

TENDER SPECIFICATION

SI No	E-Tender Specification Number
1	BHE/PW/PUR/HAZIRA HRSG3/2835

REPLACEMENT OF EVAPORATOR MODULE OF HRSG #3 OF CO-GEN PLANT, HAZIRA , ONGC
HAZIRA PLANT, ONGC NAGAR, SURAT, GUJARAT INDIA

VOLUME – I

FOR

VOLUME I – TECHNICAL BID

THIS TENDER SPECIFICATION CONSISTS OF:

Notice Inviting Tender	
Volume-IA	Technical Conditions of Contract
Volume-IB	Special conditions of Contract
Volume-IC	General conditions of Contract
Volume-ID	Forms & Procedures
Volume-IE	Technical Specifications
Volume II	Price Bid

Bharat Heavy Electricals Limited



(A Government of India Undertaking)

Power Sector - Western Region

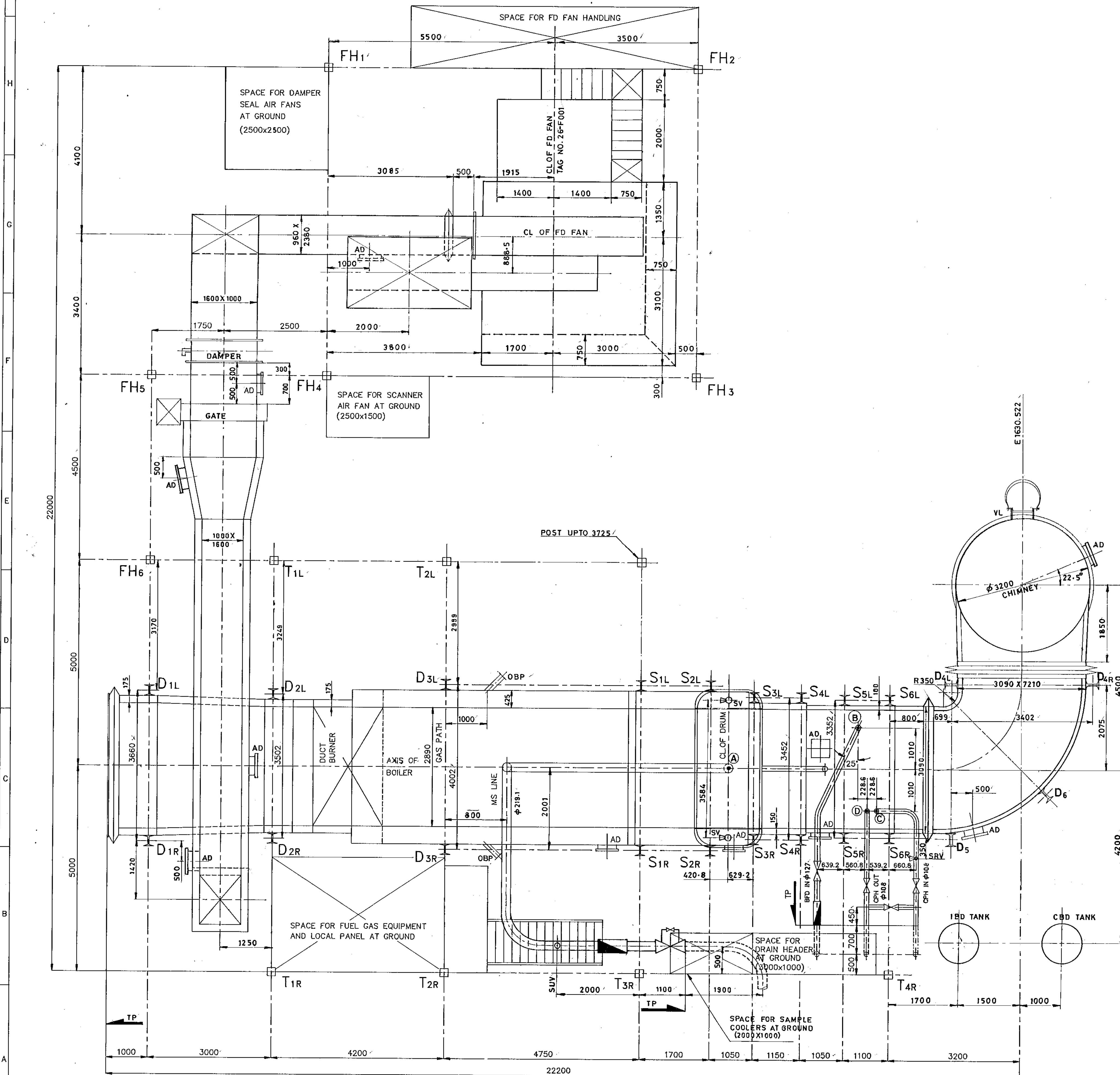
345-Kingsway, Nagpur-440001

CONTENTS		
Volume No	Description	Hosted in website bhel.com (Briefly) and detailed in BHEL e-Procurement Portal as files titled
NIL	Tender Specification Issue Details	(Part of Vol-IA-2835)
NIL	Notice Inviting Tender	(Part of Vol-IA-2835)
I-A	Technical Conditions of Contract	Vol-I-A-2835
I-B	Special Conditions of Contract	(Part of Vol-I-BCD-2835)
I-C	General Conditions of Contract	(Part of Vol-I-BCD-2835)
I-D	Forms & Procedures	(Part of Vol-I-BCD-2835)
--	HSE Plan	(Part of Vol-I-BCD-2835)
I.E	Drawings	Part of Vol-I-E-2835
II	Price Bid Specification as specified in E-Procurement Portal	Volume-II- 2835

98916-195-00-1
DRAWING No.

FIRST ANGLE PROJECTION

(ALL DIMENSIONS IN MILLIMETRES)



