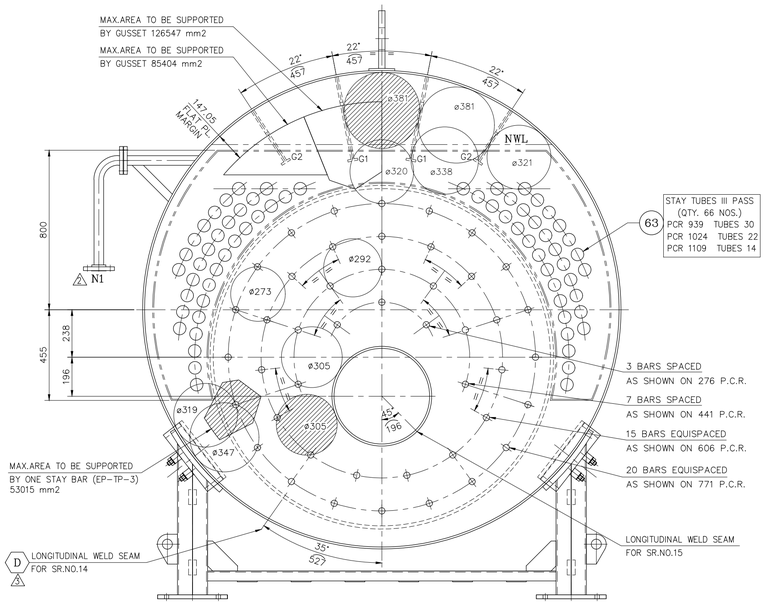
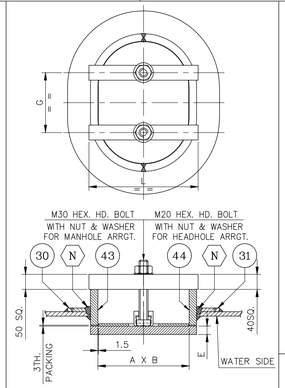


VIEW FROM – Z (REAR END)

* SCALE 1:15

NOTE:–

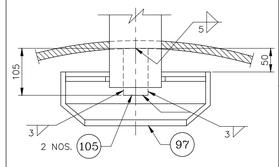
- ALL P.C.R. FOR STAY TUBES & STAY BARS ARE CONCENTRIC TO I.R.C. CENTER.
- UNLESS OTERWISE SPECIFIED STAY BAR LAYOUT IS MIRROR IMAGE AT SHELL VERTICAL CENTER LINE.



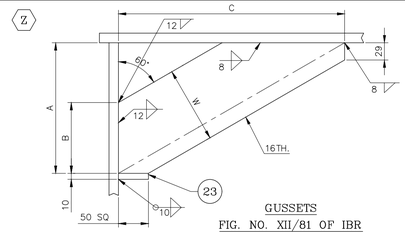
MANHOLE AND HEADHOLE ARRGT.

