 13 X 67 1/2" LG
116	2	FLAT BAR: 1/2" THK 4" X 23" LG
117	4	PLATE: 1/2" THK 6" DIA.
118	1	PLATE: 3/8" THK 10" X 16 1/4" LG
119	4	FLAT BAR: 1/4" THK 4" X 8" LG
120	1	FLAT BAR: 1/2" THK 6" SQ. (CUT @ 45° 1 MAKES 2)
121	2	PIPE: 3" NOM SCH 80 X 32 3/4" LG
122	2	PIPE: 2" NOM SCH 40 X 15 1/2" LG (CTS)
123	2	PIPE CAP: 2"-3000# NPT
124	2	COUPLING: 1"-3000# NPT
125	2	CHECKER PLATE: 3/16" THK 72" X 120" LG
126	1	PLATE: 3/8" THK 16 1/4" X 29" LG
127	2	PIPE: 1" NOM SCH 80 X 8 1/2" LG (CUT IN HALF)
128	1	PLATE: 1/4" THK 4" SQ.
129	1	FLATBAR: 2" X 1/4" THK X 112" LG.
130	1	PLATE: 3/8" THK 12 1/2" X 16 1/4" LG
131	1	PLATE: 3/8" THK 5 1/2" X 16 1/4" LG
132	2	H.S.S.: 2" X 2" X 0.250" THK X 20 1/2" LG

- GENERAL NOTES:
- ALL TAIL DIMENSIONS FROM REFERENCE POINT.
 - WEIGHT OF SKID STEEL BASE: 4470 LBS
WEIGHT OF RAISED BASE: 289 LBS
TOTAL WEIGHT: 4759 LBS
 - COPE FLANGES WHERE REQUIRED.
 - ALL WELDS TO BE 1/4" FILLETS ALL AROUND, UNLESS OTHERWISE NOTED.
 - ALL CUT LENGTHS ARE EXACT TOL +0.0"/-0.125" (+0 MM/-3 MM)
 - ALL BOLT HOLES ARE 3/4" (19 MM) UNLESS OTHERWISE NOTED.
 - SURFACE PREP: SSPC-SP2.
PRIMER: ONE COAT OF PRI-1 RED OXIDE
PAINT: ONE COAT OF FIN-1
 - FULL PENETRATION STRENGTH WELD IS REQ'D AT THESE LOCATIONS.
 - ALL PANEL JOINTS OF CHECKER PLATE ARE TO BE SEAL WELDED.
PERIMETER OF SKID TO BE STITCH WELDED. SKID MEMBERS TO UNDERSIDE
OF CHECKER PLATE TO BE STITCH WELDED AT 2"(50 MM) OF FILLET
ON 16" (406) CENTERS

