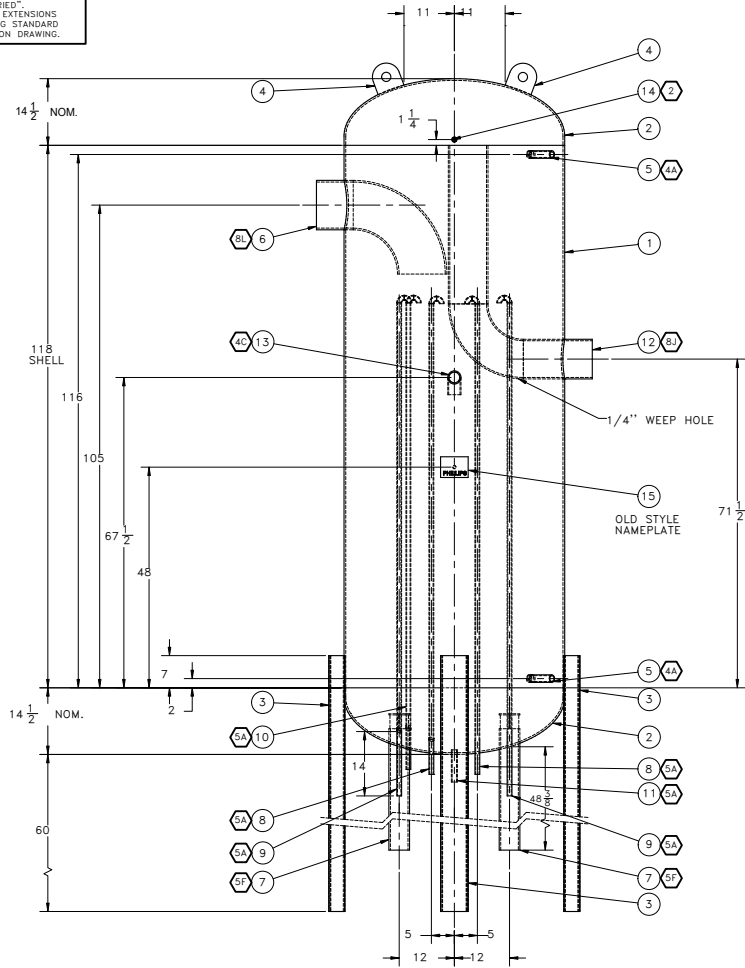


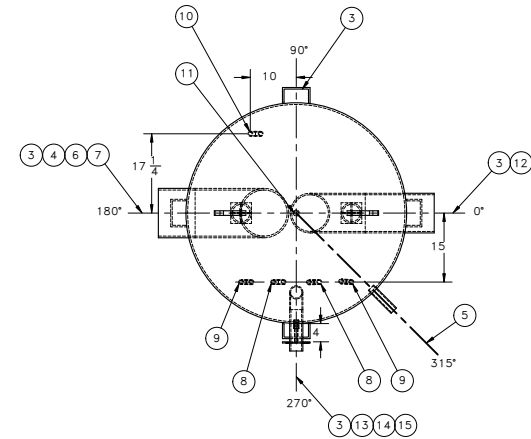
NOTES:
 1. ALL INTERNAL VESSEL SURFACES CLEANED PRIOR TO VESSEL FABRICATION.
 2. VESSEL EXTERIOR IS PAINTED WITH ONE COAT RUST PREVENTATIVE PRIMER AFTER SURFACES ARE CLEANED AND PREPARED.
 3. ALL PIPE NOZZLES TO EXTEND 6" FROM HEAD OR SHELL UNLESS OTHERWISE SPECIFIED.
 4. ALL CLOSURES INSTALLED FOR HYDROSTATIC TEST WILL BE IN PLACE FOR SHIPMENT.
 5. ALL UNITS ARE INCHES UNLESS OTHERWISE NOTED.
 6. LONGITUDINAL SEAM NO MORE THAN 25" OFF THE VERTICAL UNLESS OTHERWISE SPECIFIED.
 7. VESSEL TO BE DRAINED AND "HEAT-DRIED".
 8. ALL FITTINGS INTERNAL AND EXTERNAL EXTENSIONS TO BE IN ACCORDANCE WITH ENGINEERING STANDARD BSES04-01, UNLESS OTHERWISE NOTED ON DRAWING.

