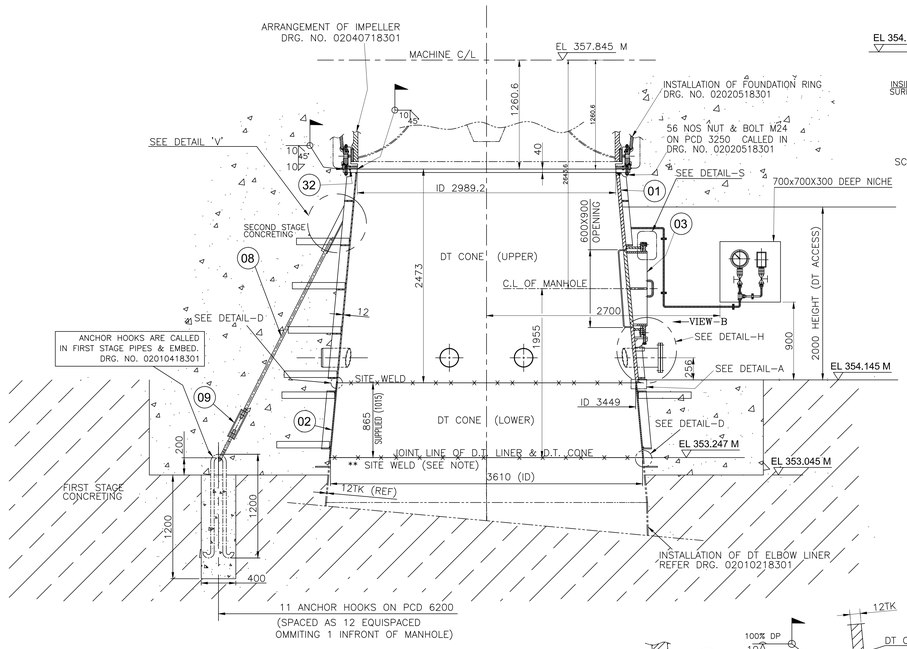
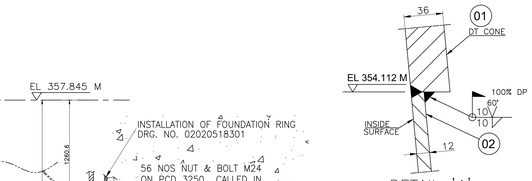
FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)

DRG. NO. 0 20101 18301

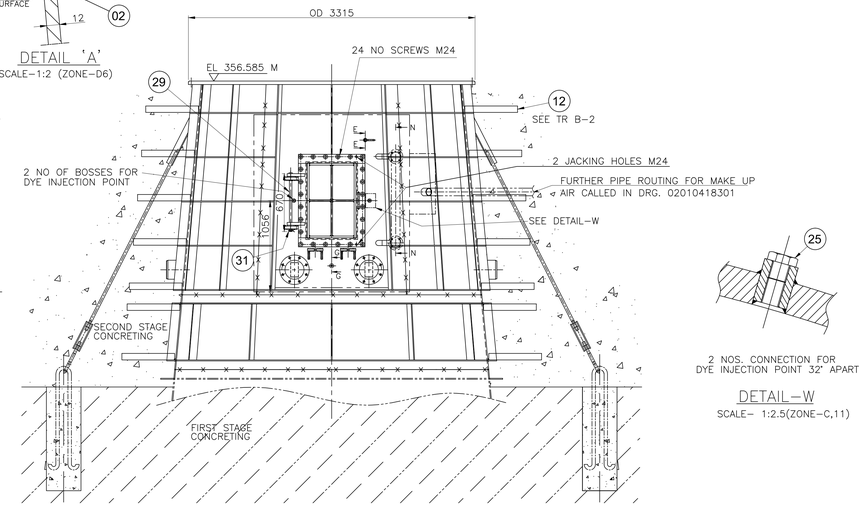


ELEVATION



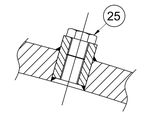
DETAIL 'A'

SCALE-1:2 (ZONE-D6)



VIEW-B

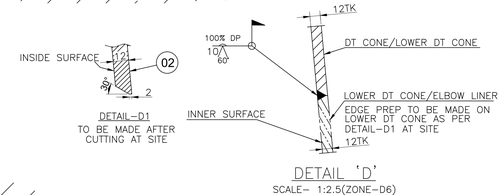
(ZONE-B,6)



2 NOS. CONNECTION FOR DYE INJECTION POINT 32° APART

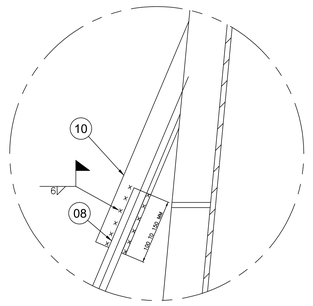
DETAIL-W

SCALE- 1:2.5(ZONE-C,11)