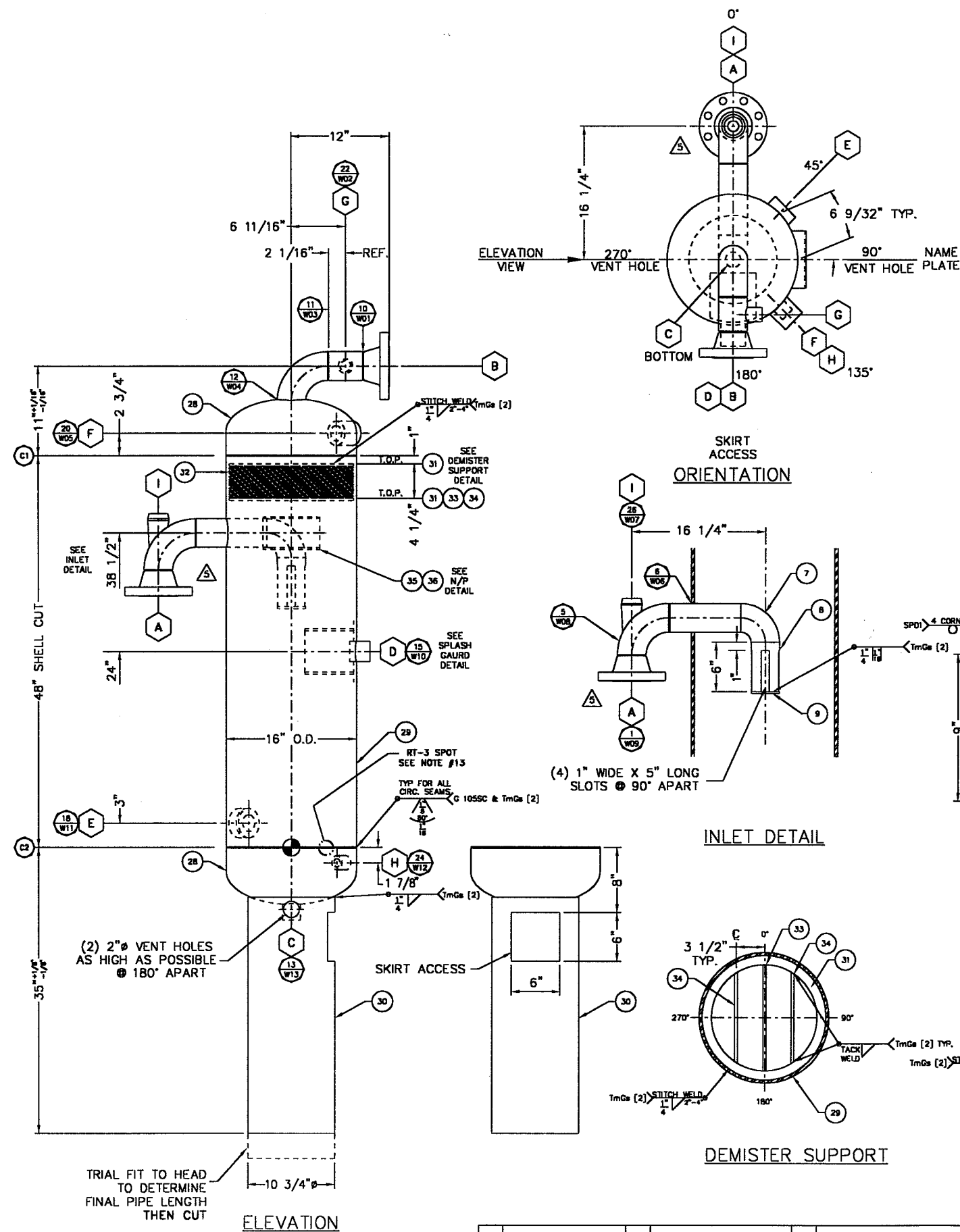


REV.				DESCRIPTION		DATE		BY		APPR.	
3	FINAL AS BUILT	SEPT 15/05	GH	AR							
2	AS BUILT	APR 22/05	RH	AR							
1	ISSUED FOR CONSTRUCTION	FEB 18/05	CD	AR							

PERMIT TO PRACTICE STAMP		ENGINEER STAMP	

DRAWN BY: GORD HOWE		DATE: FEB 18/05	
CHKD. BY: A. ROSSI		SCALE: AS NOTED	
APPR. BY: A. ROSSI		W.O. No.: 11726201	
CUST. PO No:		DWG. No.: 11726-301	

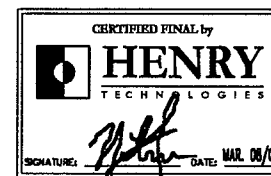
TITLE: STRUCTURAL STEEL DETAILS		FOR: HUSKY ENERGY INC. 90 HP WELLHEAD BOOSTER UNIT FRICK XJF 151N COMPRESSOR	
		SHEET No: 1 OF 2	
		REV: 3	



