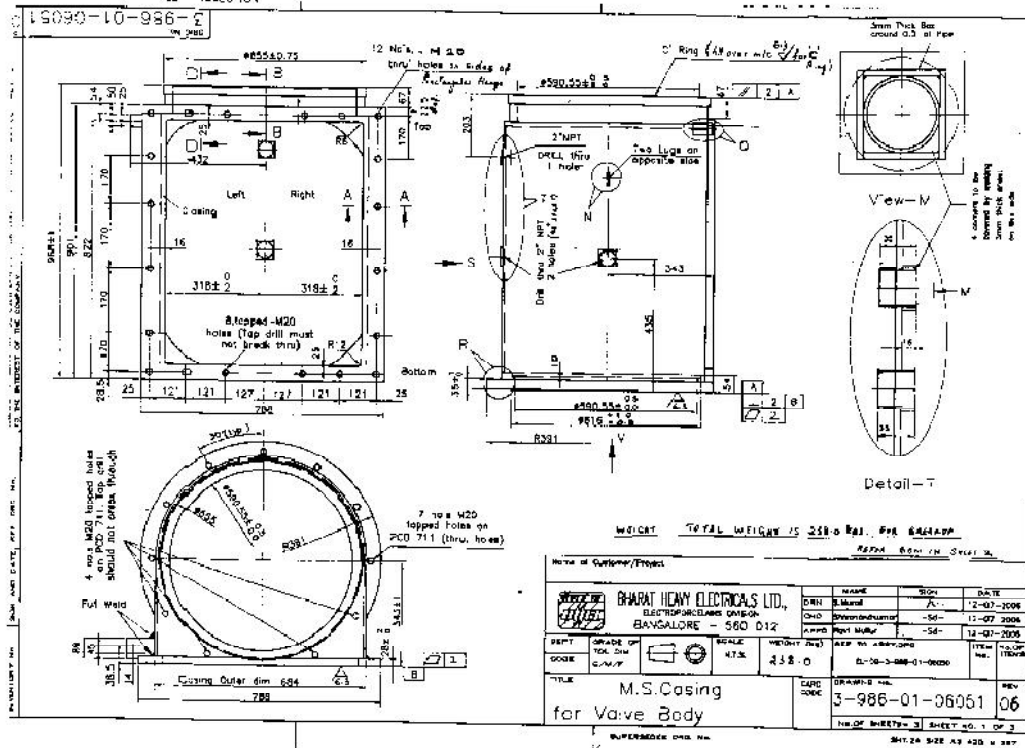
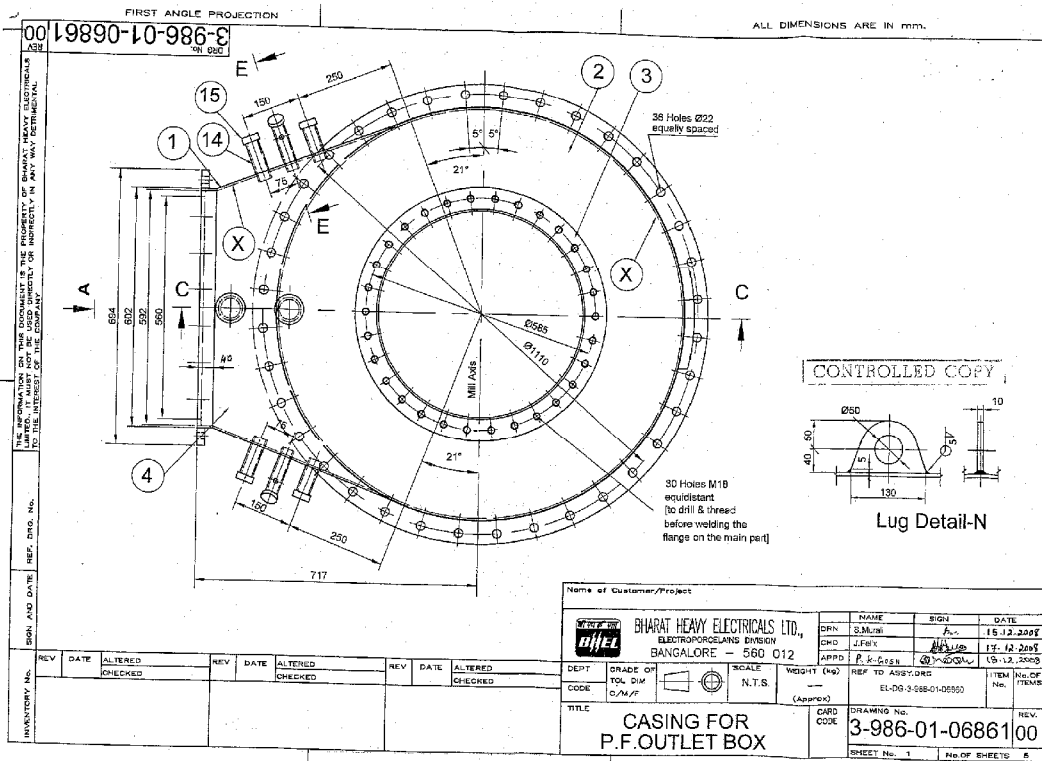