DETAIL 'D'

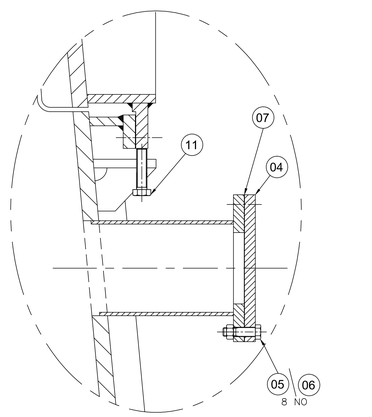
SCALE- 1:2.5(ZONE-D6)



DETAIL-V

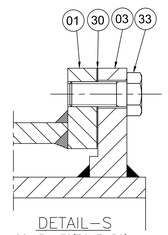
SCALE- 1:5 (ZONE-B3)

WELDING OF RADIAL STAY & EQUAL ANGLE



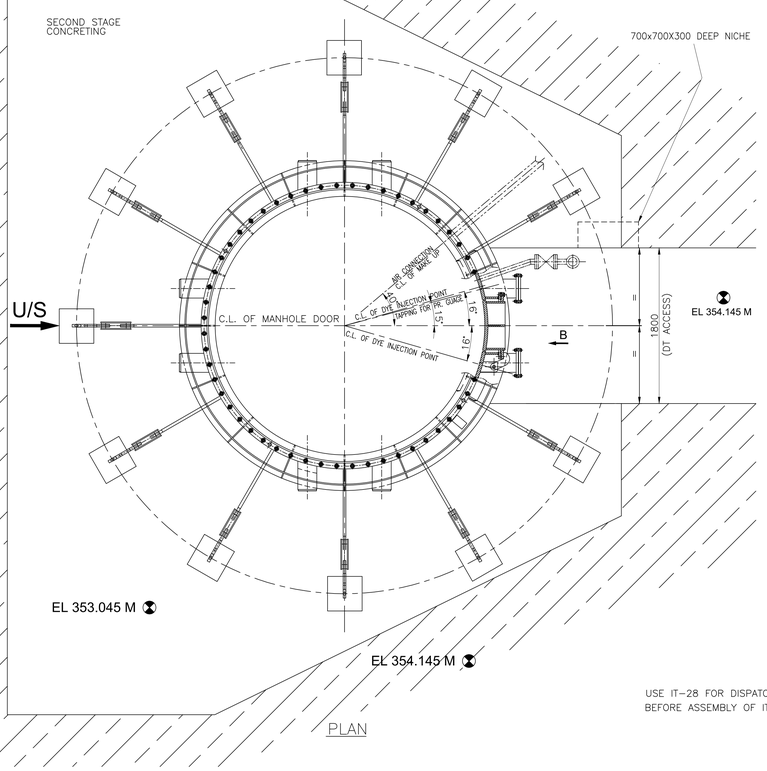
DETAIL-H

SCALE- 1:5 (ZONE:C6)

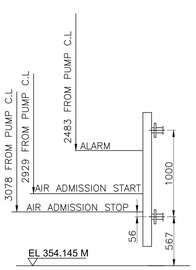


DETAIL-S

SCALE :NTS(ZONE :B6)

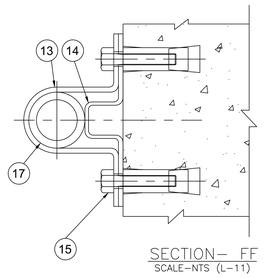


PLAN



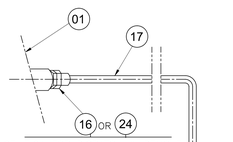
SECTION-NN

SCALE- 1:15 (B,C-10)

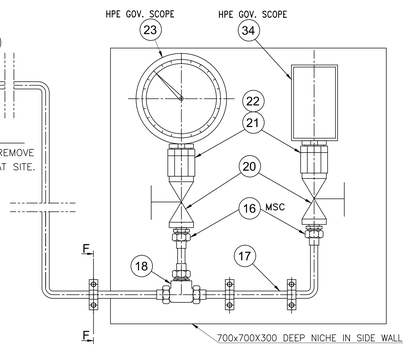


SECTION- FF

SCALE-NTS (L-11)

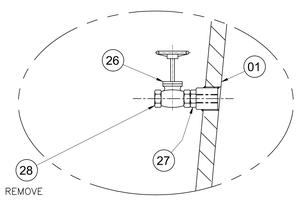


USE IT.24 FOR DISPATCH & REMOVE BEFORE ASSEMBLY OF IT.23 AT SITE.



SECTION-EE

SCALE-NTS(B-9)



USE IT-28 FOR DISPATCH & REMOVE BEFORE ASSEMBLY OF IT.26 & 27 AT SITE.

