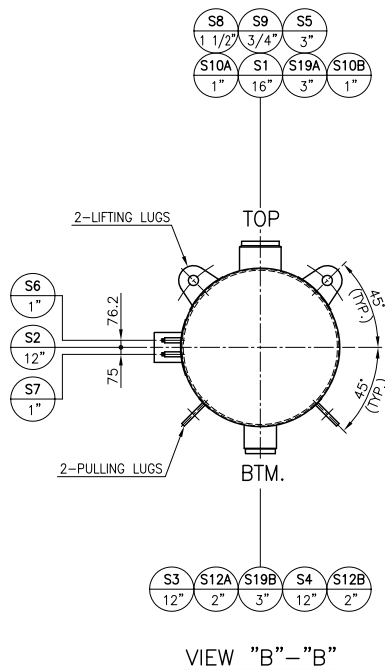
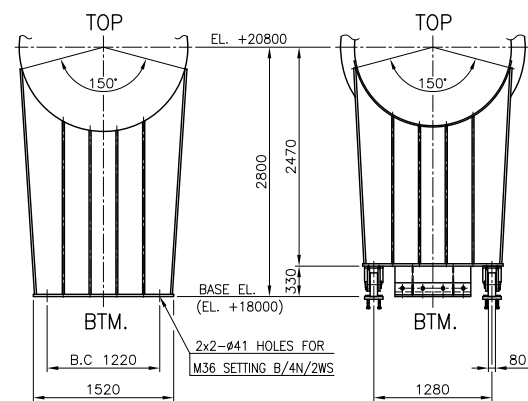
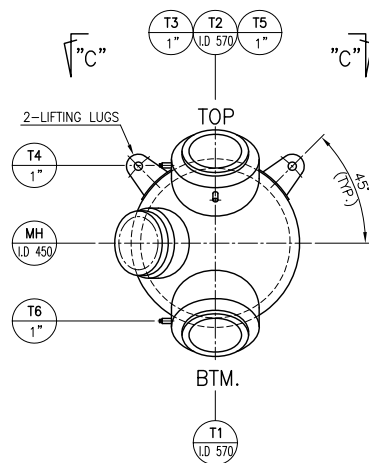
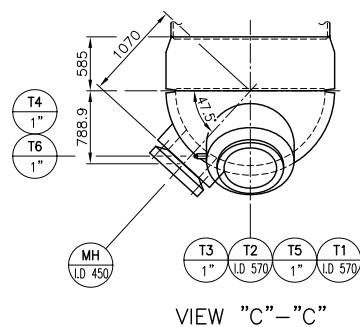
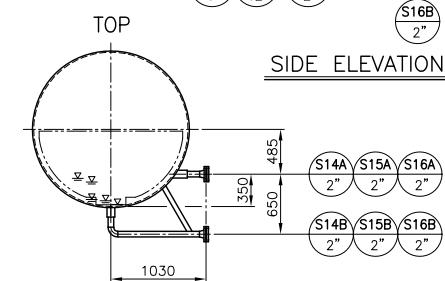


VIEW "C"

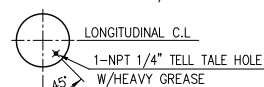


18	DETAIL OF NAME PLATE	TB2-SDC.VP105-00100-M-M1B-DSW-0719
17	DETAIL OF INSULATION SUPPORT	TB2-SDC.VP105-00100-M-M1B-DSW-0718
16	DETAIL OF NOZZLE (4/4)	TB2-SDC.VP105-00100-M-M1B-DSW-0717
15	DETAIL OF NOZZLE (3/4)	TB2-SDC.VP105-00100-M-M1B-DSW-0716
14	DETAIL OF NOZZLE (2/4)	TB2-SDC.VP105-00100-M-M1B-DSW-0715
13	DETAIL OF NOZZLE (1/4)	TB2-SDC.VP105-00100-M-M1B-DSW-0714
12	DETAIL OF MANHOLE	TB2-SDC.VP105-00100-M-M1B-DSW-0713
11	FOUNDATION DRAWING	TB2-SDC.VP105-00100-M-M1B-DSW-0712
10	DETAIL OF SADDLE	TB2-SDC.VP105-00100-M-M1B-DSW-0711
9	HEMI. HEAD & PASS PARTITION DETAIL	TB2-SDC.VP105-00100-M-M1B-DSW-0710

REFERENCE DWG.