REV	DATE	ALTD	NRC	BY	CHKD	APPD
04	30.12.94	CHD	IA	APPD	PCP	
01. COLUMN D4, D5 & D6 INCLUDED.						
02. POST UPTO 3725 INCLUDED.						
03. LOCATION OF AD IN OUTLET DUCT ALTD.						
04. FD FAN MOTOR FOUNDATION UPDATED.						
REV	DATE	ALTD	NRC	BY	CHKD	APPD
03	7.12.94	CHD	IA	APPD	PCP	
SPACE FOR HP DOSING SYSTEM RELOCATED AS PER PLOT PLAN.						
TAG NO. FOR FD FAN GIVEN.						
REV	DATE	ALTD	NRC	BY	CHKD	APPD
01	27.05.94	APPD	PCP			
DRAWING UPDATED FOR RELOCATION OF MS LINE, LOCATION OF BFD INLET, CPH INLET & CPH OUTLET VALVES AS PER THE COMMENTS OF CONSULTANTS DURING THE MEETING ON 25/26-04-94.						
REV	DATE	ALTD	NRC	BY	CHKD	APPD
02	6-8-94	APPD	PCP			
01. LOCATION OF CHIMNEY ALTERED						
02. LOCATION OF HP DOSING SYSTEM CBD & IBD TANK ALTD.						
03. LOCATION OF MS LINE ALTD & LOCATION OF SUV IN MSL ALTD.						
04. LOCATION OF GATE & DAMPER INTERCHANGED.						
05. DRAWING UPDATED FOR AD.						
06. ANCHOR POINT MARKED.						
07. FD FAN DIMENSIONS UPDATED						

CUSTOMER No. 5085

CUSTOMER		M/S OIL & NATURAL GAS CORPORATION LTD.,	
CONSULTANT		M/S ENGINEERS INDIA LTD., (JOB NO. 3114)	
PROJECT		HEAT RECOVERY STEAM GENERATOR CO-GENERATION POWER PLANT - HAZIRA 1 x 51 t/h ; 39 Kg/cm ² (a) ; SAT. TEMPERATURE	
DRAWN		BY: IANVAR AU	
CHECKED		PCP	
APPROVED		PCP	
DATE		21.04.94	
ALL DIMENSIONS ARE IN MILLIMETRES		DRG No.	
SCALE		1 : 50	
TITLE		GENERAL ARRANGEMENT OF BOILER PLAN	
REV.		04	