SECTION-GG

SCALE- 1:5 (C-9)

TECHNICAL REQUIREMENTS:-

(A) AT WORKS:

1. MANHOLE DOOR TO BE PROOF ASSEMBLED WITH THE D.T. CONE BEFORE DISPATCH.

(B) AT SITE:

1. ALL WELDS IN WATER PATH TO BE GROUND FLUSH/BLENDED.
2. 7 ROWS OF ANCHOR IRON ITEM 12 (10 NO IN EACH ROW) TO BE WELDED AS SHOWN. THESE ARE TO BE WELDED TO REINFORCEMENT BARS OF CONCRETE WHEREEVER POSSIBLE. ANCHOR IRON IN ONE ROW TO BE PREFEREBLY STAGGERED WITH RESPECT TO ANCHOR IRONS IN THE NEXT ROW.
3. ⚑ INDICATES SITE WELDS.
4. WELDING TO BE AS PER BHEL STD. AA0622101 AS FOLLOWS
   a) WELDING BETWEEN DT CONE & ELBOW LINER TO GR.III ROOT RUNS AND FINAL WELDS TO BE 100% DYE TESTED.SEALING RUN TO BE PROVIDED ON OTHER SIDE OF WELD. BACK GAUGING NOT REQUIRED.
   b) FOR ANCHOR IRON ITEM NO.12 WELDS TO GR.IV WITHOUT D.P. TESTING.
5. WATER LEVEL INSIDE THE D.T. CONE SHALL BE CHECKED BY OPENING GLOBE VALVE ITEM-26 BEFORE OPENING MANHOLE DOOR.
6. AFTER CONCRETING OF D.T. CONE TRANSPORT STAYS OF D.T. CONE ARE TO BE CUT OFF AND PRESERVED. THESE ARE TO BE USED FOR HOLDING DOWN ARRANGEMENT OF SPIRAL CASING AND SPIRAL OUTLET PIPE.

**NOTE:- LOWER D.T. CONE INCLUDES 150 MM FITTING ALLOWANCE (ON BOTTOM SIDE) WHICH IS NOT SHOWN IN THE DRG. BUT NECESSARY FOR ERECTION AT SITE.

REMARKS	VAR. NO.	ITEM NO.	DESCRIPTION	STD	DRAWING NO.	IT.NO.	MATL CODE	UNIT	UNIT WT. (kg) QTY.	ZONE
		034	PRESSURE TRANSMITTER				HPE-GOV. SCOPE		1.0 001	
		033	HEX SCREW S.S. M24X55 LG.				AA7121131048 S.S.		0.30 026	
1-EXTRA		032	RUBBER CORD ø14X20000 LG.				AA5984407132 W.T.STOCK		3.70 001	
1-EXTRA		031	SPLIT PIN ø6.3X63 LG.				AA7171089240		0.03 002	
		030	GASKET 1.5 TKX1070X770				AA2151703053 AA21503		1.00 001	
		029	MANHOLE DOOR ROD		42010118604		S.S		3.8 001	
		028	STEEL PLUG 3/4"				AA7242343054		0.12 001	
		027	ADAPTOR 2027 EXT.P 3/4" PL				BP9023531760		0.30 001	
		026	20 NB. GLOBE VALVE				BP9053500774		2.0 001	
2-EXTRA		025	STEEL PLUG 1/2"				AA7242343046		0.06 004	
		024	STEEL PLUG 3/8"				AA7242343038		0.03 001	
		023	PRESSURE GAUGE -1 TO 4 KG/CM^2				BP9033531457 (HPE-GOV SCOPE)		1.5 001	
2-EXTRA		022	COPPER WASHER 18 I/Dx24 O/Dx2TK				BP9023531493		0.01 004	
		021	DAMPNER FOR PRESSURE GAUGE				BP9073516439		0.05 001	
		020	3/8"(FEMALE ENDS) NEEDLE VALVE FOR PR. GAUGE				BP9053532293		1.80 001	
		019	ADAPTOR 1217 EXT.3/8 PL				BP9023531744		0.04 001	
		018	3 WAY UNION 1217				BP9023531027 WT STOCK		1.10 001	
10 NB.		017	SEAMLESS C.S PIPE 17.2 O/DX3.2TKX8MLG				BP1041055889 AA10455		8.80 001	
1-EXTRA		016	MALE STUD COUPLING 1217P				BP9023530942		0.30 003	
2-EXTRA		015	RAWL BOLT M6				BP9013001181		0.10 014	
		014	PIPE SUPPORT (12x17) FOR 10 NB PIPE		32302949092	02	AA10113		0.036 006	
		013	PIPE CLIP (12x17) FOR 10 NB PIPE		32302949090	02	AA10115		0.035 006	
6-EXTRA		012	ANCHOR IRON 610 LONG		42302949010	01	IS:2062 GR.A		4.50 076	
		011	JACKING SCREW M24X95		32302949034	08	S.S.		0.44 002	
CUT TO SUIT		010	EQUAL ANGLE 75X75X10X6000 LG.				AA1012508145 IS:2062 GR.A		66.00 001	
		009	TURN BUCKLE M30		32302949022		IS:2062 GR.A		11.6 011	
		008	RADIAL STAY ø32x2500 LG.		32302949025	05	IS:2062 GR.A		15.2 011	
		007	CAF JOINTING SHEET 1.5X700X350				AA2151703053 AA21503		0.30 001	
2-EXTRA		006	HEX NUT M20				BP9013532446 S.S.		0.06 018	
2-EXTRA		005	HEX HEAD BOLT M20X75 LG.		42010118601	03	S.S.		0.26 018	
		004	BLANK FLANGE		42010118301		M.S.		17.2 002	
		003	MANHOLE DOOR		12010118301		IS:2062 GR.A		388.0 001	
2-EXTRA		002	LOWER DT CONE		12010118302		IS:2062 GR.A		1650.0 001	
		001	DRAFT TUBE CONE (UPPER)		02010118302		IS:2062 GR.A		4929.0 001	

28 — CARD TYPE-3 | 28 — CARD TYPE-1 | 28 — CARD TYPE-2

ADDITIONAL INFORMATION
W.O.No. 39016A20202-39019A20202

STATUS OF DRAWING U

DISTRIBUTION OF PRINTS
HTE-2, WTM(S)-5 WTM(P)-1
FGM-7, THX-1

TYPE/RATING: (4+1) x 88.5 MW - VERTICAL PUMP

PROJECT: PRANAHITHA-XI

CONTRACTOR: भारत हेवी इलेक्ट्रिकल्स लिमिटेड भोपाल BHARAT HEAVY ELECTRICALS LTD. BHOPAL

M/S SEW - MEIL - BHEL - JV

	NAME/नाम	SIGN/सं०	DATE/दिनांक
DRN/ड्रा०	V.P.	varun	18.03.16
CHD/डि०	P.K.		18.03.16
APPD/अनु०	J.S.H.		18.03.16

REV.	DATE	ALTERED / CHECKED / APPROVED

DEPT. HTE | CODE 402 | 32000049014 | SCALE 1:25 & AS STATED | WEIGHT (KG) 7302 | REF. TO ASSY. DRG. - | ITEM NO. - | NO. OF ITEM 34

TITLE: INSTALLATION OF D.T. CONE

DRAWING NO. 0 201 01 18301 | REV. 00

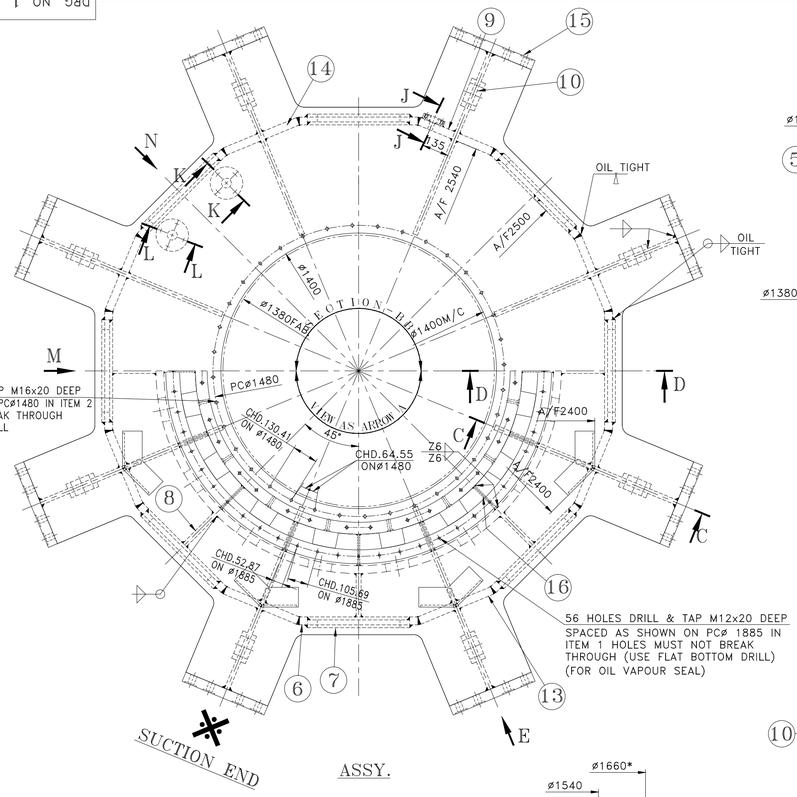
SHT. no. 01 | OF SHT. no. 01

INVENTORY NO. | SIGN. & DATE | REF. DRG. NO.

