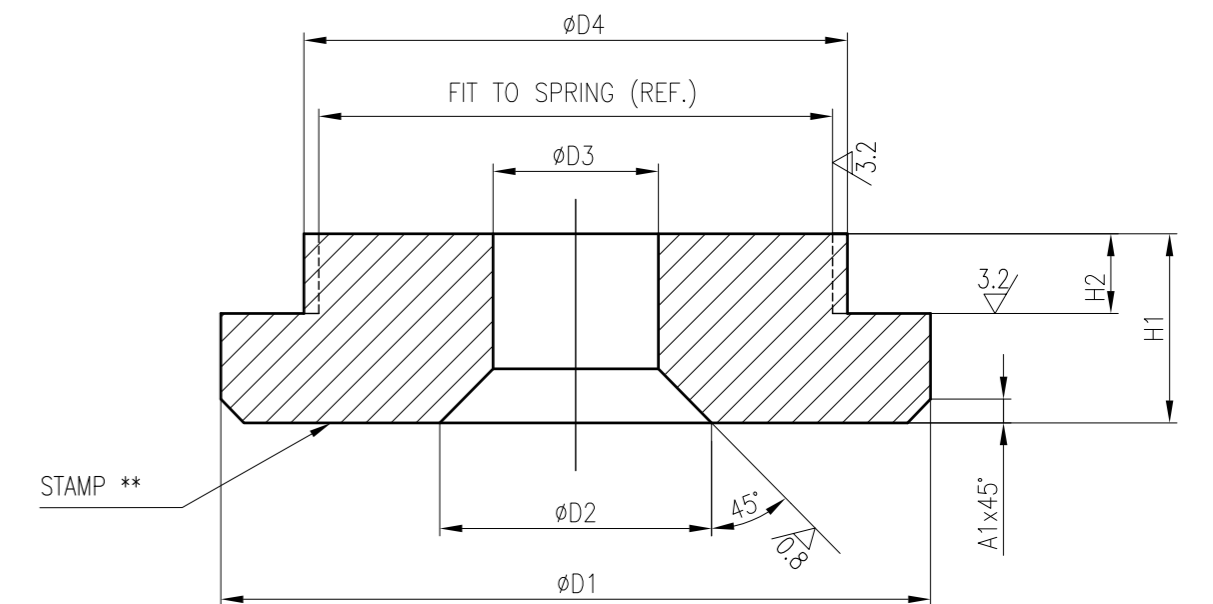


6.3 / 3.2 / 0.8

SNO	DRAWING NO	COMPONENT CODE	DIMENSIONS							MATERIAL SEPCIFICATION	RAW MATL SIZE	SCRAP SORT	STAMP **	WEIGHT KG	APPL. NOTES	REF DRAWING NO
			Ø D1	Ø D2	Ø D3	Ø D4	H1	H2	A1							
1	2-V-9001-11682/00	930750260000	32.0	20.6	12.7	32.0	12.7	6.3	0.8	A105, NR	Ø32X20	10	A105	0.04	1,2,3	4-V-9001-13065/02
2	2-V-92FS-11682/00	931750200000	32.0	20.6	12.7	32.0	12.7	6.3	0.8	F316, SA	Ø30X20	46	F316	0.04	1,2	4-V-8852-13065/02
3	2-V-9006-11682/00	930751160000	57.2	23.8	12.7	53.0	15.9	7.9	1.6	A105, NR	Ø60X23	10	A105	0.24	1,2,3	4-V-9006-13094/01
4	2-V-94FS-11682/00	930764250000	57.2	23.8	12.7	53.0	15.9	7.9	1.6	F316, SA	Ø60X23	46	F316	0.24	1,2	4-V-8824-13094/01
5	2-V-9007-11682/00	930751490000	85.7	27.0	15.9	58.0	19.1	9.5	3.2	A105, NR	Ø90X30	10	A105	0.8	1,2,3	4-V-9007-13073/01
6	2-V-8821-11682/00	930764150000	85.7	27.0	15.9	58.0	19.1	9.5	3.2	F316, SA	Ø90X30	46	F316	0.8	1,2	4-V-8821-13073/01
7	2-V-9008-11682/00	930751520000	79.4	31.8	15.9	73.0	19.1	9.5	3.2	A105, NR	Ø80X27	10	A105	0.68	1,2,3	4-V-9008-13085/02
8	2-V-9010-11682/00	930752130000	88.9	31.8	17.5	73.0	23.0	11.1	3.2	A105, NR	Ø100X34	10	A105	0.74	1,2,3	4-V-9010-13105/02
9	2-V-8820-11682/00	930764100000	88.9	31.8	17.5	73.0	23.0	11.1	3.2	F316, SA	Ø100X34	46	F316	0.74	1,2	4-V-8820-13105/02
10	2-V-9011-11682/00	930752320000	108.0	36.5	27.0	73.0	25.4	12.7	4.8	A105, NR	Ø110X37	10	A105	1.24	1,2,3	4-V-9011-13113/02
11	2-V-8814-11682/00	930762410000	108.0	36.5	27.0	73.0	25.4	12.7	4.8	F316, SA	Ø110X37	46	F316	1.24	1,2	4-V-8814-13113/02
12	2-V-9013-11682/00	930752830000	125.0	36.5	23.8	108.0	31.8	15.9	3.0	A105, NR	Ø125X44	10	A105	2.19	1,2,3	4-V-9013-13038/02
13	2-V-8819-11682/00	930764070000	125.0	36.5	23.8	108.0	31.8	15.9	3.0	F316, SA	Ø125X44	46	F316	2.19	1,2	4-V-8819-13038/02
14	2-V-9029-11682/00	930753710000	44.5	20.6	12.7	38.1	12.7	6.4	2.4	A105, NR	Ø50X20	10	A105	0.08	1,2,3	4-V-9029-13059/01
15	2-V-93FS-11682/00	931750150000	44.5	20.6	12.7	38.1	12.7	6.4	2.4	F316, SA	Ø50X20	46	F316	0.08	1,2	4-V-8851-13059/01
16	2-V-93GM-11682/00	931757770000	44.5	20.6	12.7	38.1	12.7	6.4	2.4	MONEL K500	Ø50X20	60	K500	0.1	1,2	4-V-8800-13059/01
17	2-V-9035-11682/00	930755040000	79.4	31.8	17.5	73.0	22.2	11.1	3.2	A105, NR	Ø80X30	10	A105	0.71	1,2,3	4-V-9035-13098/01
18	2-V-8826-11682/00	930764290000	79.4	31.8	17.5	73.0	22.2	11.1	3.2	F316, SA	Ø80X30	46	F316	0.71	1,2	4-V-8826-13098/01
19	2-V-9036-11682/00	930755230000	95.3	36.5	22.2	73.0	25.4	12.7	3.2	A105, NR	Ø100X36	10	A105	1.01	1,2,3	4-V-9036-13088/01
20	2-V-8815-11682/00	930760890000	95.3	36.5	22.2	73.0	25.4	12.7	3.2	F316, SA	Ø100X36	46	F316	1.01	1,2	4-V-8815-13088/01
21	2-V-9038-11682/00	930755420000	114.3	36.5	22.2	93.0	28.6	14.3	6.4	A105, NR	Ø125X41	10	A105	1.93	1,2,3	4-V-9038-13104/01
22	2-V-8881-11682/00	931757080000	114.3	36.5	22.2	93.0	28.6	14.3	6.4	F316, SA	Ø125X41	46	F316	1.93	1,2	4-V-8881-13104/01
23	2-V-9040-11682/00	930755630000	177.8	47.6	25.4	137.0	44.5	22.2	6.4	A515GR70, NR	PL:184X184X45t	10	GR70	6.38	1,2,3	4-V-9040-13118/04
24	2-V-8827-11682/00	931750980000	177.8	47.6	25.4	137.0	44.5	22.2	6.4	F316, SA	Ø180X60	46	F316	6.38	1,2	4-V-8827-13118/01
25	2-V-9051-11682/00	930755820000	133.4	44.5	25.4	93.0	38.1	19.0	6.4	A105, NR	Ø135X50	10	A105	2.94	1,2,3	4-V-9051-13102/01
26	2-V-9605-11682/00	930756050000	63.5	27.0	15.9	48.0	19.1	9.5	3.2	A105, NR	Ø65X23	10	A105	0.4	1,2,3	4-V-9605-13271/02
27	2-V-94HS-11682/00	931751160000	63.5	27.0	15.9	48.0	19.1	9.5	3.2	F316, SA	Ø65X23	46	F316	0.4	1,2	4-V-8855-13271/02
28	2-V-9456-11682/00	930757560000	177.8	57.2	25.4	137.0	44.5	22.2	6.4	A105, NR	Ø180X51	10	A105	6.38	1,2,3	4-V-9456-13152/02
29	2-V-9075-11682/00	930760150000	69.9	31.8	17.5	58.0	25.4	12.7	4.8	A105, NR	Ø90X40	10	A105	0.53	1,2,3	4-V-9075-13267/01
30	2-V-8816-11682/00	930760960000	69.9	31.8	17.5	58.0	25.4	12.7	4.8	F316, SA	Ø90X40	46	F316	0.53	1,2	4-V-8816-13267/01
31	2-V-9052-11682/00	930760780000	152.4	47.6	25.4	108.0	38.1	19.1	6.4	A105, NR	Ø165X52	10	A105	4.0	1,2,3	4-V-9052-13273/01
32	2-V-9014-11682/00	930764740000	152.4	52.4	25.4	130.0	28.6	12.7	6.4	A105, NR	Ø154X43	10	A105	3.2	1,2,3	4-V-9014-13187/01
33	2-V-81TS-11682/00	931761890000	152.4	52.4	25.4	130.0	28.6	12.7	6.4	F316, SA	Ø154X43	46	F316	3.2	1,2	4-V-81TS-13187/00
34	2-V-9077-11682/00	931759690000	101.6	44.5	25.4	73.0	31.8	15.9	3.2	A105, NR	Ø105X44	10	A105	1.2	1,2,3	4-V-9077-13614/00
35	2-V-9173-11682/00	930761310000	85.7	31.8	22.2	73.0	19.1	9.5	4.8	A105, NR	Ø90X30	10	A105	0.56	1,2,3	4-V-9173-13355/01
36	2-V-9150-11682/00	931763560000	95.3	36.5	22.2	73.0	25.4	12.7	3.2	A105, NR	Ø100X30	10	A105	1.01	1,2,3	4-V-9150-13764/00
37	2-V-9837-11682/00	931760630000	22.1	8.64	5.8	12.5	7.9	3.8	0.8	A105, NR	Ø25X20	10	A105	0.01	1,2,3	4-V-9837-13669/00
38	2-V-8899-11682/00	931760770000	22.1	8.64	5.8	12.5	7.9	3.8	0.8	F316, SA	Ø25X20	46	F316	0.01	1,2	4-V-8800-13669/00
39	2-V-9105-11682/00	930760320000	44.5	28.6	17.5	38.1	15.9	6.4	1.6	A105, NR	Ø50X23	10	A105	0.13	1,2,3	4-V-9105-13245/01
40	2-V-9185-11682/00	931759220000	88.9	36.5	25.4	73.0	22.2	11.1	4.8	A105, NR	Ø95X30	10	A105	0.9	1,2,3	4-V-9185-13598/01
41	2-V-8838-11682/00	930765460000	69.9	38.1	25.4	58.0	25.4	12.7	4.8	A105, NR	Ø75X40	10	A105	0.5	1,2,3	4-V-8838-13425/02
42	2-V-8845-11682/00	930764450000	57.2	28.6	17.5	53.0	15.9	7.9	1.6	A105, NR	Ø60X30	10	A105	0.2	1,2,3	4-V-8845-13423/02
43	2-V-8840-11682/00	930764440000	32.0	25.4	17.5	32.0	12.7	6.4	1.6	A105, NR	Ø40X20	10	A105	0.04	1,2,3	4-V-8840-13418/02
44	2-V-8852-11682/00	931750230000	32.0	25.4	17.5	32.0	12.7	6.4	1.6	F316, SA	Ø40X20	46	F316	0.04	1,2	4-V-8852-13418/02
45	2-V-9145-11682/00	930761280000	57.2	25.4	17.5	53.0	15.9	8.0	2.4	A105, NR	Ø63X30	10	A105	0.2	1,2,3	4-V-9145-13330/02
46	2-V-8824-11682/00	930764260000	57.2	25.4	17.5	53.0	15.9	8.0	2.4	F316, SA	Ø63X30	46	F316	0.2	1,2	4-V-8824-13330/01
47	2-V-9131-11682/00	930761240000	44.5	25.4	17.5	38.1	12.7	6.4	2.4	A105, NR	Ø50X20	10	A105	0.11	1,2,3	4-V-9131-13359/01
48	2-V-8851-11682/00	931750160000	44.5	25.4	17.5	38.1	12.7	6.4	2.4	F316, SA	Ø50X20	46	F316	0.11	1,2	4-V-8851-13359/01
49	2-V-8800-11682/00	931757780000	44.5	25.4	17.5	38.1	12.7	6.4	2.4	MONEL K500	Ø50X20	60	K500	0.11	1,2	4-V-8800-13359/01
50	2-V-8807-11682/00	930761030000	63.5	33.3	22.2	48.0	19.1	9.5	3.2	A105, NR	Ø65X30	10	A105	0.33	1,2,3	4-V-8807-13339/02
51	2-V-8855-11682/00	931751110000	63.5	33.3	22.2	48.0	19.1	9.5	3.2	F316, SA	Ø65X30	46	F316	0.33	1,2	4-V-8855-13339/01



NOTES:

1. DEBURR SHARP EDGES.
2. ANGLE TOLERANCE ±0.5°.
3. ALL SURFACES TO BE PHOSPHATED AS PER APPLICABLE QUALITY PROCEDURE.

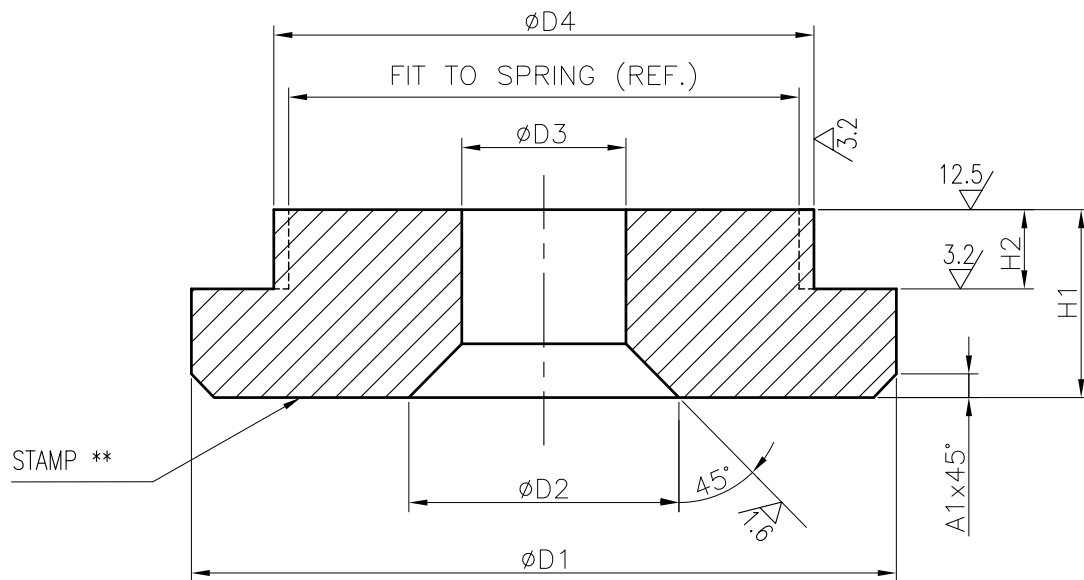
REV	DATE	ALTERED
		CHD & APPD
ZONE		

SL NO	DESCRIPTION	COMP. CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING NO.	ITEM NO.																				
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT SRV																													
<table border="1"> <tr> <td rowspan="3">                     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.                 </td> <td colspan="2">                     BHARAT HEAVY ELECTRICALS LTD.,                      UNIT: HIGH PRESSURE BOILER PLANT.                      TIRUCHIRAPALLI-620014.                 </td> <td>DRN</td> <td>NAME</td> <td>SIGN</td> <td>DATE</td> <td>NO. OF VAR.</td> </tr> <tr> <td>CHD</td> <td>S.M.LINGAM</td> <td></td> <td></td> <td>05.12.14</td> <td></td> </tr> <tr> <td>APPD</td> <td>E.ATHIANNANI</td> <td></td> <td></td> <td>05.12.14</td> <td></td> </tr> </table>										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.	BHARAT HEAVY ELECTRICALS LTD., UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI-620014.		DRN	NAME	SIGN	DATE	NO. OF VAR.	CHD	S.M.LINGAM			05.12.14		APPD	E.ATHIANNANI			05.12.14	
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.	BHARAT HEAVY ELECTRICALS LTD., UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI-620014.		DRN	NAME	SIGN	DATE	NO. OF VAR.																						
	CHD	S.M.LINGAM			05.12.14																								
	APPD	E.ATHIANNANI			05.12.14																								
DEPT	VL	SCALE	WEIGHT (KG).	REFERENCE INFORMATION			NO. OF ITEMS																						
CODE	340	NTS	--																										
TITLE	SPRING WASHER			CARD CODE	DRAWING NO.	REV																							
			U 01	2-V-0000-11682			00																						

DRAWING NO. 3-V-0000-15894

6.3 / 12.5 3.2 1.6

S NO	DRAWING NO	COMPONENT CODE	SUB DELIVERY CODE	DIMENSIONS							MATERIAL SEPCIFICATION	RAW MATL SIZE	SCRAP SORT	STAMP**	WEIGHT KG	APPL. NOTES	REF DRAWING NO
				ØD1	ØD2	ØD3	ØD4	H1	H2	A1							
1	3-V-9704-15894	930756570000	--	50	19.1	12.7	31.8	12.7	4.8	1.6	SA105,NR	Ø50X20	10	A105	0.14	1,2,3	4-V-9704-13018/02
2	3-V-9753-15894	930757390000	964162760000	19	11.5	7.9	12.52	6.4	3.2	0.8	SA105,NR	Ø20X13	10	A105	0.01	1,2,3	4-V-9753-13012/02
3	3-V-8822-15894	930764190000	--	19	11.5	7.9	12.52	6.4	3.2	0.8	F316,SA	Ø20X13	46	F316	0.01	1,2	4-V-8822-13012/02
4	3-V-8890-15894	931757320000	--	19	11.5	7.9	12.52	6.4	3.2	0.8	MONEL K500	Ø20X13	60	K500	0.01	1,2	4-V-8800-13012/01
5	3-V-9801-15894	931755420000	964162770000	31.8	11.4	7.9	17.8	9.4	4.8	1.6	SA105,NR	Ø32X16	10	A105	0.03	1,2,3	4-V-9801-13523/02
6	3-V-8868-15894	931755460000	--	31.8	11.4	7.9	17.8	9.4	4.8	1.6	F316,SA	Ø32X16	46	F316	0.03	1,2	4-V-8868-13523/01
7	3-V-9803-15894	931755590000	964162810000	50.8	15.9	11.1	31.35	12.7	4.8	3.2	SA105,NR	Ø52X20	10	A105	0.14	1,2,3	4-V-9803-13525/01
8	3-V-9870-15894	931755690000	964162800000	19.1	11.5	7.9	12.5	6.4	3.2	0.8	SA105,NR	Ø20X13	10	A105	0.01	1,2,3	4-V-9870-13527/01
9	3-V-8871-15894	931755700000	964162790000	19.1	11.5	7.9	12.5	6.4	3.2	0.8	F316,SA	Ø20X13	46	F316	0.01	1,2	4-V-8871-13527/01
10	3-V-9812-15894	931755860000	964162780000	34.9	11.5	7.9	22.2	9.5	4.7	1.6	SA105,NR	Ø36X16	10	A105	0.05	1,2,3	4-V-9812-13526/00
11	3-V-8870-15894	931755870000	--	34.9	11.5	7.9	22.2	9.5	4.7	1.6	F316,SA	Ø40X16	46	F316	0.05	1,2	4-V-8870-13526/00



**NOTES:**

1. DEBURR SHARP EDGES.
2. ANGLE TOLERANCE ±0.5°.
3. ALL SURFACES TO BE PHOSPHATED AS PER APPLICABLE QUALITY PROCEDURE.

NO OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No
									017

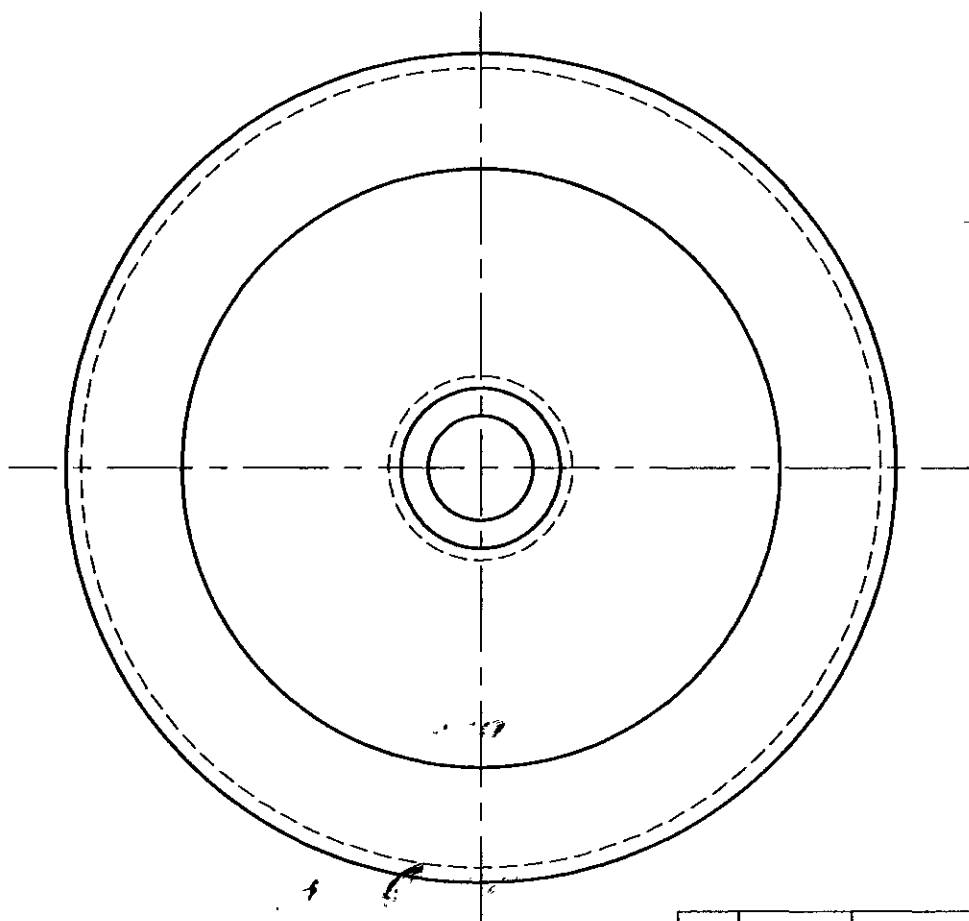
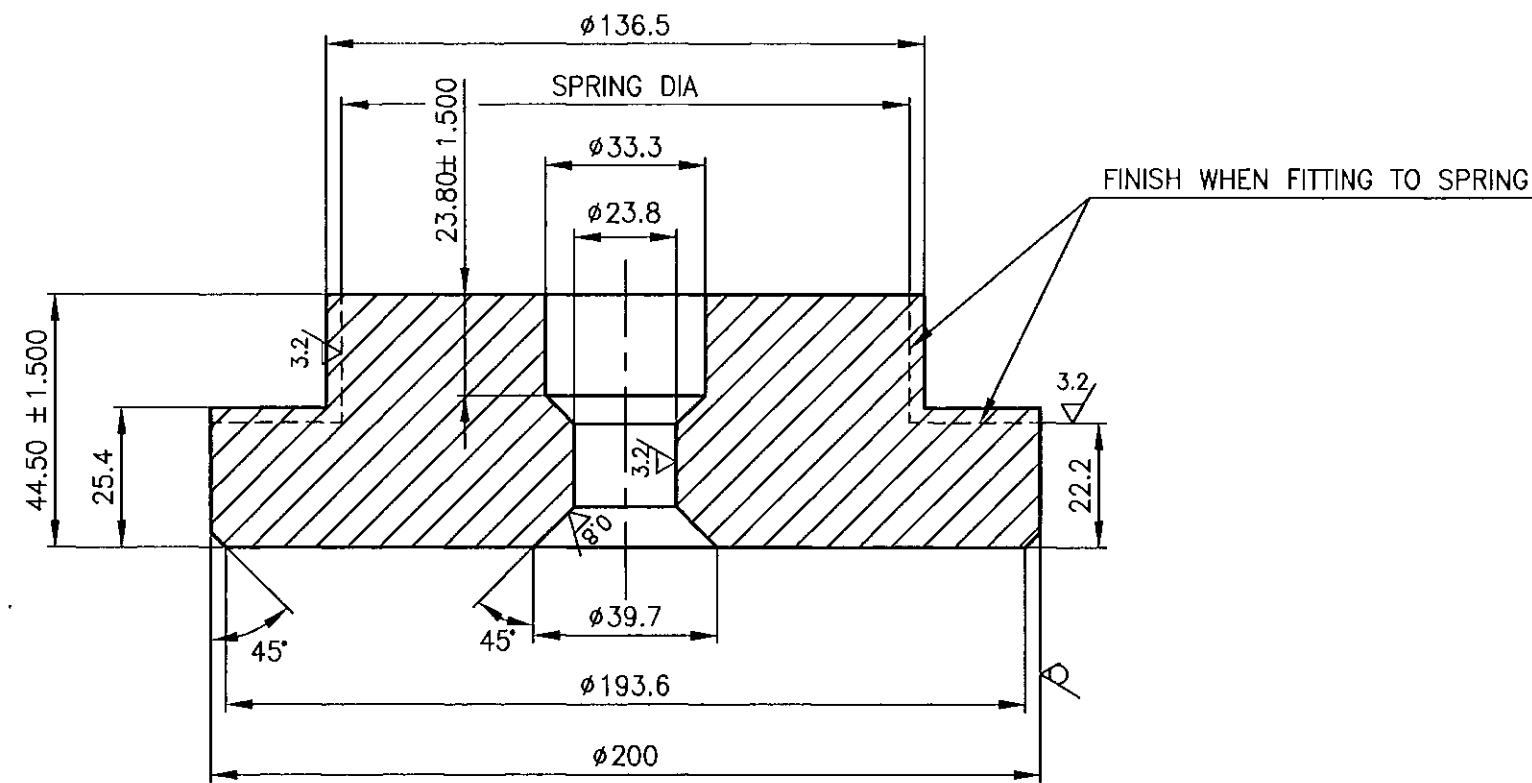
CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		SRV							
BHARAT HEAVY ELECTRICALS LTD., UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI-620014.	DRN	NAME	SIGN	DATE	NO. OF VAR.				
	CHD	S.MADHULINGAM		21.03.15					
	APPD	E.ATHIANNAVI		21.03.15					
DEPT VL		SCALE	WEIGHT (KG).	REFERENCE INFORMATION		NO. OF ITEMS			
CODE 340		NTS							
TITLE			CARD CODE	DRAWING NO.		REV			
SPRING WASHER			U 01	3-V-0000-15894		00			

REV	DATE	ALTERED
		CHD & APPD

DRAWING NO. 3-V-7000-10005

6.3 / 0.8 3.2



**NOTES:-**

1. SHARP CORNERS TO BE REMOVED
2. UNSPECIFIED ANGLE TOLERANCE ±1/2°
3. PHOSPHATING AS PER LATEST APPLICABLE QUALITY PROCEDURE.

DRAWING RETRACED WITH REV No.01 ON 22-04-97

NO OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No.	ITEM No.
	φ200x50	15339283	SA105 CERTIFY	NORMALISED 150-190 BHN	10	7.9	15.6		016

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.

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		Bharat Heavy Electricals Ltd. (Logo)		DRN	NAME	SIGN	DATE	NO. OF VAR
		UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI-620014.		CHD	V.PERUMAL PILLAI	V. Perumal Pillai	22-4-97	
		365-121		APPD	K.NAGARAJAN	U.N.P.	22-4-97	
DEPT	VL	SCALE	WEIGHT (KG).	REFERENCE INFORMATION				NO. OF ITEMS
CODE	340	NTS	-	PART No:0087298/E.H509 DR.DRG No.T.6443-AF/SLNo827				
TITLE				CARD CODE	DRAWING NO.			REV
BOTTOM SPRING WASHER				U 01	3-V-7000-10005			02

REV	DATE	ALTERED
02	22-4-97	CHD & APPD V. Perumal Pillai

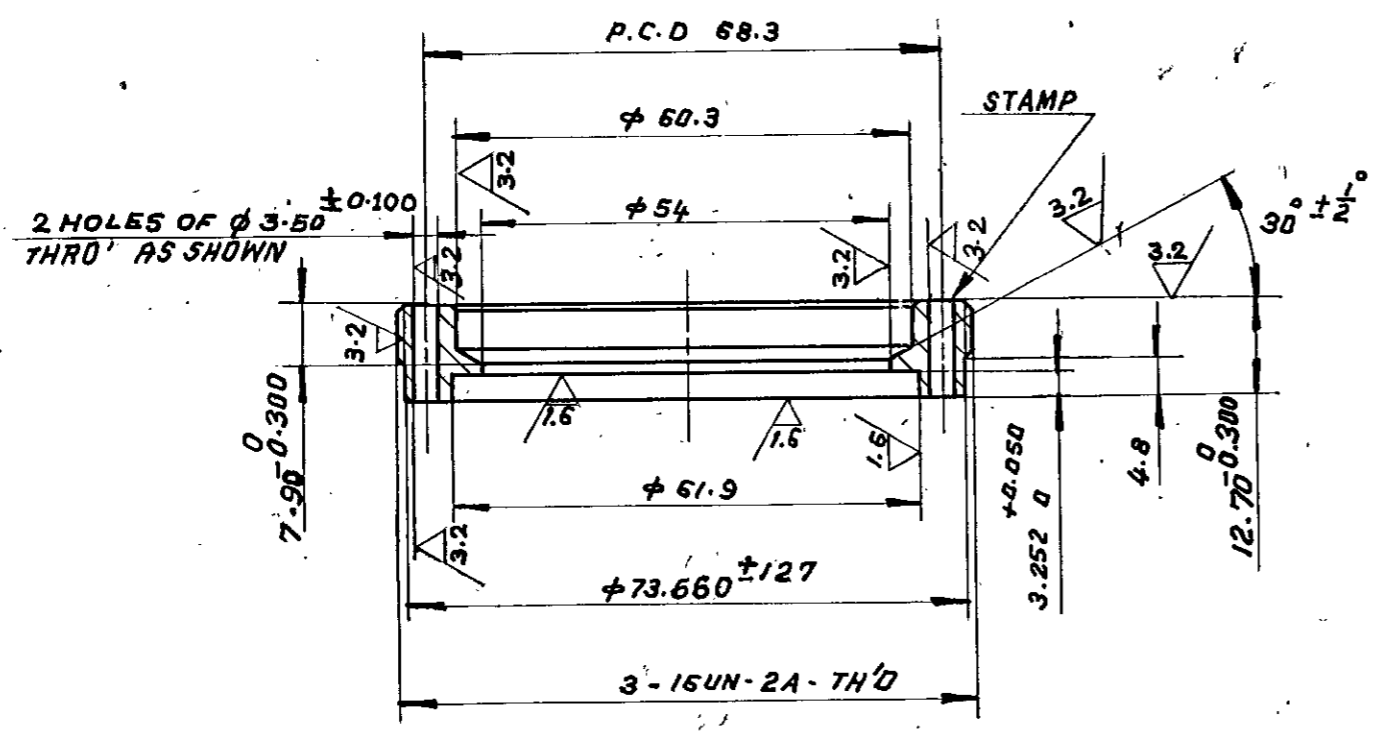
NOTES MODIFIED.  
DIM.φ200 & φ193.6  
WERE φ184.2 & φ177.8.  
DCN No:SV:0424.

COMP CODE: 930700110000

FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)

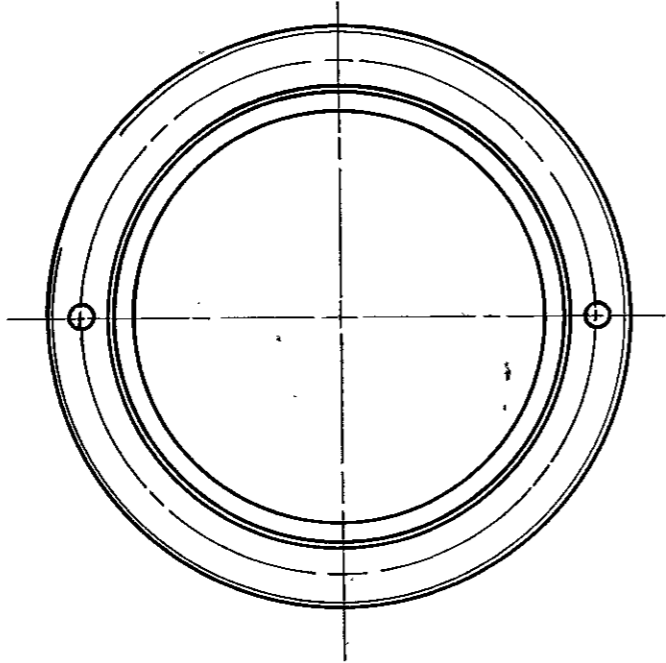
APPL. 1749 WA  
DRESSER 1759 WA  
TYPE No.

6.3 / 1.6 / 3.2



**NOTE :-**

1. SHARP CORNERS TO BE REMOVED.
2. 45° CHAMFER FIRST THREAD.



MICROFILMED ON 20.1.84  
ROLL 00532 FRAME 060

Φ120 x 35	15024 388	ASTM A 276 GR 410 COND-T. 24-29 AMENDED CERTIFY HRC	HPT	46	0.17	3-11	057		
No. OFF	DESCRIPTION	MATL. CODE	FINAL MATL	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRG No.	ITEM No.



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT	CODE	SCALE 1:1	WEIGHT (kg)	PART No. 6102501 DRESSER DRG No. 251025/CG 933	S/No. 685
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REV	DATE	ALTERED	CHECKED
01			

TITLE <b>WASHER RETAINER</b>				DRAWN	NAME	SIGN	DATE
				CHECKED	V.P	JA	16-6-79

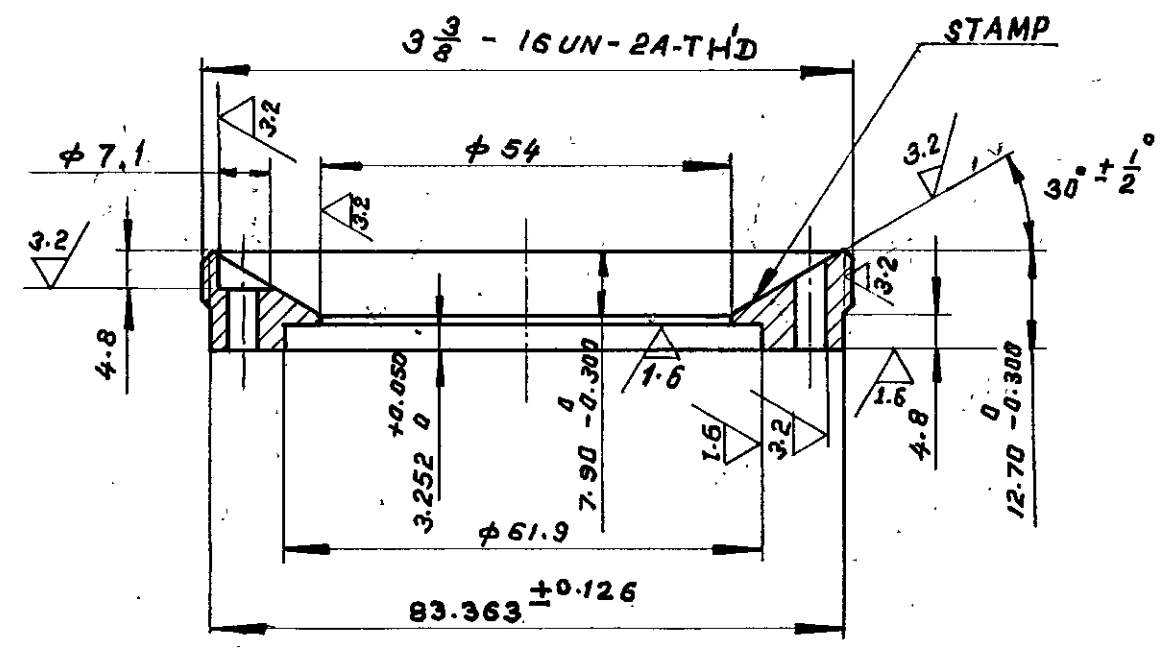
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE ± 0.25 mm UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE ±		CARD CODE	DRAWING No. <b>3-V-7000-10016</b>	15 16 REV 17
			1739 ND	No. OF SHEETS

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

FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)

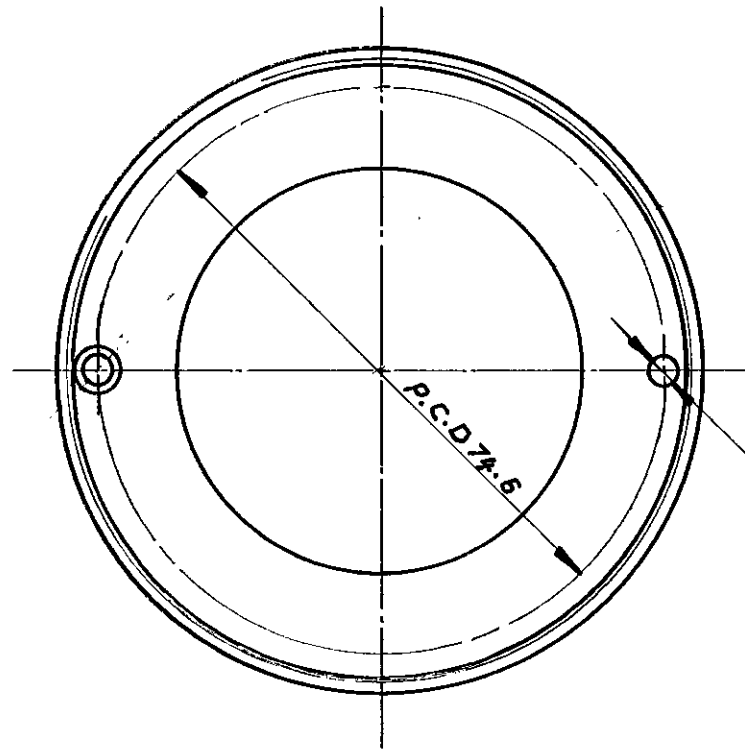
APPL DRESSER TYPE No. 1749 WA 1759 WA

6.3 / 3.2 / 1.6



**NOTE :-**

1. SHARP CORNERS TO BE REMOVED.
2. 45° CHAMFER FIRST THREAD.



DRILL  $\phi 3.50 \pm 0.100$  THRO' TWO PLACES AS SHOWN

MICROFILMED ON  
ROLL FRAME 2711

1	$\phi 120 \times 35$	15 024 388	ASTM A276 GR 410 COND. 7 AMENDED CERTIFY	HPT 24-29 HRC	46	0-22	3-11	062
NO. OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WE (kg)	GROSS WE (kg)	ITEM No.



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620 014

DEPT	CODE	SCALE	WEIGHT (kg)	PART No. 1574401/CD 271	SINo.
		1:1		DRESSER DRG-NR-215744/689	

REV	DATE	ALTERED	CHECKED
01			

TITLE				NAME	SIGN	DATE
<b>WASHER RETAINER</b>				DRAWN	M.T.RAO	17/2/79
				CHECKED	V.P.	15-6-29

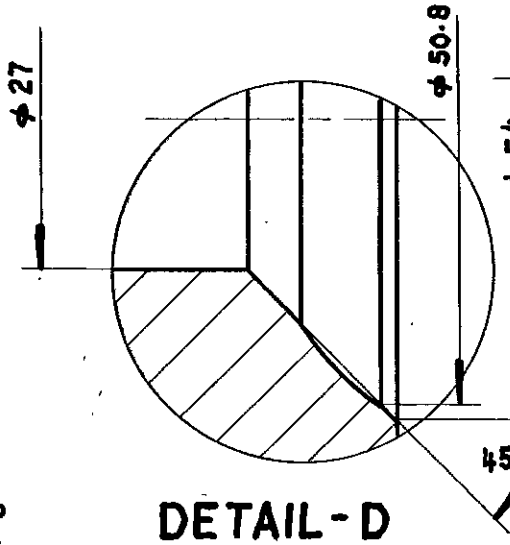
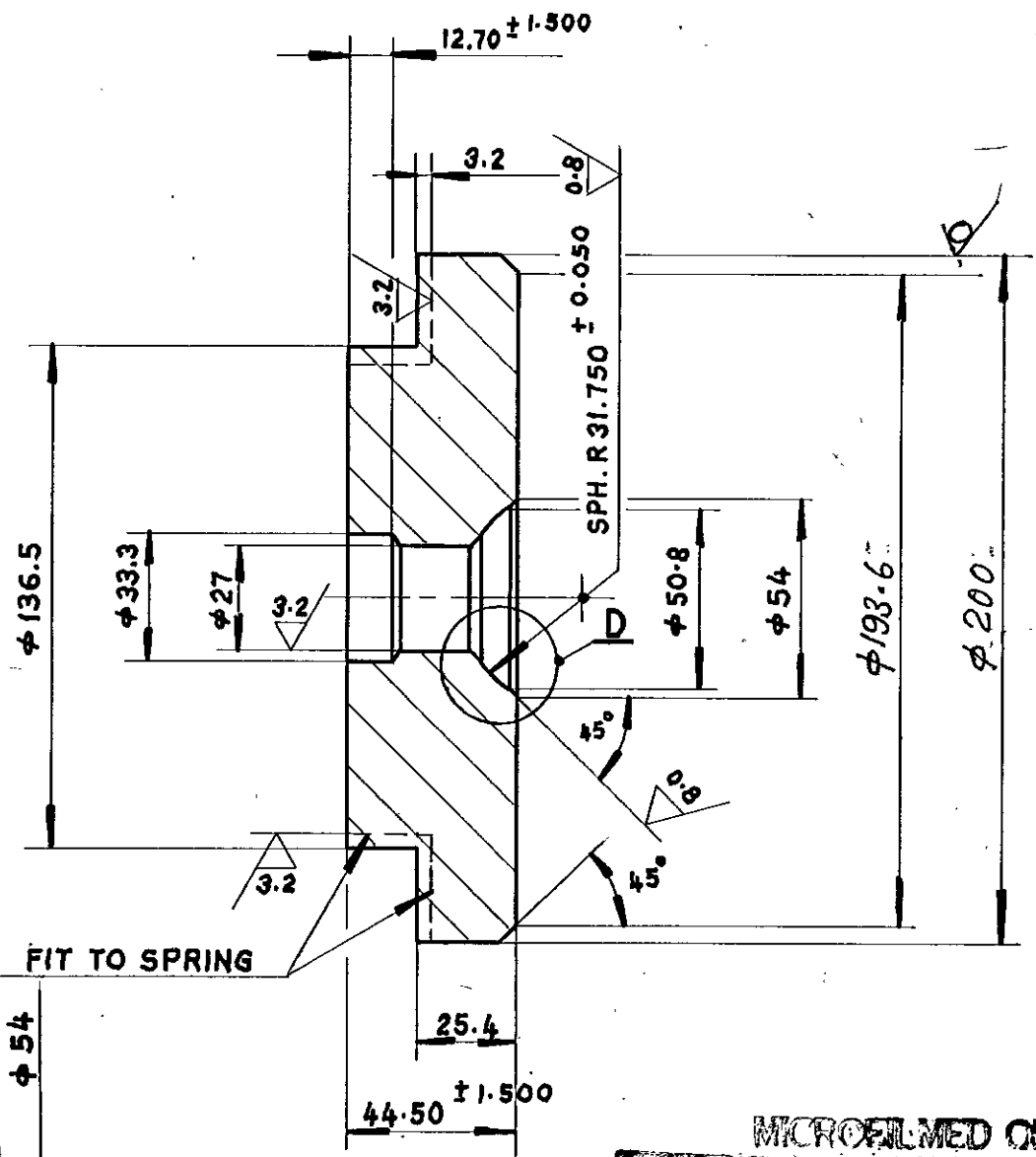
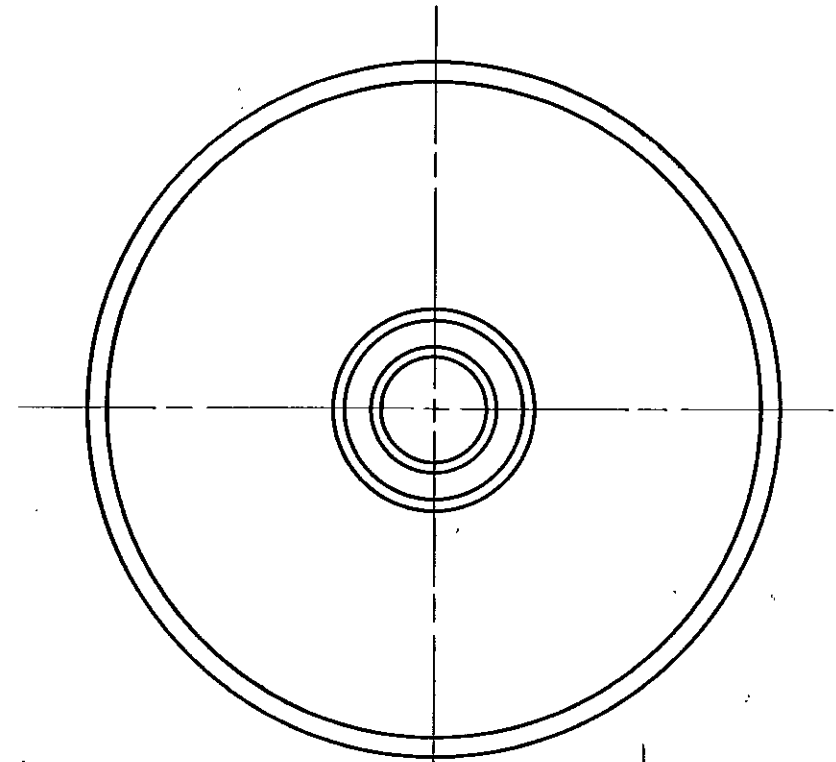
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE $\pm 0.25$ mm UNLESS OTHERWISE SHOWN. NON-MACHINING TOLERANCE $\pm$		CARD CODE	DRAWING No. 3-V-7000-10019	15 16 REV 17
			1739 WD	No. OF SHEETS

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02 3-V-7000-10169

6.3 / 3.2 / 0.8

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MICROFILMED ON 20-1-74  
ROLL 055215

**NOTE:-**

1. SHARP CORNERS TO BE REMOVED.
2. UNSPECIFIED ANGLE TOLERANCES ± 1/2°

No. OFF	DESCRIPTION	MATL CODE	FINAL MATL	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No.	ITEM No.
	φ 200x50	15339283	SA 105 CERTIFY	NORMALISED 150-190 BHN	10	7.1	15.6		013

**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620 014

DEPT VL	CODE 340	SCALE NTS	WEIGHT (kg) 6.56	DR.DRG No. 3VGG 907/ CN 573	Sl No. 875
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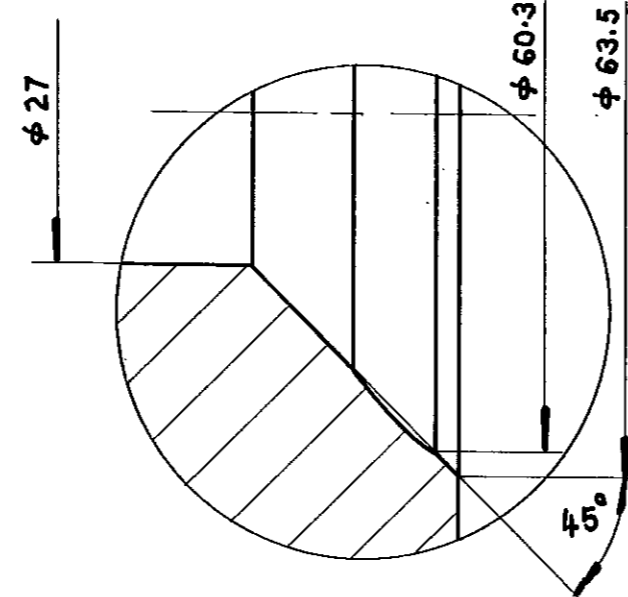
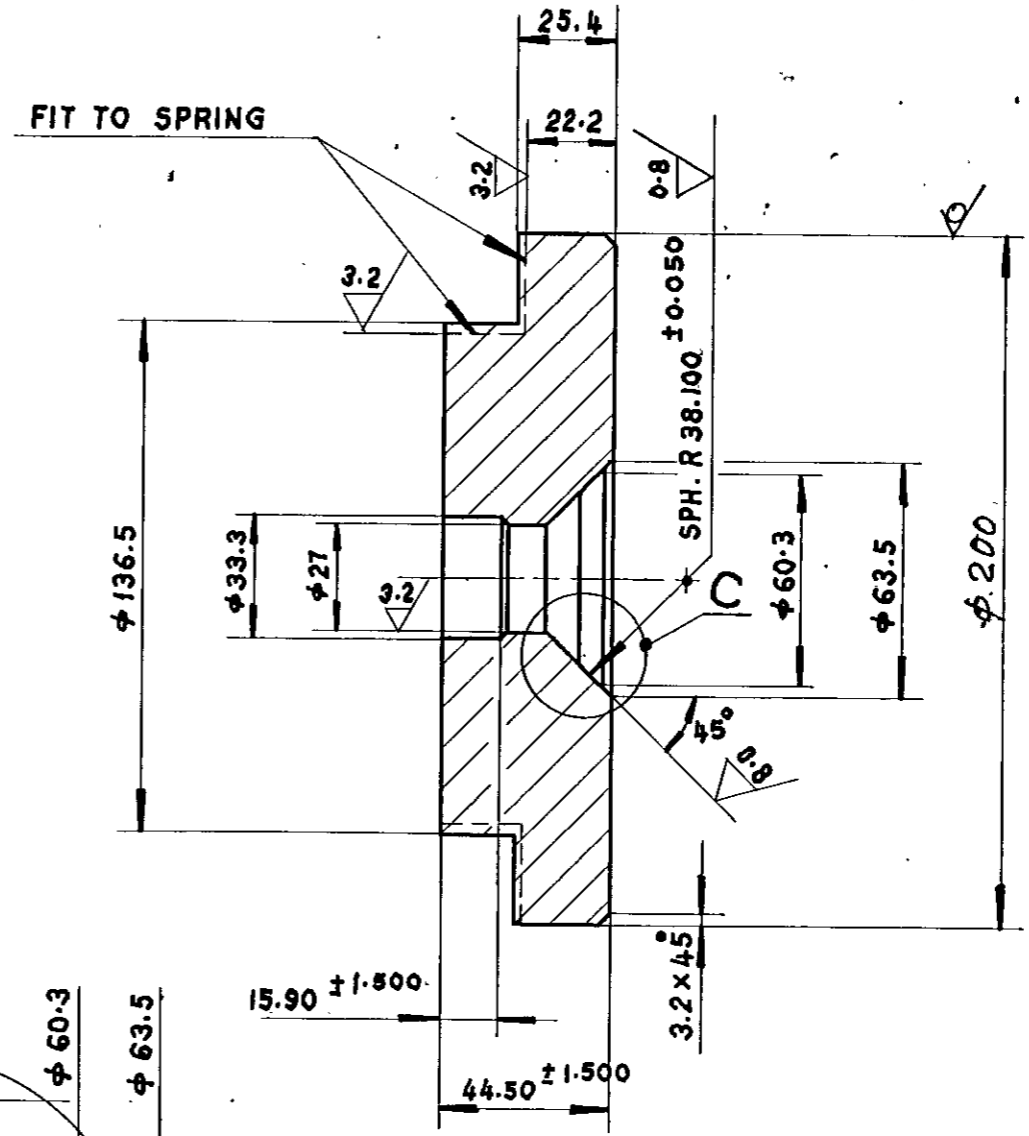
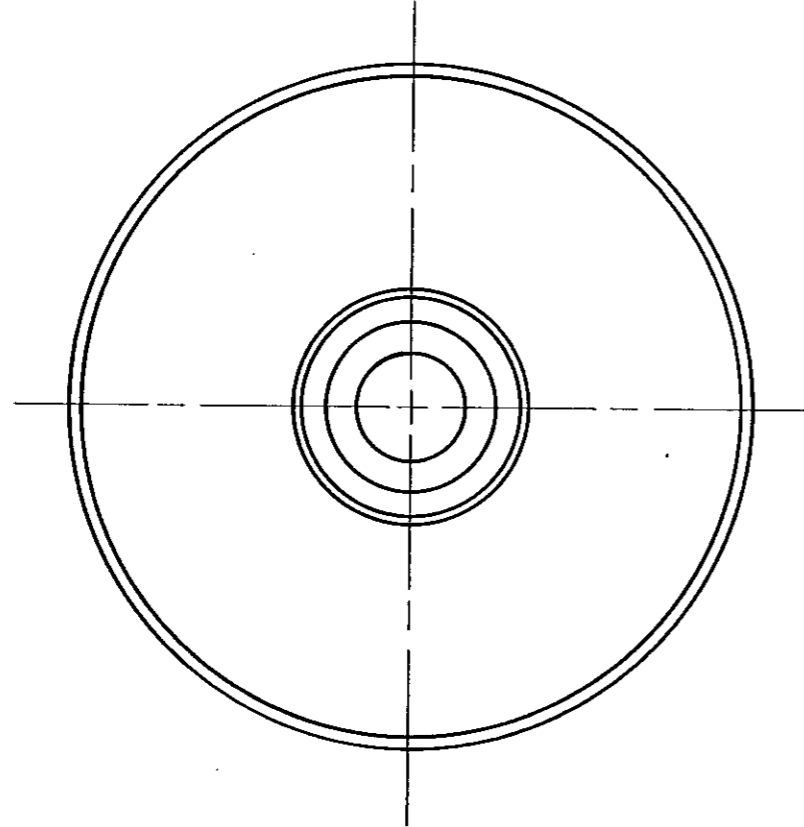
TITLE		DRAWN		SIGN		DATE	
<b>TOP SPRING WASHER</b>		T.R		[Signature]		30-11-79	
		CHECKED		SIGN		DATE	
		VL		[Signature]		20-11-79	
				JA		20-11-79	

REV 02	DATE 22.4.97	ALTD: CHD PAPPD V. P. [Signature]	REV 01	DATE 17-3-86	ALTERED [Signature]	CHECKED [Signature]
DIMN. φ 200 & φ 193.6 WERE φ 184.2 & φ 174.6			DESCRIPTION, MATL. CODE, FINAL MATL & GROSS WT. CHANGED.			
DCN. NO. SV: 0424						

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE ± 0.35 mm UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE ±		CARD CODE	DRAWING No. 3-V-7000-10169	15 16 REV 17
			1739 WD	02

02 3-V-7001-10170

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**NOTE:-**

1. SHARP CORNERS TO BE REMOVED.
2. UNSPECIFIED ANGLE TOLERANCES  $\pm 1/2^\circ$

MICROFILMED ON 20-1-84  
ROLL 005321 TIME 1412

	$\phi 200 \times 50$	15339 283	SA 105 CERTIFY	NORMALISED 150-190 BHN	10	7.8	15.6		013
No. OFF	DESCRIPTION	MATL CODE	FINAL MATL	HEAT TREATMENT	SCRAP SORT	NET Wt (kg)	GROSS Wt (kg)	DRG No.	ITEM No.

