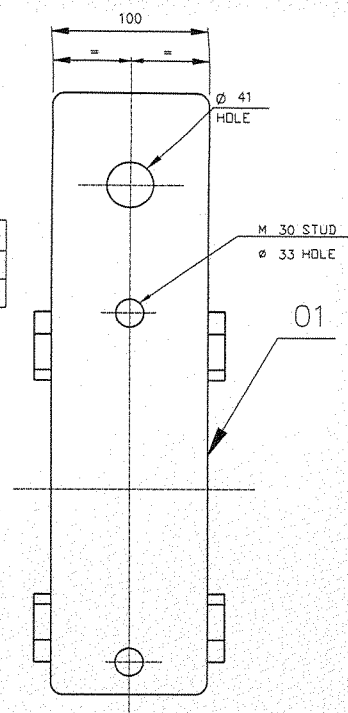
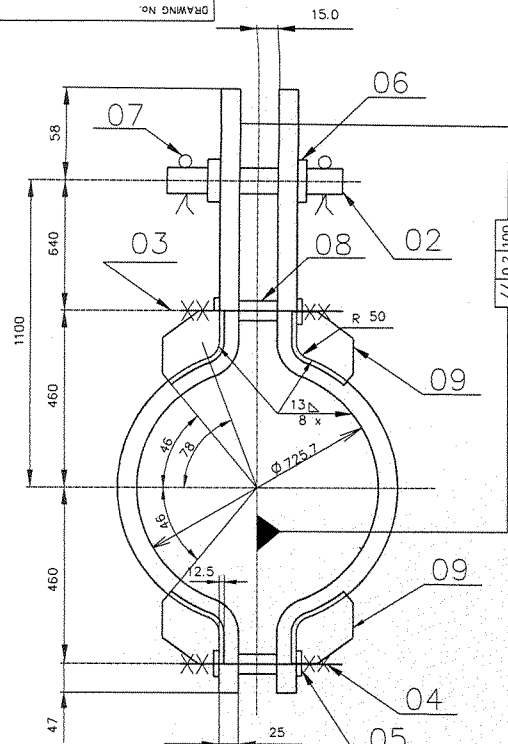


05-228/C

FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)

99601-088-08-2

DRAWING No.



12.5

NOTES:

1.0 FOR NOTES REFER DRAWING No. 4-80-800-34106

DESIGN PARAMETERS

LOAD : 4000 KG

TEMPERATURE : 596 °C

VAR NO.	ITEM NO.	DESCRIPTION	STD	DRAWING NO.	ITEM NO.	MATL CODE	VAR NO.	MATL SPECN	C	UNIT	QTY.	C/S	ZONE
	09	RIB PL.16x190x277		28083010965		159422530000			C		3.621		
						SA387GR22CL2					8		
	08	SPACER RING		48099999326	11	943250302200			C		0.273		
						SA182F12					1		
	07	SPLIT PIN		4170408056		417040805600					0.028		
											2		
	06	LOAD PIN WASHER		4140839000		414080003900					0.126		
											2		
	05	STUD WASHER		4140830000		414080003000					0.05		
											4		
	04	NUT M30		4132430000		413240003000					0.225		
											8		
	03	STUD M30x260		48099999320	2	948223026600			F		1.248		
						SA193B16					2		
	02	LOAD PIN DIA 39x165		48099999307	12	948223917000			C		1.54		
						SA105					1		
	01	CLAMP PL.25x100x2002		28083010965		159421560000			C		39.293		
						SA387GR91CL2					2		

TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT

DEPT.	GRADE OF UN TOL DIM	SCALE	WEIGHT (Kg)	REF TO ASSY / OLD DRG.	ITEM No.
CODE	C/M/F	NTS			

REV 01	DATE	ALTERED	CHECKED	DEPT.	GRADE OF UN TOL DIM	SCALE	WEIGHT (Kg)	REF TO ASSY / OLD DRG.	ITEM No.
ZONE				CODE	C/M/F	NTS			