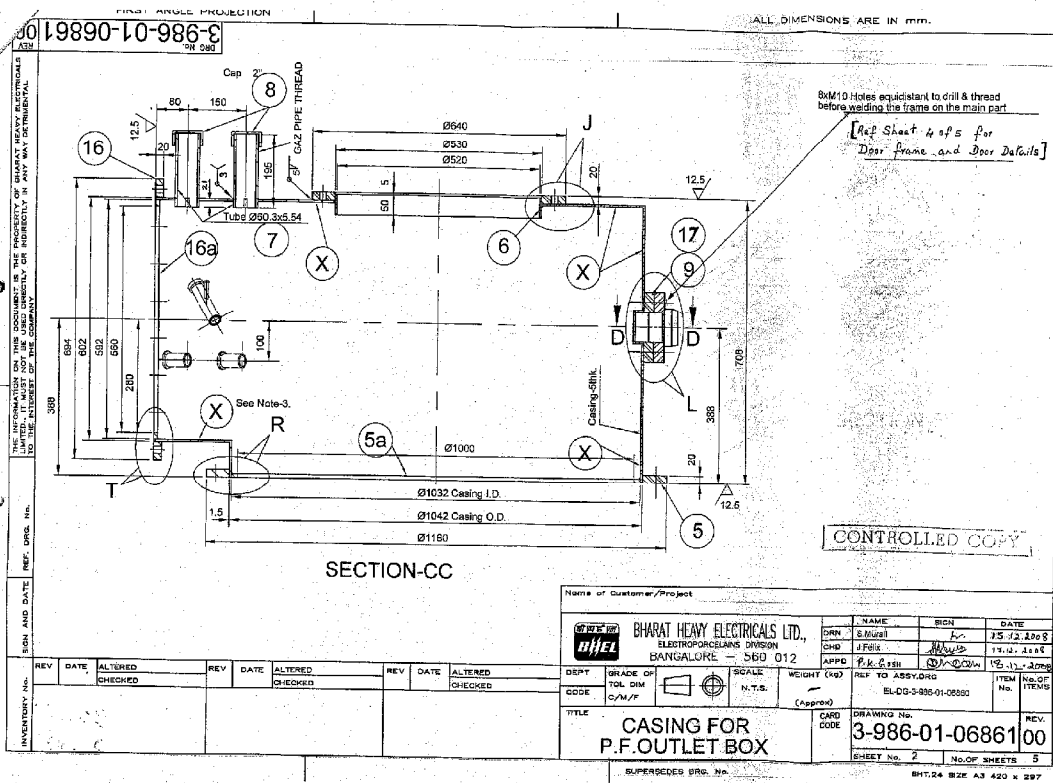
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SL. No. 4