1-00-561-91686

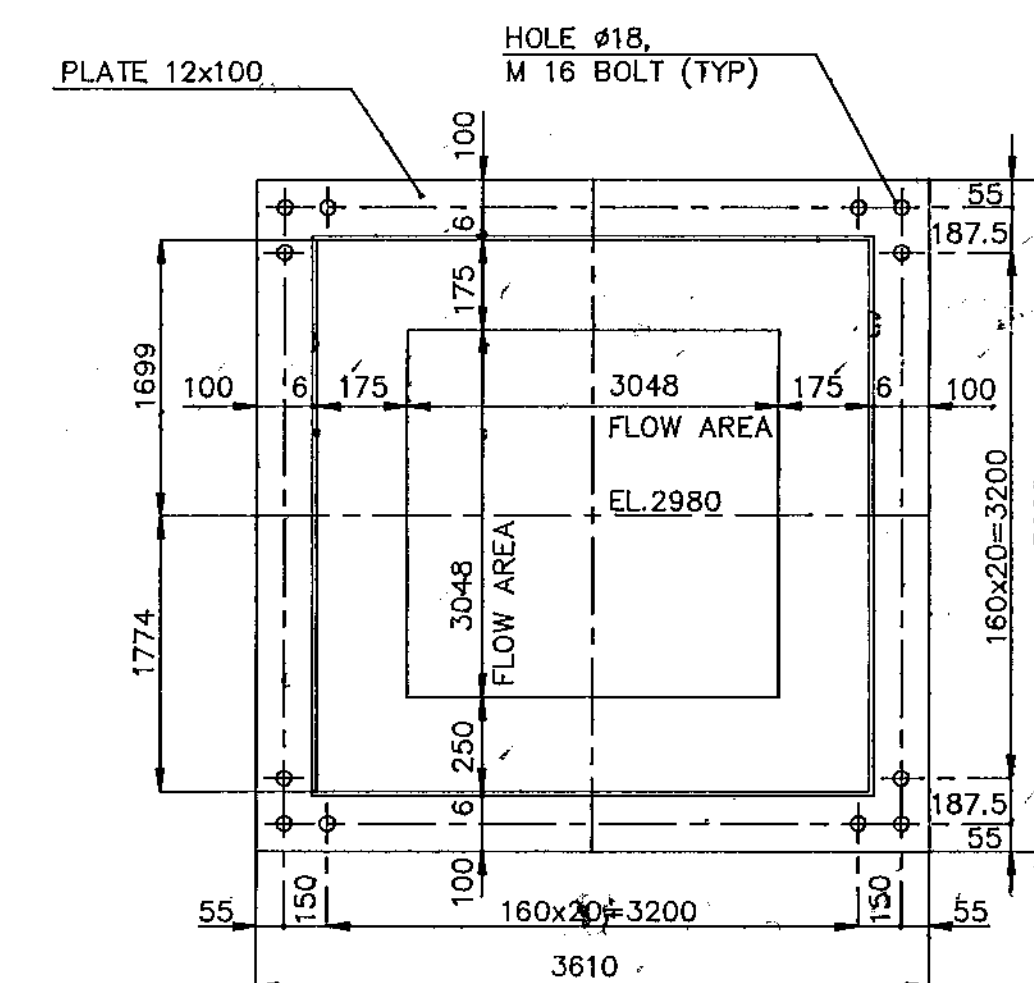