SPECIAL INSTRUCTIONS:
 1. SPOT X-RAY: 2 SHOTS - 1 LONG & 1 CIRC. SEAM



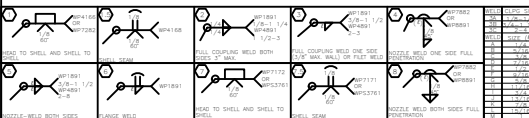
FRONT VIEW

ITEM NO.	QTY	PART NUMBER	DESCRIPTION	FUNCTION
1	1	3-3631	ROLLED SHELL 48"OD X 3/8"THK SA516-70 118" LG.	SHELL
2	2	3-3476	HEAD 48"OD X 3/8" NOM. THK, 2:1 ELLIP, SA516-70 NORMALIZED, BEVELED	HEAD
3	4	3-3122	CHANNEL 6"X (15.3#/FT) 3.500"X.340" SA36 81-1/2" LG.	CHANNEL LEGS
4	2	3-3862	LIFTING LUGS, 6"X6"X1/2" THK WITH 2" HOLES	LIFT LUG
5	2	3-3508	1-1/4" PIPE X 8" LG. S/80 SMLS SA-106-B	COLUMN CONNECTION
6	1	3-3533; 3-3416	10" PIPE X 8" LG. S/40 SMLS SA-53-B; 10" ELBOW 90° LR SA-234-WPB	SUCTION IN
7	2	3-3519; 3-3572	4" PIPE X 52-1/4" LG. S/40 SMLS SA-106-B; 4" L X 4 W 3" H VORTEX BREAKER 4 DIA. PLATE SA516-70	PUMP SUCTION
8	2	3-3504; 3-3389	3/4" PIPE X 103-3/8" LG. S/80 SMLS SA-106-B; (2) 3/4" ELBOW 90° LR SA-234-WPB	PUMP RECIRC
9	2	3-3504; 3-3389	3/4" PIPE X 108-1/4" LG. S/80 SMLS SA-106-B; (2) 3/4" ELBOW 90° LR SA-234-WPB	PUMP BYPASS
10	1	3-3504; 3-3389	3/4" PIPE X 102-1/2" LG. S/80 SMLS SA-106-B; (2) 3/4" ELBOW 90° LR SA-234-WPB	OIL POT VENT
11	1	3-3506	1" PIPE X 8" LG. S/80 SMLS SA-106-B	DRAIN
12	1	3-3530; 3-3414; 3-3530	8" PIPE X 15" LG. S/40 SMLS SA-53-B; 8" ELBOW 90° LR SA-234-WPB; 8" PIPE X 34-1/2" LG.	SUCTION OUT
13	1	3-3514; 3-3399	2-1/2" PIPE X 9" LG. S/40 SMLS SA-106-B; 2-1/2" ELBOW 90° LR SA-234-WPB	LIQUID MAKEUP
14	1	3-3188	1/2" COUPLING 3000# F. TH. SA-105	RELIEF
15	1	3-3503; 3-B11731; 3-A14206	PIPE 1/2" S/80(147) SMLS SA106B, X 4" LG; NAMEPLATE BRACKET - 1/8" THK X 6" X 5 3/8" HR A36; NAMEPLATE 4-7/8" x 5-1/2" 304SS	NAMEPLATE



TOP VIEW

REV	CHANGE	DATE	CAD	ENG	CUSTOMER: SUMMIT REFRIGERATION
A	ITEM 1 LENGTH REVISED FROM 120"; ITEM 5 DIST REVISED FROM 118" AND ANGLE REVISED FROM 225"; ITEM 6 LENGTH REVISED FROM 15"; ITEM 12 DIA REVISED FROM 10"; PIPE EXTENSION ADDED; DIST REVISED FROM 105; ITEM 13 ANGLE REVISED FROM 180°; DIST REVISED FROM 69.5; ITEM 14 REVISED FROM CENTER OF TOP HEAD	12/3/12	MS	SY	CUSTOMER PO #: 20096 JOB (TAG): CSW-PP FRZR EXP REFRIG APPLICATION (MEDIUM): R-717 QUANTITY: 1 NATIONAL BOARD #: 13754 H.A. PHILLIPS & CO. S.O.#: 1245806-02
B	ITEM 15 REVISED FROM 3" STANDOFF; ITEM 12 EXT LENGTH REVISED FROM 35-1/2" LG.	12/5/12	MS	SY	
C	ITEM 14 REVISED FROM 3/4"	12/7/12	MS	SY	



ENGINEERING APPROVAL APPROVED: _____ DATE: 12/7/12 BY: _____	QUALITY ASSURANCE APPROVAL APPROVED: _____ CAD: _____ DATE: _____ BY: _____	ESTIMATED EMPTY WT. (LBS) 3543
FINAL CUSTOMER DRAWING APPROVAL APPROVED: _____ DATE: _____ BY: _____	CUSTOMER APPROVALS APPROVED: _____ DATE: _____ BY: _____	A.S.M.E. CODE EDITION: 2010 JOB NO: _____ ADDENDAL: 2011g ISSUED TO: SHOP APPROVAL: MTS DATE: 1/10/13

Phillips H.A. PHILLIPS & CO. INC. 48" X 147" VERTICAL RECIRCULATOR

A.S.M.E. CODE CONSTRUCTION INSPECTED, STAMPED AND CERTIFIED

SCALE: 1:14
 DRAWN BY: MTS
 DATE: 1/15/2012

INT MAWP 250 P.S.I. @ -20°F TO 450°F
 EXT MAWP 15 P.S.I. @ -20°F TO 450°F
 MDMT: -20°F @ 250 P.S.I.

20192
 HYDROSTATIC TEST: 379 S.J. REF: 20192(C)