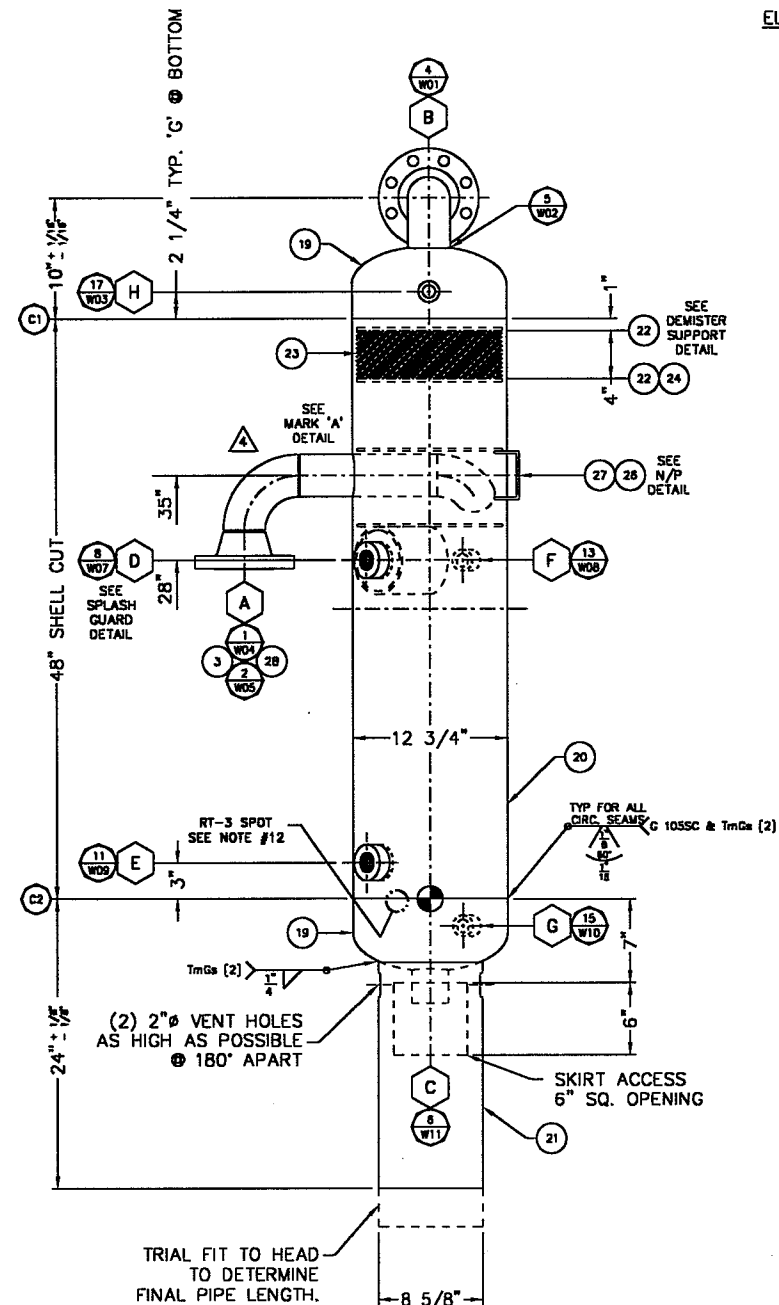
SCHEDULE OF OPENINGS				BILL OF MATERIAL				WELD CHART							
MARK	SERVICE	ITEM	QTY	DESCRIPTION	UNIT	MATERIAL	PART No.	WLD	WELD A	WELD B	WELD C	O.S. PROJ.	I.S. PROJ.	I.S. PROF.	HEAT NUMBER
A	INLET	1	1	FLANGE: 3" x 300 LB. RF. WELD NECK (SCH80 BORE)	1.00	SA 105	FW242E21	12	-	-	-	-	-	STR	
		2	1	ELBOW: 3" SCH80 LONG RADIUS 90°	1.00	SA 234 WPB	EL248041	13	-	-	-	-	-	STR	
		3	1	PIPE: 3" SCH80 x 8 5/8" LG.	8.63	SA 106B SMLS	PS248014	1	3/8"	-	-	DET	DET	STR	
		4	1	ELBOW: 3" SCH40 SHORT RADIUS 90°	1.00	SA 234 WPB	ES244041	13	-	-	-	-	-	STR	
		5	1	PIPE: 3" SCH40 x 6" LG.	6.00	SA 106B SMLS	PS244014	13	-	-	-	-	-	STR	
		6	1	PLATE: 3 1/2" OD. x 1/4" THK.	1.00	SA 36	PPT20004								
		7	1	FLANGE: 3" x 300 LB. RF. WELD NECK (SCH80 BORE)	1.00	SA 105	FW242E21	12	-	-	-	-	-	STR	
		8	1	PIPE: 3" SCH80 x 4 3/8" LG.	4.38	SA 106B SMLS	PS248014	13	-	-	-	-	-	STR	
		9	1	ELBOW: 3" SCH80 LONG RADIUS 90°	1.00	SA 234 WPB	EL248041	1E	3/8"	-	-	DET	MIN	STR	
C	DRAIN	13	1	COUPLING: 1" FPT. 6000 LB. FULL	1.00	SA 105	CF086T21	3	3/8"	-	-	-	FLUSH	CONT	
		14	1	PLUG: 1" HEX HEAD	1.00	SA 105	PG08HX21								
D	LEVEL SWITCH	15	1	COUPLING: 1 1/2" FPT. 6000 LB. HALF	1.00	SA 105	CH126T21	3	3/8"	-	-	-	MIN	STR	
		16	1	PLUG: 1 1/2" HEX HEAD	1.00	SA 105	PG12HX21								
		17	1	PIPE: 5" SCH40(0.250") x 6" LG.	6.00	SA 106B SMLS	PL054014								
E	LEVEL EYE (INSPECTION)	18	1	COUPLING: 2" FPT. 6000 LB. HALF	1.00	SA 105	CH166T21	3	3/8"	-	-	-	MIN	STR	
		19	1	PLUG: 2" HEX HEAD	1.00	SA 105	PG16HX21								
F	INSPECTION	20	1	COUPLING: 1 1/2" FPT. 6000 LB. FULL	1.00	SA 105	CF126T21	3	3/8"	-	-	-	MIN	STR	
		21	1	PLUG: 1 1/2" HEX HEAD	1.00	SA 105	PG12HX21								
G	FUEL GAS SUPPLY	22	1	COUPLING: 1" FPT. 6000 LB. FULL	1.00	SA 105N	CF086T21	3	3/8"	-	-	-	MIN	STR	
		23	1	PLUG: 1" HEX HEAD	1.00	SA 105	PG08HX21								
H	LEVEL GLASS OPTION	24	1	COUPLING: 3/4" FPT. 6000 LB. FULL	1.00	SA 105	CF086T21	3	1/4"	-	-	-	MIN	STR	
		25	1	PLUG: 3/4" HEX HEAD	1.00	SA 105	PG08HX21								
I	P.S.V.	26	1	ELBOWLET: 1" FPT. 6000 LB. FULL	1.00	SA 105	OE086T21	14	1/4"	-	-	-	N/A	STR	
		27	1	PLUG: 1" HEX HEAD	1.00	SA 105	PG08HX21								
		28	2	PIPE CAP: 16" STD.WT.(0.375") x 7" H.H. 0.3281" MIN. THK.	1.00	SA 234 WPB	PC128541								
		29	1	PIPE: 16" STD.WT.(0.375") x 48" LG. (SHELL) 0.3281" MIN. THK.	48.00	SA 106B SMLS	PL160114								
		30	1	PIPE: 10" SCH40(0.365") x 28 7/8" LG. (SKIRT) CUT TO LENGTH AT FIT UP.	28.88	SA 106B SMLS	PL104014								
		31	2	PLATE: 15 1/8" OD. x 13" ID. x 1/4" THK. (DEMISTER SUPPORT)	1.00	SA 516-70	PPT20005								
		32	1	DEMISTER PAD: 4" THK. x 15 1/8" OD. @ 90°/180°	1.00	STAINLESS STEEL	MP40816N								
		33	1	ROUND BAR: 3/8" DIA. x 12 7/8" LG. (DEMISTER SUPPORT)	0.20	SA 36	R9060003								
		34	2	ROUND BAR: 3/8" DIA. x 11" LG. (DEMISTER SUPPORT)	0.20	SA 36	R9060003								
		35	1	NAMEPLATE:	1.00	ST.STL	NM05XU96								
		36	1	NAMEPLATE BRACKET: STD. 2" CLEARANCE (RADIUS TO FIT SHELL WITH 1" CLEARANCE)	1.00	SA 36	PP-13051								
		37													

GENERAL NOTES:

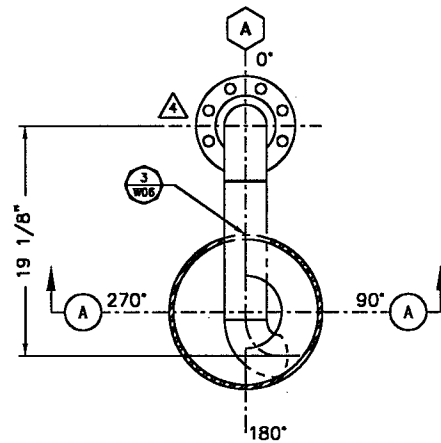
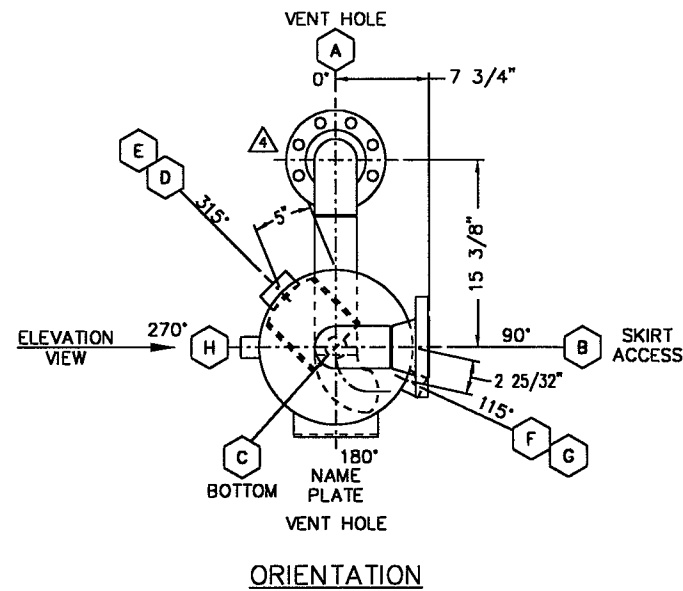
- ALL TAIL DIMENSIONS FROM REFERENCE POINT.Ⓢ
- ALL FORGED THD & SW FITTINGS PER ANSI B16.11 UNLESS OTHERWISE NOTED.
- EXTERIOR & INTERIOR OF VESSEL TO BE FREE OF WELD SLAG, SPATTER, GREASE, MOISTURE, ETC.
- ALL CUT LENGTHS ARE FINISHED LENGTHS, PIPING CUT LENGTHS ARE BASED ON 1/8" (3 mm) WELD GAP.
- PROJECT NAME PLATE 1" (25 mm) FROM SHELL/INSUL.
- ALL TACK WELDS TO BE PER TmGs [2]
- SURFACE PREPARATION: SANDBLAST TO SSPC-SP6.
- PRIMER: ONE COAT OF RED OXIDE PRIMER (SPEC# PRI-1)
- INSULATION:NONE
- VESSEL BUILT TO TOROMONT DWG. No.: TPS-90-V1/1
- VESSEL BASED ON HENRY TECHNOLOGIES DWG. No.: TPS0007/0
- VESSEL TO BE SHIPPED c/w PARTIAL DOCUMENTATION.
- SPOT RADIOGRAPHY TO MEET RT-3 REQUIREMENTS. (RECOMMENDED SPOT SHOWN, AUTHORIZED INSPECTOR MAY RELOCATE)



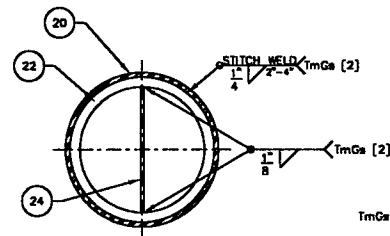
DESIGN DATA					
TYPE: "SS"		POSITION: HORIZ. XXX		VERT. _____	
WEIGHT - EMPTY: 485 (LBS) - 220 (KGS)					
DESIGN PRESSURE (PSIG) [kPaG]		400 [2758]			
DESIGN TEMPERATURE (°F.) [°C]		-20/250 [-29/121]			
MINIMUM DESIGN METAL TEMPERATURE (IMPERIAL)		-20°F @ 400 PSIG			
MINIMUM DESIGN METAL TEMPERATURE (METRIC)		-29°C @ 2758 kPaG			
PNEUMATIC TEST PRESSURE (PSIG) (CODE CASE 1518-5)		440 [3034]			
FLUID \ VAPOUR		NATURAL GAS			
RADIOGRAPHY		RT-3			
CORROSION ALLOWANCE		1/16" [1.6mm]			
CODE PARAGRAPH		UW-12(d)			
CRN: L9760.213		DWG. No.: R200183A/D			
VOLUME : SHELL SIDE: 3.25 (ft³ 0.11 m³)					
VESSEL TO BE DESIGNED & CONSTRUCTED IN ACCORDANCE WITH A.S.M.E. SECTION VIII DIVISION 1, 2004 EDITION, & C.S.A. B-51 CODES.					
FEB. 7/05	7	LH	UPDATED EDITION, CHGD WLD SYM TO TmGs [2]		
JAN. 23/04	6	DK	UPDATED TO CURRENT ADDENDA		
JUNE 25/03	5	DM	REMOVED EXTERNAL PIPING & CHANGED ORIENTATION		
JAN. 24/03	4	CS	UPDATED TO CURRENT		
MAY 15/02	3	DM	INCREASED SKIRT LENGTH		
Sept. 25/01	2	SGC	REVISED AS PER CUSTOMER REQUESTS		
FEB. 02/01	1	Dm	ADDED BRACING FOR EXTERNAL PIPING		
DATE	REV.	BY	REVISION		APP'D.
ENGINEERING MANAGER or DESIGNER					
REV. I. APPROVED FOR FABRICATION BY		SIGNATURE		DATE	
		P.O. BOX 1385, BRANTFORD ONTARIO, CANADA, N3T 5T8 PHONE: (519) 759-3010 FAX: (519) 759-8746			
MODEL No.: V-1 SUCTION SCRUBBER 16" OD. x 48" SEAM to SEAM					
c/w 'A' @ 0° & 'B' @ 180°		REF. DWG. No.: TPS0007			
CUSTOMER: TOROMONT PROCESS SYSTEMS			DWG. No.: TPS0012		
DATE:	BY:	CHK'D:	APP'D:	SCALE:	ORDER NUMBER:
JAN. 02/01	SGC			N.T.S.	
					REV. No.: 7



