

DESIGN DATA

1. CONSTRUCTED TO:	ASME SEC VIII, DIV.2, 1992 UPTO & INCL. A-93 AND STRUCTURALS TO IS CODES.
2. FLUID HANDLED	LPG.
3. DESIGN PRESSURE Kg/Sq.Cm.(g)	14.5
4. DESIGN TEMPERATURE °C MIN/MAX	-27 / +55
5. WORKING PRESSURE Kg/Sq.Cm.(g)	8.6
6. WORKING TEMPERATURE (°C)	40
7. HYD. TEST PRESSURE Kg/Sq.Cm	18.3 AT TOP
8. HYD. TEST TEMP. °C	21
9. CORROSION ALLOW. (mm)	1.5
10. RADIOGRAPHY (By gamma ray - tech)	YES (FULL)
11. JOINT EFFICIENCY	1.0
12. P.W. HEAT TREATMENT	YES, AT SITE
13. SPECIFIC GRAVITY OF FLUID	0.56
14. MIN. DESIGN METAL TEMP. °C	-27
15. WIND SPECN.	AS PER IS: 875, 1987.
16. EARTH QUAKE SPECN.	AS PER SPECS.
17. WATER CAPACITY (NOMINAL) m ³	2572
18. SITE FABRICATION/ERECTION	YES
19. CONSIGNMENT SIZE	NON DDC
20. ERECTION WEIGHT (MT)	450.1
21. OPERATING WEIGHT (MT)	1636.3
22. TEST WEIGHT (MT)	3022.5
23. TOTAL SPHERE EMPTY WEIGHT	465.0 (MT)
24. INSULATION (mm)	NIL
25. BHPV VESSEL SL. Nos.	124795 & 24796
26. INSPECTION BY	M/s. E.I.L.

GENERAL NOTES

- ALL FLANGE BOLT HOLES TO STRADDLE N/S CENTRE LINES UNLESS OTHERWISE SPECIFIED.
- PROTECT ALL MACHINED SURFACES AND THREADED CONNECTIONS WITH RUST PREVENTIVE IMMEDIATELY AFTER MACHINING. INSTALL WOOD OR STEEL PROTECTORS FOR FITTINGS IMMEDIATELY AFTER TESTING.
- SPHERE ELEVATION AND PLAN ARE DIAGRAMMATIC ONLY, FOR ACTUAL POSITION OF LADDERS, COLUMNS etc REFER RESPECTIVE DRAWINGS.
- GASKET SEATING SURFACE OF ALL FLANGES WITH RAISED FACE SHALL BE SMOOTH FINISHED TO 125 R.M.S.
- SERVICE GASKETS SHALL BE USED FOR HYDRAULIC TESTING.
- ALL SHARP CORNERS SHALL BE ROUNDED OFF WITH A RADIUS OF 3mm.
- VESSEL TOLERANCES SHALL BE AS PER E.I.L. STD. No.7-13-014, REV. 0, WHEREVER TOLERANCES NOT SPECIFIED IN THE E.I.L. STD. BHPV. STD. No.EN-379 SHALL BE FOLLOWED.
- FOR DETAILS OF PAINTING AT SHOPS & SITE, REFER DRG. No.PPSV-194301-A-005
- DP TEST SHALL BE CONDUCTED ON THE FOLLOWING:
 - AT ROOT OF FILLET WELDS AND AFTER COMPLETION OF FILLET WELDS.
 - PLACES WHERE TEMPORARY SUPPORTS WELDED.
 - ALL MAIN BUTT WELD JOINTS AND NOZZLE CONNECTIONS ON OUT SIDE SURFACE AFTER HYDROTESTING.
 - ALL AREAS OF ARC STRIKING.
- ALL PRESSURE PARTS MATL. AS WELL AS WELDS INCLUDING HAZ OF PRODUCTION TEST COUPONS SHALL BE IMPACT TESTED AT MINUS 27° AS PER AM 204 OF ASME SEC.VIII, DIV.2 AND ENERGY VALUES SHALL SATISFY TABLE AM 211.1 OF THE CODE.
- ONE PRODUCTION TEST COUPON FOR EACH OF THE COURSES INCL. TOP AND BOTTOM CAPS REPRESENTATIVE OF ALL L-SEAMS AND C-SEAMS SHALL BE PROVIDED AND SHALL BE SIMULATION HEAT TREATED.
- HOT FORMED COMPONENTS SHALL BE REPRESENTED BY TEST SPECIMEN. THE SPECIMEN SHALL BE STRESS RELIEVED AND TESTED FOR IMPACT AT MINUS 27° C AND TENSILE PROPERTIES, THE NUMBER OF SPECIMEN SHALL BE AS AGREED WITH LOCAL E.I.L. INSPECTOR AT BHPV.

