



BHARAT HEAVY ELECTRICALS LIMITED
INDUSTRIAL VALVES PLANT
433, INDUSTRIAL COMPLEX
GOINDWAL SAHIB
DISTT. TARN TARAN- PUNJAB – 143422

No.BHE:IVP:
SC:TOA:AD
2015-16/02
Dated
18.01.2016

NOTICE INVITING APPLICATIONS FOR REGISTRATION OF SUB CONTRACTORS

BHARAT HEAVY ELECTRICALS LIMITED [BHEL] is manufacturing Industrial Valves and other Boiler accessories at its Industrial Valves Plant, Goindwal Sahib unit. TOA valves are new addition to BHEL IVP Goindwal product range and machining vendors are required for machining of various castings. App. Annual procurement value for year 2016-17: 20 Lakh.

Expression of interest and applications for registration are invited from sub-contractors (including MSE & MSE-SC/ST vendors) for doing the machining job of various components of TOA Valves. Major areas for which subcontractors are required are casting machining, CNC/VMC, chrome/nickel plating jobs etc.

Machining of Items for which vendors required immediately are:

TOA Valves	Machining of Body/Yoke castings, Bonnet, Disc and various other items. Some items also require Tuffriding and chrome/nickel plating as well. List of components, where machining vendors are required, is attached herewith as Annexure-IV. Sample drawings of some components are also attached.
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BHEL is looking for prospective Sub Contractors for above detailed job work for BHEL.

BHEL shall evaluate the vendors as per its established vendor selection, evaluation and registration procedure. Supplier registration form can also be downloaded from our website www.bhel.com available as a downloadable link at http://www.bhel.com/images/pdf/vendor/Guidelines_Indian_Suppliers_SEARP2010Amdt.02.pdf

BHEL invites such vendors to visit its above located plant on any working day from Monday to Saturday between 0930 Hrs to 1730 Hrs and contact undersigned for any clarification regarding:

Items details and requirement		Vendor registration form/procedure
Sumeet Bansal Dy. Manager (Sub-Contracting)	Gaurav Gangwar Sr. Engineer (Sub-Contracting)	Prikshit Ravesh Sr. Engineer (Sub-Contracting)
Phone: 01859-224647	01859-224643	01859-224654
Mobile: 098780 06105	08427001944	098880 62649
E-mail: sb@bhelivp.in	prikshit@bhelivp.in	prikshit@bhelivp.in

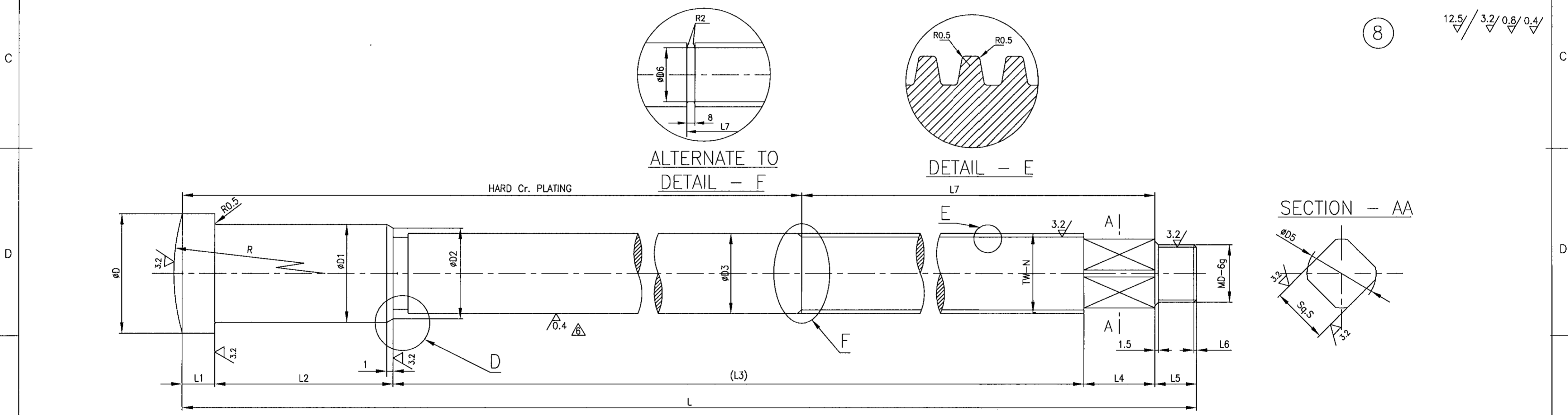
Fax: 01859-222061

BHARAT HEAVY ELECTRICALS LIMITED
INDUSTRIAL VALVES PLANT, 433, INDUSTRIAL COMPLEX,
GOINDWAL SAHIB, DISTT. TARN TARAN, PUNJAB – 143 422