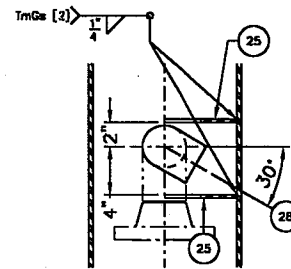
ELEVATION



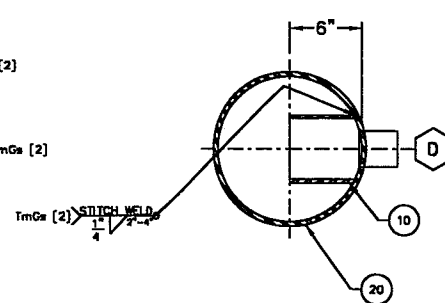
MARK 'A' DETAIL



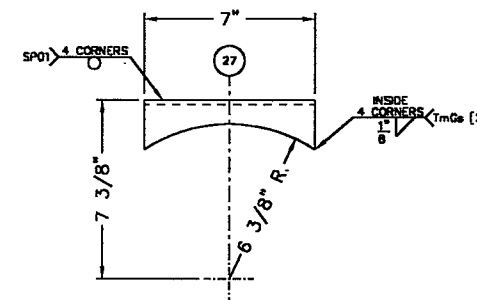
DEMISTER SUPPORT



VIEW 'A'-A'

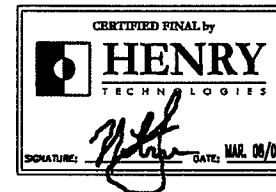


SPLASH GUARD DETAIL
NOT TRUE ORIENTATION



N/P DETAIL

SCHEDULE OF OPENINGS				BILL OF MATERIAL				WELD CHART							
MARK	SERVICE	ITEM	QTY	DESCRIPTION	UNIT	MATERIAL	PART No.	WLD	WELD A	WELD B	WELD C	O.S. PROJ.	I.S. PROJ.	I.S. PROF.	HEAT NUMBER
A	INLET	4	1	FLANGE: 3" x 300 LB. R.F. WELD NECK (SCH.80 BORE)	1.00	SA 105	FW242E21	12	-	-	-	-	-	STR	
		2	1	ELBOW: 3" SCH.80 LONG RADIUS 90°	1.00	SA 234 WPB	EL248041	13	-	-	-	-	-	STR	
		3	1	PIPE: 3" SCH.80 x 11 3/8" LG.	11.38	SA 106B SMLS	PS248014	1	3/8"	-	-	DET	DET	STR	
		28	1	ELBOW: 3" SCH.80 SHORT RADIUS 90°	1.00	SA 234 WPB	ES248041	13	-	-	-	-	-	STR	
B	OUTLET	4	1	FLANGE: 3" x 300 LB. R.F. WELD NECK (SCH.80 BORE)	1.00	SA 105	FW242E21	12	-	-	-	-	-	STR	
		5	1	ELBOW: 3" SCH.80 LONG RADIUS 90°	1.00	SA 234 WPB	EL248041	1E	3/8"	-	-	DET	MIN	STR	
C	DRAIN	6	1	COUPLING: 1 1/2" FPT. 6000 LB. FULL	1.00	SA 105	CF126T21	3	3/8"	-	-	-	FLUSH	STR	
		7	1	PLUG: 1 1/2" HEX HEAD	1.00	SA 105	PG12HX21								
D	LEVEL SWITCH	8	1	COUPLING: 1 1/2" FPT. 6000 LB. HALF	1.00	SA 105	CH126T21	3	3/8"	-	-	-	MIN	STR	
		9	1	PLUG: 1 1/2" HEX HEAD	1.00	SA 105	PG12HX21								
		10	1	PIPE: 5" SCH.40(0.250") x 8" LG.	6.00	SA 106B SMLS	PL054014								
E	LEVEL SWITCH (INSPECTION)	11	1	COUPLING: 1 1/2" FPT. 6000 LB. HALF	1.00	SA 105	CH126T21	3	3/8"	-	-	-	MIN	STR	
		12	1	PLUG: 1 1/2" HEX HEAD	1.00	SA 105	PG12HX21								
F	LEVEL GAUGE	13	1	COUPLING: 3/4" FPT. 6000 LB. FULL	1.00	SA 105	CF066T21	3	3/8"	-	-	-	MIN	STR	
		14	1	PLUG: 3/4" HEX HEAD	1.00	SA 105	PG06HX21								
G	LEVEL GAUGE	15	1	COUPLING: 3/4" FPT. 6000 LB. FULL	1.00	SA 105	CF066T21	3	3/8"	-	-	-	MIN	STR	
		16	1	PLUG: 3/4" HEX HEAD	1.00	SA 105	PG06HX21								
H	INSPECTION	17	1	COUPLING: 3/4" FPT. 6000 LB. FULL	1.00	SA 105	CF066T21	3	5/16"	-	-	-	MIN	STR	
		18	1	PLUG: 3/4" HEX HEAD	1.00	SA 105	PG06HX21								
		19	2	PIPE CAP: 12" STD.WT.(0.375") x 6" H.H. (HEADS) 0.3281" MIN. THK.	1.00	SA 234 WPB	PC960141								
		20	1	PIPE: 12" STD.WT.(0.375") x 48" LG. 0.3281" MIN. THK. (SHELL)	48.00	SA 106B SMLS	PL120114								
		21	1	PIPE: 8" SCH.40(0.322") x 22" LG. 0.3281" MIN. THK. (SKIRT) EXTRA TO BE CUT OFF AT FIT UP.	22.00	SA 106B SMLS	PL084014								
		22	2	PLATE: 11 7/8" OD. x 10 3/8" ID. x 1/4" THK. (DEMISTER SUPPORT)	1.00	SA 518-70	PPT20007								
		23	1	DEMISTER PAD: 4" THK. x 11 7/8" OD. @ 9H/12"	1.00	STAINLESS STEEL	MP40912N								
		24	2	ROUND BAR: 1/4" DIA. x 10 1/4" LG.	0.20	SA 36	RB040003								
		25	2	PLATE: 11 7/8" OD. x 6" ID. x 1/4" THK. (FLOW DIRECTOR)	1.00	SA 518-70	PPT20008								
		26	1	NAMEPLATE:	1.00	ST.STL.	NM05XU96								
		27	1	NAMEPLATE BRACKET: STD. 2" CLEARANCE (RADIUS TO FIT SHELL WITH 1" CLEARANCE)	1.00	SA 36	PP-13051								