IT MUST NOT BE SOLD DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY

FIRST ANGLE PROJECTION

DRG. NO. 1 256 01 84601



TECHNICAL REQUIREMENTS:-

1. WELDING INSTRUCTION :-
   - A. ALL WELDS ARE 15 MM FILLET OF GR.-III TO AA0622101 UNLESS OTHERWISE STATED.
   - B. ALL WELDS TO BE CRACK DETECTED BY D.P/MCD. TO BP 0850199.
   - C. STRESS RELIEVE ITEM 1 TO BP 0640299 BEFORE MACHINING. THREADS OF IT.5,11&12 TO BE PROTECTED DURING S.R.
   - D. ALL WELDS SHOWN THUS 'LEAK TIGHT' TO BE D.P. TESTED AFTER FIRST ROOT RUN AND ALSO AFTER COMPLETE WELDING.
   - E. ALL WELDS ARE CONTINUOUS EXCEPT WHERE OTHERWISE STATED,
2. SURFACES ARE TO BE PREPARED PRIOR TO PAINTING TO AA0674101. AFTER PREPARATION APPLY 2 COAT OF ANTI-CORROSIVE PRIMING PAINT TO AA56101 AND 2 COAT OF HIGH QUALITY FULL GLOSSY OUT DOOR FINISHING PAINT TO AA56126 COLOUR LIGHT GREY TO SHADE NO. ISC:631 OF IS:5 ON OUTER SURFACE & TO AA0674103 COLOUR SHADE JASMINE YELLOW ON INNER SURFACE.
3. DIMENSIONS MARKED THUS * ARE FOR D.O. REF. ONLY.
4. SURFACE FINISH OF MACHINED SURFACE SHALL BE 3.2 MICRONS OR BETTER
5. ITEM 7 TO BE WELDED TO HOUSING AFTER THE BRACKET HAS BEEN STRESS RELIEVED.
6. MACHINED FACES OF COOLER FLANGE ITEM 7 TO BE KEPT PARALLEL TO THE BRACKET AXIS DURING WELDING (VERTICALITY WITH IN 2 mm.)
7. ALL MACHINED SURFACES TO BE COATED WITH T.R.P. TO BP 0690084.
8. ALL WELD WHICH REQUIRE LEAK PROOF TIGHTNESS SHOULD BE PAINTED ONLY AFTER OIL LEAKAGE TEST BY GRAVITY TO BP 0850095. REFER DRG. TO 22635284601 FOR GRAVITY TEST.
9. PRE MACHINED FACES OF GUIDE BEARING SUPPORT RING ITEM 5 TO BE LEVELLED WITH WATER LEVEL & TACK WELD. RECHECK BEFORE FINAL WELDING WITH RESPECT TO SUCTION END MARK.
10. DP TEST TO BP0850199 OF THE COMPLETE LENGTH OF EACH WELD SHALL BE CARRIED OUT AFTER S.R.
11. THE VOLUME OF WATER REQUIRED FOR GRAVITY TESTING IS 1600 LTRS. (APPROX.)
12. ALL FLANGES TO BE WELDED IN ACCORDANCE WITH DRG. 3 263 03 01005.

FABRICATED WEIGHT FOR ORDERING PURPOSES IS 7352Kgs. WHICH INCLUDES WELDMENT WEIGHT.

TOOL LIST

IT. NO.	TOOL NO.	DESCRIPTION
1.		
2.		

QTY VAR00	REMARKS	VAR. NO.	ITEM NO.	DESCRIPTION	STD	DRAWING NO.	IT.NO.	MATL. CODE	A/C	UNIT	UNIT WT.	GS	ZONE
			016	RIB		1 256 01 84602	008		NA	NO	2.8		
			015	JOINT PLATE 56TKx450x580LG. S.S.S.Q. PLATE				AA1011808226 AA10108	NA	NO	114.75		
			014	SUPPORT ASSY.		3 256 01 84604	00		NA	NO	11.5		
			013	SIDE PLATE 40TKx188x500LG. S.S.S.Q. PLATE				AA1011808196 AA10108	NA	NO	29.5		
			012	TAPPED FLANGE 50 NB		3 299 88 01008	004		NA	NO	5.0		
			011	TAPPED FLANGE 25 NB		3 299 88 01008	001		NA	NO	2.0		
			010	RIB ASSY.		3 256 01 84601	00		NA	NO	77.54		
			009	SIDE PLATE		1 256 01 84602	007		NA	NO	29.4		
			008	RIB		1 256 01 84602	006		NA	NO	6.5		
			007	COOLER FLANGE		3 256 01 84603	001		NA	NO	24.9		
			006	SIDE PLATE		1 256 01 84602	005		NA	NO	53.4		
			005	GUIDE BRG. SUPPORT RING		2 256 01 84603	001		NA	NO	548.9		
			004	SUPPORT FLANGE		1 256 01 84602	004		NA	NO	239.0		
			003	RING		1 256 01 84602	003		NA	NO	304.5		
			002	BOTTOM PLATE		1 256 01 84602	002		NA	NO	1791.0		
001			001	TOP PLATE		1 256 01 84602	001		NA	NO	1416.7		G

