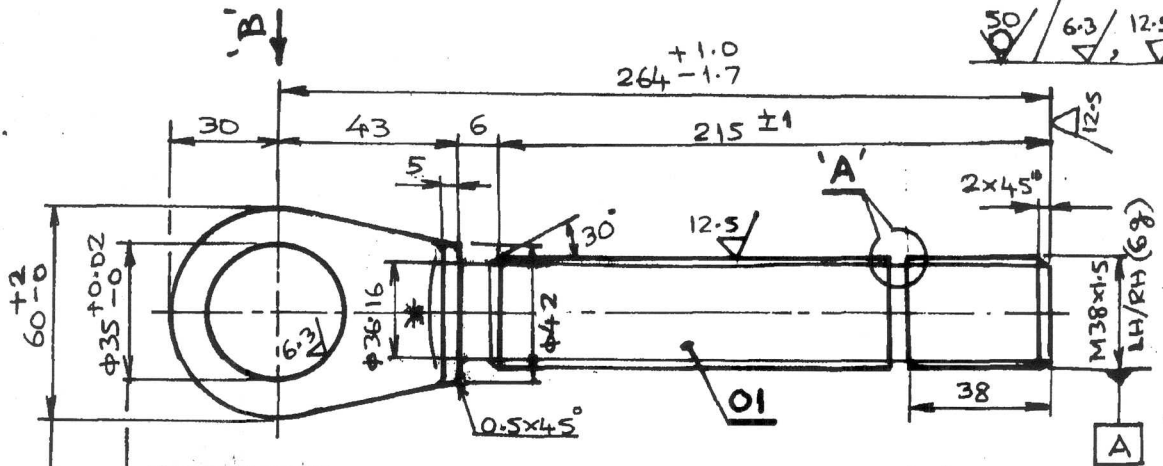




NOT TO SCALE:



0.2 A

0.2 A

0.2 A

VIEW-B

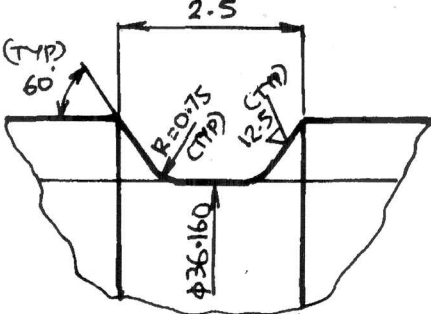
+D

15-0.5

NOTE-9 (CTP)

SMOOTH TAPER AS PER REGULAR FORGING PRACTICE (NOT TO EXCEED 6°)

DETAIL-A



DETAILS OF NUT (ITEM NO. 03)	
LH/RH	
HEXAGONAL	
HEIGHT	30mm.
DISTANCE ACROSS FLATS	±9 60mm.
DISTANCE ACROSS CORNERS	69.3mm.
THREAD SIZE	M 38x1.5 LH/RH
NOTE-10	TOL. 7H.

ITEM NO.	DESCRIPTION	QTY/ ASSY	WEIGHT Kg	REMARKS
01	FORGED ROD END (WITHOUT BEARING)	1	2.240	
02	MAINTENANCE FREE SPHERICAL BEARING - STEEL/SINTER BRONZE COMPOSITE. (NOTE-11)	1	0.065	SKF MODEL "GE 20C" OR EQUIVALENT
03	HEX. NUT M 38x1.5 LH/RH	1	0.430	

NOTES:

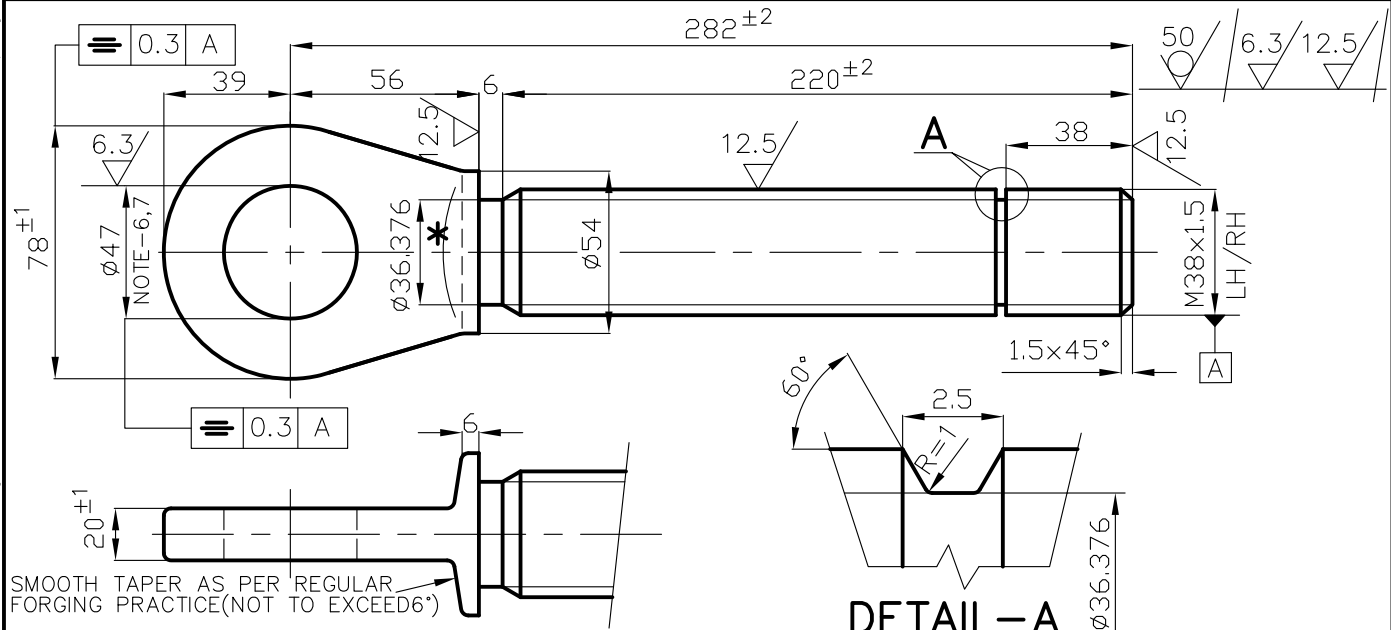
- MATERIAL FOR ITEM NO. 01: IS 961 S40 WHT OR SA105 OR IS 1875 C1.3-30C8- (FORGED).
- MATERIAL FOR ITEM NO. 03: SA-105 OR IS 1875 C1.3-30C8.
- TOTAL WEIGHT : 2.735 kg PER ASSY (APPROX).
- B.I.N. CODE: FOR RH ASSY - 94-821-573-0000 ; FOR LH ASSY - 94-821-583-0000.
- ITEM NO. 01 & 03 - AFTER MACHINING AND THREADING THEY ARE TO BE ELECTROGALVANISED AND YELLOW CHROMIUM. THICKNESS OF COATING SHALL BE 12 TO 15 μm (MICRONS).
- THREADS SHALL CONFIRM TO IS 4218.
- MARKING AT LOCATION '\*' ON ITEM NO. 01: 2 ALPHA-LETTERS SUPPLIER'S CODE (HEIGHT 3mm) 03) 25KN; LH OR RH.
- SPHERICAL BEARING SHALL BE SUITABLY FIXED INTO THE BORE (φ35) OF ITEM NO. 01.
- RADIUS WHEREVER NOT SPECIFIED IN FIGURE: AS PER REGULAR FORGING PRACTICE
- MARK 'LH' ON LEFT HAND THREADED NUT ON TOP OR BOTTOM SURFACE OF NUT.
- OUTER RING OF SINTER BRONZE COMPOSITE (STEEL BACKING, SINTER BRONZE CONTAINING PTFE AND MO52) PRESSED AROUND THE INNER RING. INNER RING IS OF CARBON CHROMIUM STEEL, HARDENED AND GROUND. SLIDING SURFACE HARD CHROME PLATED.