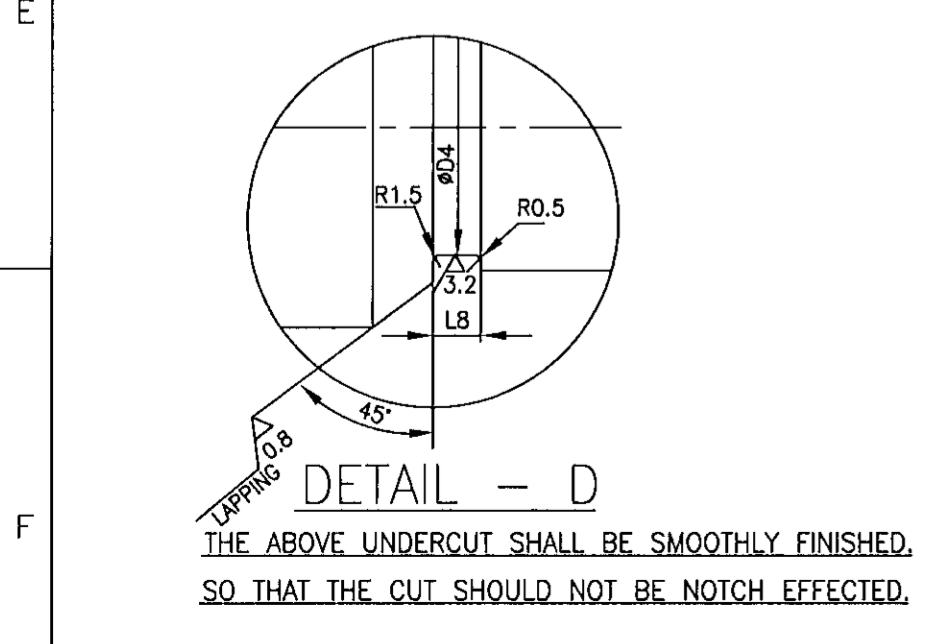
2-V-0000-15043/6
DRAWING NO. ON ANIMYD

ALL DIMENSIONS ARE IN MILLIMETRES. FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT QCP / QP

SL No.	DRAWING No.	MATL SPCCN.	SUGGESTED SIZE	MATL. CODE COMP. CODE	GROSS WT(Kg.)	SCRAP SORT	TOA DRAWING No.	DIMENSIONS																				FINISHED WT (KG)			
								ØD	ØD1 b9 (DIMENSION PRIOR TO PLATING)	ØD2	ØD3 b9 (DIMENSION PRIOR TO PLATING)	ØD4	ØD5	TW-N 7e	MD	Sq.S h8	L	L1	L2	(L3)	L4	L5	L6	L7	L8	R	ØD6				
01	2-V-G001-15043/3	OHATRON	Ø60x625	93 111 246 0000	13.8		T-E65559(0210)	55	46	-0.180 (-0.210) -0.242 (-0.272)	44	42	-0.180 (-0.210) -0.242 (-0.272)	41	+0.2 -0.1	36	TW 42-3.5	M24	29 ⁰ -0.033	610	21	74	(453)	36	26	3	191	6	150	34	6.62
02	2-V-G003-15043/3	OHATRON	Ø60x660	93 111 247 0000	14.65		T-E65567(0323)	55	46	-0.180 (-0.210) -0.242 (-0.272)	44	42	-0.180 (-0.210) -0.242 (-0.272)	41	+0.2 -0.1	36	TW 42-3.5	M24	29 ⁰ -0.033	642	21	74	(485)	36	26	3	186	6	150	34	6.96
03	2-V-G004-15043/3	OHATRON	Ø50x590	93 111 248 0000	9.09		4-E09429(0007)	46	38	-0.170 (-0.200) -0.232 (-0.262)	36	34	-0.170 (-0.200) -0.232 (-0.262)	33	+0.2 -0.1	30	TW 34-4	M20	23 ⁰ -0.033	575	17	62	(444)	30	22	2.5	160	4	120	27	4.11
04	2-V-G033-15043/3	OHATRON	Ø50x560	93 111 249 0000	8.71		T-E65563(0526)	46	38	-0.170 (-0.200) -0.232 (-0.262)	36	34	-0.170 (-0.200) -0.232 (-0.262)	33	+0.2 -0.1	30	TW 34-4	M20	23 ⁰ -0.033	543	17	62	(412)	30	22	2.5	160	4	120	27	3.73
05	2-V-G041-15043/3	OHATRON	Ø50x505	93 111 250 0000	7.78		T-E65560(0865)	44	36	-0.170 (-0.200) -0.232 (-0.262)	34	32	-0.170 (-0.200) -0.232 (-0.262)	31	+0.2 -0.1	30	TW 32-4	M20	23 ⁰ -0.033	488	16	58	(362)	30	22	2.5	160	4	120	25	2.97
06	2-V-G045-15043/3	OHATRON	Ø50x530	93 111 251 0000	8.17		T-E65558(0883)	46	38	-0.170 (-0.200) -0.232 (-0.262)	36	34	-0.170 (-0.200) -0.232 (-0.262)	33	+0.2 -0.1	30	TW 34-4	M20	23 ⁰ -0.033	516	17	62	(385)	30	22	2.5	165	4	120	27	3.70
07	2-V-G145-15043/3	OHATRON	Ø55x615	93 113 610 0000	11.48		T-E65565(2177)	50	42	-0.180 (-0.210) -0.242 (-0.272)	40	38	-0.170 (-0.200) -0.232 (-0.262)	37	+0.2 -0.1	34	TW 38-3.5	M22	26 ⁰ -0.033	600	19	68	(455)	34	24	2.5	170	6	150	30	5.40
08	2-V-G146-15043/1	OHATRON	Ø55x665	93 119 198 0000	12.41		-	50	42	-0.180 (-0.210) -0.242 (-0.272)	40	38	-0.170 (-0.200) -0.232 (-0.262)	37	+0.2 -0.1	34	TW 38-3.5	M22	26 ⁰ -0.033	650	19	68	(505)	34	24	2.5	220	6	150	30	5.85
09	2-V-G046-15043/1	OHATRON	Ø50x585	9 119 199 0000	9.02		-	46	38	-0.170 (-0.200) -0.232 (-0.262)	36	34	-0.170 (-0.200) -0.232 (-0.262)	33	+0.2 -0.1	30	TW 34-4	M20	23 ⁰ -0.033	571	17	62	(440)	30	22	2.5	220	4	120	27	4.09
10	2-V-G005-15043/1	OHATRON	Ø60x700	93 119 267 0000	15.5		-	55	46	-0.180 (-0.210) -0.242 (-0.272)	44	42	-0.180 (-0.210) -0.242 (-0.272)	41	+0.2 -0.1	36	TW 42-3.5	M24	29 ⁰ -0.033	685	21	74	(528)	36	26	3	266	6	150	34	7.44
11	2-V-G011-15043/1	OHATRON	Ø60x725	93 119 268 0000	16.1		-	55	46	-0.180 (-0.210) -0.242 (-0.272)	44	42	-0.180 (-0.210) -0.242 (-0.272)	41	+0.2 -0.1	36	TW 42-3.5	M24	29 ⁰ -0.033	707	21	74	(550)	36	26	3	251	6	150	34	7.67
12	2-V-G014-15043/1	OHATRON	Ø50x645	93 119 269 0000	9.95		-	46	38	-0.170 (-0.200) -0.232 (-0.262)	36	34	-0.170 (-0.200) -0.232 (-0.262)	33	+0.2 -0.1	30	TW 34-4	M20	23 ⁰ -0.033	630	17	62	(499)	30	22	2.5	215	4	120	27	4.50
13	2-V-G034-15043/1	OHATRON	Ø50x610	93 119 270 0000	9.41		-	46	38	-0.170 (-0.200) -0.232 (-0.262)	36	34	-0.170 (-0.200) -0.232 (-0.262)	33	+0.2 -0.1	30	TW 34-4	M20	23 ⁰ -0.033	593	17	62	(462)	30	22	2.5	210	4	120	27	4.09
14	2-V-G042-15043/1	OHATRON	Ø50x565	93 119 271 0000	8.72		-	44	36	-0.170 (-0.200) -0.232 (-0.262)	34	32	-0.170 (-0.200) -0.232 (-0.262)	31	+0.2 -0.1	30	TW 32-4	M20	23 ⁰ -0.033	548	16	58	(422)	30	22	2.5	220	4	120	25	3.35



