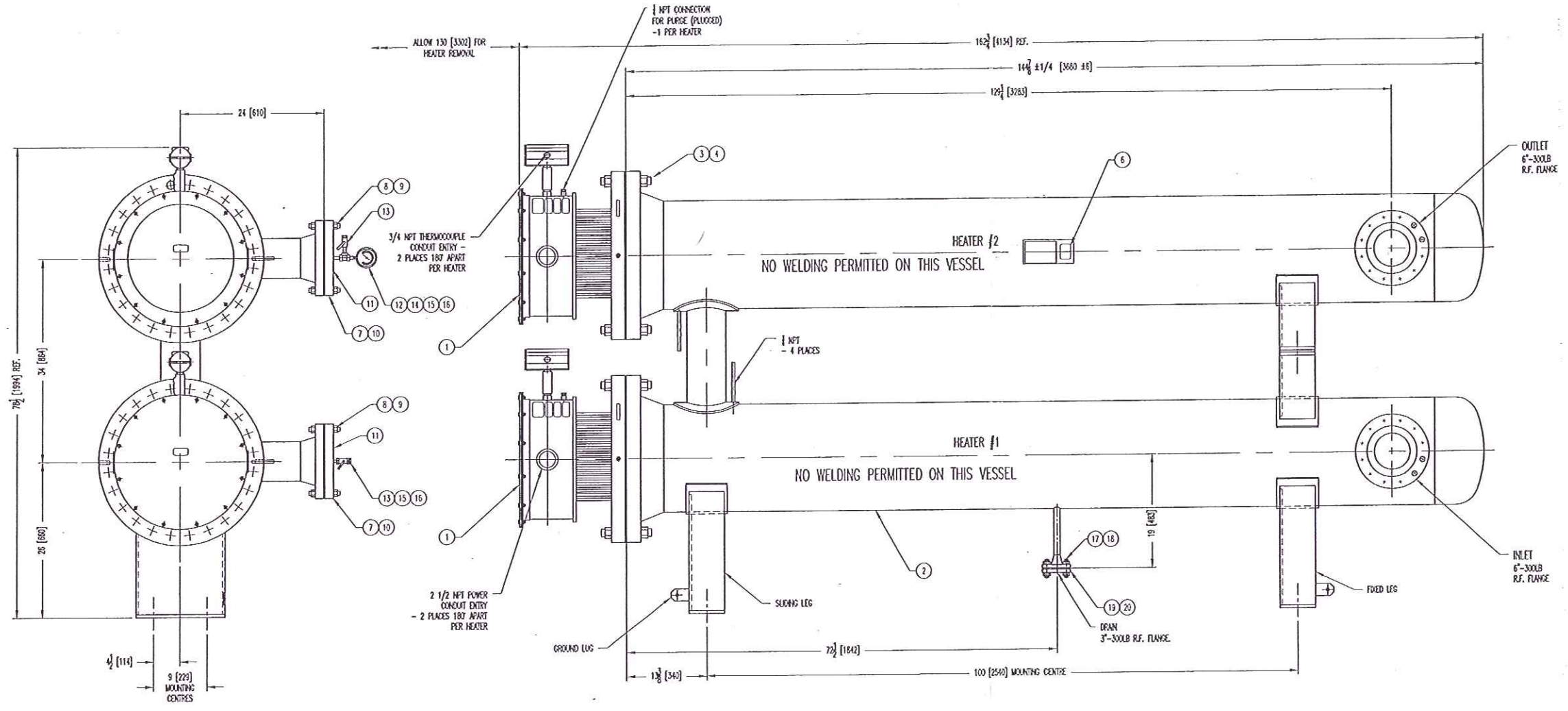
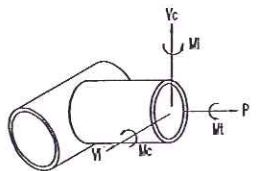


NO.	REVISION	DATE	PAR/BY
1	GROUND LUGS ADDED.	DEC 19/06	M.K. E.D.
2	SUPPORT LEG REMOVED.	DEC 22/06	M.K. E.D.
3	DETS REMOVED; ESTIMATED SHELL TEMP. & OCT. 17 TO 20 ADDED.	FEB 15/07	L.G. E.D.
4	NOTES 13 & 14 ADDED, DETS, 9, & 18 REVISED AS BUILT	MAY 11/07	L.G. E.D.



#105787
#105788

TML'S
NOZZLES - 8
SHELL - 3x9x2
HEADS - 8
8
24
8
40



400	1000	4448	1000	4448	300	407	1000	1356	1000	1356	
LBS	N	LBS	N	LBS	N	FT-LB	N-m	FT-LB	N-m	FT-LB	N-m
P	Vc	Vc	Vi	Vi	Mc	Mc	M	M	M	M	