GENERAL NOTES

- ALL DIMENSIONS ARE IN "MM" UNLESS OTHERWISE NOTED.
- ALL WELDS TO BE CONTINUOUS EXCEPT AS NOTED.
- INTERNAL WELD SURFACE OF SHELL AND NOZZLE INSIDE TO BE FLUSHED.
- ALL BOLT HOLES TO STRADDLE THE NORTH-SOUTH PLANT OR HORIZONTAL AND VERTICAL AXIS OF HEAT EXCHANGER, CENTER LINES.
- DIMENSIONS TO BAFFLES ARE MEASURED TO CENTER LINE OF EACH PLATE.
- GASKET CONTACT SURFACE OF FLANGE :
- GIRTH FLANGE & TUBESHEET : 125~250 AARH (WITH SERRATION)
- NOZZLE FLANGE : 125~250 AARH. (WITH SERRATION)
- REINFORCING PADS FOR NOZZLES SHALL BE TAPPED WITH AT LEAST ONE (1) TELL TALE HOLE NPT 1/4" WITH HEAVY GREASE



8. SPARE PART :

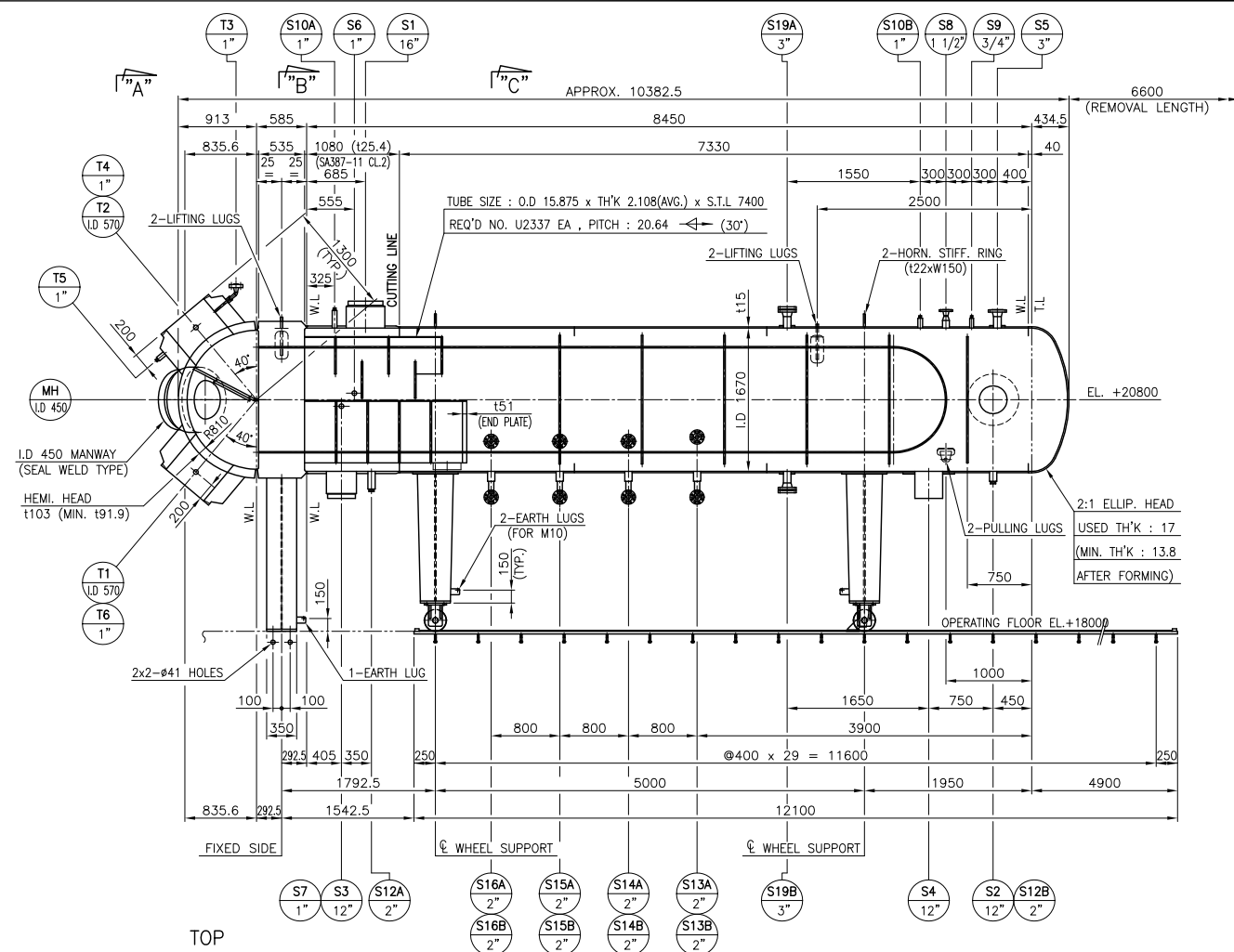
	COMMISSIONING AND START-UP	TWO YEARS OPERATION (AS AN OPTION)
GASKET	200%	200%
BOLTS & NUTS	10% (MIN. 2SETS)	10% (MIN. 2SETS)