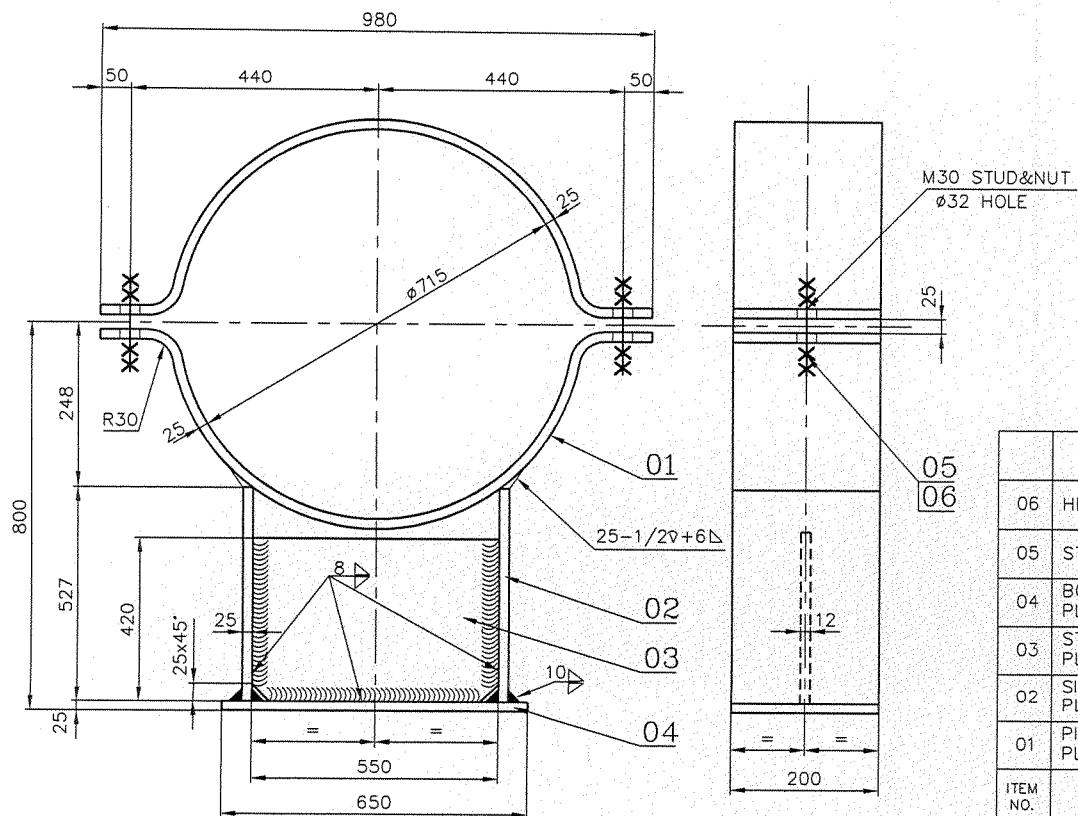
TITLE	CARD CODE	DRAWING No.	REV
HORIZONTAL PIPE CLAMP (LOAD=40KN) P91 FOR PIPE OD711	U 01	2-80-830-10965	00

ITEM No.09

CL4

SIZE A2

DRAWING NO.



FOR NOTES REFER DRAWING NO.4-80-800-34106

LOAD: 80KN, TEMP. 596°C

TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT

DEPT.	GRADE OF UN TOL. DIM		SCALE	WEIGHT (Kg)	NAME OF ORIGINAL ORGANISATION	ITEM No.
CODE	C/M/F		N.T.S			

TITLE	BEARING CLAMP FOR PIPE OD 711 (P91)	CARD CODE	DRAWING No.	REV
		U 01	3-80-830-28847	00

05-228/C

FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)

06601-088-08-2

DRAWING No.