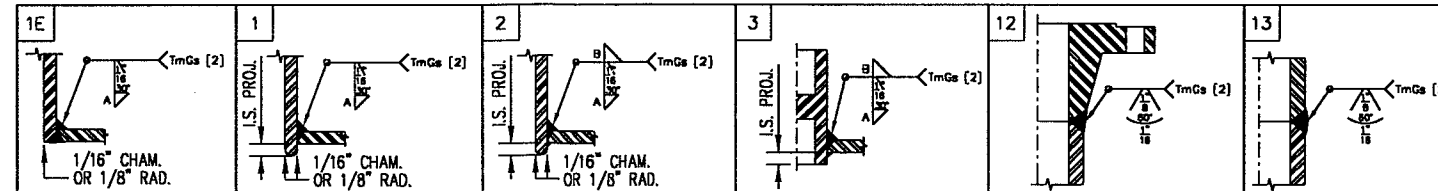
DESIGN DATA	
TYPE: '05'	POSITION: HORIZ. XXX VERT. _____
WEIGHT - EMPTY: 360 (LBS) - 164 (KGS)	
DESIGN PRESSURE (PSIG) (kPag)	400 (2758)
DESIGN TEMPERATURE (°F.) (°C)	-20/250 [-28/121]
MINIMUM DESIGN METAL TEMPERATURE (IMPERIAL)	-20°F @ 400 PSIG
MINIMUM DESIGN METAL TEMPERATURE (METRIC)	-29°C @ 2758 kPag
PNEUMATIC TEST PRESSURE (PSIG) (CODE CASE 1518-5)	440 (3034)
FLUID VAPOUR	NATURAL GAS
RADIOGRAPHY	RT-3
CORROSION ALLOWANCE	1/16" (1.6mm)
CODE PARAGRAPH	UW-12(d)
CRN: L9758.213	OWG. No.: R2001838/0
VOLUME: SHELL SIDE: 3.75 ft ³ 0.11 m ³	
VESSEL TO BE DESIGNED & CONSTRUCTED IN ACCORDANCE WITH A.S.M.E. SECTION VIII DIVISION 1, 2004 EDITION, & C.S.A. B-51 CODES.	

- GENERAL NOTES:**
- ALL TAIL DIMENSIONS FROM REFERENCE POINT.Ⓢ
 - ALL FORGED THD & SW FITTINGS PER ANSI B16.11 UNLESS OTHERWISE NOTED.
 - EXTERIOR & INTERIOR OF VESSEL TO BE FREE OF WELD SLAG, SPATTER, GREASE, MOISTURE, ETC.
 - ALL CUT LENGTHS ARE FINISHED LENGTHS, PIPING CUT LENGTHS ARE BASED ON 1/8" (3 mm) WELD GAP.
 - PROJECT NAME PLATE 1" (25 mm) FROM SHELL/INSUL.
 - ALL TACK WELDS TO BE PER WP GS
 - SURFACE PREPARATION: SANDBLAST TO SSPC-SP6.
 - PRIMER: ONE COAT OF RED OXIDE PRIMER (SPEC# PRI-1)
 - INSULATION: NONE
 - VESSEL BUILT TO TOROMONT DWG. No.: TPS-90-V2/1
 - VESSEL TO BE SHIPPED c/w PARTIAL DOCUMENTATION.
 - SPOT RADIOGRAPHY TO MEET RT-3 REQUIREMENTS. (RECOMMENDED SPOT SHOWN, AUTHORIZED INSPECTOR MAY RELOCATE)

FEB. 7/05	6	LH	UPDATED TO CURRENT, CHGD WLD SYM TO TmGs [2]	
JAN. 21/04	5	CS	UPDATED TO CURRENT	
JUNE 26/03	4	OW	ADDED INLET FLANGE & CHANGED ORIENTATION	
JAN. 24/03	3	CS	UPDATED TO CURRENT	
SepL 25/01	2	SGC	REVISED SKIRT LENGTH TO 22"	
DATE	REV.	BY	REVISION	APP'D.