**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT VL	CODE 340	SCALE N.T.S.	WEIGHT (kg.)	DR. DRG No. 3VGG907/CUI10	Sl. No. 869
				PART No. YGG907A	

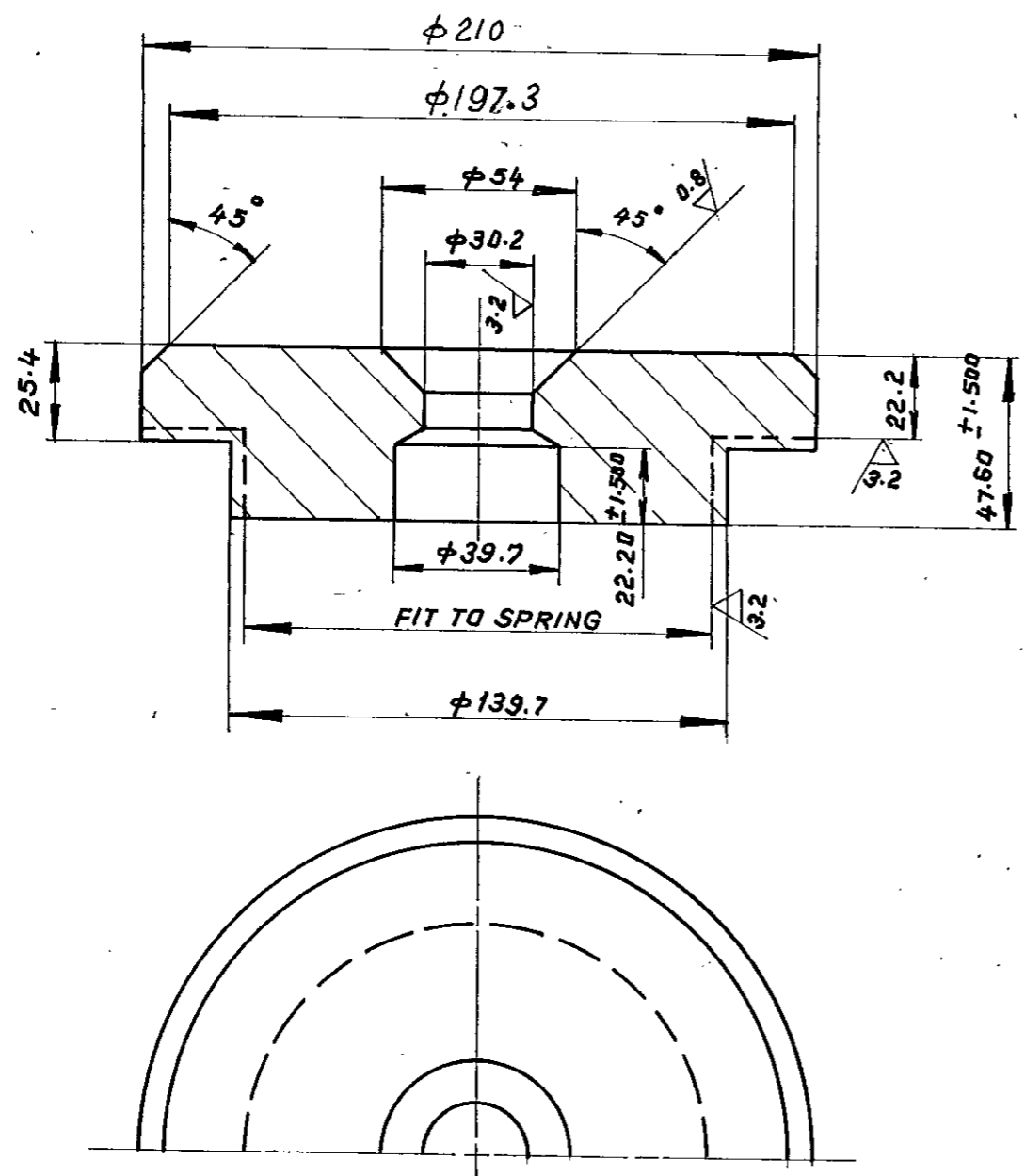
<b>TOP SPRING WASHER</b>				NAME T.R.	SIGN	DATE 20-12-79
				CHECKED VA		DATE 20-12-79
				JA		DATE 20-12-79

REV 02	DATE 22-4-97	ALTD: <i>fm</i>	REV 01	DATE 17-3-86	ALTERED <i>Chung</i>	CHECKED <i>VE</i>
DIM. $\phi 200$ WAS $\phi 184.2$			DESCRIPTION, MATL. CODE, FINAL MATL. & GROSS WT. CHANGED.			
DCN.No. SV: 0424.						

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE $\pm 0.25$ mm UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE $\pm$	CARD CODE	DRAWING No. 3-V-7001-10170	15 16 REV 17 02
		1749WB	No. OF SHEETS

6.3 / 3.2 / 0.8

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**NOTE:-**

1. SHARP CORNERS TO BE REMOVED.
2. UNSPECIFIED ANGLE TOLERANCE  $\pm \frac{1}{2}^\circ$
3. PHOSPHATING AS PER LATEST APPLICABLE QUALITY PROCEDURE.

MICROFILMED ON 20.1.84

ROLL 00537 FOMME CLR

PL	$t = 50$	15042119	SA 515 G.Y. 70 CERTIFY	NORMALISED ID	8.7	18.9		016
NO OFF	DESCRIPTION	MATL. CODE	FINAL. MATL.	HEAT TREATMENT	SCRAP SORT	NET WE (KG)	GROSS WE (KG)	DRG. NO.



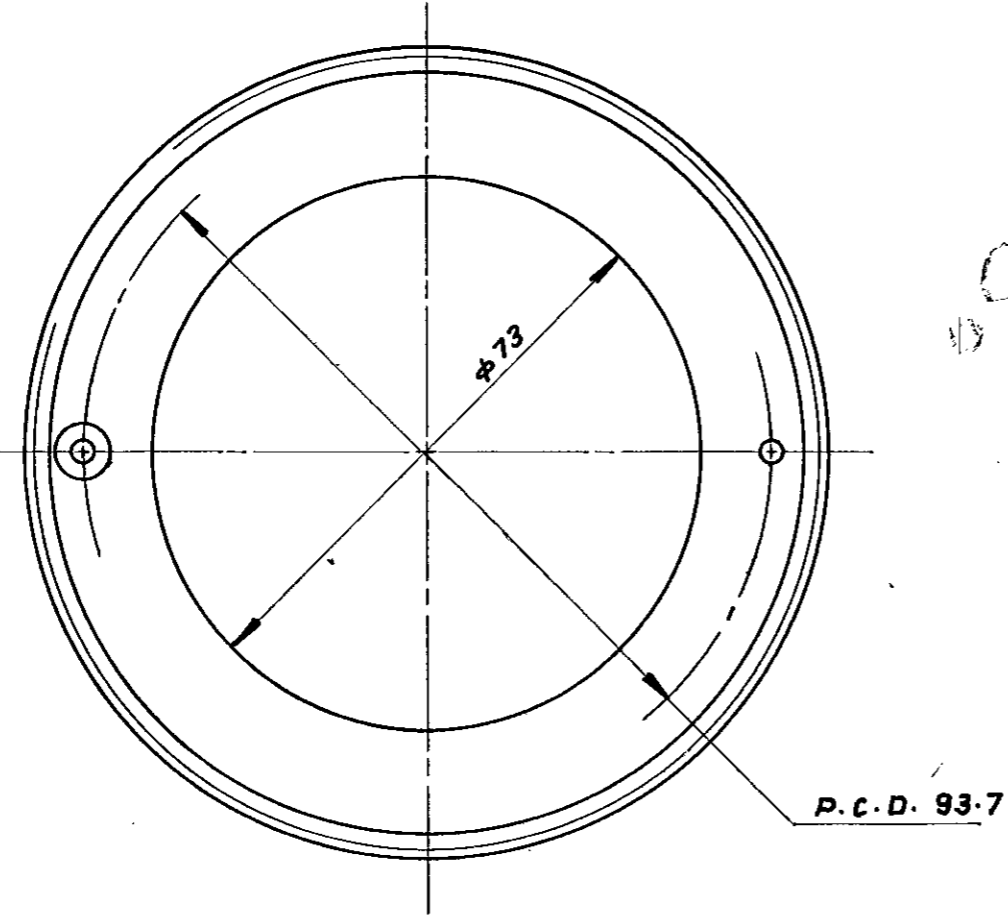
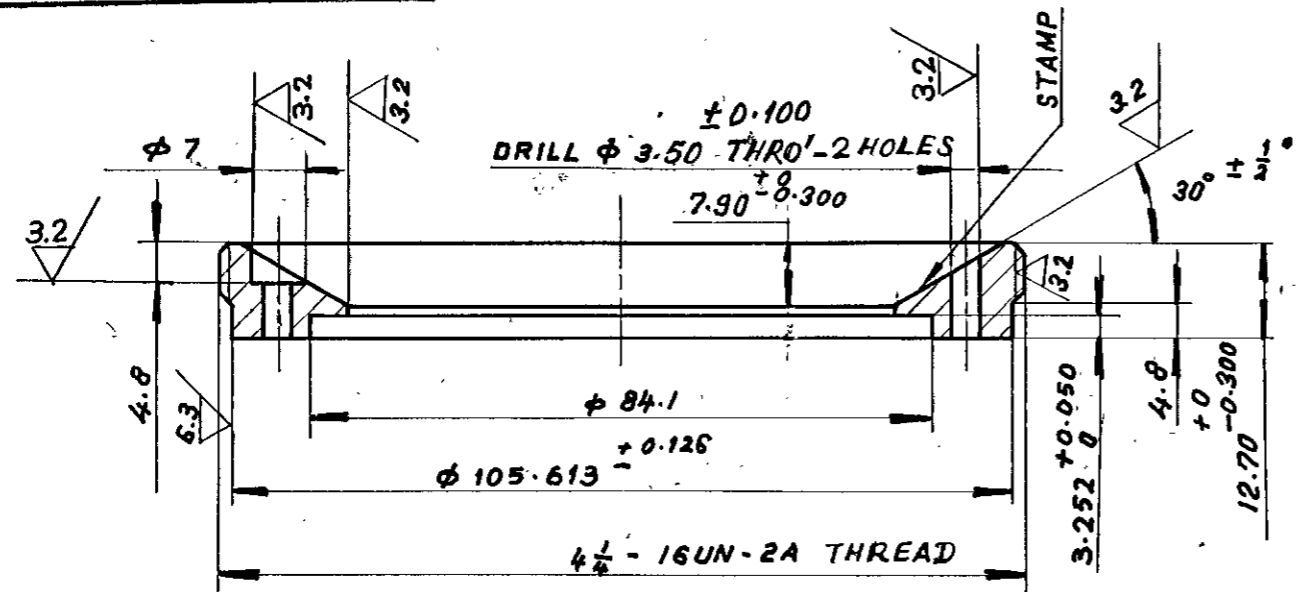
**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT	VL	CODE	340	SCALE	NTS	WEIGHT (kg.)	PART No. VAP906	SL No. 758
							DRESSER DRG No. 2VAP906/1625	
TITLE				<b>BOTTOM SPRING WASHER</b>				
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE $\pm 0.25$ mm UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE $\pm$				CARD CODE	DRAWING No.		15 16 REV 17	
					<b>3-V-7002-10063</b>		02	
					1715 QWA		No. OF SHEETS	

REV	DATE	ALTD:	REV	DATE	ALTERED
02	22-6-97	CHO & APPD: V. Pankaj	01	24/4/86	Checked
NOTES MODIFIED. DIM. $\phi 210$ & $197.3$ WERE $\phi 190.5$ & $177.8$ . MATL. SA 515 G.Y. 70 WAS SA 105 DCN. No. 8Y: 0424			DESCRIPTION, MATL. CODE, FINAL MATL. & GROSS WT. CHANGED.		

FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)

APPLICABLE 4" - 1705 WA, 1705 RND  
DRESSER 4" - 1775 BWB, 1775 WA  
TYPE NoS. 4" - 1775 BWD



**NOTE :-**

1. SHARP CORNERS TO BE REMOVED.
2. 45° CHAMFER FIRST THREAD.

MICROFILMED ON 20.1.84  
ROLL 00533 FRAME 009

φ 120 x 25	150 24 388	ASTM A276 GR 410. COM-7 HPT 24-29 HRC	46	0.4	2.2	057			
NO. OF PIECES	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRG No.	ITEM No.



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT	CODE	SCALE 1:1	WEIGHT (kg.)	PART No. 1606901	SINo. 660
				DR-DRS. No. 216069/CY797	

REV	DATE	ALTERED	CHECKED
01			

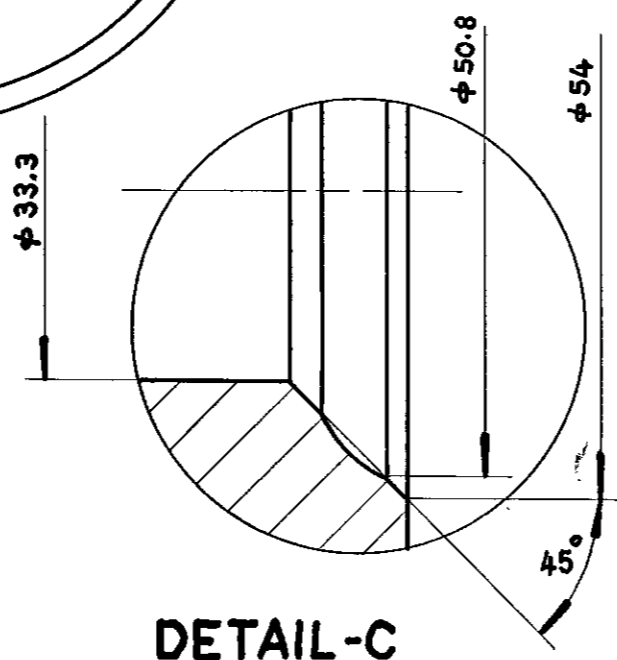
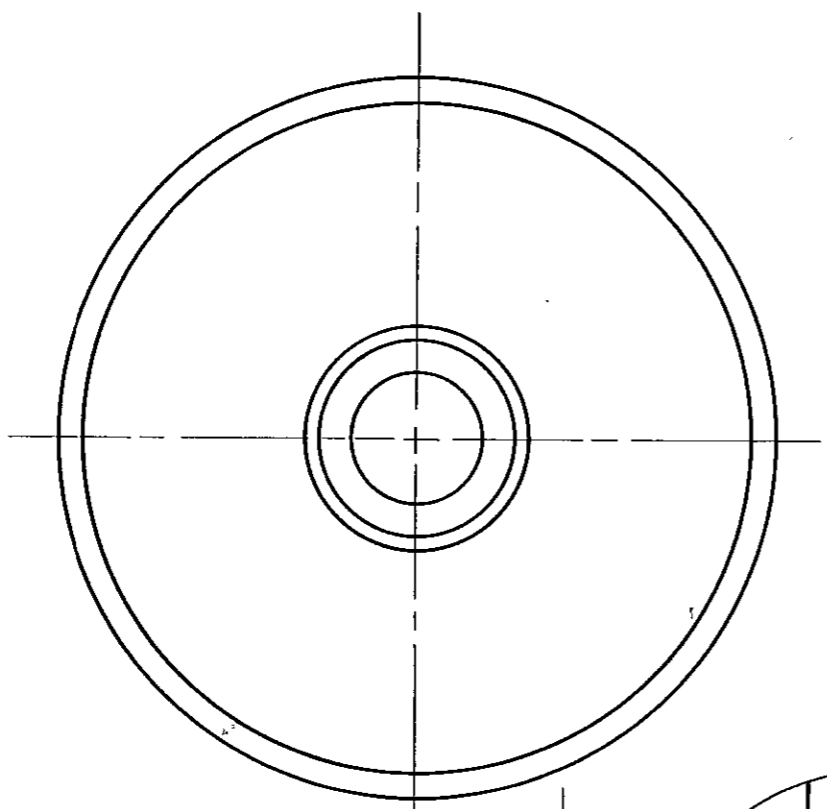
TITLE		DRAWING No.		15 16 REV 17	
<b>WASHER RETAINER</b>		<b>3-V-7002-10074</b>			
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE ± 0.25 mm UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE ±		CARD CODE	1775 BWA		No. OF SHEETS

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3-V-7002-10171/02

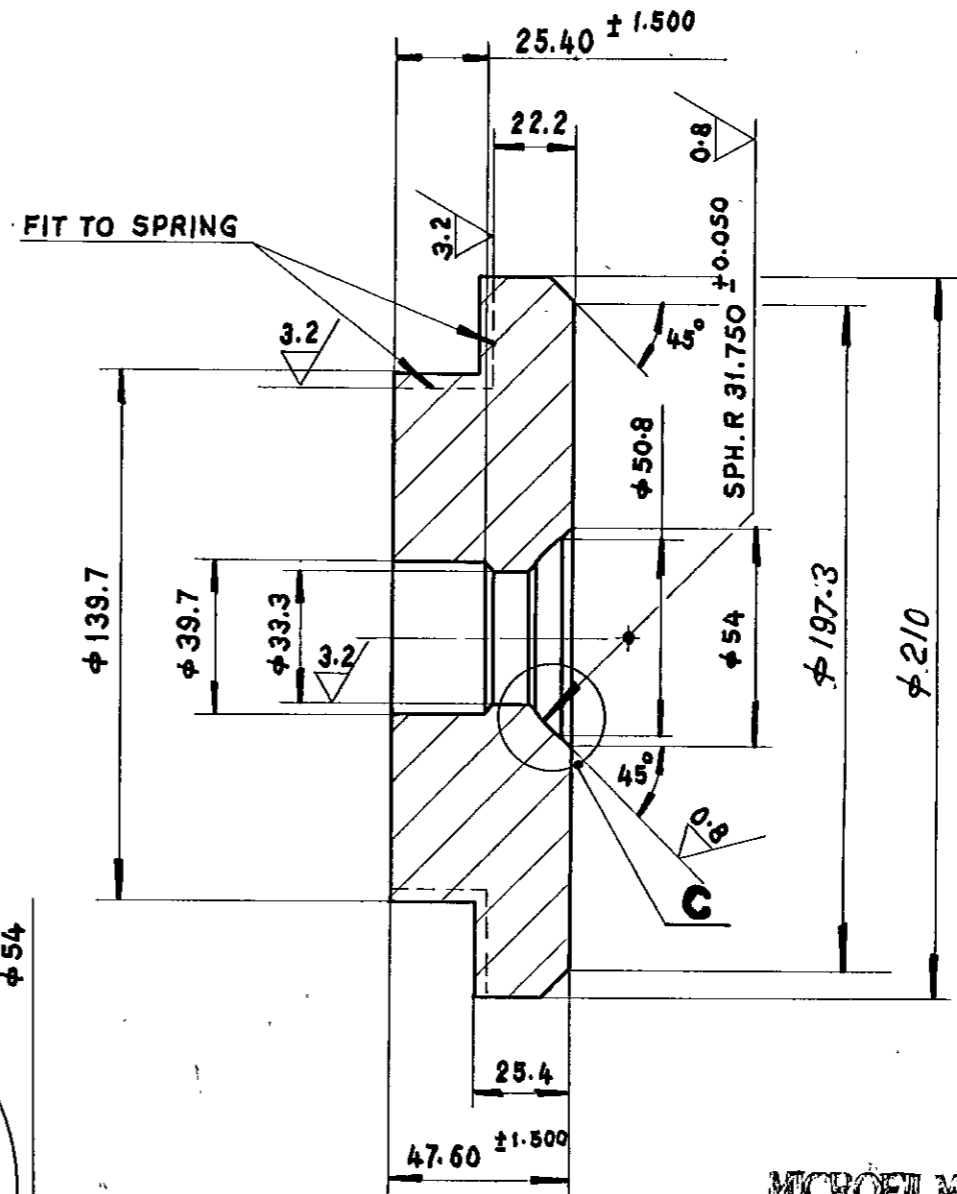
6.3 / 3.2 / 0.8

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



**NOTE:-**

1. SHARP CORNERS TO BE REMOVED.
2. UNSPECIFIED ANGLE TOLERANCES  $\pm 1/2^\circ$



MICROFILMED ON 20-1-89  
ROLL 00532

PL-t=50 220x220	15042119	SA 515 GY.70 CERTIFY	NORMALISED	10	7.4	18.9	-	013	
No. OFF	DESCRIPTION	MATL CODE	FINAL MATL	HEAT TREATMENT	SCRAP SORT	N&T Wt (kg)	GROSS Wt (kg)	DRAWING No.	ITEM No.



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT VL	CODE 340	SCALE NTS	WEIGHT (kg.)	DR. DRG No. 3VXX907/CK327	Sl. No. 881
				PART No. VXX907A	

REV 02	DATE 22/4/97	ALTD. CHD & APPD: <i>[Signature]</i>	REV 01	DATE 17/3/86	ALTERED <i>[Signature]</i>
DIMN. $\phi 210$ & $\phi 197.3$ WERE $\phi 190.5$ & $\phi 177.8$ ; MATL. SA 515 GY.70 WAS SA 105 DCN No. SV:0424			DESCRIPTION, MATL. CODE FINAL MATL. & GROSS WT. CHANGED.		

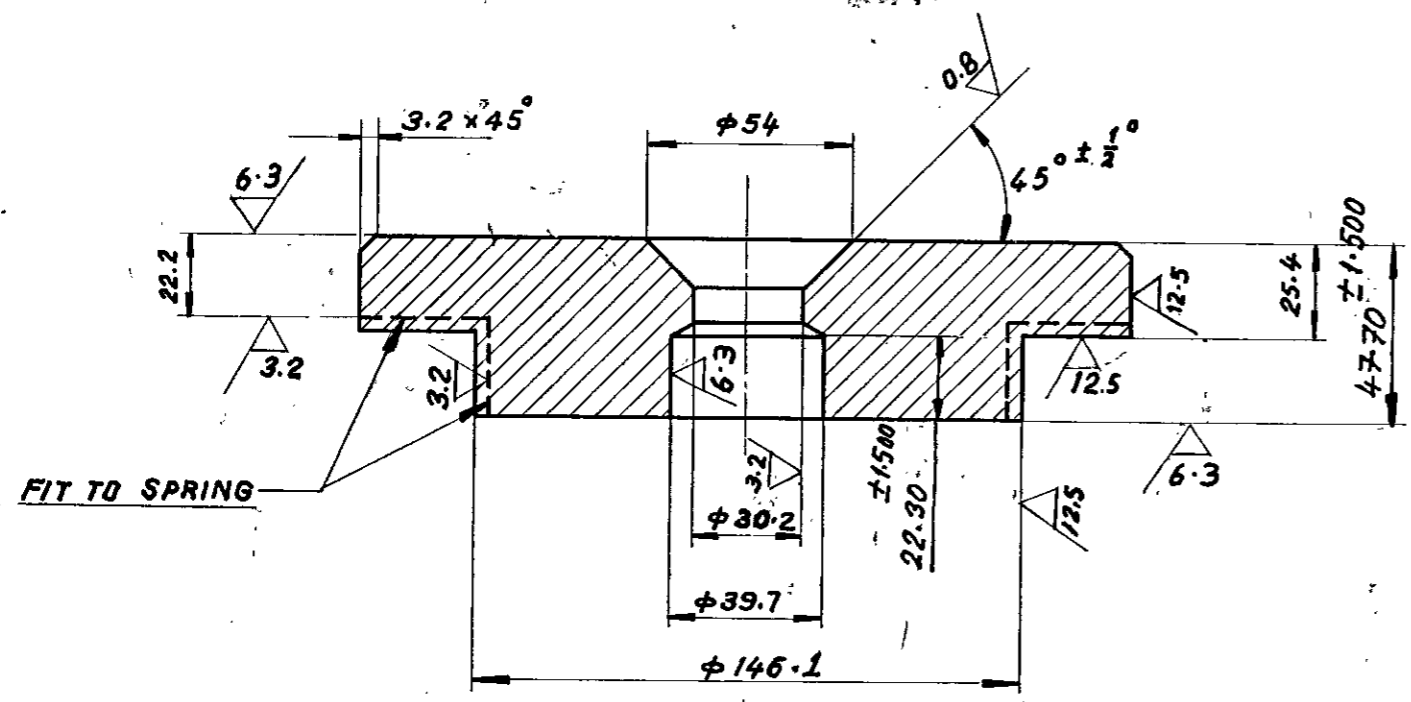
TITLE <b>TOP SPRING WASHER</b>				DRAWN T-R	SIGN <i>[Signature]</i>	DATE 20.12.79
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE $\pm 0.25$ mm UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE $\pm$				CHECKED VIL	SIGN <i>[Signature]</i>	DATE 20.12.79
DRAWING No. 3-V-7002-10171				SHEET No. 02		NO. OF SHEETS

(OMAC CODE: 930701330000)

BWB 5771

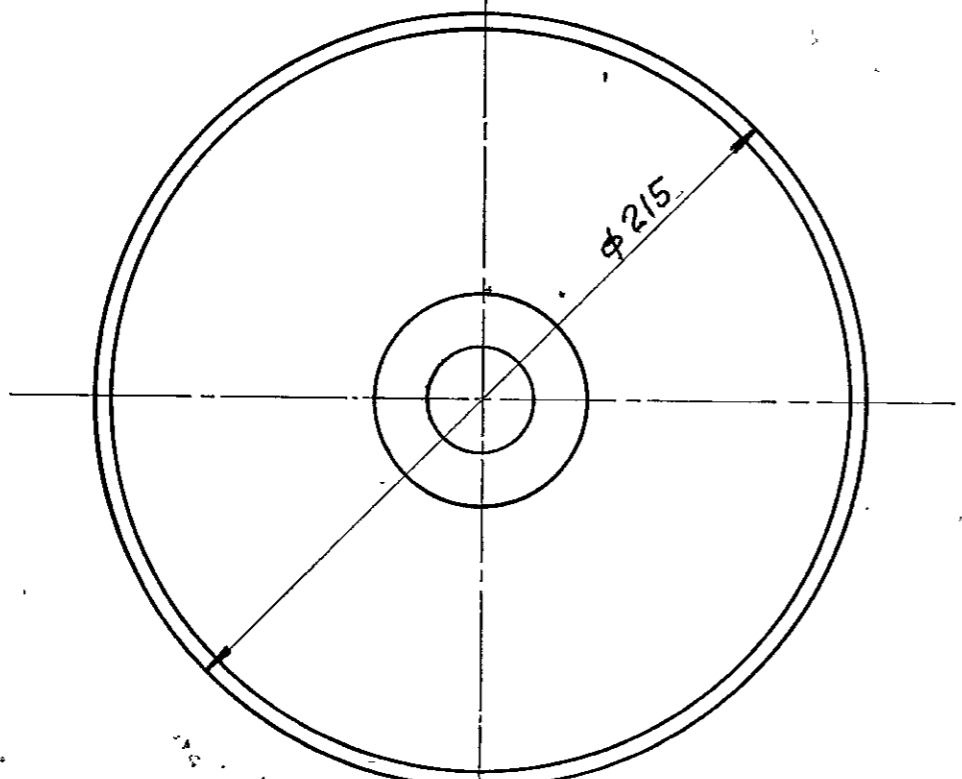
CAUTION THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LTD. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY

12.5 / 6.3 / 3.2 / 0.8



**NOTE:-**

1. SHARP CORNERS TO BE REMOVED.
2. PHOSPHATING AS PER LATEST APPLICABLE QUALITY PROCEDURE.



PL. 225x225 t-50	15042119	SA SIS GR. 70 CERTIFY	NORMALI- 560	10	9.6	19.8		016	
No. OF PIECES	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT [kg]	GROSS WT [kg]	DRG. No.	ITEM No.

MICROFILMED ON 20-1-84  
ROLL 00532

**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT VL	CODE 340	SCALE NTS	WEIGHT (kg.)	PART No. 4230901	Sl. No.
				DR. DRG No. 442309/EHS09	935
TITLE			DRAWN	NAME	DATE
<b>BOTTOM SPRING WASHER</b>			V.P.	13-4-79	
			CHECKED	VR	13-4-79
			APPD.	J.A.	13-4-79

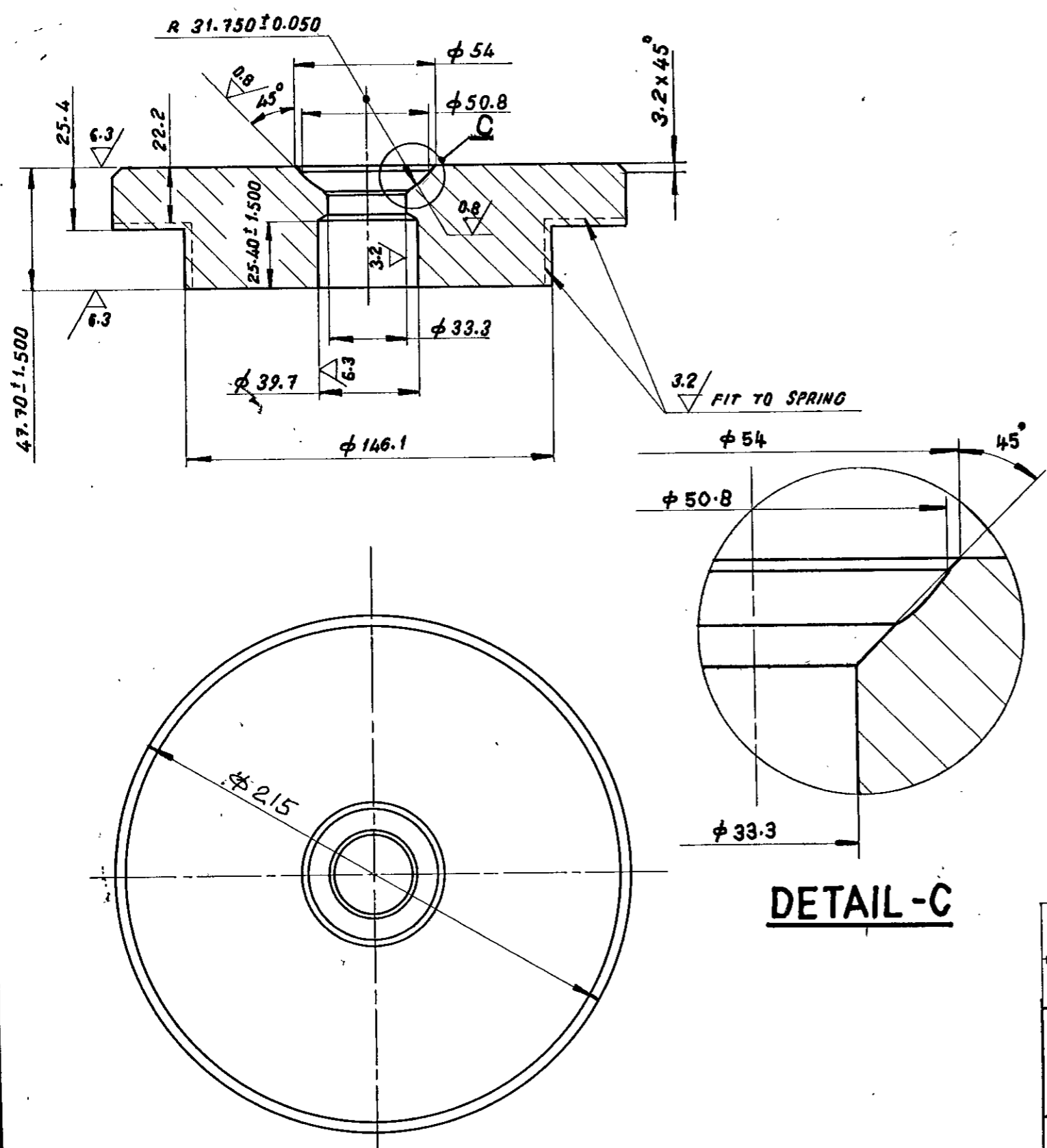
REV 02	DATE 22-4-97	ALTD. CHD APPD. V. P. P. P.	REV 01	DATE 24-4-86	ALTERED CHECKED
DIMN. $\phi$ 215 WAS $\phi$ 203.2 NOTES MODIFIED. DCN. No. 8V: 0424			DESCRIPTION, MATL. CODE, FINAL MATL. & GROSS WT CHANGED.		

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE $\pm$ 0.25 mm UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE $\pm$	CARD CODE	DRAWING No. 3-V-7003-10084	REV 17
		1785 WA	No. OF SHEET

3-V-7003-10172/02

12.5 / 6.3 / 3.2 / 0.8

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**NOTES:-**

1. SHARP CORNERS TO BE REMOVED.
2. UNSPECIFIED ANGLE TOLERANCES  $\pm \frac{1}{2}^\circ$

MICROFILMED ON  
ROLL 00532 FRAME 4E16

**DETAIL - C**

PL. 225x225 t - 50	15.042119	SA 515 GR. 70 CERTIFY	NORMALISED 10	9.4	19.8		013		
NO. OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT. (kg.)	GROSS WT. (kg.)	DRG. NO.	ITEM NO.

**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT VL	CODE 340	SCALE NTS	WEIGHT (kg.)	DR. DRG. NO. 442305 / EH 509	S/No. 993
				PART NO. 4230501	

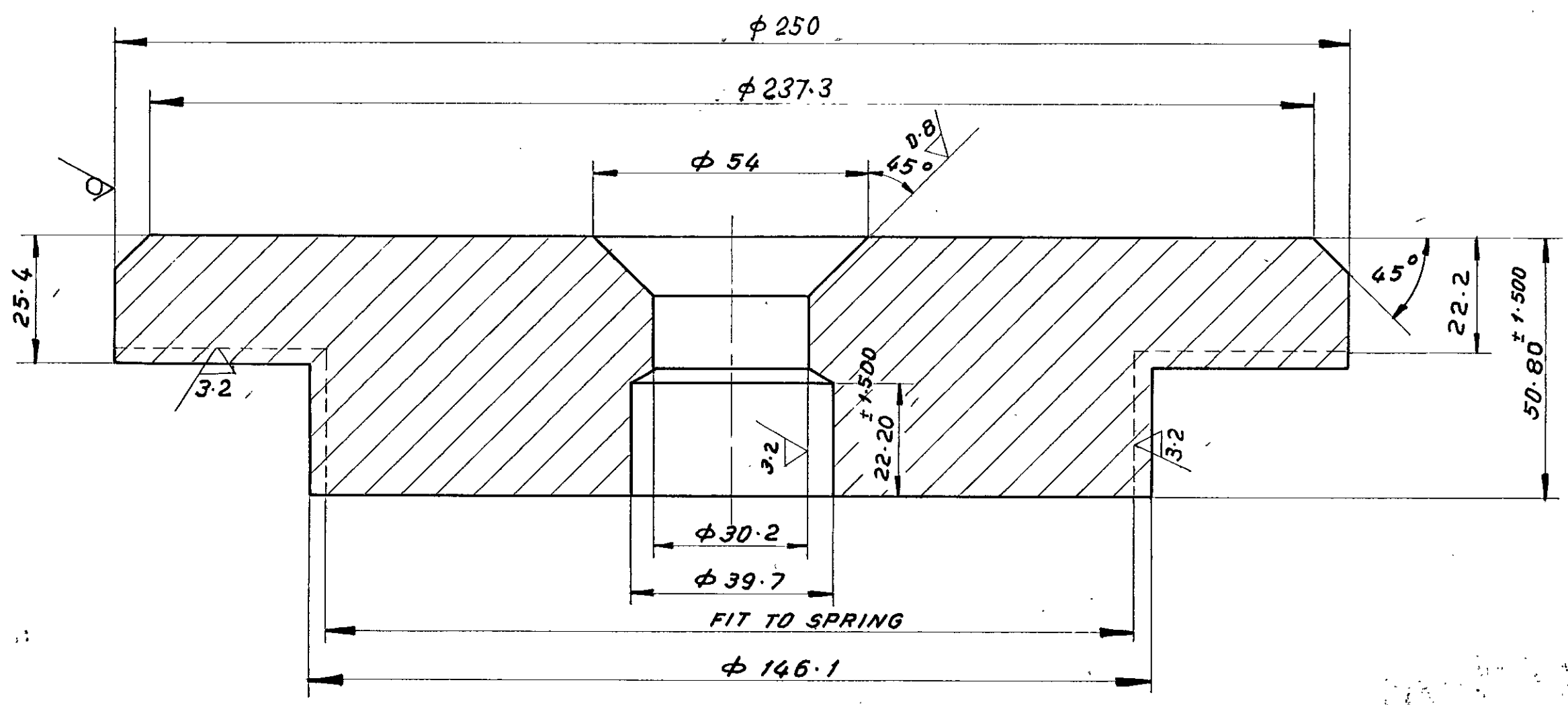
REV 02	DATE 22-4-97	ALTD CHD & APPD V. Perum Pillai	REV 01	DATE 17/3/86	ALTERED CHECKED
DIMN. $\phi$ 215 WAS $\phi$ 203. 2			DESCRIPTION, MATL. CODE, FINAL MATL. & GROSS WT. CHANGED.		
DCN. No. SV:0424					

TITLE <b>TOP SPRING WASHER</b>				DR. DRG. NO. 442305 / EH 509	S/No. 993
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE $\pm$ 0.25 mm UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE $\pm$				CARD CODE	15 REV 17
				DRAWING NO. <b>3-V-7003-10172</b>	02
				1785WB	No. OF SHEETS

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

6.3 / 3.2 / 0.8

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**NOTES :-**

1. SHARP CORNERS TO BE REMOVED
2. UNSPECIFIED ANGLE TOLERANCES  $\pm \frac{1}{2}^\circ$
3. PHOSPHATING AS PER LATEST APPLICABLE QUALITY PROCEDURE.

MICROFILMED ON 20.1.84  
ROLL 00533 FOR UNIT 030

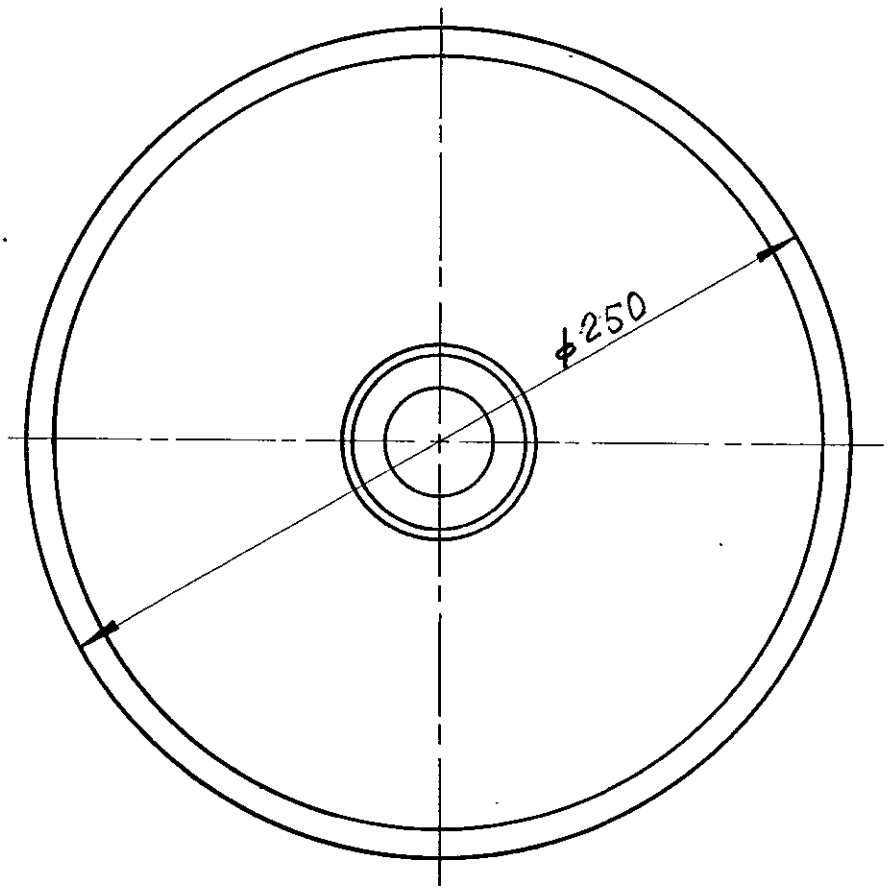
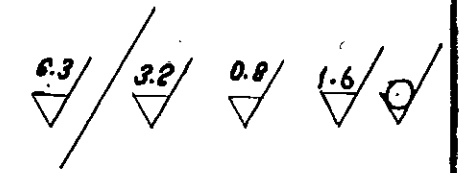
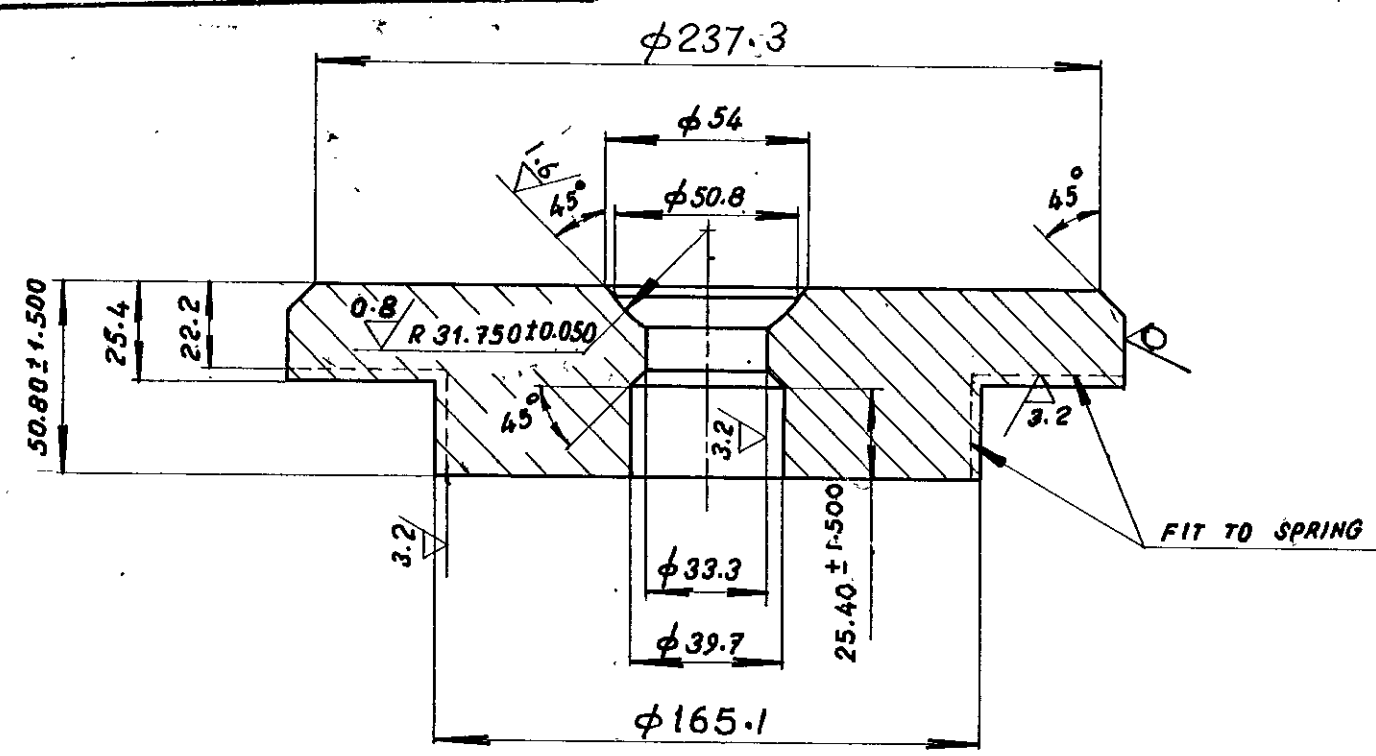
REV	DATE	ALTD:	REV	DATE	ALTERED
02	22-4-97	CHD PAPPD: V. Panthulu.	01	24/4/86	CHECKED: <i>KS</i>
NOTES MODIFIED. DIM. $\phi 250$ & $\phi 237.3$ WERE $\phi 222.3$ & $\phi 209.6$			DESCRIPTION, MATL. CODE, FINAL MATL. & GROSSWT CHANGED.		
DCN. No. SV: 0424					

$\phi 250 \times 56$	15339 294	SA 105 CERTIFY	NORMALISED 150-190 BHN 10	11.8	27.5		016		
NO. OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT (KG)	GROSS WT (KG)	DRAWING NO.	ITEM NO.
		<b>BHARAT HEAVY ELECTRICALS LIMITED</b> BOILER PLANT UNIT, TIRUCHIRAPALLI-620014							
DEPT	VL	CODE	340	SCALE	NTS	WEIGHT (kg)		DR. DRG. NO. 2 VAV 906/ECON 3L NO. 757	PART NO. VAV 906
TITLE							DRAWN: <i>K.R.</i> DATE: 30-5-79 CHECKED: <i>VR</i> DATE: 30-5-79 APPD: <i>J.A.</i> DATE: 30-5-79		
<b>BOTTOM SPR. WASHER</b>				DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE $\pm 0.25$ mm UNLESS OTHERWISE SHOWN. NON-MACHINING TOLERANCE $\pm$			DRAWING NO. <b>3-V-7008-10051</b> 15 16 REV 17 1705 RWD No. OF SHEETS		

DMAC CODE: 93070 866 0000

3-V-7008-10168/03

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**NOTES:-**

1. SHARP CORNERS TO BE REMOVED.
2. UNSPECIFIED ANGLE TOLERANCES  $\pm \frac{1}{2}^\circ$

MICROFILMED ON 20-1-84  
ROLL 100522

φ 250 x 55	15339 294	ISA 105 CERTIFY	NORMALISED 150-190BHN	10	12.7	27.5		013	
NO. OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT. (kg.)	GROSS WT. (kg.)	DRG. NO.	ITEM NO.

**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT VL CODE 340 SCALE NTS WEIGHT (kg.) DR. DRG. NO. 4 VAF 907/EG 629 PART. NO. VAF 907A/SL. No 6804

**TOP SPRING WASHER**

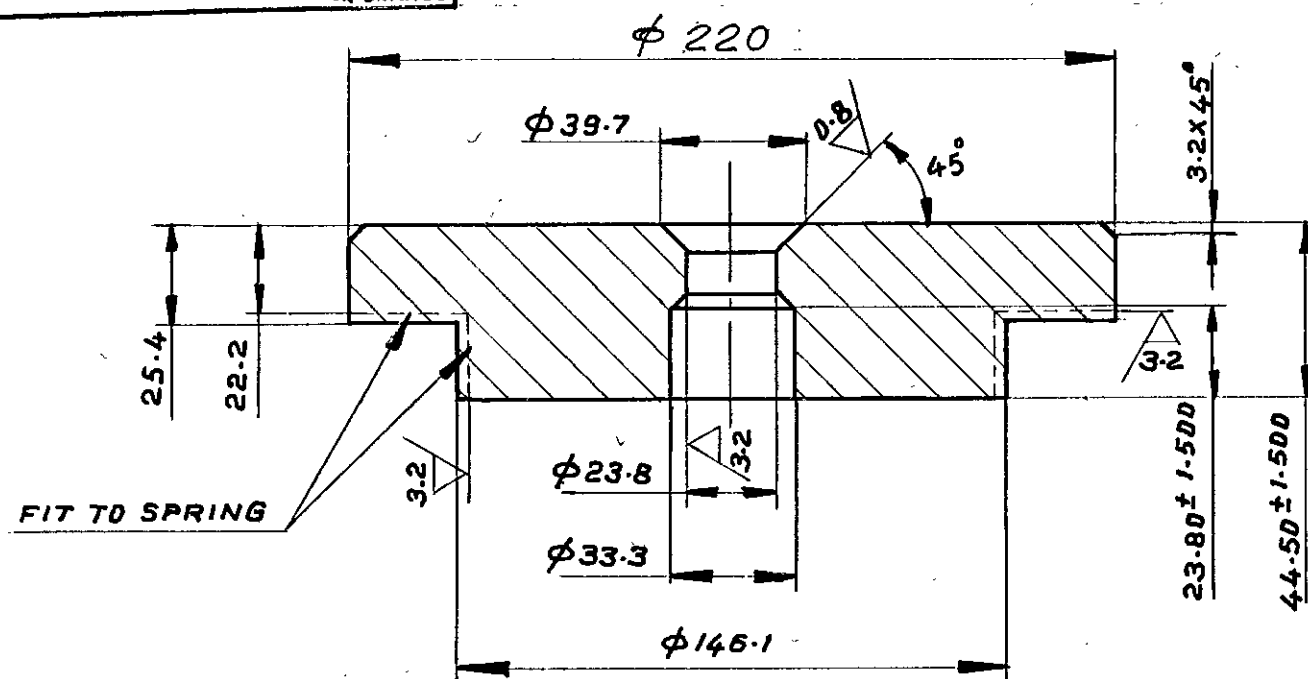
DRAWN	NAME M.R.C	DATE 15-11-79
CHECKED	VA	15-11-79
	JA	15-11-79

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE  $\pm 0.25$  mm UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE  $\pm$

CARD CODE SHEET NO. 3-V-7008-10168 03 No. OF SHEETS

REV 03	DATE 22-4-97	ALTD: <i>spdy</i>	CHD & APPD: <i>V. Ramiah</i>	REV 02	DATE 18-3-86	ALTERED: <i>Elang</i>	CHECKED: <i>K2</i>	REV 01	DATE 25-2-84	ALTERED: <i>Parvathi</i>	CHECKED: <i>AV</i>
DIM. φ 250 & φ 237.3 WERE φ 222.3 & φ 209.6 DCN. No. 8V: 0424				DESCRIPTION, MATL. CODE, FINAL MATL. & GROSS WT. CHANGED.				1. φ 165.1 WAS φ 146 2. RAW MATL. LENGTH AND WT. ARE CHANGED. 3. FINISH $\frac{1.6}{\nabla}$ WAS $\frac{0.8}{\nabla}$			

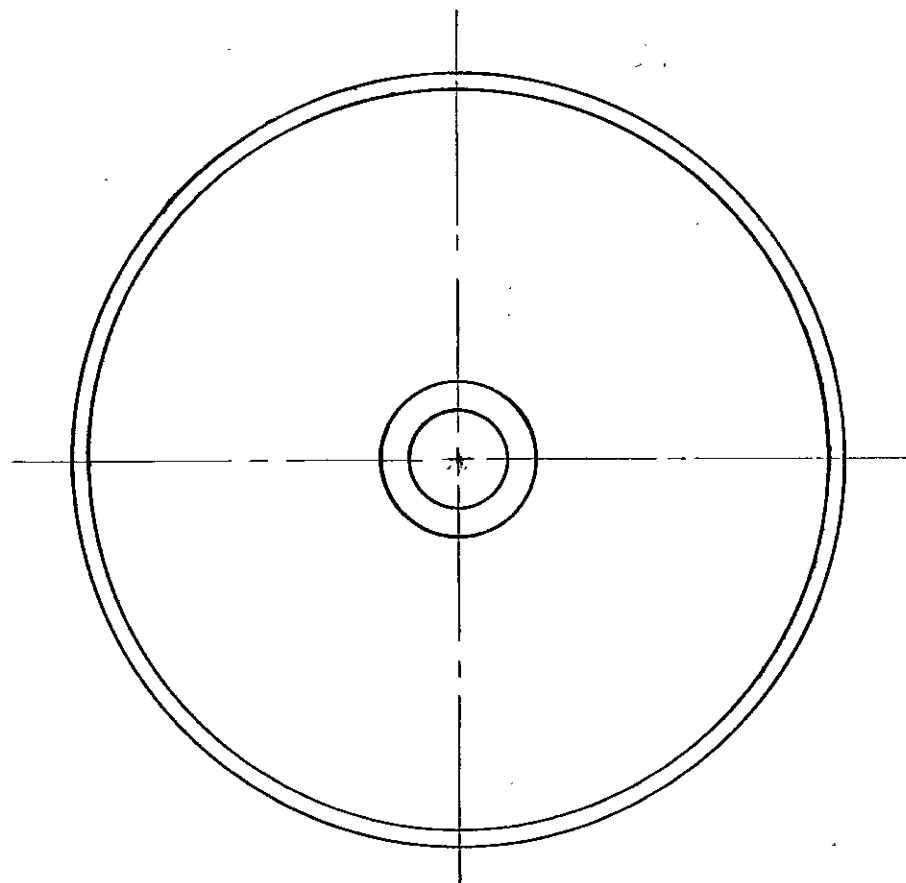
6.3 / 3.2 / 0.8



FIT TO SPRING

**NOTES:-**

1. SHARP CORNERS TO BE REMOVED.
2. UNSPECIFIED ANGLE TOLERANCES  $\pm 1/2^\circ$
3. PHOSPHATING AS PER LATEST APPLICABLE QUALITY PROCEDURE.



