

FIRST ANGLE PROJECTION

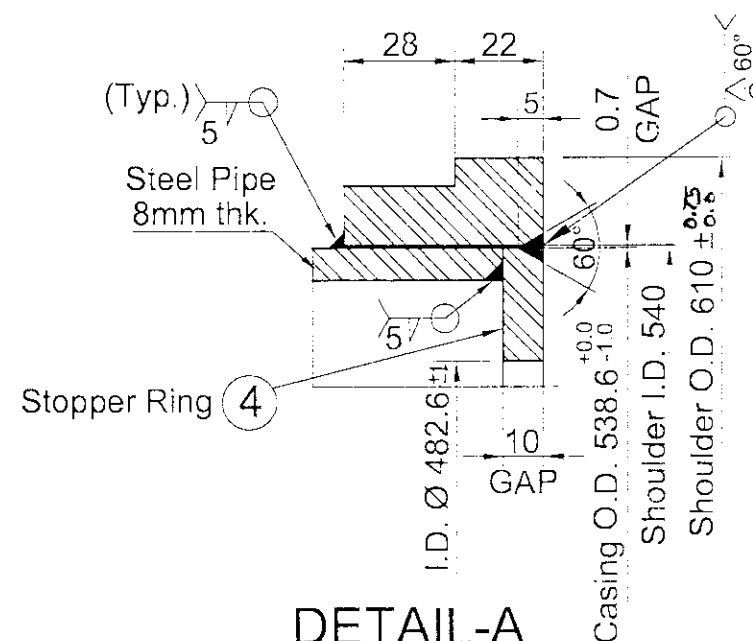
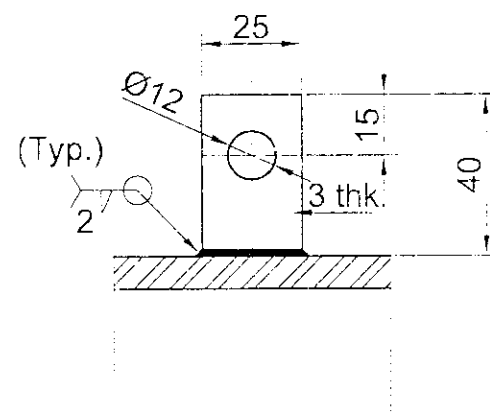
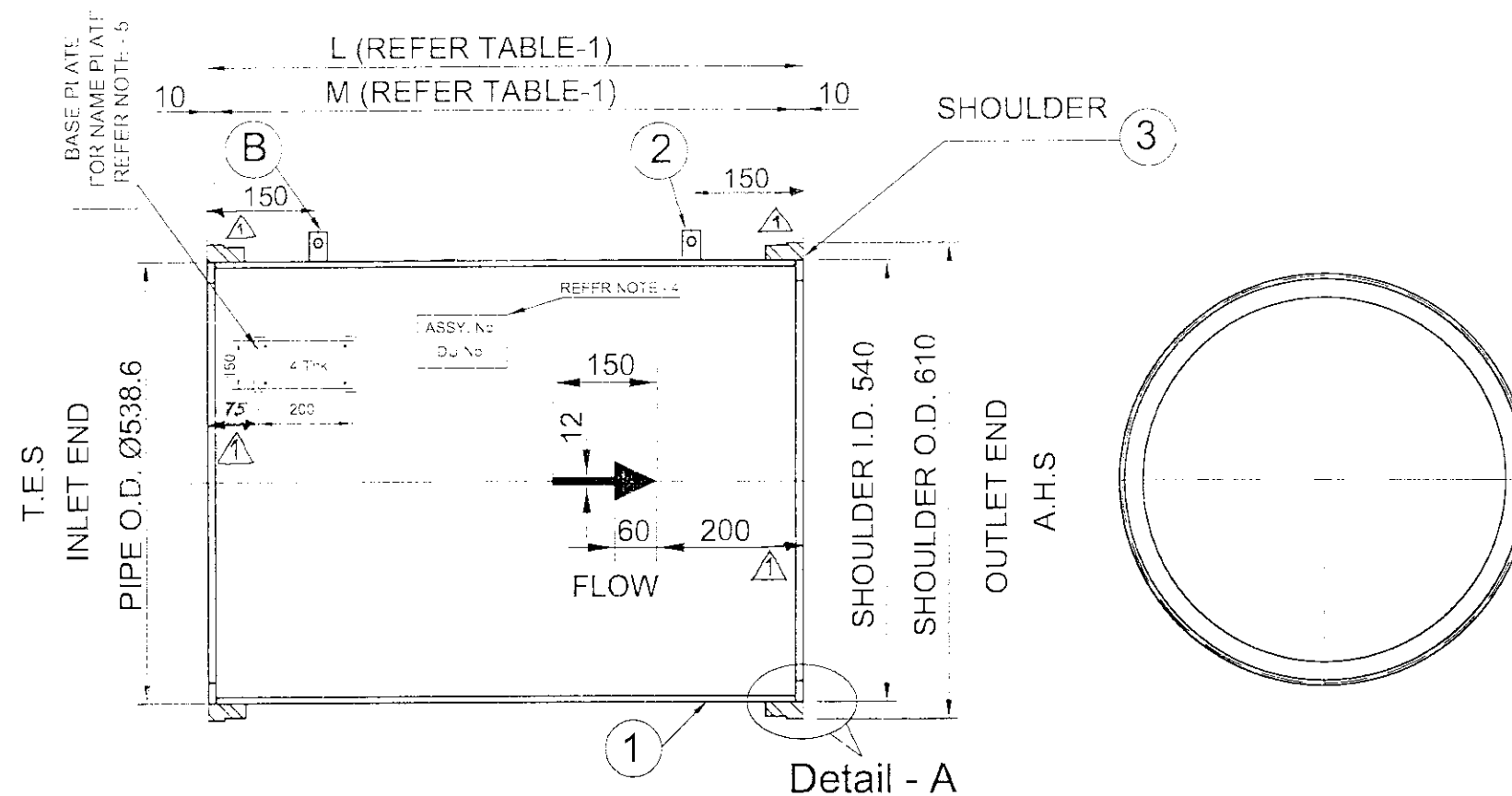
ALL DIMENSIONS ARE IN mm

REV
3-986-01-09841
DRG No.