MINOR DIMN. OF MANHOLE & HEAD HOLE ARRGT IS PARALLEL TO THE LONGITUDINAL AXIS OF SHELL

	A x B	E	G	L	QTY.
MANHOLE ARRGT.	305x410	28	200	365	1
HEADHOLE ARRGT.	220x320	20	100	280	2



SECTION – FF



GUSSETS

FIG. NO. XII/81 OF IBR

SR.NO.	GUSSET	A	B	C	W	QTY.	MAX. AREA TO BE SUPPORTED IN mm2
24	G1	420	290	728	276	4	126547
25	G2	300	170	520	172	4	85404

63	OD 63.5 x 3.4 THK. x 5734 LG.	66	STAY TUBES III PASS	BS:3059 : PART 1 :1987 Gr.320 ERW OR SA 178 Gr.A ERW	32.63
62	OD 70 x 3.4 THK. x 4892 LG.	60	STAY TUBES II PASS	BS:3059 : PART 1 :1987 Gr.320 ERW OR SA 178 Gr.A ERW	32.63
58	FLANGE SORF ANSI B 16.5 CLASS 300 – SIZE 40NB	2	FOR NOZZLE N1,N5	FCS SA 105	49.21
57	FLANGE SORF ANSI B 16.5 CLASS 300 –SIZE 25NB	2	FOR NOZZLE N17,N18	FCS SA 105	49.21
56	FLANGE WNRF ANSI B 16.5 CLASS 300 – NPS 50 / SCH 160	2	FOR NOZZLE N3	FCS SA 105	49.21
54	FLANGE WNRF ANSI B 16.5 CLASS 300 – NPS 15 / SCH 160	1	FOR NOZZLE N6	FCS SA 105	49.21
53	FLANGE BS:1560 CL.150 SIZE 150	1	FOR NOZZLE N2	SA 516 Gr. 70	49.21
52	FLANGE BS:1560 CL.150 SIZE 25	1	FOR NOZZLE N4	SA 516 Gr. 70	49.21
50	BLANK FLANGE IBR TABLE 'H' SIZE 50	1	FOR NOZZLE N19	SA 516 Gr. 70	49.21
49	FLANGE IBR TABLE 'H' SIZE 50 (SCH.160)	1	FOR NOZZLE N19	SA 516 Gr. 70	49.21
48	FLANGE IBR TABLE 'H' SIZE 40 (SCH.80)	7	FOR NOZZLE N1,N7,N8,N16	SA 516 Gr. 70	49.21
47	FLANGE IBR TABLE 'H' SIZE 40 (SCH.160)	1	FOR NOZZLE N16	SA 516 Gr. 70	49.21
45	FUSIBLE PLUG–1" BSPT (11 TPI)	2	–	–	–
44	HEADHOLE RING & COVER (ARRANGEMENT.)	2	PART/DRG.No.PIFMH10005–3 ALT. No.0	–	–
43	MANHOLE RING & COVER (ARRANGEMENT.)	1	PART/DRG.No.PIFMH10004–3 ALT. No.0	–	–
42	INSTRUMENT CONNECTOR (IC–13)	1	PART No. PXX0180064 DRG.No.PGSM 22 0643 ALT. No.1	–	–
39	ø 50 x 40 LG. (AFTER MACHINING)	2	COUPLING FOR FUSIBLE PLUG	SA 675 Gr.75	52.73
38	ø 32 x 248 LG.	45	STAY BAR	SA 675 Gr.70	49.21
32	ø 301 x 10 THK	1	COMP.PAD FOR NOZZLE N2	SA 516 Gr. 70	49.21
31	520 x 415 x 10 THK	2	COMP.PAD FOR HEADHOLE	SA 516 Gr. 70	49.21
30	620 x 510 x 10 THK	1	COMP.PAD FOR MANHOLE	SA 516 Gr. 70	49.21
25	172 x 600 x 16 THK	4	GUSSET G2	SA 516 Gr. 70	49.21
24	276 x 840 x 16 THK	4	GUSSET G1	SA 516 Gr. 70	49.21
23	50 x 50 x 10 THK	8	GUSSET TOE	SA 516 Gr. 70	49.21
21	ø 1689 x 16 THK	1	END PLATE FOR IRC (EP)	SA 516 Gr. 70	49.21
20	ø 1689 x 16 THK	1	TUBE PLATE FOR IRC (TP2)	SA 516 Gr. 70	49.21
17	ø 2377 x 16 THK	1	REAR TUBE PLATE (TP3)	SA 516 Gr. 70	49.21
16	ø 2377 x 16 THK	1	FRONT TUBE PLATE (TP1)	SA 516 Gr. 70	49.21
15	300 x 1539 x 10 THK	1	ACCESS RING	SA 516 Gr. 70	49.21
14	656 x 5366 x 16 THK	1	REVERSAL CHAMBER	SA 516 Gr. 70	49.21
9	615 x 3669 x 12 THK	1	FURNACE SECTION No.3	SA 516 Gr. 70	49.21
8	2500 x 3669 x 12 THK	1	FURNACE SECTION No.2	SA 516 Gr. 70	49.21
7	2325 x 3669 x 12 THK	1	FURNACE SECTION No.1	SA 516 Gr. 70	49.21
3	2500 x 7508 x 10 THK	1	SHELL SECTION No.3	SA 516 Gr. 70	49.21
2	750 x 7508 x 10 THK	1	SHELL SECTION No.2	SA 516 Gr. 70	49.21
1	2500 x 7508 x 10 THK	1	SHELL SECTION No.1	SA 516 Gr. 70	49.21
SR.NO	DESCRIPTION/MATL. SIZES	QTY.	USED FOR/DRG.NO.	MATERIAL	MIN.TENSILE STRENGTH IN kgf/mm2