ENGINEERING MANAGER or DESIGNER		
REV. 6 APPROVED FOR FABRICATION BY	SIGNATURE	DATE

HENRY TECHNOLOGIES		P.O. BOX 1395, BRANTFORD ONTARIO, CANADA, N3T 5T6 PHONE: (519) 759-3010 FAX: (519) 759-6746	
MODEL No.: V-2 OIL SEPARATOR		12" OD. x 48" SEAM TO SEAM c/w 'A' @ 0° & 'B' @ 90°	
CUSTOMER: TOROMONT PROCESS SYSTEMS		DWG. No: TPS0008	
DATE: APRIL 03/00	BY: SGC	CHK'D: APP'D:	SCALE: ORDER NUMBER: REV. No: 6



ORIENTATION OF MOUNTING PLATE AND FILTER GUIDE TO BE HELD

TOP CENTERLINE OF VESSEL

TOP

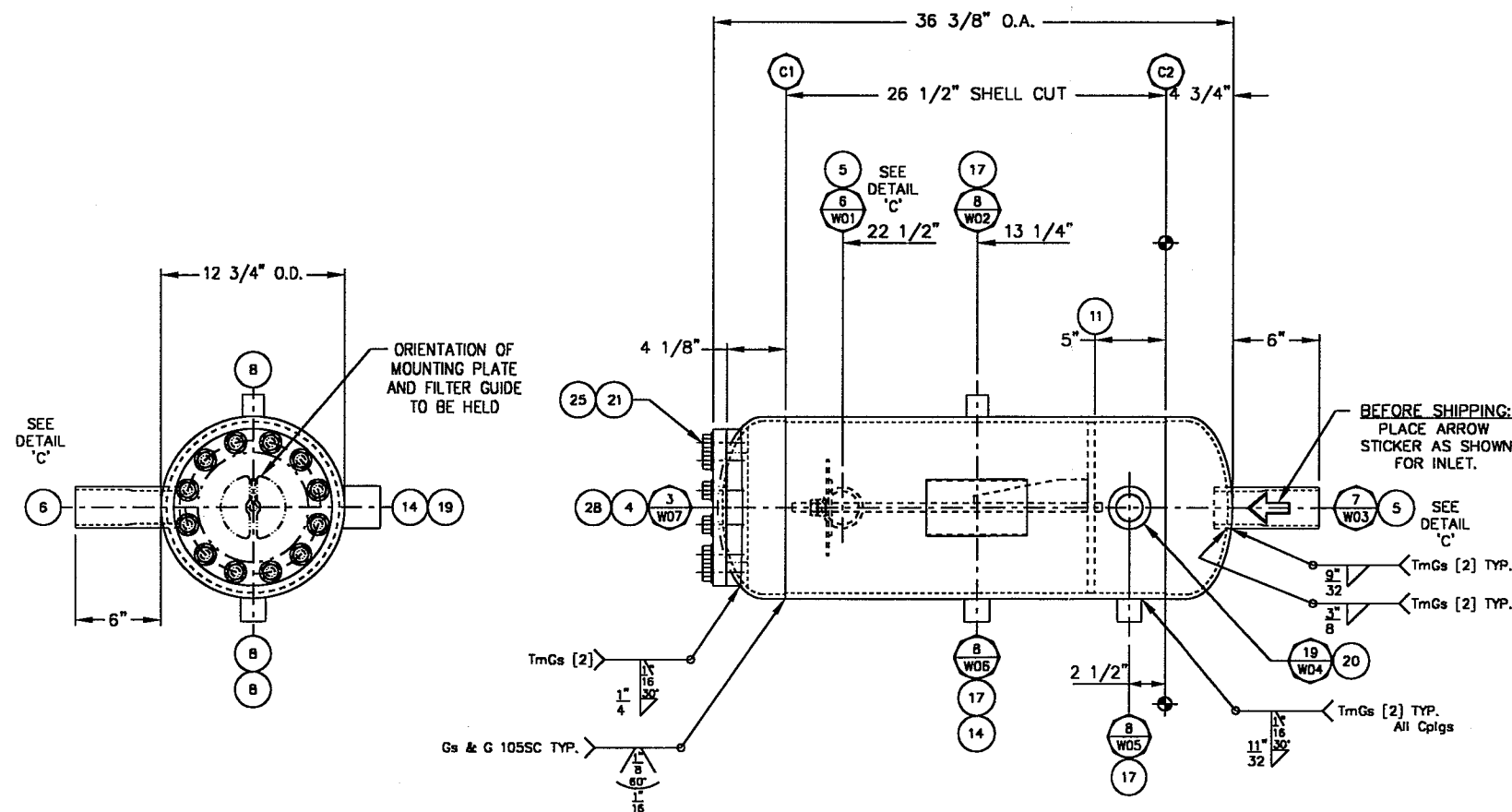
AREA TO BE SMOOTH & FREE OF ALL WELD SPLATTER, BURN MARKS, CUTS OR BURRS.

DO NOT GRIND

8" DIA.

DRILL: 21/32" Ø

SANDBLAST THIS SIDE TO SSPC SP-10

[illegible]

2.323 DIA. REF.

3 3/4"