09

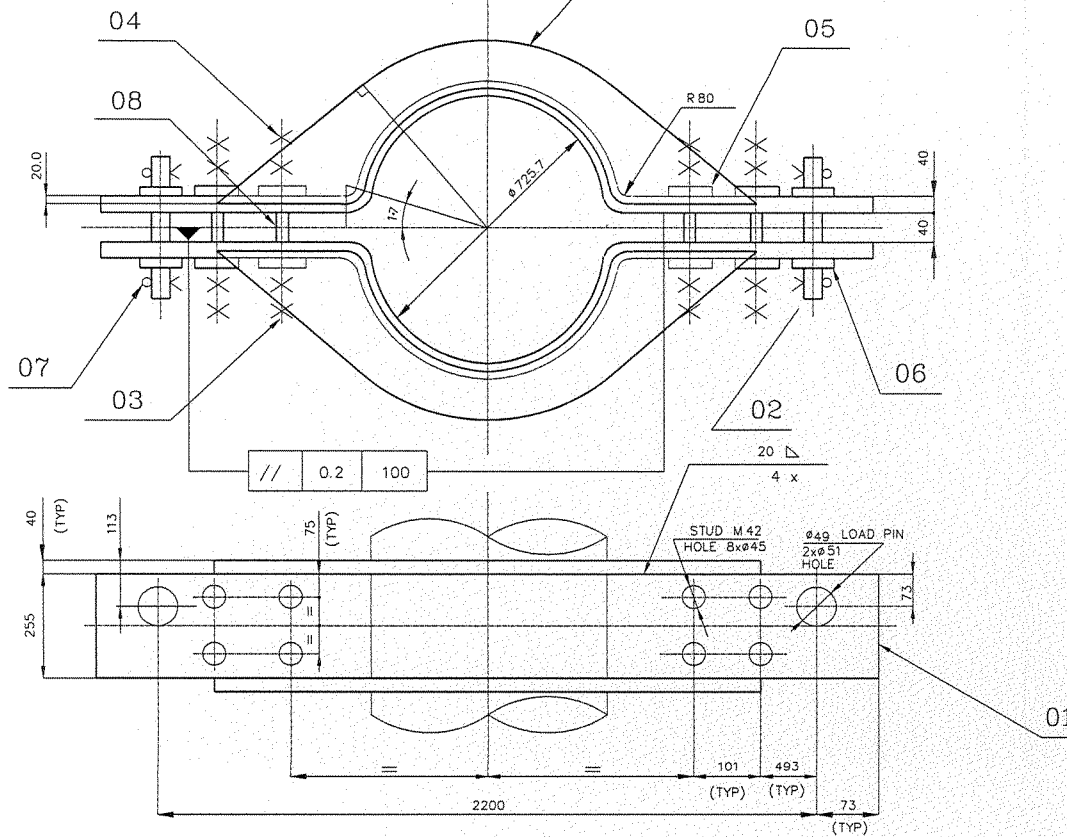
DESIGN PARAMETERS

LOAD : 13000 KG

TEMPERATURE : 596 °C

NOTES: -

FOR NOTES REFER DRG. No. 4-80-800-34106



01

ITEM NO 09

VAR NO.	ITEM NO.	DESCRIPTION	DWG NO.	ITEM NO.	MATL CODE	UNIT	UNIT WT.	QTY.	ZONE
	09	RIB PL 40x483x1933	28083010990		159422720000	C	103.479		
					SA387GR22CL2		4		
					153391730000	C	0.48		
	08	SPACER RING	48083260238	0	SA182F22		8		
					417041006300		0.037		
	07	SPLIT PIN	4170410063				4		
	06	LOAD PIN WASHER	4140848000		414080004800		0.284		
							4		
	05	STUD WASHER	4140842000		414080004200		0.15		
							16		
	04	NUT M42	4132442000		413244504200		0.81		
							32		
	03	STUD M42x320	48083250999		150391690000	P	2.86		
					SA193B16		8		
	02	LOAD PIN DIA 49x191	48099937401	9	153391430000	C	2.8		
					SA105		2		
	01	CLAMP PL 40x255x2656	28083010990		159421570000	C	212.603		
					SA387GR91CL2		2		