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SIGN AND DATE
REF. DRG. No.

INVENTORY No.



4	Stopper Ring	10 mm Thk.	IS:2062 - 2011 E250 BR KILLED STEEL	2 No's.	3.52	
3	Shoulder	ID 540 x OD 610	IS:2062 - 2011 E250 BR KILLED STEEL	2 No's.	—	FREE ISSUE BY BHEL TO VENDOR
2	Earth Lug	3 mm thk.	IS:2062 - 2011 E250 BR KILLED STEEL	2 No's.	0.02	
1	Pipe	8 mm Thk.	IS:2062 - 2011 E250 BR KILLED STEEL	1 No.	Refer Table - 1	
SL No.	Description	Size	Material	Qty. per Pipes	Wt. / Piece (Kgs.)	Remarks

TABLE - 2 PULVERISED COAL BEND PIPE MATERIAL DETAIL

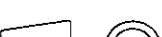
3	CLCP-204	H6-1 & H7-1	635	615	V	V	2	65.4
2	CLCP-203	H5-1 & H8-1	467	447	V	V	2	48.0
1	CLCP-202	H1-1 & H4-1	348	328	V	V	2	35.3
SL No.	DU No.	Assembly No.	L ± 1	M	Inlet Side	Outlet Side	Qty per Unit	Wt. kg/Pipe

TABLE - 1 PULVERISED COAL BEND PIPE DETAIL

Name of Customer/Project

BHARAT HEAVY ELECTRICALS LTD.,
ELECTROPORCELAINS DIVISION
BANGALORE - 560 012

	NAME	SIGN	DATE
DRN	S.Murali		03-06-2016
CHD	M.Vinod		31-07-16
APPD	Felix.J		31-7-16

DEPT	GRADE OF TOL D/M		SCALE N.T.S	WEIGHT (kg) — (Approx)	REF TO ASSY.DRG EL-DG-3-986-01-09840 7124 - Sheet 1	ITEM No.	No.OF ITEMS
CODE	C/M/F		TITLE CASING FOR ST. PIPE - 500NB	CARD CODE	DRAWING No. 3-986-01-09841	REV. 01	
					SHEET No. 1	No.OF SHEETS 2	

SHT.24 SIZE A3 420 x 297

REV
01

DRG No. 3-986-01-09841

NOTE:-

1. FOR CONSTRUCTION MATERIAL REFER TABLE-2
2. ALL SUPPLIES TO CONFORM CLN:QP:01/00. WELDING AS PER WP:CL001A & AWS:D 1.1.
3. DIMENSIONS INDICATED ARE FINISHED SIZE ONLY.
4. ASSEMBLY No., DU No., AND ARROW HEAD TO BE WELD DEPOSITED OVER CASING AS SHOWN , AS PER CE:1501:21
5. BASE PLATE FOR NAME PLATE TO BE WELDED ON TO CASING, AT LOCATION SHOWN,
FOR BASE PLATE & WELDING DETAILS REF DRG : 4 986 99 07720
6. ALL OVER MACHINING 6.3/ FOR STOPPER RINGS.
7. A.H.S. =ARROW HEAD SIDE T.E.S. = TAIL END SIDE & V= SHOULDER FOR VICTAULIC COUPLING.
8. FOR CASING Wt. REFER TABLE -1
FOR Wt. OF LIFTING LUG, EARTH LUG & STOPPER RINGS.
REFER TABLE - 2
9. CONTROL DURING WELDING OF SHOULDER TO CASING :-
 - a] OVALITY OF CASING ON OUTER DIAMETER TO BE MAINTAINED WITHIN 1.0 MM
 - b] WELDING OF SHOULDER TO CASING AS PER DETAIL-A, TO BE DONE IN SUCH A WAY AS TO ENSURE THAT DISTORTION OF COLLAR IS LIMITED SUCH THAT DIM Ø610 mm IS STRICTLY WITHIN THE TOLERANCE SPECIFIED IN SHT 1 OF 2.
VENDOR TO DO THE NEEDFUL TO ACHIEVE 9(a) AND 9(b).
10. SURFACE PREPARATION AND PAINTING: REF PAINTING SCHEME DOC. No. : PS- L&T - TANDA. BENDS / PIPES.
11. OVERALL PIPE TOLERANCE:-
 - a]. AXIAL SHIFT: ± 3 MM
 - b]. OUT OF SQUARENESS: ± 3 MM.
12. ALL WELD FILLETS ARE 6 mm. IF NOT SPECIFIED.

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REF. DRG. No.

SIGN AND DATE

INVENTORY No.