PREP'D	CHECKED	APPROVED	DATE	ROD END WITH NUT	DRG. NO.	REV.
				25KN (M38x1.5)	4-80-923-52949	00

ALL DIMENSIONS ARE IN MILLIMETRES

REV	DATE	ALTERED
		APPROVED

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.



- NOTES:
- 01) MATERIAL FOR ITEM.01/03- SA105 / IS1875CL3-30C8 / IS8500FE540; ITEM 01 HAS TO BE FORGED.
  - 02) ITEM 01&03 ARE TO BE ELECTROGALVANISED & YELLOW CHROMOTISED TO A DEPTH OF 15 MICRONS.
  - 03) THREADS SHALL CONFIRM TO IS4218.
  - 04) UNSPECIFIED RADIUS FOR ITEM 01 SHALL BE AS PER REGULAR FORGING PRACTICE.
  - 05) DETAILS OF NUT -ITEM 03 (LH/RH): THREAD SIZE M38x1.5; HEIGHT 30; DIM ACROSS FLATS 60+0-1; DIM ACROSS CORNERS 69.3mm.
  - 06) ITEM 02 MAINTENANCE FREE RADIAL SPHERICAL BEARING WITH SLIDING CONTACT SURFACE COMBINATION. STEEL OUTER RING WITH INTERNAL SLIDING LAYER OF SINTER BRONZE INTO WHICH PTFE WITH MOLYBDENUM DISULPHIDE MoS2 IS ROLLED. THE OUTER RING IS PRESSED AROUND THE INNER RING. CARBON CHROMIUM STEEL INNER RING IS HARDENED, GROUND AND THE SLIDING CONTACT SURFACE IS HARD CHROMIUM PLATED.
  - 07) ITEM 02 HAS TO BE SUITABLY FIT INTO ITEM 01 AS PER SKF OR EQUIVALENT'S BEARING PRACTICE WITH SUITABLE TOLERANCES ON MATING SURFACES OF ITEM 01,02.
  - 08) MARK ON ITEM 01 AT LOCATION \* 2 ALPHA LETTERS REPRESENTING SUPPLIER'S CODE; 63KN; (LH FOR LH ONLY) MARK LH ON 03 FOR LH NUT.
  - 09) TO BE SUPPLIED IN ASSEMBLED CONDITION WITH SUITABLE PACKING.
  - 10) STOCK CODE FOR RH ASSY-94 821 574 0000; FOR LH ASSY 94 821 584 0000.

ITEM No.	DESCRIPTION	QTY	WEIGHT kg	REMARKS
01	FORGED ROD END (WITHOUT BEARING)	1	2.600	
02	MAINTENANCE FREE SPHERICAL BEARING STEEL/SINTER BRONZE COMPOSITE-NOTE6,7	1	0.160	SKF GE30C OR EQUIVALENT
03	HEX. NUT M38x1.5 LH/RH	1	0.430	