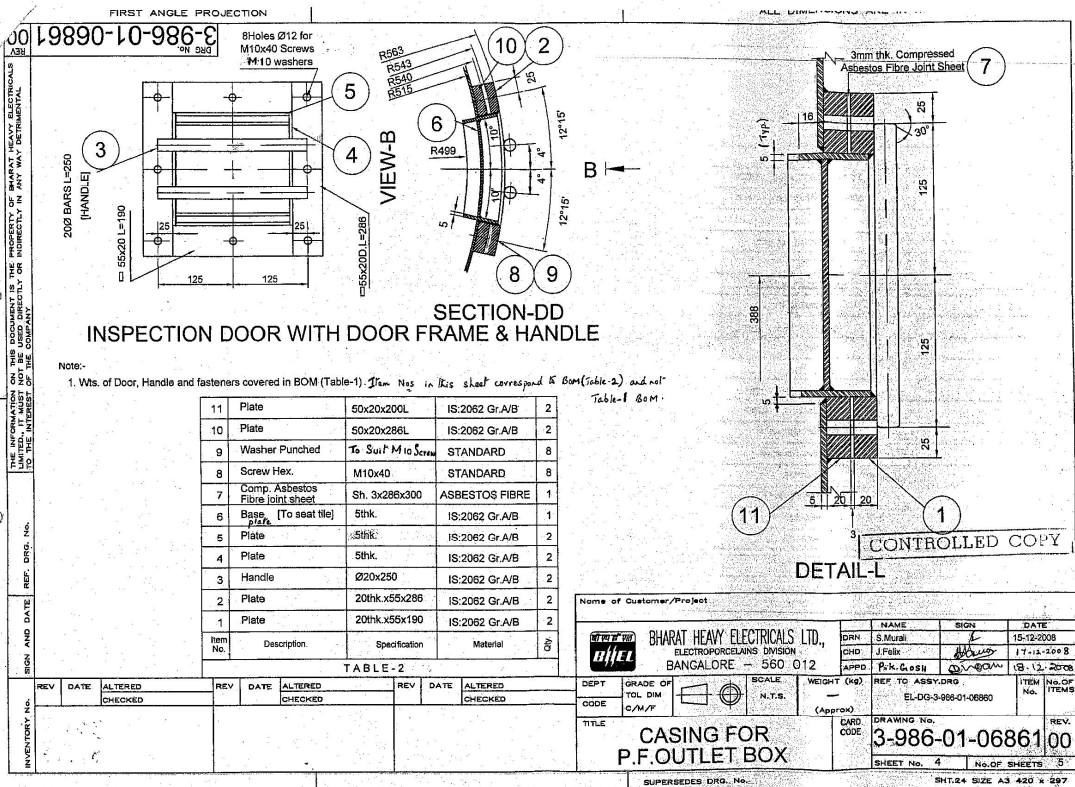




REV	DATE	ALTERED	CHECKED	REV	DATE	ALTERED	CHECKED	REV	DATE	ALTERED	CHECKED

Name of Customer/Project				NAME		SIGN		DATE	
BHARAT HEAVY ELECTRICALS LTD., ELECTROPORCELAINS DIVISION BANGALORE - 560 012				DRN		J.F. K.		15.12.1988	
DEPT				CHD		J.F. K.		17.12.1988	
CODE				APPD		P.K. C. S.		18.12.1988	
TITLE				SCALE		WEIGHT (kg)		ITEM No.	
CASING FOR P.F. OUTLET BOX				N.T.S.		(approx)		EL-00-3-986-01-06861	
SUPERSEDES DRG. No.				DRAWING No.		CARD CODE		REV.	
				3-986-01-06861				00	
				SHEET No. 2		No. OF SHEETS		5	

BHT.24 BZE A3 420 x 297

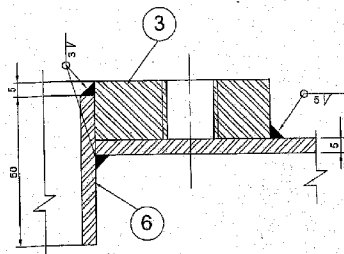


001986-01-06861-00

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Note:-

1. Casing, Flanges, End Rings & Lifting Lug Material M.S. shall conform to IS:2062 Gr.A/B.
2. Lifting Lugs shall be placed suitably to facilitate balanced lifting.
3. Casing to be cleaned & painted with red oxide as per CE:285/20 except surface marked (X).
4. For welding details refer AWS:D 1.1.
5. All supplies to conform QP No.CLN/QP:01/00.
6. Weld fillet thickness 5 unless otherwise specified.
7. Refer Sheet No.4 of 5 for Vault Door details.
8. Flanges to be coated with Bituminous paint as per CE:265/20. Flatness of all flanges to be ensured.
9. Diameter of Flanges to be concentric to each other.
10. Air tight welded construction with full penetration of weld fillets to be checked with D.P. test.
11. Tolerance where not indicated $\pm 1\text{mm}$. This tolerance not applicable for casing thickness of 5mm.
12. Total wt. of P.F.Outlet Box is 242.0kgs. For details refer BOM.



DETAIL-J

REV	DATE	ALTERED	REV	DATE	ALTERED	REV	DATE	ALTERED
		CHECKED			CHECKED			CHECKED

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17	Vault Door	As shown in Sheet 4	1	13.5
15a	Inner Ring	65280 (Out) x 6084 (In) x 10thk	1	2.9
18	Top Flange	69450 (Out) x 60550 (In) x 20thk	1	17.0
16	Pipe Cap 2"	2"	4	0.5
14	Pipe 2"	6923x5.54-224 Long	4	1.65
13	Pipe Cap 2"	2"	2	0.5
12	Pipe	280.3x5.24-260 Long	2	1.89
11	Pipe Cap I.D. 21.3	As shown	2	3.2
10	Tube	821.5x5.75-180 Long	2	0.21
9	Inspection Door Frame	As shown	1	7.8
8	Pipe Cap 2"	2"	2	0.5
7	Tube	859.3x5.64-195 Long	2	1.45
6	Outlet Ring	28390.D x 69201.D x 50Lg	1	3.28
5a	Retainer Ring	100thk x 1000 x 1032	1	48
5	Flange	20thk x 6104 x 61180	1	29.0
4	Side Plate-1	As shown	1	9.0
3	Flange	20thk x 2530 x 2540	1	14.5
2	Outlet Side Plate-1	As shown	1	33.0
1	Outlet Box Assy	As shown	1	50.0
Item No.	Description	Specification	Material	Approx Unit Wt (kgs)