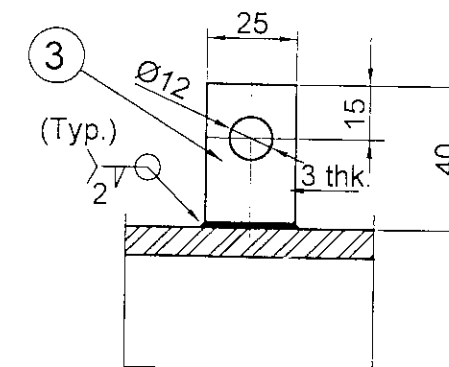
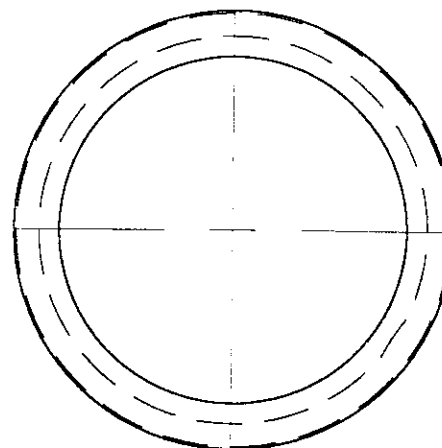
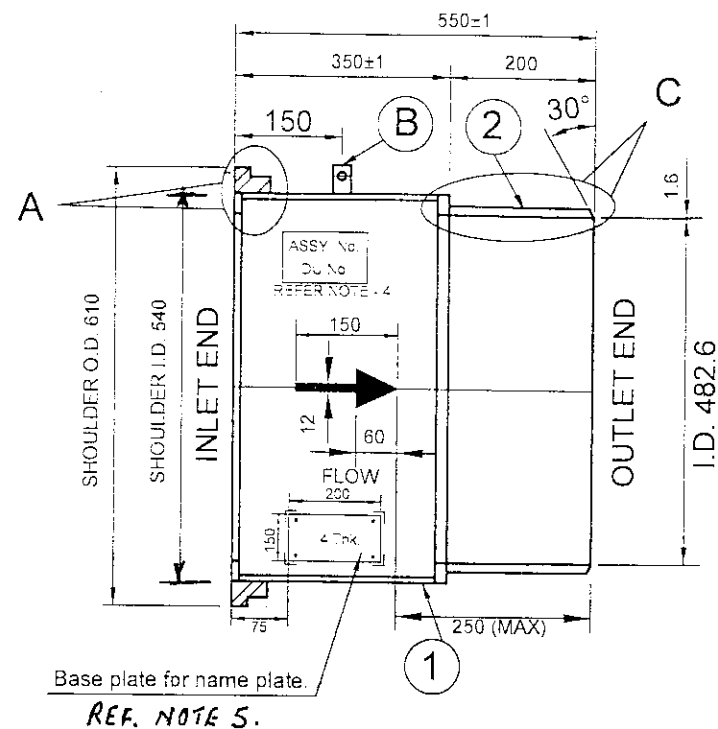
Name of Customer/Project

	BHARAT HEAVY ELECTRICALS LTD.,		NAME	SIGN	DATE
	ELECTROPORCELAINS DIVISION		DRN	S.Murali	03-06-2016
	BANGALORE - 560 012		CHD	M.Vinod	31/07/16
			APPD	Felix.J	31/7/16
DEPT	GRADE OF TOL DIM	SCALE	WEIGHT (kg)	REF TO ASSY.DRG	
CODE	C/M/F	N.T.S.	(Approx)	EL-DG-3-986-01-09840 7124 - Sheet 1	
TITLE			CARD CODE	DRAWING No.	
CASING FOR ST. PIPE - 500NB				3-986-01-09841	
				SHEET No. 2	No.OF SHEETS 2

REV.
01

ALL DIMENSIONS ARE IN mm.

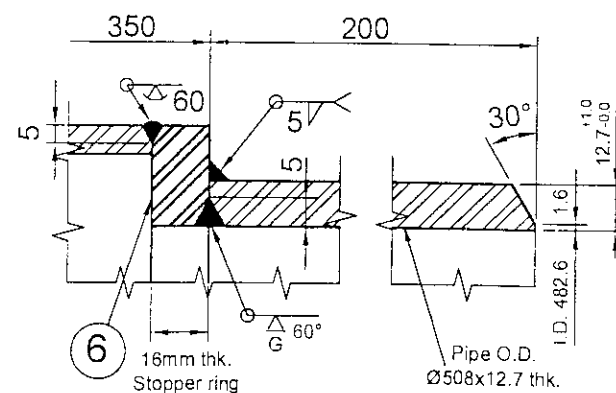
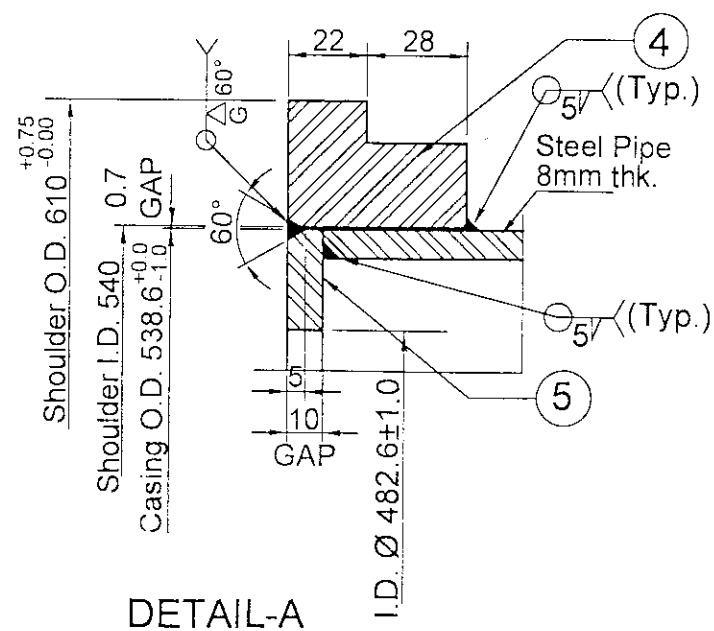
DRG No. 3-986-01-09851
REV 00