28 — CARD TYPE-3 | 28 — CARD TYPE-1 | 28 — CARD TYPE-2

ADDITIONAL INFORMATION
W.O.39008 TO 12 A 23156

STATUS OF DRAWING U

DISTRIBUTION OF PRINTS
HGE - 2 HGM - 4
FWM - 7 TEX - 1

उत्पाद का प्रकार या ग्राहक/परियोजना का नाम
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT

HMS-795/150-28K
MEIL/PRANHITA -VIII LIS MOTOR

भारत हेवी इलेक्ट्रिकल्स लिमिटेड भोपाल
BHARAT HEAVY ELECTRICALS LTD. BHOPAL

	नाम/ NAME	हस्ता./ SIGN	दिनांक/DATE
बनाया DRN.	KAMAL		18.01.16
जाँचा CKD.	KP		18.01.16
मंजूरित APPD.	DKC/MGS		18.01.16

विभाग DEPT. HGE. कोड CODE 403	उत्पादन नाप की रेखी UNTOL. DIMS. GR. 3 250 00 01404	जनुपात SCALE NTS	भार कि.ग्रा. WEIGHT (K.G.) 7010.0 M/C	उसे. डुईंग का संदर्भ REF. TO ASSY. DRG. NA	मद क्र. ITEM NO. NA	मद संख्या NO. OF ITEM 015

शीर्षक/ TITLE
TOP BRACKET CENTRE ASSY. (FAB. & M/C)

डुईंग क्र./DRAWING NO. 1 256 01 84601 | पुर्जा/REV. 00

पृष्ठ क्र./SHT. NO. 01 | पृष्ठों की संख्या/NO. OF SHT. 01

REV.	DATE	ALTERED / CHECKED / APPROVED	ZONE

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IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY.

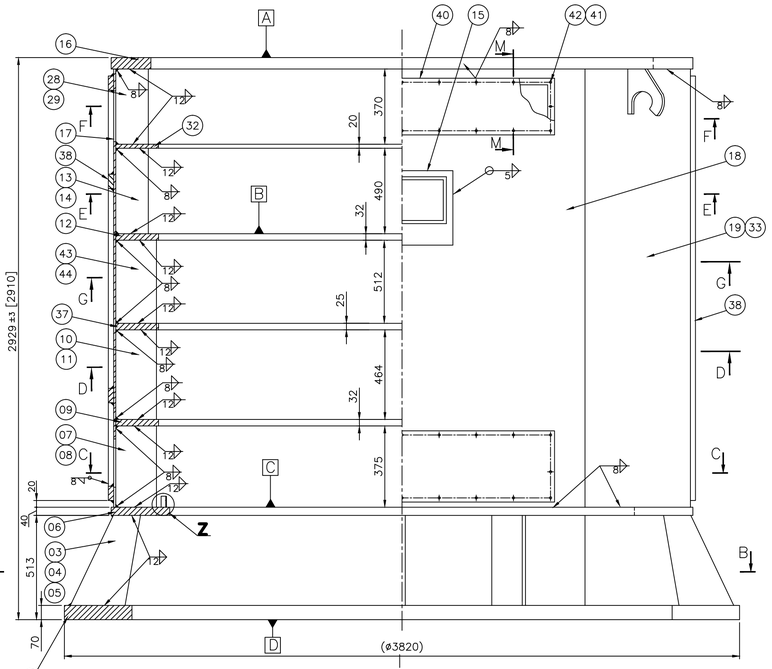
REF. DRG. NO. | SIGN. & DATE | INVENTORY NO.

A1

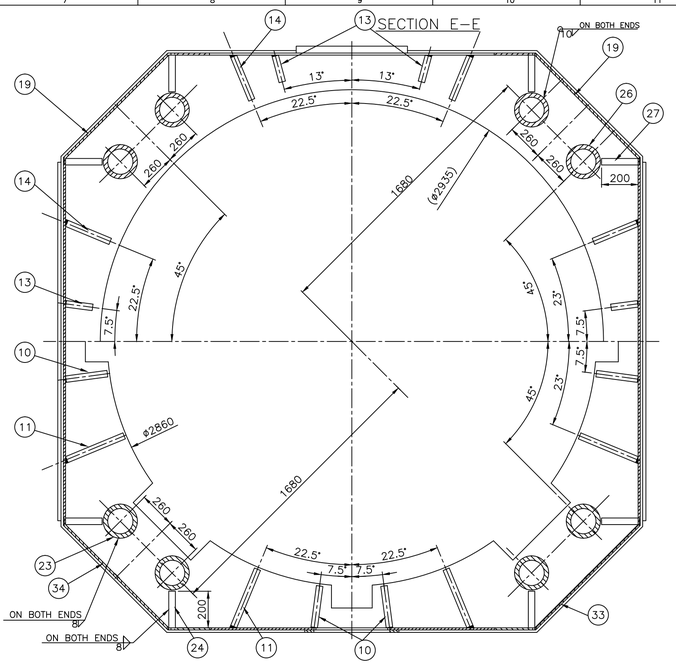
FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)