8 12.5/3.2/0.8/0.4/



- NOTES:**
- HARDNESS FOR OHATRON MATERIAL - 241 TO 321 BHN.
 - MATL. SHALL BE AS PER LATEST APPLICABLE QUALITY WORK INSTRUCTION

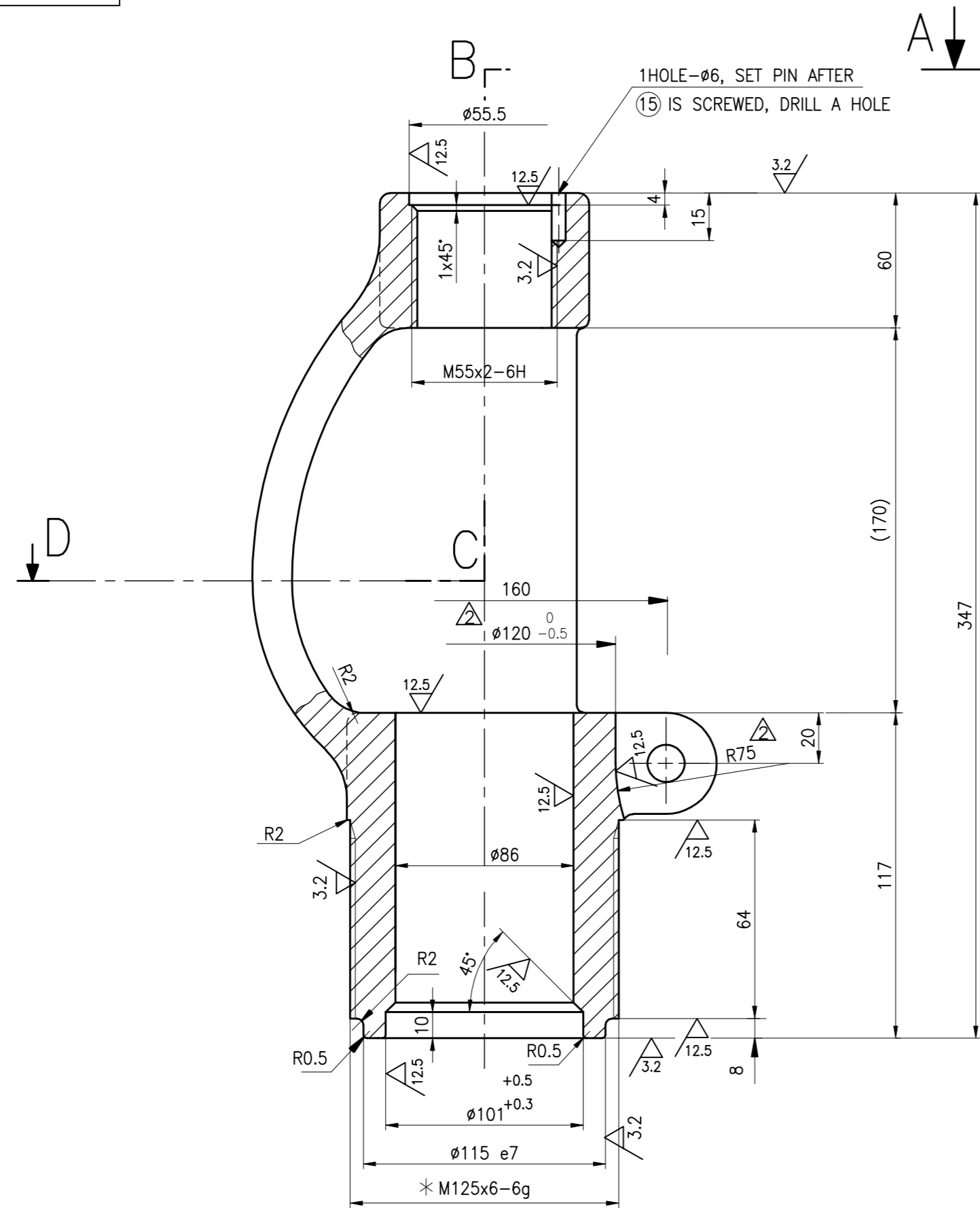
REV	DATE	ALTERED BY
6	24.12.03	CHD & APPD MRK
ZONE	SURFACE FINISH 0.4/ WAS 0.8/	
DCP.No.800270		

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

No OFF	DESCRIPTION	MATL CODE	MATL SPECH	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No
	TA							RETRACED WITH REV.6 ON 24.12.03	
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		Bharat Heavy Electricals Ltd., UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI -620014.							
DRN	NAME	SIGN	DATE	NO.OF VAR.					
CHD	V.BAIRAVAN		24.12.03						
APPD	K.RAJASEKRAN		24.12.03						
DEPT	M.RAJAKUMAR		24.12.03						
DEPT VL	SCALE	WEIGHT (KG).	REFERENCE INFORMATION						
320	N T S								
TITLE	CARD CODE	DRAWING NO.	REV						
STEM	U 01	2-V-0000-15043	6						

2-V-0000-15062/2
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES. FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT QCP / QP



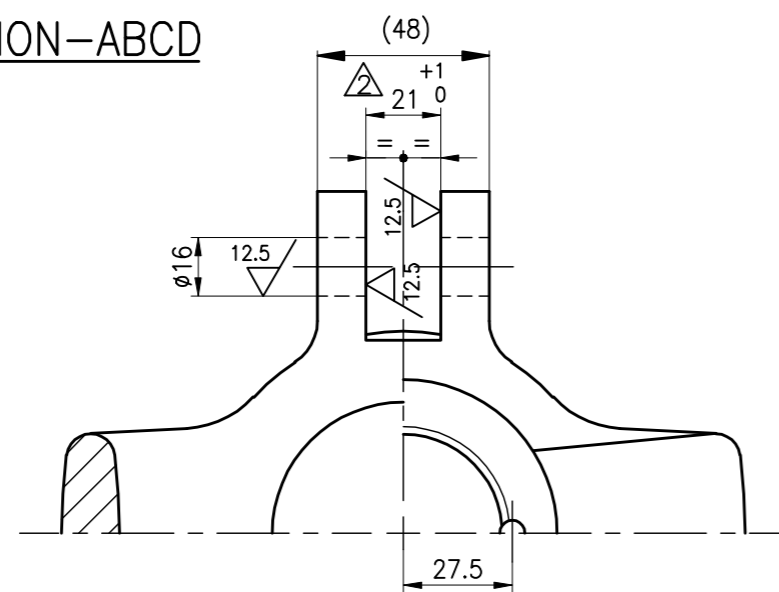
12 $\sqrt{12.5}$ $\sqrt{3.2}$

$\phi 115-e7$	-0.072
	-0.107

NOTES:-

1.*NICKEL PLATING TO A THICKNESS OF 25 TO 35 MICRONS.