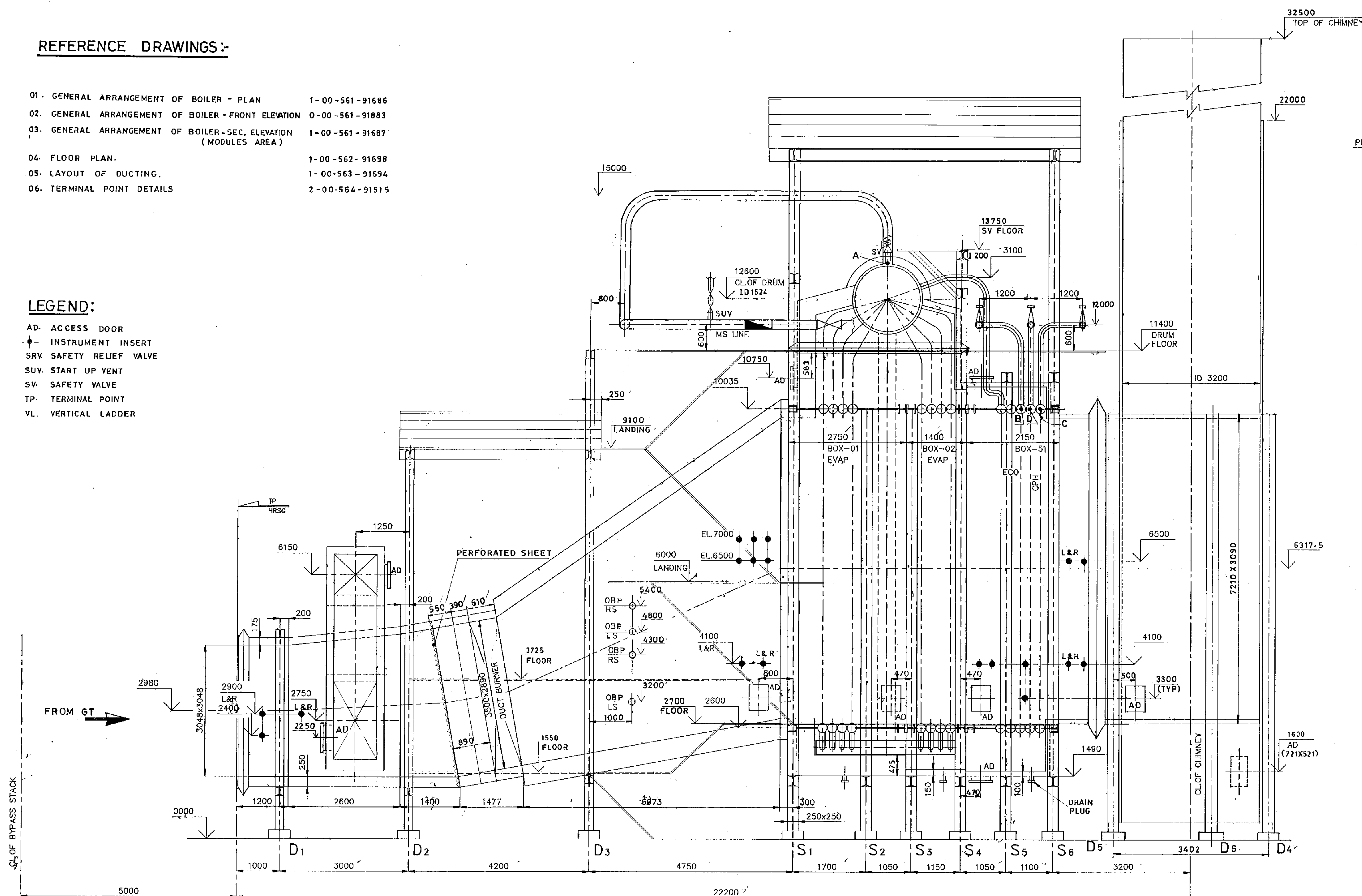
A1 SIZE