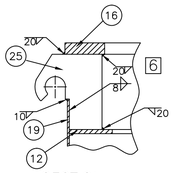
DRG. NO. 1 402 71 40 665



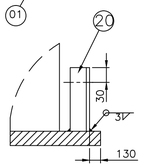
SECTION A–A



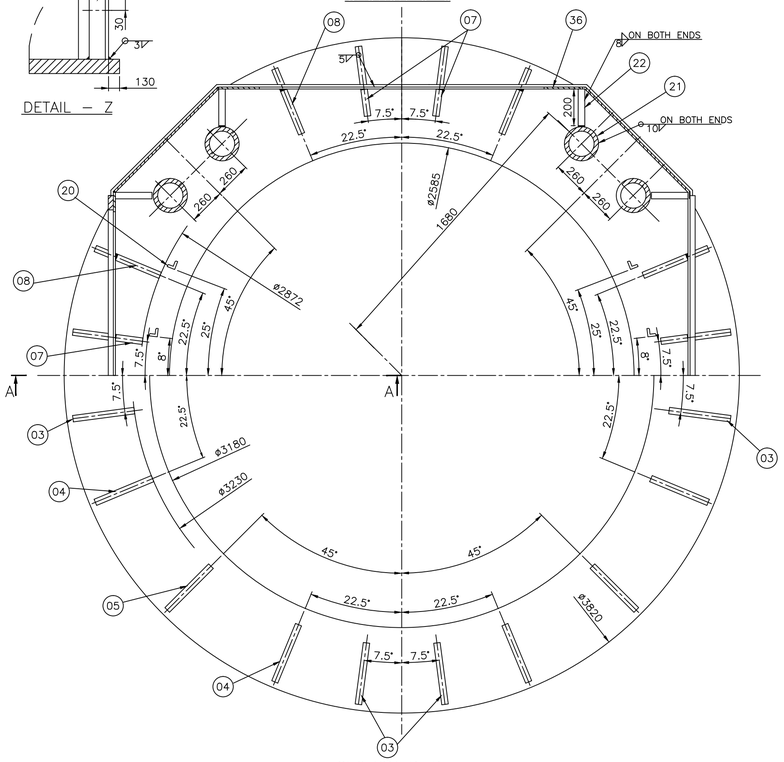
SECTION D–D



SECTION H–H

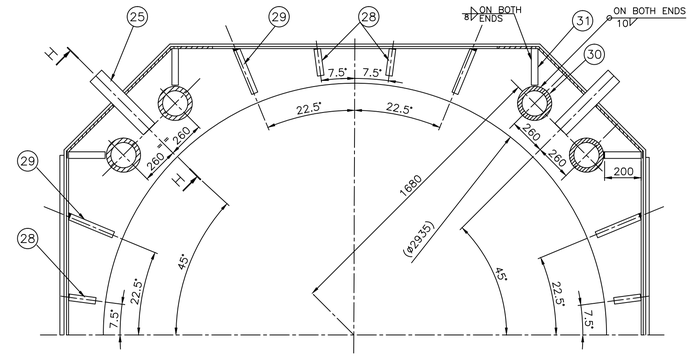


DETAIL – Z

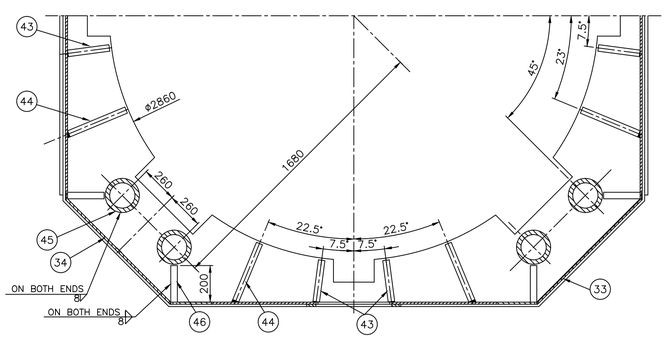


SECTION C–C

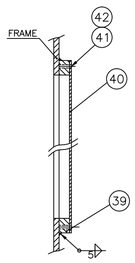
SECTION B–B



SECTION F–F



SECTION G–G



SECTION M–M

GES. NO. 404837240 VAR. 00

TECHNICAL REQUIREMENTS:–

1. ALL EXTERNAL WELDS TO BE 8 mm. CONTINUOUS UNLESS OTHERWISE STATED. ALL INTERNAL WELDS 6 mm CONTINUOUS UNLESS OTHERWISE STATED.
2. WHERE EVER CHAMFERS ARE REQUIRED IN WELDABLE ITEMS, SUITABLE CHAMFERS CAN BE PROVIDED BY FBM.
3. ALL ITEMS TO BE FLAME CUT ON N.C. M/CS.
4. FLATNESS OF SURFACES A, B, C, D SHOULD BE MAINTAINED WITHIN 3 mm MAXIMUM.
5. FOR WELDING REFER WELDING INSTRUCTION 052–6152 PART 10.
6. 20 mm WELD TO BE D.P. TESTED, AS PER CORP. STD. AA0622101 GRADE III
7. IMPORTANT:– STATOR TO BE SHOT BLASTED BRFORE PRIMER PAINTING TO AM54173.