MICROFILMED ON 20-1-84  
ROLL 00532 FRAME 123

PL. 230x230 t-50	15 042 119	SA 515 GR. 70 CERTIFY.	NORMALISED 10	9.50	20.8	-	016
No OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP NET SORT Wt (kg)	GROSS WT (kg)	DRAWING NO ITEM No



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT VL.	CODE 340	SCALE NTS	WEIGHT (kg.)	DRESSER DRG NO 442308/EH509 PART No 4230801/Sl. No 4145
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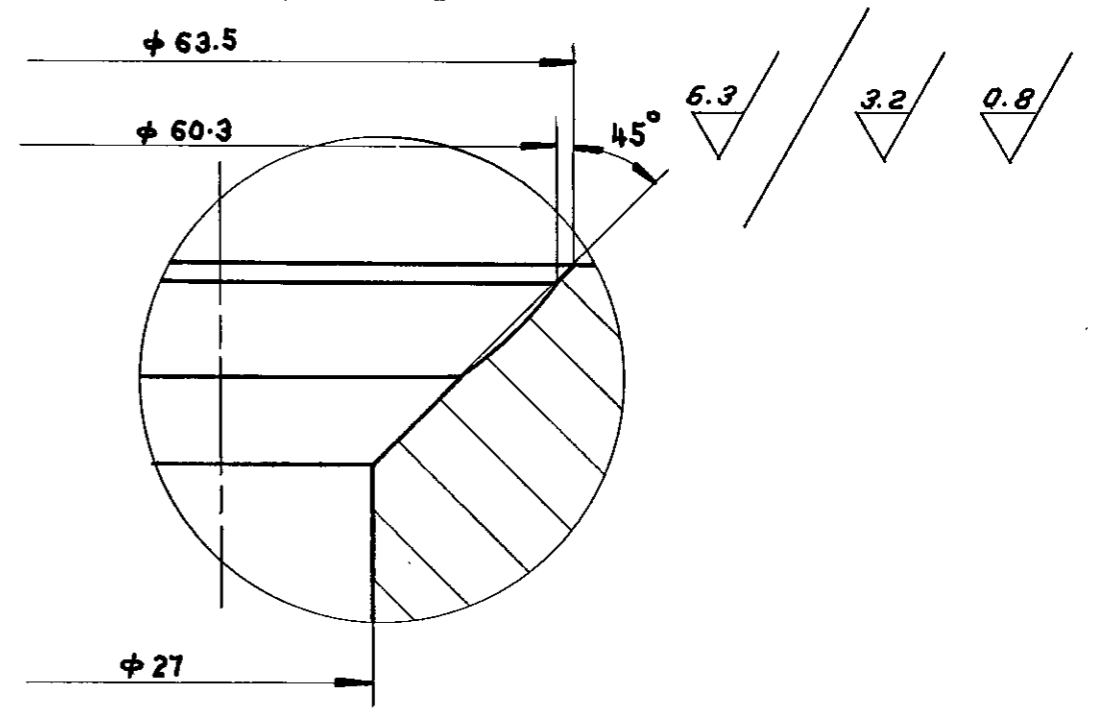
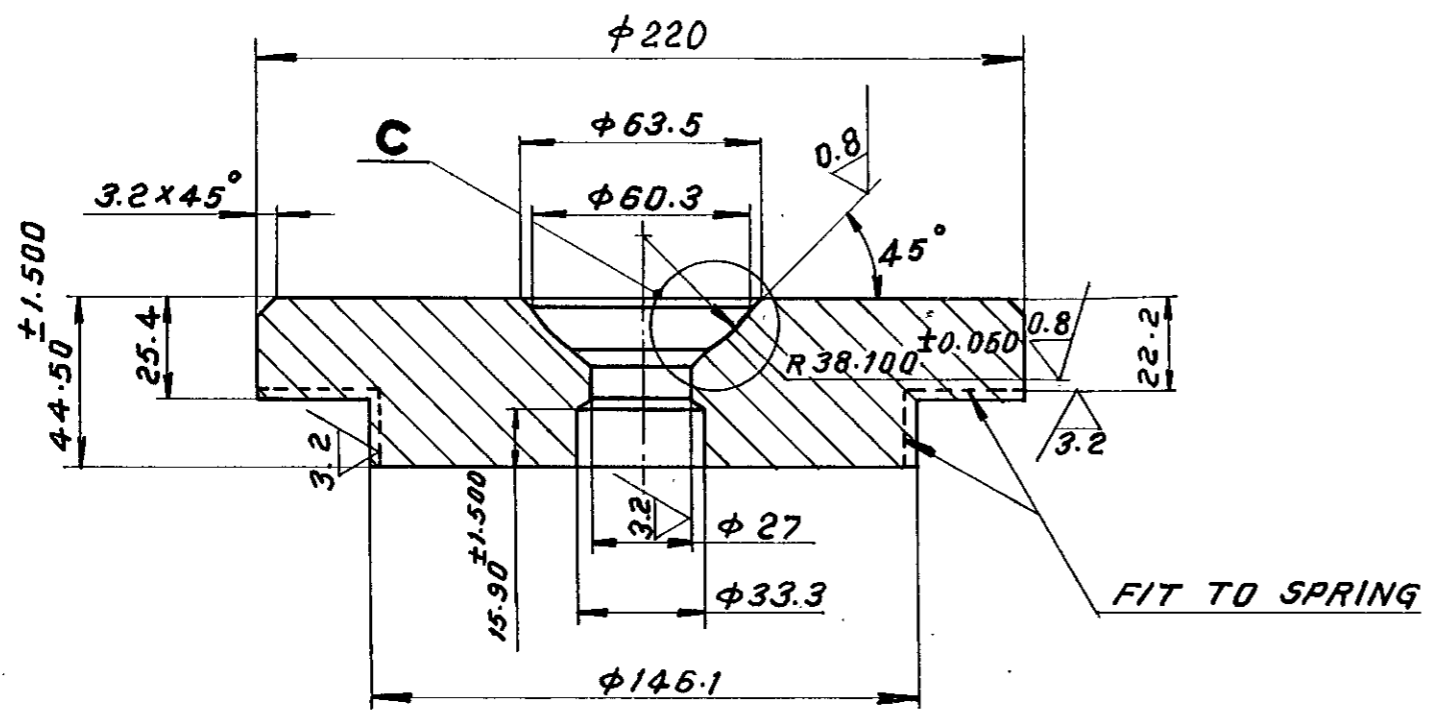
REV 02	DATE 22.4.97	ALTO: <i>Pring</i> CHD & APPD: <i>V. Venkatesh</i>	REV 01	DATE 24/4/86	ALTERED <i>Pring</i> CHECKED <i>lsp</i>
NOTES MODIFIED. DIMN. $\phi 220$ WAS $\phi 203.2$ DON, No. SV: 0424			DESCRIPTION, MATL. CODE, FINAL MATL. & GROSS WT. CHANGED.		

TITLE		DRAWN V.A.		SIGN <i>JA</i>		DATE 3-11-79	
<b>BOTTOM SPRING WASHER</b>		CHECKED S.R.		SIGN <i>JA</i>		DATE 3-11-79	
		APPD JA		SIGN <i>JA</i>		DATE 3-11-79	
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE $\pm 0.25$ mm UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE $\pm$		CARD CODE	DRAWING NO. <b>3-V-7009-10165</b>		15	16 REV 17	
			1750 WB.		No. OF SHEETS		

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20/9101-6007-A-3  
TAN SHIMMO

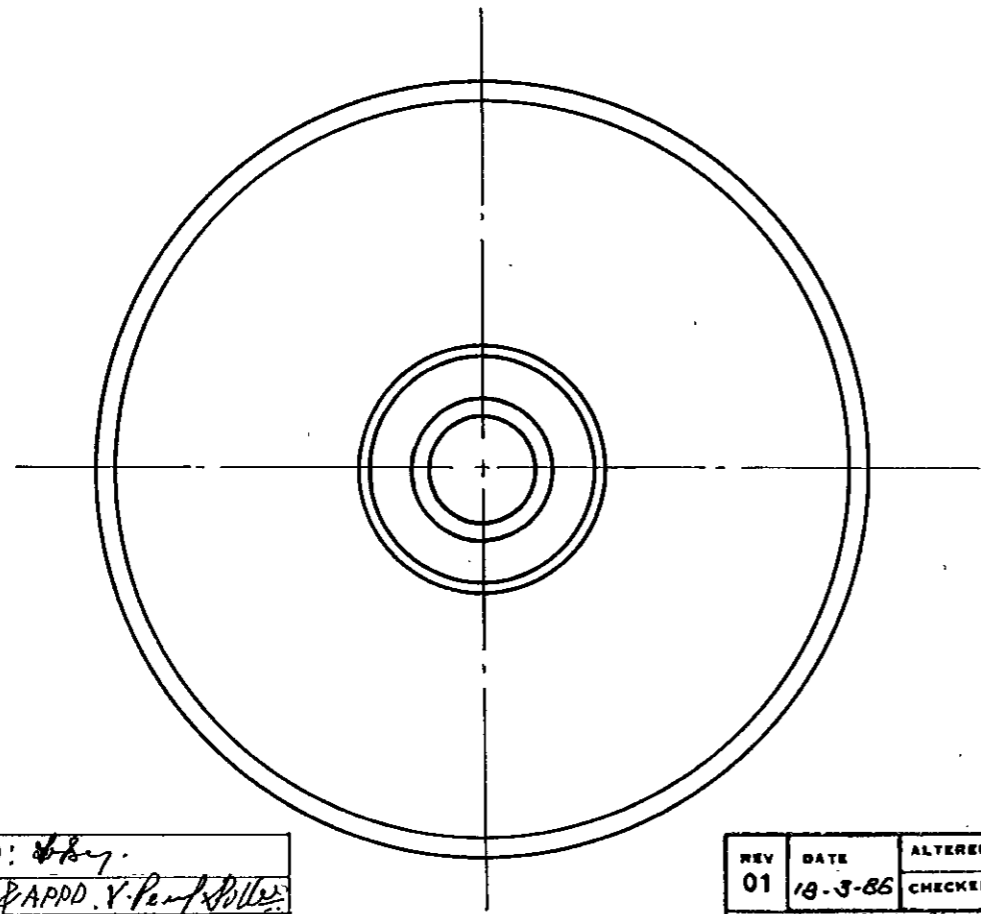
CAUTION THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LTD IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY



**DETAIL - C**

**NOTES:-**

1. UNSPECIFIED ANGLE TOLERANCES  $\pm 1/2^\circ$
2. SHARP CORNERS TO BE REMOVED.



MICROFILMED ON 20-1-84  
ROLL 00532

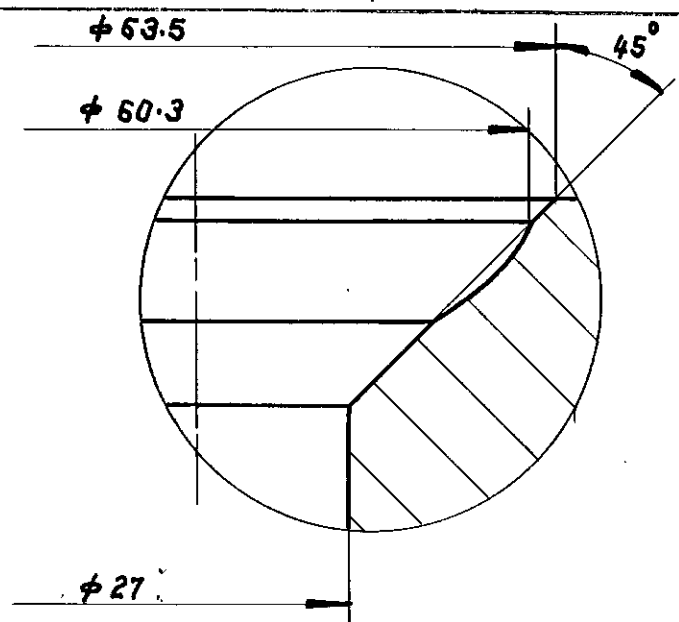
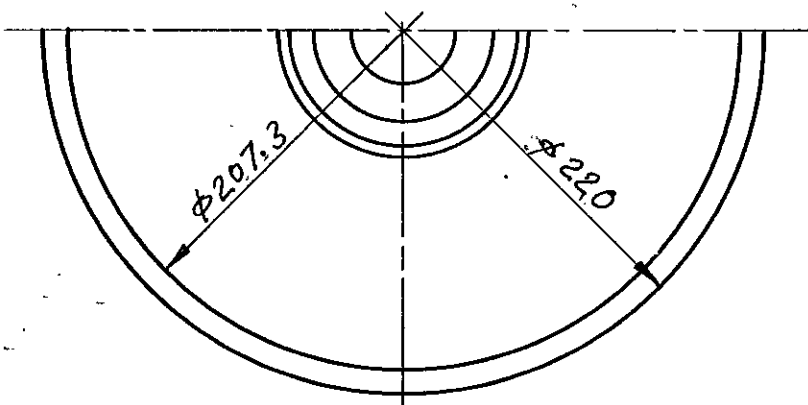
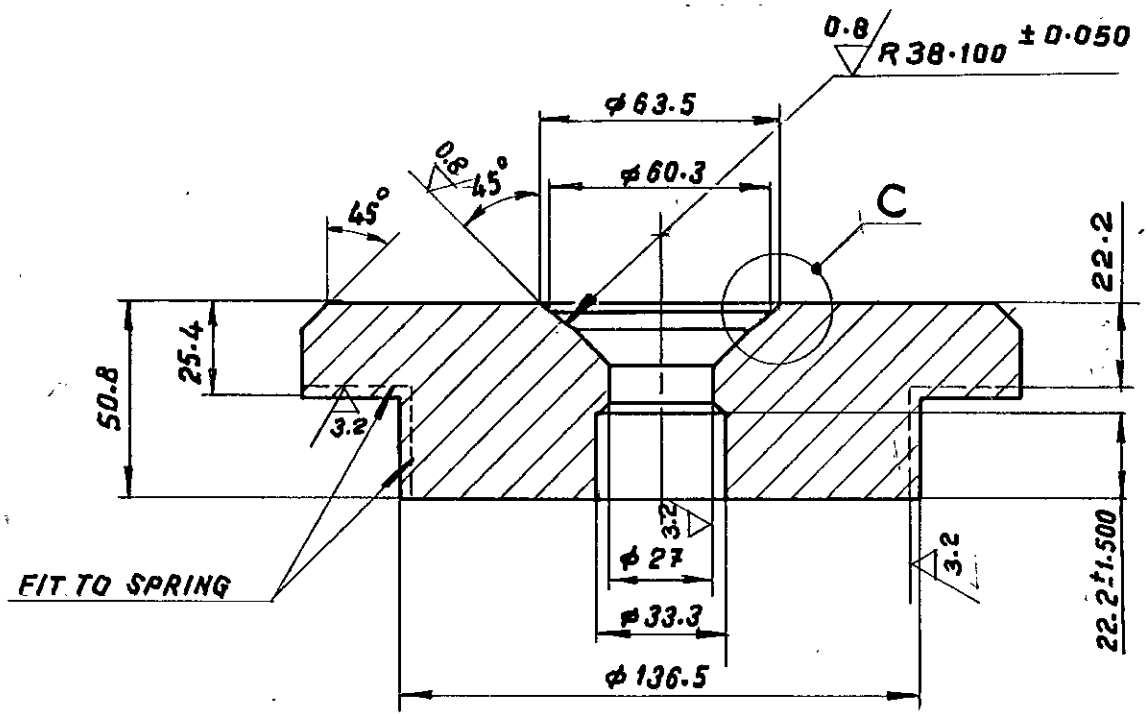
ML 230 X 230 E-50	15 042 119	SA 515 GR. 70 CERTIFY	NORMALISED 10	9.45	20.8	-	013
NO. OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP NET WT. (K.G.)	GROSS WT. (K.G.)	ITEM NO.
		<b>BHARAT HEAVY ELECTRICALS LIMITED</b> BOILER PLANT UNIT, TIRUCHIRAPALLI-620014					
DEPT	CODE	SCALE	WEIGHT (kg.)	DRESSER DRG. NO. 442306/EL057 PART NO. 4230603/SL. NO. 3056			
V4	340	NTS					
REV 01	DATE 18-3-85	ALTERED	CHECKED	<b>TITLE</b> TOP SPRING WASHER			
DESCRIPTION, MATL. CODE, FINAL MATL. & GROSS WT. CHANGED.				DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE $\pm 0.25$ mm UNLESS OTHERWISE SHOWN. NON-MACHINING TOLERANCE $\pm$		DRAWING NO. <b>3-V-7009-10167</b>	
				SHEET NO.		NO. OF SHEETS	

REV DATE ALTD: *by*  
02 22-4-97 CHD & APPD. *V. Paul Pillai*  
DIMN.  $\phi 220$  WAS  $\phi 203.2$   
RAW. MATL. SIZE CHANGED.  
DCN. NO. SV: 0424

REV 01 DATE 18-3-85 ALTERED *Thang*  
CHECKED *ks*  
DESCRIPTION, MATL. CODE, FINAL MATL. & GROSS WT. CHANGED.

20/19101-010L-A-E  
20/19101-010L-A-E

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6.3 / 3.2 / 0.8

**DETAIL-C**

**NOTES :-**

1. SHARP CORNERS TO BE REMOVED.
2. UNSPECIFIED ANGLE TOLERANCES  $\pm \frac{1}{2}^\circ$

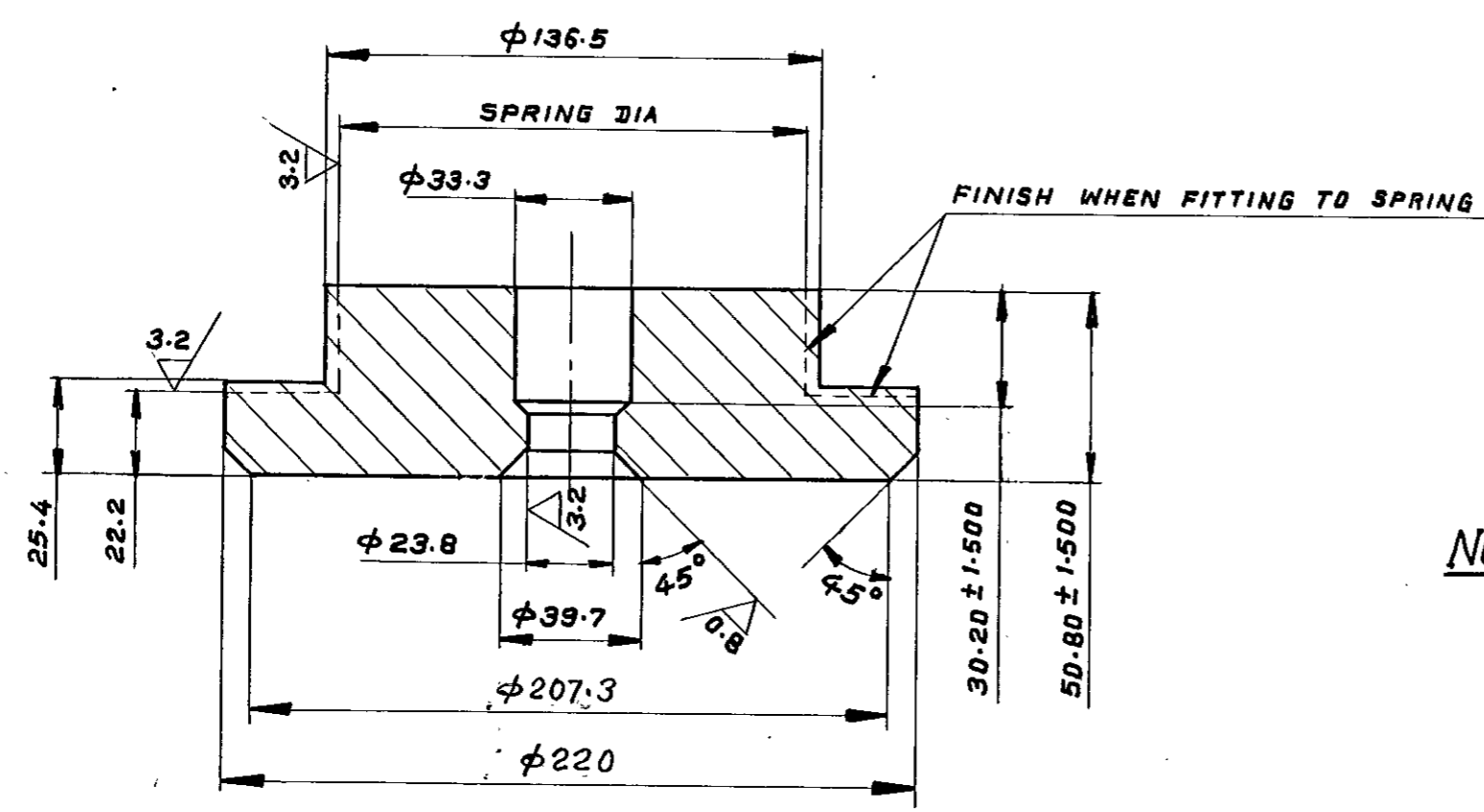
MICROFILMED ON 20-1-84  
ROLL 00532

PL - C = 55 230 x 230	15942120	SASIS G.T.O CERTIFY	NORMALISED	10	9.45	22.2		013	
NO. OFF	DESCRIPTION	MATL. CODE	FINAL MATL	HEAT TREATMENT	SCRAP SORT	NET WT. (kg.)	GROSS WT. (kg.)	DRG. NO.	ITEM NO.
		<b>BHARAT HEAVY ELECTRICALS LIMITED</b> BOILER PLANT UNIT, TIRUCHIRAPALLI-620014							
DEPT VL	CODE 340	SCALE NTS	WEIGHT (kg.)	DR. DRG. NO. 2VAM 907/7835A PART NO. VAM 907A/SL. NO. 2942		DRAWN NAME H.R.C. SIGN DATE 2-11-79 CHECKED VL. SIGN DATE 2-11-79 JA CA DATE 2-11-79			
REV 02 DATE 22.4.97 ALTD: <i>Copy</i> CHD & APPD: <i>V. Perumal</i>			REV 01 DATE 18.3.86 ALTERED <i>John</i> CHECKED <i>ve.</i>			TITLE <b>TOP SPRING WASHER</b>			
DIM. $\phi 220$ & $\phi 207.3$ WERE $\phi 190.5$ & $\phi 177.8$ . MATL. SASIS G.T.O WAS SA 105 DGN. NO. SV: 0424			DESCRIPTION, MATL. CODE, FINAL MATL. & GROSS WT. CHANGED.			DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN MACHINING TOLERANCE $\pm 0.25$ mm UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE $\pm$			
CARD CODE		DRAWING NO. <b>3-V-7010-10164</b>		1740 WD		NO. OF SHEETS		02	

3-V-7010-10176/02  
DRAWING NO.

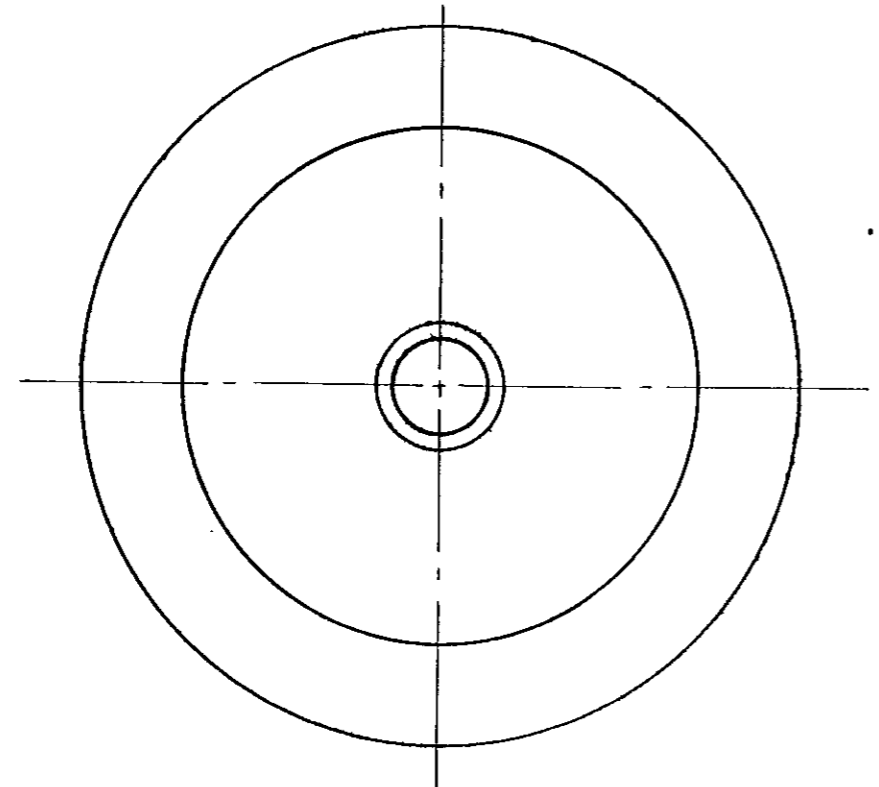
6.3 / 3.2 / 0.8

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**NOTES:-**

1. SHARP CORNERS TO BE REMOVED.
2. UNSPECIFIED ANGLE TOLERANCES  $\pm \frac{1}{2}^\circ$
3. PHOSPHATING AS PER LATEST APPLICABLE QUALITY PROCEDURE.



MICROFILMED ON 20-1-84  
ROLL 60502 FOR FILE 212

PL-t=55 230X230	15.942120	SA 515 Gr. 70 CERTIFY	NORMALISED	10	9.5	22.8	-	016	
No. OFF.	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT.	SCRAP SORT	NET WT(kg)	GROSS WT(kg)	DRAWING No.	ITEM No.



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT VL	CODE 340	SCALE NTS	WEIGHT (kg.) -	DRESSER DRG No 2VBT 906/4638 PART No VBT 906 / SL No 2948
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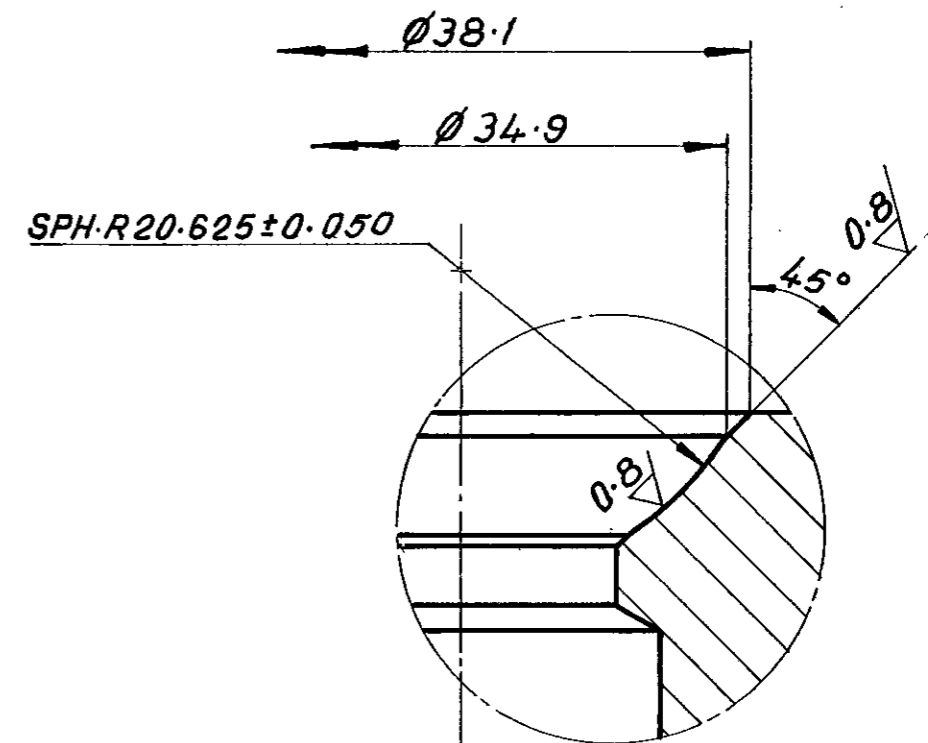
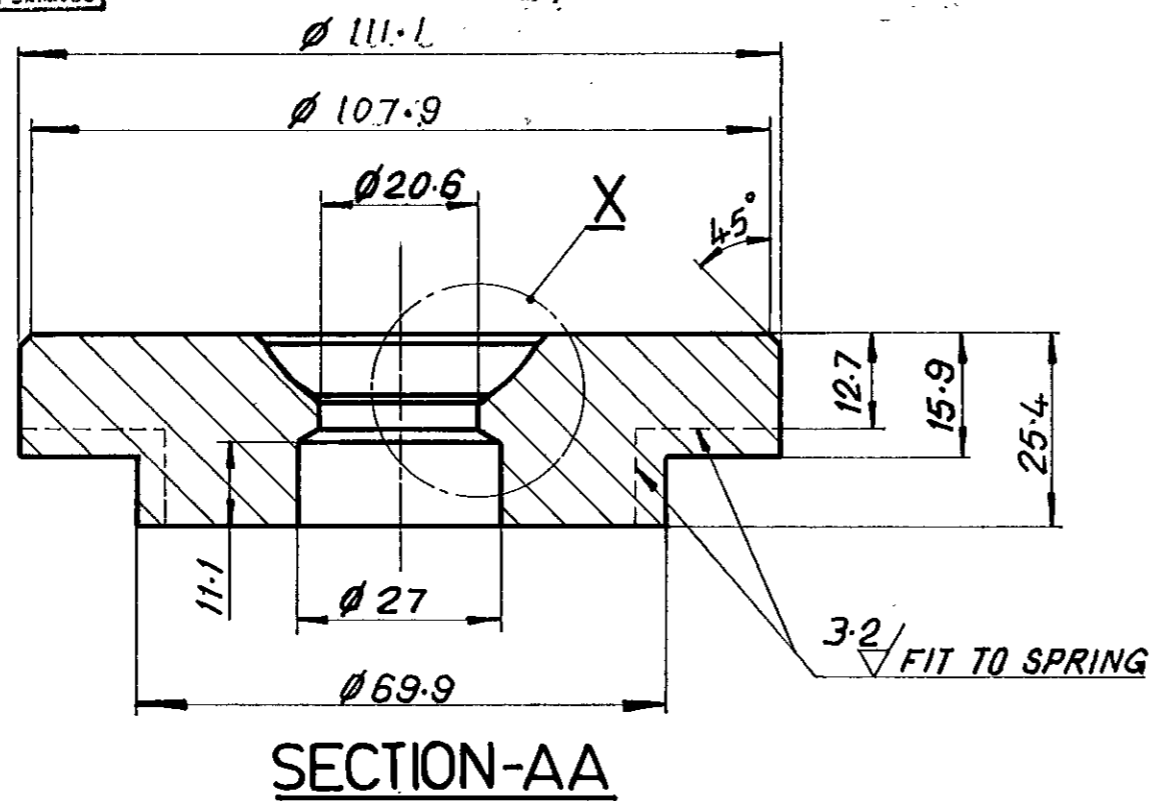
REV 02	DATE 22-4-77	ALTD: CHD & APPD V. Paul	REV 01	DATE 24/6/86	ALTERED Checked	CHECKED V.P.
NOTES MODIFIED. DIM. $\phi 220$ & $207.3$ WERE $\phi 190.5$ & $\phi 177.8$ MATL. SA 515 Gr. 70 WAS SA 105 DCN. No. 8V: 0424			DESCRIPTION, MATL. CODE, FINAL MATL. & GROSS WT. CHANGED.			

TITLE <b>BOTTOM SPRING WASHER</b>				DRAWN V.R.	NAME V.A.	SIGN V.R.	DATE 31-10-79
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE $\pm 0.25$ mm UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE $\pm$				CHECKED JA	NAME JA	SIGN JA	DATE 31-10-79
DRAWING No. <b>3-V-7010-10176</b>				1740 WJ		15 16 REV 17 02	
CARD CODE				No. OF SHEETS			

3-V-7013-10305/02

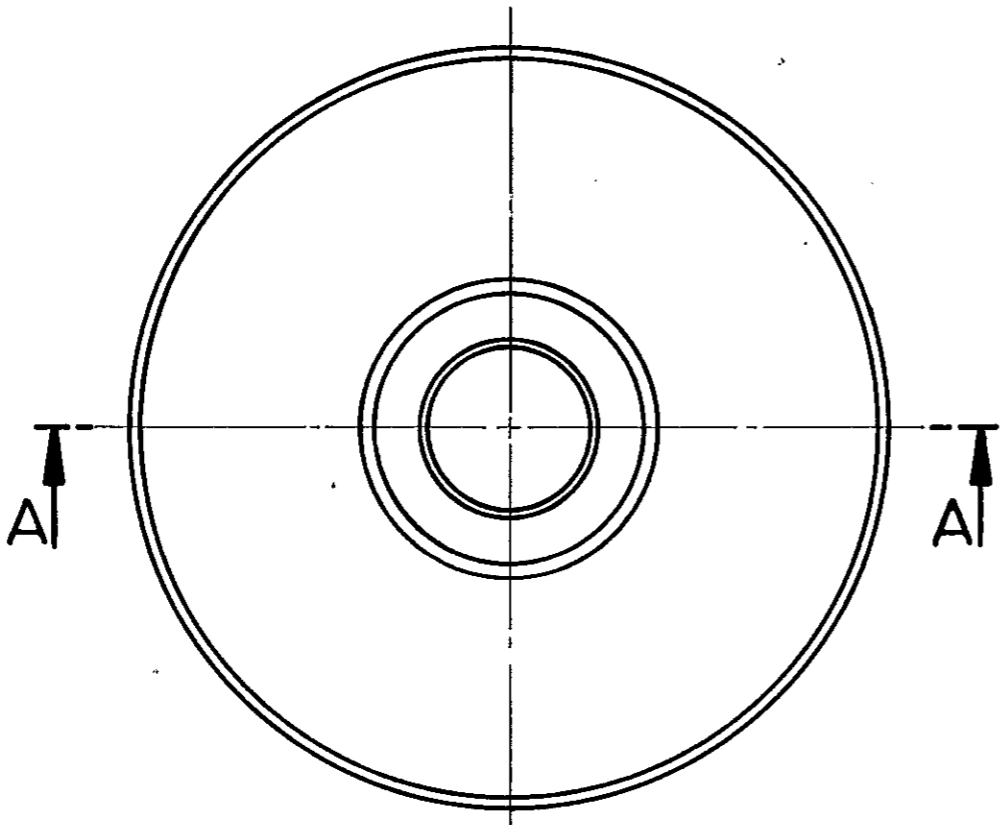
6.3 / 3.2 / 0.8

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SECTION-AA

DETAIL-X  
SCALE 2:1



NOTES:-

- 1 SHARP CORNERS TO BE REMOVED.
- 2 UNSPECIFIED ANGLE TOLERANCES ± 1/2°

MICROFILMED ON  
ROLL SCREED FRAME

φ125 X 31	15.33928	SA 105 CERTIFY. 150-190.8MM	NORMALISED	ID	1-30	2.89			013
No OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT. (KG)	GROSS WT. (KG)	DRAWING No	ITEM No



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT VL	CODE 340	SCALE NTS	WEIGHT (kg.)	DR. DRG No.: 2VZZ 907/7835 PART No.: VZZ 907A/S.L.No.: 2915
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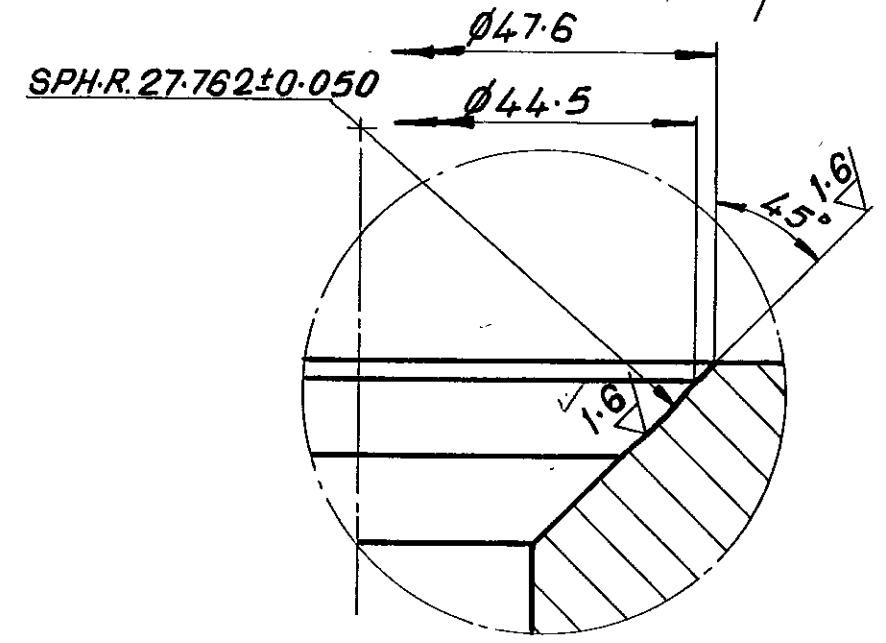
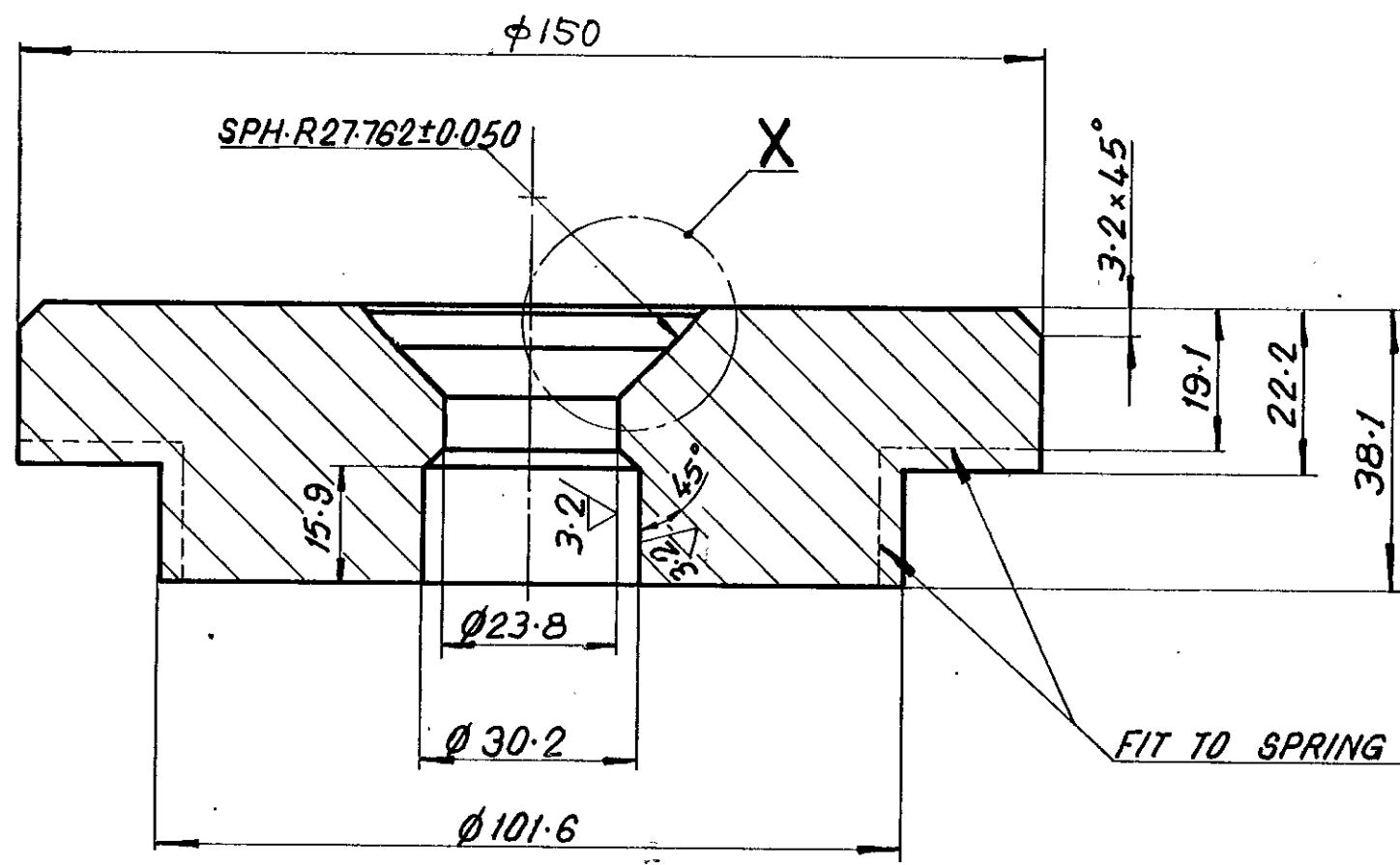
REV 02	DATE 22-4-97	ALTD: CHD & APD	REV 01	DATE 17/3/86	ALTERED Checked	CHECKED Ke.
φ 111.1 & φ 107.9 WERE φ 101.6 & φ 98.4 DCN. No. SY: 0424			DESCRIPTION, MATL. CODE, FINAL MATL. & GROSS WT. CHANGED			

TITLE <b>TOP SPRING WASHER</b>		DRAWN N.R.	SIGN N.R.	DATE 16-4-80
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN MACHINING TOLERANCE ± 0.25 mm UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE ±		CHECKED V.P.	SIGN V.P.	DATE 13-6-80
DRAWING No. <b>3-V-7013-10305</b>		SHEET No.		NO. OF SHEETS

3-V-7016-10215/02

6.3/3.2/1.6

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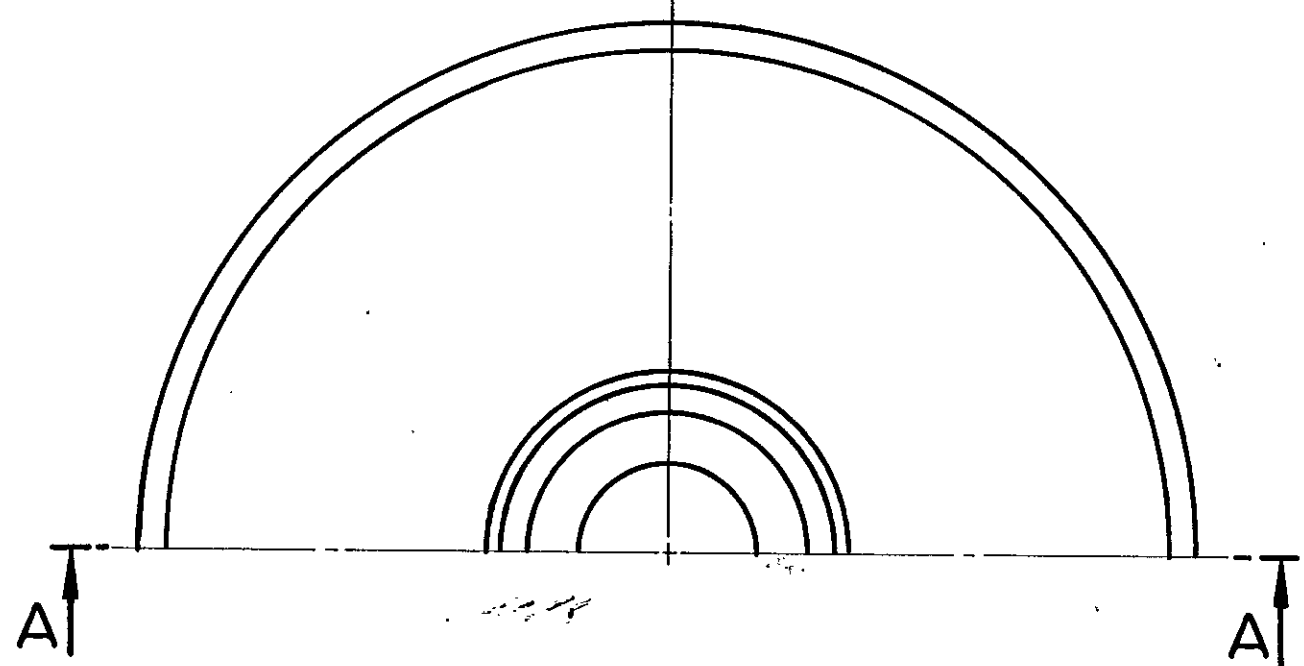
DETAIL-X  
SCALE: 2:1

SECTION-AA

NOTES:-

1. SHARP CORNERS TO BE REMOVED.
2. UNSPECIFIED ANGLE TOLERANCES ± 1/2°

MICROFILMED ON 20-1-84  
ROLL 0532 FRAME 22A



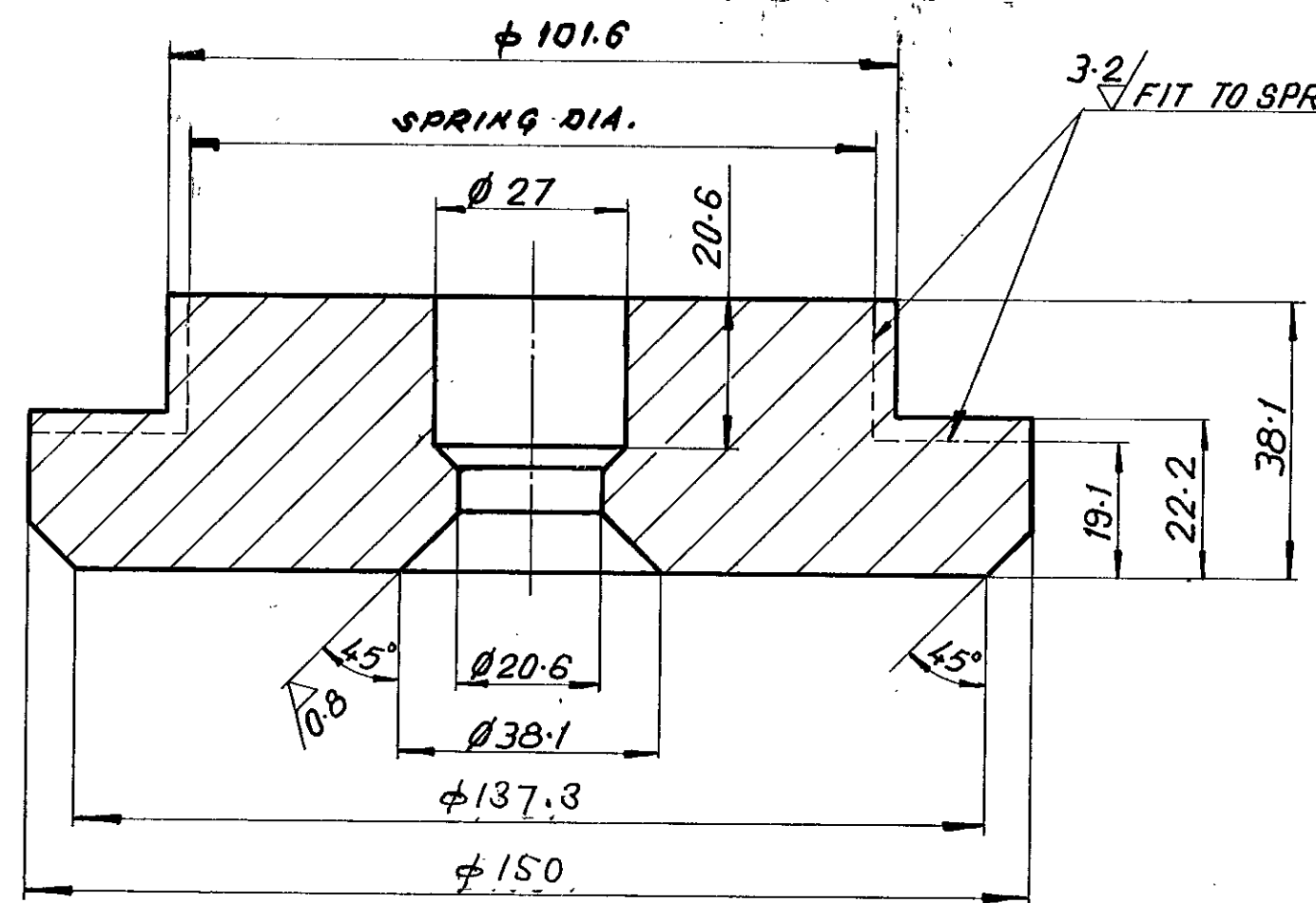
REV	DATE	ALTD.	REV	DATE	ALTERED
02	22.4.97	CHD & APPD: V. P. / P. S.	01	17/3/86	CHECKED: V. P.
DIMN. φ 150 WAS φ 139.7			DESCRIPTION, MATL. CODE, FINAL MATL. & GROSS WT. CHANGED.		
DEN. No. 8V: 0424					

φ 165 x 45	15 339 282	SA 105 CERTIFY	NORMALISED 150-190 BHN	10	3-70	8-16		013
NO OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT. (KG)	GROSS WT. (KG)	DRAWING No
		<b>BHARAT HEAVY ELECTRICALS LIMITED</b> BOILER PLANT UNIT, TIRUCHIRAPALLI-620014						
DEPT	CODE	SCALE	WEIGHT (kg.)	DR. DRG No.: 3VWW 907/CG 741				
VL	340	MPS		PART No.: VWW 907A/S.L.No.: 2585				
TITLE				DRAWN	NAME	SIGN	DATE	
TOP SPRING WASHER					N.R.	N.P.	14-4-80	
				CHECKED	V.P.	22	13-6-80	
					S.R.	22	13-6-80	
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE ± 0.25 mm UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE ±				CARD CODE	DRAWING No.		REV	
					3-V-7016-10215		02	
				SHEET No.	No. OF SHEETS			

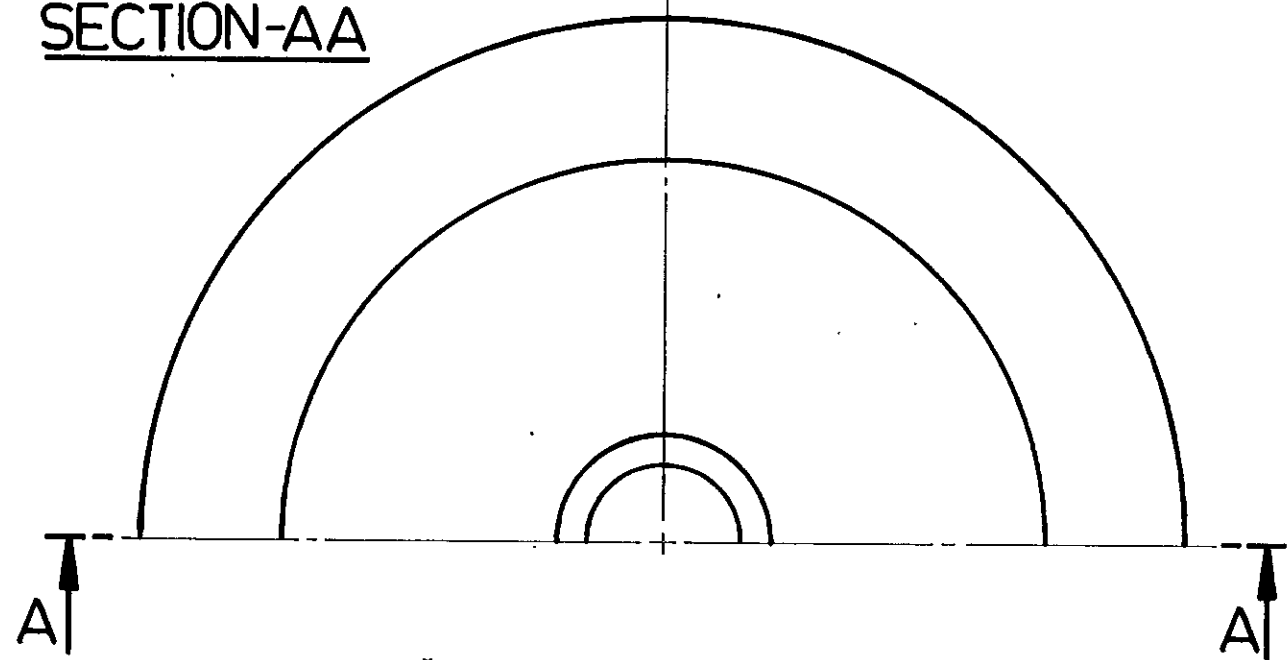
20/91201-9107-A-3  
DRAWING No.

6.3 / 3.2 / 0.8

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SECTION-AA



NOTES:-

1. SHARP CORNERS TO BE REMOVED.
2. UNSPECIFIED ANGLE TOLERANCES  $\pm 1/2$
3. PHOSPHATING AS PER LATEST APPLICABLE QUALITY PROCEDURE.

MICROFILMED ON 20-1-84  
ROLL 005321 ABB

NO OFF	DESCRIPTION	MATL CODE	FINAL MATL	HEAT TREATMENT	SCRAP SORT	NET WT. (kg)	GROSS WT. (kg)	DRAWING No	ITEM No
	φ 165 x 45	15339282	SA 105 CERTIFY	NORMALISED 150-150BHN	10	3.76	8.16	-	016
DEPT VL		CODE 340	SCALE N.T.S	WEIGHT (kg)	DR. DRG No: 2 VAN 906/CG 391 PART No: VAN 906/S.L.No: 2943				
TITLE			DRAWN			NAME	SIGN	DATE	
BOTTOM SPRING WASHER			V.L.			N.R.	N.R.	15-4-80	
CHECKED			V.P.			S.R.	S.R.	6-6-80	
APPD			S.R.			S.R.	S.R.	6-6-80	
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE $\pm 0.25$ mm UNLESS OTHERWISE SHOWN. NON-MACHINING TOLERANCE $\pm$				DRAWING No.		3-V-7016-10216		16 REV 17	
				CARD CODE		SHEET No.		No. OF SHEETS	

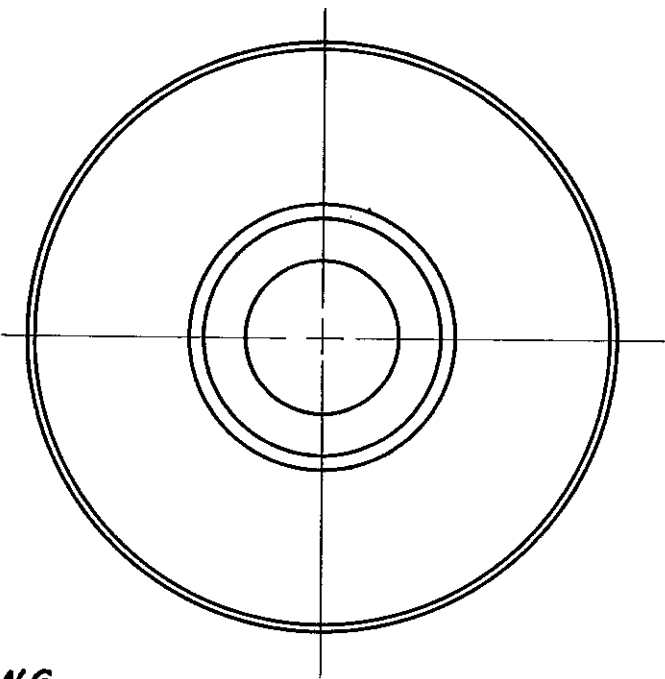
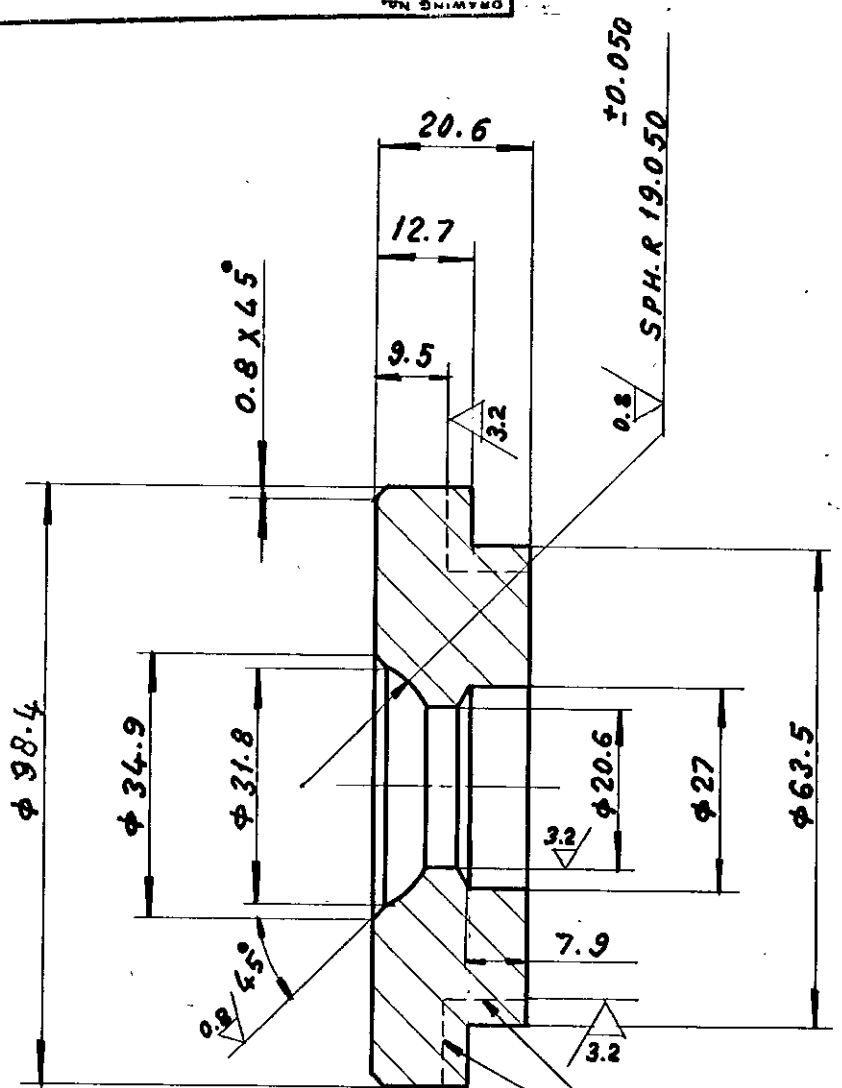
REV 02	DATE 22-4-97	ALTD: <i>Chy</i>	REV 01	DATE 23/4/86	ALTERED <i>Chy</i>
CHD & APPD <i>V. S. R.</i>			CHECKED <i>K.S.</i>		
NOTES MODIFIED. DIMN. φ 150 & φ 137.3 WERE φ 139.7 & φ 127. DCN. No. SV: 0424			DESCRIPTION, MATL. CODE, FINAL MATL. & GROSS WT. CHANGED.		

DMAC CODE: 93 070 9470000

3-V-7022-10228/02  
DRAWING NO.

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6.3 / 3.2 / 0.8



**NOTES :-**

- 1. SHARP CORNERS TO BE REMOVED.
- 2. UNSPECIFIED ANGLE TOLERANCES  $\pm 1/2^\circ$

MICROFILMED ON 26-1-84  
ROLL 00535

No	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No
	$\phi 100 \times 26$	15337134	SA 105 CERTIFY	NORMALISED 150-190 BHN	10	0.90	1.7		013



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620 014

DEPT	VL	CODE	340	SCALE	NTS	WEIGHT (kg.)	DRESSER DRG No 2VAD 907/7835
							PART No VAD 907A/SL No 2933

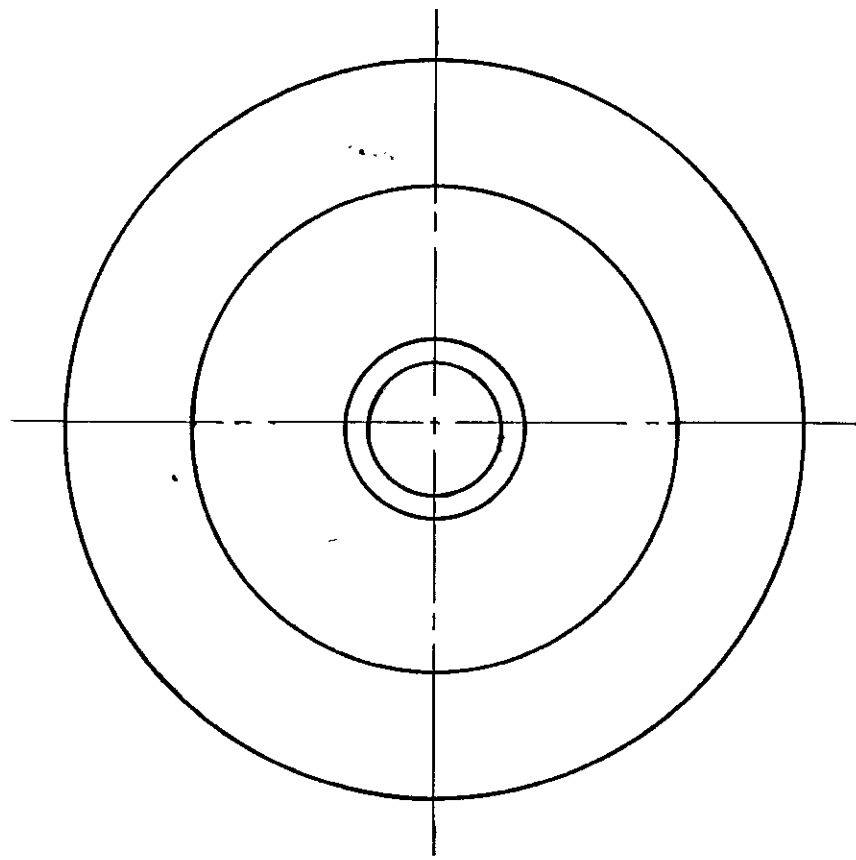
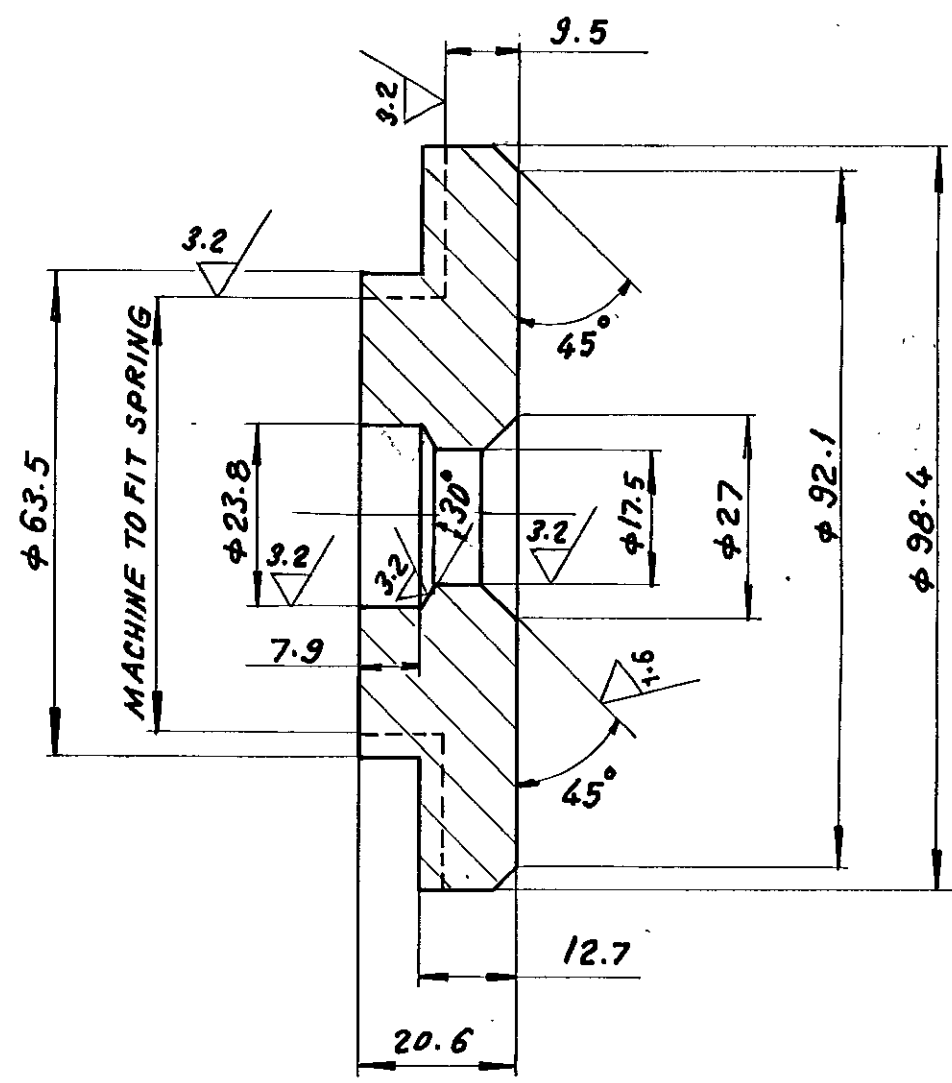
REV	DATE	ALTD:	REV	DATE	ALTERED
02	22.4.82	CHD & APPD: <i>V.P.</i>	01	17/3/86	CHECKED <i>V.P.</i>
DIA 98.4 WAS $\phi 79.4$ RAW MATL. SIZE CHANGED DCN. No. SV: 0424			DESCRIPTION, MATL. CODE, FINAL MATL. & GROSS WT. CHANGED.		

TITLE				DRAWN	NAME	SIGN	DATE
<b>TOP SPRING WASHER</b>				HARI	<i>Hari</i>		20-5-80
				CHECKED	V.P.	<i>V.P.</i>	20-5-80
							20-5-80
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE $\pm 0.25$ mm UNLESS OTHERWISE SHOWN. NON-MACHINING TOLERANCE $\pm$				CARD CODE	DRAWING NO. <b>3-V-7022-10228</b>		
				SHEET NO.	No. OF SHEETS		

3-V-7022-10229/02  
DRAWING NO.

6.3 / 3.2 / 1.6

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**NOTES:-**

1. SHARP CORNERS TO BE REMOVED.
2. UNSPECIFIED ANGLE TOLERANCES  $\pm 1/2^\circ$
3. PHOSPHATING AS PER LATEST APPLICABLE QUALITY PROCEDURE.

MICROFILMED ON 20-1-84  
ROLL 0052, 232

NO OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT [KG]	GROSS WT [KG]	DRAWING NO	ITEM NO.
	φ 100 x 26	15339134	SA 105 CERTIFY	NORMALISED 150-190 BHN	10	0.90	1.7	-	016

**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT VL	CODE 340	SCALE 1:1	WEIGHT (kg.)	DRESSER JRG No 215032/CE701
				PART No 1603201/SI.No 2781

REV 02	DATE 22-4-87	ALTD CHD & APPD V. Panik	REV 01	DATE 23-4-86	ALTERED	DESCRIPTION, MATL. CODE, FINAL MATL. & GROSS WT. CHANGED.
NOTES MODIFIED. DCN. No. 8V: 0424						

**BOTTOM SPRING WASHER**

DRAWN HARI	SIGN	DATE 20-5-80
CHECKED V.P.	SIGN	DATE 20-5-80

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE  $\pm 0.25$  mm UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE  $\pm$

DRAWING NO. **3-V-7022-10229** 02

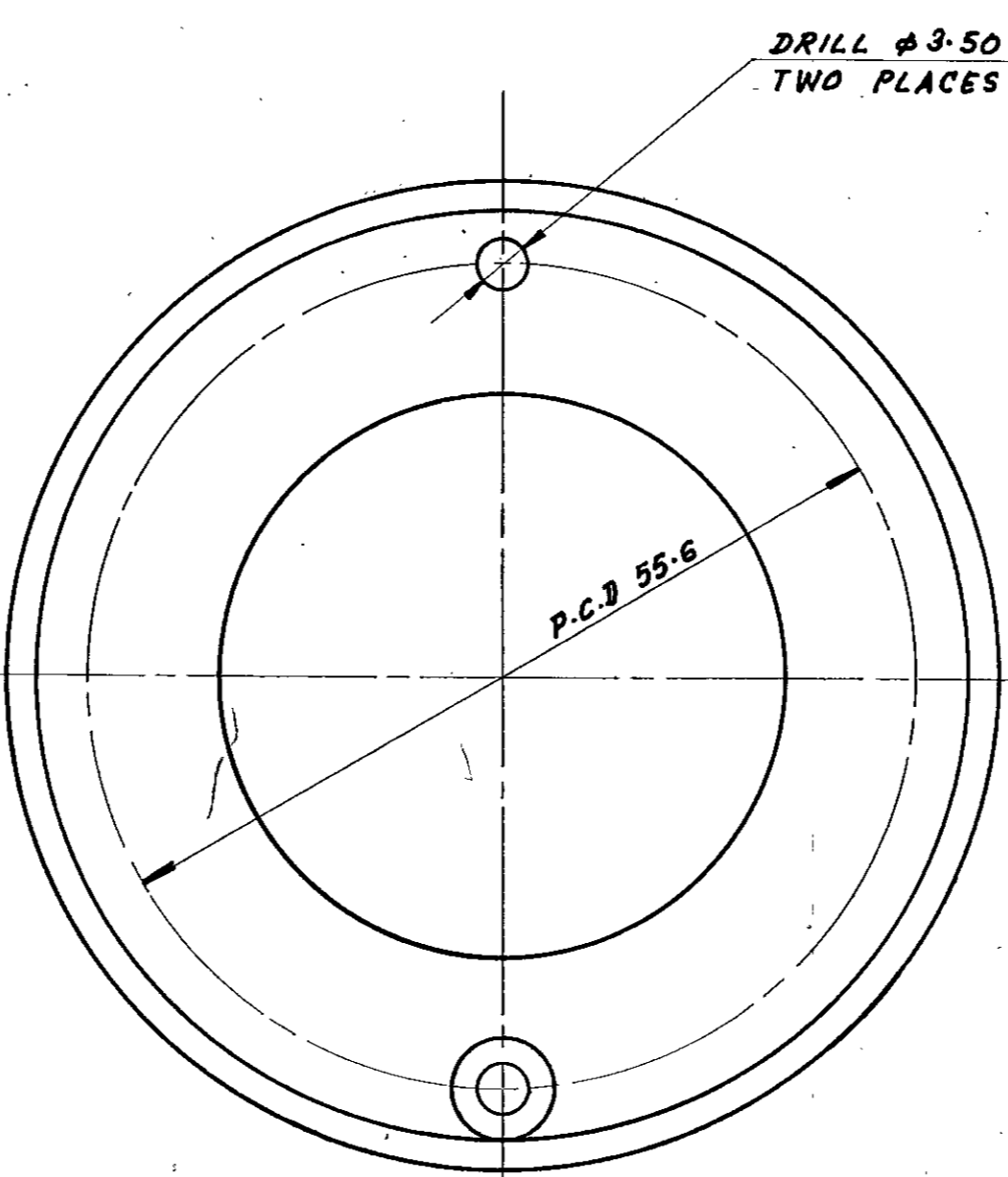
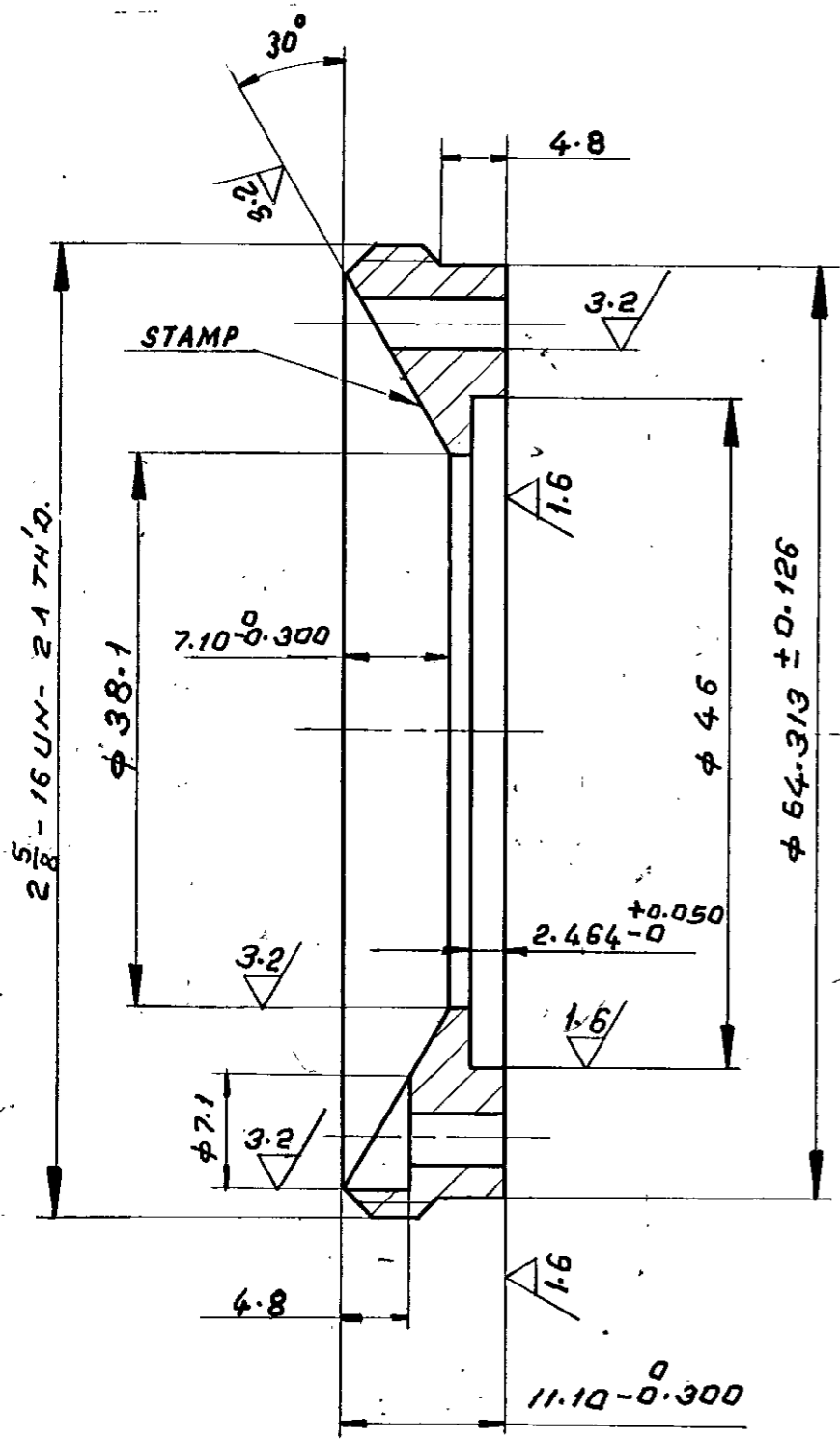
CARD CODE SHEET NO. NO. OF SHEETS

3-V-7022-10242

APPL. DR. TYPE NO.

6.3 / 3.2 / 1.6

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**NOTES:-**

1. SHARP CORNERS TO BE REMOVED.
2. 45° CHAMFER FIRST THREAD.
3. UNSPECIFIED ANGLE TOLERANCES ± 1/2°

MICROFILMED ON 20-1-84  
ROLL 05532 FRAME 408

NO	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP NET WT [KG]	GROSS WT [KG]	DRAWING NO	ITEM NO
01	φ 120 x 35	150 P4388	ASTM A 276 316Ti AMENDED CERTIFY	H4 T 24-29 HRC	46	0.12	3.11	057

**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT	CODE	SCALE	WEIGHT (kg.)	DR. DRG. NO. 216028/CA 310	DRAWN	NAME	SIGN	DATE
		2:1		PART NO. 1602801/S.L. NO. 2778	HARI	HARI		20.5.80

REV	DATE	ALTERED
01		CHECKED

**WASHER RETAINER**

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE ± 0.25 mm UNLESS OTHERWISE SHOWN. NON-MACHINING TOLERANCE ±

CARD CODE

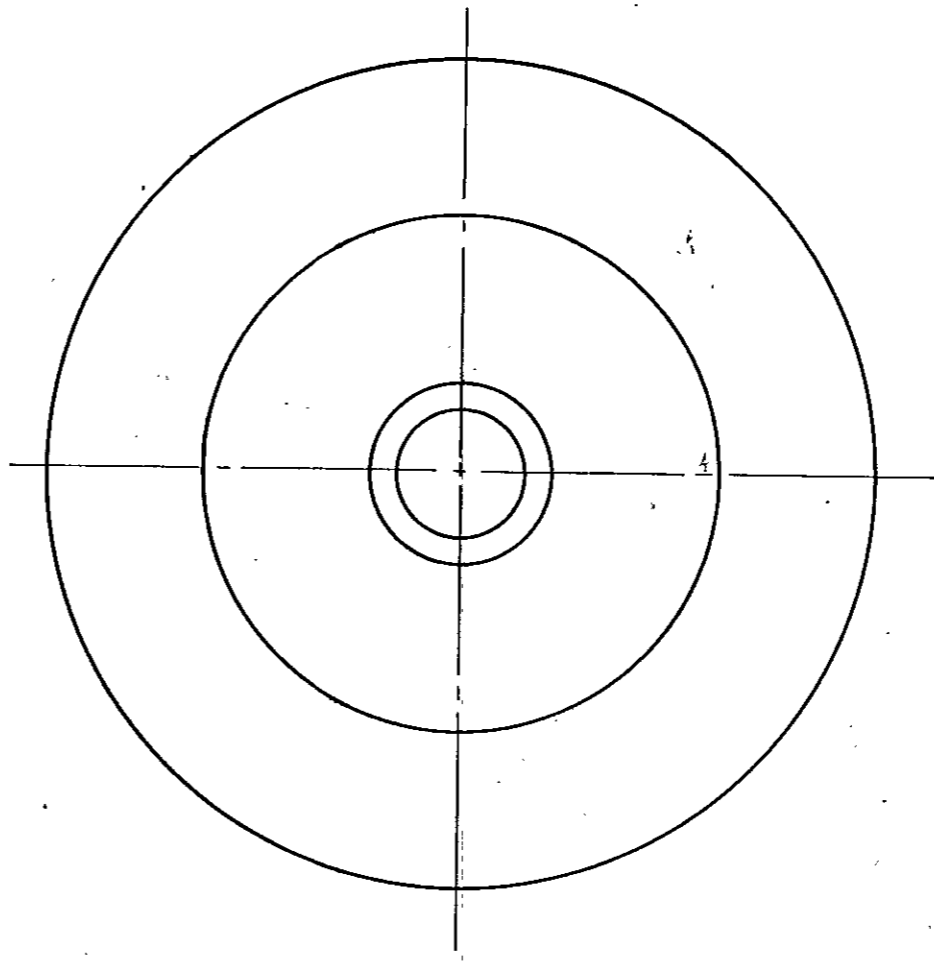
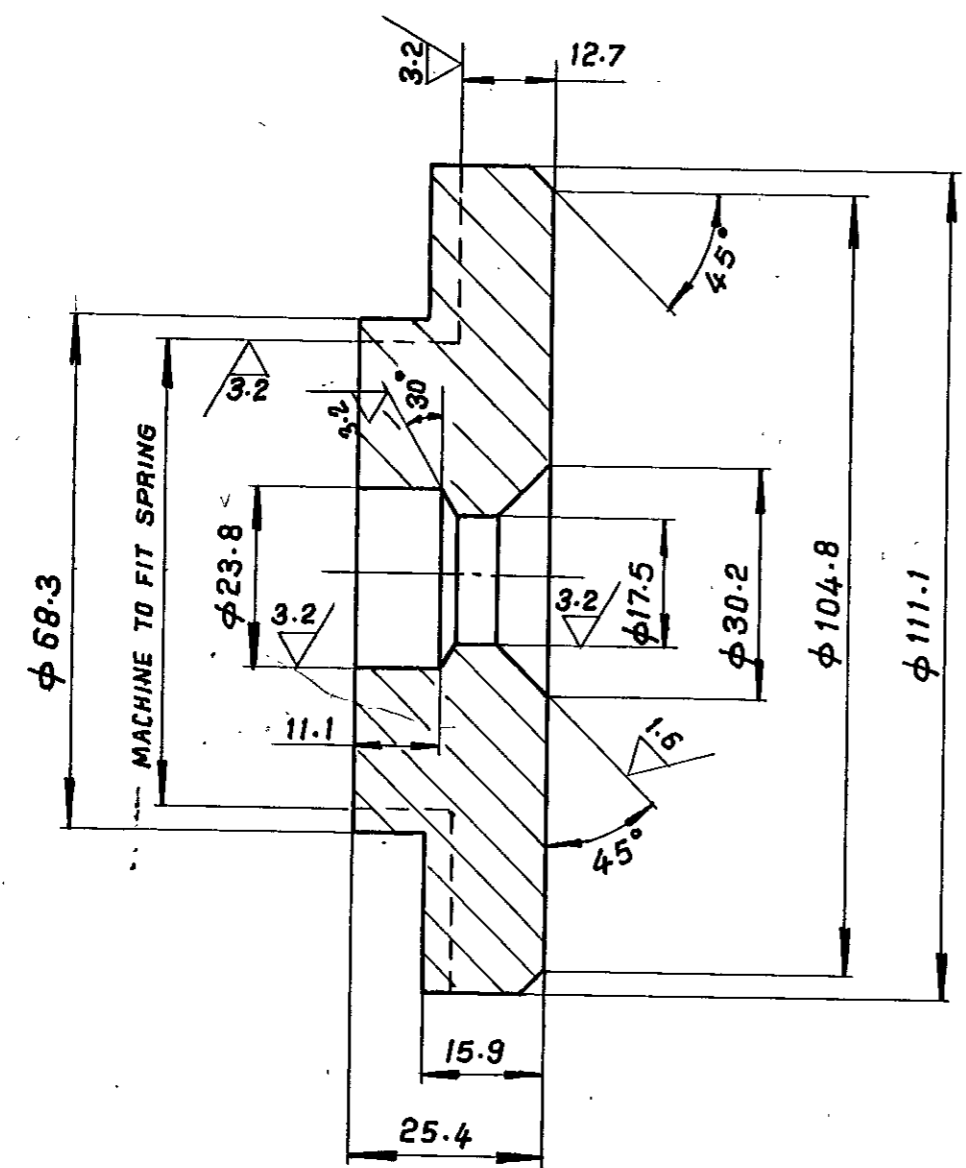
DRAWING NO. **3-V-7022-10242**

16 REV 17

3-V-7023-10257  
DRAWING NO.

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

6.3 / 3.2 / 1.6



MICROFILMED ON  
ROLL 00335 FRAME 1182

**NOTES:-**

1. SHARP CORNERS TO BE REMOVED.
2. UNSPECIFIED ANGLE TOLERANCES  $\pm 1/2^\circ$
3. PHOSPHATING AS PER LATEST APPLICABLE QUALITY PROCEDURE

	$\phi 125 \times 31$	15 239 281	SA 105 CERTIFY	NORMALISED 150-190 RHN	10	1.39	2.89		016
NO OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WE. (kg)	GROSS WE. (kg)	DRAWING No	ITEM No



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT	VL	CODE	340	SCALE	1:1	WEIGHT (kg.)	DRESSER DRG No 215795/CH 509 PART No 1579501/Sl. No 2749
------	----	------	-----	-------	-----	--------------	---

REV	DATE	ALTD:	REV	DATE	ALTERED
02	22.4.97	CHD & APPD: V.P.	01	23.4.86	CHECKED: V.P.
NOTES MODIFIED DCN. No. SV: 0424			DESCRIPTION, MATL. CODE, FINAL MATL. & GROSS WT. CHANGED.		

TITLE				DRAWN	NAME	SIGN	DATE
<b>BOTTOM SPRING WASHER</b>					V.A	V.A.	20-5-80
				CHECKED	V.P.		20-5-80
					SR:		20-5-80

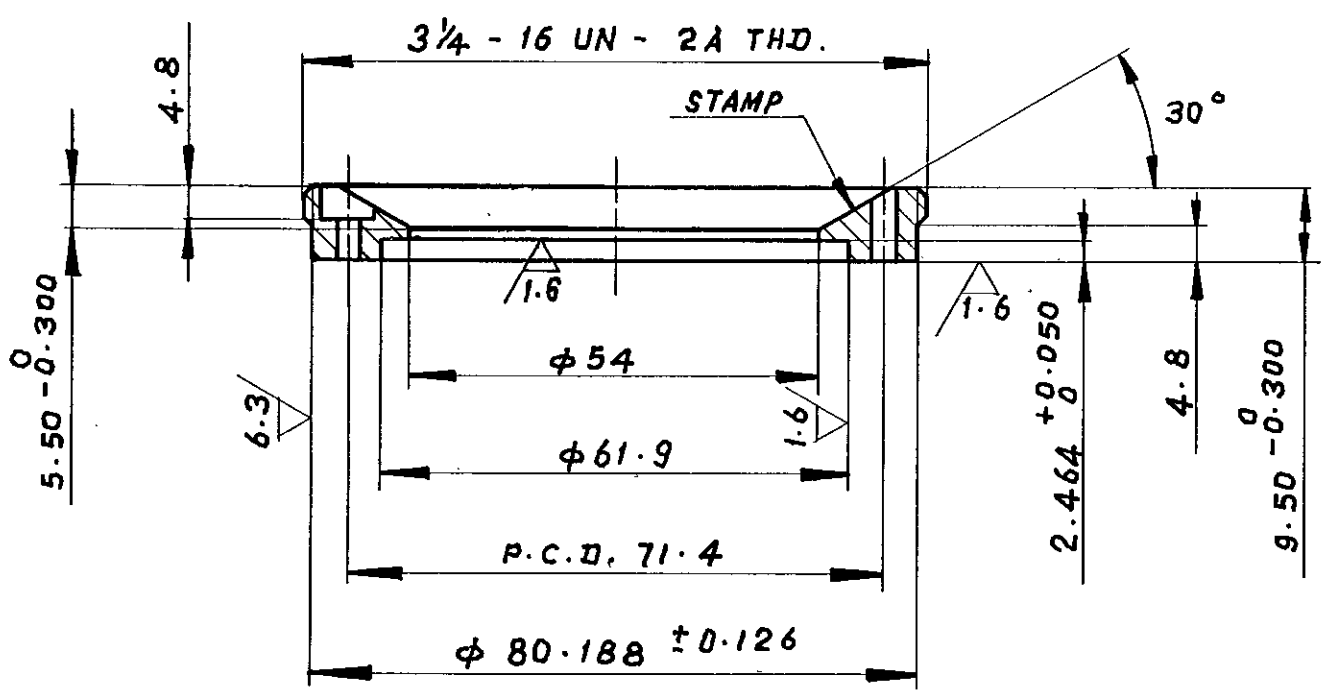
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE $\pm 0.25$ mm UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE $\pm$		CARD CODE	DRAWING NO.	15	16	REV 17
			<b>3-V-7023-10257</b>			02
		SHEET No.		CORPORATE DRG ID		

FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)

3-V-7023-10264

APPL. DR.  
TYPE NOS.

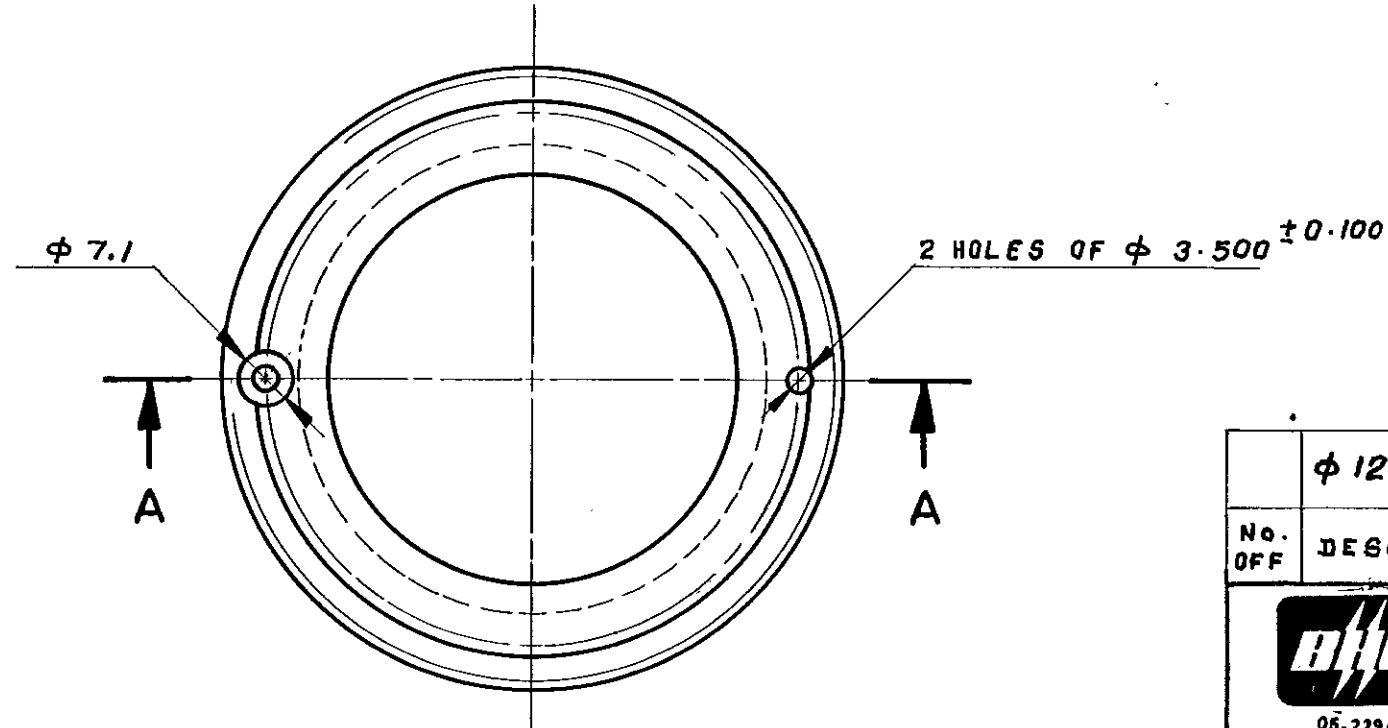
3.2 / 6.3 / 1.6



SECTION - AA

NOTES:

1. SHARP CORNERS TO BE REMOVED.
2. 45° CHAMFER FIRST THREAD
3. UNSPECIED ANGLE TOLERANCE ± 1/2°.



MICROFILMED ON  
ROLL 0535 FRAME 119

φ 120 X 20	15 024 388	ASTM A 276 H & T GR. 410 COND-7 AMENDED CERTIFY	24-29 HRC	46	0.2	1.8		057	
No. OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SDRT	NET WT. (KG)	GROSS WT. (KG)	DRG. No.	ITEM No.
		<b>BHARAT HEAVY ELECTRICALS LIMITED</b> BOILER PLANT UNIT, TIRUCHIRAPALLI-62001							
DEPT	CODE	SCALE 1:1		WEIGHT (kg.)		DR. DRG. No: 315959/EC 643		REV. No: 4213	
						PART No: 1595901			
REV	DATE	ALTERED	TITLE						
01		CHECKED	<b>WASHER RETAINER</b>						
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE ± 0.25 mm UNLESS OTHERWISE SHOWN. NON-MACHINING TOLERANCE ±			CARD CODE	DRAWING NO.		15		16 REV 17	
				<b>3-V-7023-10264</b>					
				SHEET NO.		NO. OF SHEETS			

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BASIC TYPE : 1725B

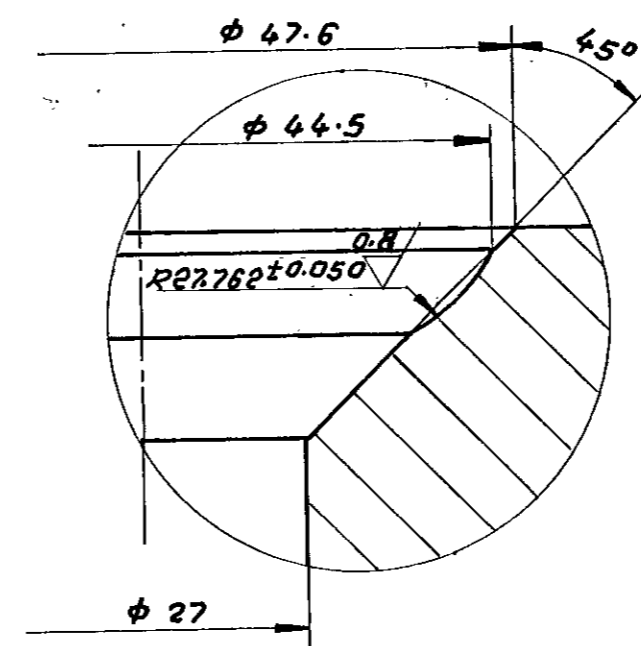
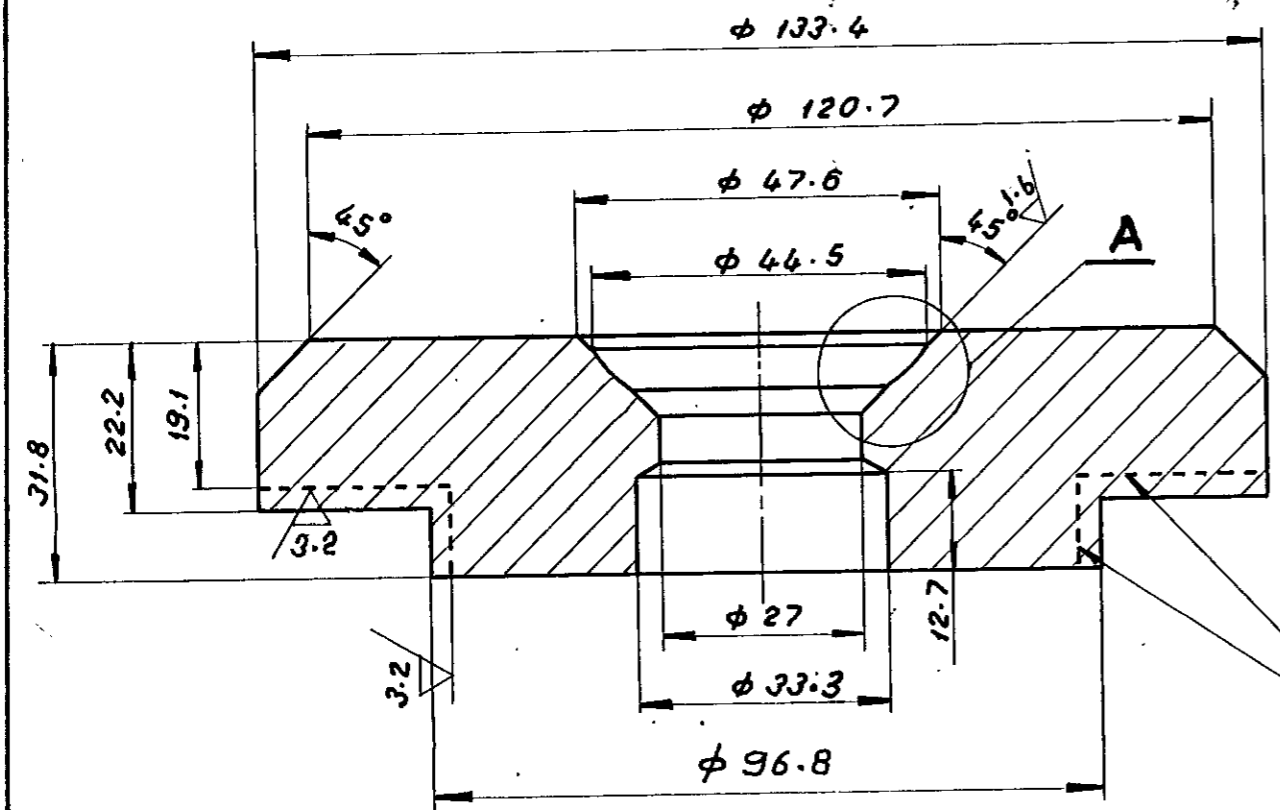
SIZE A-3

05-229 / C

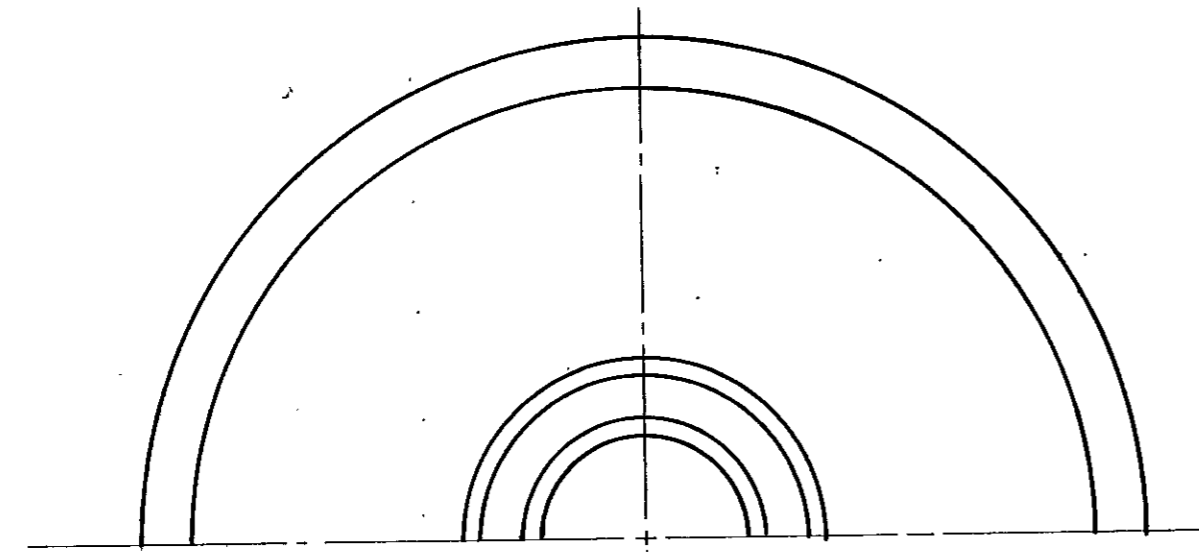
CAUTION THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LTD. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY.

3-V-7026-10319/03  
DRAWING No.

6.3 / 3.2 / 0.8 / 1.6



FIT TO SPRING **DETAIL-A**



**NOTES:**

1. SHARP CORNERS TO BE REMOVED.
2. UNSPECIFIED ANGLE TOLERANCE  $\pm \frac{1}{2}$
3. UNSPECIFIED MACHINING TOLERANCES  $\pm 0.25$  mm.

MICROFILMED ON  
ROLL 00535 FRAME 126

NO. OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRG. NO	ITEM NO.
	φ140x38	15015321	SA 105 CERTIFY	NORMALISED 150-190 BHN	ID	2.72	5.85		013
DEPT.	VL	GRADE OF UNTOL. DIM	C/M/F	SCALE	WEIGHT (kg)	DR. DRG. NO - 3VRR 907/ EQ 629		SL. NO. 6792	
CODE	340			1:1		PART NO - VRR 907A			
TITLE	<b>TOP SPRING WASHER</b>				CARD CODE	DRAWING NO.		REV	
					U 01	<b>3-V-7026-10319</b>		03	

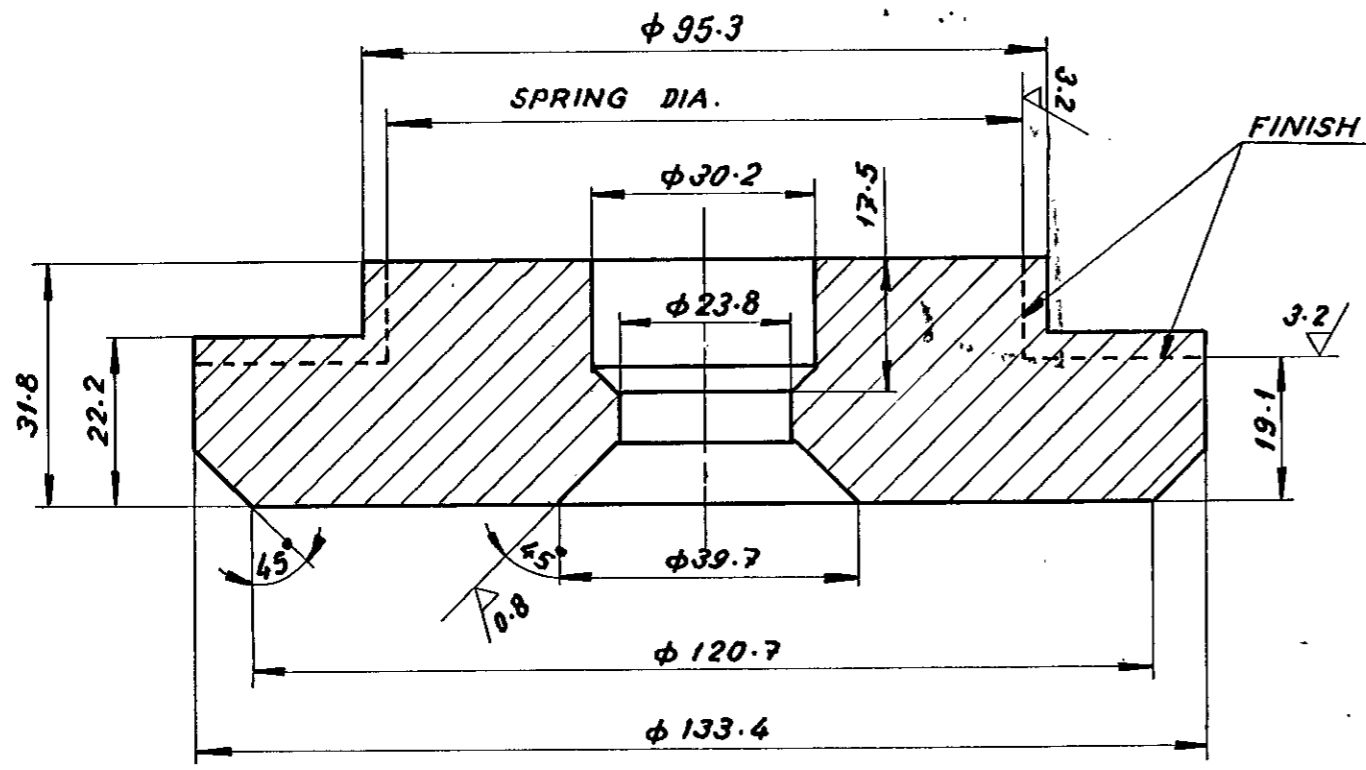
REV	DATE	ALTD:	REV	DATE	ALTERED:	REV	DATE	ALTERED:	REV	DATE	ALTERED:
03	22-4-97	CHD & APPD V.R./S.V.	02	17/3/86	CHECKED: V.R.	01	25-2-84	CHECKED: M. PANDYAN			
NOTES UPDATED. DCN. No. SV: 0424.			DESCRIPTION, MATL. CODE, FINAL MATL. & GROSS WT. CHANGED.			1. φ 96.8 WAS φ 88.9 2. RAW MATL. LENGTH AND WT. ARE CHANGED. 3. FINISH $\nabla$ 1.6 WAS $\nabla$ 0.8					

05-229 / C

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3-V-7026-10320/02  
DRAWING NO.

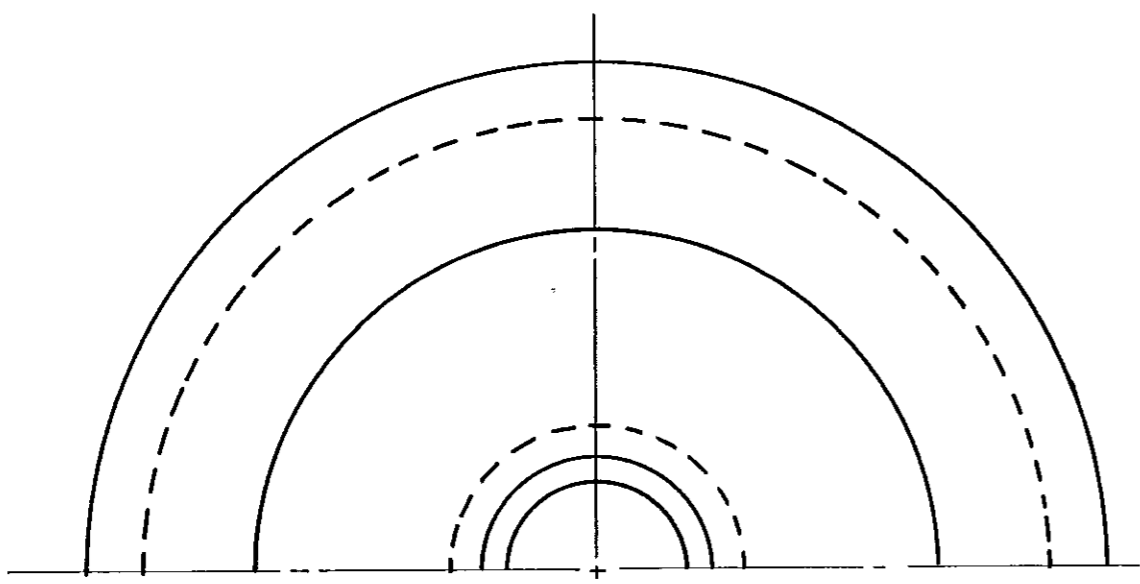
6.3 / 0.8 / 3.2



FINISH WHEN FITTING TO SPRING.

**NOTES:**

1. SHARP CORNERS TO BE REMOVED.
2. UNSPECIFIED ANGLE TOLERANCE  $\pm 1/2^\circ$
3. PHOSPHATING AS PER LATEST APPLICABLE QUALITY (PROCEDURE)
4. UNSPECIFIED MACHINING TOLERANCES  $\pm 0.25\text{mm}$ .



MICROFILMED ON  
ROLL 00525 FRAME 1125

REV 02	DATE 22-4-97	ALTD: <i>SPR</i>	REV 01	DATE 23-4-86	ALTERED <i>SPR</i>	CHECKED <i>SPR</i>
NOTES MODIFIED. Dcn. No. 8Y: 0424			DESCRIPTION, MATL. CODE, FINAL MATL & GROSS WT CHANGED.			

NO. OFF	DESCRIPTION	MATL CODE	FINAL MATL.	HEAT-TREATMENT	SCRAP SORT	NET WT. (kg)	GROSS WT. (kg)	DRG. NO	ITEM NO.
	$\phi 140 \times 38$	150 15 321	SA 105 CERTIFY	NORMALISED 10	150-190 BHN	2.23	5.85	-	016
DEPT.	VL	GRADE OF UNTOL. DIM C/M/F	SCALE 1:1	WEIGHT (kg)	DR. DRG NO: U-6433-WW/1	ST. NO			
CODE	340				PARTNO: 0087811	2601			
TITLE	<b>BOTTOM SPRING WASHER</b>				CARD CODE	DRAWING NO.	REV		
					U 01	3-V-7026-10320	02		

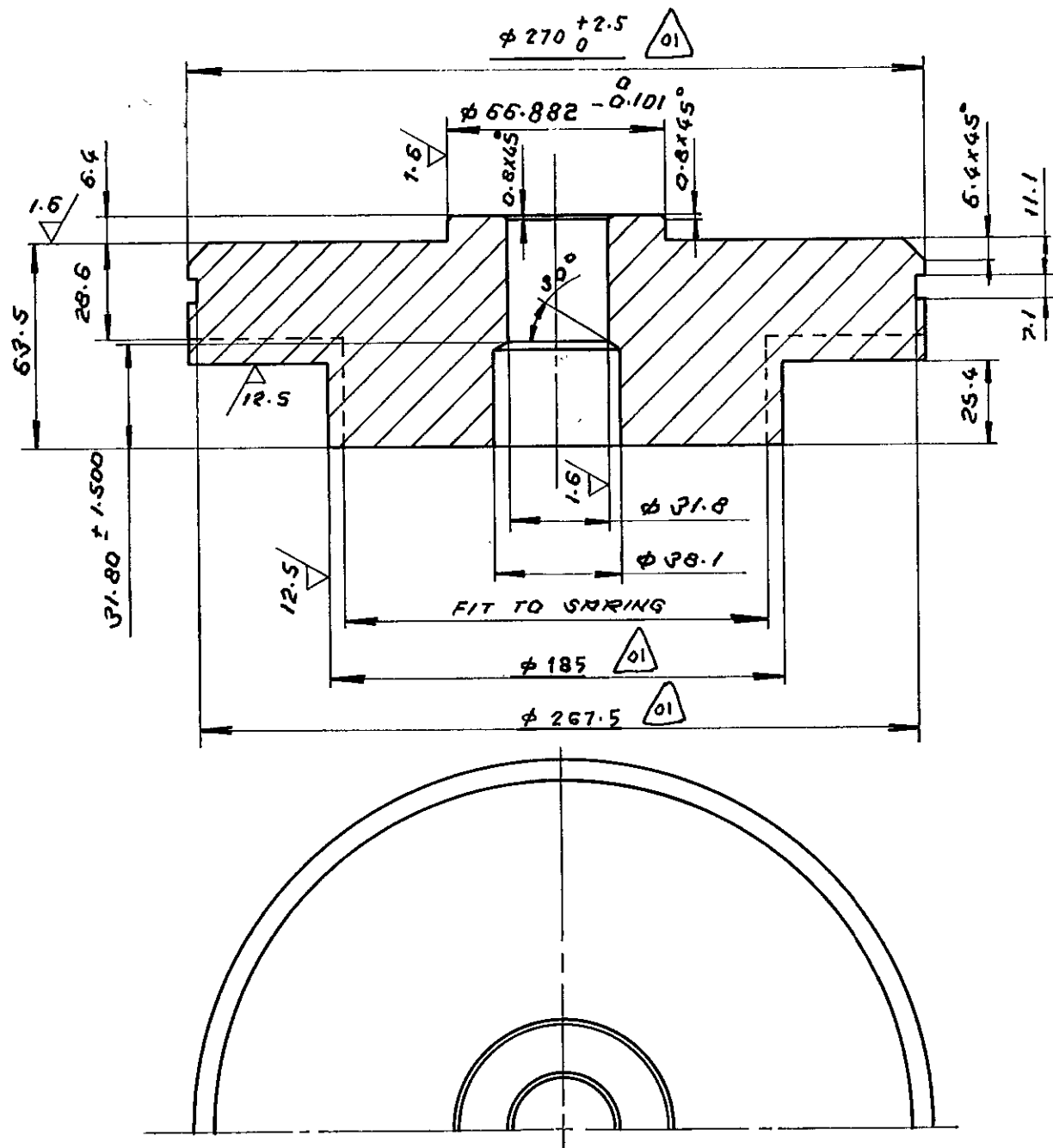
DMAC CODE: 93 070 468 0000 Size A3

05-229/C

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3-V-7081-10471/02  
DRAWING No.

6.3 / 12.5 / 1.6



**NOTES:**

1. UNSPECIFIED MACHINING TOLERANCES, ± 0.25 mm
2. SHARP CORNERS TO BE REMOVED.



REV	DATE	ALTD:	REV	DATE	ALTERED
02	22-4-97	CHD&APPD: V. Perumal	01	14/9/85	Checked: [Signature]
NOTES UPDATED. COMP. CODE SHOWN DCN. No. SV: 0424			φ 270 <sup>+2.5</sup> / <sub>0</sub> WAS φ 225 <sup>+2.5</sup> / <sub>0</sub> φ 185 WAS φ 139.7 φ 267.5 WAS φ 222.3 RAW MATL. CODE, WEIGHTS & SIZE ARE CHANGED.		

PL.	280x280-t 80	15 011 4 23	SA 299 CERTIFY	NORMALISED	10	22.13	49.2	—	013
NO OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT. (KG)	GROSS WT. (KG)	DRG. No.	ITEM No.
Bharat Heavy Electricals Ltd., BOILER PLANT UNIT TIRUCHIRAPALLI-620 014				DRN	NAME		SIGN	DATE	NO. OF VAR
				CHD	K. R. LEON		[Signature]	17/11	
				APPD	V. PERUMAL		V. Perumal	17-2-84	
					S. RASHID		[Signature]	17-2-84	
DEPT.	VL	GRADE OF UNTOL. DIM	C/M/F	SCALE	WEIGHT (kg)		DR. DRG No: 31818q/cz853		SL. NO.
CODE	340			1:2			PART No: 1818001		3327
TITLE				CARD CODE	DRAWING NO.		REV		
TOP SPRING WASHER				U 01	3-V-7081-10471		02		

COMP. Code: 93 170 1510000.

1786 WB 6X10 01 X9 BW 9871 Size A3

05-229 / C

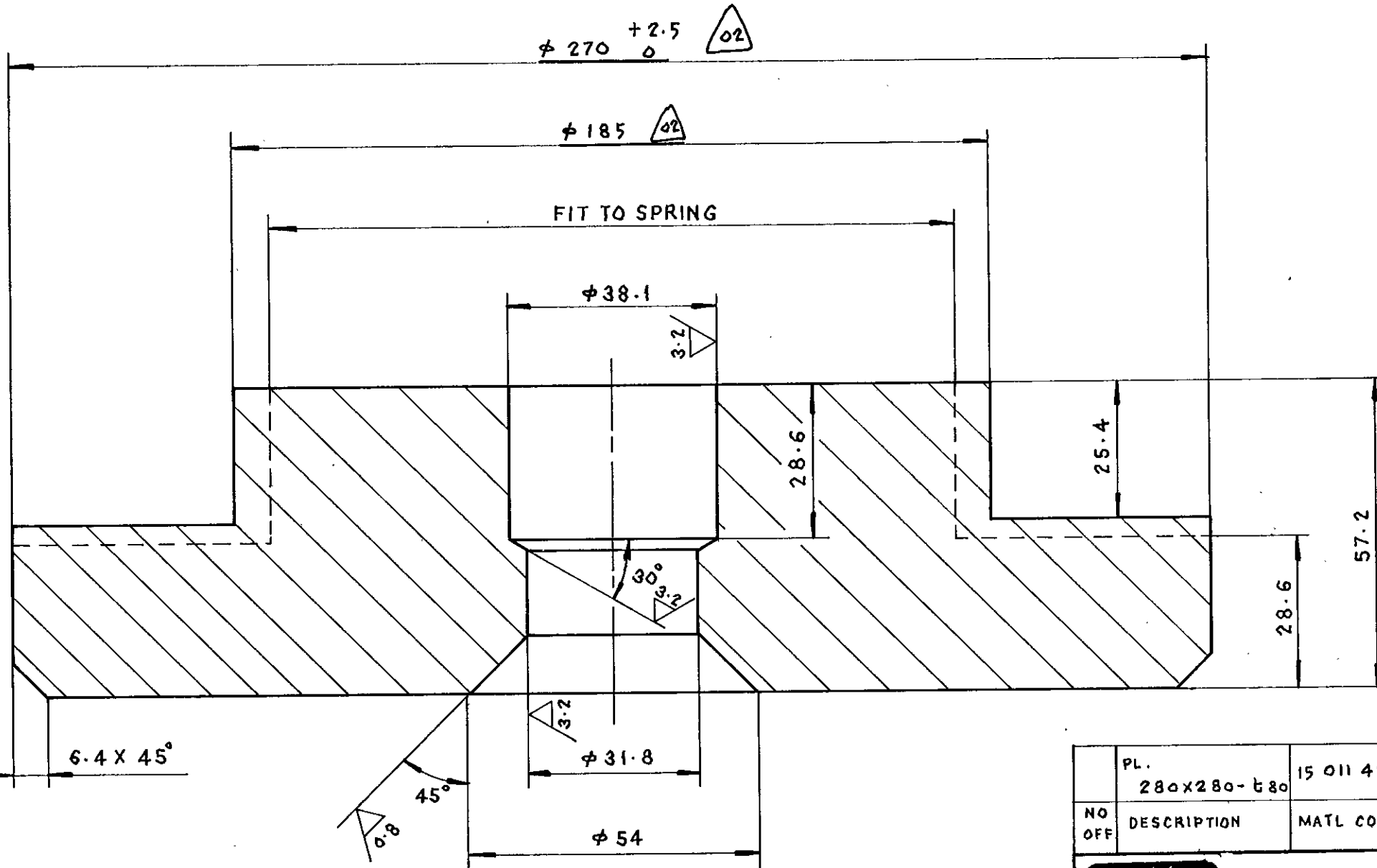
CAUTION THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LTD. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY.

3-V-7081-10472/03  
DRAWING No.

6.3 / 3.2 / 0.8

**NOTE :-**

1. SHARP CORNERS TO BE REMOVED.
2. UNSPECIFIED ANGLE TOLERANCES  $\pm 1/2^\circ$
3. UNSPECIFIED MACHINING TOLERANCES  $\pm 0.25\text{mm}$ .
4. PHOSPHATING AS PER LATEST APPLICABLE QUALITY PROCEDURE.



PL.	280x280-t80	15 011 423	SA 299 CERTIFY	NORMALISED	10	19.16	49.2	—	016
NO OFF	DESCRIPTION	MATL CODE	FINAL MATL	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No.	ITEM No.
DRN	NAME			SIGN	DATE	NO. OF VAR			
CHD	T. Rajaraman.			JR	15-2-84				
APPD	V. PERUMAL			V. Perumal Pilla	15-2-84				
	S. RASHID			SR	15-2-84				
DEPT.	VL	GRADE OF UNTOL. DIM C/M/F	SCALE	WEIGHT (kg)	DR. DRG No. 218179 / CZ853		S/No. 2816		
CODE	340		1:1	—	PART No. 1817901				
TITLE	BOTTOM SPRING WASHER			CARD CODE	DRAWING NO.	REV			
				U 01	3-V-7081-10472	03			

REV	DATE	ALTD:	REV.	DATE	ALTERED:	REV	DATE	ALTERED
03	22.4.97	CHD APPD: Y. Perumal	02	14.9.85	CHECKED: SR	01	17.4.84	CHECKED: SR
NOTES MODIFIED. COMP. CODE SHOWN. DCN. NO. SV: 0424			$\phi 270^{+2.5}_0$ WAS $\phi 222.30^{+6.0}_0$ $\phi 185$ WAS $\phi 139.7$ RAW MATL, SIZE, CODE AND WEIGHTS ARE CHANGED.			NOTE - 4 ADDED.		

COMP. CODE: 931701700000

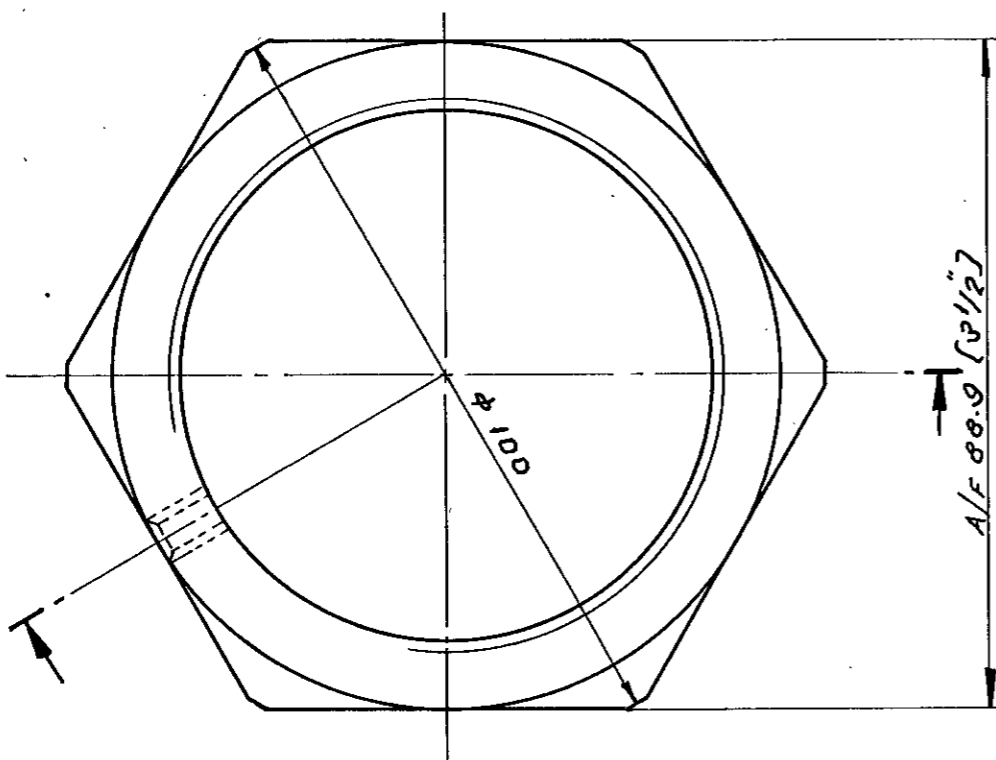
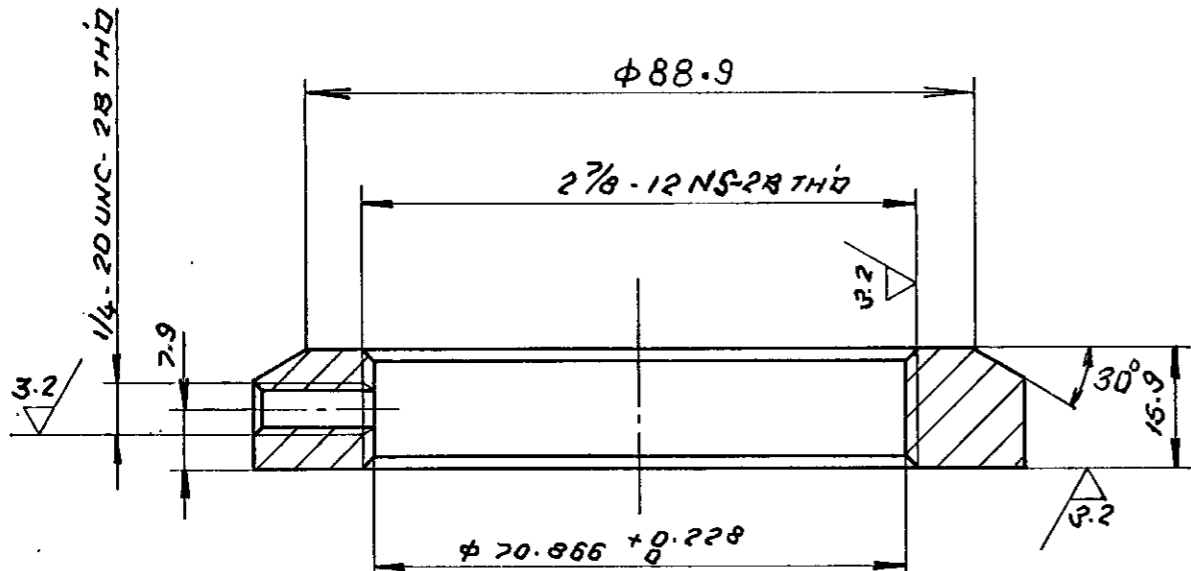
1786 WB 6X10

Size A3

05-229/C

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3-V-7081-10479/01  
DRAWING NO.



**NOTES:-**

1. UNSPECIFIED MACHINING TOLERANCES ±0.25mm.
2. ROUND CORNERS ARE PERMISSIBLE.
3. 45° CHAMFER FIRST THREAD.

REV 01	DATE 14/2/86	ALTERED <i>[Signature]</i>	CHECKED <i>[Signature]</i>
FINAL MATL. ASTM B 584 ALLOY 875 WAS ASTM B 371 ALLOY 894. DESCRIPTION, MATL. CODE & GROSS WT. CHANGED.			

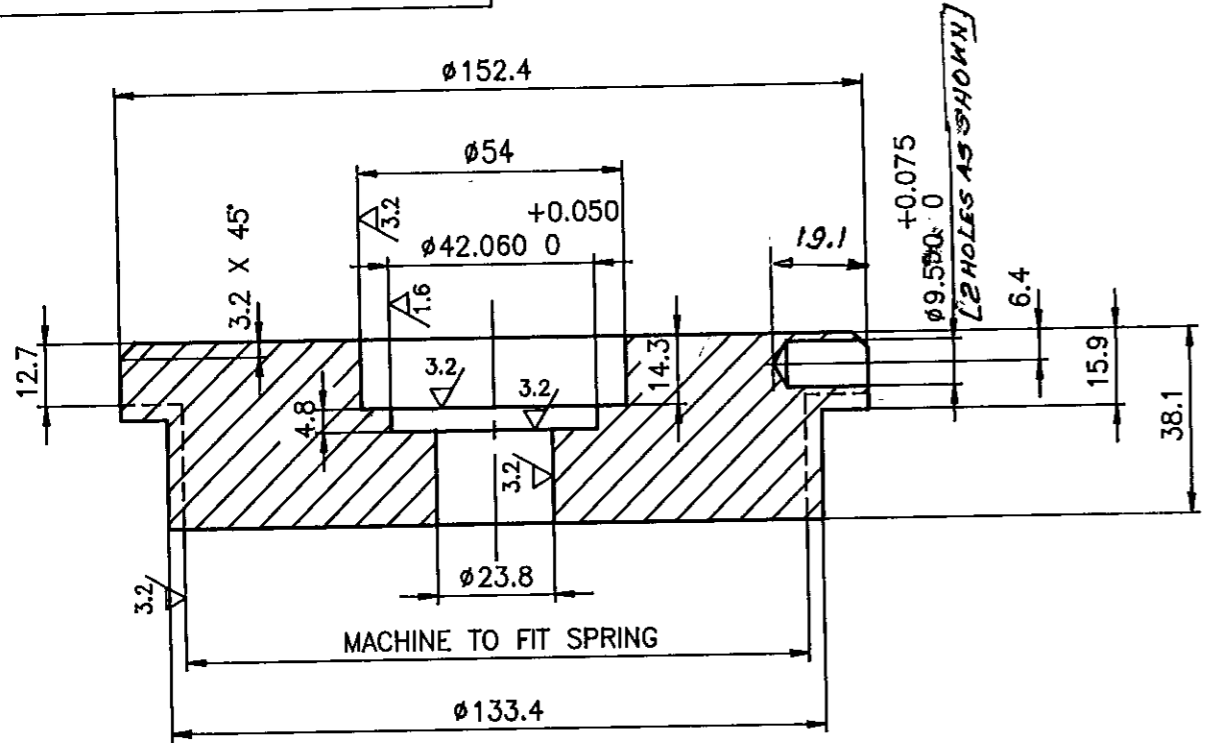
φ 100 x 22	16013423	ASTM B 584 ALLOY 875 AMENDED CERTIFY	60	0.36	1.48		102		
NO OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT. (kg)	GROSS WT. (kg)	DRG. NO.	ITEM NO.
<b>Bharat Heavy Electricals Ltd.,</b> BOILER PLANT UNIT TIRUCHIRAPALLI-620 014				DRN	NAME	SIGN	DATE	NO. OF VAR	
				'CHD	V. PERUMAL	V. Perumal	15-2-84		
				APPD	S. RASHID	[Signature]			
DEPT.	GRADE OF UNTOL. DIM	SCALE	WEIGHT (kg)	DR. DRG. No: 297668/		SL. NO.			
CODE	C/M/F	1:1		CF033		4443			
TITLE				CARD CODE	DRAWING NO.	REV			
LOCK NUT				U 01	3-V-7081-10479	01			



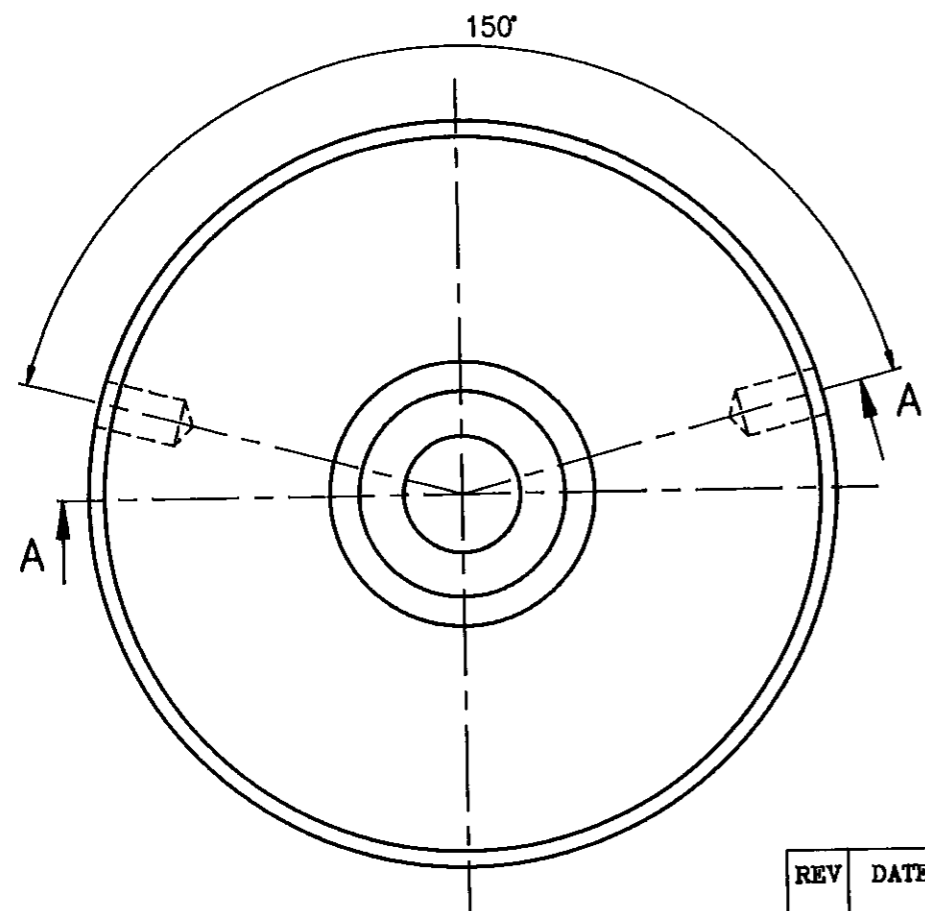
ALL DIMENSIONS ARE IN MILLIMETRES. FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT QCP / QP.

DRAWING NO. 3-V-7116-11076

6.3 / 3.2 1.6



SECTION-AA



**NOTE:**  
1. SHARP CORNERS TO BE REMOVED

REV	DATE	ALTERED
		CHD & APPD

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NO OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No.	ITEM No.
	Ø165 X 43	15 339 282	SA 105 CERTIFY	NORMALISED 150-190BHN	10	4.3	7.2		013
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	L.RENGASAMY	<i>[Signature]</i>	28/9/95		
				APPD	V.PERUMALPILLAI	<i>[Signature]</i>	10-5-95		
				APPD	K.NAGARAJAN	<i>[Signature]</i>	10-5-95		
DEPT	VL	SCALE	WEIGHT (KG).	REFERENCE INFORMATION			NO. OF		
CODE	340	NTS		DRESSER DR.No.346962/FA042			ITEM		
TITLE				CARD CODE	DRAWING NO.			REV.	
TOP SPRING WASHER				U 01	3-V-7116-11076				

COMP.CODE:931707700000

1718WB 53

Size A3

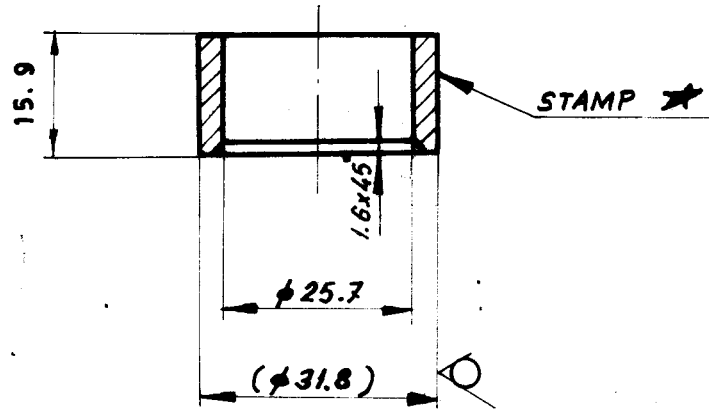
REV	DATE	ALTERED	CHECKED & APPD:
02	5.2.97		

MAIN DRG. MADE AS  
TABULATED DRG. AND  
SI. No. 02 ADDED.

NOTE UPDATED.  
SCN: SR: 0182

6.3 / ✓

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MICROFILMED ON  
FRAME: 038  
ROLL: 00523

**NOTE:**

1. ASSEMBLE IN VALVE AS PER LATEST APPLICABLE QUALITY PROCEDURE.

02	4-V-0054-13063/15	024 277	01	0.03	SOLUTION ANNEALED	93075085
	BAR $\phi 40 \times 20.5$	ASTM A182-F316	46	0.20	F. 316	1905/S3
01	4-V-900(-13063/0)	1515 102 065	01	0.03	SOLUTION ANNEALED	93075084
	TUBE $31.8 \times 4-20.5$	ASTM-A213-TP304H	40	0.05	TP 304 H	1905 D
Sl. No.	DRG. No.	MATL. CODE	No. OFF	NET WT. [KGS]	HEAT TREATMENT	COMP. CODE
	DESCRIPTION	MATL. SPECN. [AMENDED CERTIFY]	SCRAP SORT	GROSS WT. [KGS]	STAMP *	DRESSER TYPE No.



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT	CODE	SCALE	WEIGHT (kg)	(1522) PRE. NO 244119 DRESSER (REV. X 915)	IT. NO.
VL	340	1:1	0.03		053
TITLE				E.C. 011	NAME
LIMIT WASHER				DRAWN	SIGN
				CHECKED	DATE
				APPROVED	

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE  $\pm 0.25$  mm. UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE  $\pm$

CARD CODE	4 DRAWING No.	15	16 REV 17
4_V_0_000_13063			02

REV	DATE	ALTERED
02	21.8.84	CHECKED

1. RAW MATL. ASTM A193-B7 WAS 15: 1367 CLASS 6.6  
2. MATL. CERTIFICATION CERTIFY ADDED  
3. NOTES 2, 3 & 4 ADDED.

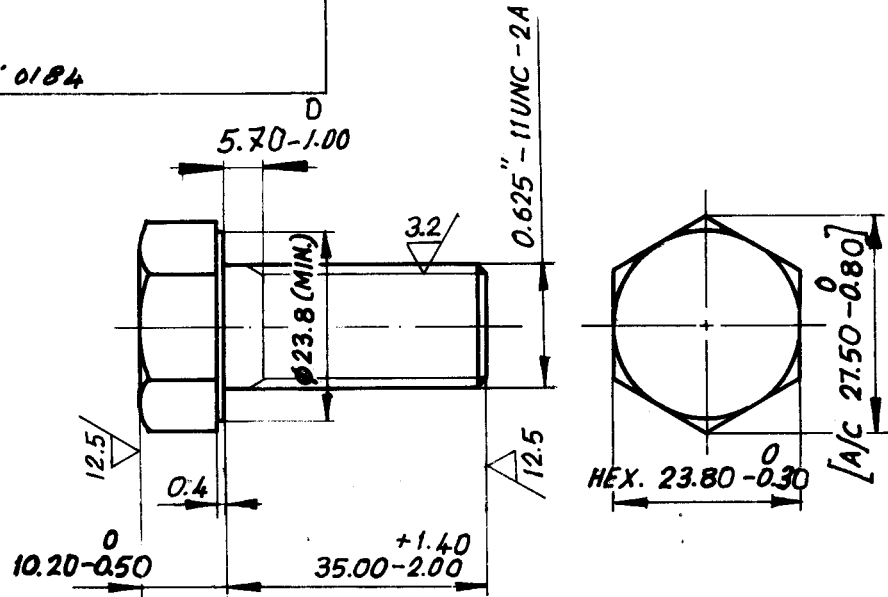
MAIN DRG. HAS BEEN CHANGED TO TABULATED DRG.  
SL. No. 02 ADDED.

6.3 / 12.5 / 3.2

REV.	DATE	ALT:
03	10.3.97	CHD. & APPD.

NOTES UPDATED.

DCH: SR: 0184



**NOTES:-**

1. 45° CHAMFER FIRST THREAD.
2. CAP BOLT SHOULD BE MANUFACTURED AND TESTED AS PER APPLICABLE QUALITY PROCEDURE.
3. HARDNESS:- 26-30 HRC.
4. PHOSPHATE COAT AS PER APPLICABLE QUALITY PROCEDURE, FOR SL.No.1 ONLY.



02	4-V-8913-13140/01	BAR $\phi$ 32 x 52	15024194	AISI 304 CLASS I	46	0.09
		93076498	SOLUTION ANNEALED		01	0.33
01	4-V-9408-13140/02	BAR $\phi$ 32 x 52	15089087	ASTM A193-B7	20	0.09
		93075673	Q & T		01	0.33
SL. No.	DRG. No.	DESCRIPTION	MATL. CODE	MATL. SPECN. (PRODUCT ATTEST)	SCRAP SORT	NET WT - kg
		COMP. CODE	HEAT TREATMENT		No. OFF	GROSS WT - kg



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT	CODE	SCALE	WEIGHT (kg)	DRESSER DRG. NO.	IT. No.
VL	340	1:1	0.09	215 (4316) [REVERK 3097]	227
TITLE			DRAWN	NAME	SIGN
<b>CAP BOLT 0.625" (5/8)</b>			CHECKED	K.B	K. V. K.
			APPROVED	D.K	D.K
			DATE		
			10.12.79		
			10.12.79		
			17.12.79		

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE  $\pm$  0.25 mm. UNLESS OTHERWISE SHOWN. NON-MACHINING TOLERANCE  $\pm$

CARD CODE  
DRAWING NO. 4  
15  
16 REV 17  
**4-V-0000-13140**  
**03**

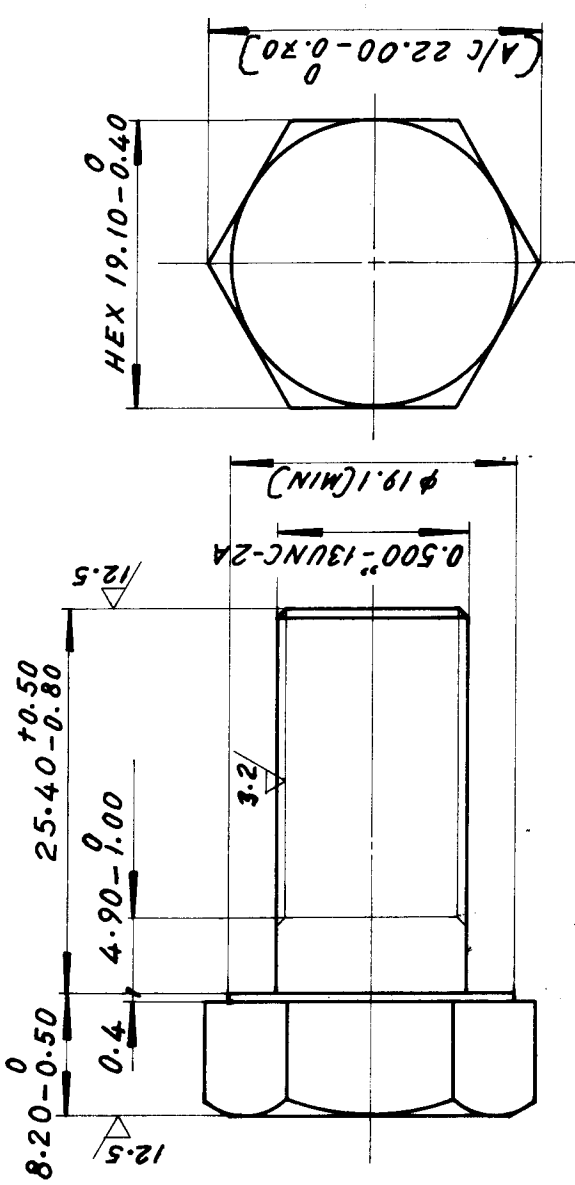
CAUTION THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LTD IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY.

MICROFILMED ON...  
ROLL COVER FRAME 526

FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)

REV	DATE	ALTERED	DATE	ALTERED
01	20.8.84	Checked	26.3.97	Checked
MAIN DRG. HAS BEEN CHANGED AS TABULATED DRG. SL. No. 02 ADDED.				
NOTES UPDATED.				
DCN: SR: 0186				

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**NOTES:-**

1. 45° CHAMFER FIRST THREAD.
2. CAP BOLT SHOULD BE MANUFACTURED AND TESTED AS PER LATEST APPLICABLE QUALITY PROCEDURE.
3. HARDNESS :- 26-30 HRC.
4. PHOSPHATE COAT AS PER LATEST APPLICABLE QUALITY PROCEDURE FOR SL. No. 01 ONLY.

02	4-V-8912-13285/01	SOLUTION ANNEALED	15024111	46
	BAR φ 25 X 40	93076495	AISI 304 CLASS.I	01
01	4-V-9905-13285/01	Q & T	15039086	20
	BAR φ 25 X 40	93076056	ASTM A193-B7	01
SL.No.	DRG.No.	HEAT TREATMENT	MATL CODE	NET WE(Mg)
		COMP. CODE	MATL SPEC	GROSS WE(Mg)
			LINE	NO. OFF



**Bharat Heavy Electricals Ltd.,**  
 BOILER PLANT UNIT  
 TIRUCHIRAPALLI-620 014

DEPT. VL	FOL. FOR UNFOL. M/CO	DRN	NAME	DATE
CODE 340	DIM. 1/S 10.4mm.	CHD	R.L.	06.02.82
	SCALE 2:1	APPD	K.S.R	08.02.82
	WEIGHT (KG) 0.05		D.K.	26.02.82
			(4316) (REV:-EK309)	ITEM NO. 227
			PRESSER DRG. NO. 215	

TITLE	CARD CODE	DRAWING NO.	REV
<b>CAP BOLT-0.500"</b>	U 01	<b>4-V-0000-13285</b>	02

MICROFILMED & CORPORATE DRG ID ROLL 885212 DRG 4-V-0000-13285

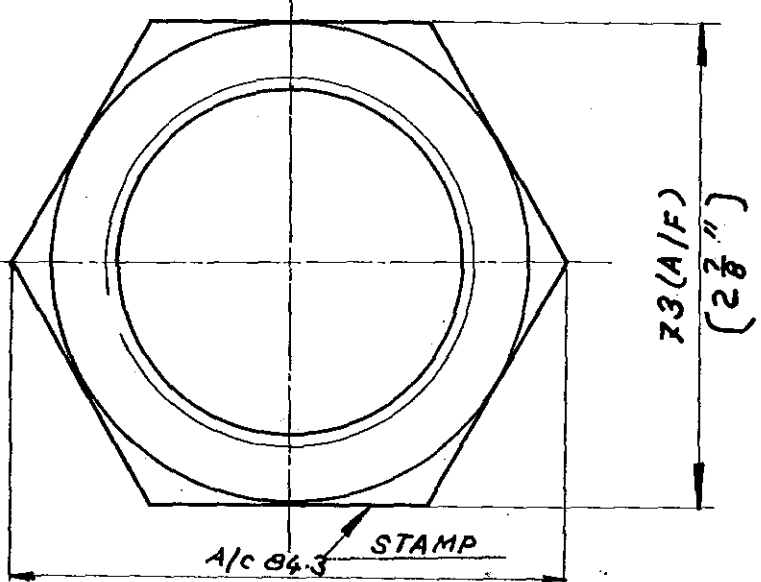
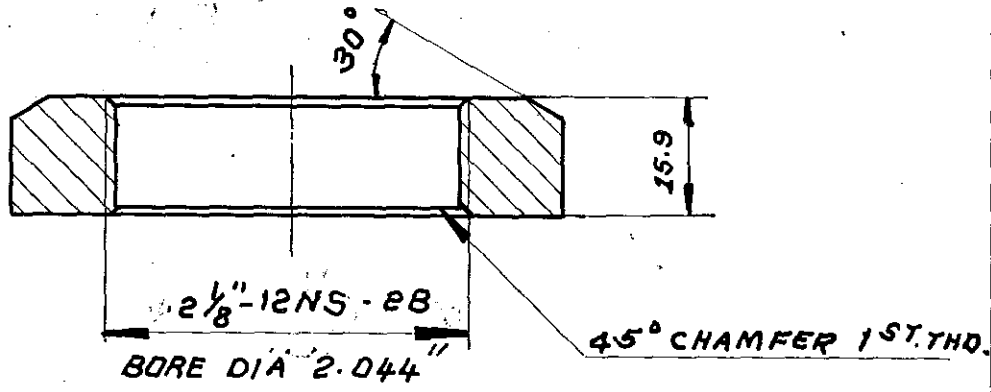
6-3 / 12.5 / 3.2

REV 01	ALTERED	VA	REV 02	DATE	12/2/86	ALTERED	Three
	CHECKED	✓				CHECKED	kw
1. RAW MATL. SIZE CHANGED			FINAL MATL ASTM B584 ALLOY				
2. MATL. CODE & HEAT TREAT ADDED			B75 WAS ASTM B371 ALLOY B94				
			DESCRIPTION, MATL. CODE & GROSS WT. CHANGED				

3.2

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APPLICABLE TYPE NOS  
1775QWA, QWB, QWD  
1775 WA, 1785 WA  
1705 RWD



ALL THREAD DIMENSIONS ARE IN INCHES.  
BREAK SHARP CORNERS. & REMOVE BURRS.

00593 FRAME 366

NO. OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP NET WT (KG)	GROSS WT (KG)	DRAWING NO.	ITEM NO.
	φ 85 x 22	16013426	ASTM B584 ALLOY B75 AMENDED CERTIFY		60	0.2	1.07	102



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT	CODE	SCALE	WEIGHT (kg)	DR. DRG. NO: V6443-P/CK22	IT. NO. 627
TITLE			DRAWN	NAME	SIGN
<b>LOCK NUT</b>			U. TRAJ	U. TRAJ	19/3/77
			CHECKED	VR	
			APPROVED	PA	

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE ± 0.15 mm. UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE ±	CARD CODE	1 DRAWING NO.	15	16 REV 17
		<b>4-V-7000-10021</b>		

1733 WD

OMAC CODE 930700360000

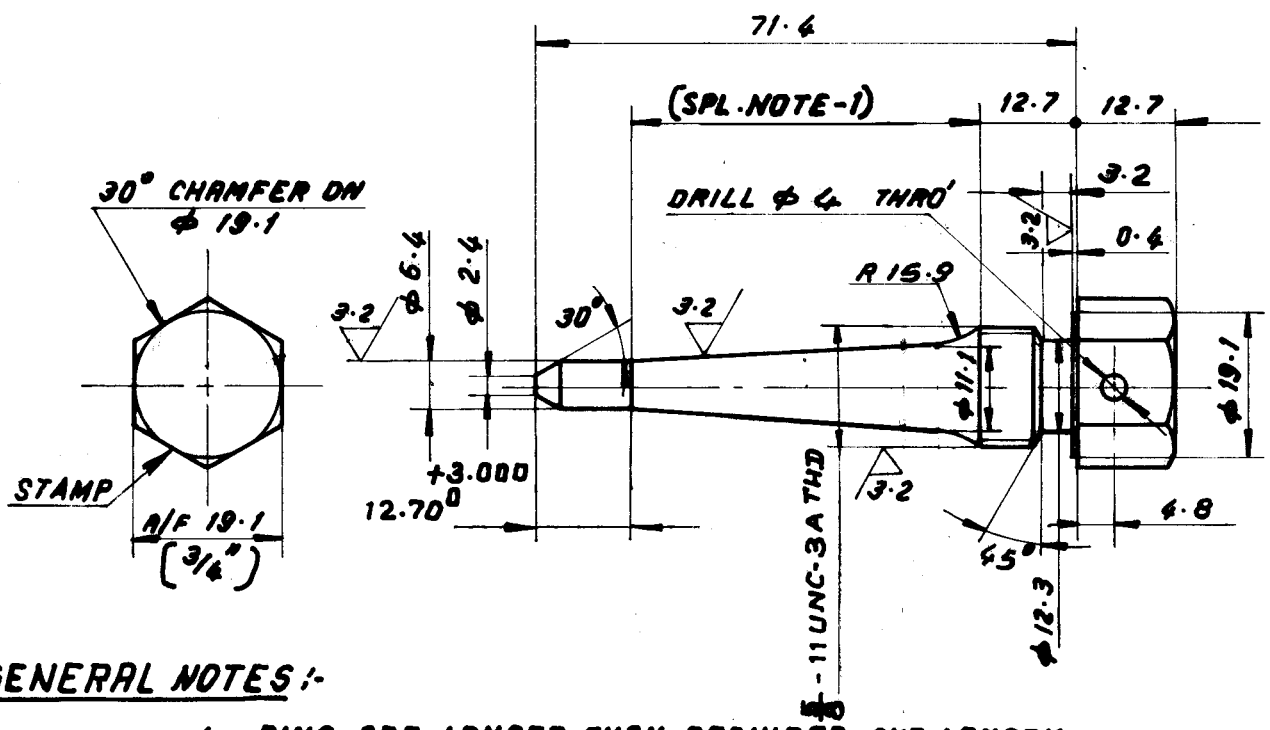
REV 01 DATE 7.10.84 ALTERED V. Raman. CHECKED k2  
 DRILL  $\phi 4$  WAS  $\phi 3.2$   
 DELETED C' SINK  $\phi 4.8 \times 90$   
 R 15.9 WAS R 11.1  
 45° ANGLE WAS 30°  
 HEAT TREATMENT QHT-11 WAS  
 QHT 12

REV 02 DATE 20.6.97 ALTERED By CHECKED PAPPALU.  
 NOTES UPDATED.  
 DCN. NO. SV! 0436

6.3 / 3.2

00523 353

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**GENERAL NOTES :-**

1. PINS ARE LONGER THAN REQUIRED. CUT LENGTH TO SUIT AT ASSEMBLY.
2. SHARP CORNERS TO BE REMOVED
3. UNSPECIFIED ANGLE TOLERANCES  $\pm 1/2^\circ$

**SPECIAL NOTES :-**

1. SURFACE FINISH ON THIS LENGTH TO BE FREE OF GROOVES, STEPS OR TEARS
2. AFTER FINISH MACHINE HEAT TREAT AS PER LATEST APPLICABLE QUALITY PROCEDURE.

A/F 19.1 x 91	15 940 216	ASTM A565 GR. 616 CERTIFY	35-42 HRC 46	0.09	0.27	-	037		
NO. OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT. (KG)	GROSS WT. (KG)	DRAWING NO.	ITEM NO.



**BHARAT HEAVY ELECTRICALS LIMITED**  
 BOILER PLANT UNIT, TIRUCHIRAPALLI-620 014

DEPT VL	CODE 340	SCALE 1:1	WEIGHT (kg) -	DR. DRG. NO. 3VP 813/EQ 660 PART NO. VP 813 B	SL. NO. 5573
TITLE <b>UPPER ADJUSTING RING PIN</b>				DRAWN K.R.	DATE 7-7-79
				CHECKED VR	DATE 7-7-79
				APPROVED JA	DATE 7-7-79

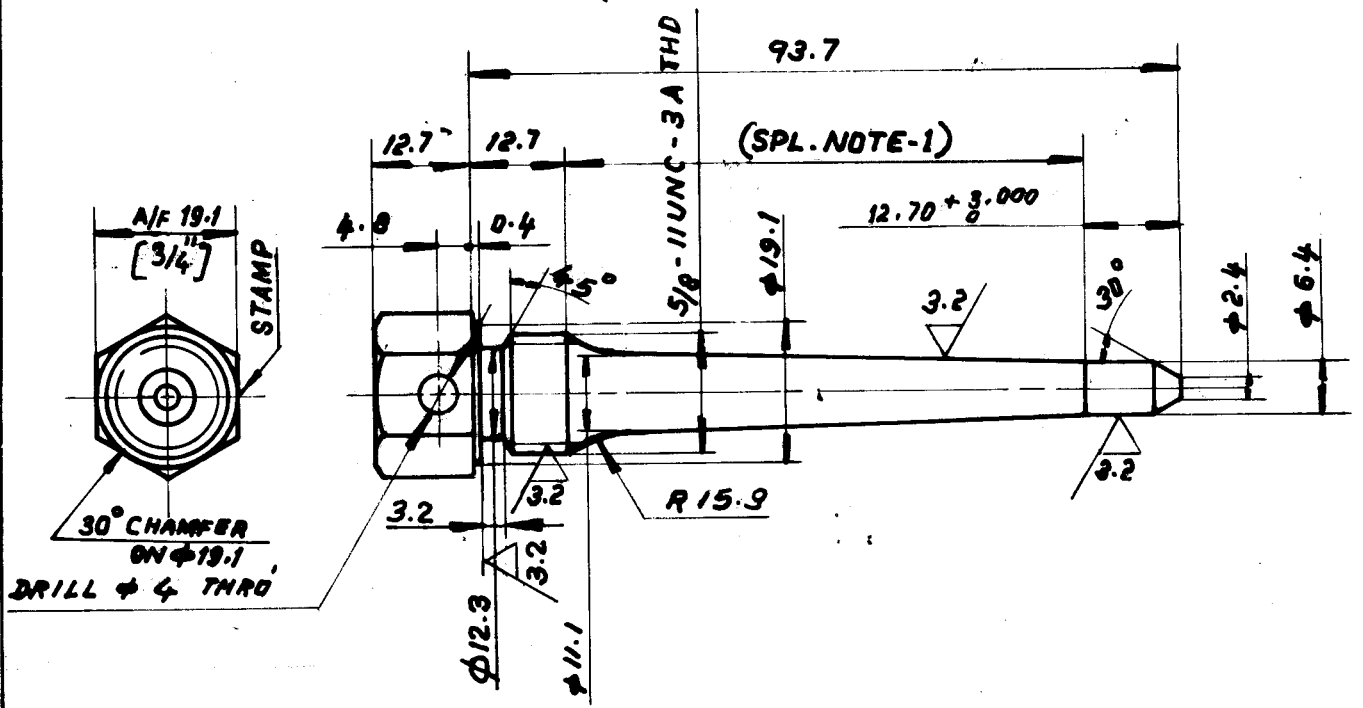
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE  $\pm 0.25$  mm. UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE  $\pm$

4 DRAWING NO. 15 16 REV 17  
 CARD CODE 4-V-7000-10034 02

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DRILL  $\phi 4$  WAS  $\phi 3.2$   
 DELETED C' SINK  $\phi 4.8 \times 90^\circ$   
 R 15.9 WAS R 11.1  
 $45^\circ$  ANGLE WAS  $30^\circ$   
 HEAT TREATMENT QHT-11 WAS  
 QHT12

NOTES UPDATED.  
 DCN. NO. SV: 0436



**GENERAL NOTES:-**

1. PINS ARE LONGER THAN REQUIRED. CUT LENGTH TO SUIT AT ASSY.
2. SHARP CORNERS TO BE REMOVED.
3. UNSPECIFIED ANGLE TOLERANCES  $\pm \frac{1}{2}^\circ$

**SPECIAL NOTES:-**

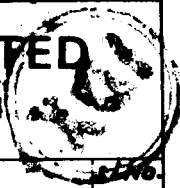
1. SURFACE FINISH ON THIS LENGTH TO BE FREE OF GROOVES, STEPS OR TEARS
2. AFTER FINISH MACHINE HEAT TREAT AS PER LATEST APPLICABLE QUALITY PROCEDURE.

~~3. IMPORTED CODE 97419426.~~ MICROFILMED ON ROLL 005213 FRAME 3512

A/F 19.1 x 112	15 940 216	ASTM A565 OR SIS. CERTIFY	35-42HRC	45	0.11	0.33	—	039
Nb. OFF	DESCRIPTION	MATL CODE	FINAL MATL	HEAT TREATMENT	SERAP SORT	NET WT (kg)	GROSS WT (kg)	ITEM No.



**BHARAT HEAVY ELECTRICALS LIMITED**  
 BOILER PLANT UNIT, TIRUCHIRAPALLI-620014



DEPT VL	CODE 340	SCALE 1:1	WEIGHT (kg)	PART No. VP813C	DR. DRG No. 3VP813/EQ 650		
<h1>LOWER ADJUSTING RING PIN</h1>				DRAWN	T.A	SIGN	DATE 6.7.79
				CHECKED	VR		DATE 6.7.79
				APPROVED	JA		DATE 6.7.79

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE  $\pm 0.25$  mm. UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE  $\pm$

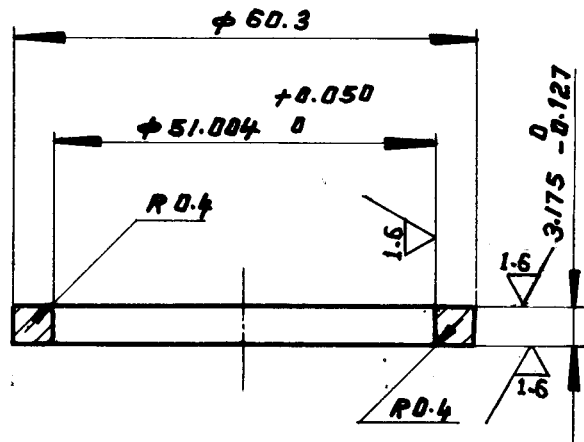
4 DRAWING NO. 15 16 REV 17  
 CARD CODE **4-V-7000-10035** 02

FOR TOLERANCES OF UNTOLEANCED DIMENSIONS DURING MANUFACTURE REFER KELEYANI SPEC/OP

REV 01	DATE 11/12/92	CHECKED V.P.	REV 02	DATE	ALTERED
MATERIAL CHANGED. MONEL ALLOY K500 WAS ASTM B164 CLASS-A. MATERIAL CODE 16924503 WAS 16011262. DCN No.: 5V:0204					

3.2 / 16

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**NOTE:-**

- 1. NO BURRS TO BE LEFT AT CORNERS

MICROFILMED ON ROLL 00523 FRAME 331

+	75 X 10	16924503	MONEL ALLOY K500	165 BHN (MIN)	60	0.020.45	058		
NO OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT (KG)	GROSS WT (KG)	DRAWING NO	ITEM NO



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT	CODE	SCALE	WEIGHT (kg.)	PART No. 1574361/CD271
TITLE				DRESSER DRG. NR. 215743/688
<b>FLOATING WASHER</b>				DRAWN
				CHECKED
				APPROVED

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE ± 0.25 mm. UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE ±

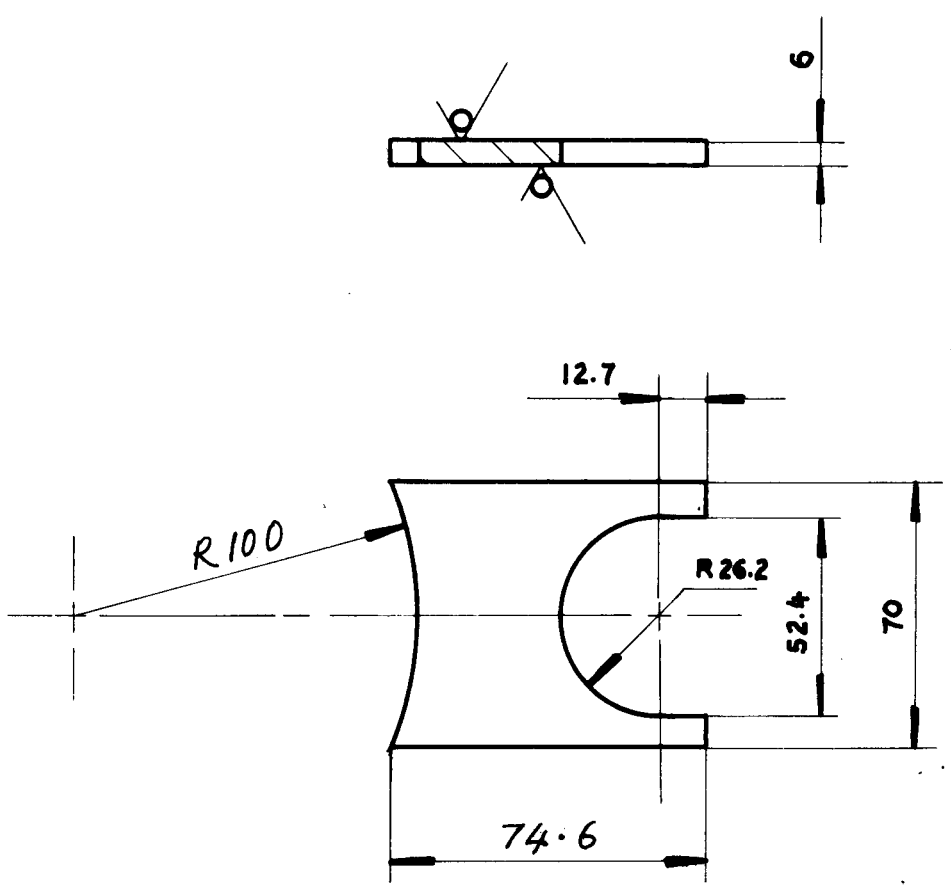
4 DRAWING NO. 15 16 REV 17

CARD CODE **4-V-7000-10036 01**

DIMN. R100 & 74.6 WERE R92.1  
 & 82.6  
 DCN. No. SV: 0424

6.3

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00523 307

**NOTE :-**

- 1. SHARP CORNERS TO BE REMOVED.

No. OFF	PL. 6X70X80	MATL CODE 15 011 092	FINAL MATL 18 206 2 Re 410 WA CERTIFY	HEAT TREATMENT -	SCRAP SORT 10	NET Wt (kg) 0.05	GROSS Wt (kg) 0.26	DRG No. -	ITEM No. 014
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**BHARAT HEAVY ELECTRICALS LIMITED**  
 BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT VL	CODE 340	SCALE NTS	WEIGHT (kg) -	DR. DRG No. 3V88907/CH 573	SL No. 875
TITLE <b>WASHER ARM</b>				CHECKED V.P.	DATE 28-11-79
				APPROVED S.R.	DATE 28/11/79

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE $\pm 0.25$ mm. UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE $\pm$	CARD CODE	4 DRAWING NO. 4-V-7000-10080-01	15 16 REV 17
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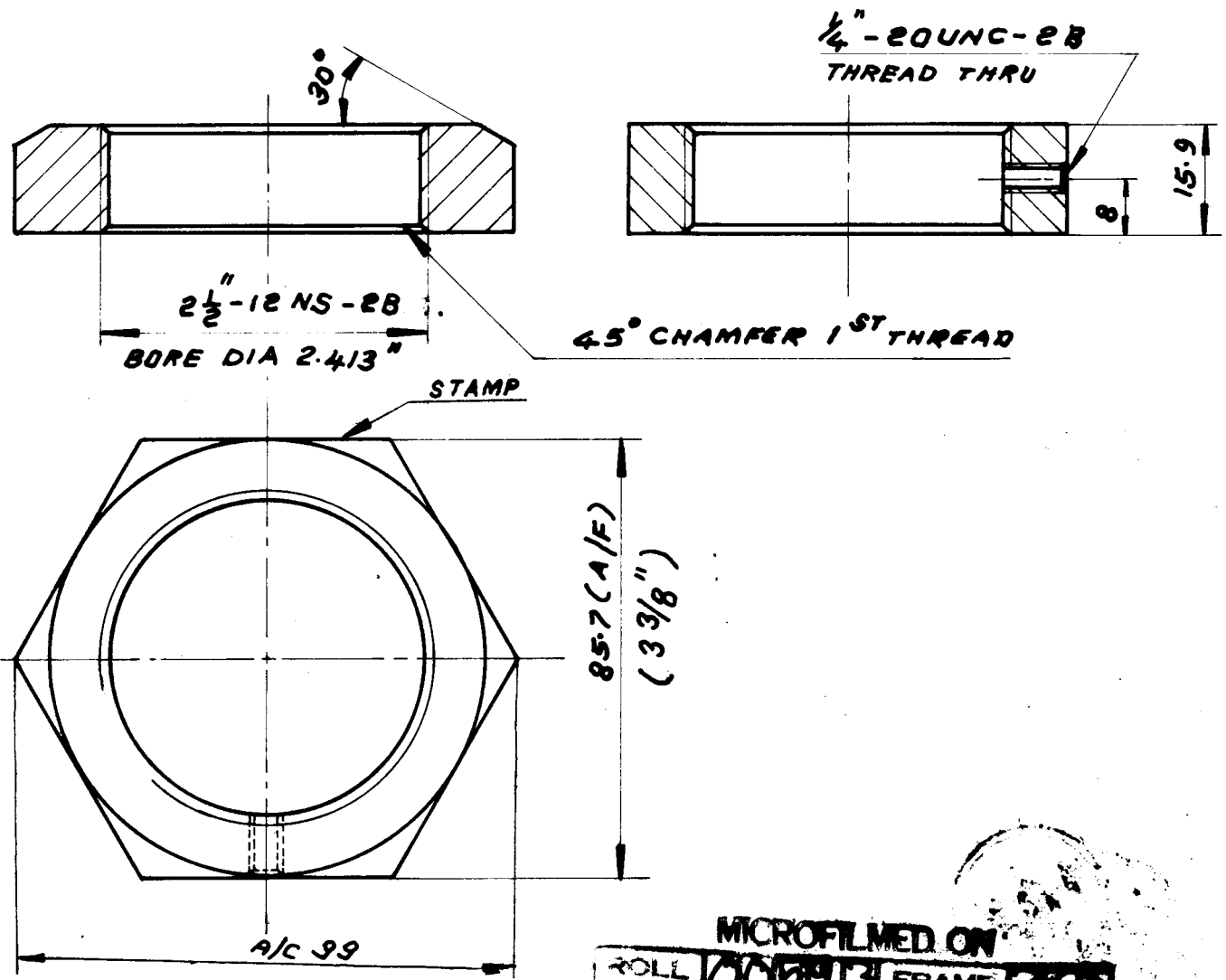
COMP. CODE: 930700560000

1739WD

3.2

FINAL MATL. ASTM B584  
ALLOY 875 WAS ASTM B371  
ALLOY 834. DESCRIPTION,  
MATL. CODE & STOKS WT. CHANGED

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MICROFILMED ON  
ROLL 100713 FRAME 360

ALL THREAD DIMENSIONS ARE IN INCHES.  
BREAK SHARP CORNERS & REMOVE BURRS.

φ 100x22	16013423	ASTM B584 ALLOY 875 AMENDED CERTIFY	50	0.3	1.48	102
NO. OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	SCRAP NET WT (KG)	GROSS NET WT (KG)	DRG. NO.



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

1759 WA

APPL. DRESSER TYPE NOS.

DEPT	CODE	SCALE	WEIGHT (kg)	DR. DRG. NO: VF889/EP/1	IT. NO. 619
TITLE				NAME	SIGN
LOCK NUT				M. TRAJ	M. TRAJ
				VR	VR
				JA	JA
DATE				DATE	
				19/3/79	

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE ± 0.25 mm. UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE ±

4 DRAWING NO. 15 16 REV 17  
CARD CODE 4-V-7001-10027 01

1749 WA

FOR TOLERANCES OF UNTOOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT QCPD

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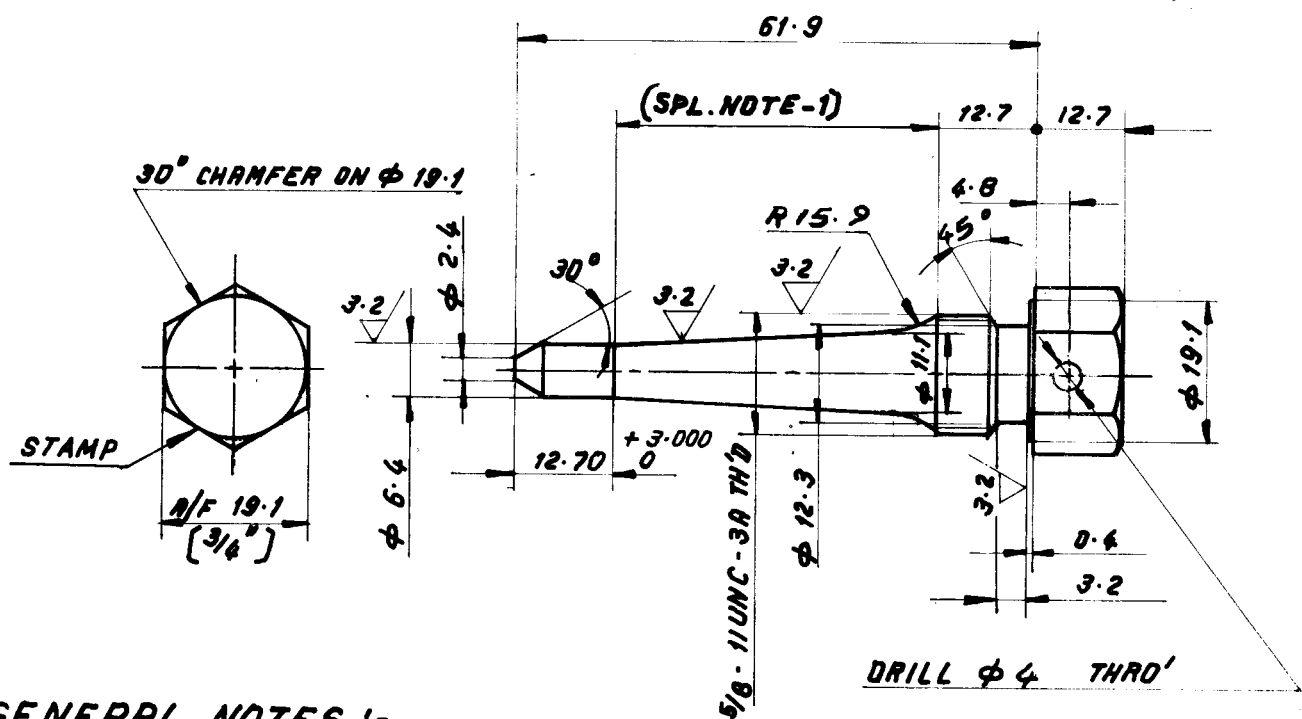
REV 02 DATE 20.6.97 ALTERED *[Signature]* CHECKED *[Signature]* KAPPD: *[Signature]*

DRILL  $\phi 4$  WAS  $\phi 3.2$   
 DELETED C'SINK  $\phi 4.8 \times 90^\circ$   
 R 15.9 WAS R 11.1  
 $45^\circ$  ANGLE WAS  $30^\circ$   
 HEAT TREATMENT QHT-11 WAS  
 QHT 12

NOTES UPDATED.  
 DCN. NO. SV: 0436

6.3 / 3.2

REPRODUCTION ON  
 00523 348



**GENERAL NOTES :-**

1. PINS ARE LONGER THAN REQUIRED-CUT LENGTH TO SUIT AT ASSEMBLY.
2. SHARP CORNERS TO BE REMOVED.
3. UNSPECIFIED ANGLE TOLERANCES  $\pm 1^\circ$

**SPECIAL NOTES :-**

1. SURFACE FINISH ON THIS LENGTH TO BE FREE OF GROOVES, STEPS OR TEARS.
2. AFTER FINISH MACHINE HEAT TREAT AS PER LATEST APPLICABLE QUALITY PROCEDURE.

~~4. IMPORTED CODE 97419429.~~

A/F 19.1 x 80	15 940 216	ASTM A565 GR.516 CERTIFY	35-42HRC	66	0.08	0.24		D37	
NO. OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT. (KG)	GROSS WT. (KG)	DRAWING NO.	ITEM NO.



**BHARAT HEAVY ELECTRICALS LIMITED**  
 BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT VL	CODE 340	SCALE 1:1	WEIGHT (kg) -	DR. DRG. NO. 3 VP 813 / EQ 660 PART NO. VP 813 J	SJL. NO. 66X3		
TITLE <b>UPPER ADJUSTING RING PIN</b>				DRAWN	K.R.	SIGN	DATE 7-7-79
				CHECKED	VR	SIGN	DATE 7-7-79
				APPROVED	JA	SIGN	DATE 7-7-79

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE  $\pm 0.25$  mm. UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE  $\pm$

4 DRAWING NO. 15 16 REV 17  
 CARD CODE 4-V-7001-10039 02

COME. CODE! 930700890006

1749 WA

DRG. NO. 4-V-7001-10039

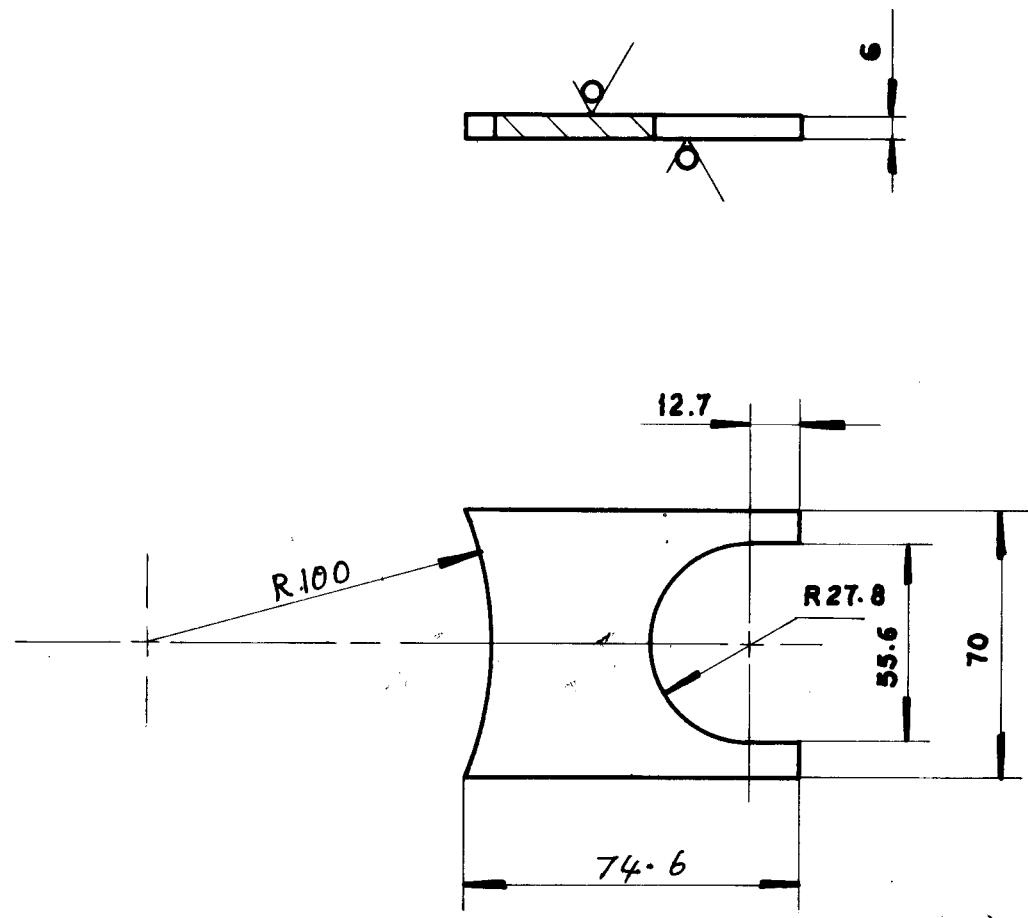


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REV	DATE	ALTERED
02		
CHECKED	S.A.P.P.D. V. Per...	CHECKED

6.3  
 ✓  
 ✓

DIM. R100 & 74.6 WERE R92.1 & 82.6  
 MATL. IS 2062 Fe410WA WAS  
 DCN. NO. SV: 0424 (BMC 20)



**NOTE:-**

1. SHARP CORNERS TO BE REMOVED.

00523 308

PL. 6x70x85	15 011 092	IS 2062 Fe 410 WA CERTIFY	—	10	0.18	0.33	—	014	
No. OFF	DESCRIPTION	MATL CODE	FINAL MATL	HEAT TREATMENT	SCRAP SORT	NET WT (KG)	GROSS WT (KG)	DRG No.	ITEM No.



**BHARAT HEAVY ELECTRICALS LIMITED**  
 BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT VL	CODE 340	SCALE NTS	WEIGHT (kg)	DR. DRG No. 3V68 907/ CU110 PART No. V68 907 B	SL No. 869		
TITLE <b>WASHER ARM</b>				DRAWN	T.R.	SIGN	DATE 28-11-79
				CHECKED	V.P.	SIGN	DATE 28-11-79
				APPROVED	S.R.	SIGN	DATE 28/11/79

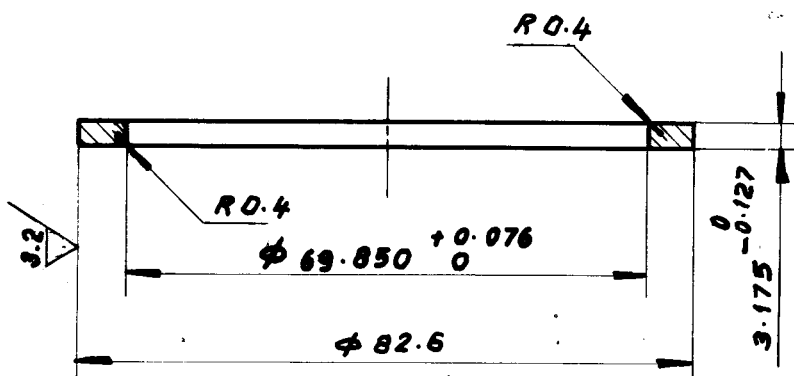
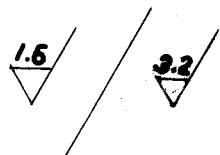
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE ± 0.25 mm UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE ±	CARD CODE	4 DBAWING No. <b>4-V-7001-10081</b>	15	16 REV 17
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COMP. CODE: 930700930000

1749WB

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REV 01	DATE 11/12/92	ALTERED	REV 02	DATE	ALTERED
CHECKED		62	CHECKED		
MATERIAL CHANGED. MONEL ALLOY K500 WAS ASTM B164 CLASS A, MATERIAL CODE 16924504 WAS 16011262. DCN No.: SV: 0204					



**NOTE:-**

1. NO BURRS TO BE LEFT AT CORNERS.

MICROFILMED ON  
ROLL 005213 FRAME 3418

φ85 x 10	16924504	MONEL ALLOY K500 AMENDED CERTIFY	165 BHN(MIN)	60	0.04	0.42		058	
No. of Pieces	DESCRIPTION	MATL. CODE	FINAL MATL	HEAT TREATMENT	SCRAP SORT	NET Wt (kg)	GROSS Wt (kg)	DRG No.	ITEM No.



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

05-249/A

DEPT	CODE		SCALE 1:1	WEIGHT (kg)	PART No. 1686801 DR. DRG No. 216868/CY797	Sino. 659
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TITLE <b>FLOATING WASHER</b>	DRAWN	NAME T.R	SIGN	DATE 13-5-79
	CHECKED	VR		16-5-79
	APPROVED	J.A	PA	16-5-79

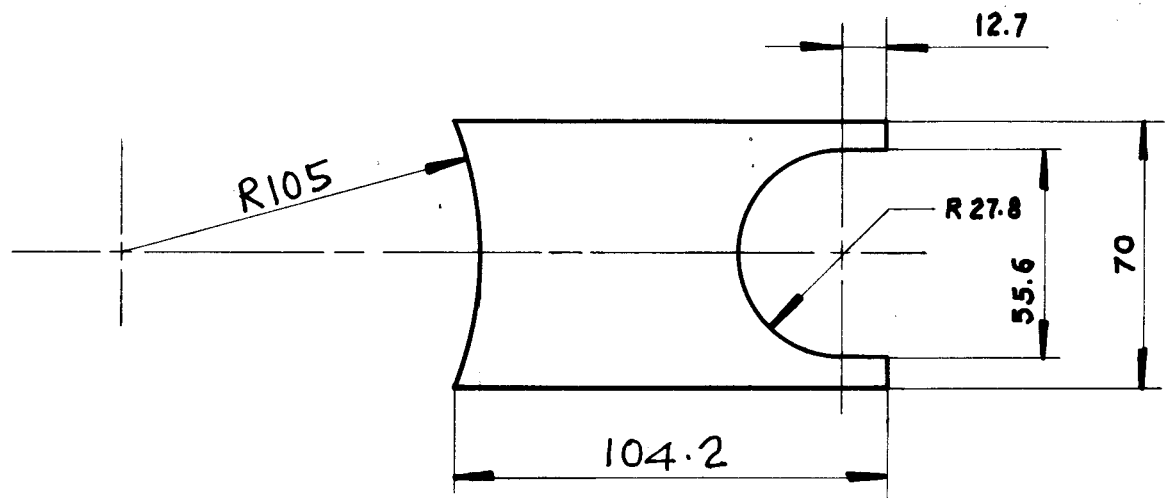
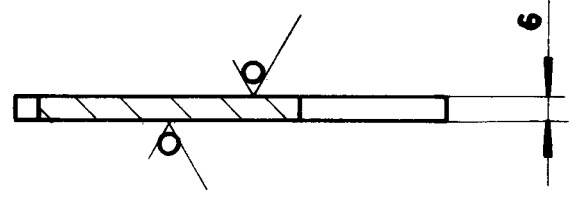
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE ± 0.25 mm UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE ±	CARD CODE	4 DRAWING NO. 4-V-7002-10041 01	15	16 REV 17
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REV 01	DATE 22.4.97	ALTERED CHECKED & APP'D V.P. SR	REV 02	DATE	ALTERED	6.3 ✓	✓
					CHECKED		

DIMN. R105 & 104.2 WERE  
R95.25 & 114.3  
MATL. IS 2062 Fe 410 WA  
WAS BMC 20  
DCN. No. 84: 0424

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**NOTE:-**

1. SHARP CORNERS TO BE REMOVED.

MICROFILMED ON  
ROLL 00523 FRAME 3018

PL. 6X70X110	15011092	IS 2062 Fe 410 WA CERTIFY	-	10	0.29	0.36	-	014	
No. OFF	DESCRIPTION	MATL CODE	FINAL MATL	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRG No.	ITEM No.



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT VL	CODE 340		SCALE NTS	WEIGHT (kg)	DR. DRG No. 3YXX907/CK327	S/No 881
					PART No. YXX907B	

TITLE <b>WASHER ARM</b>	DRAWN	NAME T.R	SIGN	DATE 27-11-79
	CHECKED	V.P		28-11-79
	APPROVED	S.R		28/11/79

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE $\pm 0.25$ mm UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE $\pm$	CARD CODE	DRAWING No. 4-V-7002-10082	15 16 REV 17
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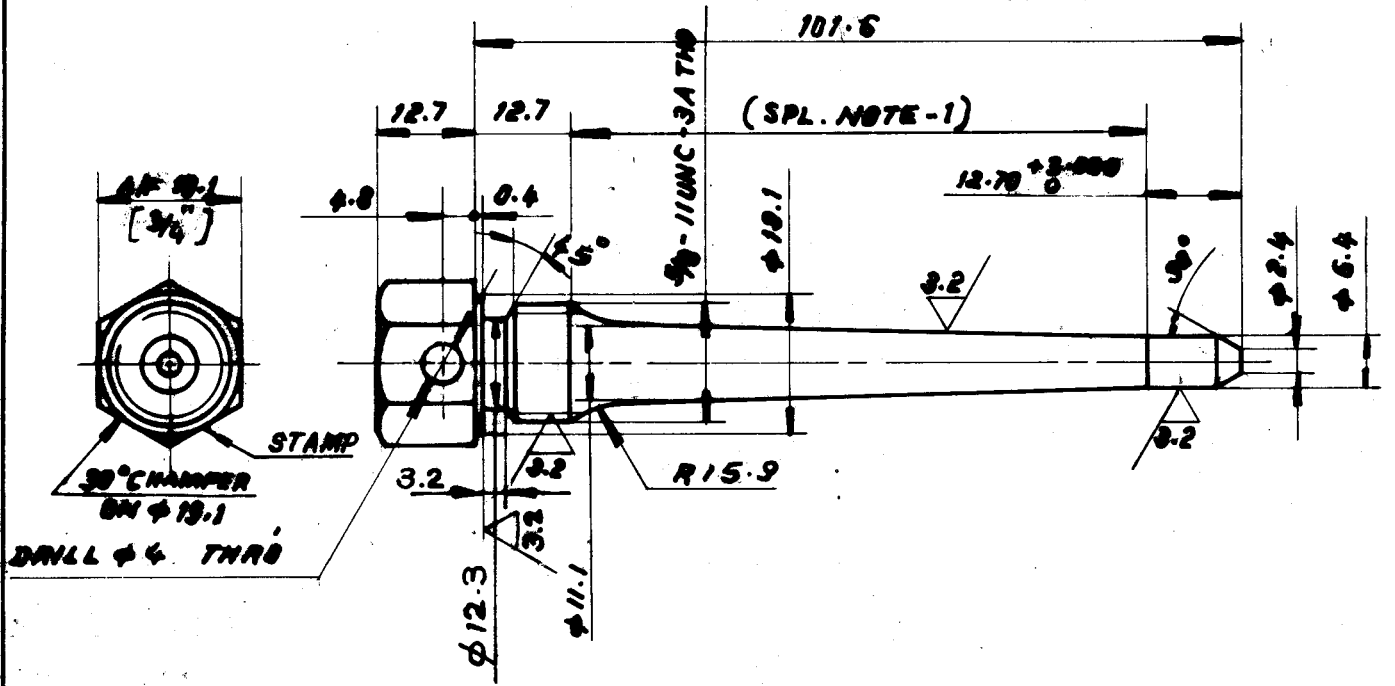
REV 01 DATE 7.10.79	REV 02 DATE 20.6.97	CHECKED LAMPD: VZ
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DRILL  $\phi 4$  LMS  $\phi 3.2$   
 DELETED C'SINK  $\phi 4.8 \times 30^\circ$   
 R15.9 HAS R11.1  
 45° ANGLE HAS 30°  
 HEAT TREATMENT QHT-11 HAS  
 QHT-12

NOTES UPDATED.  
 DCN. NO. SV: 0436

6.3 / 3.2

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.



**GENERAL NOTES:-**

1. PINS ARE LONGER THAN REQUIRED-CUT LENGTH TO SUIT AT ASSY.
2. SHARP CORNERS TO BE REMOVED.
3. UNSPECIFIED ANGLE TOLERANCES  $\pm \frac{1}{2}^\circ$

**SPECIAL NOTES:-**

1. SURFACE FINISH ON THIS LENGTH TO BE FREE OF GROOVES, STIPS OR TEARS
  2. AFTER FINISH MACHINE HEAT TREAT AS PER LATEST APPLICABLE QUALITY PROCEDURE.
- ~~IMPORTED CODE - 37-418-400.~~

MICROFILMED ON  
 ROLL 005233 FRAME 339

A/F 19.1x125	15 940 216	ASTM A563 DR. 616. CERTIFY	(36-42)HRC	45	0.12	0.37	-	600	
No. OFF	DESCRIPTION	MATL CODE	FINAL MATL	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	QTY'S (kg)	DRG No.	ITEM No.



**BHARAT HEAVY ELECTRICALS LIMITED**  
 BOILER PLANT UNIT, TIRUCHIRAPALLI-620 014

DEPT VL	CODE 340	SCALE 1:1	WEIGHT (kg) -	PART No. VP01R	DR. DRG No. JPD00 / EQ 660	P/No. 6673
TITLE <b>LOWER ADJUSTING RING PIN</b>				DRAWN F.R.	SIGN R	DATE 9.7.79
				CHECKED VR	SIGN S	DATE 9.7.79
				APPROVED JA	SIGN JA	DATE 9.7.79

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE  $\pm 0.25$  mm. UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE  $\pm$

4 DRAWING NO. 4-V-7003-10048  
 15 26 REV 17

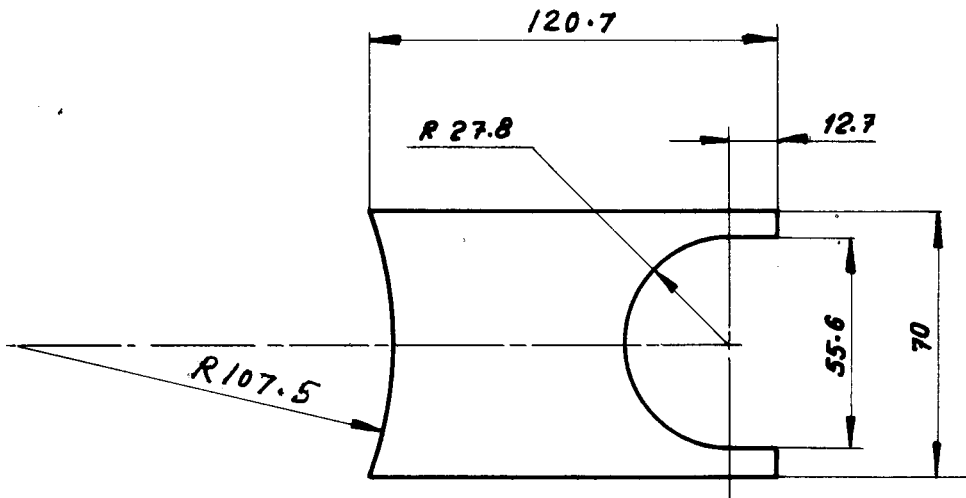
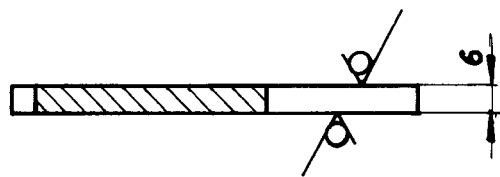
CAUTION THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LTD IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY

TP-DG-4-V-7003-10083  
CORPORATE DRG ID

REV	DATE	ALTERED	REV	DATE	ALTERED
02					
CHECKED & APP'D Y. P. [Signature]			CHECKED		

DIMN. R107.5 & 120.7 WERE R101.6 & 127. MATL. IS 2062 FE 410 WA WAS BMC-20 DCN. NO. SV: 0424

6.3 / 6.3



**NOTE:-**

SHARP CORNERS TO BE REMOVED.

00523 PART 304

PL. 6 x 70 x 130	15011092	IS 2062 FE 410 WA CERTIFY	HEAT TREATMENT	SCRAP SORT	NET WT. (KG.)	GROSS WT. (KG.)	DRG. NO.	ITEM NO.	
NO. OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT. (KG.)	GROSS WT. (KG.)	DRG. NO.	ITEM NO.



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT VL	CODE 340	SCALE NTS	WEIGHT (kg)	DR. DRG. NO. 442305/EH 509	S/No. 993		
TITLE				DRAWN	NAME M.R.C	DSIGN D. J. [Signature]	DATE 7.11.79
WASHER ARM				CHECKED	V.P.	[Signature]	28-11-79
				APPROVED	[Signature]	[Signature]	28/11/79

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE  $\pm 0.25$  mm. UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE  $\pm$

CARD CODE	4-V-7003-10083	15	16 REV 17
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920701730000

1785WR

TP-DG-4-V-7003-10083  
CORPORATE DRG ID  
SIZE A-4



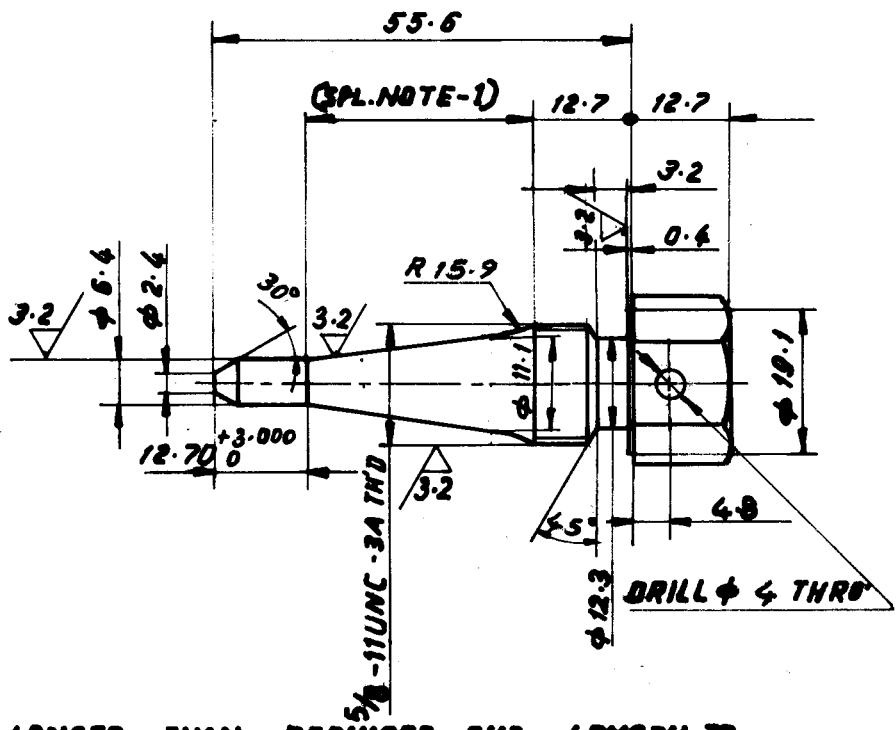
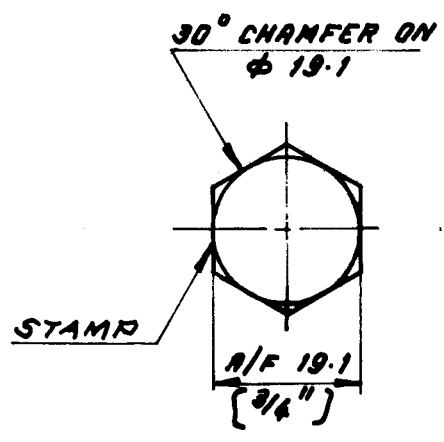
CAUTION THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LTD IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY.

DRILL  $\phi 4$  WAS  $\phi 3.2$   
DELETED C SINK  $\phi 4.8 \times 90^\circ$   
R 15.9 WAS R 11.1  
45° ANGLE WAS 30°  
HEAT TREATMENT QHT-II WAS  
QHT 12

REV 02 DATE 20.6.97  
ALTERED *[Signature]*  
CHECKED *[Signature]*  
NOTES UPDATED.  
DCN. NO. SV:0436

6.3 / 3.2

MICROFILMED ON  
ROLL 00523 FRAME 338



**GENERAL NOTES:-**

1. PINS ARE LONGER THAN REQUIRED. CUT LENGTH TO SUIT AT ASSEMBLY.
2. SHARP CORNERS TO BE REMOVED.
3. UNSPECIFIED ANGLE TOLERANCES  $\pm \frac{1}{2}^\circ$

**SPECIAL NOTES:-**

1. SURFACE FINISH ON THIS LENGTH TO BE FREE OF GROOVES, STEPS OR TEARS.
  2. AFTER FINISH MACHINE HEAT TREAT AS PER LATEST APPLICABLE QUALITY PROCEDURE.
4. ~~IMPORTED CODE-97419427.~~

A/F 19.1 X 75	15 940.216	ASTM A 565 GR. 616 CERTIFY	J6-42HRC 46	0,08	0,22	-	037		
NO OFF	DESCRIPTION	MATL. CODE.	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT (KG)	GROSS WT (KG)	DRAWING NO.	ITEM NO



05-249/A

**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

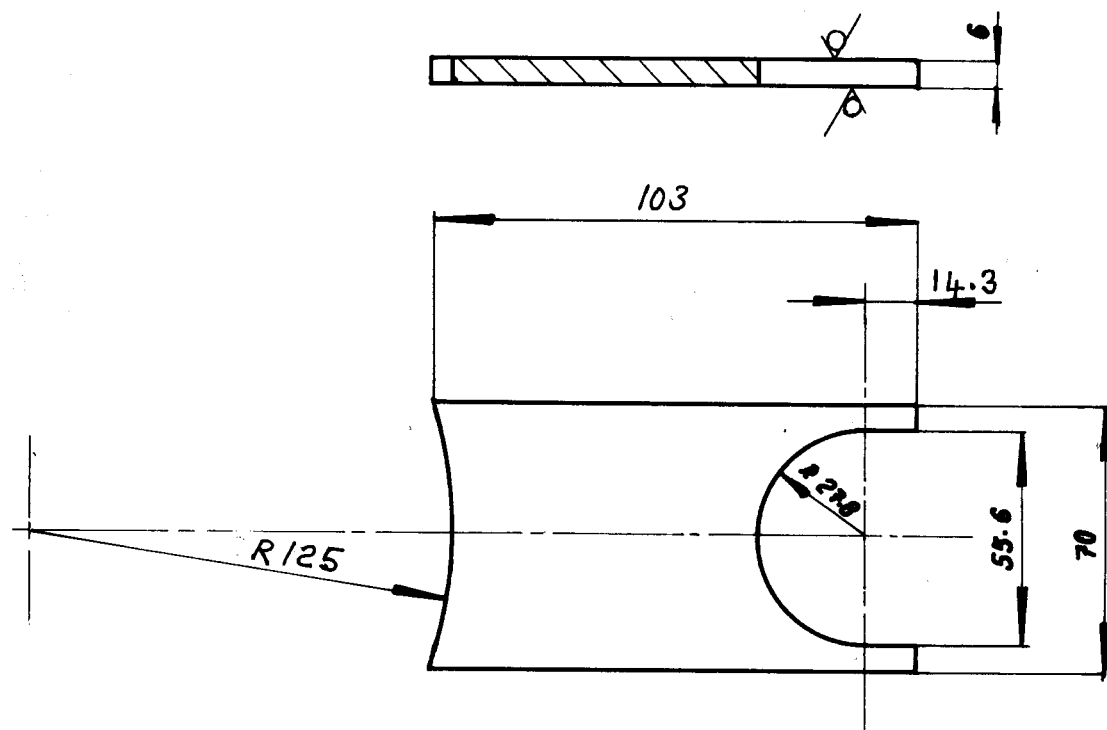
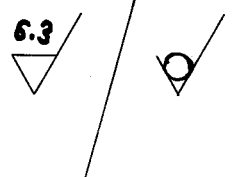
DEPT VL	CODE 340	SCALE 1:1	WEIGHT (kg) -	DR. DRG. NO. 3VP013 / EQ 660	SL. NO. 5673
TITLE <b>UPPER ADJUSTING RING PIN</b>				DR. DRG. NO. VP013G	SL. NO. 5673
DRAWN V.M.J		NAME V.M.J		SIGN <i>[Signature]</i>	
CHECKED VR		NAME VR		SIGN <i>[Signature]</i>	
APPROVED JA		NAME JA		SIGN <i>[Signature]</i>	
				DATE 11-7-79	DATE 11-7-79
				DATE 11-7-79	DATE 11-7-79

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE  $\pm 0.25$  mm UNLESS OTHERWISE SHOWN. NON-MACHINING TOLERANCE  $\pm$

4 DRAWING NO. 15 16 REV 17  
4-V-7008-10049 02

FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT ISIRI/BSI

REV 01	DATE 22-2-97	CHECKED <i>SK</i>	ALTERED <i>By Sany.</i>	DATE 22-4-97	CHECKED & APPD <i>By Sany./Silly</i>
1. DIM. 14.3 WAS 12.7			DIM. R125 & 103 WERE R111.15 & 117.5. MATL. IS 2062 Fe410 DCN. NO. SV: 0424 (WA WAS BMC-20)		



**NOTE:-**

SHARP CORNERS TO BE REMOVED.

MICROFILMED ON  
ROLL 005113 FRAME 3108



PL. 6 x 70 x 110	15 011 092	IS 2062 Fe410 WA CERTIFY	-	10	0.18	0.42	-	014	
NO. OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT. (kg.)	GROSS WT. (kg.)	DRG. NO.	ITEM NO.



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT VL	CODE 340	SCALE NTS	WEIGHT (kg) -	DR. DRG. NO. 4 VAF 907/EB 629	IT. NO.
TITLE				PART NO. VAF 907 B/SI. No. 6884	
<b>WASHER ARM</b>				DRAWN	NAME M.R.C
				CHECKED	DESIGN <i>Sany.</i>
				APPROVED	DATE 15.2.79

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE  $\pm 0.25$  mm. UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE  $\pm$

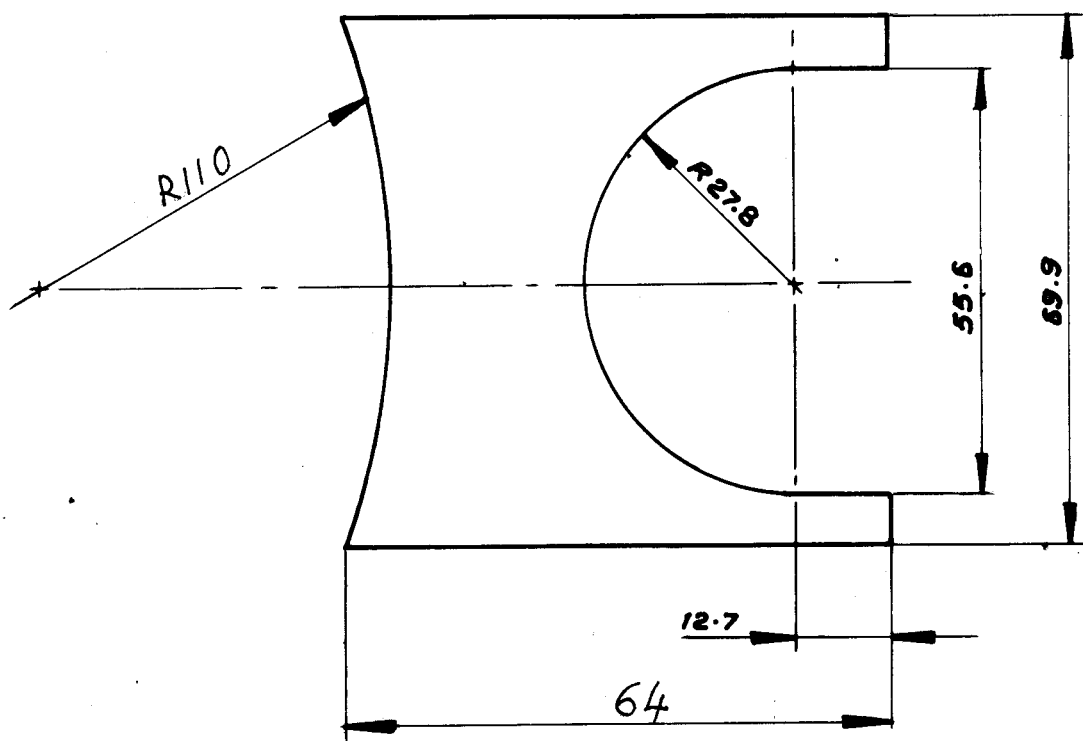
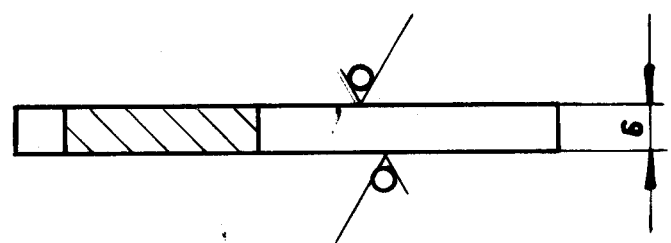
4 DRAWING NO. 4-V-7008-10079-02  
15 16 REV 17

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RELEVANT & CP/QP

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REV 02	DATE	ALTERED
CHECKED & APPD		CHECKED
DIMN. R110 & 64 WERE R101.6 & 73. MATL. IS 2062 FE 410 WA WAS BMC 20. JCN.No.SV:0424		



**NOTES:-**  
1. SHARP CORNERS TO BE REMOVED.

MICROFILMED ON  
ROLL 00523 FRAME 3113

PL. 6x70x75	15 011 092	IS 2062 FE 410 WA CERTIFY	—	10	0.13	0.25	—	014	
NO OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING NO	ITEM NO



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT VL	CODE 340	SCALE NTS	WEIGHT (kg) —	DRESSER DRG No 442306/ELD57 PART No 4230502 /Sl. No 3856.			
TITLE <b>WASHER ARM</b>				DRAWN	NAME V.A	SIGN	DATE 5.11.79.
				CHECKED	S.R		5.11.79
				APPROVED	JA		5.11.79

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE  $\pm 0.25$  m.m. UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE  $\pm$

CARD CODE	4 DRAWING No. 4-V-7009-10074	15	16 REV 17
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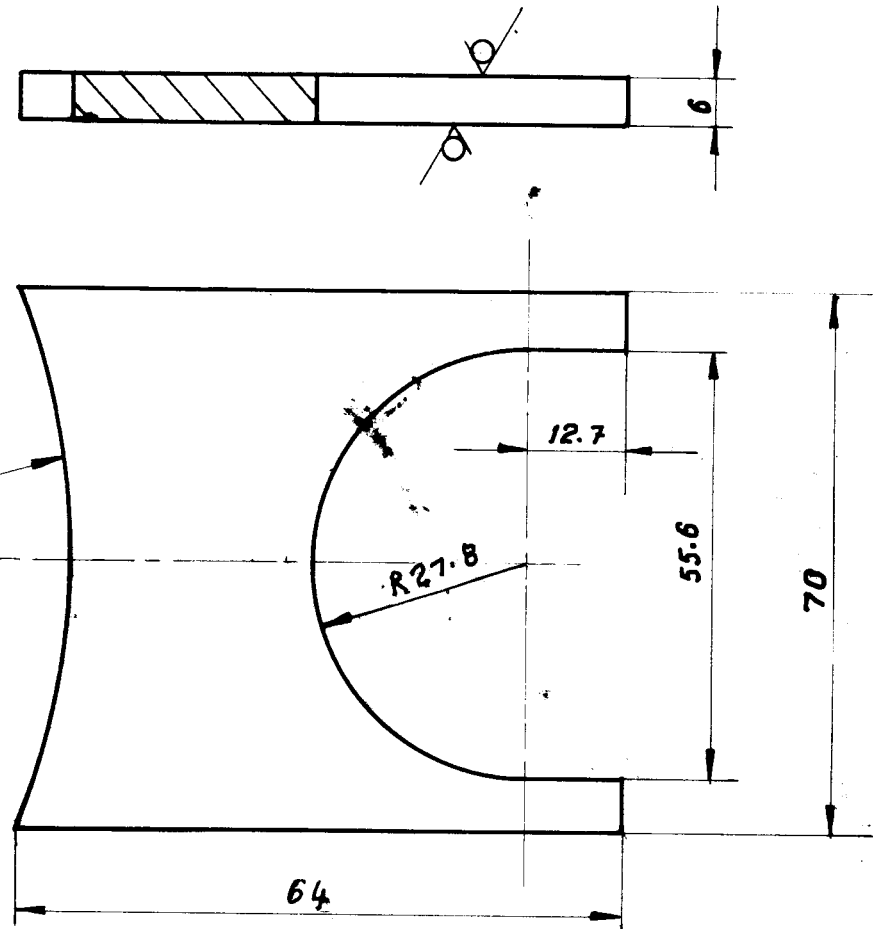
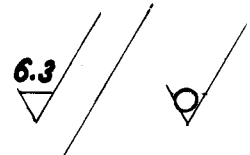
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1750 WB.

4-V-7009-10074  
CORPORATE DRG ID

REV	DATE	ALTERED
01		
02		
CHECKED 3 APPD Y. <i>[Signature]</i>		

DIM. R110 & 64 WERE R95.25 & 79.4. MATL. IS 2062 Re410WA  
DCN. NO. SY:0424 (WAS BMC-20)



**NOTE:-**  
SHARP CORNERS TO BE REMOVED.

MICROFET MET ON  
FC-00523

WASHER ARM PL. 6 x 70 x 70	15 011 092	IS 2062 RE 410 WA CERTIFY	-	10	0-13	0-23	-	014	
NO. OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT. (KG)	GROSS WT. (KG)	DRG. NO.	ITEM NO.



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

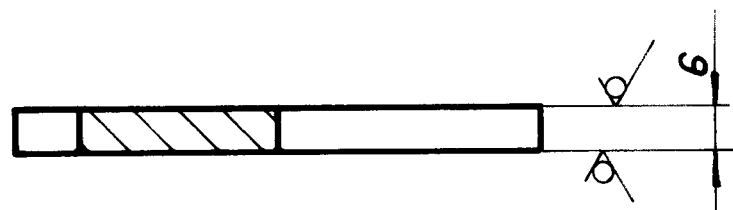
DEPT VL	CODE 340	SCALE NTS	WEIGHT (kg) -	DR. DRG. NO. PVAM 507/7855A PART NO. VAM9078/SL. NO. 2962	IT. NO.		
TITLE <b>WASHER ARM</b>				DRAWN	NAME M.R.C	SIGN	DATE 1.11.79
				CHECKED	VP		1.11.79
				APPROVED	JA		1.11.79

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE $\pm 0.25$ mm. UNLESS OTHERWISE SHOWN. NON-MACHINING TOLERANCE $\pm$	CARD CODE	4 DRAWING NO. <b>4-V-7010-10094</b>	15	REV 17
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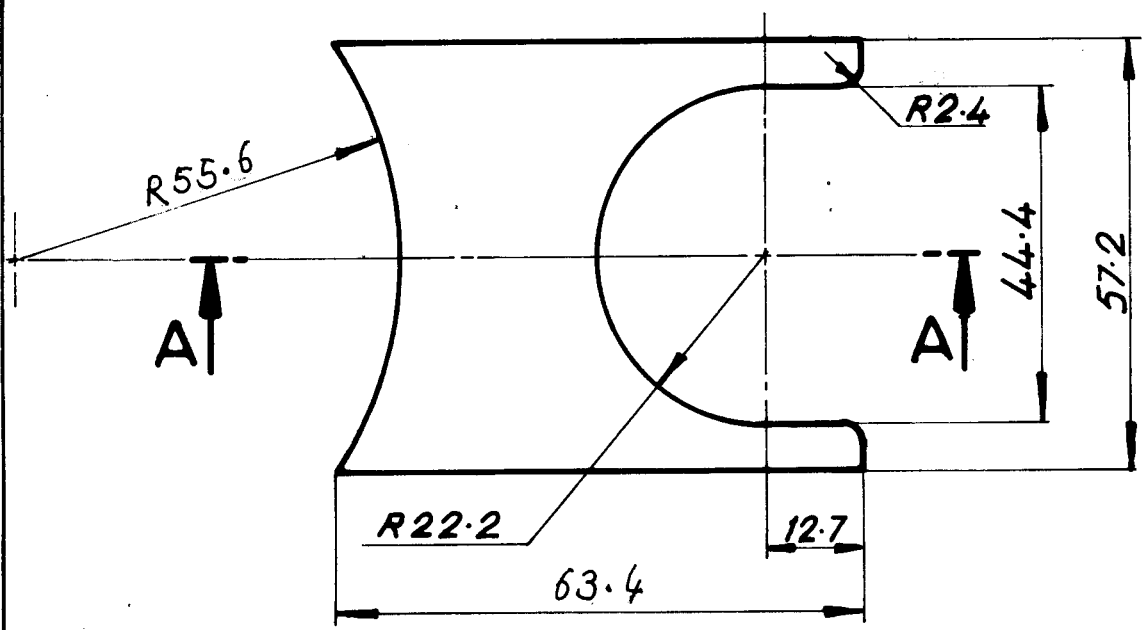
CAUTION THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LTD IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY.

MANUFACTURE REFER RELEVANT & CP/CP

RAW MATL. CHANGED.  
 DIMN. R55.6 & 63.4 WERE R50.8  
 & 66.1 DCM NO. SV: 0426



**SECTION-AA**



**NOTE:-**

1. SHARP CORNERS TO BE REMOVED.

ALUMINIUM  
 6061-T6

PL6x70x60	15011092	IS 2062 Fe 410 WA CERTIFY	-	10	0.09	0.2	-	014	
NO OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET wt: (kg)	GROSS wt: (kg)	DRAWING No	ITEM No



**BHARAT HEAVY ELECTRICALS LIMITED**  
 BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT VL	CODE 340	SCALE NTS	WEIGHT (kg) -	DR. DRG No:- 2 VZZ 907/7835 PART No:- VZZ 907B/SL. No 2975			
TITLE <b>WASHER ARM</b>				DRAWN	NAME N.R.	SIGN	DATE 16-4-80
				CHECKED	V.P		12-6-80
				APPROVED	S.R		15 MAY 17

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE  $\pm 0.25$  mm. UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE  $\pm$

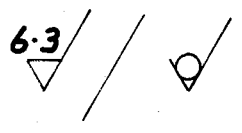
CARD CODE  
 4 DRAWING NO.  
**4-V-7013-10191**  
 101

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.

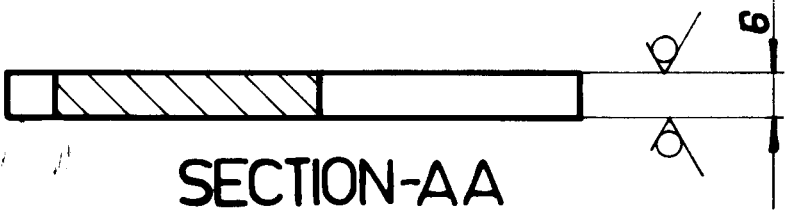
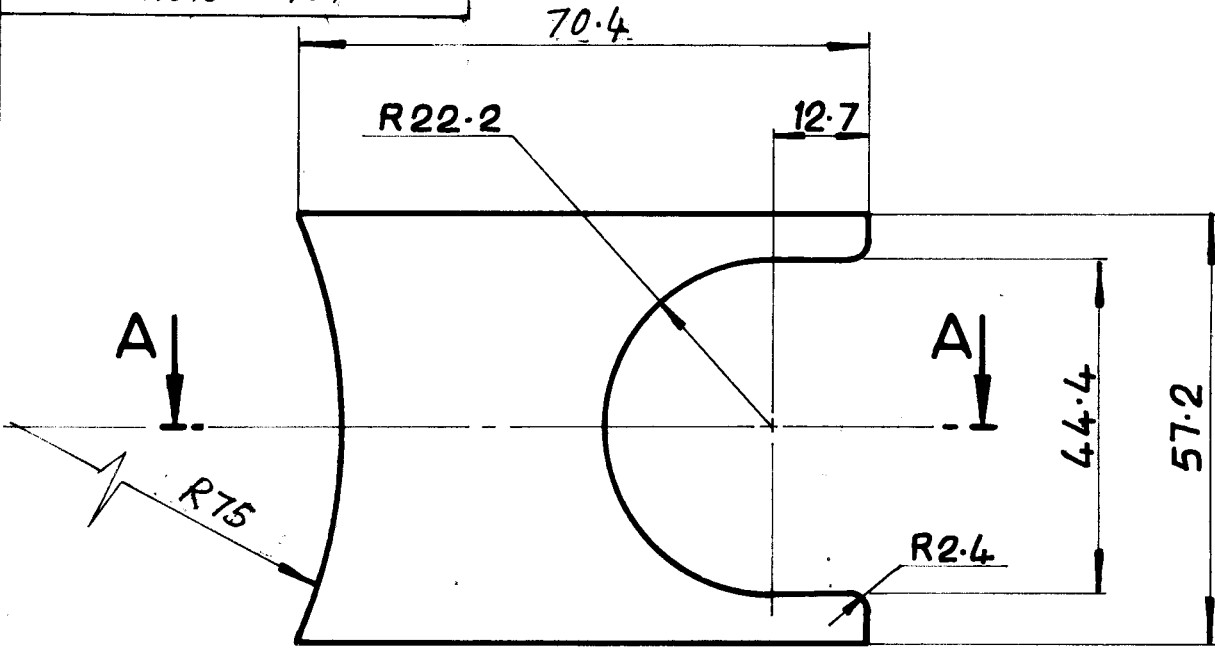
FOR TOLERANCES OF UNTOLEERANCED DIMENSIONS DURING MANUFACTURE REFER RELATIVE YAWD & C/P/DP

TP-DG-4-V-7016-10111  
 CORPORATE DRG ID  
 01  
 22-4-77  
 CHECKED SAPPD V. P. Reddy  
 DIMN. R75 & 70.4 WERE  
 R69.85 & 76.2  
 MATL. IS 2062 Fe 410 WA  
 WAS BMC-20.  
 DCN. NO. SV: 0424

REV	DATE	ALTERED
02		
		CHECKED



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**NOTE:-**

1. SHARP CORNERS TO BE REMOVED.

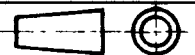
MICROFILMED ON  
 ROLL 00503 FRAME 516

PL 6x80x60	15011092	IS 2062 Fe 410 WA CERTIFY	—	10	0.13	0.23	—	014	
NO OFF	DESCRIPTION	MATL. CODE	FINAL. MATL.	HEAT TREATMENT	SCRAP SORT	NET WT. (kg)	GROSS WT. (kg)	DRAWING No	ITEM No



**BHARAT HEAVY ELECTRICALS LIMITED**  
 BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

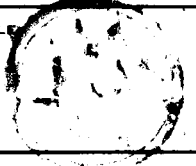
DEPT VL CODE 340



SCALE NTS

WEIGHT (kg) —

DR. DRG No:- 3VWW 907/CG 741  
 PART No:- VWW 907B/S.L.No:- 2585



**WASHER ARM**

DRAWN	NAME N.R.	SIGN	DATE
		<i>N. Reddy</i>	14-4-80
CHECKED	V.P	<i>V.P.</i>	13-6-80
APPROVED	S.R	<i>S.R.</i>	13-6-80

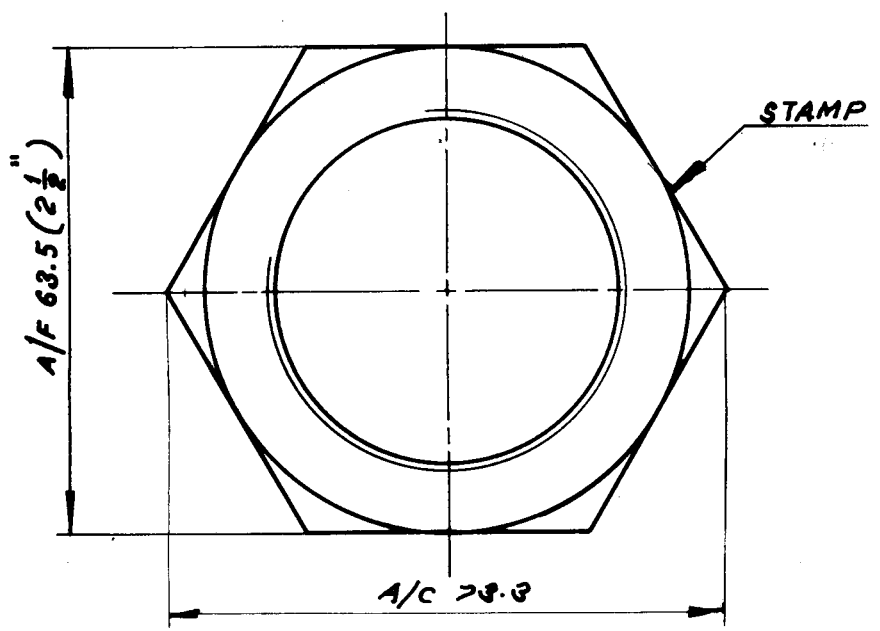
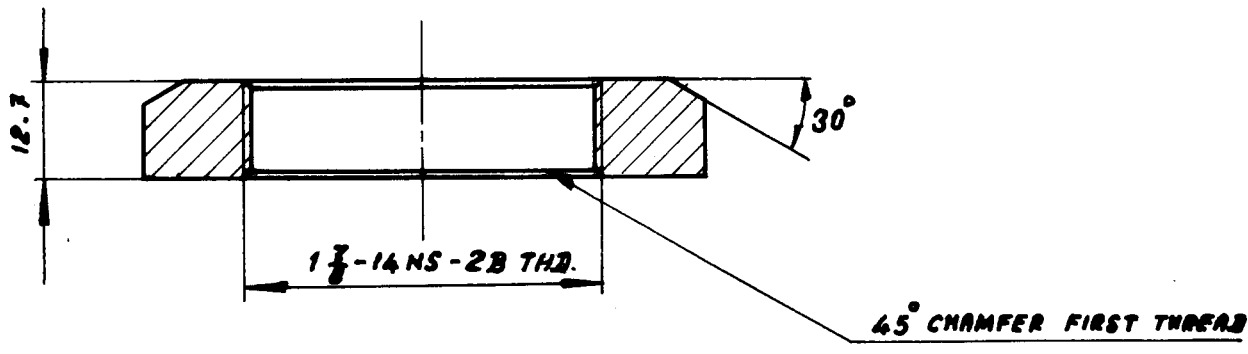
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE  $\pm 0.25$  mm. UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE  $\pm$

4 DRAWING No. 4-V-7016-10111 15 16 REV 17  
 CARD CODE

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REV 02	DATE	ALTERED
18/2/80		CHECKED
FINAL MATL. ASTM B 584 ALLOY 875 WAS ASTM B 371 ALLOY 694. DESCRIPTION, MATL. CODE & GROSS WT. CHANGED		

3.2



**NOTE:-**  
1. BREAK SHARP CORNERS & REMOVE BURRS.

PROCESSED ON  
ROLL OVERB B FRAME PTE

NO. OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT. (KG.)	GROSS WT. (KG.)	BAG. NO.	ITEM NO.
	φ 85 x 20	16013426	ASTM B 584 ALLOY 875 AMENDED CERTIFY		60	0.22	0.97		102



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT	CODE	SCALE	WEIGHT (kg)	DRESSER DRG. NO. V-6430-P/CD715 PART NO. 0087228734 NO. 2643	IT. No.
		1:1			
TITLE				DRAWN	DATE
<b>LOCK NUT</b>				CHECKED	13-5-80
				APPROVED	

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE ± 0.25 mm. UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE ±

CARD CODE	4 DRAWING NO.	15	16 REV 17
	<b>4-V-7016-10112</b>		

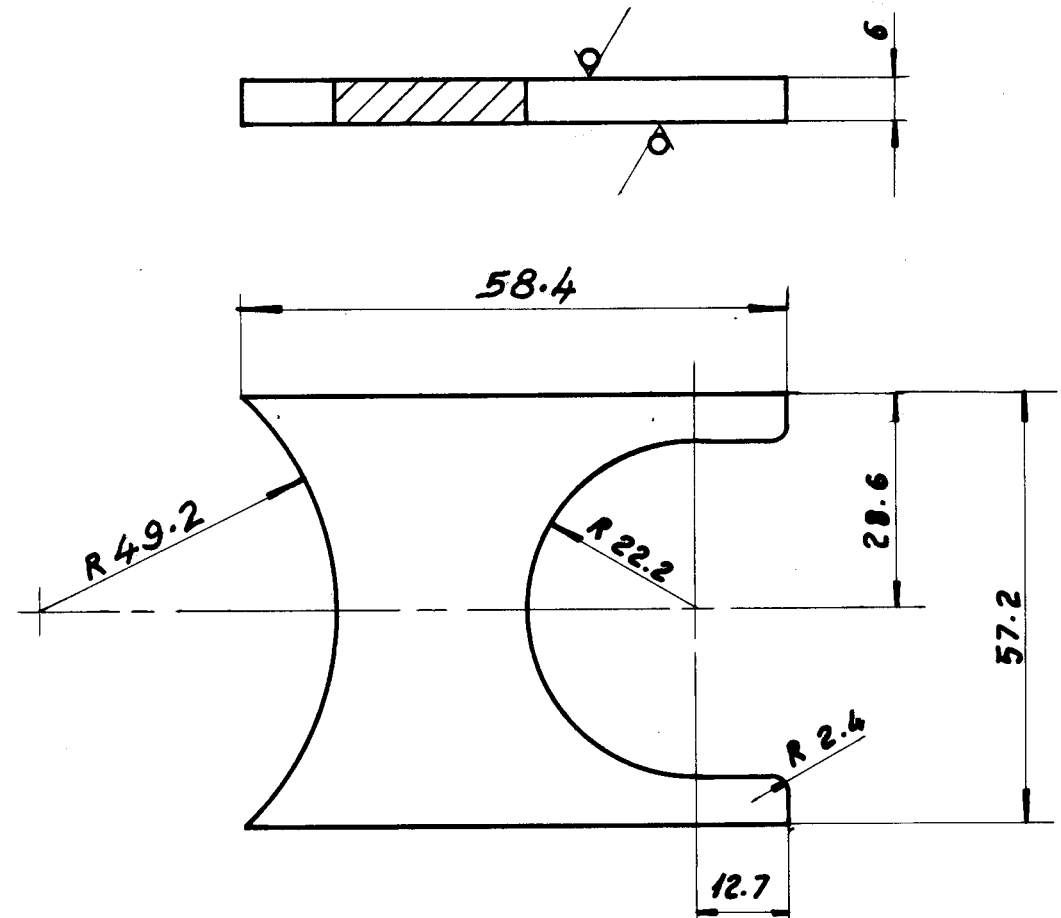
NAME: M. S. S. SIGN: DATE: 30/10/99  
CHECKED: WA DATE: 13-5-80  
APPROVED: R

REV	DATE	ALTERED
02		
CHECKED		

DIMN. 58.4 WAS 70.6  
 R 49.2 WAS 39.7  
 DCN No.: 5V:0424

6.3

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**NOTE :-**  
1. SHARP CORNERS TO BE REMOVED.

DOERS

PL 6x60x65	15 011 092	152062 FE410 WA CERTIFY	10	0.16	0.18	-	014		
NO OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET wt (kg)	GROSS wt (kg)	DRAWING No	ITEM No



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT VL	CODE 340	SCALE NTS	WEIGHT (kg) -	DRESSER DRG No 2VAD 907/7835 PART No VAD 907B/SL.No 2933
---------	----------	-----------	---------------	---

TITLE	DRAWN	DATE
<b>WASHER ARM</b>	20-5-80	20-5-80
	CHECKED	20-5-80
	APPROVED	20-5-80

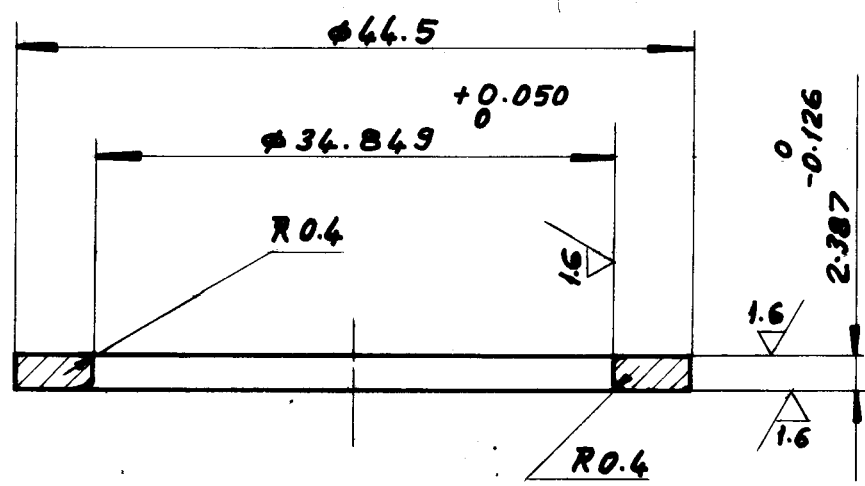
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE $\pm 0.25$ mm. UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE $\pm$	CARD CODE	4 DRAWING NO. 15 16 REV 17
		<b>4.V.7022-10116</b>



MATERIAL CHANGED, MONEL ALLOY K500 WAS ASTM B164 CLASS-A, MATERIAL CODE 16924502 WAS 16011262. JCN NO. 3V:0204

3.2 / 1.6

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**NOTE:-**

1. NO BURRS TO BE LEFT AT CORNERS.

MICROFILMED ON  
 ROLL 55523 FRAME 503

	450 x 10	16924502	MONEL ALLOY K500	165 BHN(MIN)	60	0.01	0.3		058
NO OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAPE SORT	NET WT (KG)	GROSS WT (KG)	DRAWING NO.	ITEM NO



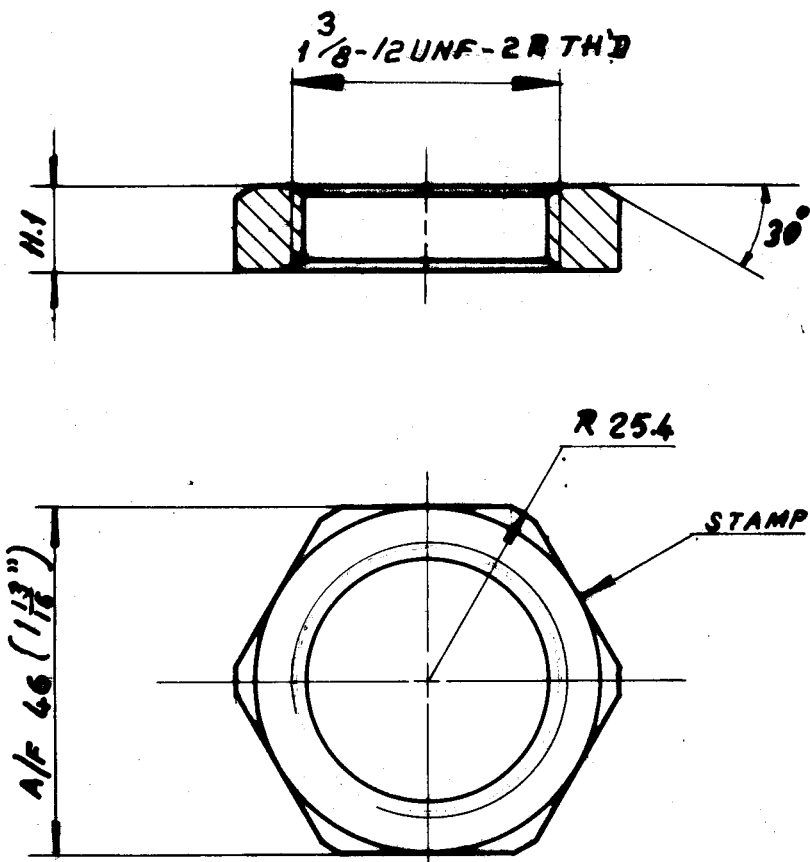
**BHARAT HEAVY ELECTRICALS LIMITED**  
 BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT	CODE	SCALE 2:1	WEIGHT (kg.)	3V. JRG. No. 216027/cy 797 PART NO. 1602701/SL. NO. 2777
TITLE <b>FLOATING WASHER</b>				DRAWN HARI CHECKED APPROVED
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE ± 0.25 mm. UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE ±				4 DRAWING NO. <b>4-V-7022-10118</b> 15 16 REV 17

REV 02 DATE ALIGNED CHECKED  
 FINAL MATL ASTM B 504  
 ALLOY B75 WAS ASTM B 371  
 ALLOY B94. DESCRIPTION,  
 MATL. CODE & GROSS WT. CHARGED

3.2

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MICROFILMED ON  
 ROLL 05523 FRAME 268

**NOTES:-**

1. 45° CHAMFER FIRST THREAD.
2. BREAK SHARP CORNERS AND REMOVE BURRS.

APL. DRESSER TYPE NOS	φ 56x17	16013425	ASTM B 504 ALLOY B75 AMENDED CERTIFY	60	0.07	0.36	102
NO OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET GROSS WT (KG)	ITEM NO



**BHARAT HEAVY ELECTRICALS LIMITED**  
 BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

05-249/A

DEPT	CODE	SCALE 1:1	WEIGHT (kg.)	DRESSER DRG. No. V-6426-P/EP217
TITLE				PART No. 0087241/SL.No. 2642
LOCK NUT				DRAWN T.NAAI
				CHECKED V.P.
				APPROVED

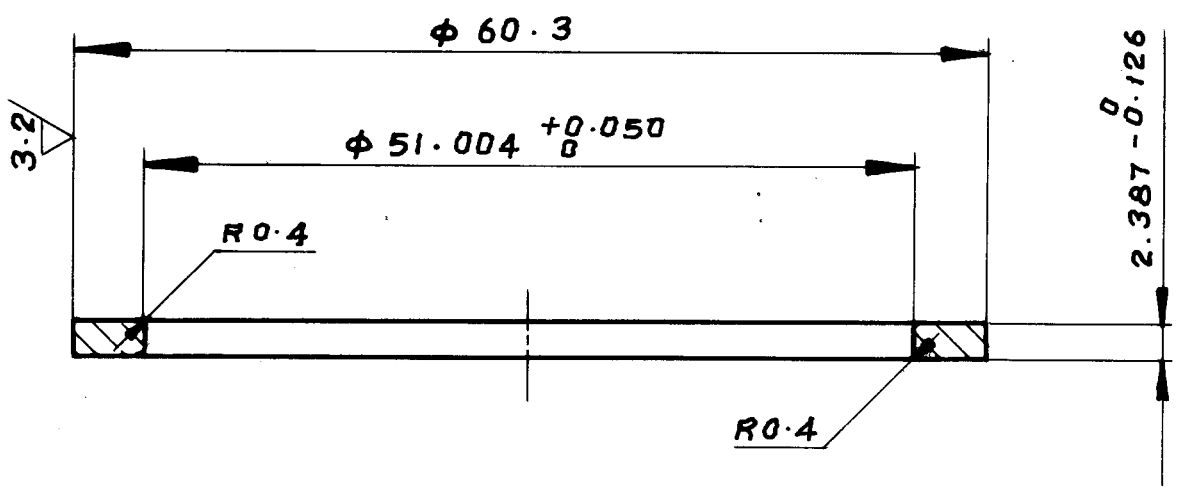
DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE ± 0.25 mm. UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE ±

CARD CODE 4-V-7022-10119 01  
 4 DRAWING NO. 16 REV 17

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REV 01	DATE 11/12/94	ALTERED	CHECKED
MATERIAL CHANGED, MONEL ALLOY K500 WAS ASTM B164 CLASS-A, MATERIAL CODE 16924503 WAS 16011262. DCN NO.: SV:0204			

1.6 / 3.2



**NOTE:**

- 1. NO BURRS TO BE LEFT AT CORNERS.

MICROFILMED ON  
ROLL 05523 FRAME 15

φ 75 x 10	16924503	MONEL ALLOY K 500	165 BHN(MIN)	60	0.03	0.46	058		
NO OFF	DESCRIPTION	MATL. CODE	AMENDED CERTIFY FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WE. (KG)	GROSS WE. (KG)	DRG. NO.	ITEM NO.



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT	CODE	SCALE 2:1	WEIGHT (kg.)	DR.DRG.NO: 215958/CY797	Sl.No 2753
TITLE				PART No: 1595801	

**FLOATING WASHER**

DRAWN	NAME S. J. W	SIGN	DATE 22-3-80
CHECKED	K. P. S.		20-5-80
APPROVED	S. P. S.		20-5-80

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE ± 0.25 mm UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE ±

4 DRAWING NO.  
CARD CODE  
**4-V-7023-10130**  
15 16 REV 17

05-248

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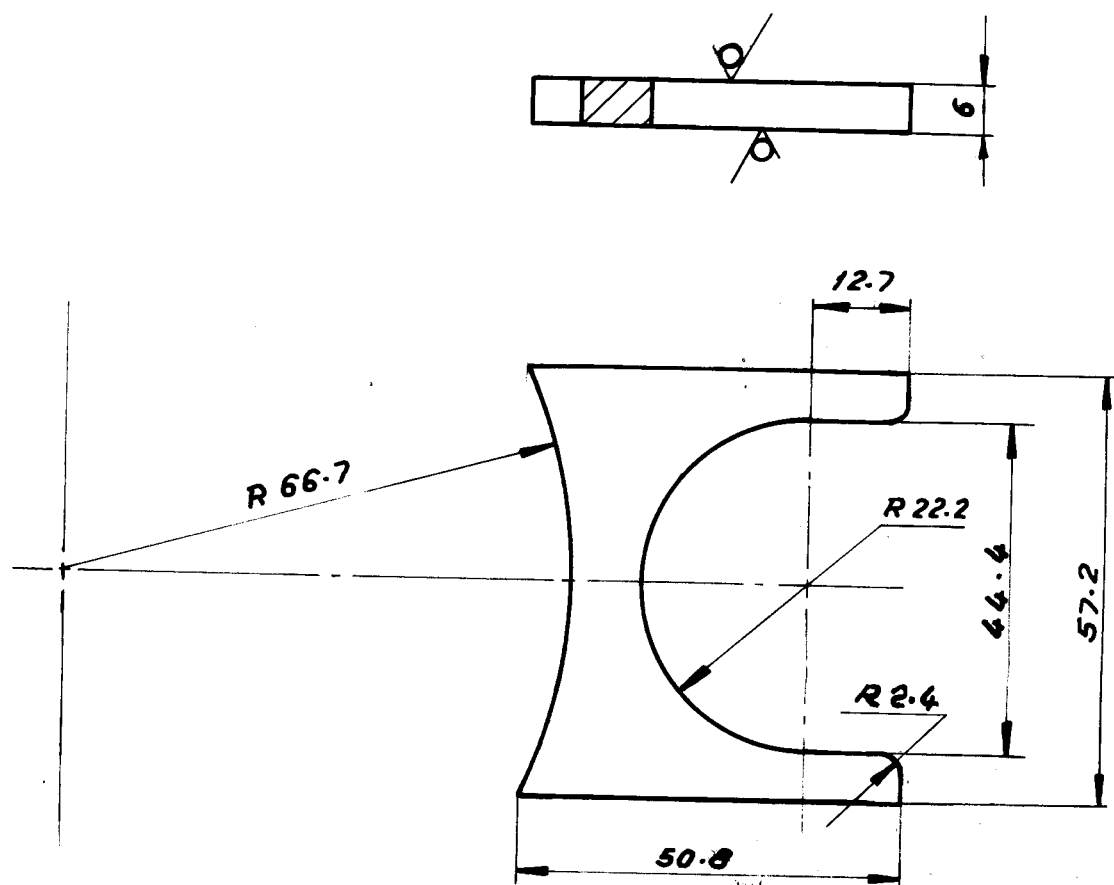
DURING MANUFACTURE REFER RELEVANT QCP/QP

FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)

REV	DATE	ALTERED
01	22-4-77	CHECKED & APPD V. Perumal
02		CHECKED

MATL. SPECN. CHANGED.  
DCN. NO. 84:0424

6.3 / 1.6



**NOTE :-**

- 1). SHARP CORNERS TO BE REMOVED
- 2). UNSPECIFIED MACHINING TOLERANCES  $\pm 0.25$  mm.

MICROFILMED ON  
ROLL 00523 FRAME 128

PL. 6x60x65	15 011 092	IS 2062 FC 410 WR CERTIFY	HEAT TREATMENT	SCRAP NET WT (KG)	GROSS WT (KG)	DRG. NO	ITEM NO.
				10	0.07	0.18	014

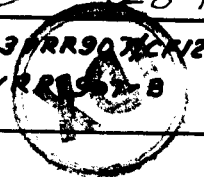


**Bharat Heavy Electricals Ltd.,**  
BOILER PLANT UNIT  
TIRUCHIRAPALLI-620 014

DRN	NAME	SIGN	DATE
	K.P. LEON	<i>[Signature]</i>	23/7/80
CHD	V.PERUMAL	<i>[Signature]</i>	28-7-80
APPD	S.RASHID	<i>[Signature]</i>	28-7-80

DEPT. YL	GRADE OF UNTOL. DIM	SCALE	WEIGHT (kg)	DR. DRG NO : 3 VRR907CK126	SL. No.
340	2/M/7	1:1		PART NO: VRR157-B	2580

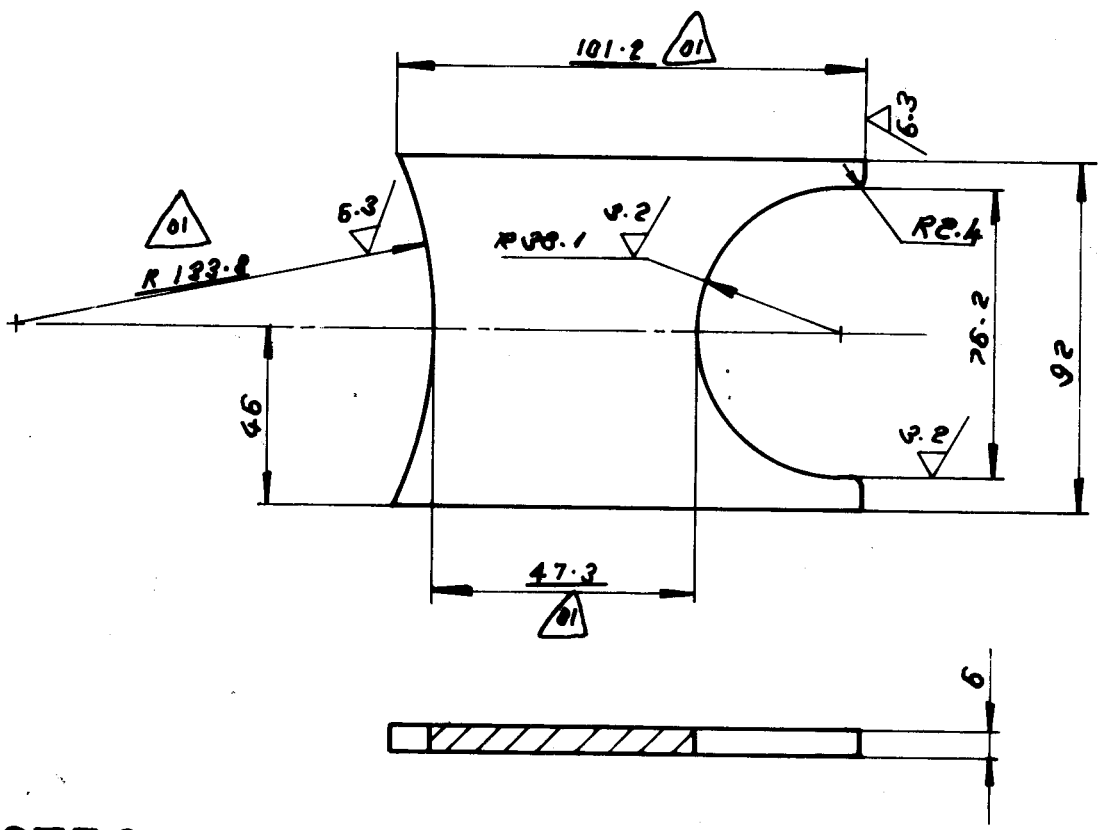
TITLE	CARD CODE	DRAWING NO.	REV
<b>WASHER ARM</b>	U 01	4-V-7026-10204	



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REV 01	DATE 16/9/85	CHECKED <i>[Signature]</i>	REV 02	DATE 22.4.97	CHECKED <i>[Signature]</i>
R 133.8 WAS R 111.1 DIMENSION 101.2 WAS 123.8 DIMENSION 47.3 WAS 69.9 PL. SIZE, NETWT, GROSSWT. changed.			MATL. IS 2062 FE 410 WA WAS BMC-20 DCN. NO. SV: 0424		

12.5 / 6.3 / 3.2



NOTES:

- 1. UNSPECIFIED MACHINING TOLERANCES ±0.25mm.
- 2. SHARP CORNERS TO BE REMOVED.

PL. 100x110-6	IS 011 092	182062 FE 410 WA CERTIFY	-	10	0.30	0.52	-	014	
NO OFF	DESCRIPTION	MATL. CODE	FINEL MATL.	HEAT TREATMENT	SCRAM SORT	NET WT. (kg)	GROSS WT. (kg)	DRG No.	ITEM No.

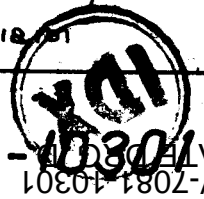


**Bharat Heavy Electricals Ltd.,**  
BOILER PLANT UNIT  
TIRUCHIRAPALLI-620 014

DRN	NAME <i>[Signature]</i>	SIGN <i>[Signature]</i>	DATE 16/1/85
CHD	V. PERUMAL	V. Perumal.	22-2-84
APPD	S. RASHID	<i>[Signature]</i>	22-2-84

DEPT. VL	GRADE OF UNTOL. DIM C/M/F		SCALE 1:2	WEIGHT (kg) -	DR. DRG No: 218181/CZ053	SL. No 2017
CODE 340					PART No: 1818 01	

TITLE	CARD CODE	DRAWING NO.	REV
WASHER ARM	U 01	4-V-7081-10301	

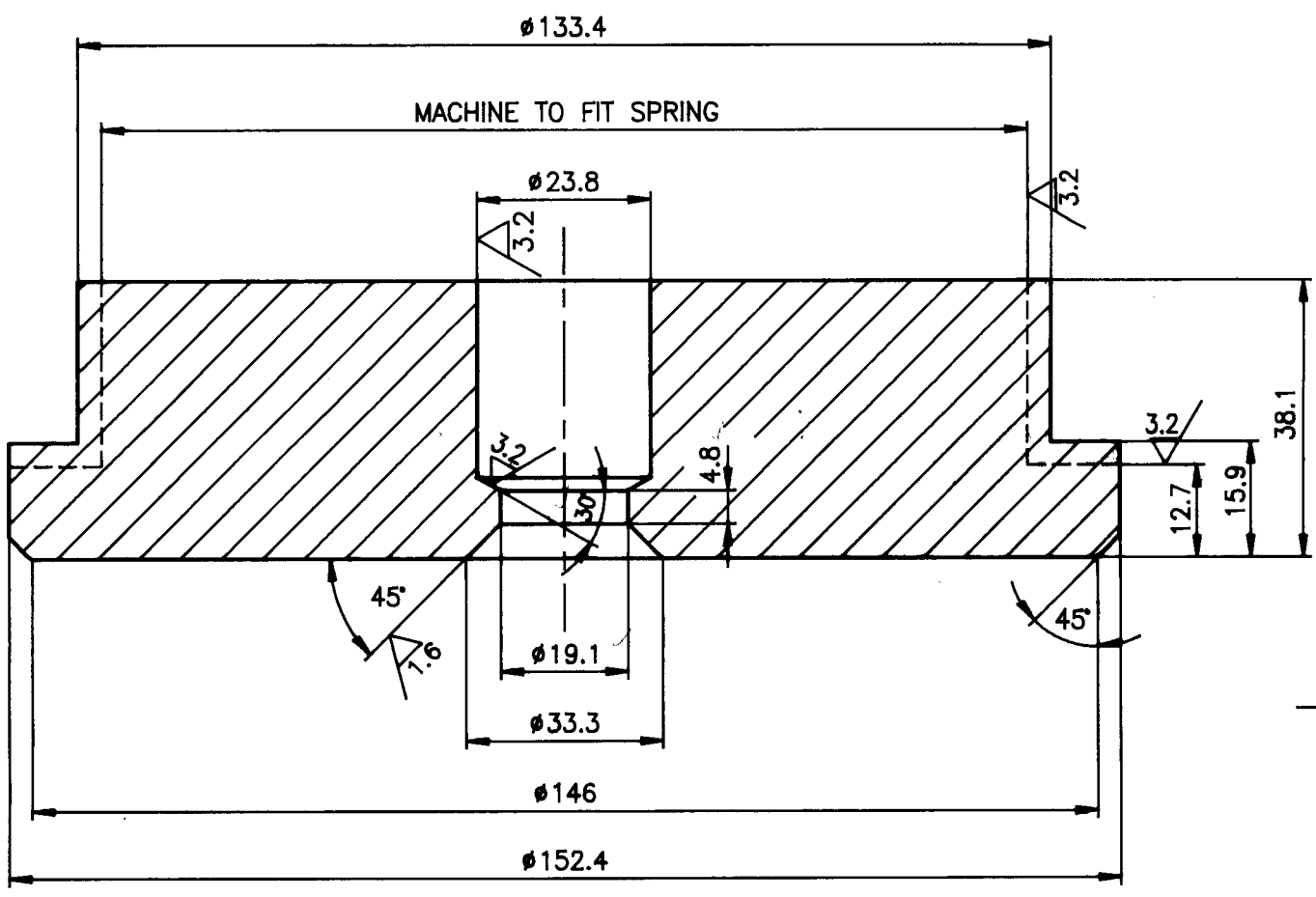


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REV	DATE	ALTERED
01	22.4.97	CHECKED & APPD: V. Perumal Pillai

NOTES MODIFIED.  
DCN No.: SV: 0424

6.3 / 3.2 / 1.6



**NOTES:**

1. SHARP CORNERS TO BE REMOVED.
2. PHOSPHATE AS PER LATEST APPLICABLE QUALITY PROCEDURE

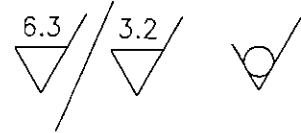


NO OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No.	ITEM No.
	Ø165 X 43	15339282	SA 105 CERTIFY	NORMALISED 150-190 BHN	10	4.5	7.2		016
<b>BHARAT HEAVY ELECTRICALS LTD.</b> UNIT: HIGH PRESSURE BOILER PLANT. TRUCHIRAPALLI 620014.					DRN	NAME	SIGN	DATE	NO. OF VAR
					CHD	V.PERUMALPILLAI	V. Perumal Pillai	15.04.95	
					APPD	K.NAGARAJAN	K. N. Nagarajan	20-4-95	
DEPT VL	GRADE OF UNTOL DIM	SCALE	WEIGHT (KG).		REFERENCE INFORMATION				NO. OF THIS
CODE 340	C/M/F	NTS			DRESSER DRG.NO.246957/FA042 PART NO.469570/SL.NO.9328				
TITLE					CARD CODE	DRAWING NO.			REV
BOTTOM SPRING WASHER					U 01	4-V-7116-10465/01			

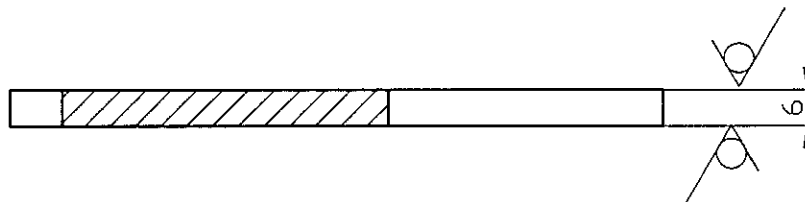
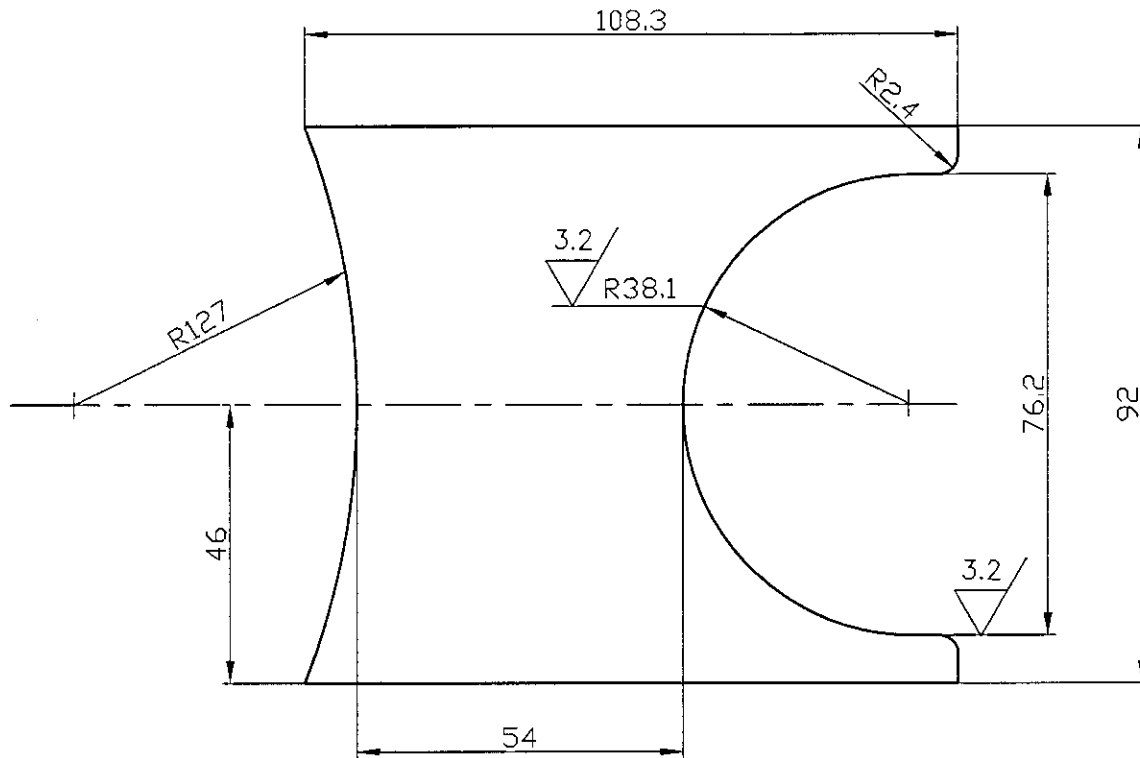
FOR TOLERANCES OF UNTOLERANCED DIMENSIONS

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

REV	DATE	ALTERED
		CHD & APPD



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**NOTE:-**

SHARP CORNERS TO BE REMOVED.

	PL.100 X 120-6	15011092	IS 2062 Fe 410 WA CERTIFY		10	0.35	0.57		014
NO OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No
<p><b>BHARAT HEAVY ELECTRICALS LTD.,</b> UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI 620014.</p>				DRN	NAME L.RENGA SWAMY		SIGN	DATE 30.06.03	NO.OF VAR
				CHD	V.PERUMAL PILLAI			30.06.03	
				APPD	E.ATHIANNAVI			30.06.03	
DEPT VL			SCALE NTS	WEIGHT (KG).	REFERENCE INFORMATIONS				NO. OF ITEMS
CODE 340					-				
TITLE WASHER ARM					CARD CODE U 01	DRAWING NO. 4-V-7132-10506			REV

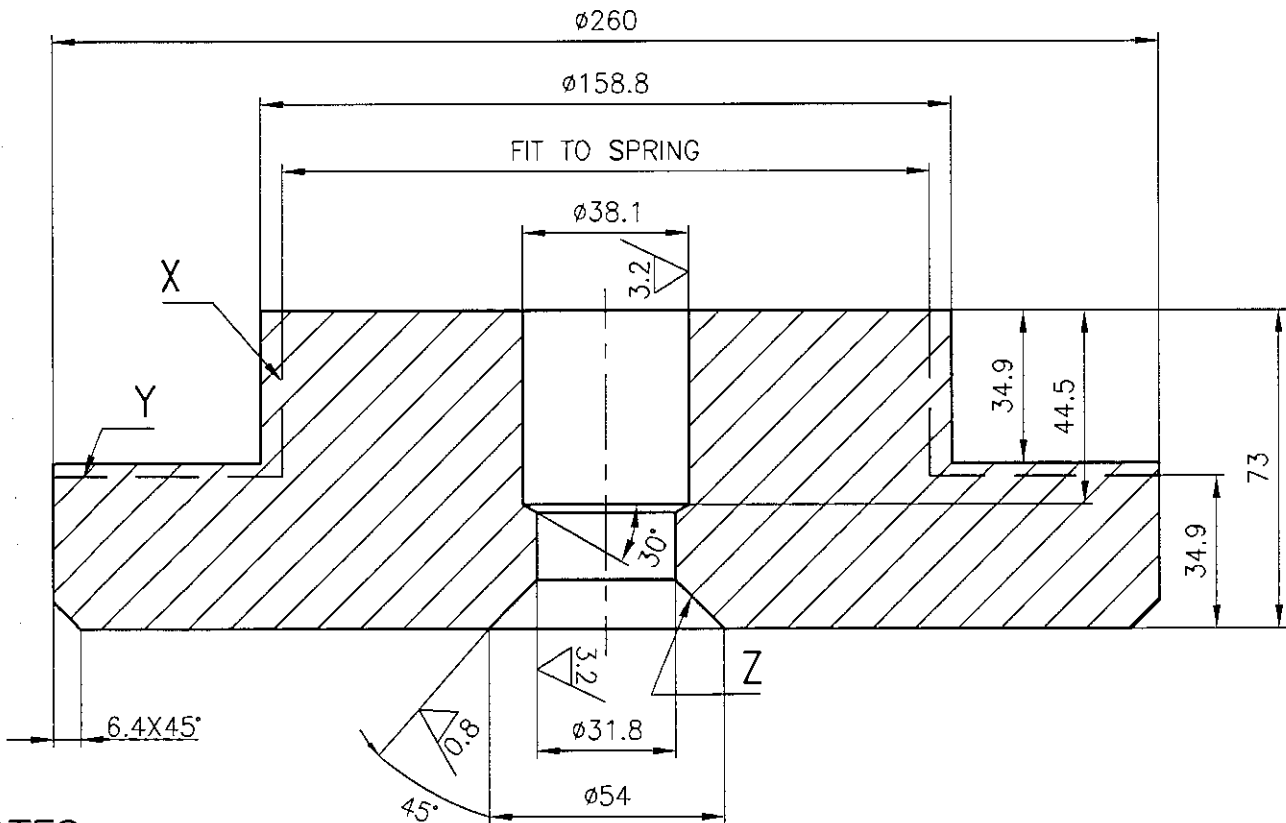
ALL DIMENSIONS ARE IN MILLIMETRES.

FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT QCP/QP

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.


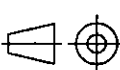
REV	DATE	ALTERED
		CHD & APPD

6.3 / 3.2 / 0.8



**NOTES:-**

- 1.SHARP CORNERS TO BE REMOVED.
- 2.PHOSPHATING AS PER LATEST APPLICABLE QUALITY PROCEDURE.
- 3.DIAMETER X AND SURFACE Z TO BE CONCENTRIC WITHIN 0.125 T.I.R.
- 4.WHEN INDICATED AT SURFACE Y AND DIAMETER X RUNOUT AT SURFACE Z NOT TO EXCEED 0.125 T.I.R.

-	Ø300 X 80	15339433	SA 105 CERTIFY	NORMALISED 150-190BHN	10	20.5	44.4	-	013	
NO OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No	
 <b>BHARAT HEAVY ELECTRICALS LTD.,</b> UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI 620014. 365-122					DRN	NAME L.RENGA SWAMY		SIGN	DATE 01.07.03	NO.OF VAR
					CHD	V.PERUMALPILLAI			01.07.03	
					APPD	E.ATHIANNAVI			01.07.03	
DEPT VL			SCALE	WEIGHT (KG).	REFERENCE INFORMATION				NO. OF ITEMS	
CODE 340			NTS		DR.DRG.No.218005/EQ629 PART No.1800501/SL.No.6785					
TITLE					CARD CODE	DRAWING NO.			REV	
BOTTOM SPRING WASHER					U 01	4-V-7132-10507				

COMP.CODE:931708860000

1787 WB

Size A4

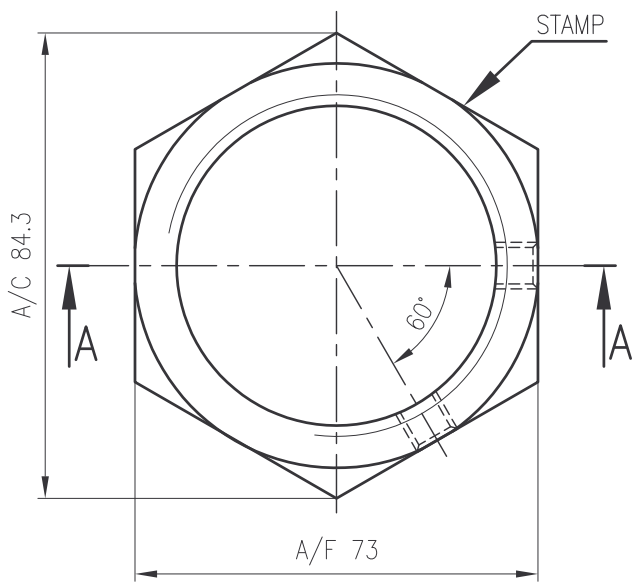
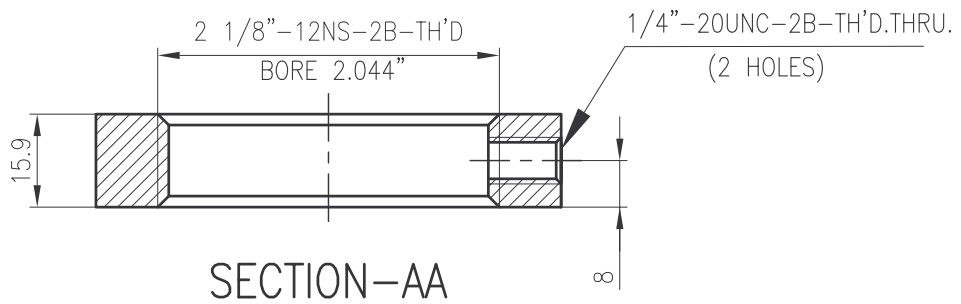
FOR TOLERANCES OF UNTOLERANCED DIMENSIONS

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

REV	DATE	ALTERED
		CHD & APPD




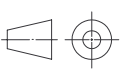
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**NOTE:**

1. BREAK SHARP CORNERS & REMOVE BURRS.
2. 45° CHAMFER FIRST THREAD.

COMP. CODE: 93 171 033 0000

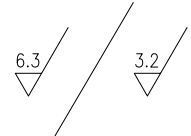
-	ø85 x 22	16 013 426	ASTM B584 ALLOY 875 CERTIFY	-	60	0.2	1.07	-	102
NO OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No
 BHARAT HEAVY ELECTRICALS LTD., UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI 620014. 365-122					DRN	NAME T.JAGAN	SIGN	DATE 14.10.10	NO. OF VAR
					CHD	V.PERUMALPILLAI		14.10.10	
					APPD	E.ATHIANNAVI		14.10.10	
DEPT VL	-		SCALE N T S	WEIGHT (KG).	REFERENCE INFORMATIONS DRESSER DRG No.141350/ REV: EZ692 PART No: 4135001/SL.No: 11626				NO. OF ITEMS
CODE 340									
TITLE <b>LOCK NUT</b>					CARD CODE U 01	DRAWING NO. <b>4-V-7139-10585</b>			REV <b>00</b>



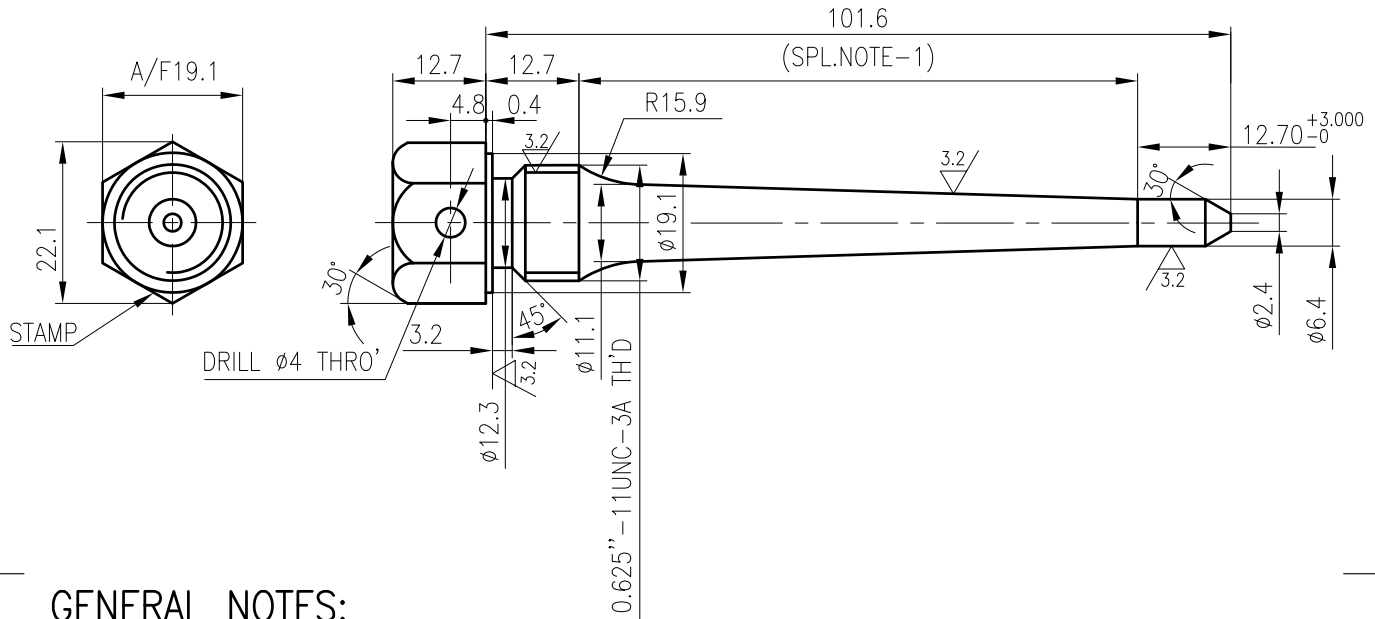
FOR TOLERANCES OF UNTOLERANCED DIMENSIONS

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

REV	DATE	ALTERED
		CHD & APPD



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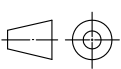
**GENERAL NOTES:**

1. PINS ARE LONGER THAN REQUIRED. CUT LENGTH TO SUIT AT ASSY.
2. SHARP CORNERS TO BE REMOVED.
3. UNSPECIFIED ANGLE TOLERANCES ±0.5°.

**SPECIAL NOTES:**

1. SURFACE FINISH ON THIS LENGTH TO BE FREE OF GROOVES, STEPS OR TEARS.
2. AFTER FINISH MACHINE HEAT TREAT AS PER LATEST APPLICABLE QUALITY PROCEDURE.

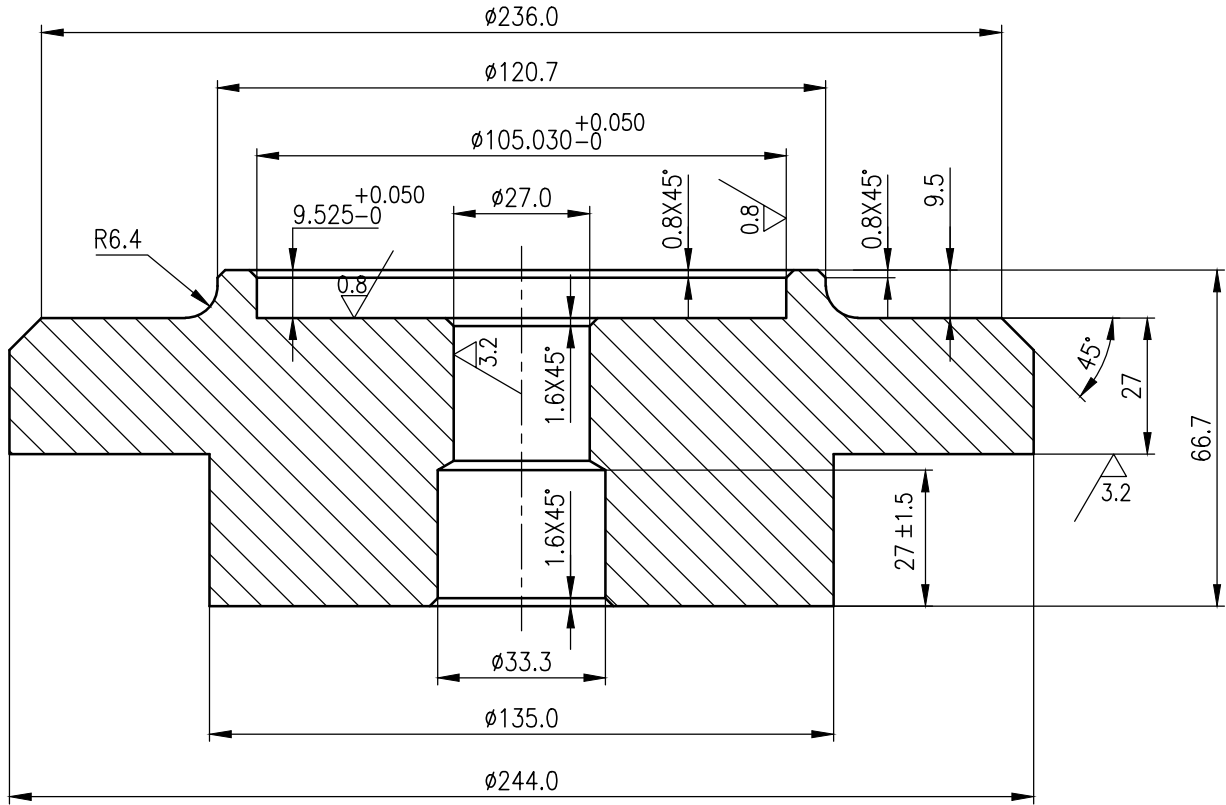
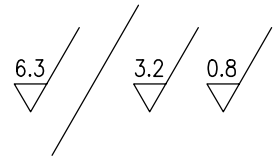
COMP CODE: 931769150000

-	Ø25X125	15 324 276	ASTM A182-F316	SOLUTION ANNEALED	46	0.12	0.49	-	039	
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. 365-122					DRN	NAME		SIGN	DATE	NO. OF VAR
					CHD	R.GANGA			10.01.12	
					APPD	S.MATHULINGAM			10.01.12	
DEPT VL	-		SCALE	WEIGHT (KG).	REFERENCE INFORMATIONS				NO. OF ITEMS	
CODE	340	-	-	0.12	4-V-7003-10048					
TITLE					CARD CODE	DRAWING NO.			REV	
LOWER ADJUSTING RING PIN					U 01	4-V-7141-10600			00	

FOR TOLERANCES OF UNTOLERANCED DIMENSIONS


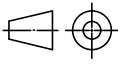
ALL DIMENSIONS ARE IN MILLIMETRES.  
DURING MANUFACTURE REFER RELEVANT QCP/QP

REV	DATE	ALTERED	SM	REV	DATE	ALTERED	RPJ
01	02.01.13	CHD & APPD	EA	02	05.06.13	CHD & APPD	SM & EA
OD DIA $\phi$ 250 WAS $\phi$ 203.2				OD DIA $\phi$ 244.0 WAS $\phi$ 250.0			
DCN NO. 801428				DCN NO. 801526			



**NOTES:**

1. SHARP CORNERS TO BE REMOVED.
2. UNSPECIFIED ANGLE TOLERANCE  $\pm 0.5^\circ$

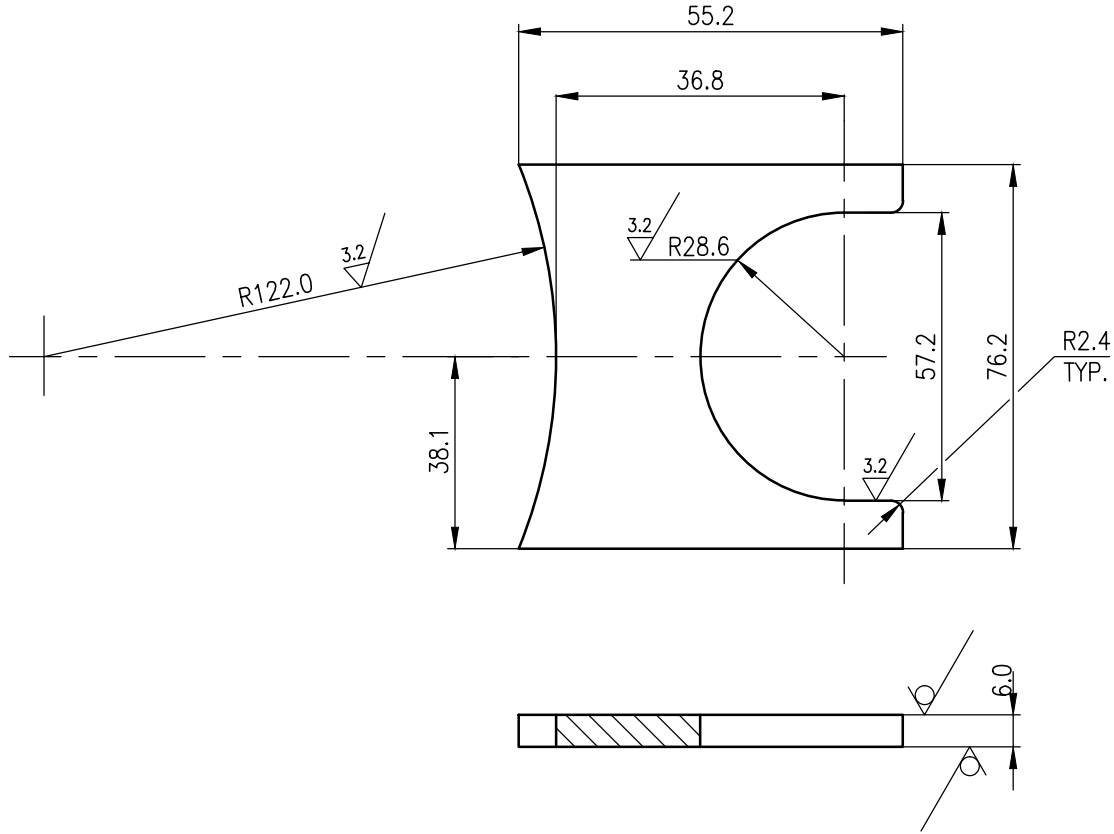
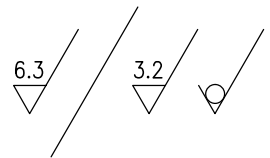
-	PL-t=70 250 x 250	15942123	SA 515 Gr.70 CERTIFY	NORMALISED	10	12.0	35.5	-	013
NO OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No
 <b>BHARAT HEAVY ELECTRICALS LTD.,</b> UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI 620014. 365-122				DRN	NAME N.THAVA		SIGN	DATE 01.03.11	NO.OF VAR
				CHD	S.Madhulingam			01.03.11	
				APPD	E.ATHIANNAVI			01.03.11	
DEPT VL	-		SCALE N T S	WEIGHT (KG).	REFERENCE INFORMATION				NO. OF ITEMS
CODE 340				-	SL. No: 2704				
TITLE <b>TOP SPRING WASHER</b>				CARD CODE U 01	DRAWING NO. <b>4-V-7301-10581</b>				REV <b>02</b>

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FOR TOLERANCES OF UNTOLERANCED DIMENSIONS


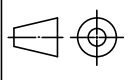
ALL DIMENSIONS ARE IN MILLIMETRES.  
DURING MANUFACTURE REFER RELEVANT QCP/QP

REV 01	DATE 02.01.13	ALTERED CHD & APPD	SM EA	REV 02	DATE 05.06.13	ALTERED CHD & APPD	RPJ SM & EA
R125 WAS R101.6				R122.0 WAS R125.0			
DCN NO. 801428				DCN NO. 801526			



**NOTE:**

1. SHARP CORNERS TO BE REMOVED.

-	PL.-6 80 x 60	15011092	IS 2062 E250A CERTIFY	-	10	0.16	0.3	-	014	
NO OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No	
 <b>BHARAT HEAVY ELECTRICALS LTD.,</b> UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI 620014. 365-122					DRN	NAME N.THAVA		SIGN	DATE 01.03.11	NO.OF VAR
					CHD	S.MADHULINGAM			01.03.11	
					APPD	E.ATHIANNAVI			01.03.11	
DEPT VL		 SCALE N T S	WEIGHT (KG).	REFERENCE INFORMATION					NO. OF ITEMS	
CODE 340			-	SL. No: 2701						
TITLE <b>WASHER ARM</b>					CARD CODE U 01	DRAWING NO. <b>4-V-7301-10582</b>			REV <b>02</b>	

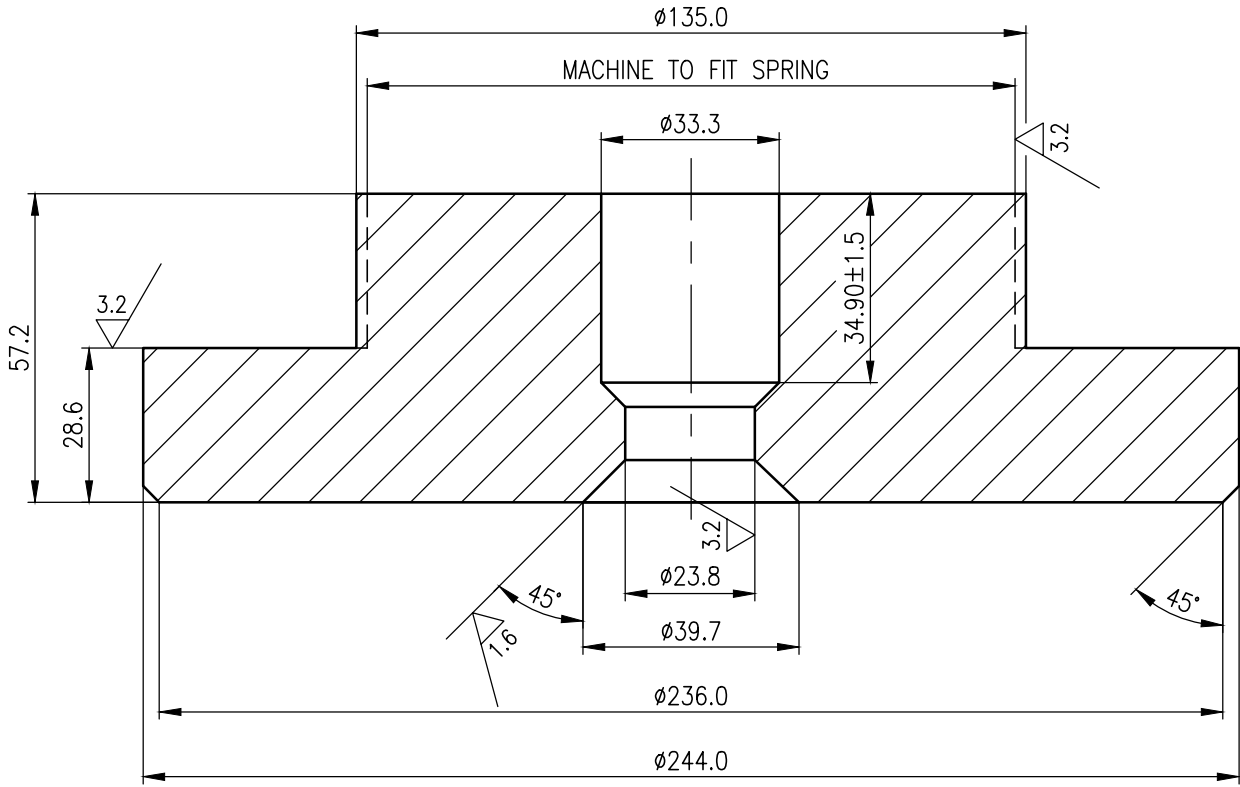
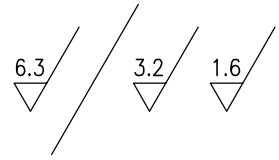
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FOR TOLERANCES OF UNTOLERANCED DIMENSIONS

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

REV 01	DATE 02.01.13	ALTERED CHD & APPD	SM EA	REV 02	DATE 05.06.13	ALTERED CHD & APPD	RPJ SM & EA
OD DIA $\phi$ 250 WAS $\phi$ 203.2				OD DIA $\phi$ 244.0 WAS $\phi$ 250.0			
DCN NO. 801428				DCN NO. 801526			



**NOTES:**

1. SHARP CORNERS TO BE REMOVED.
2. UNSPECIFIED ANGLE TOLERANCE  $\pm 0.5^\circ$ .
3. PHOSPHATING AS PER LATEST APPLICABLE QUALITY PROCEDURE.

-	PL-t=60 250 x 250	15942121	SA 515 Gr.70 CERTIFY	NORMALISED	10	10.3	30.4	-	016	
NO OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No	
				DRN		NAME		SIGN	DATE	NO. OF VAR
BHARAT HEAVY ELECTRICALS LTD., UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI 620014.				CHD		S.MADHULINGAM			04.03.11	
365-122				APPD		E.ATHIANNAVI			04.03.11	
DEPT VL	-	SCALE		WEIGHT (KG).	REFERENCE INFORMATION				NO. OF ITEMS	
CODE	340	N T S		-	SL.No: 6783					
TITLE				CARD CODE	DRAWING NO.				REV	
BOTTOM SPRING WASHER				U 01	4-V-7301-10583				02	

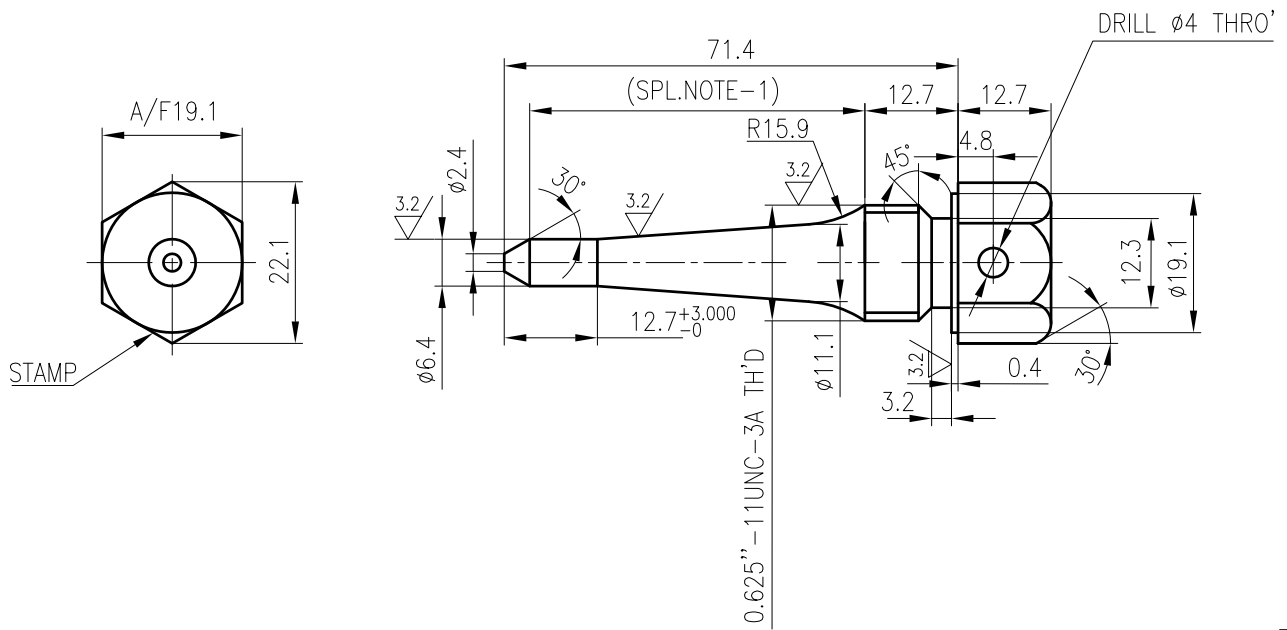
FOR TOLERANCES OF UNTOLERANCED DIMENSIONS

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

REV	DATE	ALTERED
		CHD & APPD

6.3 / 3.2

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.




**GENERAL NOTES:**

1. PINS ARE LONGER THAN REQUIRED. CUT LENGTH TO SUIT AT ASSY.
2. SHARP CORNERS TO BE REMOVED.
3. UNSPECIFIED ANGLE TOLERANCES  $\pm 0.5^\circ$

**SPECIAL NOTES:**

1. SURFACE FINISH ON THIS LENGTH TO BE FREE OF GROOVES, STEPS OR TEARS.
2. AFTER FINISH MACHINE HEAT TREAT AS PER LATEST APPLICABLE QUALITY PROCEDURE.

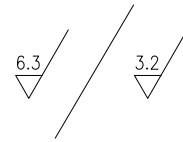
COMP CODE: 931710610000

-	Ø25X91	15 324 276	ASTM A182-F316	SOLUTION ANNEALED	46	0.09	0.36	-	037	
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	R.GANGA			10.01.12	
					APPD	S.MADHULINGAM			10.01.12	
DEPT VL		SCALE		WEIGHT (KG).		REFERENCE INFORMATIONS				NO. OF ITEMS
CODE 340		-		-		REF: 4-V-7001-10034/02				
TITLE					CARD CODE	DRAWING NO.			REV	
UPPER ADJUSTING RING PIN					U 01	4-V-7302-10602			00	

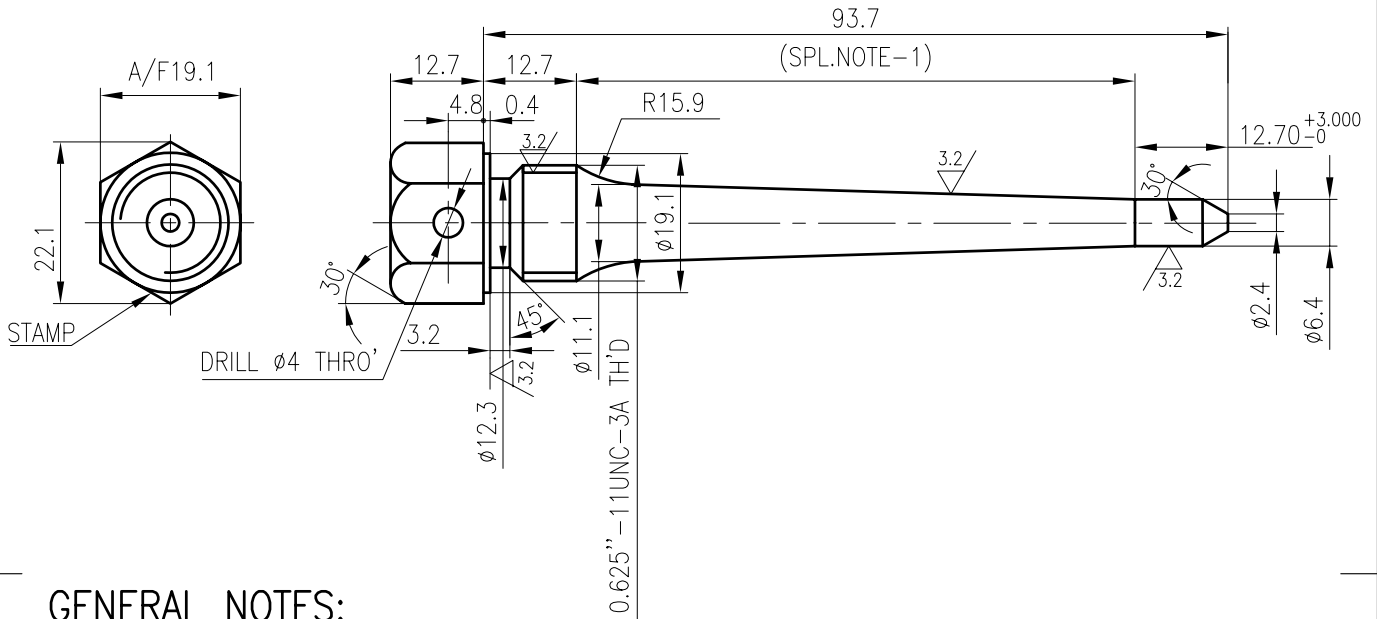
FOR TOLERANCES OF UNTOLERANCED DIMENSIONS

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

REV	DATE	ALTERED
		CHD & APPD



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**GENERAL NOTES:**

1. PINS ARE LONGER THAN REQUIRED. CUT LENGTH TO SUIT AT ASSY.
2. SHARP CORNERS TO BE REMOVED.
3. UNSPECIFIED ANGLE TOLERANCES  $\pm 0.5^\circ$ .

**SPECIAL NOTES:**

1. SURFACE FINISH ON THIS LENGTH TO BE FREE OF GROOVES, STEPS OR TEARS.
2. AFTER FINISH MACHINE HEAT TREAT AS PER LATEST APPLICABLE QUALITY PROCEDURE.

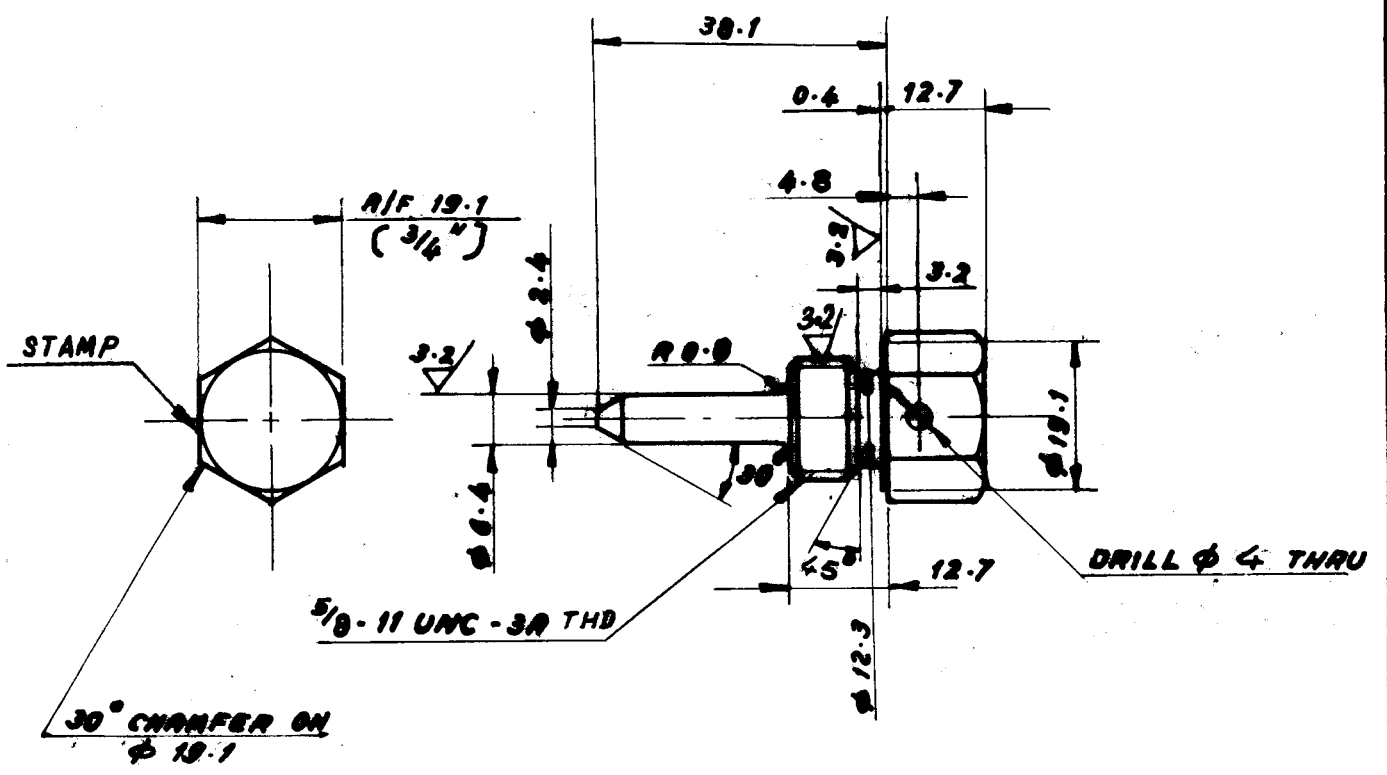
COMP CODE: 931710620000

-	Ø25X112	15 324 276	ASTM A182-F316	SOLUTION ANNEALED	46	0.11	0.44	-	039	
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	R.GANGA			10.01.12	
					APPD	S.MATHULINGAM			10.01.12	
DEPT VL	-	SCALE		WEIGHT (KG).	REFERENCE INFORMATIONS				NO. OF ITEMS	
CODE	340	-		-	4-V-7000-10035					
TITLE					CARD CODE	DRAWING NO.			REV	
LOWER ADJUSTING RING PIN					U 01	4-V-7302-10603			00	

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REV 02  
DATE  
ALTERED  
CHECKED  
MATERIALS  
CHECKED  
K2  
MTRL. ASTM A565 Gr. 616 WAS  
ASTM A276 Gr. 410, DESC-  
RIPTION, MTRL. CODE GROSS  
WEIGHT ARE CHANGED.  
DRILL  $\phi 4$  WAS  $\phi 3.2$   
DELETED C SINK  $\phi 4.8 \times 90^\circ$   
45° ANGLE WAS 30°

6.3 / 3.2  
▽ / ▽



**NOTES :-**

1. PINS ARE LONGER THAN REQUIRED. CUT LENGTH TO SUIT AT ASSEMBLY.
2. 45° CHAMFER FIRST THREAD.
3. BREAK ALL SHARP CORNERS.
4. UNSPECIFIED ANGLE TOLERANCES  $\pm \frac{1}{2}^\circ$

MICROFILMED ON  
ROLL 00523 FRAME 120

NO. OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT. (KG)	GROSS WT. (KG)	DRAWING NO.	ITEM NO.
	A/F 19.1 x 50	15940216	ASTM A 565 GR. 616 COND. 7 AMENDED CERTIFY		46	0.05	0.16	087	



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

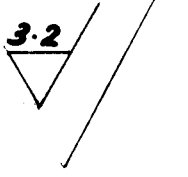
DEPT	CODE	SCALE	1:1	WEIGHT (kg)	BR. DRG. NO. 3 VP 013 / EQ 660	SL. NO. 5673
TITLE <b>UPPER ADJUSTING RING PIN</b>					DRAWN K.R.	DATE 27-4-79
					CHECKED VR	
					APPROVED JA	

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE  $\pm 0.25$  mm. UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE  $\pm$

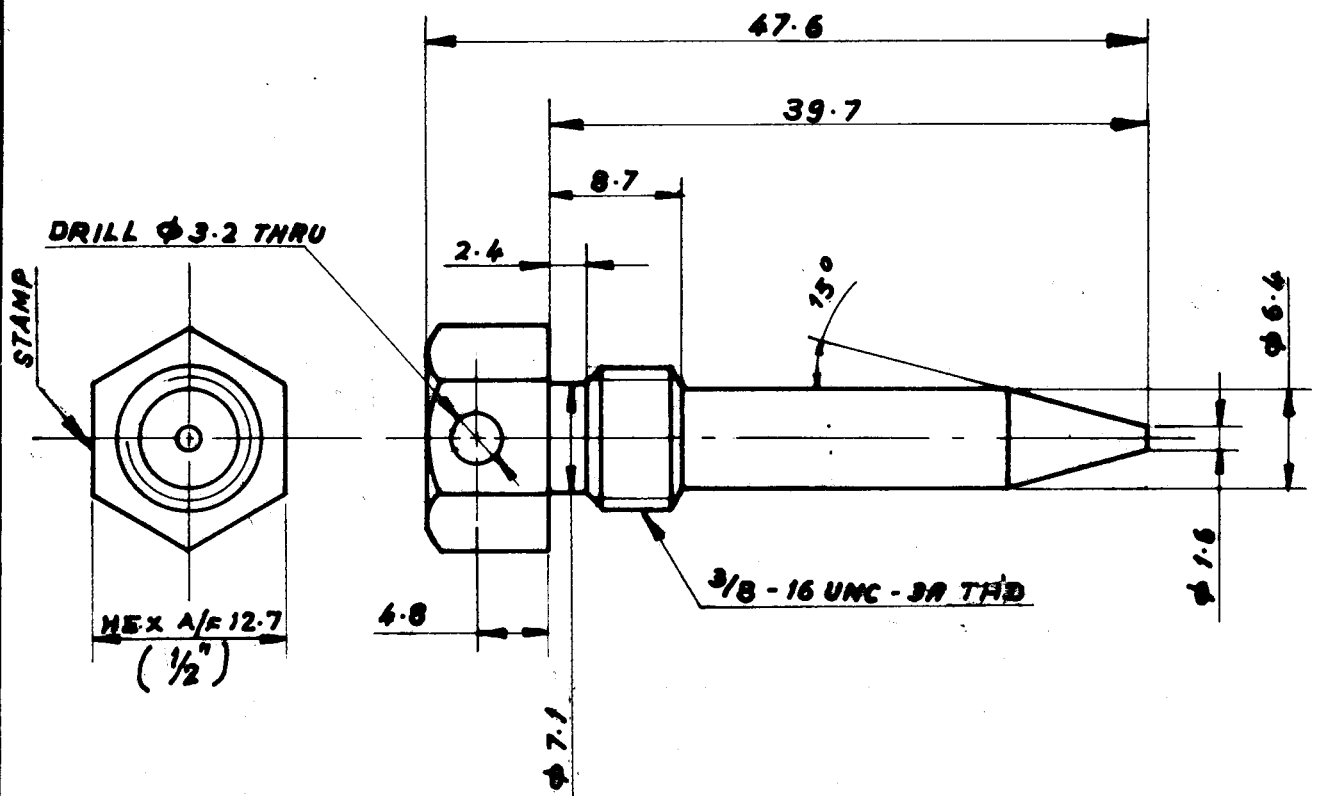
CARD CODE  
DRAWING NO. 4-V-7800-10044  
15 16 REV 17  
01

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REV	DATE	ALTERED
01		
CHECKED		
REV	DATE	ALTERED
02		
CHECKED		



APPL. DR. TYPE NOS.



**NOTES :-**

1. UNSPECIFIED ANGLE TOLERANCES  $\pm 1/2^\circ$
2. BURRS TO BE REMOVED
3. 45° CHAMFER FIRST THD
4. CUT PIN TO REQUIRED LENGTH AT FINAL ASSEMBLY.

MICROFILMED ON  
ROLL 00523 FRAME 320



NO. OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP NET WT. (KG)	GROSS WT. (KG)	DRAWING NO.	ITEM NO.
	ϕ 20 x 70	15 024 177	AISI 416 AMENDED CERTIFY	HARDENED & TEMPERED 24-29 HRC	46	0.02	0.17	839



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

05-249/A

DEPT	CODE	SCALE	WEIGHT (kg.)	DR. DRG. NO. - 2 WA 819 / CH 902	SL. NO. 788
		2:1		PART NO. WA 819 C	

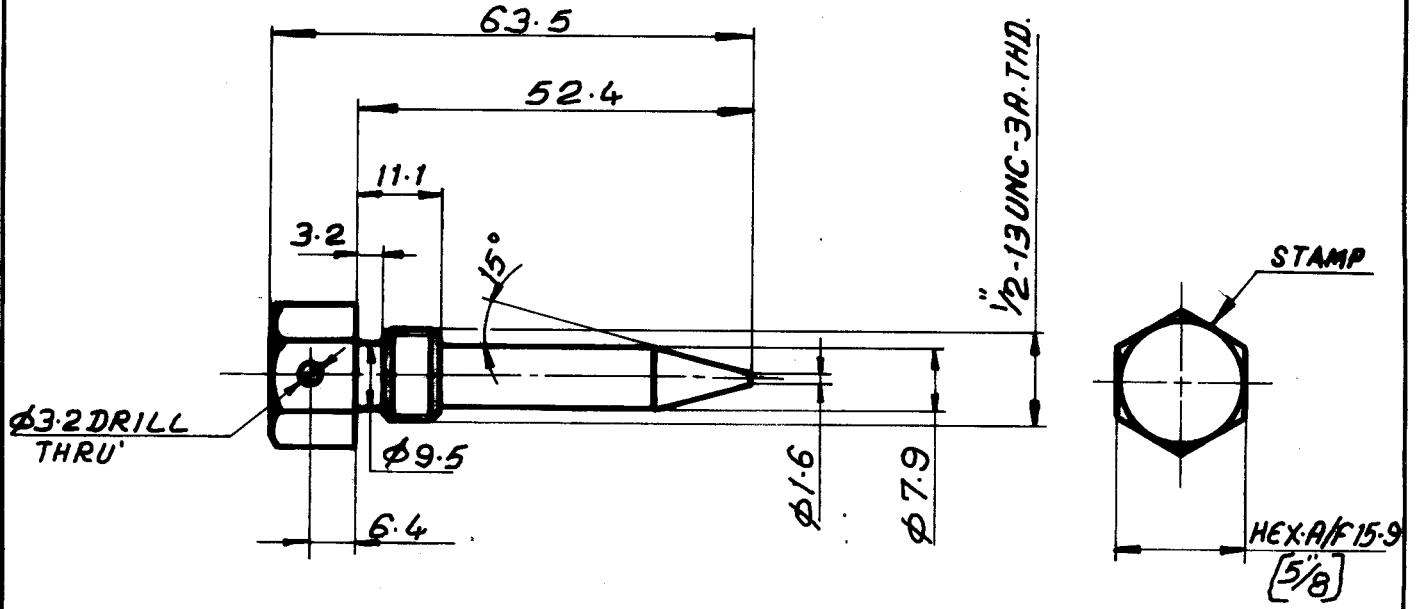
TITLE <b>LOWER ADJUSTING RING PIN</b>	DRAWN	NAME	SIGN	DATE
	CHECKED	K.R.		27.6.79
	APPROVED	J.A.		

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE $\pm 0.25$ mm. UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE $\pm$	CARD CODE	4 DRAWING NO. <b>4-V-7800-10045</b>	15	16 REV 17
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REV 01	ALTERED	REV 02	DATE	ALTERED
	CHECKED			CHECKED

3.2



**NOTES:-**

1. SHARP CORNERS TO BE REMOVED.
2. UNSPECIFIED ANGLE TOLERANCES  $\pm 1/2$
3. 45° CHAMFER FIRST THREAD.
4. CUT PIN TO REQUIRED LENGTH AT FINAL ASSY.
5. UNSPECIFIED MACHINING TOLERANCES  $\pm 0.25$ mm.

MICROFILMED ON  
ROLL 00523 FRAME 181

APPL. DR TYPE NOS:-

	$\phi 20 \times 80$	15024177	AISI-416 AMENDED CERTIFY	HARDENED TEMPERED 26-29 HRC	46	0.04	0.2		039
NO OFF	DESCRIPTION	MATL. CODE	FINAL MATL	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No



**Bharat Heavy Electricals Ltd.,**  
BOILER PLANT UNIT  
TIRUCHIRAPALLI-620 014

DRN	NAME N. Ramesh.	SIGN N. Ramesh.	DATE 7-6-80
CHD	V. PERUMAL	[Signature]	7-7-80
APPD	S. RASHID	[Signature]	

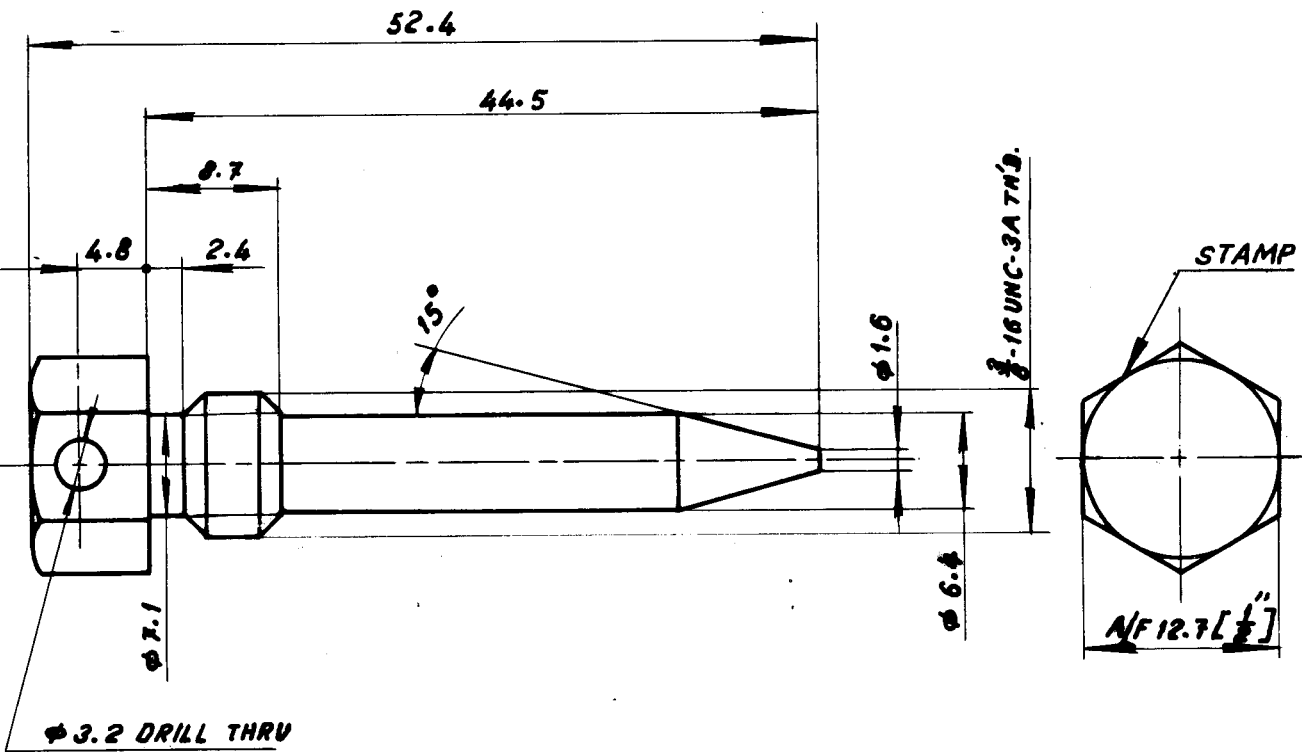
DEPT.	GRADE OF UNTOL. DIM C/M/F	SCALE 1:1	WEIGHT (kg)	DR. DRG No:- 2WB 813/GQ 767
CODE				PART No:- WB 813/SL No:- 2877

TITLE <b>ADJ. RING PIN</b>	CARD CODE U 01	DRAWING NO. <b>4-V-7806-10201</b>	REV
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REV	DATE	ALTERED
02		CHECKED

3.2 /

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**NOTES:-**

1. CUT PIN TO REQUIRED LENGTH AT FINAL ASSY.
2. SHARP CORNERS TO BE REMOVED.
3. UNSPECIFIED ANGLE TOLERANCES  $\pm \frac{1}{2}^\circ$
4.  $45^\circ$  CHAMFER FIRST THREAD.

MICROFILMED ON  
ROLL 100543 FRAME 394

APPL. DRESSER TYPE NOS.

NO. OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT. (KG.)	GROSS WT. (KG.)	DRG. NO.	ITEM NO.
	$\phi 20 \times 75$	15 024 177	AISI 416 AMENDED CERTIFY	HARDENED TEMPERED 24-29 HRC	46	0.02	0.19		039



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

05-249/A

DEPT	CODE		SCALE	WEIGHT (kg)	DR. DRG. NO. PWAB13/CM902	IT. NO.		
			2:1		PART NO. WAB13D/SL. NO. 2868			
TITLE					DRAWN	NAME	SIGN	DATE
<b>LOWER ADJUSTING RING PIN</b>					H.R.C	<i>Spich</i>		3-11-79
					CHECKED	JA		
					APPROVED	JA		

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE  $\pm 0.25$  mm. UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE  $\pm$

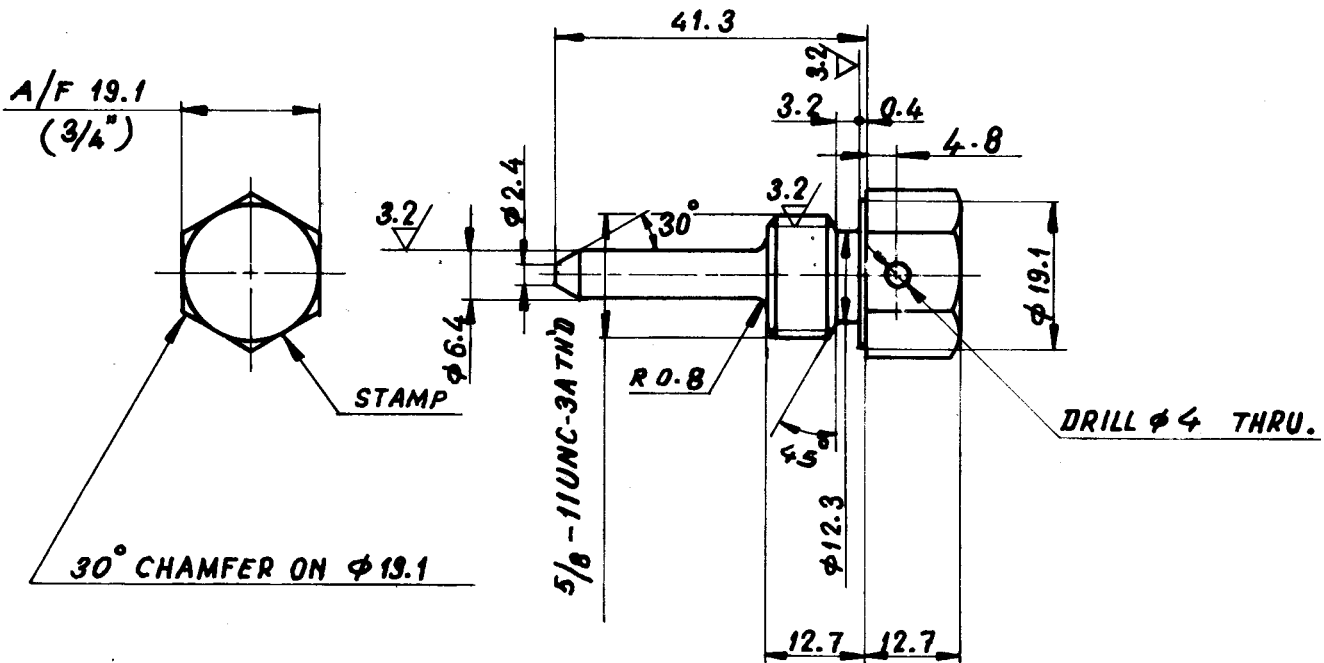
CARD CODE	4 DRAWING NO.	15	16 REV 17
	<b>4-V-7807-10063</b>		

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REVISED BY *V. Perumal.*  
 01 8-10-85 CHECKED *KS*  
 MATL. ASTM A 565 Gr. 616 WAS  
 ASTM A 276 Gr. 410, DESC-  
 RIPTION, MATL. CODE GROSS  
 WEIGHT ARE CHANGED.  
 DRILL  $\phi 4$  WAS  $\phi 3.2$   
 DELETED C'SINK  $\phi 4.8 \times 90^\circ$   
 $45^\circ$  ANGLE WAS  $30^\circ$

REV	DATE	ALTERED
02		
		CHECKED

$\nabla 6.3 / \nabla 3.2$



**NOTES:-**

1. PINS ARE LONGER THAN REQUIRED CUT LENGTH TO SUIT AT ASSEMBLY.
2.  $45^\circ$  CHAMFER FIRST THREAD.
3. BREAK ALL SHARP CORNERS.
4. UNSPECIFIED ANGLE TOLERANCES.  $\pm 1/2^\circ$
5. UNSPECIFIED MACHINING TOLERANCES  $\pm 0.25$ mm

MICROFILMED ON  
 ROLL 00522 FRAME 155

A/F 19.1 x 65	15940216	ASTM A 565 Gr. 616 COND. T AMENDED CERTIFY	46	0.07	0.17		037	
NO. OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP NET WT (kg)	GROSS WT. (kg)	DRG. No.	ITEM No.



**Bharat Heavy Electricals Ltd.,**  
 BOILER PLANT UNIT  
 TIRUCHIRAPALLI-620 014

DRN	NAME	SIGN	DATE
CHD	M. RAJA	<i>M. Raja</i>	6-12-80
APPD	V. PERUMAL	<i>V. Perumal</i>	17-1-81
	S. RASHID	<i>S. Rashid</i>	

DEPT.	GRADE OF UNTOL. DIM C/M/F	SCALE	WEIGHT (kg)	DR. DRG. No. 3 VP 813 / ER 660
CODE		1:1		PART No. VP 813 BB 60673

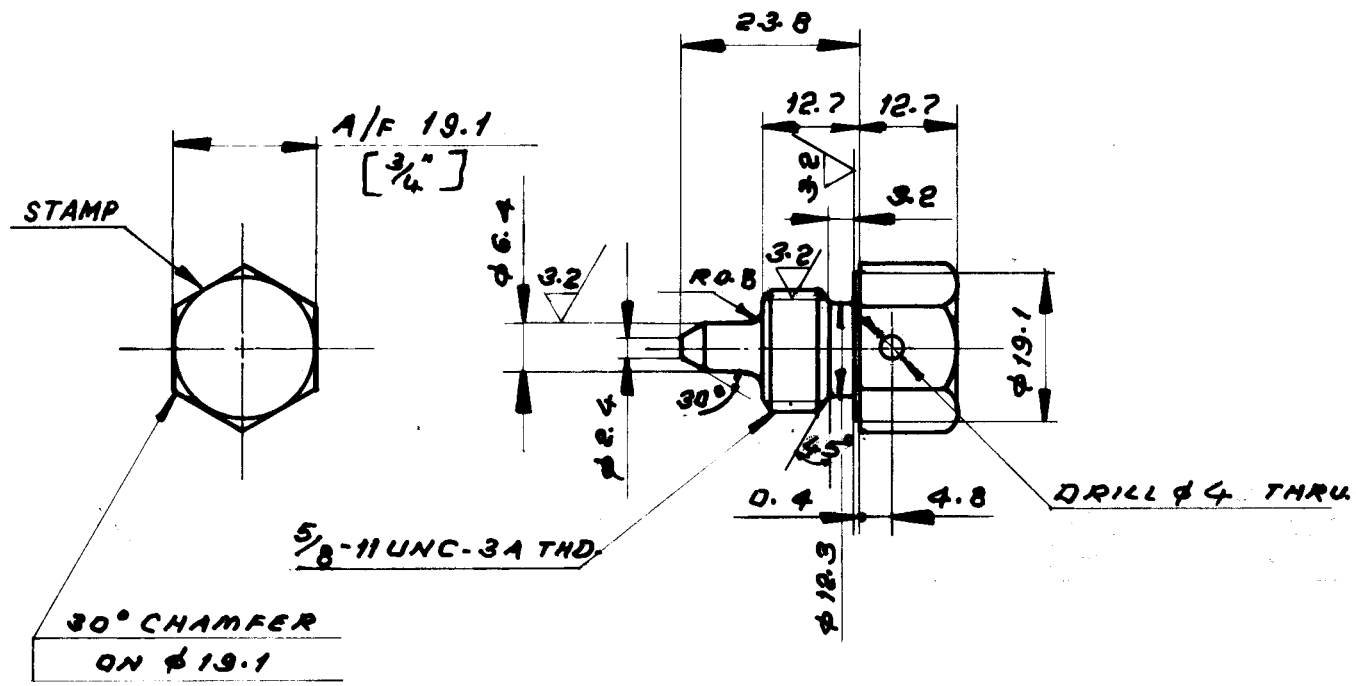
TITLE	CARD CODE	DRAWING NO.	REV
<b>ADJUSTING RING PIN</b>	U 01	4-V-7808-10241 01	

REV. DATE ALTERED V. *V. Arumal.*  
 02 01.01.93 CHECKED *U.N.T.*  
 5-10-80 CHECKED *KD*  
 MATL. ASTM A565 Gr. 616 COND  
 ASTM A276 Gr. 410, DESC-  
 RIPTION, MATL. CODE GROSS  
 WEIGHT ARE CHANGED.  
 DRILL  $\phi 4$  NAS  $\phi 3.2$   
 DELETED C'SINK  $\phi 4.8 \times 90^\circ$   
 $45^\circ$  ANGLE NAS  $30^\circ$

REV	DATE	ALTERED
02	01.01.93	<i>P. Sridhar</i>
		CHECKED <i>U.N.T.</i>

OMAC CODE ADDED.

6.3 / 3.2



**NOTES:-**

1. PINS ARE LONGER THAN REQUIRED CUT LENGTH TO SUIT AT ASSEMBLY.
2.  $45^\circ$  CHAMFER FIRST THREAD.
3. BREAK ALL SHARP CORNERS.
4. UNSPECIFIED ANGLE TOLERANCES  $\pm \frac{1}{2}^\circ$ .

RECEIVED ON  
 00523

A/F 19.1 X 50	15940 216	ASTM A 565 GR. 616 COND AMENDED CERTIFY	46	0.06	0.13	037	
NO. OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRM NET GROSS WT (KG) (KG)	DRG. NO.	ITEM NO.



**BHARAT HEAVY ELECTRICALS LIMITED**  
 BOILER PLANT UNIT, TIRUCHIRAPALLI-620014

DEPT VL	CODE 340	SCALE 1:1	WEIGHT (kg)	DR. DRG. NO: 3VP813/EG660 PART NO. VP813X/SL: NO: 5675
------------	-------------	--------------	-------------	---

TITLE <b>ADJUSTING RING PIN</b>	NAME M.T. RAJ	SIGN <i>[Signature]</i>	DATE 17/05/80
	CHECKED V		20-5-80
	APPROVED D.K.		20-5-80

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE $\pm 0.25$ mm. UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE $\pm$	CARD CODE 4-DRAWING NO. 4-V-7813-10131	16 REV 17 02
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OMAC CODE: 930706320000

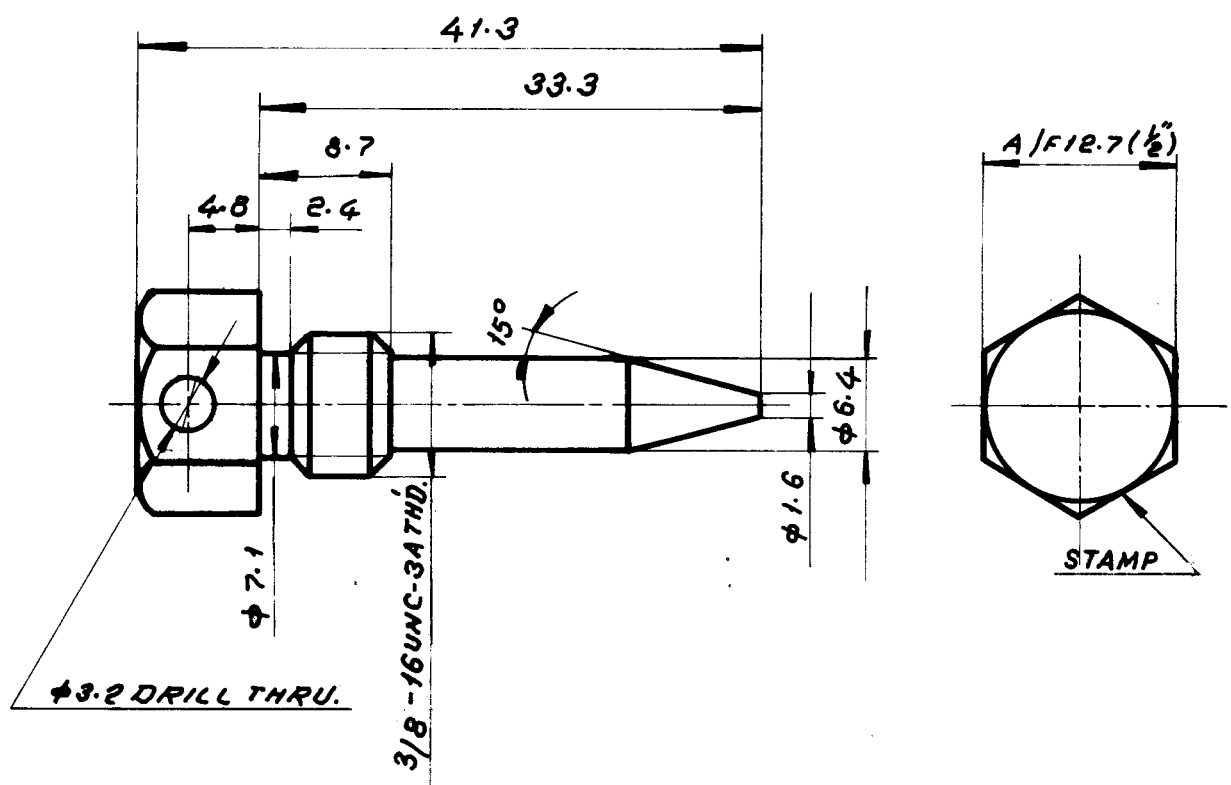
BASIC TYPE 1B11JA-3 X SIZE A-4

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REV	DATE	ALTERED	REV	DATE	ALTERED
01	7813-10132	V. Jayaram	02		
CORPORATE DRG ID			CHECKED		
OMAC CODE ADDED.					

3.2

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**NOTES:-**

1. CUT PIN TO REQUIRED LENGTH AT FINAL ASSY.
2. SHARP CORNERS TO BE REMOVED.
3. UNSPECIFIED ANGLE TOLERANCES  $\pm 1/2^\circ$
4. 45° CHAMFER FIRST THREAD.

MICROFILMED ON  
ROLL 100523 FRAME 255

$\phi 20 \times 60$	15 024 177	AISI 516 AMENDED CERTIFY	HARDENED TEMPERED 24-29 HRC	45	0.02	0.16		Q39	
NO. OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT (KG)	GROSS WT (KG)	DRG. NO.	ITEM NO.



**BHARAT HEAVY ELECTRICALS LIMITED**  
BOILER PLANT UNIT, TIRUCHIRAPALLI-620 014

DEPT YL	CODE 340		SCALE 2:1	WEIGHT (kg)	DR. DRG. NO: 2W4813/CM 902 PART NO: WA 813/SL. NO: 2868
TITLE <b>ADJUSTING RING PIN</b>					NAME M. JAYARAM DATE 15/4/80 CHECKED D.K. DATE 20.5.80 APPROVED D.K. DATE 20.5.80

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN. MACHINING TOLERANCE $\pm 0.25$ mm UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE $\pm$	CARD CODE	4 DRAWING NO. <b>4-V-7813-10132</b>	15	16 REV 17 01
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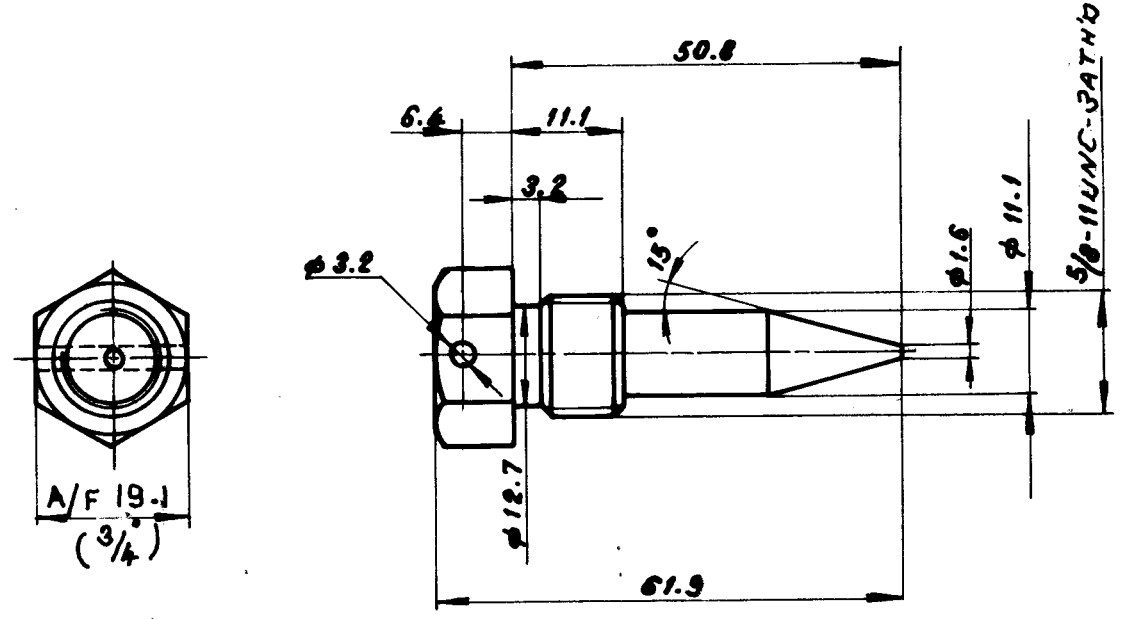
OMAC CODE: 930706310000

BASIC TYPE 1811JA-3220

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REV 01	ALTERED CHECKED	REV 02	DATE	ALTERED CHECKED
-----------	--------------------	-----------	------	--------------------

3.2



**NOTES:-**

1. SHARP CORNERS TO BE REMOVED.
2. 45° CHAMFER FIRST THREAD.
3. CUT PIN TO REQUIRED LENGTH AT FINAL ASSY.
4. UNSPECIFIED ANGLE TOLERANCES  $\pm 1/2^\circ$ .
5. UNSPECIFIED MACHINING TOLERANCES  $\pm 0.25$  mm.

MICROFILMED ON

ROLL 00522 FRAME 1135

No. OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAP SORT	NET WT. [kg]	GROSS WT. [kg]	DRG. No.	ITEM No.
	Φ 28x67	15924 413	AISI 416 AMENDED CERTIFY	H&T 18-25HRC	46	0.070	0.32		037



**Bharat Heavy Electricals Ltd.,**  
BOILER PLANT UNIT  
TIRUCHIRAPALLI-620 014

DRN	NAME	SIGN	DATE
CHD	V. PERUMAL	V. Perumal	20-10-81
APPD	S. RASHID		

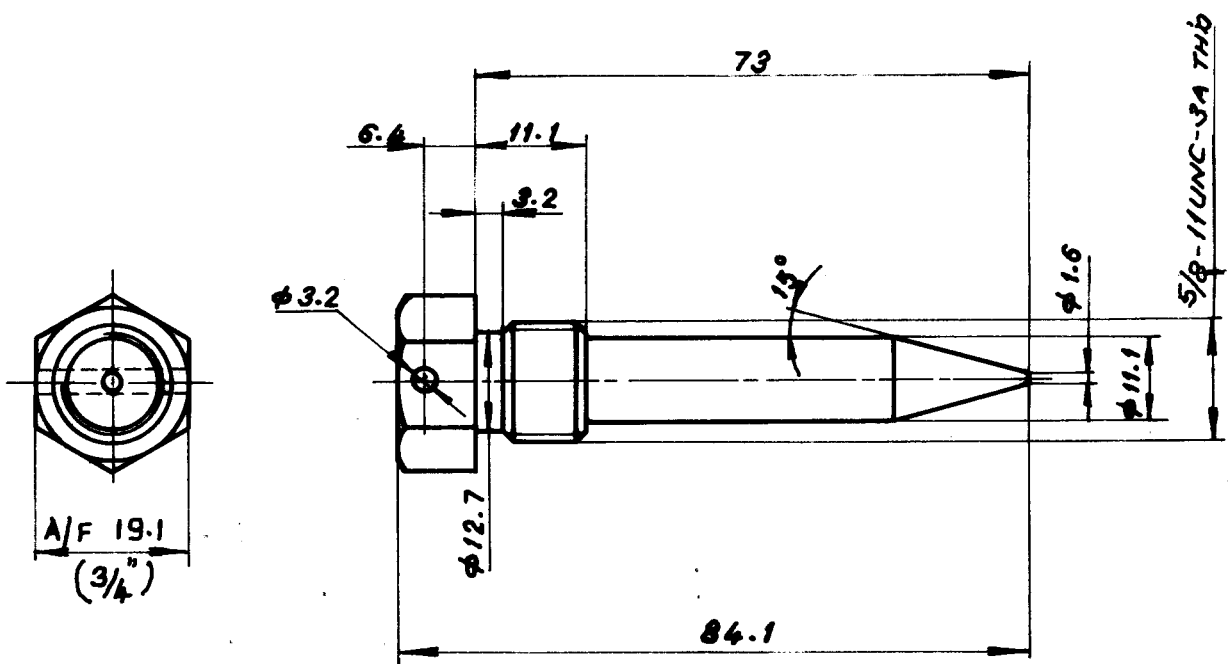
DEPT.	GRADE OF UNTOL. DIM C/M/F	SCALE	WEIGHT (kg)	DR. DRG. No. WD 813 / CM 302
CODE		1:1		PART No. WD 813 A / Sl. No. 2673

TITLE	CARD CODE	DRAWING NO.	REV
ADJ. RING PIN	U 01	4-V-7826-10257	

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REV 01	DATE	ALTERED
		CHECKED
CHECKED		

32



**NOTES:-**

1. SHARP CORNERS TO BE REMOVED.
2. 45° CHAMFER FIRST THREAD.
3. CUT PIN TO REQUIRE LENGTH AT FINAL ASSY.
4. UNSPECIFIED ANGLE TOLERANCES  $\pm 1/2^\circ$
5. UNSPECIFIED MACHINING TOLERANCES  $\pm 0.25$  mm.

MICROFILMED ON  
ROLL 100133 FRAME 113

φ 28 x 87	15924 613	AISI 416 AMENDED CERTIFY	H&T 18-25HRC	45	0.08	0.42		039	
NO. OFF	DESCRIPTION	MATL. CODE	FINAL MATL.	HEAT TREATMENT	SCRAPE SORT	NET WT. [kg]	GROSS WT. [kg]	DRG. No.	ITEM NO.



**Bharat Heavy Electricals Ltd.,**  
BOILER PLANT UNIT  
TIRUCHIRAPALLI-620 014

DRN	NAME M. RAJA	DATE
CHD	V. PERUMAL	20-10-81
APPD	S. RASHID	

DEPT.	GRADE OF UNTOL. DIM C/M/F	SCALE 1:1	WEIGHT (kg)	DR. DRG. No. ND 812/CA 902 PART No. WD 813/SL. No. 2673
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TITLE <b>ADJ. RING PIN</b>	CARD CODE U 01	DRAWING NO. <b>4-V-7826-10258</b>	REV
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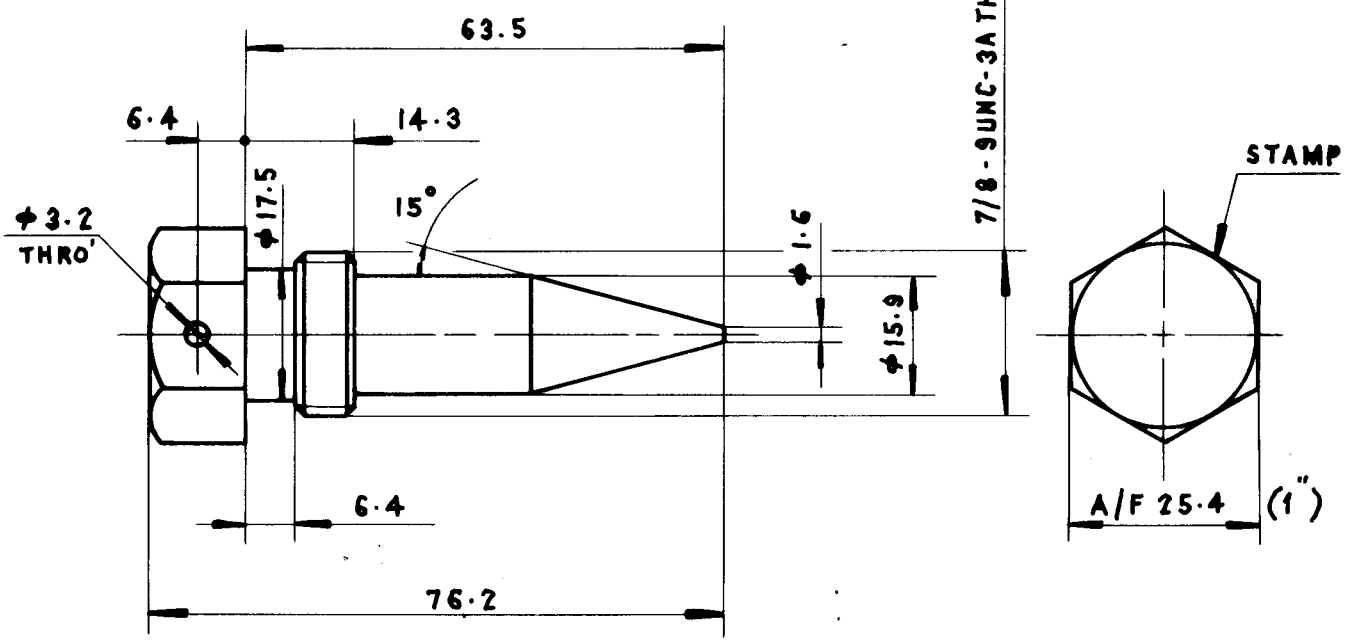
FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)

TP-DC-4-V-7827-10263  
CORPORATE DRG ID

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

REV 01	DATE	ALTERED
REV 02	DATE	CHECKED

3.2



**NOTE :-**

1. SHARP CORNERS TO BE REMOVED.
2. 45° CHAMFER FIRST THREAD.
3. UNSPECIFIED ANGLE TOLERANCES  $\pm 1/2$
4. UNSPECIFIED MACHINING TOLERANCES  $\pm 0.25$ mm.
5. CUT PIN TO REQUIRED LENGTH AT FINAL ASSY.

MICROFILMED ON  
ROLL 00522 FRAME 122

APPL DR TYPE No.

No. OFF	DESCRIPTION	MATL CODE	ASTM A276 GR. 410 COND-T (24-29) HRC AMENDED CERTIFY FINAL MATL	HEAT TREATMENT	SCRAP SORT	NET WL (KG)	GROSS WL (KG)	DRAWING No.	ITEM No.
	φ 32 X 82	15 024 404				45, 0.15	0.52		037

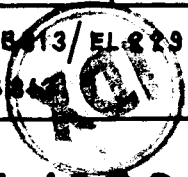


**Bharat Heavy Electricals Ltd.,**  
BOILER PLANT UNIT  
TIRUCHIRAPALLI-620 014

DRN	NAME	SIGN	DATE
CHD	V. PERUMAL	V. Perumal	8-9-81
APPD	S. RASHID	S.R.	

DEPT. CODE	GRADE OF UNTOL. DIM C/M/F	SCALE 1:1	WEIGHT (kg)	DR. DRG No. WB 413/EL 29	SL No. 5350
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TITLE	CARD CODE	DRAWING NO.	REV
ADJUSTING RING PIN	U 01	4-V-7827-10263	



TP-DC-4-V-7827-10263  
CORPORATE DRG ID