9. GASKET MATERIAL AS FOLLOWS

- NOZZLE FLANGE GASKET MATERIAL : SPIRAL WOUND (4.5)
- FILLER : FLEXIBLE GRAPHITE - INNER RING : 304 S.S
- HOOP : 304 S.S - OUTER RING : C.S

10. PAINTING SPEC. : SEE SPEC. NO. TB2-0-LI-011-0020-R2-ANNEX-7

11. INSULATION MATERIAL : MINERAL WOOL



8	DETAIL OF TUBE BUNDLE (4/4)	TB2-SDC.VP105-00100-M-M1B-DSW-0709
7	DETAIL OF TUBE BUNDLE (3/4)	TB2-SDC.VP105-00100-M-M1B-DSW-0708
6	DETAIL OF TUBE BUNDLE (2/4)	TB2-SDC.VP105-00100-M-M1B-DSW-0707
5	DETAIL OF TUBE BUNDLE (1/4)	TB2-SDC.VP105-00100-M-M1B-DSW-0706
4	DRAIN COOLING SUB ASSEMBLY	TB2-SDC.VP105-00100-M-M1B-DSW-0705
3	DESUPERHEATING SUB ASSEMBLY	TB2-SDC.VP105-00100-M-M1B-DSW-0704
2	SKIRT & TUBESHEET ASSEMBLY	TB2-SDC.VP105-00100-M-M1B-DSW-0703
1	SHELL SUB ASSEMBLY	TB2-SDC.VP105-00100-M-M1B-DSW-0702

REFERENCE DWG.