IBR QUALITY MATERIAL

111	VORTEX BRAKER PIPE FOR LEVEL CONTROLLER	1	PART NO. PSMOT11474 DRG. NO. PSM OT1 1474–4	–	
109	GASKET, FSTNR – 40 NB TABLE 'H'	5	FOR NOZZLE N1,N7,N8,N16	–	
108	GASKET, FSTNR – 50 NB TABLE 'H'	1	FOR NOZZLE N19	–	
106	PADS FOR LADDER CATWALK	1	PART NO. PSMPD20104 DRG. NO. PSM DC0 0026–3	–	
105	FLAT 40 x 6 x 2000 LG	1	STAND PIPE & BRANCH SUPPORT	IS:2062	
102	SADDLE (SHELL OD 2400)	2	PART/DRG.No. PXXSDL0013 PART/DRG.No. PFCP 55 7273	–	
99	SPARGER PIPE (40NB)	1	PART NO. PSMSP20002 DRG. NO. PGSM 26 7123	–	
98	BAFFLE – N8 & N18	2	PART NO. PSM BA1 0001 DRG. NO. PSM BA1 0001–4	–	
97	DRY PAN ASSY. (150 NB.)	1	PART NO. PXXDP10003 DRG. NO. 0312 5012 30	–	
94	SUPPORT PLATE	1	PART NO:– PSMPD20063 DRG. NO:– PGSM 76 8803	–	
93	PAD FOR LIFTING HOOK	2	PART NO:– PXXLH10014 DRG. NO:– PFCP 55 3634	–	
92	LIFTING HOOK	2	PART NO. PXXLH10117 DRG. NO. PGRF 26 9034	–	
SR.NO	DESCRIPTION/MATL. SIZES	QTY.	USED FOR/DRG.NO.	MATERIAL	

NON IBR QUALITY MATERIAL

81	OD. 168.3 x 10.97 THK x 290 LG.	1	STAND PIPE N2	SA 106 Gr.B	42.18
79	OD. 60.3 x 8.74 THK x 140 LG.	2	STAND PIPE N3	SA 106 Gr.B	42.18
78	OD. 60.3 x 8.74 THK x 394 LG.	1	STAND PIPE N19	SA 106 Gr.B	42.18
77	OD. 48.3 x 5.08 THK x 484 LG.	1	STAND PIPE N1	SA 106 Gr.B	42.18
76	OD. 48.3 x 5.08 THK x 635 LG.	1	STAND PIPE N1	SA 106 Gr.B	42.18
75	OD. 48.3 x 7.14 THK x 160 LG.	1	BLOWDOWN STUB N16	SA 106 Gr.B	42.18
74	OD. 48.3 x 5.08 THK x 370 LG.	1	STAND PIPE N8	SA 106 Gr.B	42.18
73	OD. 48.3 x 5.08 THK x 737 LG.	1	STAND PIPE N7	SA 106 Gr.B	42.18
72	OD. 48.3 x 5.08 THK x 160 LG.	1	STAND PIPE N7	SA 106 Gr.B	42.18
71	OD. 48.3 x 5.08 THK x 896 LG.	1	BLOWDOWN PIPE N5	SA 106 Gr.B	42.18
69	OD. 33.4 x 4.55 THK x 210 LG.	1	STAND PIPE N4	SA 106 Gr.B	42.18
68	OD. 33.4 x 4.55 THK x 415 LG.	1	STAND PIPE N18	SA 106 Gr.B	42.18
67	OD. 33.4 x 4.55 THK x 815 LG.	1	STAND PIPE N17	SA 106 Gr.B	42.18
66	OD. 21.3 x 4.78 THK x 360 LG.	1	STAND PIPE N6	SA 106 Gr.B	42.18
SR.NO	DESCRIPTION/MATL. SIZES	QTY.	USED FOR/DRG.NO.	MATERIAL	MIN.TENSILE STRENGTH IN kgf/mm2

IBR QUALITY MATERIAL

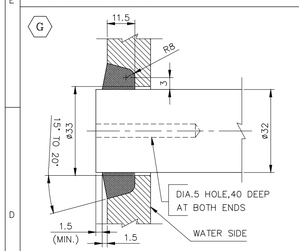


FIG.NO.XII/41 A (a) OF IBR

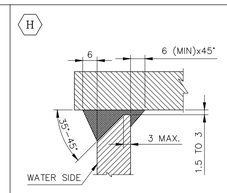


FIG.NO. XII/12A OF IBR

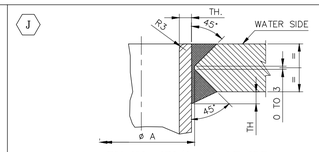


FIG.NO. XII/84 B OF IBR

STAND PIPE USED			DIA A	NOZZLE
SR. NO	O.D.	TH		
69	33.4	4.55	36	N4
72	48.3	5.08	51	N7
75	48.3	7.14	51	N16
79	60.3	8.74	63	N3