TABLE - 1

Name of Customer/Project



BHARAT HEAVY ELECTRICALS LTD.
ELECTROPROGRAMS DIVISION
BANGALORE - 560 012

NAME	SIGN	DATE
DRN: S. K. S.		15.11.2008
CRD: J. F.		17.12.2008
APPD: P. K. G.		19.12.2008

DEPT	GRADE OF TOL DIM	SCALE	WEIGHT (kg)	REF TO ASSY.DWG	ITEM No.	REV.
CODE	G/M/F	N.T.S.	(Apprx)	EL-DG-3-885-01-06860		
TITLE				DRAWING NO.		
				3-986-01-06861/00		
				SHEET No. 5	No. OF SHEETS 5	

SUPERSEDES DRG. TN.

BHT.24 SIZE A3 420 x 297

ALL DIMENSIONS ARE IN mm.

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project

Name of Customer/Project	
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BHARAT HEAVY ELECTRICALS LTD.
ELECTROPORCELAINS DIVISION
BANGALORE - 560 012

	NAME	SIGN	DATE
DRN	S. Muroli	<i>[Signature]</i>	03-10-2008
CHD	J. Feltz	<i>[Signature]</i>	03-10-2008
APPD	Ravi Muller	<i>[Signature]</i>	03-10-2008

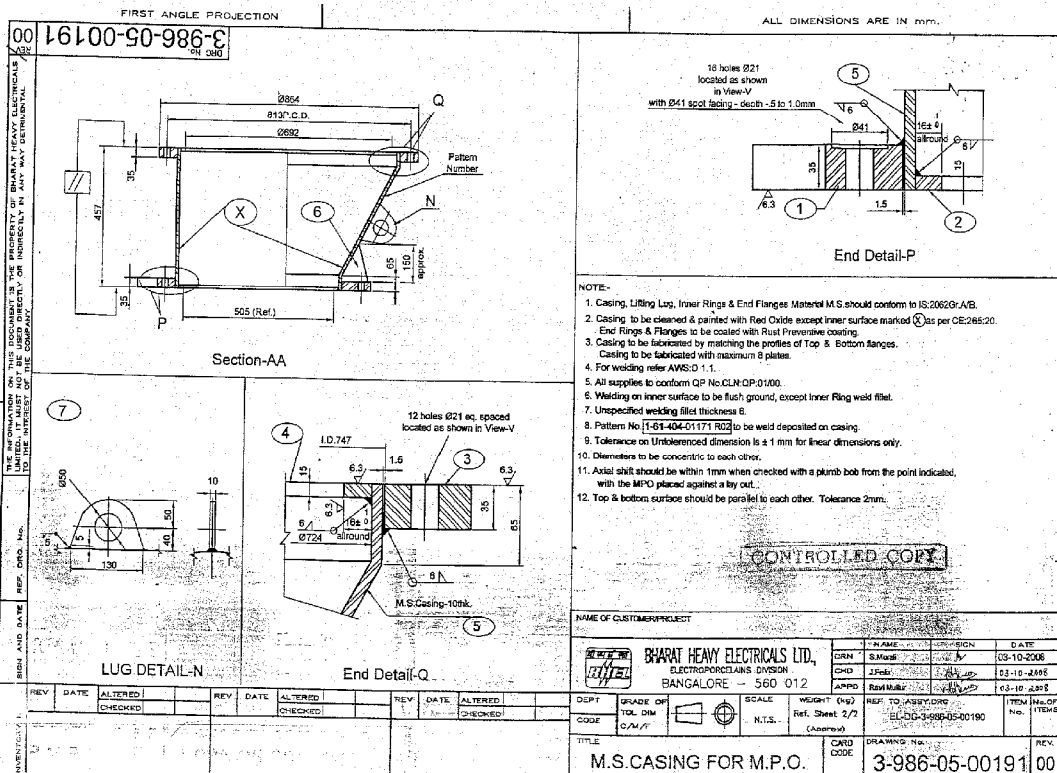
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DEPT	GRADE OF		SCALE	WEIGHT (KG)
CODE	TOL DIM		N.T.S.	Ref. Table above

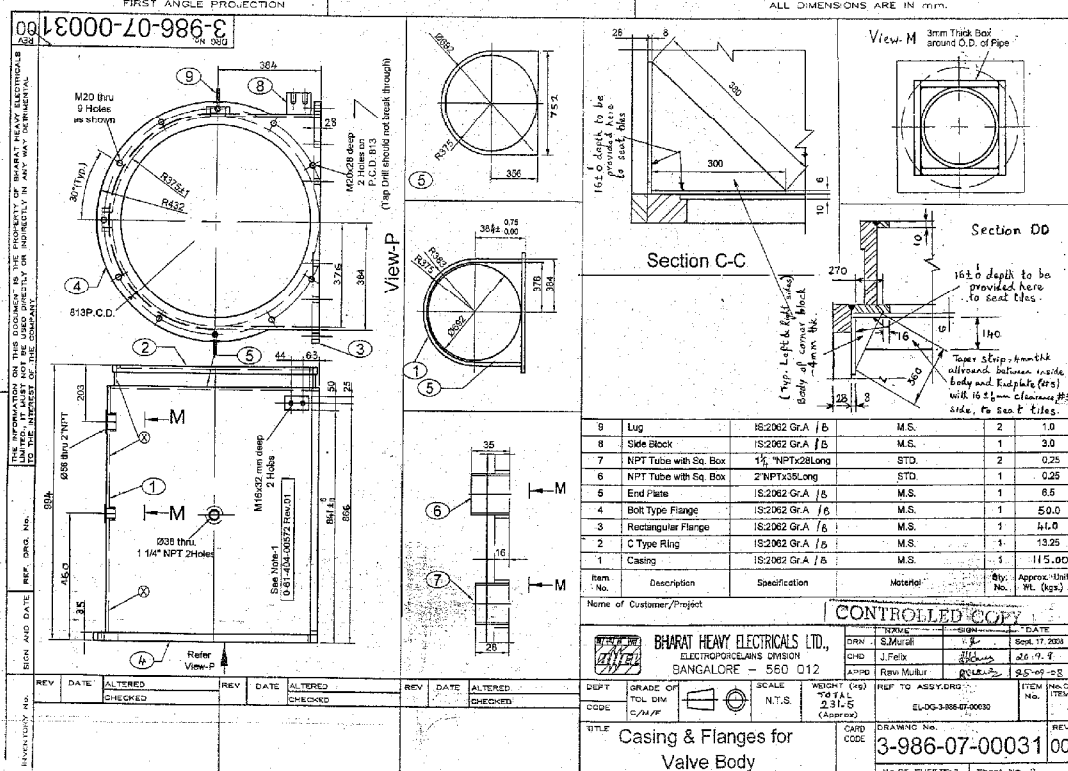
FILE	M.S.CASING FOR M.P.O.			
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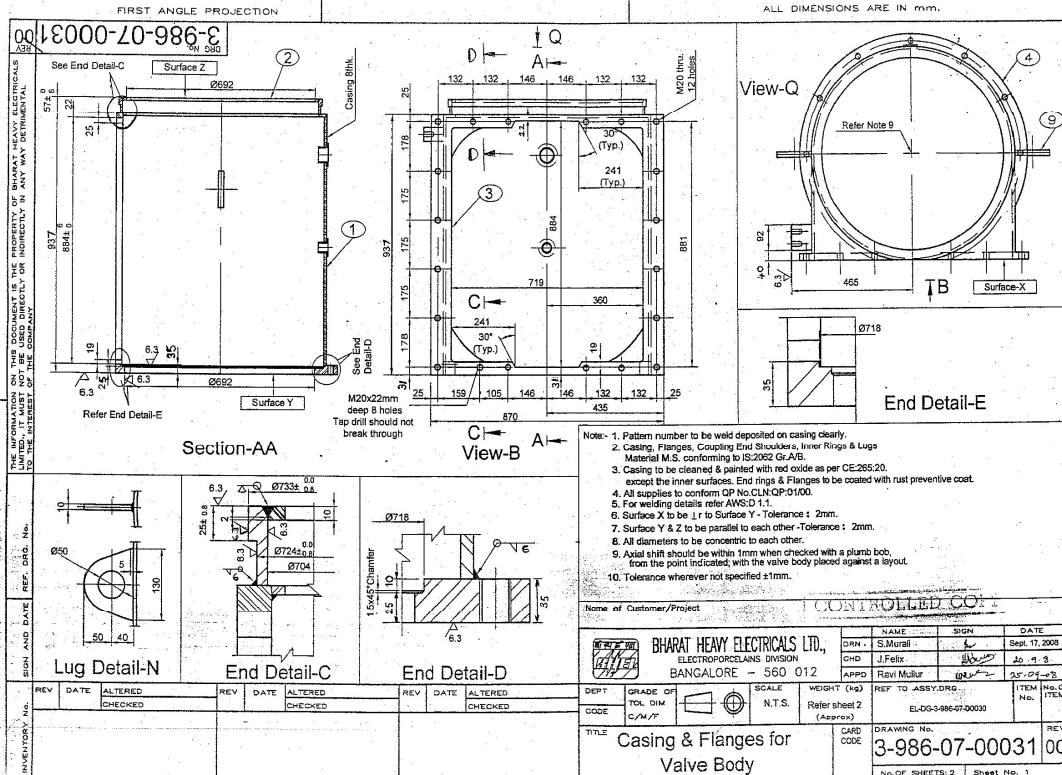
REF TO ASSY.DWG	TEM	No.6
EL-DG-3-995-45-00190	No.	ITEM