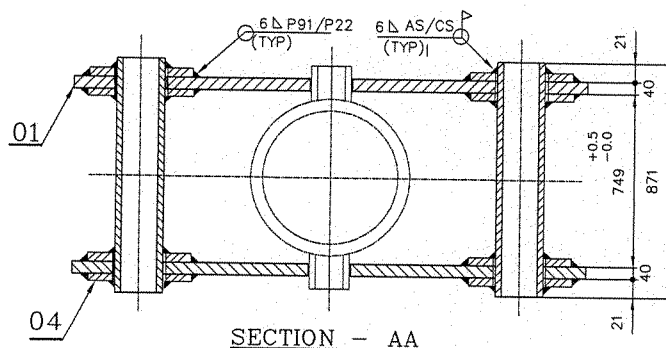
TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT

DEPT.	GRADE OF UN TOL DIM	SCALE	WEIGHT (Kg)	REF TO ASSY / OLD DRG.	ITEM No.
CODE	C/M/F	NTS			

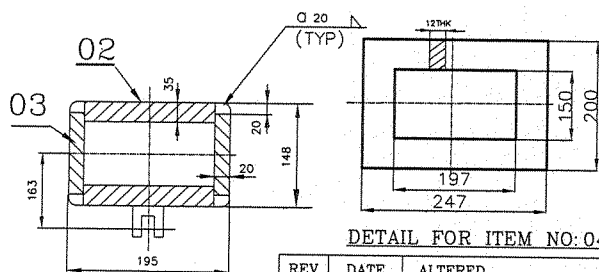
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT	DEPT.	GRADE OF UN TOL DIM	SCALE	WEIGHT (Kg)	REF TO ASSY / OLD DRG.	ITEM No.
BHARAT HEAVY ELECTRICALS LTD. PIPING CENTRE, CHENNAI	CHD	LAUT	-SD-	25-08-11		
	APPD	SARAVARAN C	-SD-	25-08-11		
TITLE	CARD CODE	DRAWING No.	REV			
RISER CLAMP (LOAD=130KN) P91 FOR PIPE OD711	U 01	2-80-830-10990	00			

SIZE A2

DRAWING NO.



SECTION - AA



DETAIL FOR ITEM NO: 04

DETAIL - B

REV 02	DATE	ALTERED
		APPROVED
ZONE		

REV 01	DATE	ALTERED
		APPROVED
ZONE		

- TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT

HRH

BHARAT HEAVY ELECTRICALS LTD.
PIPING CENTRE,
CHENNAI 600 017

DRN	NAME DINESH	SIGN -sd-	DATE 22.09.11	NO OF ITEMS
CHD	LALIT	-sd-	22.09.11	
APPD	C.SARAVANAN	-sd-	22.09.11	

DEPT.	GRADE OF UN TOL DIM		SCALE	WEIGHT (Kg.)	REF TO ASSY / OLD DRG	ITEM No.
CODE	C/M/F					
TITLE				CARD CODE	DRAWING No.	REV
TRUNNION CLAMP (PIPE OD 711 P91 150KN)				U 01	3-80-830-28785	00

1. THE CLAMP PLATE & BOX PLATE ARE TO BE TACK WELDED AT SHOP AND SENT AS A SINGLE DESPATCHABLE UNIT,
2. W.O NO & DU NO ARE TO BE MARKED IN BOTH THE CLAMP PLATE AS WELL AS IN BOTH THE BOXES BEFORE DESPATCH.
3. REQUIRED SURFACE FINISH IS
a. FOR HOLE: 6.3 μ m
b. OTHER MACHINED SURFACE :12.5 μ m