DETAIL-B

6	Stopper Ring - spool end	16 mm thk.	IS:2062 - 2011 E250 BR KILLED STEEL	1 No.	5.6	—
5	Stopper Ring	10 mm Thk	IS:2062 - 2011 E250 BR KILLED STEEL	1 No.	3.52	—
4	Shoulder	ID 540 x OD 610	IS:2062 - 2011 E250 BR KILLED STEEL	1 No.	-	FREE ISSUE BY BHEL TO VENDOR
3	Earth Lug	3 mm thk.	IS:2062 - 2011 E250 BR KILLED STEEL	1 No.	0.02	—
2	Spool pipe	Ø 508 x 12.7 Thk.	IS:2062 - 2011 E250 BR KILLED STEEL	1 No.	31.0	—
1	Pipe	8 mm Thk.	IS:2062 - 2011 E250 BR KILLED STEEL	1 No.	Refer Table - 1	—
SL No.	Description	Size	Material	Qty. per Pipe	Wt. / Piece (Kgs.)	Remarks

TABLE - 2 PULVERISED COAL BEND PIPE MATERIAL DETAIL



DETAIL-C

1	CLCP-201	DSP-001	V	W	56	35.0
SL No.	DU No.	Assembly No.	Inlet Side	Outlet Side	Qty. per Unit	Wt. kg/Pipe
			End Connection			

TABLE - 1	PULVERISED COAL BEND PIPE DETAIL
-----------	----------------------------------

Name of Customer/Project



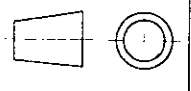
BHARAT HEAVY ELECTRICALS LTD.,
ELECTROPORCELAINS DIVISION
BANGALORE - 560 012

	NAME	SIGN	DATE
DRN	S.Murali		33-06-2016
CHD	M.Vinod		31-07-16
APPD	Felix.J		31-7-16

DEPT	GRADE DF		SCALE	WEIGHT (kg)	REF TO ASSY.DRG	ITEM	No.DF
CODE	TOL DIM		N.T.S.	Refer Table (Approx)	EL-DG-3-986-01-09850 7124 - Sheet 2	No.	ITEMS
TITLE				CARD CODE	DRAWING No.	REV.	
CASING FOR STRAIGHT PIPE DETAIL FOR 500 NB					3-986-01-09851	00	
					SHEET No. 1	No.OF SHEETS 2	

SUPERSEDES DRG. No.