SECTION-ABCD



DRAWING REDRAWN WITH REV.2 ON 16.09.08

02	2-V-G006-15062/2	A217-WC6,NT PRODUCT ATTEST	931113180000	20	
01	2-V-G001-15062/2	A216-WCB,AN PRODUCT ATTEST	931113170000	10	
SL.NO.	DRAWING No.	MATERIAL SPECN.	COMPONENT CODE	SCRAP SORT	

No OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No
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TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT

	BHARAT HEAVY ELECTRICALS LTD., UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI -620014.		DRN	V.BAIRAVAN	SIGN	DATE	NO.OF VAR.
	CHD	K.RAJASEKARAN				16.09.08	
	APPD	M.RAJAKUMAR				16.09.08	

REV	DATE	ALTERED VB
2	16.09.08	CHD & APPD KRS&MRK
ZONE	DIMENSIONS 21 ⁺¹ , 120 ⁰ & R75 INCLUDED.	
	DCP NO.800862	

DEPT	VL	SCALE	WEIGHT (KG).	REFERENCE INFORMATIONS	NO. OF ITEMS
320		N T S	14.7	TOA REF: T-E87157(0220) CAD REF: 2-V-0000-15062-2-0	
TITLE			CARD CODE	DRAWING NO.	REV
YOKE			U 01	2-V-0000-15062	2

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100mm/1500CLASS

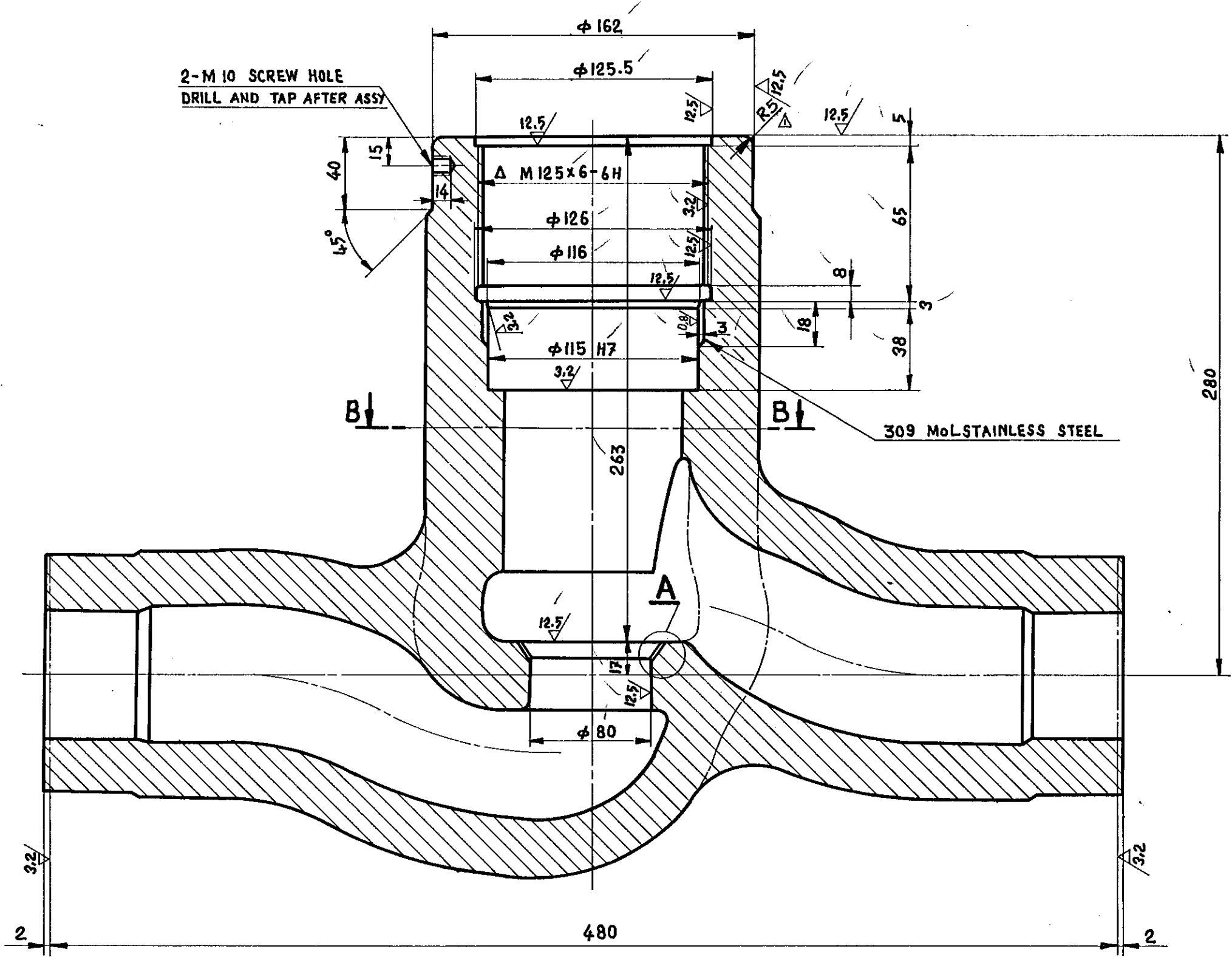
FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES) FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT QCP/QP