1,BEFORE TACK WELDING OF PLATE WITH BOX,THE FOLLOWING ARE TO BE ENSURED

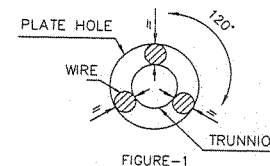
a. UNIFORM GAP BETWEEN PLATE HOLE AND TRUNNION ALONG THE CIRCUMFERENCE AS SHOWN IN FIGURE -1, THIS COULD BE ENSURED BY INSERTING THIN SHEETS OF SUITABLE THICKNESS OR WIRES OF SUITABLE DIAMETER AT 3 PLACES 120° APART.

b. PARALLELITY OF THE TWO PLATES BY MEASURING THE INNER SURFACE TO INNER SURFACE DIMENSION AT THE FOUR CORNER POINTS (①-④) OF THE PLATES MARKED IN THE DRG. ALL THE FOUR MEASUREMENT SHALL BE TO THE DIMENSIONS GIVEN IN THE DRAWING TAKING IN TO CONSIDERATION THE TOLERANCE.

2. BEFORE FINAL WELDING OF BOXES TO PLATE, ROTATION OF CLAMP ABOUT TRUNNIONS IS TO BE ENSURED.

3. LOCATION OF WELD ON BRACKET SHALL BE AS INDICATED IN THIS DRAWING. ORIENTATION OF WELD ON BRACKET SHALL BE AS PER THE GUIDELINES GIVEN IN THE ERECTION NOTES FOR PIPING HANGERS AND SUPPORTS (DRG.NO. 4-80-999-99321)

4. CORRECT ELECTRODE TO BE USED FOR WELDING STOPPER PLATE(AS) WITH BOX(CS).



FIGURE—

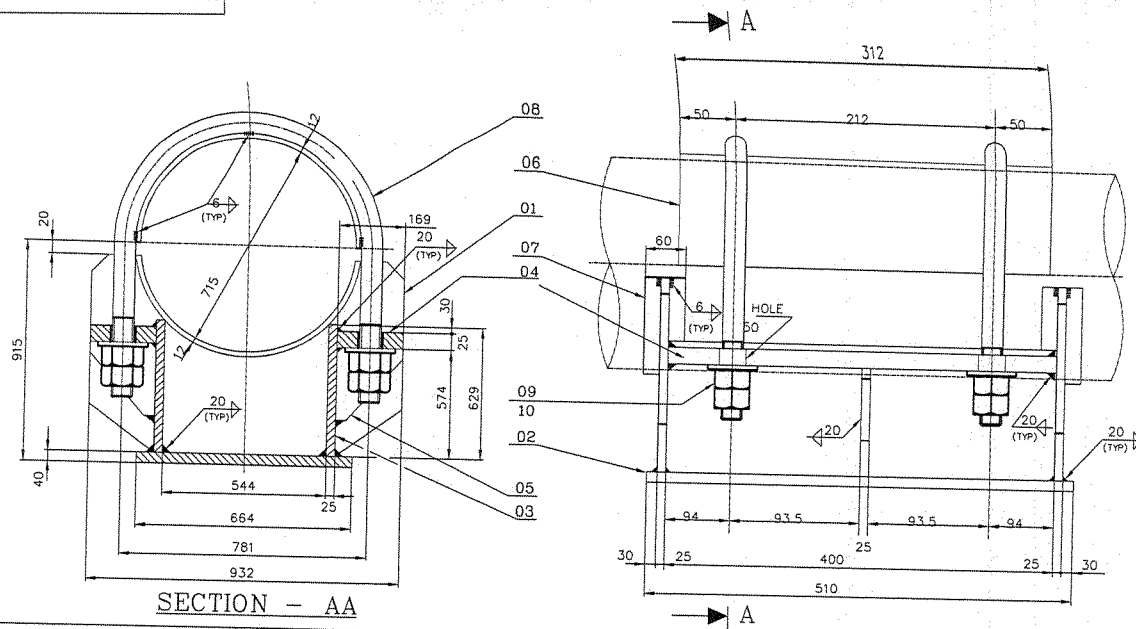
05-228/C

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DRAWING NO. 2-80-830-11021

FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)