FOR FUS.PLUG COUPLING IN TP1 & IRC

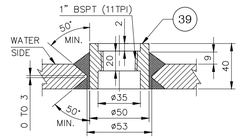


FIG.NO. XII/85 D (b) OF IBR

SECTION – GG

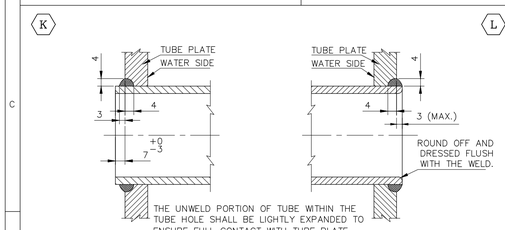
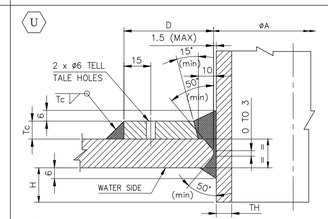


FIG.NO. XII/68 A (ii) OF IBR.



STAND PIPE USED			DIA A	Tc	D	H	NOZZLE
SR.NO.	O.D.	TH					
81	168.3	10.97	171	10	65	80	N2

FIG.NO.XII/85 F OF IBR

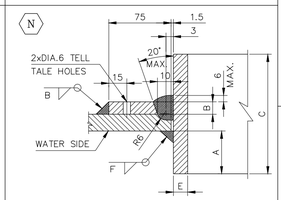


FIG.NO. XII/56 OF IBR

	A	B	C	E	F
MANHOLE FRAME	47	10	120	25	10
HEADHOLE FRAME	39	10	100	20	10

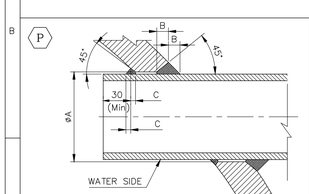
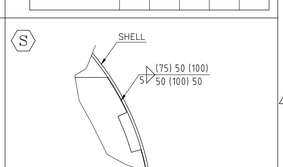
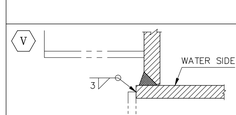


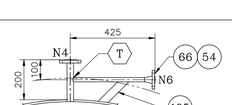
FIG.NO.XII/84 A OF IBR

STAND PIPE USED			DIA A	B	C	NOZZLE
SR.NO.	O.D.	TH				
67	33.4	4.55	36	5	3	N17
68	33.4	4.55	36	5	3	N18
74	48.3	5.08	51	5	3	N8
78	60.3	8.74	63	9	3	N19
77	48.3	5.08	51	5	3	N1



(SUPPORT PLATE WELDING)





SECTION – HH

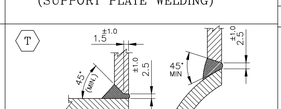


FIG. NO. XII/93 (a) OF IBR

FOR ALTERATION DETAILS, REFER FIRST SHEET OF THE DRAWING

ALT. No.	ALTERATION	MADE BY	CHKD BY

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TOLERANCES ARE NON CUMULATIVE

ACCEPTABLE DEVIATION FOR UNTOLERANCED DIMENSION												FINISH RA µm	
ALLOWABLE LINEAR DEVIATION mm												~	25–50
DIM OVER	0	6	30	120	315	1000	2000	4000	8000	12000	16000	▽	8–25
UP TO & INCLUDING	6	30	120	315	1000	2000	4000	8000	12000	16000	20000	▽▽	1.6–8
MACHINING	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2.0	±3.0	±4.0	±5.0	±6.0	▽▽▽	0.025–1.6
FABRICATION	±0.5	±1.0	±1.5	±2.0	±3.0	±4.0	±6.0	±6.0	±10.0	±12.0	±12.0	▽▽▽▽	< 0.025

PRODUCT: HORIZONTAL MULTITUBULAR SHELL TYPE SMOKE TUBE BOILER.

MODEL: SM–80DH/10.54/

Wt.IN kg.= 11561 (APPROX)

TITLE: PRESSURE PART ASSY.

SCALE: *REFER NOTE

DESIGNED	PRJ	03.10.06
DRAWN	ANIL BORADE	03.10.06
CHECKED	SVK	03.10.06
APPROVED	RSJ	03.10.06

THERMAX LIMITED
CHINCHWAD PUNE 411019
(C & H HEATING ENGINEERING)
THERMAX

DRG. No. PGSM 21 1711
SHEET NO.2 OF 2

ALT. No. 4

THIS MASTER IS APPLICABLE FOR UNIT SR.NO. 36 TO 50

COMPUTER FILE NAME:– PGSM2117110204 PLOTTING SCALE:– 1:15 FILE LOCATION:– GHP'S D:\GURUDAS\INWARD\