05-228/C

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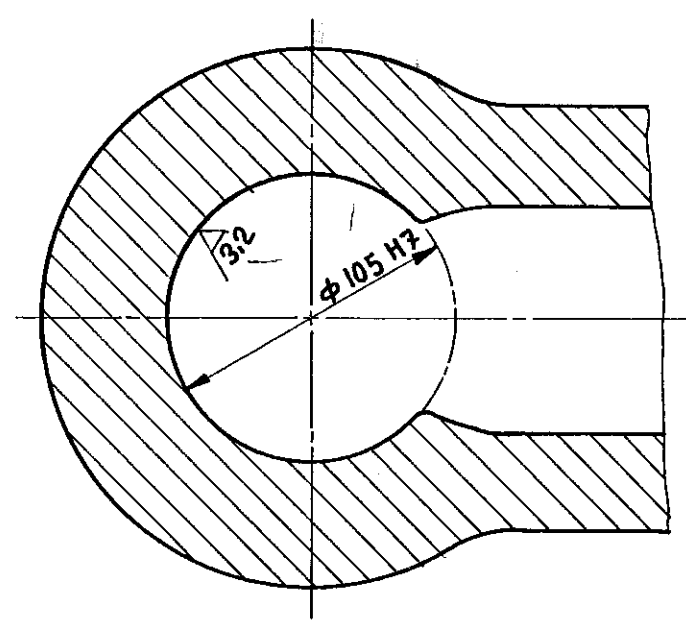
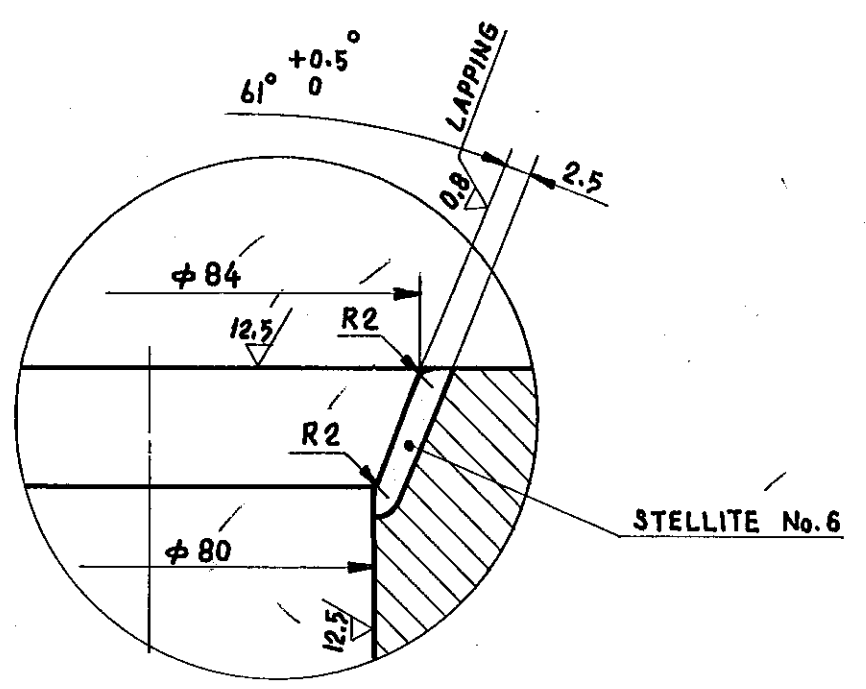
12.5 / 3.2 / 0.8

φ 115 H7	+0.035
	0
φ 105 H7	+0.035
	0



NOTE :-

1. Δ EFFECTIVE DIA SHOULD BE FINISHED WITHIN THE RANGE OF +0.1 To +0.2 mm FROM (16) YOKE
2. * MARKED TYPES ARE SPECIAL CLASS RATINGS.
3. EDGE PREPARATION SHALL BE AS PER SEPARATE INSTRUCTIONS.
4. LATEST APPLICABLE QUALITY PROCEDURE SHALL BE FOLLOWED IN ALL RESPECTS.



SL.No.	DRAWING No.	CASTING DRAWING No.	MATL. SPECN	SCRAP SORT	COMP. CODE.
*8	2-V-R024-15208/2	2-V-G023-15005R/4	A217 WCB ATTEST, NT	20	93112 608 0000
*7	2-V-R023-15208/2	2-V-G022-15005R/4	A217 WCB ATTEST, NT	20	93112 607 0000
*6	2-V-R022-15208/2	2-V-G021-15005R/4	A216 WCB ATTEST, AN	10	93112 606 0000
*5	2-V-R021-15208/2	2-V-G017-15005R/4	A216 WCB ATTEST, AN	10	93112 605 0000
4	2-V-R020-15208/2	2-V-G007-15005R/4	A217 WCB ATTEST, NT	20	93112 604 0000
3	2-V-R019-15208/2	2-V-G006-15005R/4	A216 WCB ATTEST, AN	20	93112 603 0000
2	2-V-R018-15208/2	2-V-G005-15005R/4	A216 WCB ATTEST, AN	10	93112 602 0000
1	2-V-R017-15208/2	2-V-G001-15005R/4	A216 WCB ATTEST, AN	10	93112 601 0000

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT

	Bharat Heavy Electricals Ltd.,		DRN	NAME	SIGN	DATE	NO. OF VAR
	BOILER PLANT UNIT		CHD	M. RAJKUMAR	M. RAJKUMAR	11/4/26	
	TIRUCHIRAPALLI-620 014		APPD	V. BABU	V. BABU	11.4.26	

REV 02	DATE 20.11.96	ALTERED V.A. CHD & APPD: M.R.K.
REV 01	DATE 4.8.94	ALTERED KRS CHECKED MRK
NOTES UPDATED, DCN No. TA 0712		
ZONE Δ TOP FLANGE OD RADIUS R5 INTRODUCED DCN NO. TA 0364		

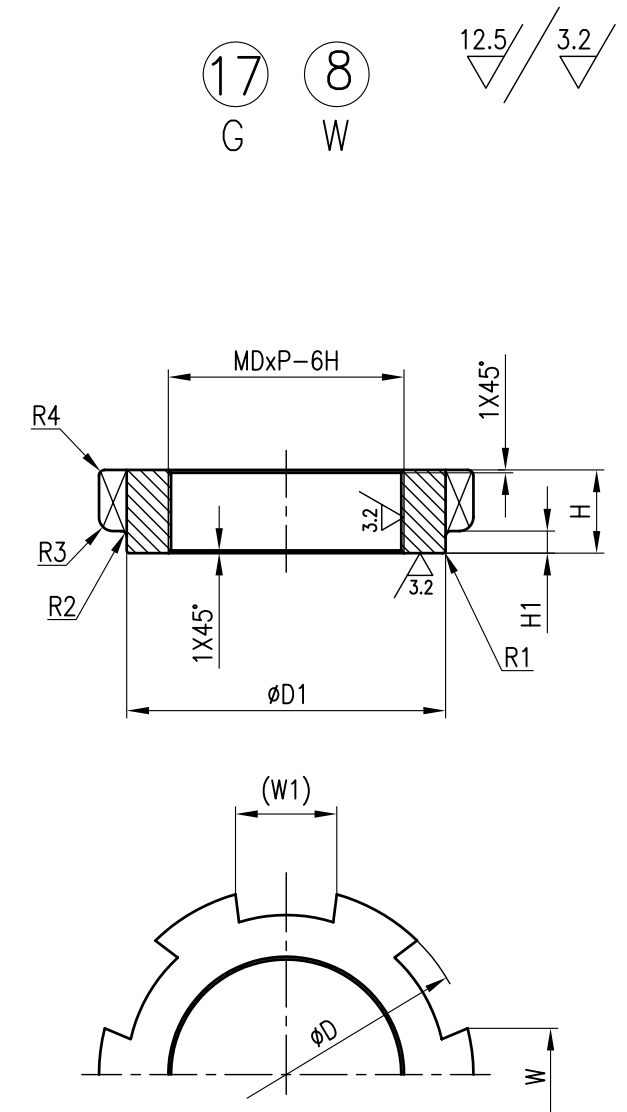
DEPT VL	GRADE OF UNTOLED. DIM	SCALE NTS	WEIGHT (kg) 60.0	REF TO ASSY / OLD DRG 3-E 04728 (1414)	ITEM NO.
CODE 320					