SHT.24 SIZE A3 420 x 297

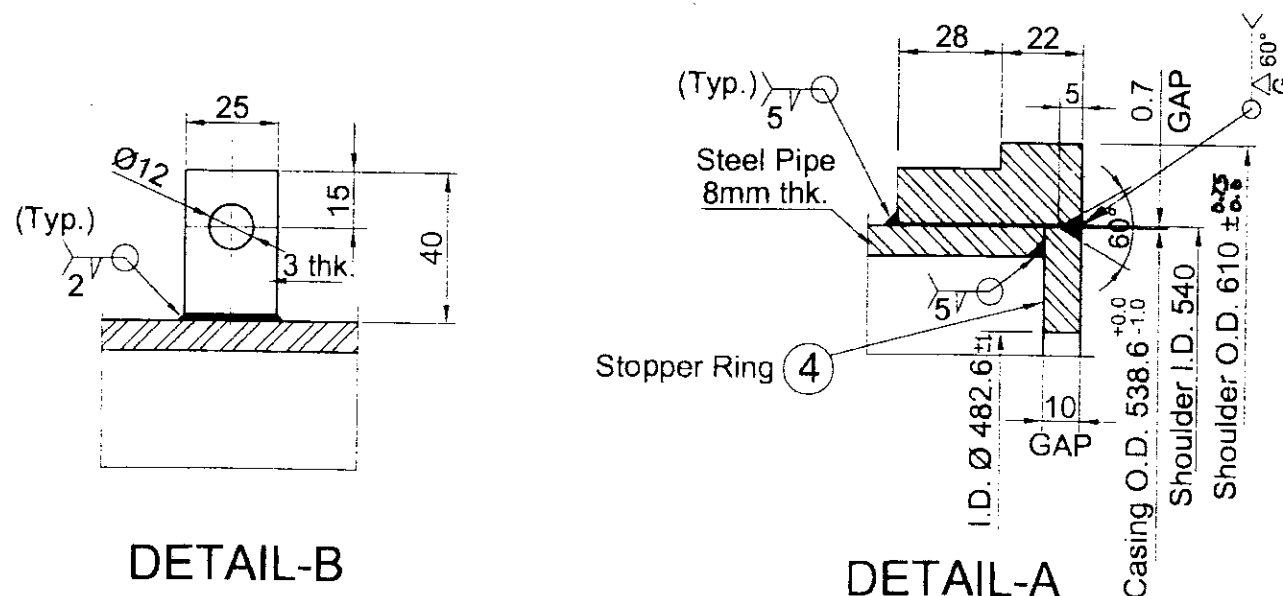
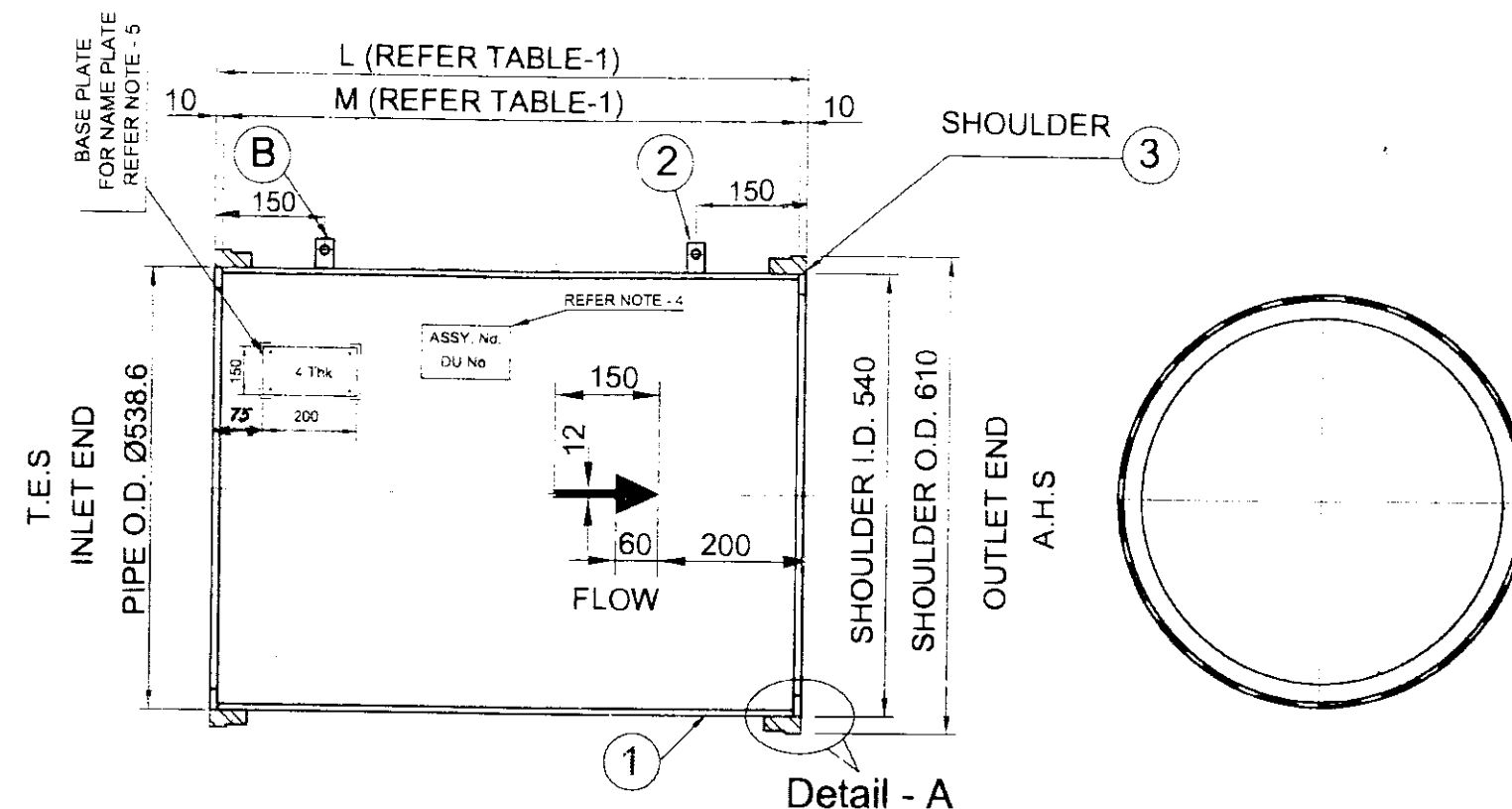
REV		DATE		SIGN AND DATE		REF. DRG. No.		INVENTORY No.	
00									
DRG No. 3-986-01-09851									
NOTE:-									
1. FOR CONSTRUCTION MATERIAL REFER TABLE-2									
2. ALL SUPPLIES TO CONFORM CLN:QP:01/00. WELDING AS PER WP:CL001A & AWS:D 1.1.									
3. DIMENSIONS INDICATED ARE FINISHED SIZE ONLY.									
4. ASSEMBLY No., DU No., AND ARROW HEAD TO BE WELD DEPOSITED OVER CASING AS SHOWN , AS PER CE:1501:21									
5. BASE PLATE FOR NAME PLATE TO BE WELDED ON TO CASING, AT LOCATION SHOWN, FOR BASE PLATE & WELDING DETAILS REF DRG : 4 986 99 07720									
6. ALL OVER MACHINING 6.3/ FOR STOPPER RINGS.									
7. A.H.S. =ARROW HEAD SIDE T.E.S. = TAIL END SIDE & V= SHOULDER FOR VICTAULIC COUPLING, W = SPOOL PIPE .									
8. FOR CASING Wt. REFER TABLE -1 FOR Wt. OF LIFTING LUG, EARTH LUG, STOPPER RINGS & SPOOL PIPE. REFER TABLE - 2									
9. CONTROL DURING WELDING OF SHOULDER TO CASING :- a) OVALITY OF CASING ON OUTER DIAMETER TO BE MAINTAINED WITHIN 1.0 MM b) WELDING OF SHOULDER TO CASING AS PER DETAIL-A, TO BE DONE IN SUCH A WAY AS TO ENSURE THAT DISTORTION OF COLLAR IS LIMITED SUCH THAT DIM Ø610 mm IS STRICTLY WITHIN THE TOLERANCE SPECIFIED IN SHT 1 OF 2. VENDOR TO DO THE NEEDFUL TO ACHIEVE 9(a) AND 9(b).									
10. SURFACE PREPARATION AND PAINTING: REF PAINTING SCHEME DOC. No. : PS- L&T - TANDA. BENDS / PIPES.									
11. OVERALL PIPE TOLERANCE:- a). AXIAL SHIFT: ± 3 MM b). OUT OF SQUARENESS: ± 3 MM.									
12. ALL WELD FILLETS ARE 6 mm. IF NOT SPECIFIED.									
Name of Customer/Project									
 BHARAT HEAVY ELECTRICALS LTD., ELECTROPORCELAINS DIVISION BANGALORE - 560 012									
DEPT		GRADE OF TOL DIM C/M/F		SCALE N.T.S.		WEIGHT (kg) (Approx)		REF TO ASSY.DRG	
CODE								EL-DG-3-986-01-09850 7124 - Sheet 2	
TITLE		CASING FOR STRAIGHT PIPE DETAIL FOR 500 NB		CARD CODE		DRAWING No.		REV.	
						3-986-01-09851		00	
SHEET No.		2		No. OF SHEETS		2			
SUPERSEDES DRG. No.									
SHT.24 SIZE A3 420 x 297									

ALL DIMENSIONS ARE IN mm.