ALL DIMENSIONS ARE IN MILLIMETRES

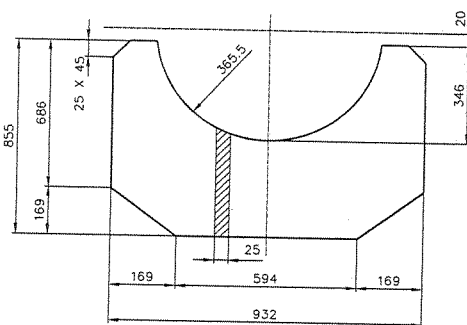


NOTES: -

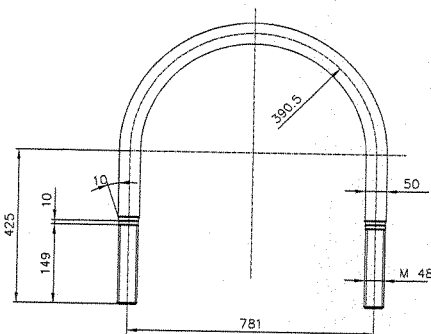
01 FOR NOTES REFER DRAWING NO. 4-80-800-34106

DESIGN LOAD : 10000KG

DESIGN TEMP. : 596 °C



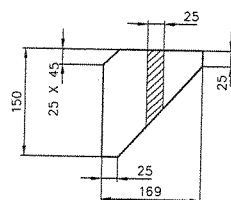
ITEM No.01



ITEM No.08

NOTES: -

01. METRIC SCREW THREADS AS PER IS: 4218.



ITEM No.05

10	PUNCHED WASHER A48	41408 48000	414080004800	0.284
09	NUT M48 X5	4-80-999-99290	SA387Gf22CL2 413195004800	1.240
08	U' ROD M48 ROD DIA50 : L=2077	2-80-830-11021	SA194Gf7 153394040000	32.011
07	PAD PLATE-2 PL 12THKX60X1090	2-80-830-11021	SA182F91 159421550000	4.107
06	PAD PLATE-1 PL 12THKX312X1130	2-80-830-11021	SA387Gf9TCL2 159421550000	22.141
05	STIFFNER PLATE PL 25THKX169X150	2-80-830-11021	SA387Gf9TCL2 159421580000	3.147
04	FIXING PLATE PL 25THKX169X400	2-80-830-11021	SA387Gf9TCL2 159421580000	12.496
03	VERTICAL PLATE PL 40THKX629X400	2-80-830-11021	SA387Gf9TCL2 159421580000	49.376
02	BOTTOM PLATE PL 40THKX664X510	2-80-830-11021	SA387Gf9TCL2 159422720000	66.458
01	SIDE PLATE PL 25THKX855X932	2-80-830-11021	SA387Gf9TCL2 159421580000	112.343
ITEM NO.	DESCRIPTION	DRAWING NO.	NO. VAR NO.	UNIT WT.
			MATL CODE	QTY.
			MATL SPECN	

TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECTBHARAT HEAVY ELECTRICALS LTD.
PIPING CENTRE, MADRAS

DRN	NAME	SIGN	DATE	NO OF
CHD	SARAVANAN.C	-Sg-	22.09.2011	ITEMS
APPD	SARAVANAN.C	-Sd-	22.09.2011	

DEPT.	GRADE OF UN TOL DIM	SCALE	WEIGHT (Kg)	NAME OF ORIGINAL ORGANIZATION	ITEM No.
CODE	C/M/F	NTS	526.615		
TITLE	SHOCK ABSORBER CLAMP FOR PIPE OD711 P91 90KN		CARD CODE	DRAWING No.	REV
			U 01	2-80-830-11021	00

SIZE A2