TITLE	CARD CODE	DRAWING NO.	REV
BODY ASSY.	U 01	2-V-0000-15208	02
3 42 6 8-10		REFER TABLE	

L/29007-0000-A-3

ON DRAWING

S.NO.	DRAWING NO.	MTRL. SPECN.	RAW MTRL. SIZE	COMP. CODE MTRL. CODE	WT. KG	SCRAP SORT	TOA DRG.NO.	DIMENSIONS									FINISH WT.KG.	SIZE/RATING		
								∅D	∅D1	H	H1	R1	R2	R3	R4	MDxP			W	(W1)
1	3-V-G001-20053/3	SA 105, NORMALISED, CERTIFY	∅140 X 35	931114390000	4.23	10	T-E44599(0212)	135	115	30	8	1	2	5	2	M85x2	34	36.5	1.44	100/1500 65/3500 80/2500 80/3500
2	3-V-G002-20053/3		∅185 X 50	931114400000	10.55		T-E48225(0230)	180	148	46	14	1	2	5	2	M115x2	46	48.2	1.54	125/1500 150/2500
3	3-V-G003-20053/3		∅150 X 40	931114410000	5.54		T-E47111(0325)	145	125	34	8	1	2	5	2	M95x2	38	38	1.82	65/2500 100/2500
4	3-V-W001-20053/3		∅115 X 30	931114420000	2.45		T-E46921(0060)	110	98	26	8	1	2	5	2	M75x2	34	23.6	0.78	65/2500
5	3-V-W002-20053/3		∅155 X 40	931114430000	5.92		4-E56933(0031)	150	125	35	5	1	5	8	2	M92x3	35	43.5	2.19	100/2500 100/2850
6	3-V-W049-20053/3		∅120 X 30	931114440000	2.66		4-E58893(0549)	116	96	25	5	0.5	4	5	0.5	M72x2	30	30.7	0.88	65/1500
7	3-V-W053-20053/3		∅135 X 35	931114450000	3.93		4-E58717(0578)	130	110	30	5	1	5	5	2	M80x2	34	34	1.45	100/1500
8	3-V-W065-20053/3		∅175 X 50	931114460000	9.44		4-E58885(0671)	170	145	45	10	1	4	5	2	M110x3	45	44	3.41	150/2500
9	3-V-G033-20053/3		∅115 X 30	931114470000	2.44		T-E44666(0528)	110	98	22	4	1	2	5	2	M75x2	34	23.6	0.70	65/2500 80/1500
10	3-V-G041-20053/3		∅110 X 30	931114480000	2.23		T-E43872(0867)	105	92	22	4	1	2	5	2	M70x2	32	23	0.66	65/1500 65/2500
11	3-V-R057-20053/2		∅140 X 35	931132360000	4.2		4-E47383(1536)	136	120	32	8	1	2	5	2	M90x2	36	35.2	1.57	100/2500
12	3-V-W337-20053/2		∅145 X 40	931134040000	5.18		T-E46721(1665)	140	120	36	10	1	2	5	2	M90x2	36	37.2	1.8	80/3500
13	3-V-W401-20053/2		∅165 X 45	931134060000 15339282	7.5		T-E59308(1637)	160	130	38	5	1	5	8	0.5	M98x3	40	43.7	2.6	125/2500
14	3-V-W425-20053/2		∅130 X 35	931137680000	3.6		4-E67668(2108)	125	102	28	5	0.5	5	5	0.5	M75x2	32	33.4	1.2	80/1500
15	3-V-W345-20053/2		∅135 X 40	931137670000	4.5		4-E65604(1608)	130	110	32	5	0.5	5	5	0.5	M80x2	35	33	1.52	80/2500
16	3-V-W441-20053/2		∅150 X 40	931137690000	5.5		4-E67787(2145)	145	120	32	7	1	5	5	1	M90x2	38	37.9	1.8	125/1500
17	3-V-R165-20053/2		∅150 X 40	931158120000	5.5		4-63834	145	125	29	8	1	2	5	2	M95x2	38	37.9	1.5	100/2500



REDRAWN WITH REV. NO.7 DATED 12.04.08

NO OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No
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TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT

	BHARAT HEAVY ELECTRICALS LTD., UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI-620014.		DRN	V.BAIRAVAN	SIGN	DATE	NO.OF VAR.
	CHD	K.RAJASEKARAN			12.04.08		
	APPD	M.RAJAKUMAR			12.04.08		