NOZZLE LIST

MARK	REQ'D NO	SIZE	SCH.	MATERIAL	RATING	TYPE	FACING	MATERIAL	DESCRIPTION	PROJECTION FROM C.L.	REMARKS
S1	1	16"	112.7	SA106-B	-	B.W.	-	-	STEAM INLET	1150	
S2	1	12"	XS	SA106-B	-	B.W.	-	-	DRAIN INLET	1150	
S3	1	12"	112.7	SA106-B	-	B.W.	-	-	DRAIN OUTLET	1150	
S4	1	12"	XS	SA106-B	-	B.W.	-	-	EMERGENCY DRAIN OUTLET	1150	
S5	1	3"	160	SA106-B	ASME 3000#	R.F.	SA105	SA105	SAFETY RELIEF VALVE	1050	
S6	1	1"	-	-	ASME 3000#	COUPLING (S.W.)	SA105	SA105	CONTINUOUS AIR VENT	H=180	W/PLUG
S7	1	1"	-	-	ASME 3000#	COUPLING (S.W.)	SA105	SA105	START-UP VENT	H=180	W/PLUG
S8	1	1 1/2"	160	SA105	ASME 3000#	R.F.	SA105	SA105	THERMOWELL	1050	W/THERMOWELL
S9	1	3/4"	-	-	ASME 3000#	COUPLING (S.W.)	SA105	SA105	PRESSURE TRANSMITTER	H=100	W/LOOSE VALVE & PLUG
S10A	1	1"	-	-	ASME 3000#	COUPLING (S.W.)	SA105	SA105	NITROGEN GAS FILLING	H=180	W/PLUG
S10B	1	1"	-	-	ASME 3000#	COUPLING (S.W.)	SA105	SA105	NITROGEN GAS FILLING	H=100	W/PLUG
S12A	1	2"	-	-	ASME 3000#	COUPLING (S.W.)	SA105	SA105	DRAIN	H=180	W/PLUG
S12B	1	2"	-	-	ASME 3000#	COUPLING (S.W.)	SA105	SA105	DRAIN	H=100	W/PLUG
S13A/B	2	2"	160	SA106-B	ASME 3000#	R.F.	SA105	SA105	LEVEL GAUGE	SEE DWG.	W/BLIND
S14A/B	2	2"	160	SA106-B	ASME 3000#	R.F.	SA105	SA105	LEVEL TRANSMITTER	SEE DWG.	W/BLIND
S15A/B	2	2"	160	SA106-B	ASME 3000#	R.F.	SA105	SA105	LEVEL TRANSMITTER	SEE DWG.	W/BLIND
S16A/B	2	2"	160	SA106-B	ASME 3000#	R.F.	SA105	SA105	LEVEL TRANSMITTER	SEE DWG.	W/BLIND
S19A/B	2	3"	80	SA106-B	ASME 3000#	R.F.	SA105	SA105	SPARE	1050	W/BLIND
T1	1	LD 570	175.65	SA105	-	B.W.	-	-	FEED-WATER INLET	SEE DWG.	
T2	1	LD 570	175.65	SA105	-	B.W.	-	-	FEED-WATER OUTLET	SEE DWG.	
T3	1	1"	XXS	SA106-B	ASME 2500#	R.F.	SA105	SA105	SAFETY RELIEF VALVE	SEE DWG.	
T4	1	1"	-	-	ASME 6000#	COUPLING (S.W.)	SA105	SA105	VENT	H=100	W/PLUG
T5	1	1"	-	-	ASME 6000#	COUPLING (S.W.)	SA105	SA105	NITROGEN GAS FILLING	H=100	W/PLUG
T6	1	1"	-	-	ASME 6000#	COUPLING (S.W.)	SA105	SA105	DRAIN	H=100	W/PLUG
MH	1	LD 450	-	-	-	PAD	SA105	SA105	MANHOLE	SEE DWG.	W/BLIND

DESIGN DATA

CODE	ASME SEC.VIII DIV.1 2010 ED. + '2011 ADD. / HEI	
NO. OF REQ'D	2 (TWO)	CODE STAMP YES
SURFACE AREA (EFF.) (m ²)	1569.9	TYPE U-TUBE
	SHELL SIDE	TUBE SIDE
FLUID NAME	STEAM / DRAINS	FEED WATER
DENSITY (kg/m ³)	5.53 / 876	895 / 871
DESIGN PRESS. (barg)	F.V / 20	300
DESIGN TEMP. (SHELL/SKIRT) (°C)	215 / 450	235
OPER. PRESS. (kPa)	17.62/40	210
OPER. TEMP. (IN/OUT) (°C)	431.86/212.7 / 190.4	184.8 / 207.1
HYDRO. TEST PRESS. (SHOP) (barg)	30.18	450.36
HYDRO. TEST PRESS. (FIELD) (barg)	-	-
M.A.W.P (HOT & CORR.) (barg)	20.12	300.24
M.A.P (NEW & COLD) (barg)	-	-
P.W.H.T	YES (SKIRT SHELL ONLY)	YES
STRESS-RELIEVED	NO	NO
RADIOGRAPH (S/H)	FULL / FULL	- / FULL
JOINT EFFICIENCY (S/H) (%)	100 / 100	- / 100
CORR. ALLOW. (mm)	1.6	1.6 (T.S : 3.0 mm)
NO. OF PASS	1 (ONE)	2 (TWO)
M.D.M.T (°C)	4.8	4.8
M.M.T (°C)	237.19	196.98
PRESSURE DROP (ALLOW./CALC.) (bar)	- / 0.3362/0.0002/0.34	1.14 / 0.7561
INSULATION (mm)	SHELL : 75 / SKIRT : 150	75
FIRE PROOFING (mm)	-	-
WIND VELOCITY	ASCE 7-05 (V=52m/sec, I=1.15, EXPOSURE D)	
SEISMIC	ASCE 7-05 (SITE CLASS E, I=1.25)	
TUBE TO TUBESHEET JOINT	STRENGTH WELDING WITH LIGHT EXPANDING	
VOLUME (m ³)	12.11	5.19
	BUNDLE	-
WEIGHT (kg)	ERECTOR 55000	EMPTY 56000
	OPERATING 61900	FULL OF WATER 73600