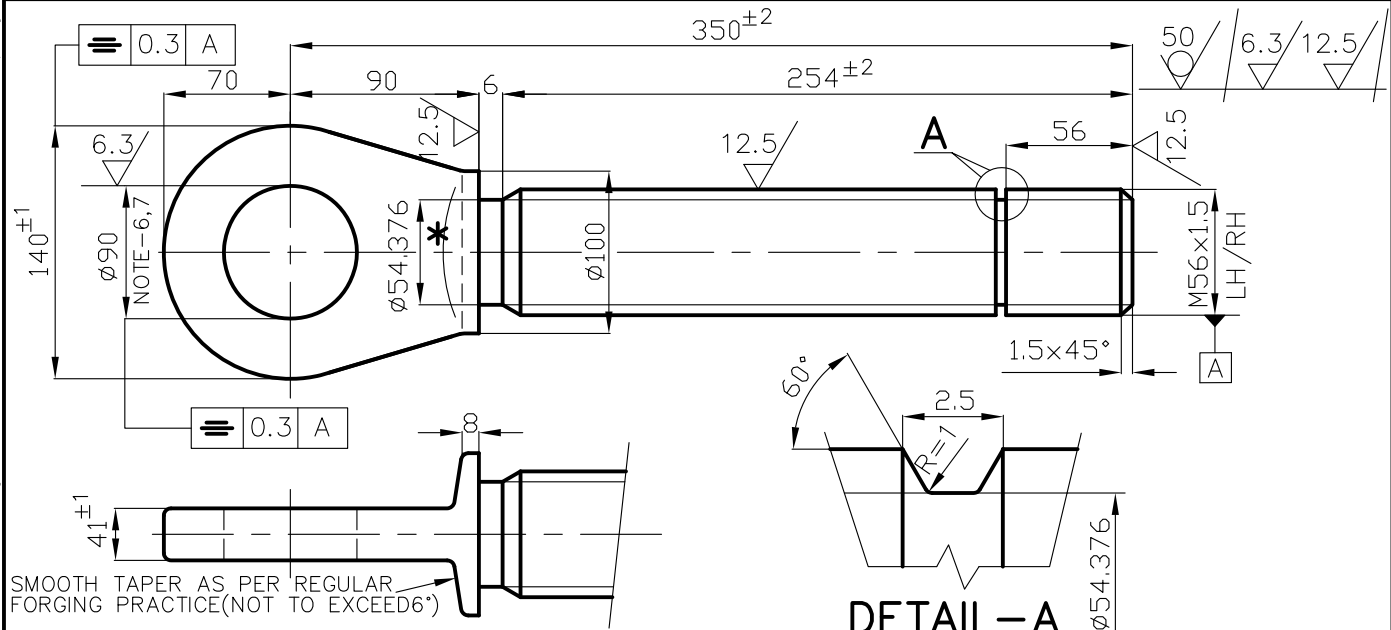
**STANDARD**

	<b>BHARAT HEAVY ELECTRICALS LIMITED</b> PIPING CENTRE CHENNAI 600 017		DRN	NAME	SIGN	DATE	NO. OF VAR
			CHD	R.ANANTH		06.10.08	
			APPD	M.N.VASUDEVAN		06.10.08	
DEPT	GRADE OF UNTOL. DIM		SCALE	WEIGHT (KG).	REF. TO ASSY./OLD DRG.	ITEM NO.	NO. OF ITEMS
CODE	C / M / F		N.T.S	3.190	3-80-999-97163		
TITLE			CARD CODE	DRAWING NO.		REV	
<b>ROD END WITH NUT -63KN</b>			U 01	<b>4-80-999-93164</b>		<b>00</b>	

ALL DIMENSIONS ARE IN MILLIMETRES

REV	DATE	ALTERED
		APPROVED

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- NOTES:**
- 01) MATERIAL FOR ITEM.01/03- SA105 / IS1875CL3-30C8 / IS8500FE540; ITEM 01 HAS TO BE FORGED.
  - 02) ITEM 01&03 ARE TO BE ELECTROGALVANISED & YELLOW CHROMOTISED TO A DEPTH OF 15 MICRONS.
  - 03) THREADS SHALL CONFIRM TO IS4218.
  - 04) UNSPECIFIED RADIUS FOR ITEM 01 SHALL BE AS PER REGULAR FORGING PRACTICE.
  - 05) DETAILS OF NUT -ITEM 03 (LH/RH): THREAD SIZE M56x1.5; HEIGHT 45; DIM ACROSS FLATS 85+0-1; DIM ACROSS CORNERS 98mm.
  - 06) ITEM 02 MAINTENANCE FREE RADIAL SPHERICAL BEARING WITH SLIDING CONTACT SURFACE. OUTER RING OF CARBON CHROMIUM STEEL IS HARDENED, GROUND, DELIBERATELY FRACTURED AT ONE SINGLE POINT, WITH INTERNAL SLIDING LAYER OF PTFE FABRIC. CARBON CHROMIUM STEEL INNER RING IS HARDENED, GROUND AND THE SLIDING CONTACT SURFACE IS HARD CHROMIUM PLATED & POLISHED. RUBBING DOUBLE-LIP SEAL AT BOTH SIDES.
  - 07) ITEM 02 HAS TO BE SUITABLY FIT INTO ITEM 01 AS PER SKF OR EQUIVALENT'S BEARING PRACTICE WITH SUITABLE TOLERANCES ON MATING SURFACES OF ITEM 01,02.
  - 08) MARK ON ITEM 01 AT LOCATION \* 2 ALPHA LETTERS REPRESENTING SUPPLIER'S CODE; 250KN; (LH FOR LH ONLY) MARK LH ON 03 FOR LH NUT.
  - 09) TO BE SUPPLIED IN ASSEMBLED CONDITION WITH SUITABLE PACKING.
  - 10) STOCK CODE FOR RH ASSY-94 821 576 0000; FOR LH ASSY 94 821 586 0000.