REV	DATE	ALTERED	BY
7	12.04.08	CHD & APPD	KRS&MRK
DRAWING CONVERTED INTO SOFT COPY			
DCP No.800813			

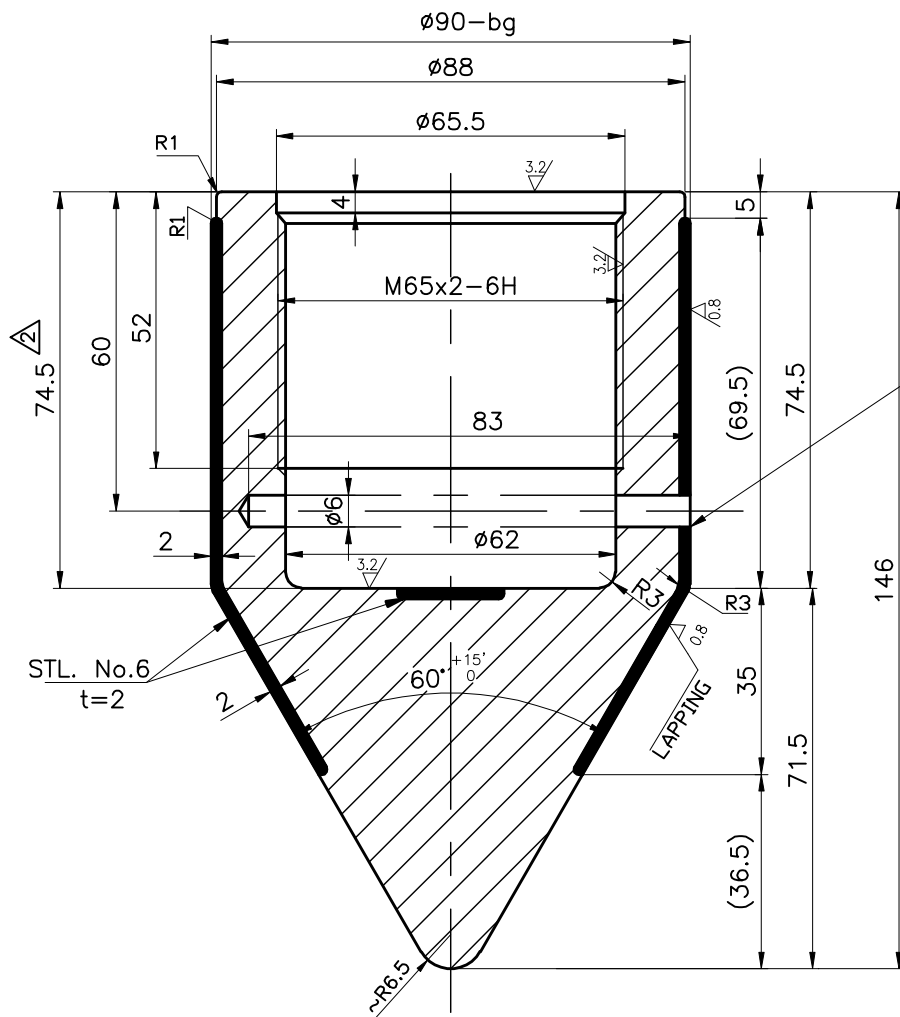
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DEPT	VL	SCALE	WEIGHT (KG).	REFERENCE INFORMATION	NO. OF ITEMS
CODE	320	N T S			
TITLE	NUT		CARD CODE	DRAWING NO.	REV
	U 01			3-V-0000-20053	7

ALL DIMENSIONS ARE IN MILLIMETRES. FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT QCP / QP.

DRAWING NO. 3-V-R017-20363/2

3 12.5/3.2/0.8/



Ø90 bg	-0.220
	-0.307

REMOVE BURRS

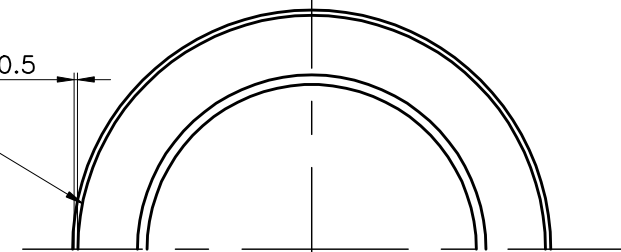
NOTE:

LATEST APPLICABLE QUALITY WORK INSTRUCTIONS SHALL BE FOLLOWED IN ALL RESPECTS

COMP. CODE:931131570000

REMOVE BURRS

0.5



REV	DATE	ALTERED VB	REV	DATE	ALTERED VB
2	22.11.11	CHD & APPD SSK & KRS	01	20.1.04	CHD & APPDMRK
ZONE	EXTENSION LINE CORRECTED FOR DIMENSION 74.5		ANGULAR DIMENSION 60 ^{+15'} ₀ WAS 60'		
	DCP No.801254		DCP. No.800277		

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

NO OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No
			A182 F22,CL.3 PRO. ATTEST	NT	20				
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT									
365-121		BHARAT HEAVY ELECTRICALS LTD., UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI-620014.			DRN	V.BAIRAVAN	SIGN	DATE	NO.OF VAR.
DEPT VL		SCALE			CHD	K.RAJASEKARAN		20.01.04	
CODE 320		WEIGHT (KG).			APPD	M.RAJAKUMAR		20.01.04	
TITLE		REFERENCE INFORMATION			NO. OF ITEMS				
3426-10		DISC			2.98				
4"/1500 CLASS		DRAWING NO.			REV				
U 01		3-V-R017-20363			2				