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SIGN AND DATE	REF. DRG. No.

INVENTORY NO.

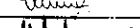
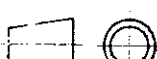


4	Stopper Ring	10 mm Thk.	IS:2062 - 2011 E250 BR KILLED STEEL	2 No's.	3.52	
3	Shoulder	ID 540 x OD 610	IS:2062 - 2011 E250 BR KILLED STEEL	2 No's.	—	FREE ISSUE BY BHEL TO VENDOR
2	Earth Lug	3 mm thk.	IS:2062 - 2011 E250 BR KILLED STEEL	2 No's.	0.02	
1	Pipe	8 mm Thk.	IS:2062 - 2011 E250 BR KILLED STEEL	1 No.	Refer Table - 1	
SL No.	Description	Size	Material	Qty. per Pipes	Wt. / Piece (Kgs.)	Remarks

TABLE - 2 PULVERISED COAL BEND PIPE MATERIAL DETAIL

3	CLCP-204	H6-1 & H7-1	635	615	V	V	2	65.4
2	CLCP-203	H5-1 & H8-1	467	447	V	V	2	48.0
1	CLCP-202	H1-1 & H4-1	348	328	V	V	2	35.3
SL No.	DU No.	Assembly No.	L $\pm$ 1	M	Intel Side	Outlet Side	Qty. per Unit	Wt. kg/Pipe
					End Connection			

TABLE - 1 PULVERISED COAL BEND PIPE DETAIL

Name of Customer/Project											
 BHARAT HEAVY ELECTRICALS LTD., ELECTROPORCELAINS DIVISION BANGALORE - 560 012				NAME		SIGN		DATE			
				DRN		Kaushik.K				08/12/16	
				CHD		M.Vinod				08/12/16	
				APPD		Felix.J				09.12.16	
DEPT	GRADE OF			SCALE	WEIGHT (kg)	REF TO ASSY.DRG			ITEM	No. OF	
CODE	TOL DIM			N.T.S	—	3-986-01-10200 (7124-Sht 1 of 2)			No.	ITEMS	
TITLE	C/M/F				(Approx)	DRAWING No.			REV.		
CASING FOR ST. PIPE - 500NB						3-986-01-10201			00		
					CARD CODE	SHEET No. 1			No. OF SHEETS 2		

SUPERSEDES DRG. No.

SHT.24 SIZE A3 420 x 297

00
REV

10201-10-986-3

DRG No.

NOTE:-

1. FOR CONSTRUCTION MATERIAL REFER TABLE-2
2. ALL SUPPLIES TO CONFORM CLN:QP:01/00. WELDING AS PER WP:CL001A & AWS:D 1.1.
3. DIMENSIONS INDICATED ARE FINISHED SIZE ONLY.
4. ASSEMBLY No., DU No., AND ARROW HEAD TO BE WELD DEPOSITED OVER CASING AS SHOWN , AS PER CE:1501:21
5. BASE PLATE FOR NAME PLATE TO BE WELDED ON TO CASING, AT LOCATION SHOWN,
FOR BASE PLATE & WELDING DETAILS REF DRG : 4 986 99 07720
6. ALL OVER MACHINING 6.3/ FOR STOPPER RINGS.
7. A.H.S. =ARROW HEAD SIDE T.E.S. = TAIL END SIDE & V= SHOULDER FOR VICTAULIC COUPLING.
8. FOR CASING Wt. REFER TABLE -1
FOR Wt. OF LIFTING LUG, EARTH LUG & STOPPER RINGS.
REFER TABLE - 2
9. CONTROL DURING WELDING OF SHOULDER TO CASING :-
 - a) OVALITY OF CASING ON OUTER DIAMETER TO BE MAINTAINED WITHIN 1.0 MM
 - b) WELDING OF SHOULDER TO CASING AS PER DETAIL-A, TO BE DONE IN SUCH A WAY AS TO ENSURE THAT DISTORTION OF COLLAR IS LIMITED SUCH THAT DIM Ø610 mm IS STRICTLY WITHIN THE TOLERANCE SPECIFIED IN SHT 1 OF 2.
VENDOR TO DO THE NEEDFUL TO ACHIEVE 9(a) AND 9(b).
10. SURFACE PREPARATION AND PAINTING: REF PAINTING SCHEME DOC. No. : PS- L&T - KHARGONE-BENDS/PIPES
11. OVERALL PIPE TOLERANCE:-
 - a). AXIAL SHIFT: ± 3 MM
 - b). OUT OF SQUARENESS: ± 3 MM.
12. ALL WELD FILLETS ARE 6 mm. IF NOT SPECIFIED.

SIGN AND DATE

REF. DRG. No.

INVENTORY No.

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

Name of Customer/Project			
			
BHARAT HEAVY ELECTRICALS LTD., ELECTROPORCELAINS DIVISION BANGALORE - 560 012			
DEPT	GRADE OF TOL DIM	SCALE	WEIGHT (kg)
CODE	C/M/F	N.T.S.	(Approx)
TITLE		CARD CODE	REF TO ASSY.DRG
CASING FOR ST. PIPE - 500NB			3-986-01-10200 (7124-Sht 1 of 2)
		DRAWING No.	REV.
		3-986-01-10201	00
		SHEET No. 2	No. OF SHEETS 2

SUPERSEDES DRG. No.

SHT.24 SIZE A3 420 x 297

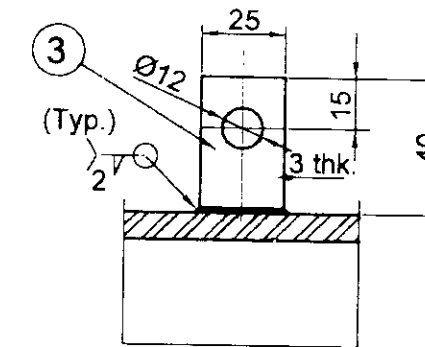
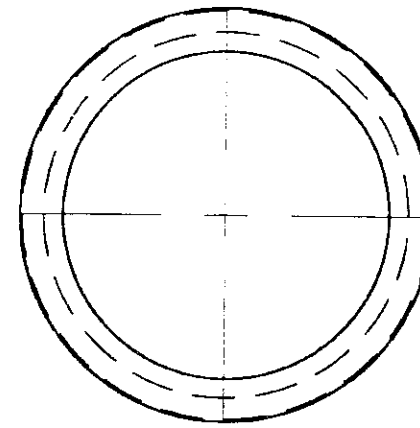
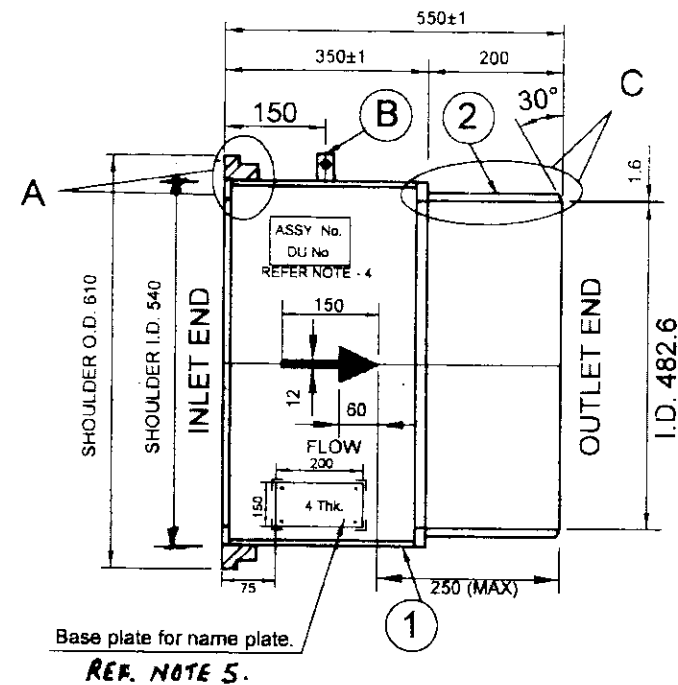
ALL DIMENSIONS ARE IN mm.

00 3-986-01-10211
REV

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SIGN AND DATE	REF. DRG. No.

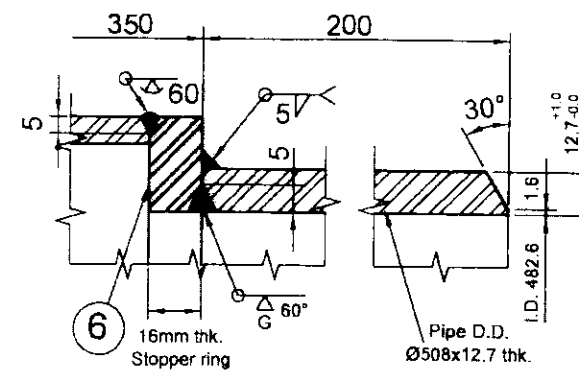
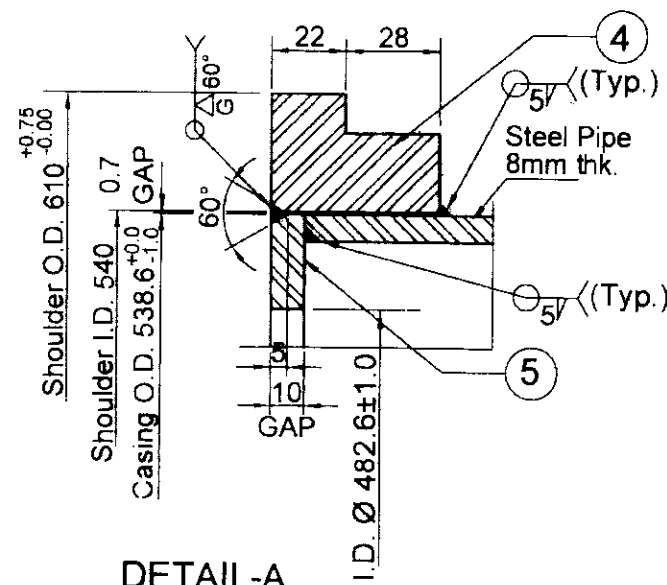
INVENTORY No.



DETAIL-B

6	Stopper Ring - spool end	16 mm thk.	IS:2062 - 2011 E250 BR KILLED STEEL	1 No.	5.6	—
5	Stopper Ring	10 mm Thk.	IS:2062 - 2011 E250 BR KILLED STEEL	1 No.	3.52	—
4	Shoulder	ID 540 x OD 610	IS:2062 - 2011 E250 BR KILLED STEEL	1 No.	-	FREE ISSUE BY SHEL TO VENDOR
3	Earth Lug	3 mm thk.	IS:2062 - 2011 E250 BR KILLED STEEL	1 No.	0.02	--
2	Spool pipe	Ø 508 x 12.7 Thk.	IS:2062 - 2011 E250 BR KILLED STEEL	1 No.	31.0	—
1	Pipe	8 mm Thk.	IS:2062 - 2011 E250 BR KILLED STEEL	1 No.	Refer Table - 1	—
SL No.	Description	Size	Material	Qty. per Pipe	Wt. / Piece (Kgs.)	Remarks

TABLE - 2 PULVERISED COAL BEND PIPE MATERIAL DETAIL



DETAIL-C

1	CLCP-201	DSP-001	V	W	56	35.0 ~
SL No.	DU No.	Assembly No.	Inlet Side	Outlet Side	Qty. per Unit	Wt. kg/Pipe
			End Connection			

TABLE - 1 PULVERISED COAL BEND PIPE DETAIL

Name of Customer/Project



BHARAT HEAVY ELECTRICALS LTD.,
ELECTROPORCELAINS DIVISION
BANGALORE - 560 012

	NAME	SIGN	DATE
DRN	Kaushik.K	<i>[Signature]</i>	08/12/16
CHD	M.Vinod	<i>[Signature]</i>	09/12/16
APPD	Felix.J	<i>[Signature]</i>	09/12/16

DEPT	GRADE OF TOL DIM			SCALE N.T.S.	WEIGHT (kg) Refer Table (Approx)	REF TO ASSY.DRG 3-986-01-10210 (7124-Sht 2 of 2)	ITEM No.	No. OF ITEMS
CODE	C/M/F							
TITLE CASING FOR STRAIGHT PIPE DETAIL FOR 500 NB					CARD CODE	DRAWING No. 3-986-01-10211		REV. 00
						SHEET No. 1	No. OF SHEETS 2	

SUPERSEDES DRG. No.

SH1.24 SIZE A3 420 x 297

REV	DATE	ALTERED	REV	DATE	ALTERED	REV	DATE	ALTERED	DEPT	GRADE OF TOL DIM	SCALE	WEIGHT (kg)	REF TO ASSY.DRG	ITEM No.	No.OF ITEMS
00															

INVENTORY No.

REV

DATE

ALTERED

CHECKED

REV

DATE

ALTERED

CHECKED

REV

DATE

ALTERED

CHECKED

DEPT

GRADE OF TOL DIM

C/M/F

SCALE

N.T.S.

WEIGHT (kg)

(Approx)

REF TO ASSY.DRG

3-986-01-10210
(7124-Sht 2 of 2)

ITEM No.

No.OF ITEMS

TITLE

CASING FOR STRAIGHT
PIPE DETAIL FOR 500 NB

CARD CODE

DRAWING No.

3-986-01-10211

REV.

00

SHEET No.

2

No.OF SHEETS

2

00

3-986-01-10211

DRG No.

NOTE:-

1. FOR CONSTRUCTION MATERIAL REFER TABLE-2

2. ALL SUPPLIES TO CONFORM CLN:QP:01/00. WELDING AS PER WP:CL001A & AWS:D 1.1.

3. DIMENSIONS INDICATED ARE FINISHED SIZE ONLY.

4. ASSEMBLY No., DU No., AND ARROW HEAD TO BE WELD DEPOSITED OVER CASING AS SHOWN, AS PER CE:1501:21

5. BASE PLATE FOR NAME PLATE TO BE WELDED ON TO CASING, AT LOCATION SHOWN,
FOR BASE PLATE & WELDING DETAILS REF DRG : 4 986 99 07720

6. ALL OVER MACHINING 6.3/ FOR STOPPER RINGS.

7. A.H.S. =ARROW HEAD SIDE T.E.S. = TAIL END SIDE & V= SHOULDER FOR VICTAULIC COUPLING, W = SPOOL PIPE .

8. FOR CASING Wt. REFER TABLE -1
FOR Wt. OF LIFTING LUG, EARTH LUG, STOPPER RINGS & SPOOL PIPE.
REFER TABLE - 2

9. CONTROL DURING WELDING OF SHOULDER TO CASING :-
a) OVALITY OF CASING ON OUTER DIAMETER TO BE MAINTAINED WITHIN 1.0 MM
b) WELDING OF SHOULDER TO CASING AS PER DETAIL-A, TO BE DONE IN SUCH A WAY AS TO ENSURE THAT DISTORTION OF COLLAR IS LIMITED SUCH THAT DIM Ø610 mm IS
STRICTLY WITHIN THE TOLERANCE SPECIFIED IN SHT 1 OF 2.
VENDOR TO DO THE NEEDFUL TO ACHIEVE 9(a) AND 9(b).

10. SURFACE PREPARATION AND PAINTING: REF PAINTING SCHEME DOC. No. : PS- L&T - KHARGONE-BENDS/PIPES

11. OVERALL PIPE TOLERANCE:-
a). AXIAL SHIFT: ± 3 MM
b). OUT OF SQUARENESS: ± 3 MM.

12. ALL WELD FILLETS ARE 6 mm. IF NOT SPECIFIED.

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REF. DRG. No.

NAME OF CUSTOMER/PROJECT

BHARAT HEAVY ELECTRICALS LTD.,
ELECTROPORCELAINS DIVISION
BANGALORE - 560 012

NAME

SIGN

DATE

DRN

Kaushik.K

08/12/16

CHD

M.Vinod

09/12/16

APPD

Felix.J

09/12/16

SUPERSEDES DRG. No.

SHT.24 SIZE A3 420 x 297