MATERIAL SPECIFICATIONS

SHELL/HEAD		SA516-70/SA516-70	EARTH LUG/NAME PLATE	304 S.S
SHELL FLANGE		—	SETTING BOLT/NUT	SA307-B/SA563-A(H.D.G.)
SKIRT SHELL		SA387-11 CL.2	INSULATION SUPPORT	SA516-70/SA36
CHANNEL/HEAD		—/SA516-70N	SUPPORT SADDLE/PAD	SA283-C/SA516-70
CHANNEL COVER		—	BASE PLATE	SA283-C
CHANNEL FLANGE		—	STUD BOLT/NUT	
TUBESHEET		SA350-LF.2 CL.1	CHANNEL COVER	—
TUBE		SA566-C2 (K03006)	STATIONARY	—
BAFFLE/SUPPORT PLATE		SA516-70/-	SHELL COVER	—
IMPINGEMENT BAFFLE		304 S.S	CHANNEL NOZZLE	SA193-B7/SA194-2H
PASS PARTITION PLATE		SA516-70N	SHELL NOZZLE	SA193-B7/SA194-2H
TIE ROD/SPACER		SA36/SA53-B	INTERNAL	SA193-B8/SA194-8
ORIFICE PLATE		304 S.S	GASKET	
SHROUDS	DSH	SA240-304	FLOATING HEAD	—
	DC	SA516-70	CHANNEL SIDE	—
NOZZLE (SHELL SIDE)	FLANGE	SEE "NOZZLE TABLE"	SHELL SIDE	—
	NECK	SEE "NOZZLE TABLE"	SHELL COVER	—
SKIRT SHELL	PART	SEE "NOZZLE TABLE"	SHELL NOZZLE	SEE NOTE "9"
NOZZLE (TUBE SIDE)	FLANGE	SEE "NOZZLE TABLE"	CHANNEL NOZZLE	SEE NOTE "9"
	NECK	SEE "NOZZLE TABLE"	INSULATION	SEE NOTE "11"

DOCUMENT SUBMISSION STATUS:

NOTE:

03 MAR.2016	FOR FINAL	S.W.E.	H.K.LEE	J.C.YOON	S.S.KIM
24 FEB.2014	FOR FINAL	S.W.E.	H.K.LEE	J.C.YOON	S.S.KIM
11 SEP.2013	BY OWNER COMMENT	S.W.E.	H.K.LEE	J.C.YOON	S.S.KIM
30 APR.2013	BY OWNER COMMENT	S.W.E.	H.K.LEE	J.C.YOON	S.S.KIM
28 Jun.2013	FOR PRELIMINARY	S.W.E.	H.K.LEE	J.C.YOON	S.S.KIM

OWNER	VIETNAM OIL AND GAS GROUP (P.V.N)	OWNER'S CONSULTANT	FICHTNER GmbH & Co. KG FICHTNER PV POWER PCC
EPC CONTRACTOR	PETROVIETNAM CONSTRUCTION JOINT STOCK CORPORATION (PVC)	EPC CONTRACTOR'S CONSULTANT	WorleyParsons WORLEYPARSONS
POWER ISLAND PACKAGE SUPPLIER	Sojitz SOJITZ CORPORATION		DAELIM DAELIM INDUSTRIAL CO., LTD.

PROJECT TITLE

DRAWING TITLE	HP FEEDWATER HEATER #6 11LAD10AC006/21LAD10AC006 GENERAL ASSEMBLY	SHEET	1/19
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VENDOR NAME	FUNCTION	NAME	SIGN	DATE
WOORYANG HC CO., LTD.	DRWN	S.W.E.		03 MAR.2016
	CHKD	H.K.LEE		03 MAR.2016
	APPD	J.C.YOON		03 MAR.2016
	APPD	S.S.KIM		03 MAR.2016
DRAWING NO.	JOB NO.	110180	SCALE	1/40
TB2-SDC.VP105-00100-M-M1B-DGA-0701				REV. NO. 1