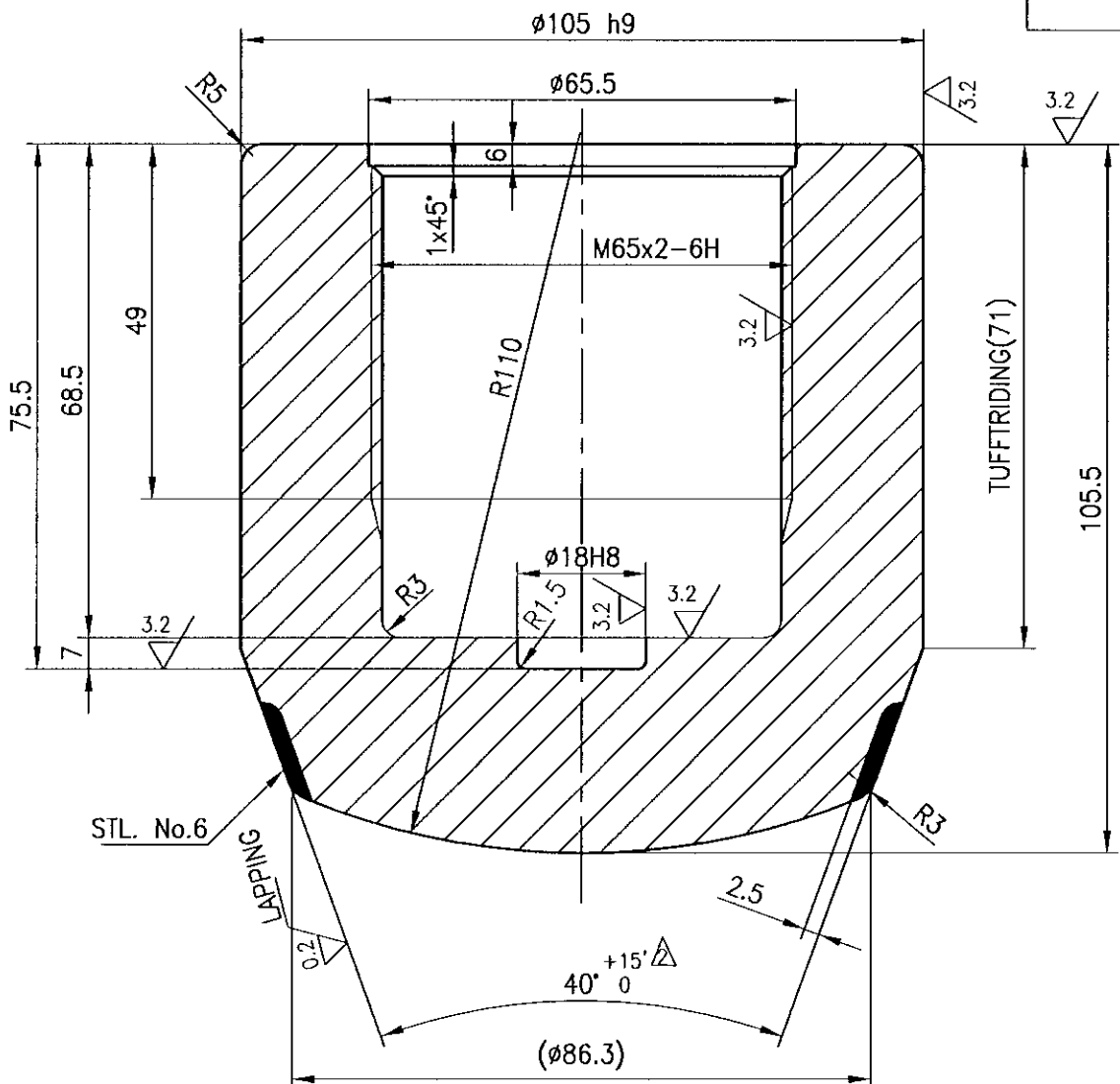
FOR TOLERANCES OF UNTOLERANCED DIMENSIONS

ALL DIMENSIONS ARE IN MILLIMETRES.
DURING MANUFACTURE REFER RELEVANT QCP/QP

REV 2	DATE 20.1.04	ALTERED VB CHD & APPD MRK
ANGULAR DIMENSION $40^{\circ} \begin{smallmatrix} +15' \\ 0 \end{smallmatrix}$ WAS 40°		
DCP. No.800277		

5 $\sqrt{12.5}$ / $\sqrt{3.2}$ / $\sqrt{0.2}$

$\phi 105$ h9	0
	-0.087
$\phi 18$ H8	+0.027
	0



NOTE:

LATEST APPLICABLE QUALITY WORK INSTRUCTIONS SHALL BE FOLLOWED IN ALL RESPECTS
DRAWING RETRACED WITH REV.2 ON 20.01.04

COMP. CODE: 931118610000

			A182 F22,CL.3 PRODUCT ATTEST	NT	20				
NO OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No
BHARAT HEAVY ELECTRICALS LTD., UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI 620014.				DRN	NAME	SIGN	DATE	NO.OF VAR	
				CHD	K.RAJASEKARAN		20.01.04		
				APPD	M.RAJAKUMAR		20.01.04		
DEPT VL CODE 320		SCALE N T S	WEIGHT (KG). 3.87	REFERENCE INFORMATION TOA DRG. No.4-E31455(0208) CAD REF. No.T418017				NO. OF ITEMS	
TITLE DISC (100/1500 CL)				CARD CODE U 01	DRAWING NO. 4-V-G001-18017			REV 2	

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Annexure-IV

List of TOA valves items in which machining Sources are required on Job work basis

S. No	Gr. No	Product Area	Description	Size
1	G2303	TA	Body Machining	2.5-C1500-GLV/GNV-BW-WCC/WC9
2	G2304	TA	Body Machining	3-C1500-GLV/GNV-BW-WCC/WC9
3	G2305	TA	Body Machining	4-C1500-GLV-BW-WCB/WC9
4	G2306	TA	Stem	2.5-C1500-GLV/GNV-HO/MO-WCC
5	G2310	TA	Yoke Machining	5-C1500-GNV-BW-MO-WC9
6	G2322	TA	Yoke Bushing	2" to 8" Class 1500
7	G2323	TA	Adaptor	2" to 8" Class 1500
8	G2325a	TA	Sunk Key	2.5/3-C1500-GLV/GNV-BW-WCC/WCB/WC9
9	G2325b	TA	Sunk Key	4-C1500-GLV-BW-HO-WCB
10	G2327a	TA	Yoke Stopper	2.5-C1500-GLV-BW-HO-WC9
11	G2327b	TA	Yoke Stopper	3-C1500-GLV-BW-HO-WC9
12	G2327c	TA	Yoke Stopper	4-C1500-GLV-BW-HO-WCB
13	G2328a	TA	Gland	2.5-C1500-GLV-BW-HO-WC9
14	G2328b	TA	Gland	3-C1500-GLV-BW-HO-WC9
15	G2328c	TA	Gland	4-C1500-GLV-BW-HO-WCB
16	G2328d	TA	Gland	5-C1500-GLV-BW-GO-WC9
17	G2330a	TA	Bushing	2.5/3-C1500-GLV/GNV-BW-WCC/WCB/WC9
18	G2330b	TA	Bushing	4/5-C1500-GLV-BW-HO-WCB
19	G2345	TA	Yoke Machining	3-C1500-GLV-BW-HO-WC9
20	G2346	TA	Stem Maching	5-C1500-GLV-BW-MO-WC9
21	G2347	TA	Eye Bolt Clamp	5-C1500-GNV-BW-MO-WC9
22	G2349	TA	Yoke Clamp	2" to 8" Class 1500
23	G2475	TA	HAND WHEEL-G004	2.5-C1500-GLV-HO-WCC
24	G2476	TA	Grip	2.5-C1500-GNV-BW-HO-WCC
25	G2477	TA	Nut	2.5-C1500-GNV-BW-HO-WCC
26	G2478	TA	Bolt	2.5-C1500-GNV-BW-HO-WCC
27	G2479	TA	Lock plate	2.5-C1500-GNV-BW-HO-WCC
28	G2480	TA	Retaining ring	5-C1500-GNV-BW-MO-WC9
29	G2481	TA	Disc Final	3-C3500-GNV
30	G2494	TA	INTERMEDIATE FL.-G090	3/4-C1500-GNV-BW-MO-WCB