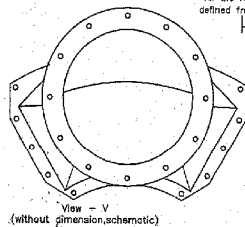
DRAWING No.	RE
3-986-05-00191	00



ALL DIMENSIONS ARE IN mm







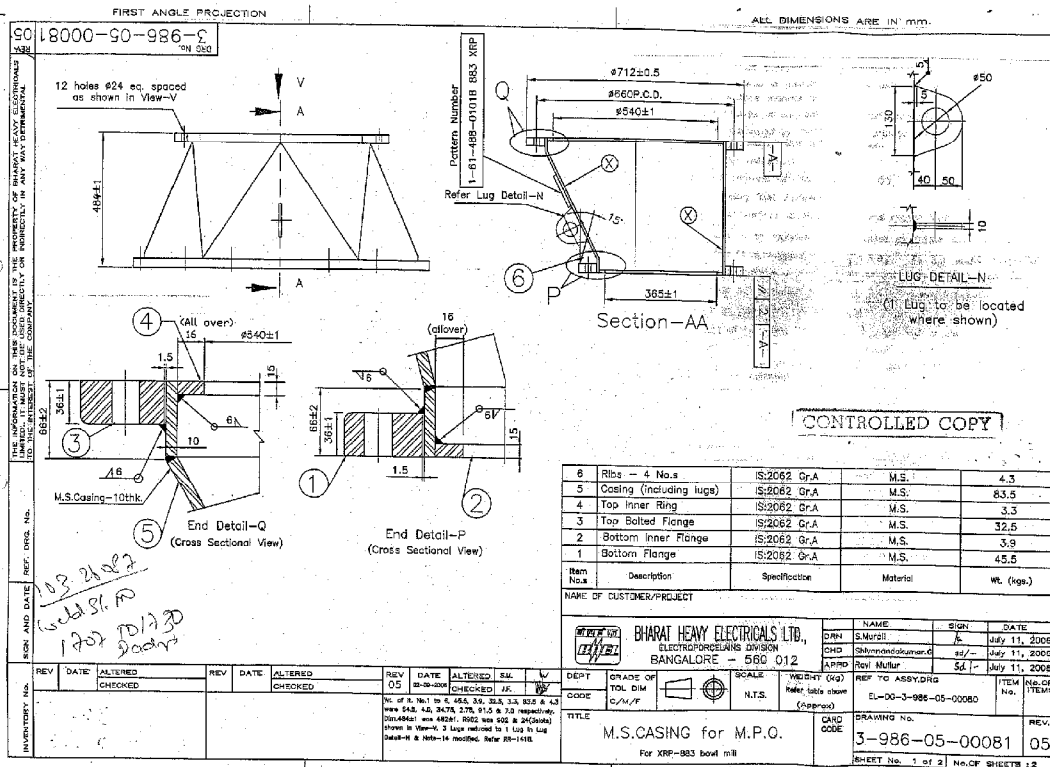
- NOTE:-
- 1. Material M.S. should conform to IS-2022-QQA.
- 2. Coating to be cleaned & painted with Red Oxide as per CE.265-21. except inner surface marked as (X)
- 3. End rings & flanges to be coated with rust preventive coating.
- 4. Coating to be fabricated by matching the profiles of Top & Bottom flanges. Coating to be fabricated with max. 8 plates.
- 5. For welding refer AWS D 1.1.
- 6. All supplies to conform QP No. CLN-QP-01/00.
- 7. Unspecified welding fillet thickness 6mm.
- 8. Welding on inner surface to be flush ground except inner ring weld fillet.
- 9. All sharp edges to be rounded to R10 unless otherwise specified.
- 10. Pattern number "1-61-488-0101B-883 XRP" to be used as per drawing on casting outer surface.
- 11. Tolerance where not specified $\pm 1mm$ for linear dimensions.
- 12. Diameters to be concentric to each other.
- 13. Axial shift should be within 1mm when checked with a plumb bob from the point indicated, with the MFD placed against a layout.
- 14. Top & Bottom surface should be parallel to each other, as per tolerances indicated.

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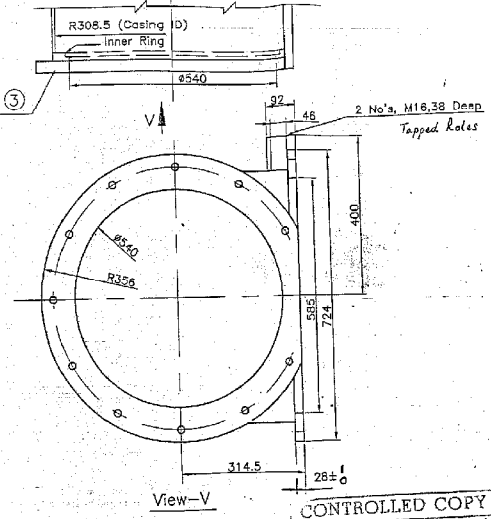
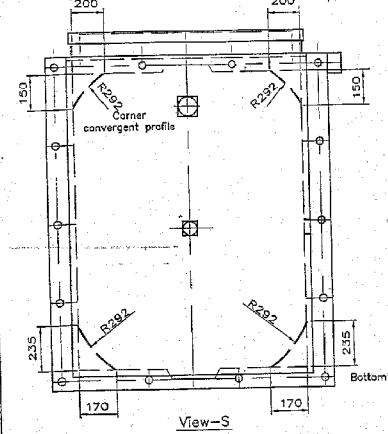
BHARAT HEAVY ELECTRICALS LTD. ELECTROPOWER&GAS DIVISION BANGALORE - 560 012						NAME		SIGN	DATE		
						DHR	S.Murthy		July 11, 2006		
						CAD	Gyeshwaramdudumarg	sd/-	July 11, 2006		
						AMPD	Mallikarjun	Sd/-	July 11, 2006		
REV	DATE	ALTERED CHECKED	DEPT CODE	GRADE OF JOB D/W C/D/W	 	SCALE	N.T.S.	WEIGHT (KGS) REFR CODE No.1 (Caption)	REF TO ASDY.DRG BL-0G-3-986-05-00080	ITEM NO.	No. OF ITEMS
TITLE						CARD CODE	DRAWING No. 3-986-05-00081				REV. 05
M.S.CASING FOR M.P.O.						SHEET No. 2 of 2		No. OF SHEETS 12			

SUPERSEDES DRG. No. _____

SHT.24 SIZE A3 420 x 297



3-986-01-0607



- Notes :
1. Casing to be cleaned & painted with red oxide as per CE26520 except at the inner surface marked as (X).
 2. For welding details refer AWS D1.1.
 3. All supplies to conform IS 9000-2000.
 4. Flange No. " 0-61-458-0007-333 XRP " to be weld deposited over the casing.
 5. Welding on inner surfaces to be flush ground except inner flange and inner ring weld fillets.
 6. Material M.S. should conform to IS 2062 G.R.
 7. Tolerance where not specified $\pm 1\text{mm}$.
 8. Diameters to be concentric to each other.

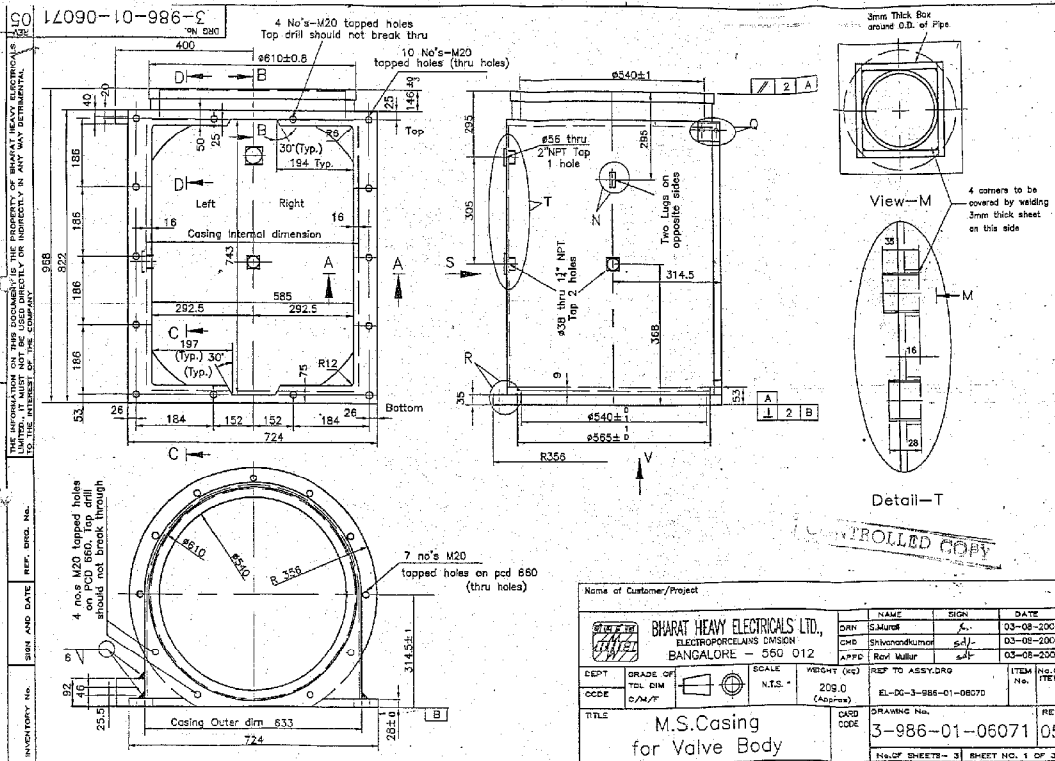
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05	05/05/2008	CHECKED	A.F.

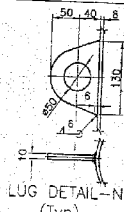
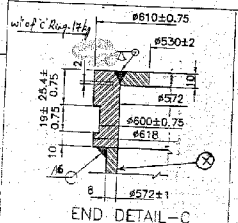
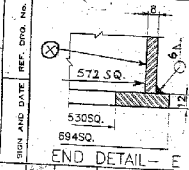
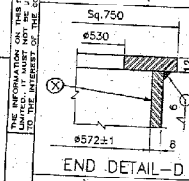
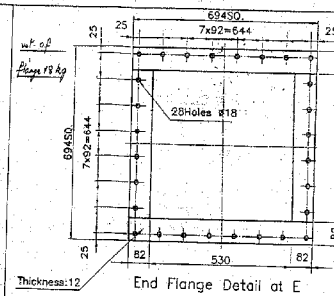
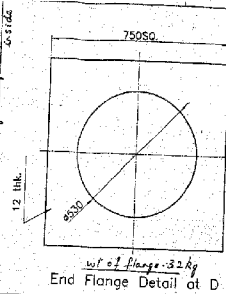
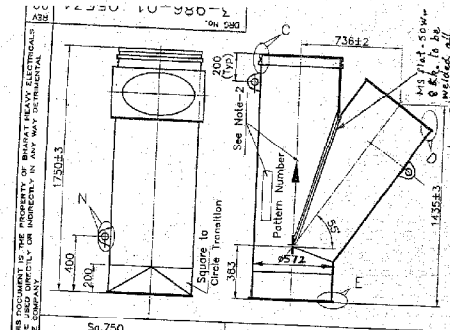
REV 05 05/05/2008 CHECKED A.F.

Name of Customer/Project		NAME	SIGN	DATE
BHARAT HEAVY ELECTRICALS LTD.		NAME	SIGN	DATE
ELECTROPOWERS DIVISION		NAME	SIGN	DATE
BANGALORE - 560 012		NAME	SIGN	DATE
DEPT	GRADE OF TOL. DIM	SCALE	WEIGHT (KG)	Refer Sheet No.1
CODE	C/N/P	N.T.S.	Refer Sheet No.1 (Approve)	Refer Sheet No.1
TITLE		DRAWING NO.		
M.S. Casing for Valve Body		3-986-01-06071		
SUPERSEDED DRG. No.		REV.		
		05		
		No. OF SHEETS 3 Sheet No. 3 of 3		

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5HT 24 SITE A3 400 = 003





- NOTE:
1. Material of Casing, Lifting Lugs, & End Rings M.S. should conform to IS:2062 Gr.A.
 2. Arrow head & pattern number 47-224-00993 to be weld deposited on casing as per CE:265:21. Weld deposit to be raised not less than 5mm.
 3. Casing to be cleaned & painted with red oxide as per CE:265:20 except surface marked (S) (i.e. Inside surfaces not to be painted).
 4. All supplies to conform QP No. CLK/QP:01/00.
 5. For welding refer AWS:D 1.1.
 6. All over machining ∇ for End Rings.
 7. Inner surface shall be clean, smooth and weld joints shall be flush ground.
 8. Axis of end ring & flanges should be in line with axis of casing at corresponding points. Shift in axis should be within 1mm.
 9. Total weight includes weights of end rings, flanges & lugs.

REV	DATE	ALTERED	CHECKED	REV	DATE	ALTERED	CHECKED

Bharat Heavy Electricals Ltd., ELECTROPROCESSING DIVISION BANGALORE - 560 012		CONTROLLED COPY	
DRN	Murda.S	DATE	20-11-2004
CHD	Fels	DATE	25-11-2004
APPD	Joshi.V.G.	DATE	25-11-06
REF TO ASSY DRG	3-986-01-05530	ITEM No.	1/1
DRAWING No.	3-986-01-05531	REV	00
SHEET No.		No. of SHEETS	

SUPERSEDES DRG. No. SHT. 24 SIZE A3 420 x 297