VAR 00	REMARKS	VAR NO.	ITEM NO.	DESCRIPTION	STD.	DRAWING NO.	Tr.NO. / VAR	MATL. CODE / MATL. SPCN.	A / C	UNIT	UNIT WT. / QTY.	GS	ZONE
008			046	RIB 12TK.X200X512				AA1011808099 AA10108			9.65		
008			045	PIPE		14027142036	34				33.3		
008			044	RIB		14027142036	33				44.37		
008			043	RIB		14027142036	32				28.9		
080			042	WASHER MCD 8.4–ST				AA7161001056 AA7161001					
080			041	SCREW HEX. M8x16				AA7121123100 AA7121123					
004	GES NO. 404837190		040	COVER		34021042072	00				18		
004	GES NO. 404837189 (FOR IT. 40)		039	FLANGE		34027140473	00				7.5		
002	GES NO. 404837239		038	FLANGE		34027140476	00				140		
001			037	STAND 25 TK.		14027142036	28				664		
001			036	COVER		14027142036	31				280		
			035										
001			034	COVER		14027142036	30				166		
001			033	COVER		14027142036	11				166		
001			032	STAND		14027142036	07				530		
008			031	RIB 12 TK. X 200 X 370				AA1011808099 AA10108			7		
008			030	PIPE		14027142036	16				22.5		
008			029	RIB		14027142036	024				22.8		
008			028	RIB		14027142036	023				11.6		
008			027	RIB 12TK.X200X490				AA1011808099 AA10108			9.23		
008			026	PIPE		14027142036	015				29.6		
004			025	HOOK		14027142036	09				50		
008			024	RIB 12TK.X200X464				AA1011808099 AA10108			7.6		
008			023	PIPE		14027142036	014				26.1		
008			022	RIB 12TK.X200X375				AA1011808099 AA10108			7.07		
008			021	PIPE		14027142036	013				23.1		
008			020	ANGLE		14027142036	08				5.0		
002			019	COVER		14027142036	10				166		
001			018	COVER		14027142036	02				263		
002			017	COVER		14027142036	01				290		
001			016	STAND		14027142036	06				1596		
002			015	FLANGE FOR MTB		44024942035	01				31		
008			014	RIB		14027142036	022				30.1		
008			013	RIB		14027142036	021				15.4		
001			012	STAND		14027142036	029				850		
008			011	RIB		14027142036	020				34.6		
008			010	RIB		14027142036	019				24.3		
001			009	STAND		14027142036	05				950		
008			008	RIB		14027142036	018				34.4		
008			007	RIB		14027142036	017				21.2		
001			006	STAND		14027142036	04				1616		
004			005	RIB		14027142036	025				27.8		
008			004	RIB		14027142036	027				22.2		
008			003	RIB		14027142036	026				21.1		
~~006~~			~~002~~	~~SEGMENT~~		~~14027142036~~	~~012~~				~~62~~		
001			001	BASE STAND		14027142036	03				1935		

28 CARD TYPE–3 | 28 CARD TYPE–1 | 28 CARD TYPE–2

ADDITION INFORMATION
W.O. 45075 P 423–21/22/23/24/25

STATUS OF DRAWING: U

DISTRIBUTION OF PRINT: OC – 1 FMM – 4 TEX–3

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT: 1TC5341 M/S. XYLEM WATER SOLUTION INDIA FOR SSNNL

BHARAT HEAVY ELECTRICALS LTD. BHOPAL

	NAME	SIGN	DATE	NO. OF VAR
DRN	RV		13.02.16	
CHD				
APPD	AK		13.02.16	

DEPT. AME | CODE 404 | GRADE OF UNTOL. DIM. C/M/F | SCALE NTS | WEIGHT (kg) 15950 | REF. TO ASSY. DRG. | ITEM NO. | NO. OF ITEMS

TITLE: STATOR FRAME (FAB.)

DRAWING NO. 1 402 71 40 665 00

SHEET NO. 01 | NO. OF SHEET 01 | SIZE A0

STATORFRAMEFAB./14027140489

REV	DATE	ALTERED / CHECKED / APPROVED	ZONE

CJD–3

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1 402 71 40 658 ASSY. DRG. NO.

SIGN. & DATE

INVENTORY NO.

RV/STATOR/1 402 71 40665