REFERENCE DRAWINGS:-

- | | | |
|-----|--|----------------|
| 01. | GENERAL ARRANGEMENT OF BOILER - PLAN | 1-00-561-91686 |
| 02. | GENERAL ARRANGEMENT OF BOILER - FRONT ELEVATION | 0-00-561-91883 |
| 03. | GENERAL ARRANGEMENT OF BOILER - SEC. ELEVATION
(MODULES AREA) | 1-00-561-91687 |
| 04. | FLOOR PLAN. | 1-00-562-91698 |
| 05. | LAYOUT OF DUCTING. | 1-00-563-91694 |
| 06. | TERMINAL POINT DETAILS | 2-00-564-91515 |

LEGEND:

- AD. ACCESS DOOR
 INSTRUMENT INSERT
 SRV. SAFETY RELIEF VALVE
 SUV. START UP VENT
 SV. SAFETY VALVE
 TP. TERMINAL POINT
 VL. VERTICAL LADDER



GT.DUCT MATING FLANGE
(SCALE: INTS)

NOTES:-

01. 0.00 m LEVEL OF HRSG CORRESPONDS TO 100 m
OF GTG FINISHED FLOOR LEVEL.
02. ALL INSTRUMENT OPENINGS MARKED IS FOR RIGHT
HAND SIDE ONLY UNLESS OTHERWISE SPECIFIED.
03. ALL DUCT DIMENSIONS GIVEN ARE INSIDE
DIMENSIONS ONLY.
04. REF DWG.
- (a) SCHEME OF WATER AND STEAM CIRCUIT WITH
VALVES FITTINGS & INSTRUMENTATION
0 - 24 - 400 - 80152
- (b) SCHEME OF AIR & FLUE GAS PATH WITH
INSTRUMENTATION
2 - 97 - 400 - 80038

05. COLUMN SIZE

- S1 TO S6 & D1 TO D3 I 250 X 250
D4 TO D6 I 300 X 200

REV. 05	DATE 12-07-95	ALTD. CHD.	MDM. I-A	M. Ch. Singh Shrivastava P. Chitambar	REV. 04	DATE 30-12-94	ALTD. CHD.	MDM. I-A	M. Ch. Singh Shrivastava P. Chitambar	REV. 03	DATE 7-12-94	ALTD. CHD.	MDM. I-A	M. Ch. Singh Shrivastava P. Chitambar	REV. 02	DATE 6-8-94	ALTD. CHD.	MDM. I-A	M. Ch. Singh Shrivastava P. Chitambar	REV. 01	DATE 27.05.94	ALTD. CHD.	MDM. I-A	M. Ch. Singh Shrivastava P. Chitambar
DUCT BURNER LENGTH ALTERED FROM 1000 MM TO 610MM.					01. LOCATION OF OBP AFTER DUCT BURNER UPDATED. 02. STAIR CASE ARRGT. ALTERED. 03. D4, D5 & D6 COLUMN INCLUDED. 04. LOCATION OF AD IN OUTLET DUCT ALTERED. 05. DRAWING UPDATED FOR INSTRUMENT INSERT. 06. CHIMNEY TOP ELEVATION UPDATED. 07. NOTE 05 ADDED.					1. EL. OF AD. IN FD. DUCT GIVEN AS 2250. 2. AD. SHOWN IN FD. DUCT AT EL. 6150. 3. PERFORATED SHEET SHOWN BEFORE DUCT BURNER 4. EL OF CPH INLET, CPH OUTLET & ECO. INLET GIVEN AS 12000 5. CHIMNEY INSULATION TOP ELEVATION GIVEN AS 22000 6. NOTE 4 ADDED FOR SCHEME REFERENCE DWGS.					01. LANDING ELEVATION ALTERED. FROM 8700 TO 9100. 02. STAIRCASE ARRANGEMENT ALTD. 03. ANCHOR POINT MARKED. 04. DUCTING TO CHIMNEY ALTERED. 05. DRG. UPDATED FOR REFERENCE DRGS. AND LEGEND. 06. SAFETY VALVE FLOOR ADDED.					DRAWING UPDATED FOR INSTRUMENT TAPPING POINTS, FLOOR LEVELS, STAIRCASE OBSERVATION DOORS, BURNER FLOOR, NOT LOCATION OF BFD INLET, CPH INLET & CPH OUTLET VALVES AS PER THE COMMENTS OF CONSULTANTS DURING THE MEETING ON 25/08-04-94.				

WAY MENTRAL TO THE INTEREST OF THE COMPANY.	CUSTOMER		M/S OIL&NATURAL GAS CORPORATION LTD.,	
	CONSULTANT		M/S ENGINEERS INDIA LTD., (JOB NO: 3114)	
	PROJECT		HEAT RECOVERY STEAM GENERATOR CO-GENERATION POWER PLANT - HAZIRA 1 x 51 t/h ; 39 Kg/cm ² (a) ; SAT. TEMPERATURE	
			BHARAT HEAVY ELECTRICALS LTD., BOILER PLANT UNIT, TIRUCHIRAPALLI-620 014.	
	DRAWN		TANVAR ALI <i>Tanvar Ali</i>	
CHECKED		PCP <i>P. Cheluvu</i>		
APPROVED		PCP <i>P. Cheluvu</i>		
DATE 21.04.94		K. GOPALAKSH K. Gopalaksh		
ALL DIMENSIONS ARE IN MILLIMETRES		DRG No.		
		SCALE 1 : 50		
		REV.		
		1-00-561-91685		

CAUTION: THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY