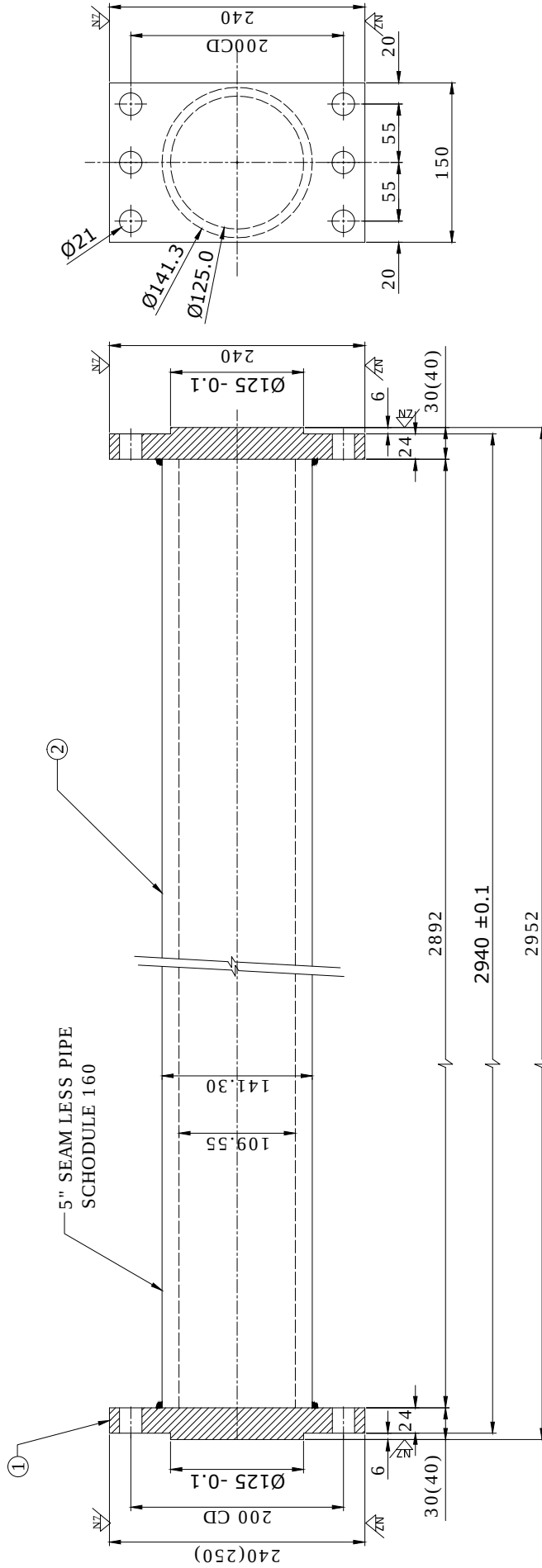




2



MATL:- M.S
QTY:- 2+2 Nos

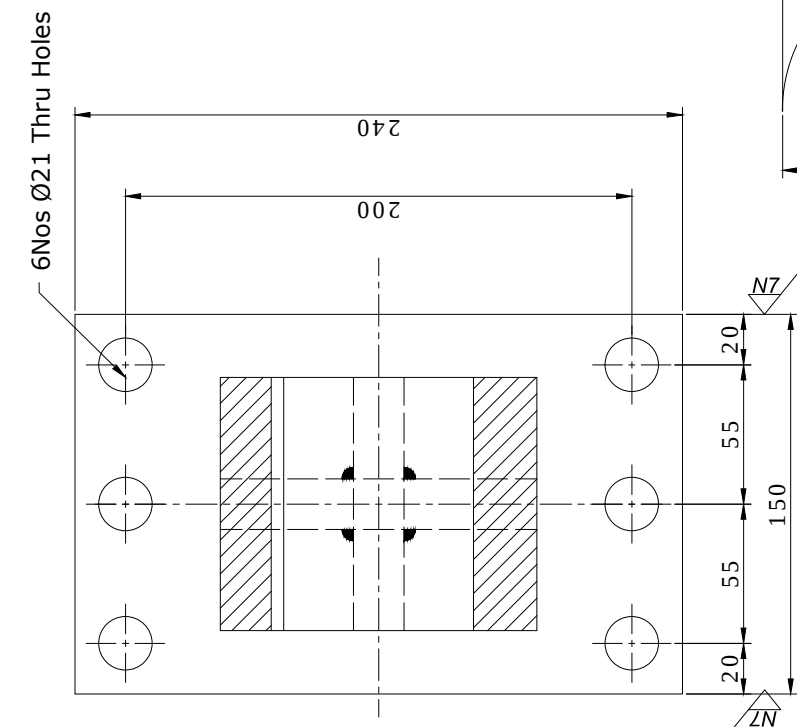
1. 40 mm PLATE 150 x 240 - 2 Nos

2. 5" SEAM LESS PIPE (SCHEDULE 160) ASTM A106 2892 LENGTH - 1 No

Break sharp corners.

All Dimensions are in mm

S.NO.	Alteration	Date	Name	S.NO.	Alteration	Date	Name
CONNECTING PIPE FOR LEVER ASSEMBLY				Scale	SATYA	07/02/12	Projection
BOOM ASSEMBLY (BHEL-SSTP)				Sheet	Checked p.g.r	Date	
REDSON ENGINEERS PRIVATE LIMITED				A4	Approved p.g.r	Date	
F 9/B,Phase 1, IDA				DRG.NO.			
Jeedimetla, Hyderabad-500 055				RE/BA/SP/725/5/1			

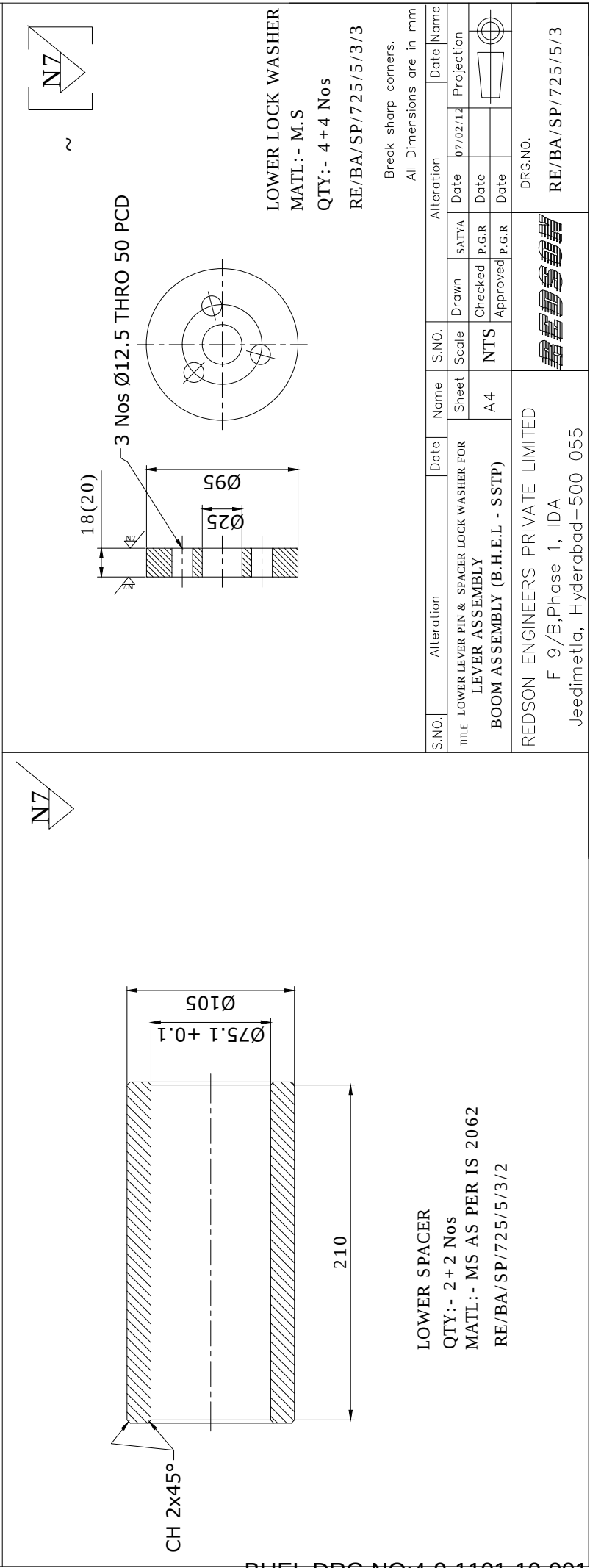
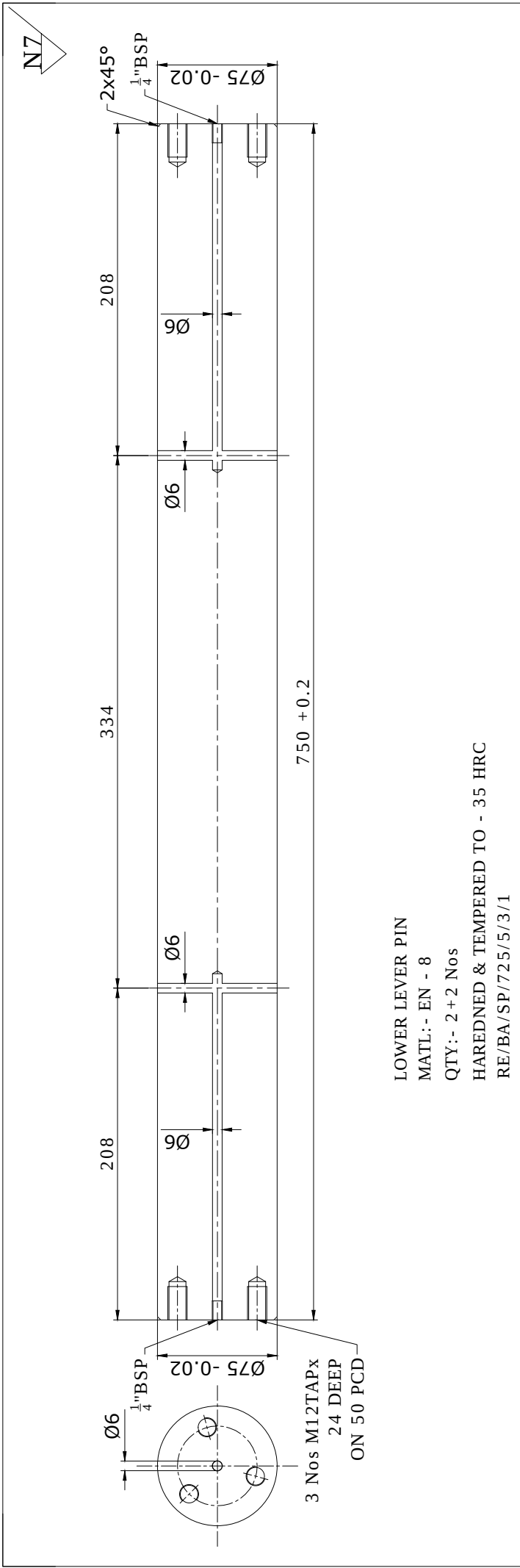


ITEM NO-3
20mm PLATE
QTY :- 1Nos
MATL :- MS

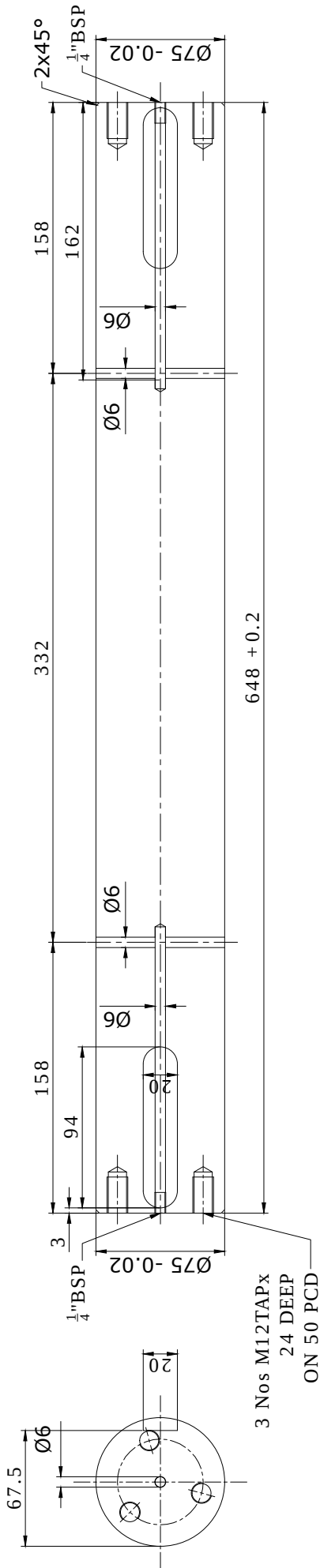
Break sharp corners.
All Dimensions are in

TITLE	LINK LEVERS FOR LEVER ASSEMBLY BOOM ASSEMBLY (BHEL-SSTP)	Sheet	Scale	Projection	Drawn	CHANDU	Date
		A4	NTS		Checked	P.G.R	Date
					Approved	P.G.R	Date
REDSON ENGINEERS PRIVATE LIMITED F 9/B,Phase 1, IDA Jeedimetla, Hyderabad-500 055					DRG.NO.		
SHEET.NO. ...							
RE/BA/SP/725/5/2							

1. 25mm PLATE x 150 x 240 - 1No
2. Ø125 x100mm LENGTH - 1 No
3. 20 mm PLATE AS PER DRG - 1 No
4. 20 mm PLATE 40x68 - 2 NoS

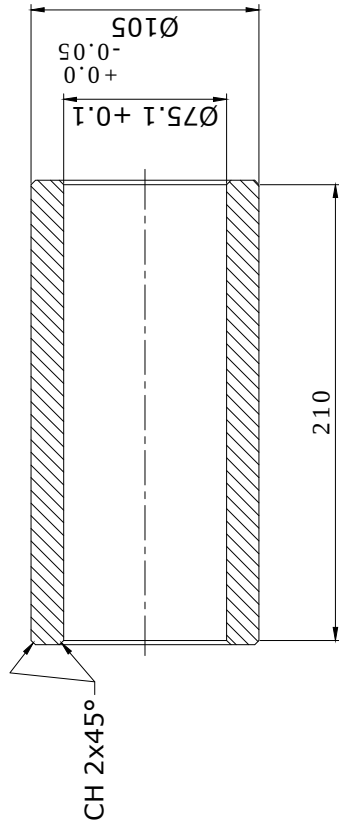


N7



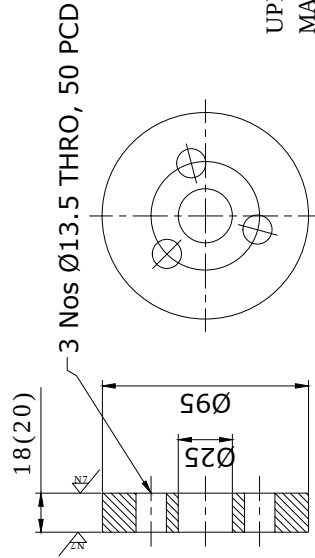
UPPER LEVER PIN
MATL:- EN - 8
QTY:- 2 + 2 Nos
HAREDNED & TEMPERED TO - 35 HRC
RE/BA/SP/725/5/4/1

N7



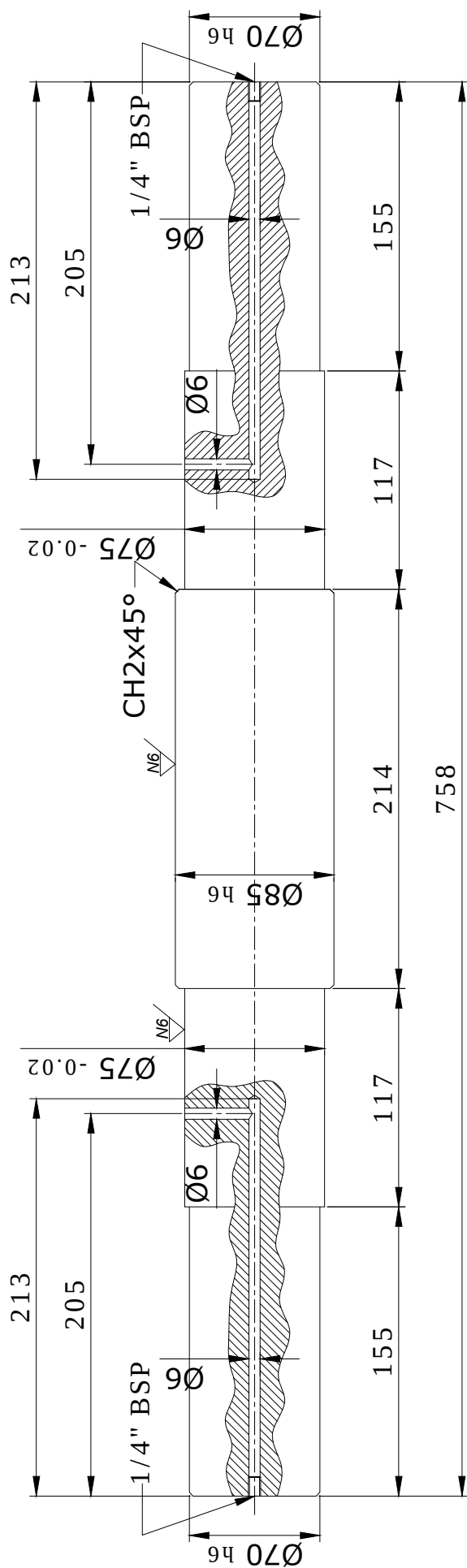
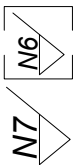
UPPER SPACER
QTY:- 2 + 2 Nos
MATL:- EN 19
Hardened & Tempered To 50 HRC
RE/BA/SP/725/5/4/2

N7



UPPER LOCK WASHER
MATL:- M.S
QTY:- 4 + 4 Nos
RE/BA/SP/725/5/4/3

S.NO.	Alteration	Date	Name	S.NO.	Alteration	Date	Name
TITLE UPPER LEVER PIN & SPACER & LOCK WASHER FOR LEVER ASSEMBLY BOOM ASSEMBLY (B.H.E.L - SSTP)				Scale	Drawn	SAIYA	Date
REDSON ENGINEERS PRIVATE LIMITED F 9/B,Phase 1, IDA Jeedimetla, Hyderabad-500 055				Sheet	Checked	P.G.R	Date
				A4	Approved	p.g.R	Date
				NTS	Projection		
				DRG.NO.			RE/BA/SP/725/5/4



QTY :- 2 Nos+2 Nos

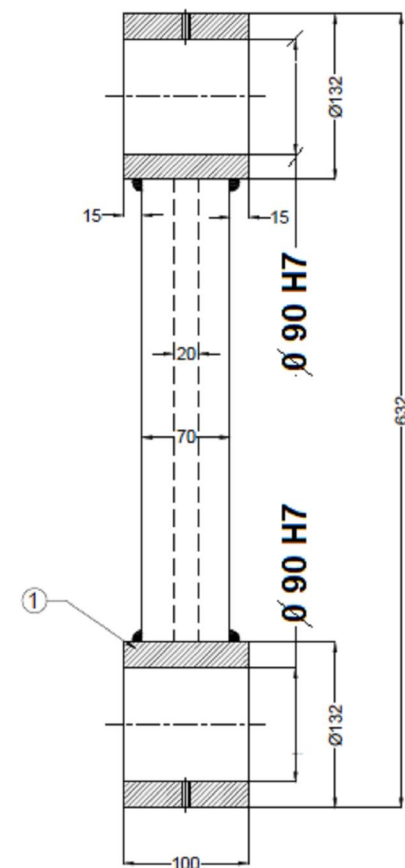
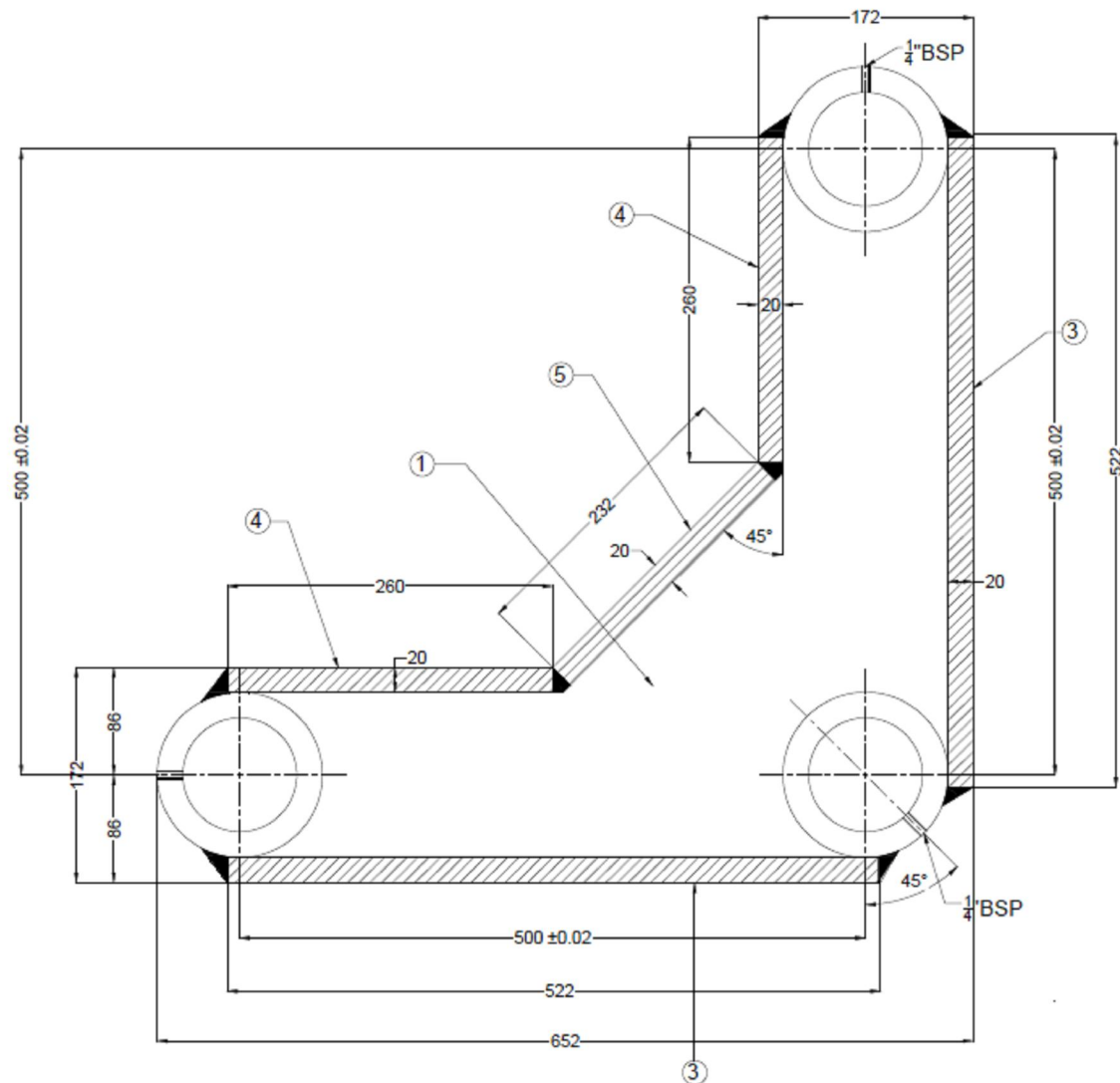
MATL :- EN - 19

HARDENED & TEMPERED TO - 40 HRC

Break sharp corners.
All Dimensions are in mm

TITLE	LEVER PIN (Middle) FOR LEVER ASSEMBLY BOOM ASSEMBLY (BHEL-SSTP)	Sheet	Scale	Projection	Drawn	CHANDU	Date	07/02/12
		A4	NTS		Checked	P.G.R	Date	
					Approved	P.G.R	Date	
REDSON ENGINEERS PRIVATE LIMITED F 9/B,Phase 1, IDA Jeedimetla, Hyderabad-500 055					DRG.NO.		SHEET.NO. ...	
RE/BA/SP/725/5/7								

N7



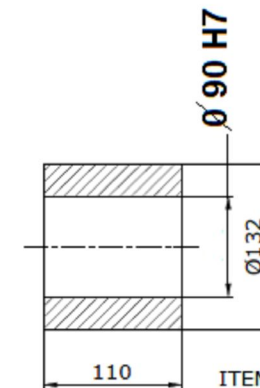
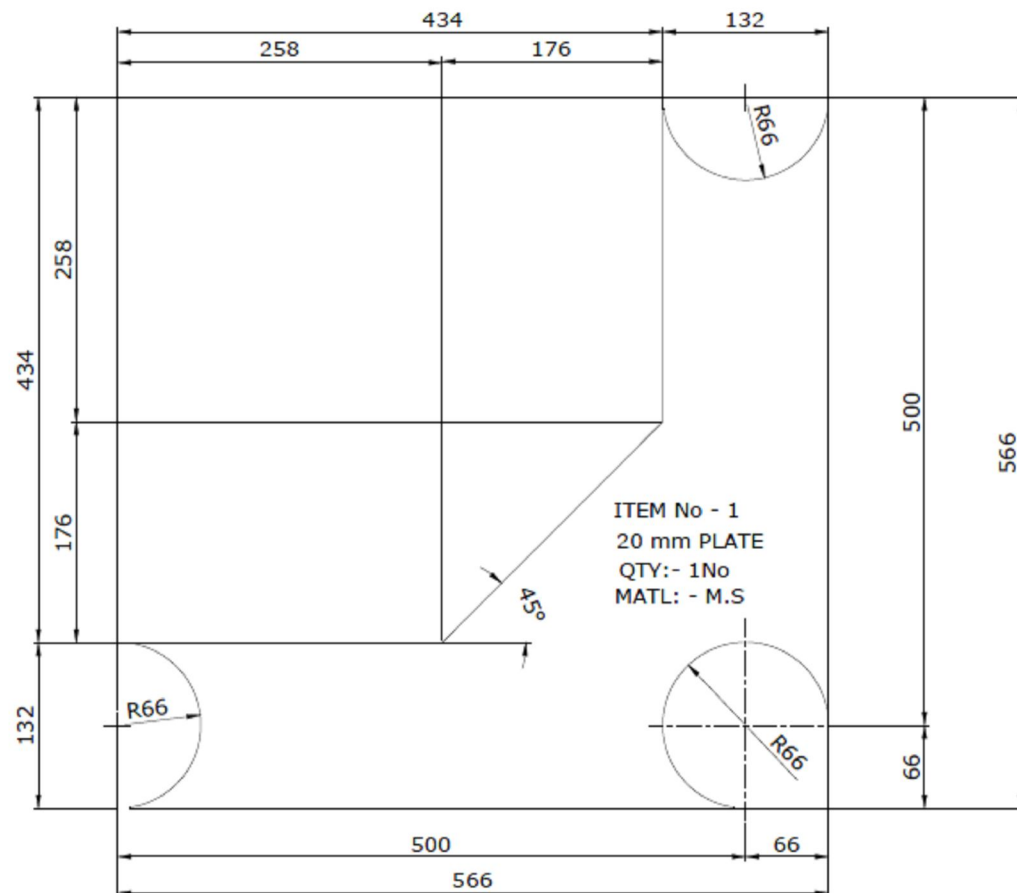
DRG NO:4-7-1101-10-00127

LEVER
MATL:- M.S
QTY: 4+4 Nos

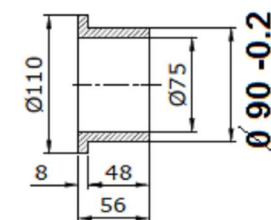
Break sharp corners.
All Dimensions are in mm

S.NO.	Alteration	Date	Name	S.NO.	Alteration	Date	Name
TITLE LEVER FOR LEVER ASSEMBLY BOOM ASSEMBLY (B.H.E.L - SSTP)				Sheet	Scale	Drawn	SATYA
				A4	NTS	Checked	P.G.R
						Approved	P.G.R
REDSON ENGINEERS PRIVATE LIMITED				DRG.NO. SHEET No 1 of 2			
F 9/B,Phase 1, IDA				RE/BA/SP/725/5/5			
Jeedimetla, Hyderabad-500 055							

N7



ITEM No - 2
OD132x ID80x110 LENGTH
QTY:- 3 Nos
MATL:- M.S



ITEM No - 8
PB BUSH
MATL:- PB
QTY: 24+24 Nos

DRG NO:4-9-1101-10-00128

BILL OF MATERIALS

S. No	DESCRIPTION	RAW MATL SIZE	MATL	QTY
1.	20 mm PLATE	AS PER DRG.	M.S	1 No
2.	OD132xID80x110	AS PER DRG.	M.S	3 Nos
3.	20 mm PLATE	522 x 70	M.S	2Nos
4.	20 mm PLATE	260 x 70	M.S	2Nos
5.	20 mm PLATE	232 x 70	M.S	1 No

Break sharp corners.
All Dimensions are in mm

S.NO.	Alteration	Date	Name	S.NO.	Alteration	Date	Name
TITLE LEVER FOR LEVER ASSEMBLY BOOM ASSEMBLY (B.H.E.L - SSTP)				Sheet	Scale	Drawn	SATYA
				A4	NTS	Checked	P.G.R
						Approved	P.G.R
REDSON ENGINEERS PRIVATE LIMITED F 9/B,Phase 1, IDA Jeedimetla, Hyderabad-500 055				DRG.NO. SHEET No 2 of 2 RE/BA/SP/725/5/5		Projection	

N7

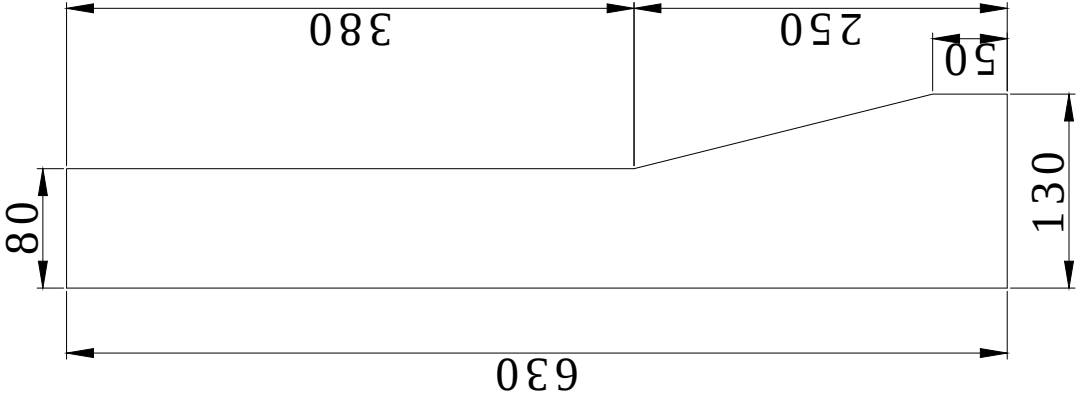


All Dimensions are in mm

REDSN

SHEET.NO. 1 Of 2

BHEL DRG NO:4-9-1101-10-00133



ITEM NO :- 4
20mm PLATE
MATL :- M.S
QTY :- 1+1Nos

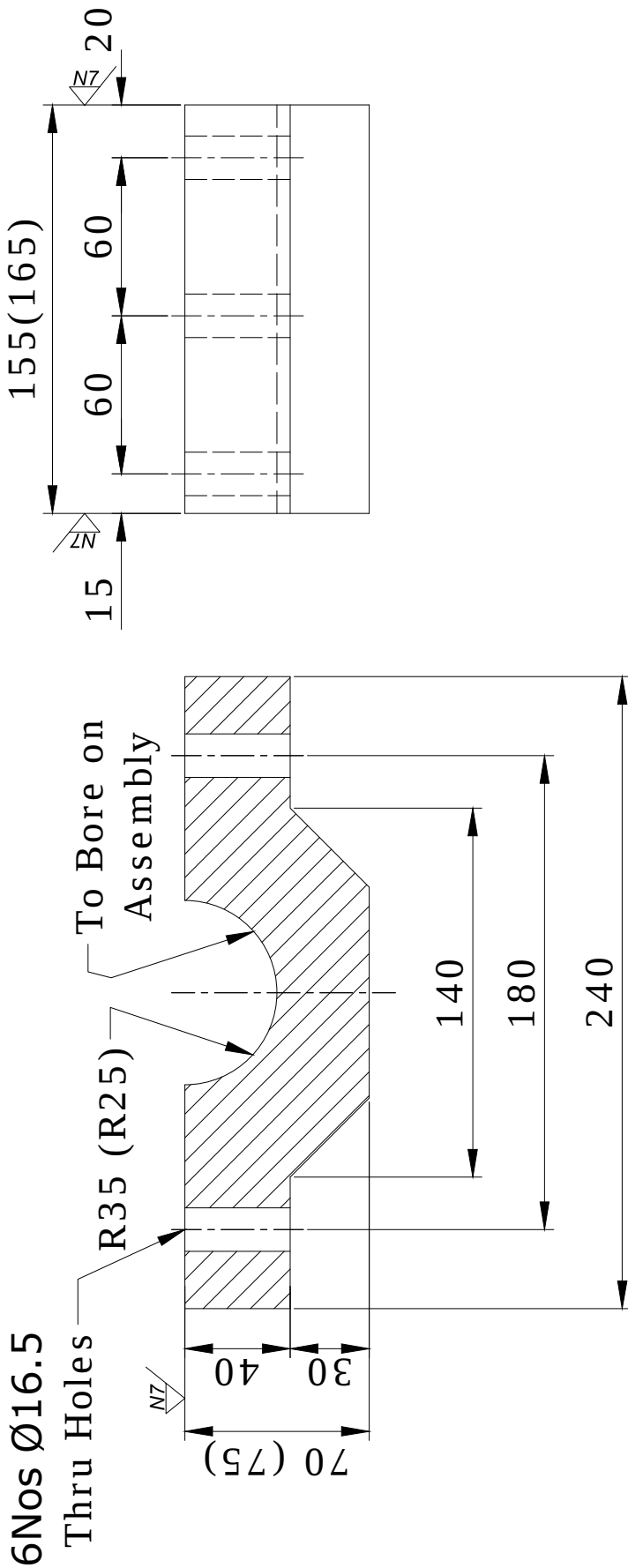
Bill Off Material

S.NO	DESCRIPTION	MATL	QTY
1	75mm BLOCK	M.S	2 Nos
2	30mm PLATE	M.S	2 Nos
3	20mm PLATE	M.S	2Nos
4	20mm PLATE	M.S	2 Nos

Break sharp corners.
All Dimensions are in mm

TITLE LEVER HANGERS FOR LEVER ASSEMBLY BOOM ASSEMBLY (BHEL-SSTP)	Sheet	Scale	Projection	Drawn	SATYA	Date
	A4	NTS		Checked	P.G.R	Date
				Approved	P.G.R	Date
REDSON ENGINEERS PRIVATE LIMITED F 9/B,Phase 1, IDA Jeedimetla, Hyderabad-500 055					DRG.NO.	SHEET.NO. 2 Of 2
					RE/BA/SP/725/5/6	

N7

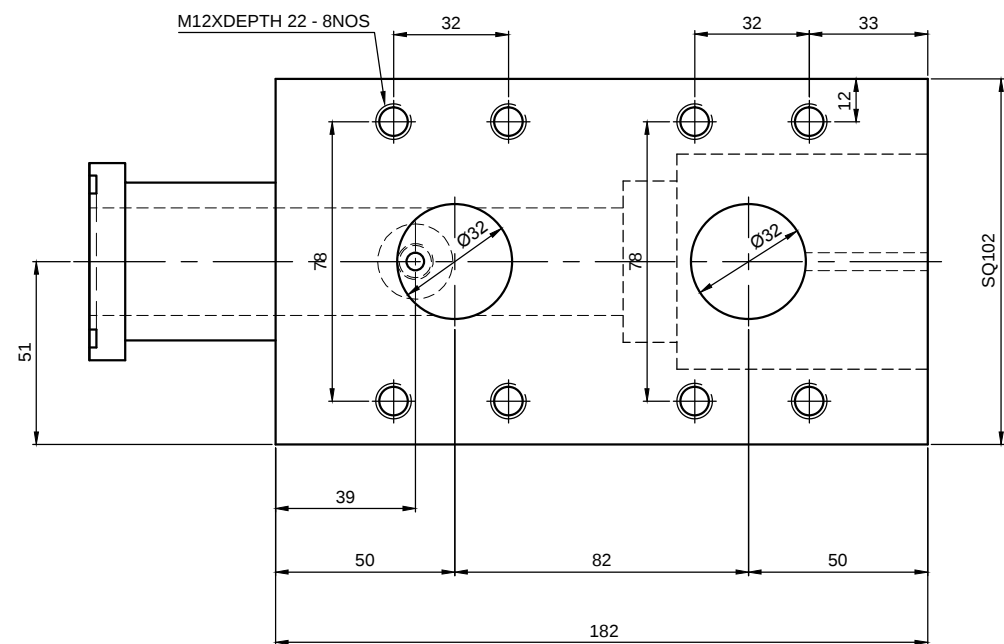
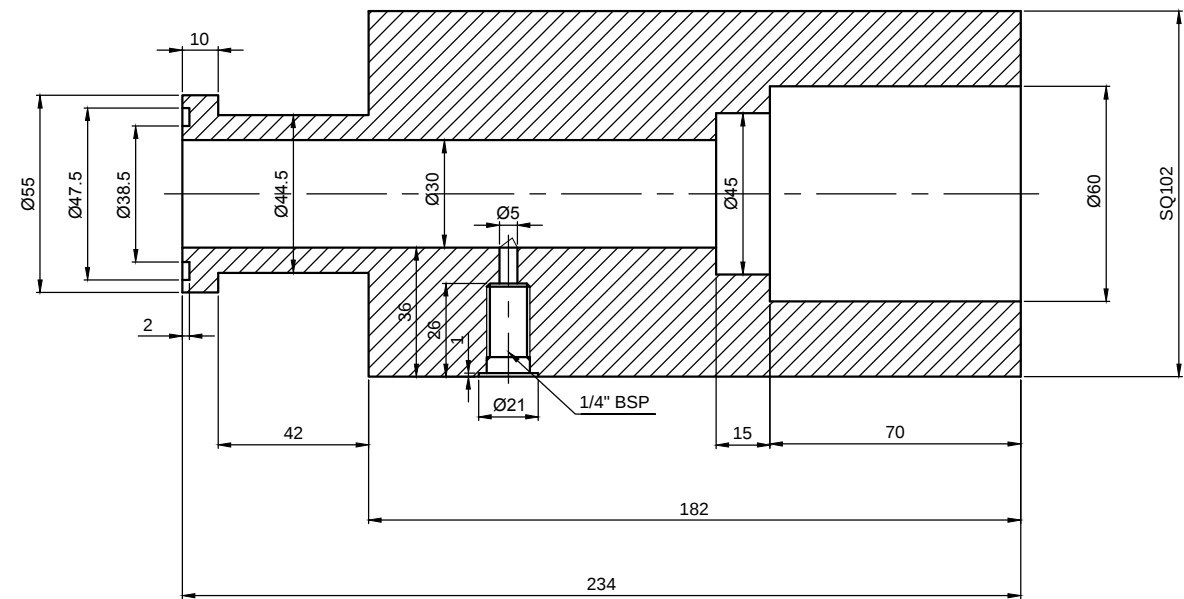
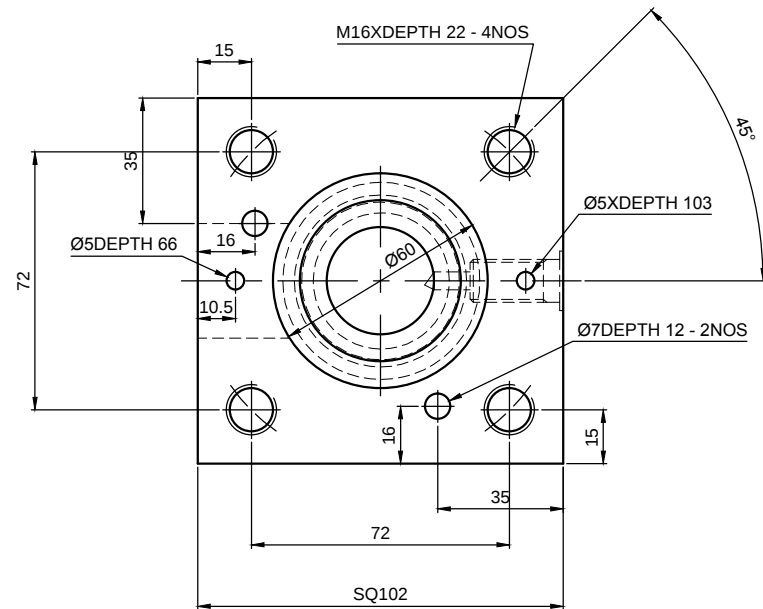


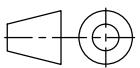
QTY :- 2 + 2 Nos

MATL :- MS PLATE AS PER IS 2062

Break sharp corners.
All Dimensions are in mm

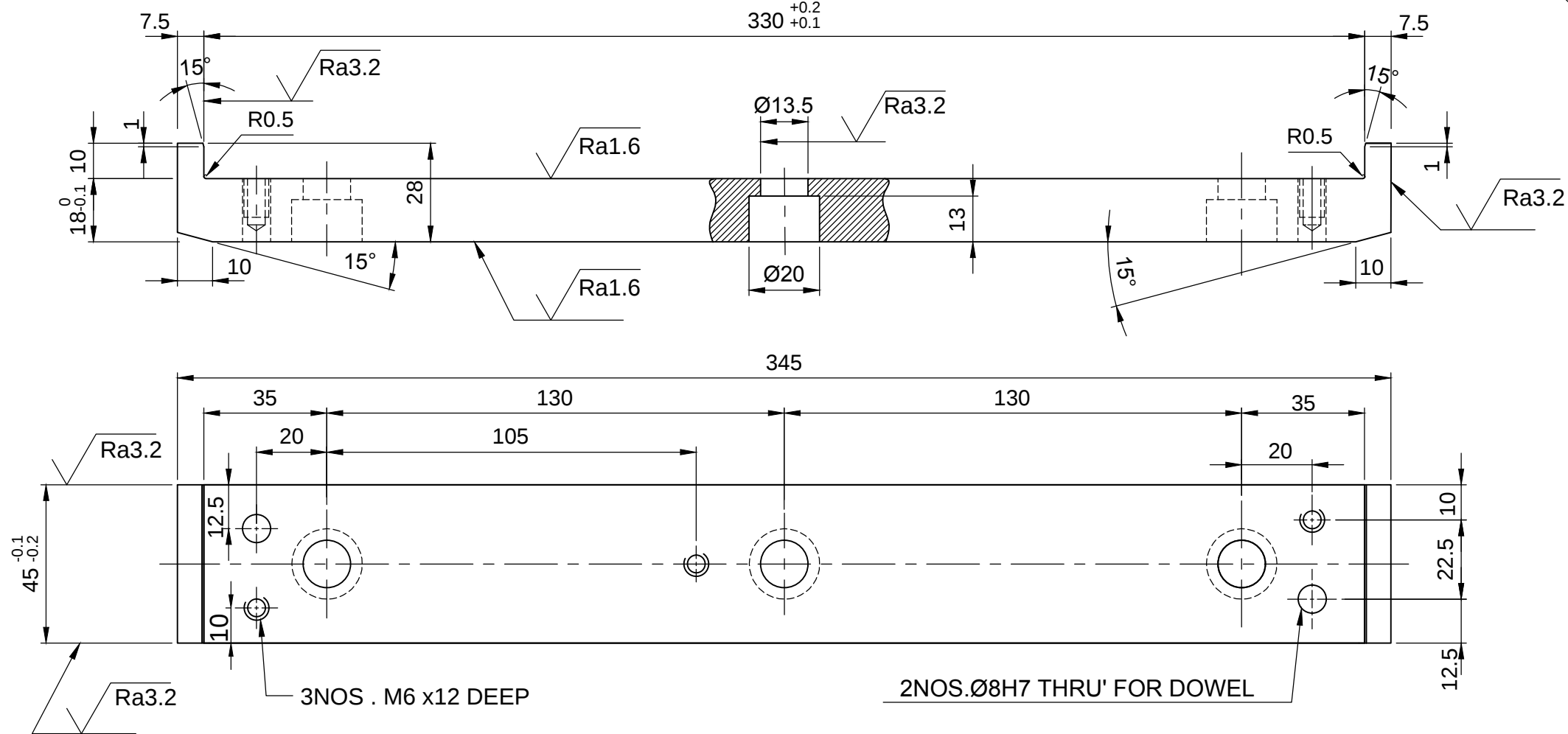
TITLE LOWER HALVES OF HANGERS ASSEMBLY LEVER ASSEMBLY BOOM ASSEMBLY (BHEL-SSTP)	Sheet	Scale	Projection	Drawn	CHANDU	Date	18/01/12
	A4	NTS		Checked	P.G.R	Date	
				Approved	P.G.R	Date	
REDSON ENGINEERS PRIVATE LIMITED F 9/B,Phase 1, IDA Jeedimetla, Hyderabad-500 055				DRG.NO.		SHEET.NO. ...	
				RE/BA/SP/725/5/8			



MATERIAL		WEIGHT	DRN	SSN.KUMAR/KY	SIGNATURE	DATE
ALUMINIUM ALLOY		12 Kg	CHD	M.CHANDRAKUMAR	<i>M. Chandrakumar</i>	28.12.16
PRESSURE : 250bars			APPD	M.CHANDRAKUMAR	<i>M. Chandrakumar</i>	28.12.16
TITLE			REV			
CPE - UNLOADING VALVE BODY			SSTP-PD-2016-(067)(014)			
PUMP PV180			00			

ALL DIMENSIONS ARE IN MILLIMETRES

DRAWING NO: 3-7-1123-11-10165



SIZE	TOLERANCE
Ø8 H7	+0.015 0

NOTE :-

DOWEL HOLE DRILL TO BE DONE AFTER POSITION THE LEDGE AT ASSY

NOTE :-

HARDNESS 95-110 BHN

03	PARALLEL PIN ISO2338 - Ø8m6x50		40C8 IS:2393	4
				0.02
02	HEX.SOC. HD.CAP SCREW M12x35 - IS 2269 / ISO4762		Gr.12.9, ISO898-1	6
				0.0429
01	LEDGE		Gc-Cu Sn 12 IS:306	2
				4.6
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE	UNIT WT
			MATL SPEC	QTY

EQPT: CROSS PIERCING AND ELONGATION

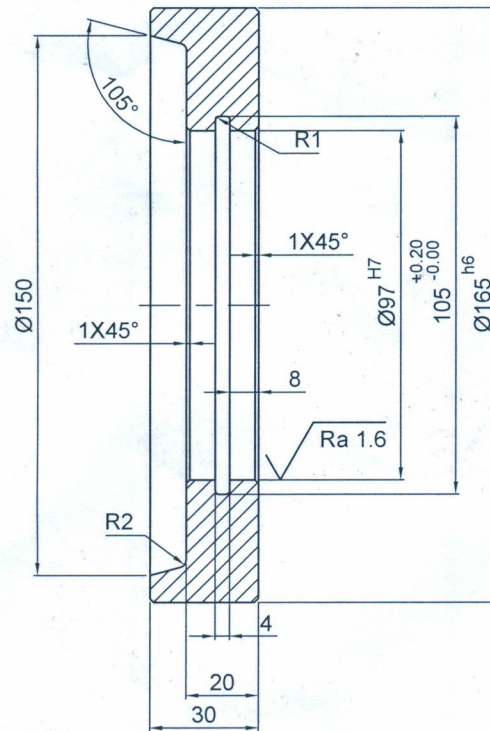
	Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014		DRN	V.KRISHNAKUMAR/M.K	<i>V. Krishnakumar/m.k</i>	DATE	25.03.14
			CHD	G.LOGANATHAN	<i>G. Loganathan</i>		25.03.14
			APPD	M.CHANDRAKUMAR	<i>M. Chandrakumar</i>		25.03.14
DEPT	SSTP	GRADE OF UNTOL. DIM	SCALE	WEIGHT (Kg)	REF TO ASSY DWG NO		ITEM
CODE	456	φ/M/F IS: 2102	1:5	9.2	REF TO OLD DWG NO		
TITLE				CARD CODE	DRAWING NO :		REV
CPE - LEDGE FOR INLET SIDE - PUSHER ROD ASSY				U 01	3-7-1123-11-10165		00

ALL DIMENSIONS ARE IN MM

REV 01	DATE	ALTERED
		CHECKED
		APPROVED

 $\sqrt{Ra\ 3.2}$ ($\sqrt{Ra\ 1.6}$)

SIZE	DEVIATION
$\varnothing 97^{H7}$	+0.035
	0.000
$\varnothing 165^{h6}$	0.000
	-0.025



CAUTION: THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY.		RO 180 X 40 IS:1732				30C8 IS:1875			
		ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE	UNIT WT	MATL SPEC	QTY	
EQPT: CROSS PIERCING AND ELONGATION									
		Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014		DRN	NAME	SIGNATURE	DATE		
				CHD	SSN.KUMAR /A.P	<i>SSN.Kumar/A.P</i>	7.4.2017		
				APPD	M.CHANDRAKUMAR	<i>M. Chandrakumar</i>	7.4.2017		
DEPT SSTP	GRADE OF UNTOL. DIM		SCALE	WEIGHT (Kg)	REF TO ASSY DWG NO			ITEM	
CODE 456	$\phi/M/f$ IS: 2102		1:2	2.9	0101056-43.000-03			87	
TITLE				CARD CODE	DRAWING NO :			REV	
CPE - RING 3-ROLLER GUIDE				U 01	4-7-1123-43-10432			00	

A4-SIZE

S 27-009

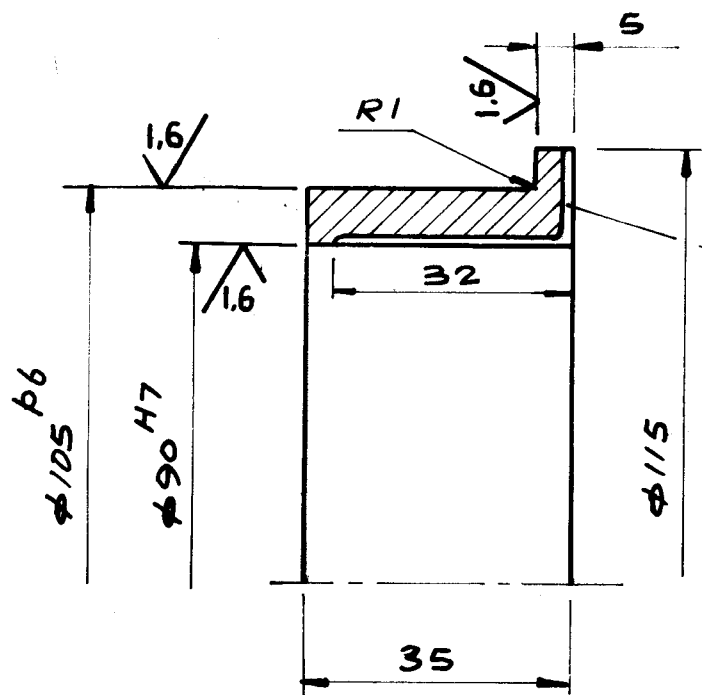
CAUTION THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LTD. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY.

FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)

REV	DATE	ALTERED
01		CHECKED
ZONE		

3.2/1.6/

$\phi 105$ p6	+0.059
	+0.037
$\phi 90$ H7	+0.035
	0



30/L GROOVES 2x1.5 DEEP @ 120° EQUI. SPACED

NOTE

SHARP CORNER TO BE CHAMFERED TO 0.5x45°

ITEM NO.	DESCRIPTION	IS: 28	
		P BRONZE Gr1	
		MATL CODE	UNIT WT
		MATL SPEC	QTY

EQPT:- REELER

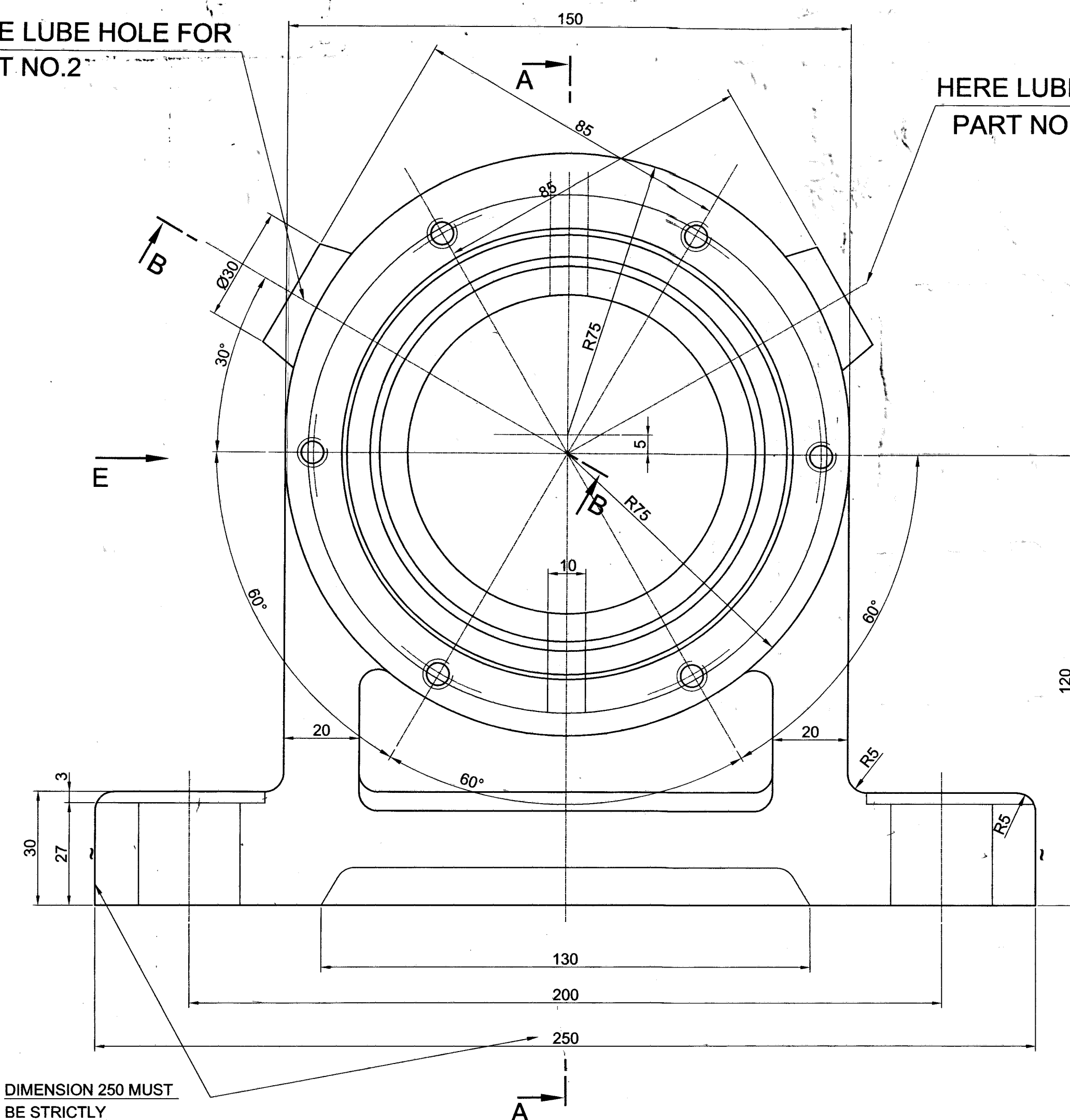


Bharat Heavy Electricals Ltd.,
SEAMLESS STEEL TUBE PLANT
TIRUCHIRAPALLI-620 014

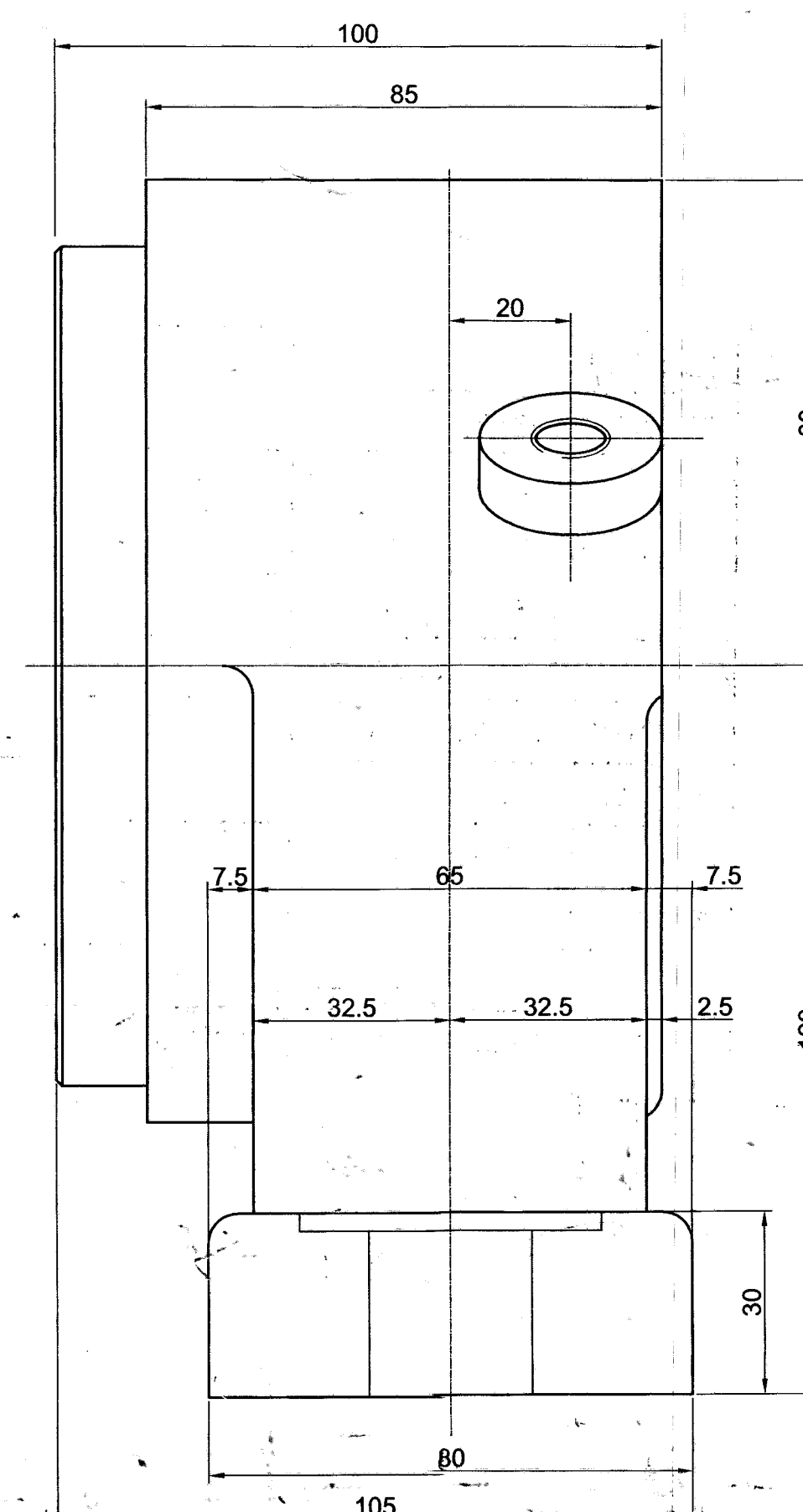
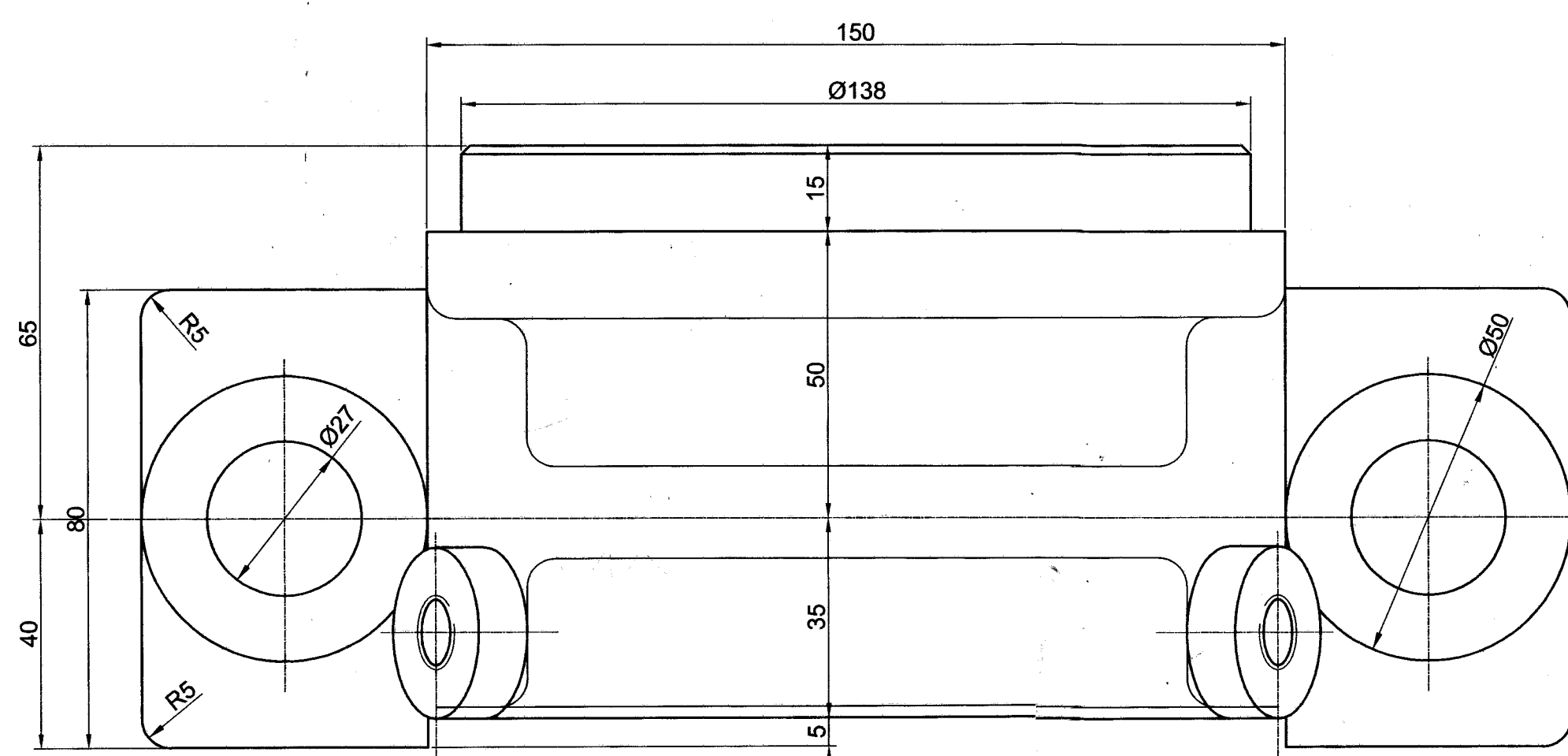
DRN	NAME	SIGN	DATE
SSN KUMAR		<i>[Signature]</i>	19.2.87
CHD			
APPD		<i>[Signature]</i>	20.2.87

DEPT	GRADE OF UNTOOL. DIM	SCALE	WEIGHT (kg)	REF TO ASSY / DRG	ITEM NO.
CODE	<i>e/m/p</i>	1:1	0.75	2-7-1136-08-02267	04
TITLE			CARD CODE	DRAWING NO.	REV.
BUSH CLUTCH ASSY.			U 01	4-7-1136-08-03378	00

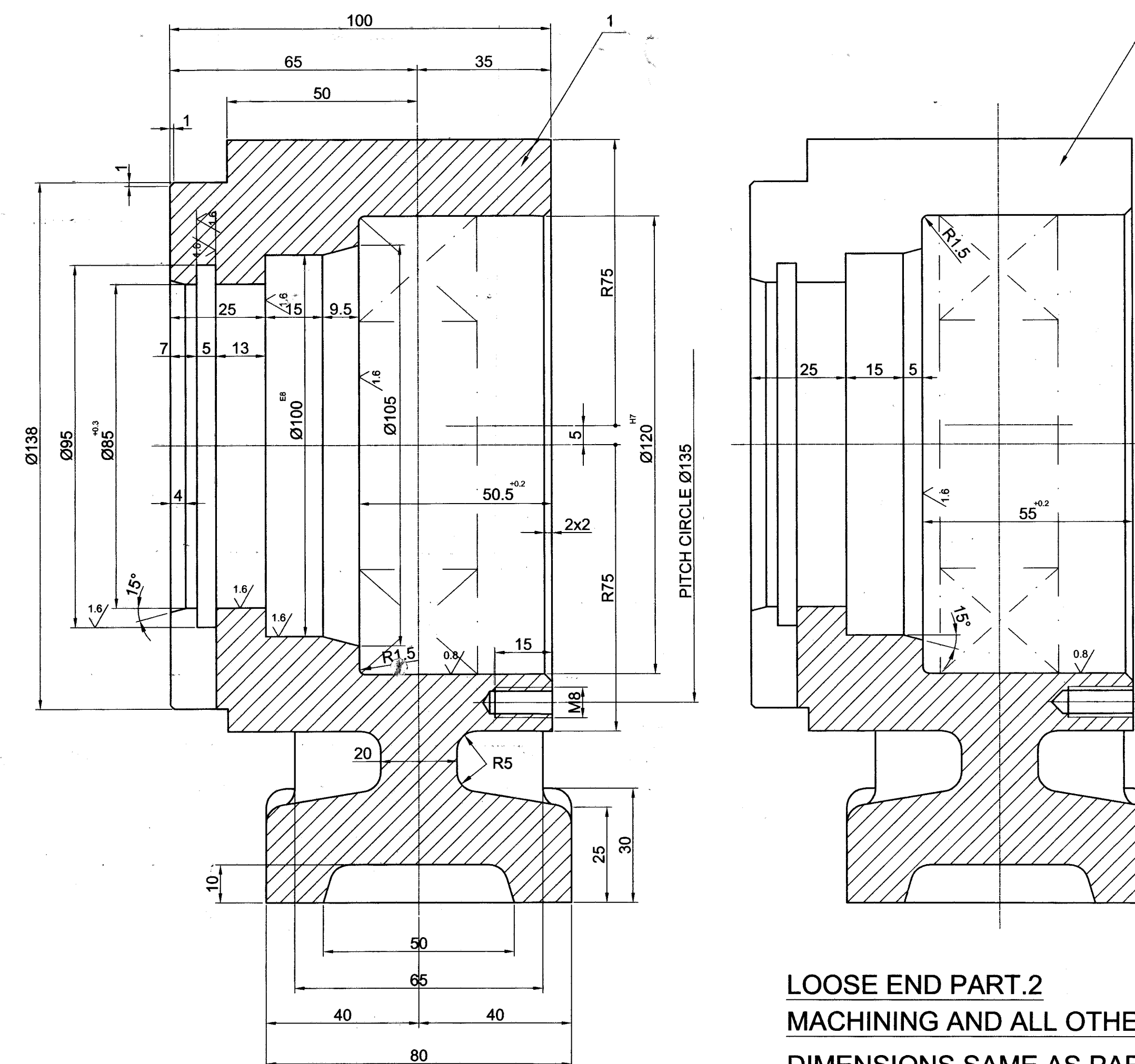
HERE LUBE HOLE FOR
PART NO.1



DIMENSION 250 MUST
BE STRICTLY
ADHERED TO MACHINE
SIDES OF BODY IF NECESSARY

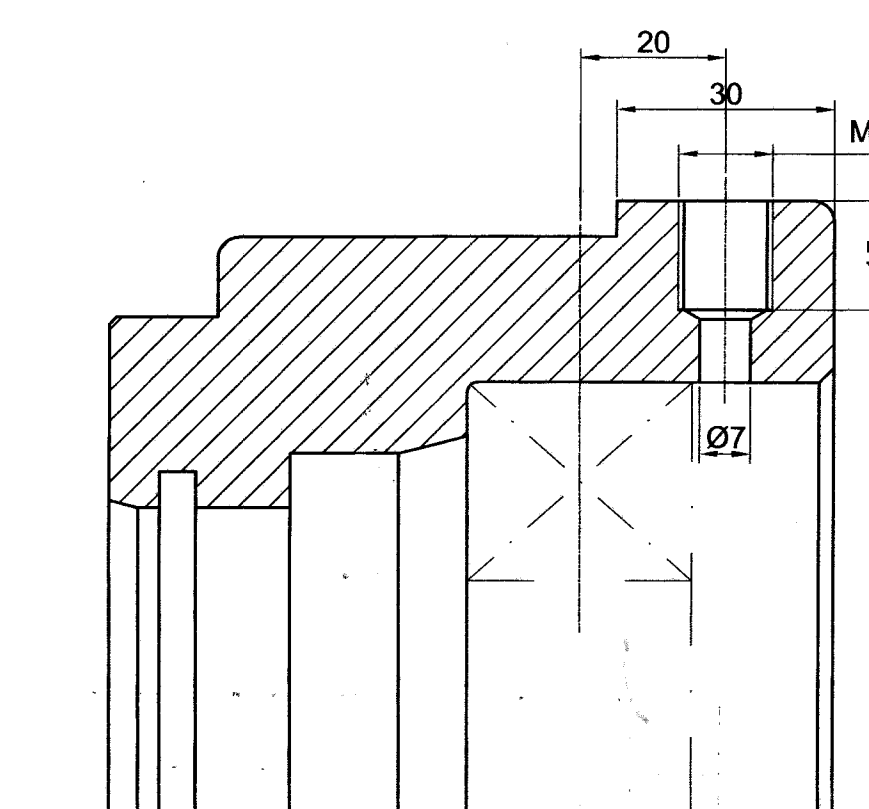


VIEW-E

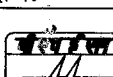


FIXED END PART NO.1

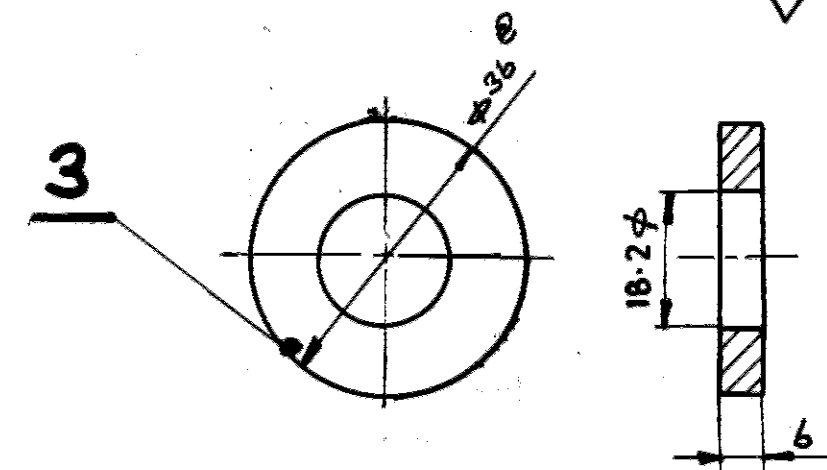
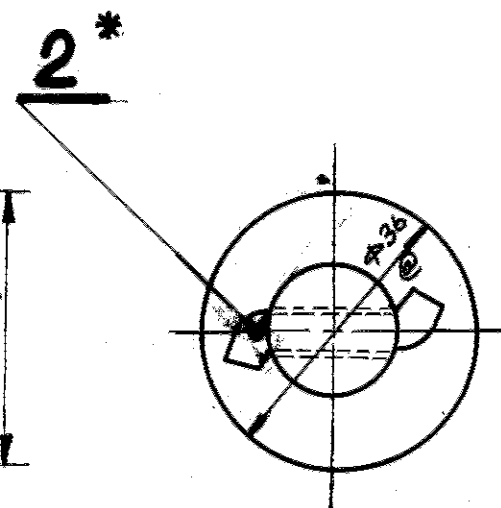
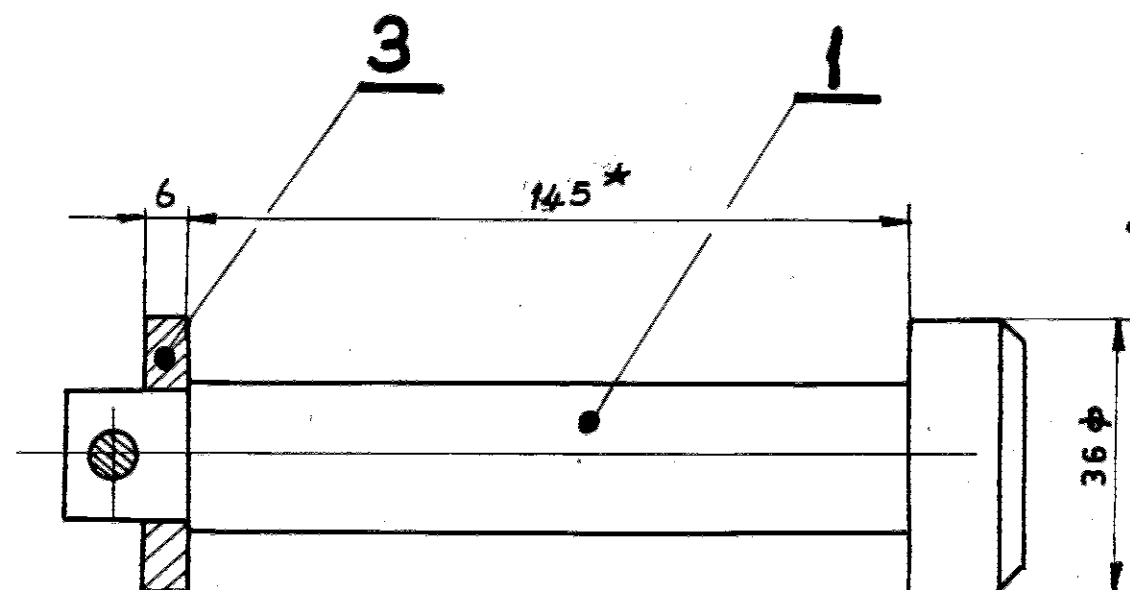
SECTION-AA



SECTION-BB

REV 01		DATE 20.01.96	ALTERED : CHECKED : APPROVED :	SPEC. STEEL CASTING GR.230-450W IS:1030 WAS STEEL CASTING GR.230-450W IS:1030	
ZONE					
 Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014 EQT: TRANSPORT FACILITY FROM R.H.F. TO CALIBRATOR.					
ITEM NO		DESCRIPTION		DRAWING NO	
				MATL. CODE MATL. SPEC UNIT WT QTY	
					
		GRADE OF UNIT DIM S/N/F		SCALE 1:1	
		DEPT MPKG CODE		WEIGHT (kg) 15	
				REF TO ASSY DWG NO 0-7-1113-01-00512 REF TO OLD DWG NO RW 37 534/1&2	
		TITLE PENDENTAL BEARING BODY FOR DRIVE AND IDLE ROLLERS FIXED AND LOOSE ENDS.		CARD CODE U 01 DRAWING NO : 1-7-107-80-00476	

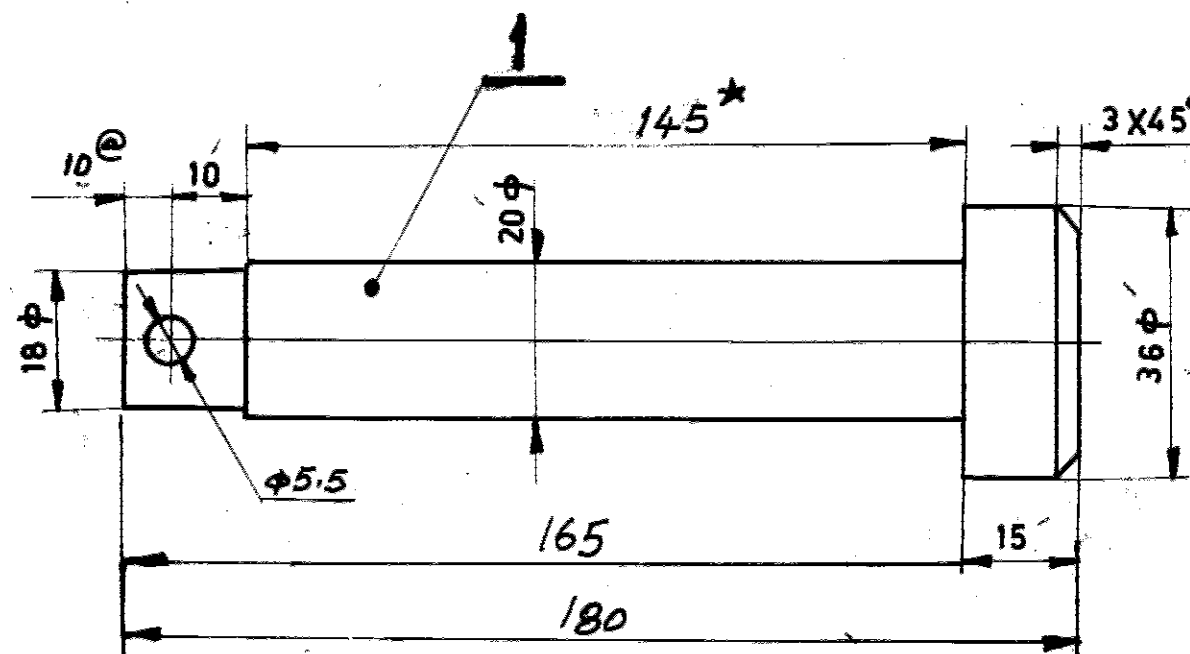
FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)



* ITEM NO.2 TO BE BENT AT ASSY.

NOTE:- THIS DRAWING SUPERSEDES

DRAWING NO: 4-7-1150-04-01758 R1



CHEMICAL COMPOSITION FOR AISI 310.

C	Mn	Si	S	P	Ni	Cr.
0,25 MAX.	2,0 MAX.	1,5 MAX.	0,030 MAX.	0,030 MAX.	19,0-22,0	24,0-26,0

ITEM NO.	DESCRIPTION	DRAWING NO.	MATL CODE	UNIT WT
3	ROUND φ36×102		AISI 310	0,04
2	ROD φ5×602		AISI 310	0,009
1	ROUND φ36×185.2		AISI 310	0,53
ITEM NO.	DESCRIPTION	DRAWING NO.	MATL SPEC	QTY

EQPT: WALKING BEAM FURNACE



Bharat Heavy Electricals Ltd.,
SEAMLESS STEEL TUBE PLANT
TIRUCHIRAPALLI-620 014

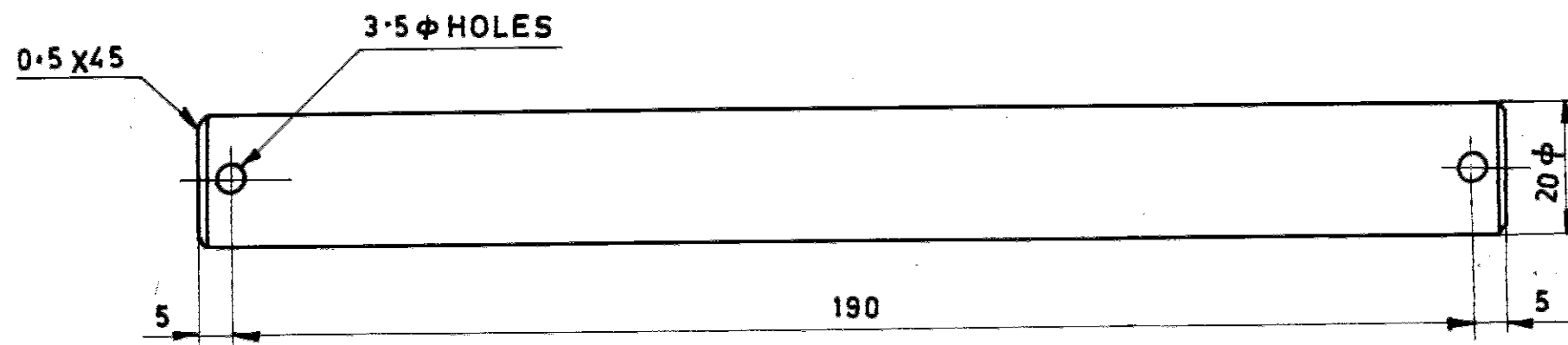
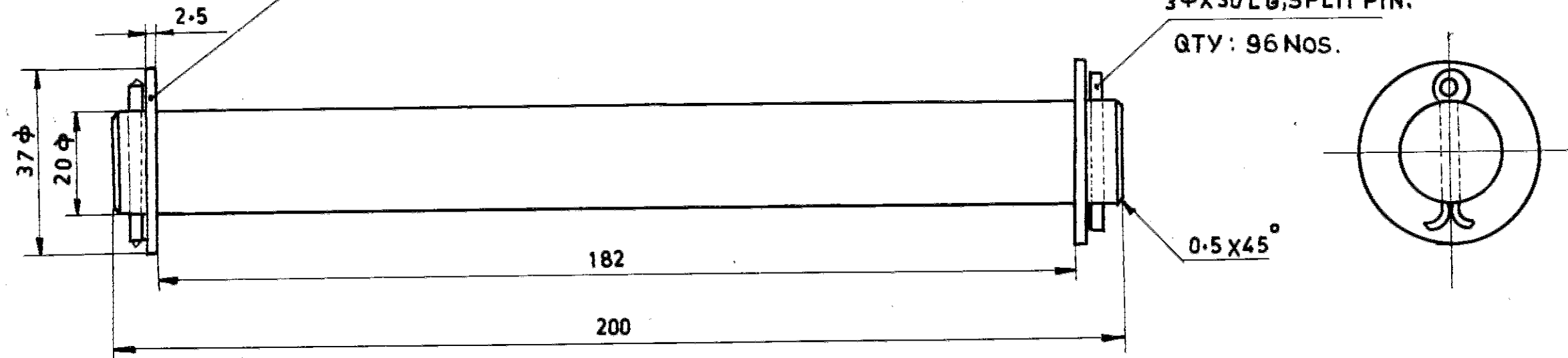
DRN	NAME	SIGN	DATE	NO. OF ITEMS
EC 007	J. J. J.		6-12-88	
CHD				
APPD				

REV	DATE	ALTERED	REV	DATE	ALTERED
03	20-09-89	C. Rajendran	02	9-1-89	H. Rayhan
		CHECKED: J. J. J.			CHECKED: S. S. S.
*		LENGTH OF ITEM NO. 2 WAS 40 AND WAS 120 @	*		DIMENSION 145 WAS 120 @
					DIMENSIONS 120 & 10 WERE 96 & 6 RESPECTIVELY WASHER φ36 WAS SA 36

DEPT	GRADE OF UNTO. DIM	SCALE	WEIGHT (kg)	REF TO ASSY / OLD DRG	ITEM NO.
	C/M/F	1:1	0,58	0-7-1150-04-00270 7621/641-3	4
TITLE	CARD CODE	DRAWING NO.	REV		
PIN (WALKING BEAM LIFTING MECHANISM)	U 01	3-7-1150-04-01410	03		

M20. MACHINED WASHER
QTY: 96 NOS.

3 ϕ X 30 LG, SPLIT PIN.
QTY: 96 NOS.



ITEM NO.	DESCRIPTION	DRAWING NO.	MATL CODE	UNIT WT
			45CB IS:1875	48
			MATL SPEC	QTY
EQPT:- WALKING BEAM FURNACE				
Bharat Heavy Electricals Ltd., SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620 014		DRN	NAME	SIGN
		CHD	A. PADUKIAM	14-9-89
		APPD		18-1-93
REV 01	DATE 5-2-97	ALTERED S. Mohanraj	DEPT	GRADE OF UNTOL. DIM
		CHECKED J. JNNL		
ZONE	APPROVED		SCALE 1:1	WEIGHT (kg) 0.5
	MATL. SPECN. 45CB IS:1875 WAS C45 IS:2073		REF TO ASSY / OLD DRG 7621/651-3	ITEM NO.
TITLE PIN FOR WALKING BEAM SUPPORT CASTING			CARD CODE U 01	DRAWING NO. 3-7-1150-04-01420-01

DRAWING NO: 2-7-1150-04-00538

ALL DIMENSIONS ARE IN MILLIMETERS

3.2 1.6

Ø160 ^{H7}	+0.040
	0

M12 X 10 DEEP 8 HOLES
(ON EACH SIDES)

[illegible]

REV 01	DATE 28.07.11	ALTERED	P.Venkatachalam
		CHECKED	SSN.Kumar
		APPROVED	R.Raghuveer

CONVERTED TO AUTOCAD

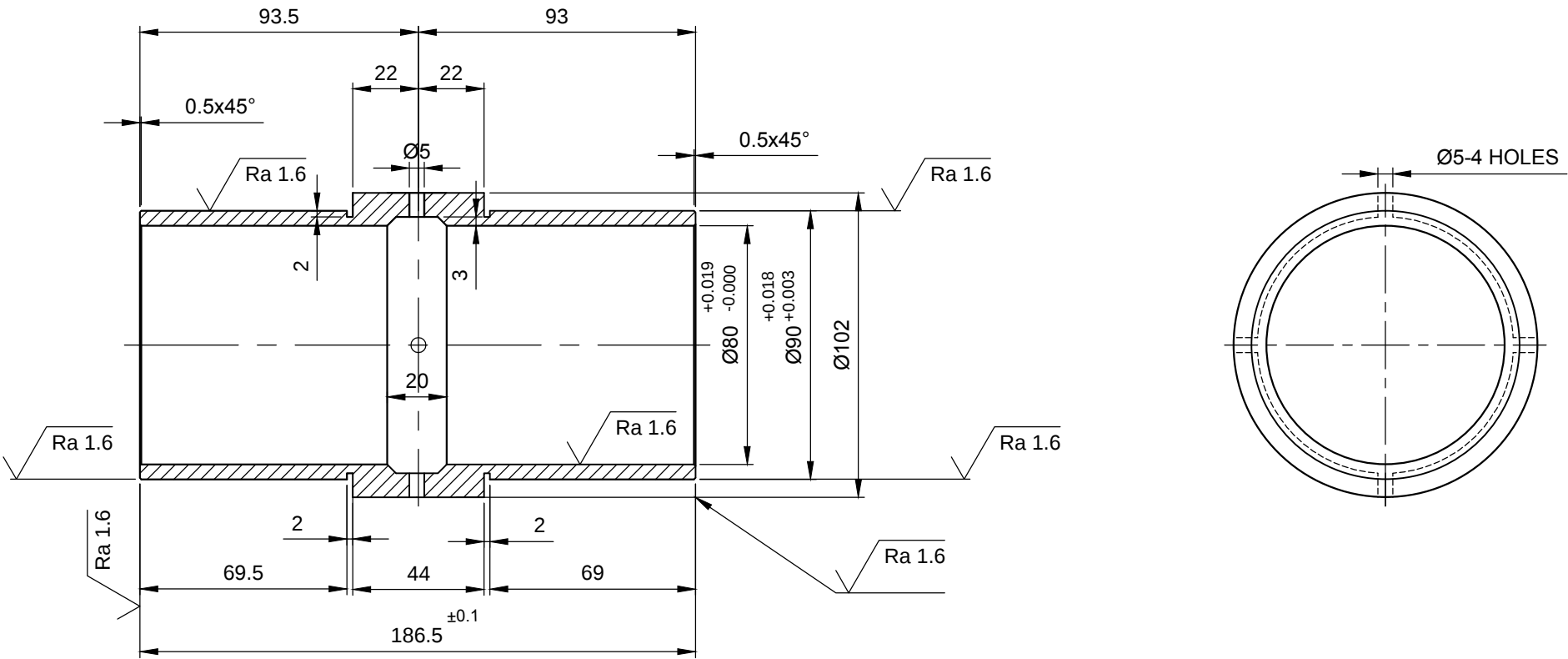
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ALL DIMENSIONS ARE IN MILLIMETRES

DRAWING NO: 3-7-1150-05-01422

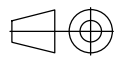
√ Ra 3.2 (√ Ra 1.6)



NOTE: CASTING SHOULD BE FREE FROM HARMFUL INCLUSION & CRACKS

REV 01	DATE 03.06.15	ALTERED	S.N. Kumar/ys.m
		CHECKED	R.K. Singh
		APPROVED	S. Loganathan
CONVERTED TO AUTOCAD DRAWING			

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								C.I. Gr.20 IS:210	1
ITEM NO	DESCRIPTION	DRAWING NO						MATL CODE	UNIT WT
									MATL SPEC
EQPT: WALKING BEAM FURNACE									
		Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI – 620014		DRN	NAME SSN.KUMAR /YS.M	SIGNATURE SSN.Kumar/ys.m	DATE 11.05.15		
				CHD	RK.SINGH	RK.Singh	11.05.15		
				APPD	G.LOGANATHAN	S.Loganathan	11.05.15		
DEPT SSTP	GRADE OF UNTOL. DIM		SCALE 1:2	WEIGHT (Kg) 2	REF TO ASSY DWG NO —			ITEM	
CODE 456	Ø/M/√ IS: 2102				REF TO OLD DWG NO 7621/655–3a			3	
TITLE WBF - SLEEVE WHEEL ASSY				CARD CODE U 01	DRAWING NO : 3-7-1150-05-01422			REV 01	

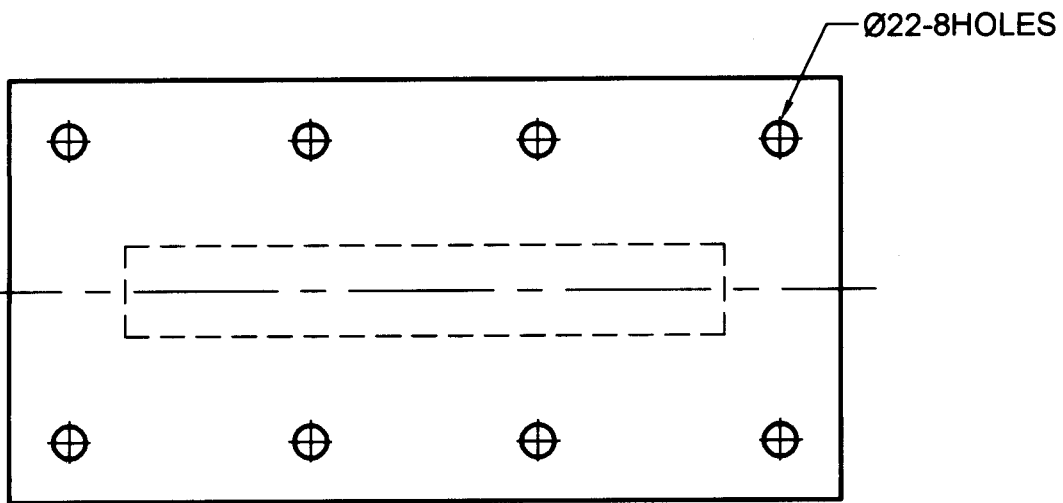
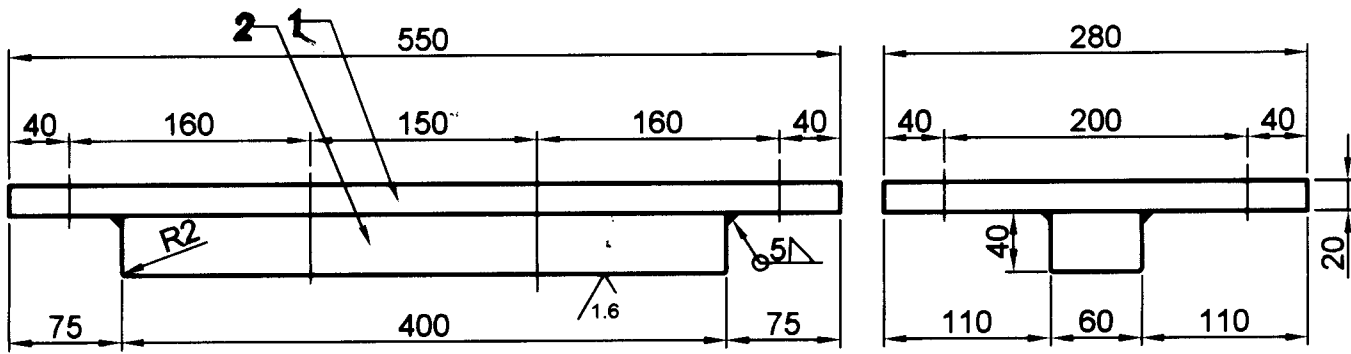
A3-SIZE

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IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANYWAY DETERMINANTAL TO INTEREST OF THE COMPANY

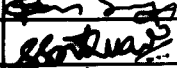
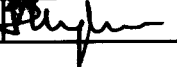
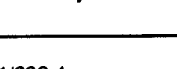
ALL DIMENSIONS ARE IN MM

REV	DATE	ALTERED
01		CHECKED
		APPROVED

~1.6/



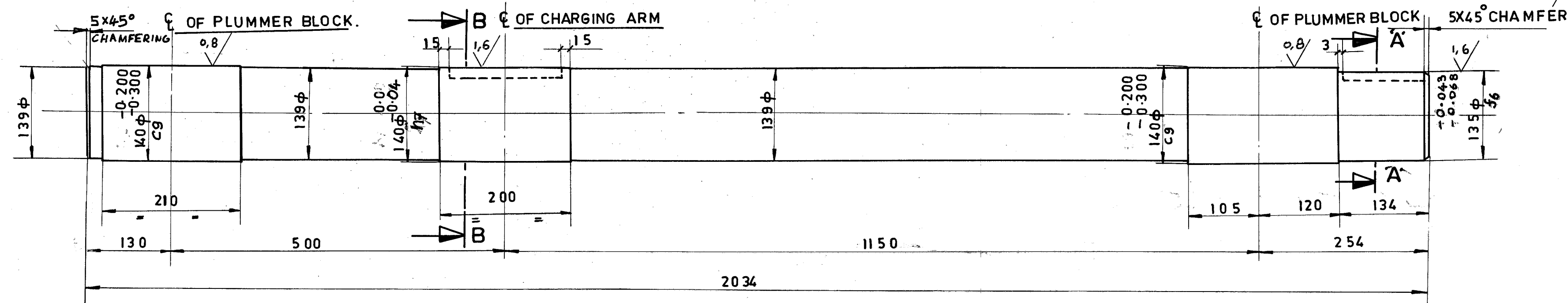
02	BL. 60x40x40l		Fe 410 WB IS:2062	7.5
01	PL.20 550x280		Fe410WA IS:2062	24.2
ITEM NO	DESCRIPTION	DRAWING NO	MATL CODE	UNIT WT
			MATL SPEC	QTY

EQPT: WALKING BEAM FURNACE							
		Bharat Heavy Electricals Ltd SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI - 620014		DRN	NAME S.PALANISAMY	SIGNATURE 	DATE 1.11.01
				CHD	SSN.KUMAR		8.12.01
				APPD	SHANMUGASUNDARAM S.		08/12/2001
DEPT	GRADE OF UNTOL DIM C/M/F		SCALE 1:5	WEIGHT (Kg) 31.7	REF TO ASSY DRG		ITEM NO
CODE					REF TO OLD DRG 7621/636-4		
TITLE RAIL WALKING BEAM ASSEMBLY				CARD CODE U 01	DRAWING NO : 4-7-1150-04-01375		REV 00

05-227/C

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FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)



MATERIAL
C-45, IS: 2073

ITEM-1

UNIT WT-243.00Kgs.

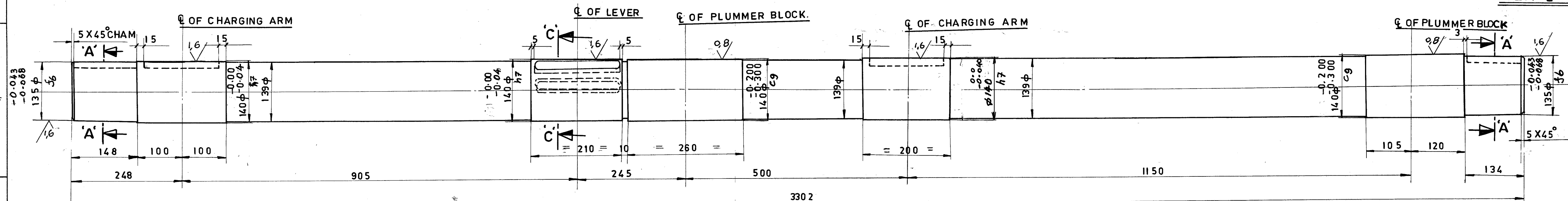
SECTION - BB (TYP)

SECTION - AA (TYP)

SECTION - CC (TYP)

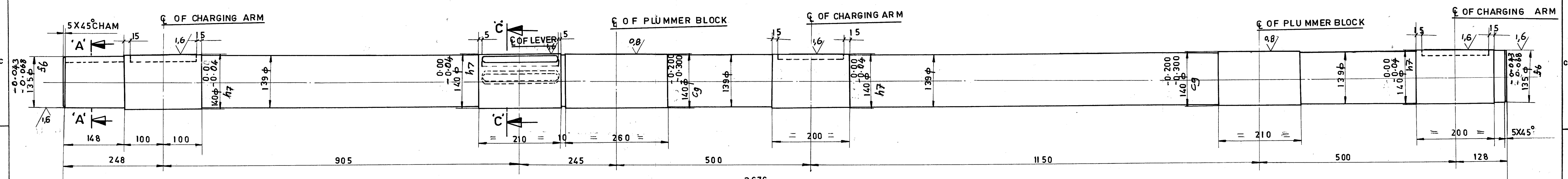
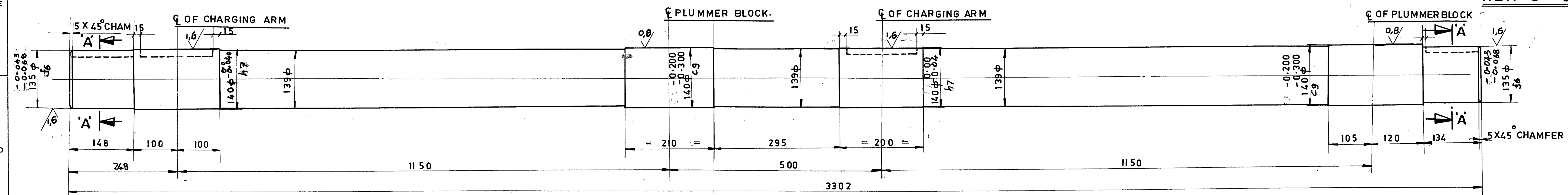
ITEM-2 UNIT WT-395.00Kgs.

MATL
C-45, IS: 2073



ITEM - 3 UNIT WT-395.00Kgs.

MATL
C-45, IS: 2073



MATL
C-45, IS: 2073

ITEM-4 UNIT WT-440 Kgs.

1. ALL DIMENSIONS ARE IN MM.
2. ITEM NOS.4,3,2, CHANGED TO 8,7, 6, 5. RESPECTIVELY.

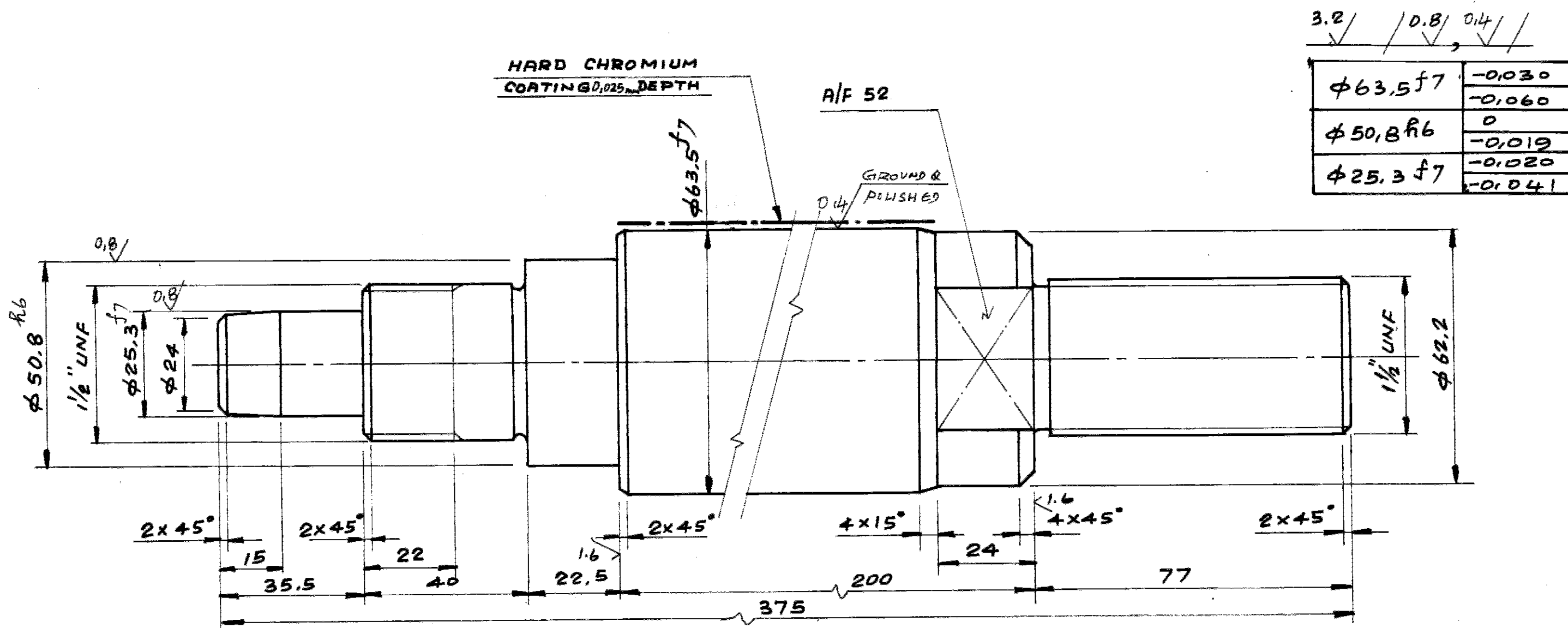
ITEM NO.	DESCRIPTION	DRAWING NO.	MATL. CODE	UNIT WT.
			MATL. SPEC.	QTY.

DRN.	NAME	SIGN.	DATE	NO OF ITEMS
CHD				
APPD				

DEPT	GRADE OF UNTOOL DIM	SCALE	WEIGHT (kg)	REF TO ASSY/OLD DRG	ITEM NO.
	C/M F	1:5			
CODE					

TITLE	CARD CODE	DRAWING NO.	REV.
SHAFTS FOR KICK-OFF	U 01	1-7-1150-09-02090	

FIRST ANGLE PROJECTION (ALL DIMENSIONS IN MILLIMETRES)



NOTE

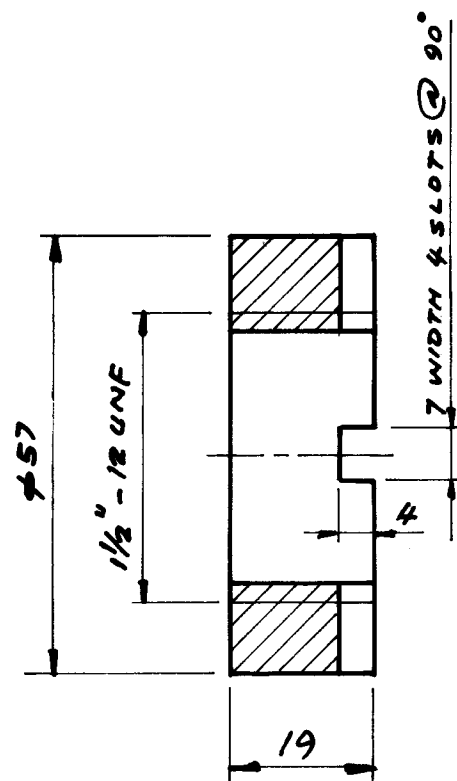
1. HARDEN TO HRC 40±2 AND TOUGHEN BEFORE CHROMIUM PLATING.

				55CB IS: 5517			
ITEM NO.	DESCRIPTION	DRAWING NO.	MATL CODE		UNIT WT		
			MATL SPEC		QTY		
EQPT:- W. B. FURNACE							
 Bharat Heavy Electricals Ltd., SEAMLESS STEEL TUBE PLANT TIRUCHIRAPALLI-620 014			DRN	NAME	SIGN	DATE	NO. OF
			CHD	SSN. KUMAR	[Signature]	12.11.91	ITEMS
			APPD	[Signature]	23.11.91		
REV 01	DATE 1.7.97	ALTERED	GRADE OF UNTOOL DIM C/M/F	SCALE 1:1	WEIGHT (kg) 8.5	REF TO ASSY / OLD DRG	ITEM NO.
ZONE		APPD:- [Signature]	TITLE PISTON ROD TRAVERSE CYL.		CARD CODE U 01	DRAWING NO. 3-7-1150-04-03342	REV 01
MATERIAL SPEC- 55CB IS: 5517 WAS C 45 IS: 207 NOTE 1 ADDED.							

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REV 01	DATE	ALTERED
		CHECKED
ZONE		

3.2



		IS: 2073	
		C 30	
ITEM NO.	DESCRIPTION	MATL CODE	UNIT WT
		MATL SPEC	QTY

ELECT:- RO. H-F

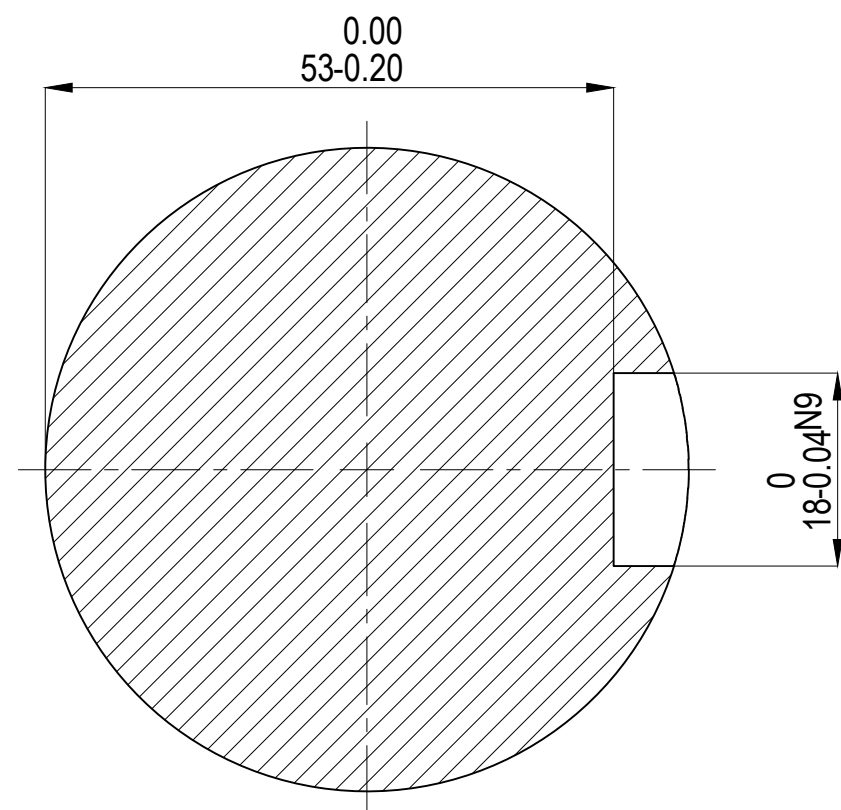
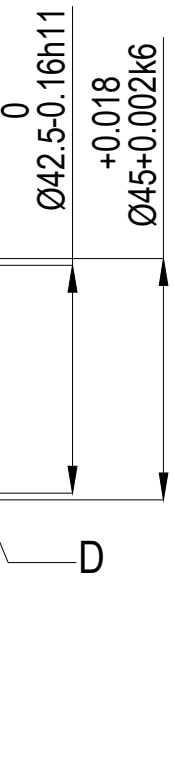


Bharat Heavy Electricals Ltd.,
SEAMLESS STEEL TUBE PLANT
TIRUCHIRAPALLI - 620 014

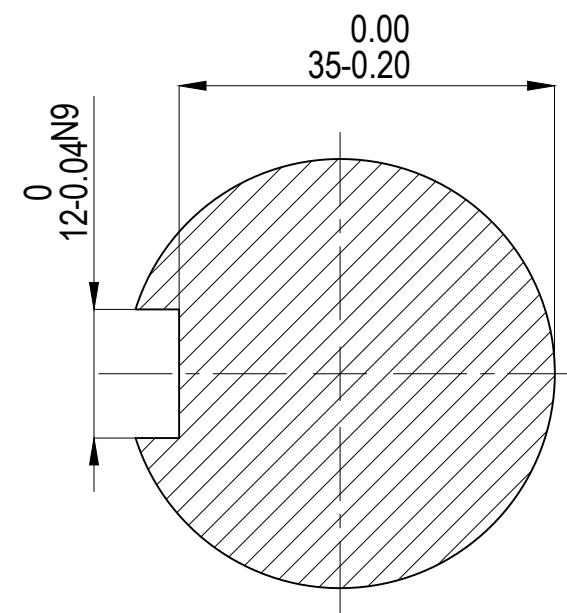
DRN	NAME S.S.N. KUMAR	SIGN <i>[Signature]</i>	DATE 10.2.87
CHD			
APPD		<i>[Signature]</i>	13.3.87

DEPT	GRADE OF UNTOL. DIM C/M/F		SCALE 1:1	WEIGHT (kg) 0.2	REF TO ASSY / OLD DRG	ITEM NO.
CODE						
TITLE NUT 1 1/2" - 12 UNF CHARGING AND DISCHARGING DOOR LIFTING CYLINDER				CARD CODE U 01	DRAWING NO. 4-7-1101-12-03397	
					REV. 00	

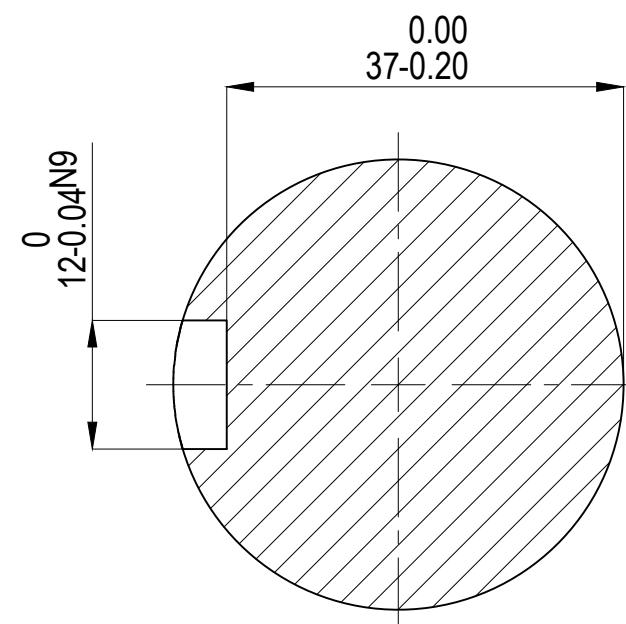
1

H
$$\frac{3.2}{\nabla} \left(\frac{1.6}{\nabla} \right)$$


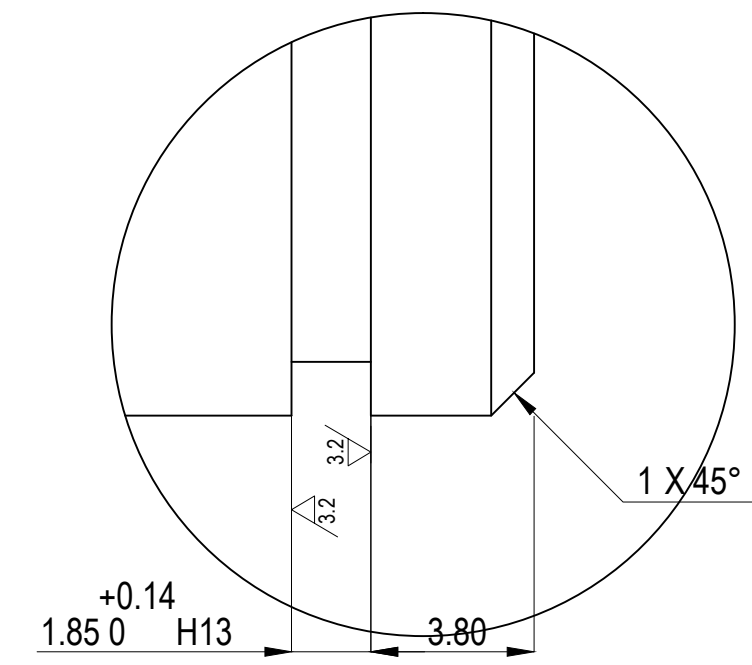
SECTION A-A
SCALE 1 : 1



SECTION B-B
SCALE 1 : 1

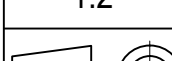


SECTION C-C
SCALE 1 : 1



DETAIL D
SCALE 4 : 1

1	04	40C8	IS:1570-II	KEY 18x11x125 L.G	0.2	0.2	
1	03	40C8	IS:1570-II	KEY 12x8x50 L.G	0.04	0.04	
1	02	40C8	IS:1570-II	KEY 12x8x40 L.G	0.03	0.03	
1	01	45 C8	IS:1875	DRIVE SHAFT	10.45	10.49	
QTY.	ITEM NO.	MATERIAL	IS & DIN Std.	DESCRIPTION	Each	Total	REMARKS
					WEIGHT (Kg.)		

Client		JOB No.			
BHEL		000135/11-12			
Drawn By / Date	C.S / 1/10/2012	Format / Sh.Size	Equipment		
Chkd. By / Date	RAJESH / 2/17/2012		ROLLER TABLE-1		
Appr. By / Date	B.M.T / 2/17/2012				
 P.P. Rolling Mills Mfg. Co. Pvt. Ltd. Plot No. I-42, DLF Ind. Area, Phase-I, Faridabad (Haryana) Phone +91 -11 -26836340, 26848885, 26313774 Fax. +91-11-26836335, website www.pprm.in		Scale	Title.		
		1:2	DETAIL OF DRIVE SHAFT		
			Drawing No.:- 4174-43	Revision	Sheet
			Plot Date :- 9/29/2012		
		 1			

Machinist's Note:-

01) Remove the sharp corner & edges with 1mm. chamfered & shaft fillets to be 1mm. radius unless otherwise specified.

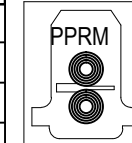
02) All dimension are in millimeter (mm.) unless otherwise specified.

SMS DRG. No.- 0301512-00.101_07

BHEL REF. No.- 1-7-0123.99-08015

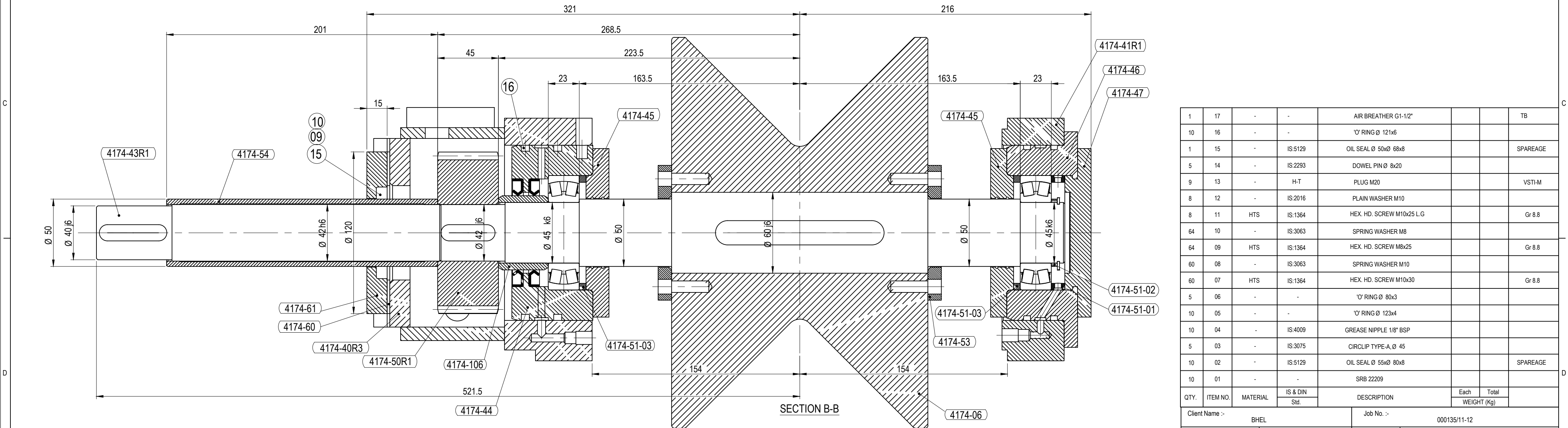
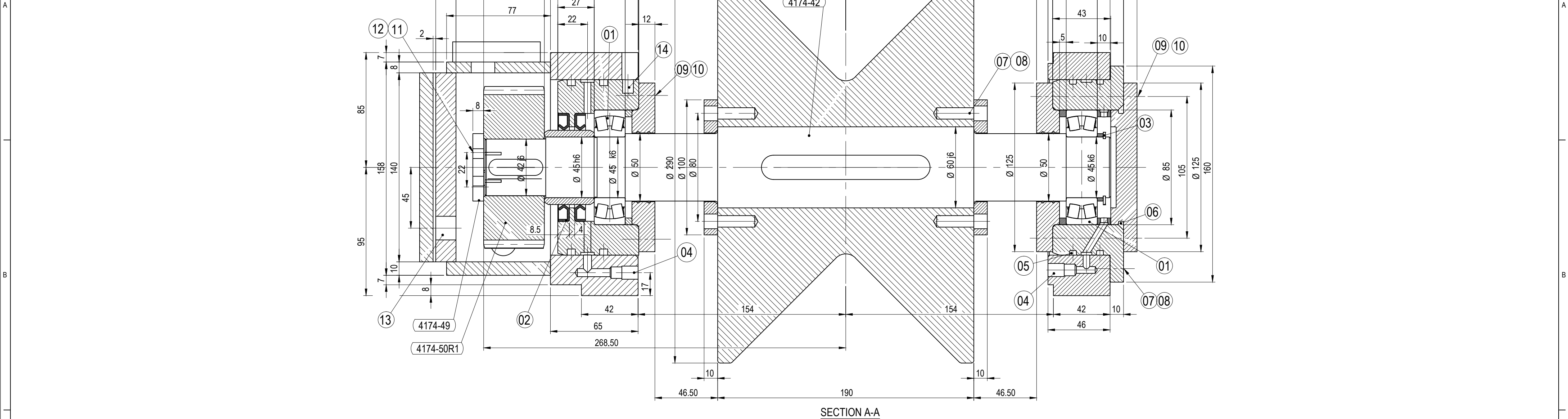
All dimensions are in Millimeters unless otherwise stated. Do not Scale. If in doubt, please ask.										
SURFACE FINISH										
SYMBOL										
Ra u	25	12.5	6.3	3.2	1.6	0.8	0.4	0.2	0.1	

Toleranced dimensions should conform to IS:2102 (Part1):1993 Medium.													
Permissible deviations for Linear dimensions(mm):									for Angular dimensions(mm):				
over (mm)	-	6	30	120	400	1000	2000	4000	over (mm)	1	6	30	120
up to (mm)	6	30	120	400	1000	2000	4000	-	up to (mm)	6	30	120	400
value (mm)	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2.0	±3.0	value (Deg)	±6'	±10'	±20'	±30'



P.P. Rolling Mills Mfg. Co. Pvt. Ltd.
Plot No. I-42, DLF Ind. Area, Phase-I, Faridabad (Haryana)
Phone +91-11-26836340, 26848885, 26313774
Fax. +91-11-26836335, website:www.pprm.in

Please Do Not Scale. If in Doubt, ASK.



1	17	-	-	AIR BREATHER G1-1/2"			TB
10	16	-	-	O' RING Ø 121x6			
1	15	-	IS:5129	OIL SEAL Ø 50xØ 68x8			SPAREAGE
5	14	-	IS:2293	DOWEL PIN Ø 8x20			
9	13	-	H-T	PLUG M20			VSTI-M
8	12	-	IS:2016	PLAIN WASHER M10			
8	11	HTS	IS:1364	HEX. HD. SCREW M10x25 L.G			Gr 8.8
64	10	-	IS:3063	SPRING WASHER M8			
64	09	HTS	IS:1364	HEX. HD. SCREW M8x25			Gr 8.8
60	08	-	IS:3063	SPRING WASHER M10			
60	07	HTS	IS:1364	HEX. HD. SCREW M10x30			Gr 8.8
5	06	-	-	O' RING Ø 80x3			
10	05	-	-	O' RING Ø 123x4			
10	04	-	IS:4009	GREASE NIPPLE 1/8" BSP			
5	03	-	IS:3075	CIRCLIP TYPE-A, Ø 45			
10	02	-	IS:5129	OIL SEAL Ø 55xØ 80x8			SPAREAGE
10	01	-	-	SRB 22209			
QTY.	ITEM NO.	MATERIAL	IS & DIN Std.	DESCRIPTION	Each	Total	
					WEIGHT (Kg)		
Client Name :- BHEL				Job No. :- 000135/11-12			
Drawn By / Date C.S / 2/6/2012				Format/Sh. Size CAD/A2	Equi.	ROLLER TABLE-1	
Chkd. By / Date RAJESH / 2/6/2012				Scale 1:2	Title G.A OF ROLL ASSEMBLY		
Appr. By / Date -				Drawing No. :- 4174-04		Sheet 2 OF 3	Revision 1
				Plot Date :- 9/29/2012			

PPRM

P.P. Rolling Mills Mfg. Co. Pvt. Ltd.

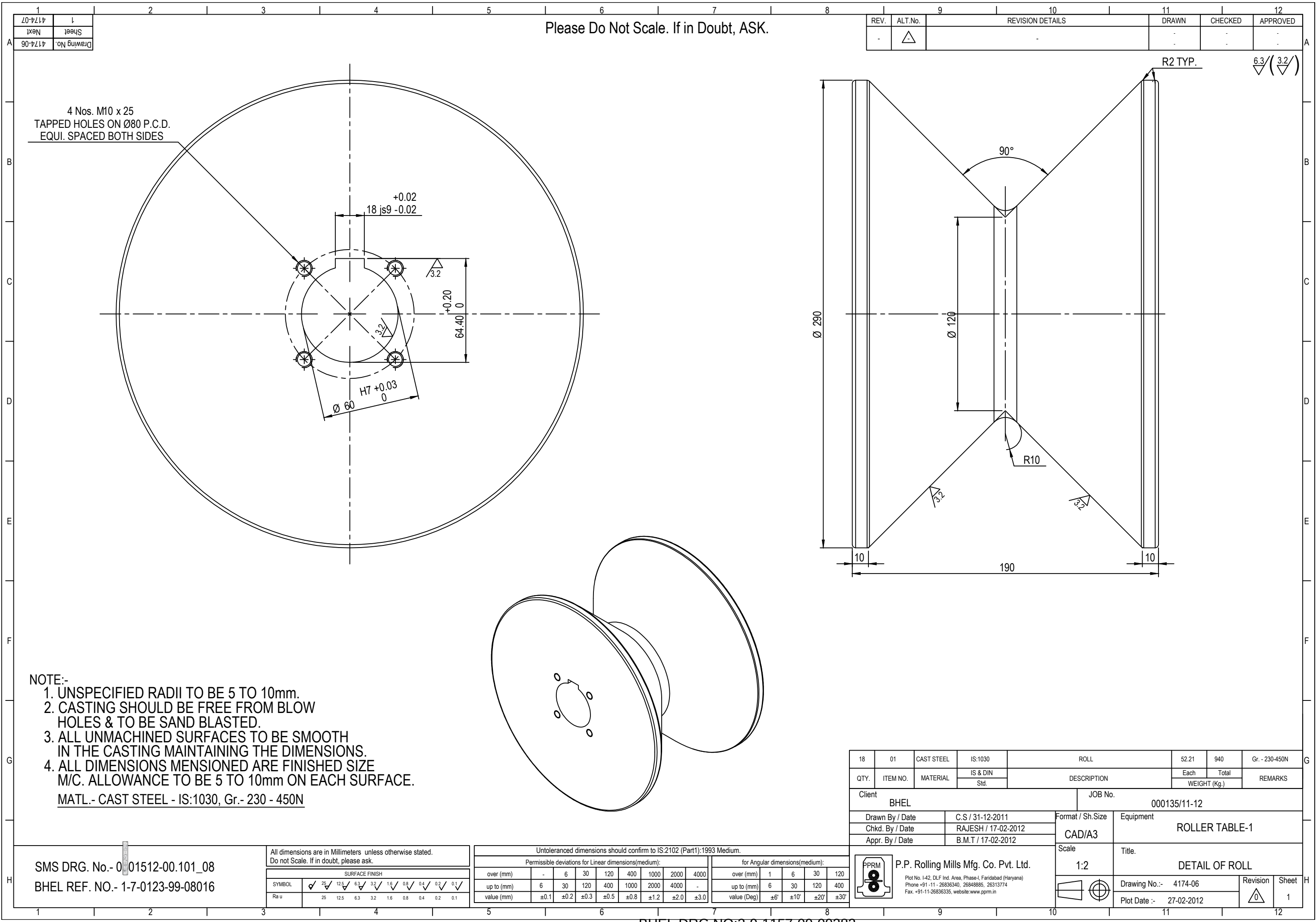
Plot No. I-42, DLF Ind Area, Phase-I, Faridabad (Haryana)

Phone +91-11-26836340, 26848895, 26313774

Fax +91-11-26836335, website www.pprm.in

SMS DRG. No.- 0301512-00.101_08
BHEL REF. No.- 1-7-0123.99-08016

All dimensions are in Millimeters unless otherwise stated. Do not Scale. In doubt, please ask.									
SURFACE FINISH									
SYMBOL	✓ 25	✓ 12.5	✓ 6.3	✓ 3.2	✓ 1.6	✓ 0.8	✓ 0.4	✓ 0.2	✓ 0.1
Ra u	25	12.5	6.3	3.2	1.6	0.8	0.4	0.2	0.1
Permissible deviations for Linear dimensions (medium)									
over (mm)	-	6	30	120	400	1000	2000	4000	
up to (mm)	6	30	120	400	1000	2000	4000	-	
value (mm)	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2.0	±3.0	
for Angular dimensions (medium)									
over (mm)	1	6	30	120					
up to (mm)	6	30	120	400					
value (Deg)	±6'	±10'	±20'	±30'					



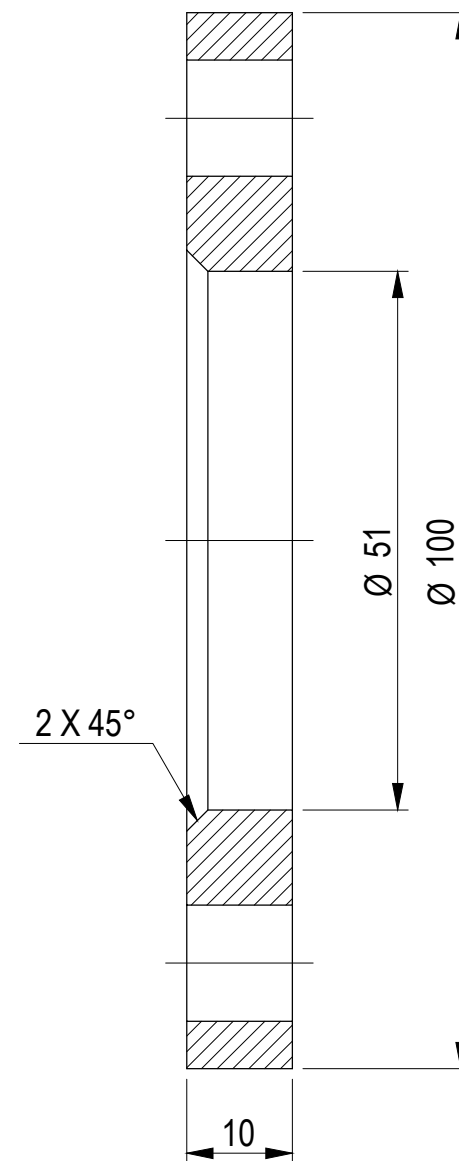
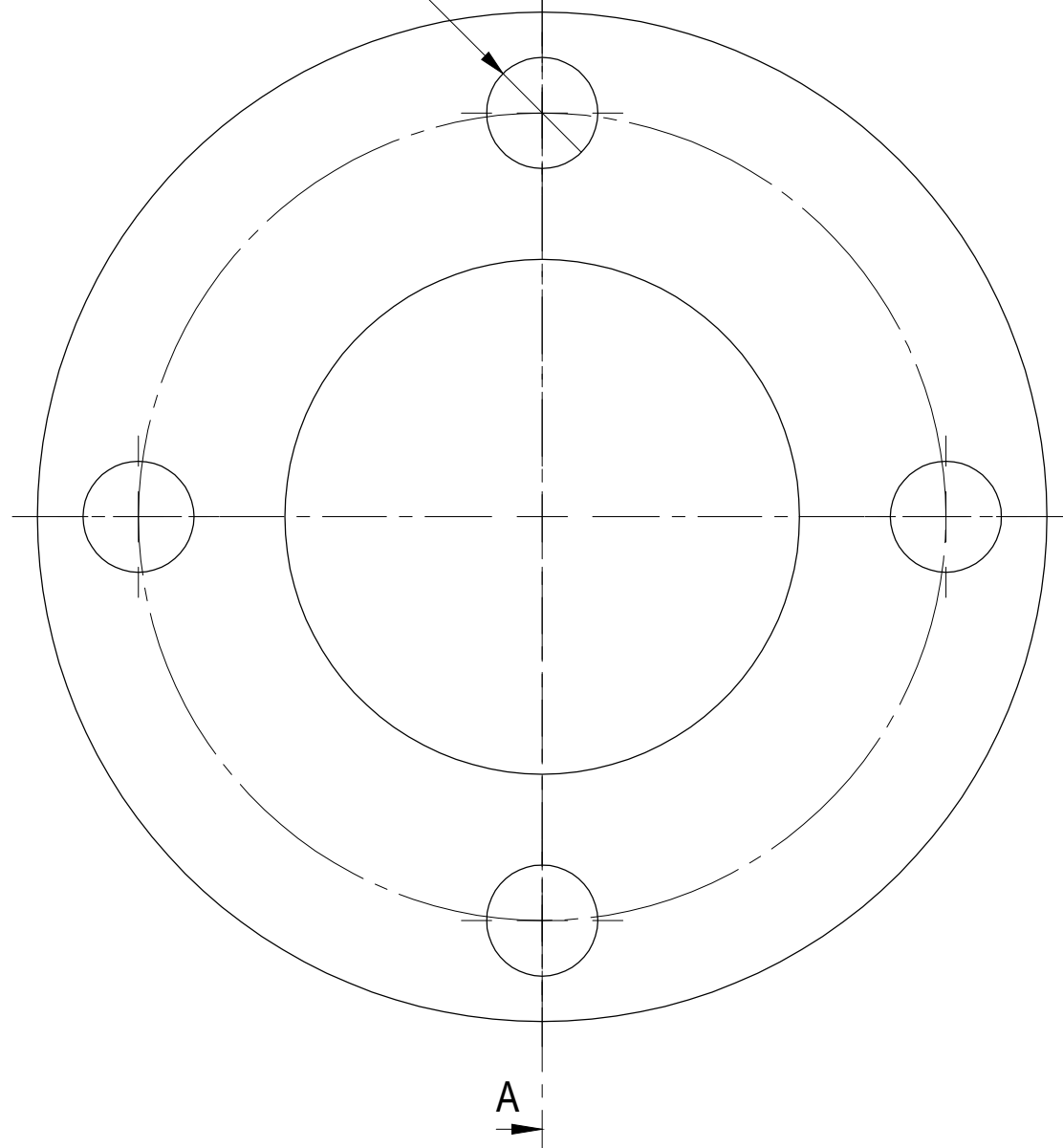
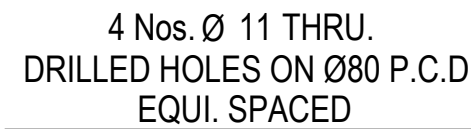
Please Do Not Scale. If in Doubt, ASK.

REV.	ALT.No.	REVISION DETAILS	DRAWN	CHECKED	APPROVED
-		-	-	-	-

18	01	CAST STEEL	IS:1030	ROLL	52.21	940	Gr. - 230-450N
QTY.	ITEM NO.	MATERIAL	IS & DIN Std.	DESCRIPTION	Each	Total	REMARKS
Client BHEL				JOB No. 000135/11-12	WEIGHT (Kg.)		
Drawn By / Date C.S / 31-12-2011				Format / Sh.Size CAD/A3	Equipment ROLLER TABLE-1		
Chkd. By / Date RAJESH / 17-02-2012				Scale 1:2	Title. DETAIL OF ROLL		
Appr. By / Date B.M.T / 17-02-2012					Drawing No.- 4174-06		
P.P. Rolling Mills Mfg. Co. Pvt. Ltd. Plot No. I-42, DLF Ind. Area, Phase-I, Faridabad (Haryana) Phone +91-11-26836340, 26848885, 26313774 Fax. +91-11-26836335, website:www.pprm.in				Plot Date :- 27-02-2012			Revision 0
							Sheet 1

Please Do Not Scale. If in Doubt, ASK.

6.3



SECTION A-A

Machinist's Note:-

01) Remove the sharp corner & edges with 1mm. chamfered & shaft fillets to be 1mm. radius unless otherwise specified.

02) All dimension are in millimeter (mm.) unless otherwise specified.

SMS REF. No.- 0301512-00.101_08
BHEL REF. No.-1-7-0123.99-08016

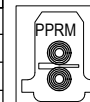
All dimensions are in Millimeters unless otherwise stated.
Do not Scale. If in doubt, please ask.

SURFACE FINISH										
SYMBOL										
Ra u	25	12.5	6.3	3.2	1.6	0.8	0.4	0.2	0.1	

Untoleranced dimensions should confirm to IS:2102 (Part1):1993 Medium.

Permissible deviations for Linear dimensions (medium):								
over (mm)	-	6	30	120	400	1000	2000	4000
up to (mm)	6	30	120	400	1000	2000	4000	-
value (mm)	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2.0	±3.0

for Angular dimensions(medium):				
over (mm)	1	6	30	120
up to (mm)	6	30	120	400
value (Deg)	±6'	±10'	±20'	±30'



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Fax. +91-11-26836335, website:www.pprm.in

	Scale
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Equipment

ROLLER TABLE

Title.

DETAIL OF ROLL LOCK PLATE

Drawing No.:- 4174-53

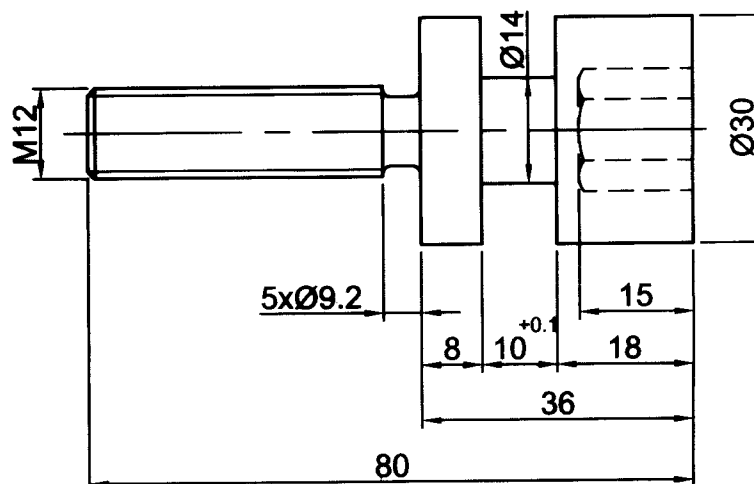
27-02-2012

Revisio

Sheet

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

MATL.SPECN 45C8 IS:1875 WAS
C45 IS:2073



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