ORIENTATION OF COLUMNS

(NOTE: FOR ORIENTATION OF NOZZLES REFER DRG. No. PPSV-1943 01-A-003)

APPLICABLE E.I.L. SPECIFICATIONS.

- GENERAL SPECIFICATION FOR PRESSURE VESSELS
- SUPP. SPECIFICATION FOR SPHERICAL VESSELS
- STD. SPECIFICATION FOR B.Q. C.S. PLATES.
- STD. SPECIFICATION FOR STRUCTURAL QUALITY PLATES.
- FIRE PROOFING
- 6-12-01, REV.1
- 6-13-04, REV.1
- 6-12-11, REV.2
- 6-12-14, REV.0
- 6-79-09, REV.0

LADDERS & PLATFORMS ARE COVERED UNDER W.O.No.1943-02.
SPRINKLER SYSTEM IS COVERED UNDER W.O. No. 1943-03.



REV.NO	ZONE	BRIEF RECORD OF REVISIONS	PPD.	CHKD.	APPD.
1		4/18/07 FORK MATL USED 32MM THICKNESS OF 30MM			
2		204 STORAGE SPHERE PLANT USED SA 516 Gr 60 47.5 X 2000 X 2000 A 50 X 400 X 3000 INSTEAD OF 20MM			
3		202 STUB PETAL AND COLUMN PAD USED FILLET WELD SHALL BE 18MM INSTEAD OF 20MM			
4		F-1.1 TOTAL SPHERE EMPTY WEIGHT INDICATED. IN GENERAL NOTES, NOTE NO.8. DRG. NO. CORRECTED. IN LIST OF DRGS. SL. NO. 7 INDICATED.			
5		A-6.7.8 In table of Noz. & Flanges, Description/Service of Noz. - m modified. Also g/d, B/D, W/D & Noz. F modified. Note No. 9a modified. In design data sl. no. 4, 13, 15 & 16 also modified. Released for shops.			



भारत हेवी प्लेट एंड वेसल्स लिमिटेड
BHARAT HEAVY PLATE & VESSELS LTD.,
A Subsidiary of Bharat Yantra Nigam Limited
VISAKHAPATNAM - INDIA.

DGN.	E.I.L.	E.I.L. NEW DELHI
PPD.	Gomal	NUMALIGARI REFINERY LIMITED,
CHD.	V. Sankar	NUMALIGARH, ASSAM.
APPROVED.	PPD	GENERAL ARRANGEMENT OF
SCALE	N.T.S.	17000 I.D. L.P.G. STORAGE SPHERE
ALL PROJECTIONS ARE FIRST ANGLE UNLESS OTHERWISE SPECIFIED		E.I.L. JOB No.3244, ITEM No.44-TT-TS-101 A / B
WORK ORDER NO.	1943-01	NO.OFF. TWO
YEAR OF ORDER	SIZE	DRAWING NO.
1995	A2	PPSV-1943 01-A-000A1

12Nos. O.D. 800 x 16.0 Thk. SUPPORTING COLUMNS EQUISPACED ON 16830 P.C.D.

LT2	LEVEL TRANSMITTER (D.P. TYPE)	1	40	48.3 80.0	34.02				
LT1	LEVEL INDICATOR (SERVO TYPE)	1	150	168.3 250.0	146.3				
PG	PRESSURE GAUGE	1	40	48.3 80.0	34.02				
SV	SAFETY VALVE	1	150	168.3 250.0	146.3				
LSHH	LEVEL SWITCH HIGH HIGH	1	100	114.3 185.0	92.04				
M	MANHOLE+BLIND FLG. + HINGE COVER	1	500	508 700	484.0				
R	RECIRCULATION	1	200	219.1 310.0	193.7				
V	VAPOUR BALANCE	1	150	168.3 250.0	146.3				
F	INLET / OUTLET	1	300 500	323.8/508 670	295.26/ 455.6				

TABLE OF NOZZLES AND FLANGES