ITEM No.	DESCRIPTION	QTY	WEIGHT kg	REMARKS
01	FORGED ROD END (WITHOUT BEARING)	1	9.700	
02	MAINTENANCE FREE SPHERICAL BEARING STEEL/PTFE FABRIC-NOTE6,7	1	1.100	SKF GE60TE2RS OR EQUIVALENT
03	HEX. NUT M56x1.5 LH/RH	1	1.360	

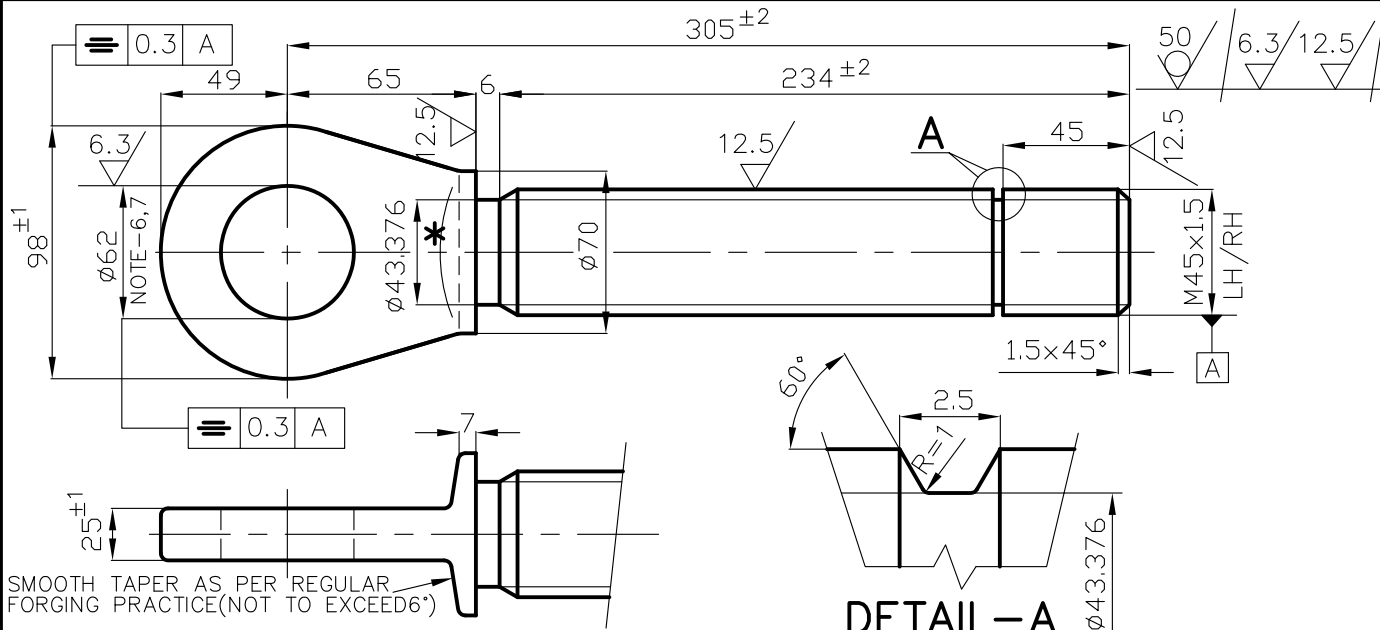
**STANDARD**

	<b>BHARAT HEAVY ELECTRICALS LIMITED</b> PIPING CENTRE CHENNAI 600 017		DRN	R.ANANTH	SIGN	DATE	06.10.08	NO. OF VAR
	CHD	R.ANANTH		06.10.08				
	APPD	M.N.VASUDEVAN		06.10.08				
DEPT	GRADE OF UNTOL DIM		SCALE	WEIGHT (KG).	REF. TO ASSY./OLD DRG.	ITEM NO.	NO. OF ITEMS	
CODE	C / M / F		N.T.S	12.160	3-80-999-97163			
TITLE			CARD CODE	DRAWING NO.		REV		
<b>ROD END WITH NUT -250KN</b>			U 01	<b>4-80-999-93167</b>		<b>00</b>		

ALL DIMENSIONS ARE IN MILLIMETRES

REV	DATE	ALTERED
		APPROVED

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- NOTES:**
- 01) MATERIAL FOR ITEM.01/03- SA105 / IS1875CL3-30C8 / IS8500FE540; ITEM 01 HAS TO BE FORGED.
  - 02) ITEM 01&03 ARE TO BE ELECTROGALVANISED & YELLOW CHROMOTISED TO A DEPTH OF 15 MICRONS.
  - 03) THREADS SHALL CONFIRM TO IS4218.
  - 04) UNSPECIFIED RADIUS FOR ITEM 01 SHALL BE AS PER REGULAR FORGING PRACTICE.
  - 05) DETAILS OF NUT -ITEM 03 (LH/RH): THREAD SIZE M45x1.5; HEIGHT 36; DIM ACROSS FLATS 70+0-1; DIM ACROSS CORNERS 80.8mm.
  - 06) ITEM 02 MAINTENANCE FREE RADIAL SPHERICAL BEARING WITH SLIDING CONTACT SURFACE. OUTER RING OF CARBON CHROMIUM STEEL IS HARDENED, GROUND, DELIBERATELY FRACTURED AT ONE SINGLE POINT, WITH INTERNAL SLIDING LAYER OF PTFE FABRIC. CARBON CHROMIUM STEEL INNER RING IS HARDENED, GROUND AND THE SLIDING CONTACT SURFACE IS HARD CHROMIUM PLATED & POLISHED. RUBBING DOUBLE-LIP SEAL AT BOTH SIDES.
  - 07) ITEM 02 HAS TO BE SUITABLY FIT INTO ITEM 01 AS PER SKF OR EQUIVALENT'S BEARING PRACTICE WITH SUITABLE TOLERANCES ON MATING SURFACES OF ITEM 01,02.
  - 08) MARK ON ITEM 01 AT LOCATION \* 2 ALPHA LETTERS REPRESENTING SUPPLIER'S CODE;100KN; (LH FOR LH ONLY) MARK LH ON 03 FOR LH NUT.
  - 09) TO BE SUPPLIED IN ASSEMBLED CONDITION WITH SUITABLE PACKING.
  - 10) STOCK CODE FOR RH ASSY-94 821 575 0000; FOR LH ASSY 94 821 585 0000.

ITEM No.	DESCRIPTION	QTY	WEIGHT kg	REMARKS
01	FORGED ROD END (WITHOUT BEARING)	1	4.300	
02	MAINTENANCE FREE SPHERICAL BEARING STEEL/PTFE FABRIC-NOTE6,7	1	0.320	SKF GE40TE2RS OR EQUIVALENT
03	HEX. NUT M45x1.5 LH/RH	1	0.750	

**STANDARD**

	<b>BHARAT HEAVY ELECTRICALS LIMITED</b> PIPING CENTRE CHENNAI 600 017		DRN	R.ANANTH	SIGN	DATE	06.10.08	NO. OF VAR
	CHD	R.ANANTH		06.10.08				
	APPD	M.N.VASUDEVAN		06.10.08				
DEPT	GRADE OF UNTOL. DIM	SCALE	WEIGHT (KG).	REF. TO ASSY./OLD DRG.		ITEM NO.	NO. OF ITEMS	
CODE	C / M / F	N.T.S	5.370	3-80-999-97163				
TITLE			CARD CODE	DRAWING NO.			REV	
<b>ROD END WITH NUT -100KN</b>			U 01	<b>4-80-999-93165</b>			<b>00</b>	