NOZZLE LOADING

- NOTES:
- ALL DIMENSIONS IN INCHES (MILLIMETRES IN BRACKETS).
 - DESIGNED & BUILT IN ACCORDANCE WITH ASME CODE SECTION VIII, 2004 EDITION & 2005 ADDENDA & ASME V CODE STAMP & NATIONAL BOARD REGISTRATION.
DESIGN CRITERIA:
DESIGN PRESSURE: 50 PSIG [345 kPa] & F.V. @ 366F [186°C]
DESIGN TEMPERATURE: 1175F [635°C]
HYDROSTATIC TEST PRESSURE: 717 PSIG [4944 kPa]
MINIMUM DESIGN METAL TEMP: 0F @ 50 PSIG [-18°C @ 345 kPa]
CORROSION ALLOWANCE: 1/8 [3]
 - EXPLOSION PROOF TERMINAL BOX IS CSA C/US APPROVED FOR CLASS 1, DIV. 2, GROUP BCD HAZARDOUS LOCATION & CSA TYPE 4, TEMPERATURE CODE 1175F [635°C].
 - HYDROSTATIC TEST PER EP-1004, USING DISTILLED WATER, MAXIMUM CHLORIDE CONTENT 25 PPM. CLEAN HEATER BUNDLE AFTER TEST BY SPRAYING WITH COMPRESSED AIR AND PLACING IN OVEN AT 243F FOR COMPLETE DRYING. CLEAN VESSEL AFTER TEST PER 04W 02SP, EXCEPT USE NO RUST BAK.
 - FLANGE BOLT HOLES TO STRADDLE CENTRELINES.
 - APPLY NICKEL BASED ANTI-SIEZE COMPOUND TO STUDS & NUTS (DET.3 & 4).
 - FLANGE GASKET SURFACE FINISH: 125 - 250 AIN.
 - PRINT EQUIPMENT TAG NO. ON WHEMPATE (DET.6).
 - INSULATION SUPPLIED AND INSTALLED BY OTHERS.
 - NITROGEN PURGE ASSEMBLY TO 5 PSIG [34 kPa] PRIOR TO SHIPMENT.
 - DRILL & TAP 1/4 NPT HOLE IN CENTRE OF FLANGES (DET.7).
 - SUPPLY INLET AND OUTLET GASKETS (DETS) AND ONE DRAIN GASKETS (DET.15) LOOSE.
 - WTR REQUIRED FOR ALL PRESSURE BOUNDARY MATERIALS INCLUDING FLANGE. MATERIAL ORIGIN TO BE USA, CANADA, WESTERN EUROPE OR JAPAN.
 - PMI REQUIRED ON TWO UNITS PER LOT OF HEATER STUDS & NUTS (DET.3 & 4) AND DRAIN STUDS & NUTS (DET.17 & 18) PER EP-1037.

Shaw Stone & Webster Inc.		Project Grant 6 Zorb	
SSW-120663/50603-P-12-15		Job No: 120663	
EQUIP. No: 56603-P-12-15 (T11501)		Issue:	
<input type="checkbox"/> FOR APPROVAL ONLY	<input type="checkbox"/> ACCEPTED FOR CIVIL AND Piping IFC	<input type="checkbox"/> ACCEPTED	<input type="checkbox"/> ACCEPTED AS CERTIFIED
<input type="checkbox"/> ACCEPTED AS NOTED	<input type="checkbox"/> REVISE & RESUBMIT		
DATE: _____			

NO.	DESCRIPTION	QTY	UNIT
13	FLANGE 3/4"-300LB R.F. BLND	2	EA
14	GASKET 3/4"-300LB	2	EA
15	HEX NUT 5/8-11UNC	8	EA
16	STUD 5/8-11UNC x 3 LG.	4	EA
17	HEX HEAD PLUG 1/4 NPT WALLEABLE IRON	2	EA
18	THREAD WIPPLE - 1/4 SCH40 x 2 LG. SA/SS3F	3	EA
19	TEE-1/4 NPT 150LB	1	EA
20	BALL VALVE 1/4 NPT 150LB	2	EA
21	PRESSURE GAUGE 0-30PSI	1	EA
22	LABEL - NITROGEN PURGE	2	EA
23	GASKET 6"-300LB COMPOSITE	2	EA
24	HEX NUT 3/4-10UN	48	EA
25	STUD 3/4-10UN x 4 3/4 LG.	24	EA
26	FLANGE 6"-300LB R.F. BLND	2	EA
27	WHEMPATE - ASSEMBLY	1	EA
28	GASKET 6"-300 LB	2	EA
29	HEX NUT 1 1/4-BUN	96	EA
30	STUD 1 1/4-BUN x 7 3/4 LG.	48	EA
31	VESSEL ASSEMBLY	1	EA
32	FLANGE HEATER 480W/34/1590W 45K	2	EA

BILL OF MATERIAL / LISTE DE MATERIEL
TITLE: REGENERATOR AIR ELECTRIC HEATER E-652
D-COK LLC

NO:	D16737	SHEET 1	4
REF:	D-COK LLC P.O. NO: 56603-P-12-15		REV.
TOLERANCE UNLESS NOTED OTHERWISE			
SCALE:	NTS	± F	± 3
ED-ELLE:		ANNUAL	DECIM
FRAC.			
DATE:			
BY:	M.K.	DATE:	OCT 27/06
CHECKED BY:	E.D.	DATE:	OCT 27/06
APPROVED BY:	E.D.	DATE:	OCT 27/06
DATE:	6	DATE:	



ITEM NO.	QUANTITY	EQUIPMENT TAG NO.	VOLTS	PH	Hz	W	W/h²	NO. OF CIRC.	FLUID	FLOW RATE	INLET TEMPERATURE	OUTLET ESTIMATED SHELL TEMPERATURE	DESIGN OPERATING PRESSURE	DESIGN TEST PRESSURE	INSTALLATION ORIENTATION	APPROX WEIGHT	ORDER VERIFICATION NO.			
01	EXS16737-01	E-652	480	3	60	398	5.5	10	AR	5456 LB/hr [2475 kg/h]	114F [46°C]	975F [524°C]	1152F [622°C]	1175F [635°C]	20.3 PSIG [140 kPa]	50 PSIG & F.V. @ 366F [345 kPa & F.V. @ 186°C]	717 PSIG [4944 kPa]	HORIZONTAL	6900 LB [3125 kg]	1022739-1