2.469 DIA. ± 0.010

6 7

TAPER SCH.80 TO SCH.40

CERTIFIED FINAL by

 **HENRY**
TECHNOLOGIES

SIGNATURE:  DATE: MAR. 08/01

TOROMONT CERTIFIED DRAWING		
REFERENCE: TPS 90 HP OIL SEPARATOR		
DATE:	BY:	REV.: 0

ITEM	QTY	DESCRIPTION	UNIT	MATERIAL	PART No.
1	1	PIPE: 12" STD.WT.(0.375") x 26 1/2" LG. (SHELL) 0.3281" MIN. THK.	26.50	SA 538 ERW	PL120111
2	2	HEAD: 12 3/4" OD. x 5/16" THK. 2:1 SEMI-ELLIP. (HOT FORMED) 0.2938" MIN. THK.	1.00	SA 516-70	SE120501
3	1	BOLTING PAD: 11" OD. x 7 11/16" ID. x 1 1/2" THK. 1.3750" MIN. THK.	1.00	SA 516-70 NORMALIZED	PP15064B
4	1	FLAT HEAD: 11" OD. x 1 1/4" THK. 1.1250" MIN. THK.	1.00	SA 516-70	PP15064A
5	2	TESTING PLATE: for 2 1/2" PIPE	1.00	SA 36	PP-TP250
6	1	PIPE: 2 1/2" SCH.80 x 7 3/8" LG. (SEE DETAIL 'C')	1.00	SA 106B SMLS	PPT20066
7	1	PIPE: 2 1/2" SCH.80 x 7 3/8" LG. (SEE DETAIL 'C')	1.00	SA 106B SMLS	PPT20066
8	3	COUPLING: 3/4" FPT. 6000 LB. FULL	1.00	SA 105N	CF066T21
9					
10	1	COALESCER: 7" OD. x 18" LG.	1.00		RSC03682
11	1	MOUNTING BRKT: 11 7/8" OD. x 1/2" THK. SEE DWG: T20013/1	1.00	SA 36	PPT20013
12	1	PLATE: 6 3/4" OD. x 3/8" THK. (END COVER) SEE DWG: T20014/0	1.00	SA 36	PPT20014
13	1	COALESCER ROD: 5/8" DIA. x 21" LG.	1.00	SA 36	PPT00052
14	1	NAMEPLATE: (WELD TO SHELL USING SP01)	1.00	ST.STL.	NM05XU96
15					
16	1	PLATE: 8" x 1 11/16" x 1/4" THK. (FILTER GUIDE) SEE DWG: T20015/0	1.00	SA 36	PPT20015
17	3	PLUG: 3/4" HEX HEAD	1.00	SA 105N	PG06HX21
18					
19	1	COUPLING: 1 1/2" FPT. 6000 LB. FULL	1.00	SA 105N	CF126T21
20	1	PLUG: 1 1/2" HEX HEAD	1.00	SA 105N	PG12HX21
21	12	BOLT: 5/8"-11UNC x 1 3/4" LG. HEX HEAD	1.00	SA 193 B7	BC051461
22	1	NUT: 5/8" - 11UNC HEAVY HEX	1.00	SA 194-2H	NC050066
23	1	NUT: 5/8" - 11UNC NYLOCK HEX	1.00	18.8 (304)	NN050024
24					
25	12	BELLEVILLE WASHER: 5/8" DIA. x 1/8" THK.	1.00	SA 36	WA050103
26					
27					
28	1	GASKET: 8 9/16" OD. x 7 13/16" ID. x 1/16" THK.	133.69	OURLON 8700	GSKT0159

1. M.A.W.P.: 400 PSIG. ● 400°F. M.D.M.T.: -20°F. ● 400 PSIG.
2. TEST PRESSURE: 440 PSIG. PNEUMATIC.
3. VESSEL TO BE DESIGNED & CONSTRUCTED IN ACCORDANCE WITH A.S.M.E. SECTION VIII DIVISION 1, 2004 EDITION, UW-12(e) & C.S.A. B-51 CODES.
4. C.R.No.: L9799.213 DWG. No.: R200183D Rev.1
5. VESSEL TO BE CLEANED TO HENRY TECHNOLOGIES WORK INSTRUCTION: K003
6. ALL EXPOSED INSIDE EDGES TO BE CHAMFERED OR ROUNDED.
7. EXTERIOR FINISH: RED OXIDE PRIMER.
8. ALL TAIL DIMENSIONS ARE REFERENCED FROM DATUM LINE.
9. GASKET SEAT AREA TO BE FREE OF ALL CUTS, BURS OR BURN MARKS. INSURE COALESCKER IS PROPERLY SEATED.
10. BOLTING PAD & FLAT HEAD DWG No.: 15064 Rev.1
11. CORROSION ALLOWANCE: 1/16"
12. IMPACT TEST EXEMPT PER UCS-66.
13. EMPTY WEIGHT 250 LBS.
14. VESSEL TO BE SHIPPED c/w PARTIAL DOCUMENTATION.

FEB. 4/05	8	LH	CHGD WELD SYM TO TrnGs [2] UPDATED EDITION	
JULY 23/04	7	CS	CHANGED ROUND BAR TO A DIFFERENT PART NUMBER	
JAN. 23/04	6	DK	UPDATED TO CURRENT ADDENDA	
MAR. 26/03	5	DK	UPDATED TO ISO STANDARDS	
JAN. 24/03	4	CS	UPDATED TO CURRENT	
MAY 09/02	3	DK	UPDATED NEW PART & TO CURRENT STANDARDS	
DATE	REV.	BY	REVISION	APP'D.

REV. 8 APPROVED FOR FABRICATION BY

REV. <u>8</u> APPROVED FOR FABRICATION BY	SIGNATURE
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REV. <u>8</u> APPROVED FOR FABRICATION BY	SIGNATURE	DATE
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HENRY

P.O. BOX 1385, BRANTFORD
ONTARIO, CANADA, N3T 5T6
PHONE: (519) 759-3010
FAX: (519) 759-6746

MODEL No.: COSM-070-T COALESCER OIL SEPARATOR								COSM-12036-800	
CUSTOMER: TOROMONT PROCESS SYSTEMS						DWG. No.: TPS0003			
DATE: APR. 13/00		BY: <i>Dm</i>	CHK'D:	APP'D:	SCALE: N.T.S.	ORDER NUMBER:		REV. No.: 8	