

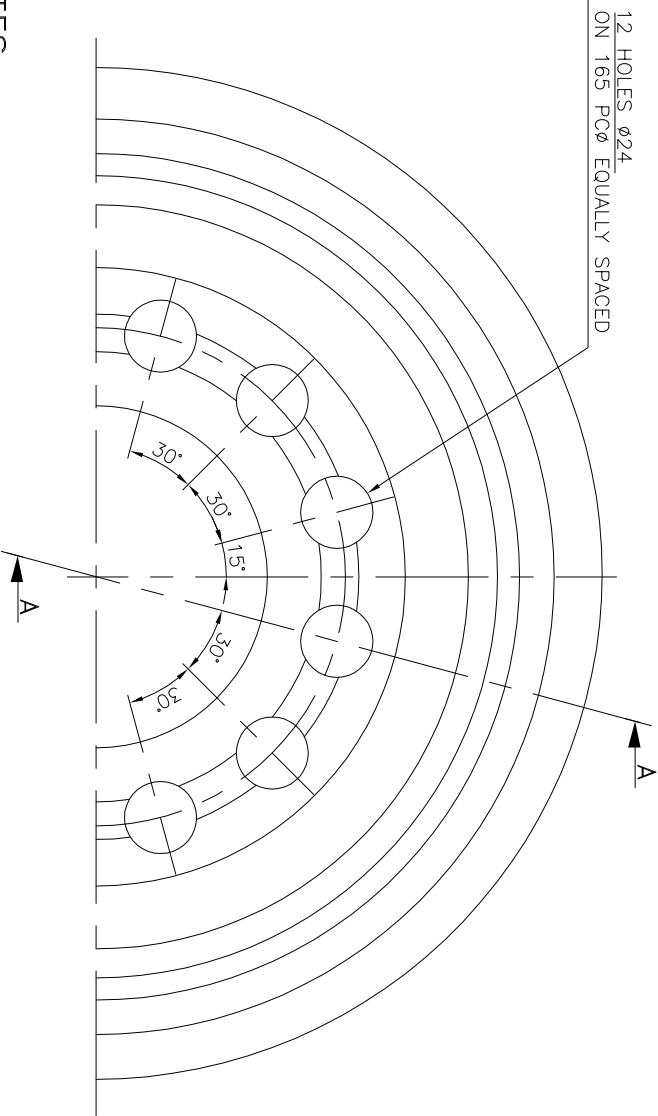
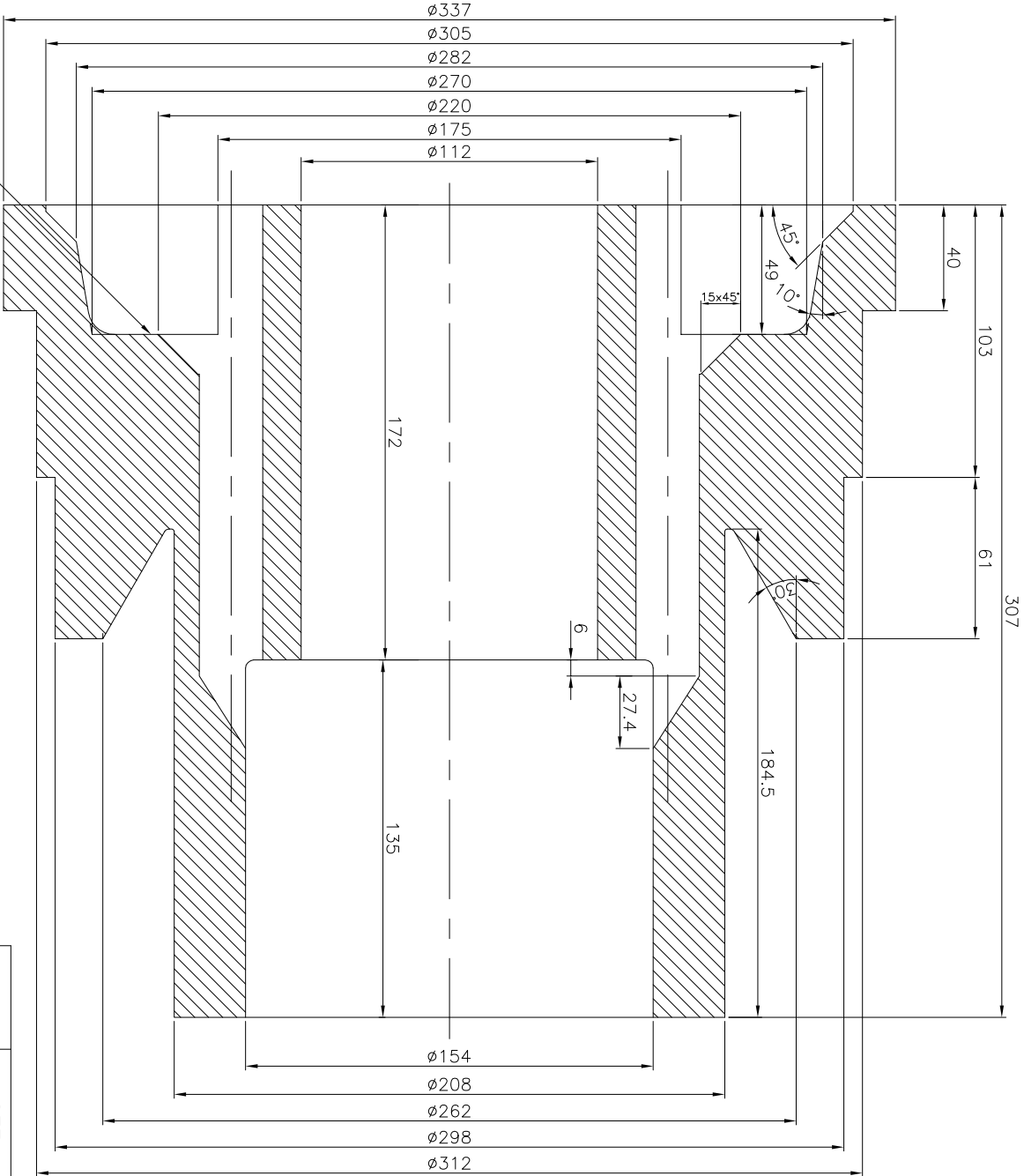
TOOL LIST

- NOTES:-

1. MACHINE ALL OVER. ✓
2. DIA'S MARKED THUS * TO BE CONCENTRIC TO EACH OTHER WITH IN 0.03 TIR
3. FOR ROUGH MACHINED CASTING AND ROUGH MACHINED FORGING DIMENSIONS :-
REFER CHAIN DOTTED LINES SURFACE FINISH - $\frac{6.3}{\sqrt{ }}$
- TOLERANCE :- ± 0.5 MM -
4. 12 HOLES $\phi 24$ AS SHOWN TO BE MADE IN RM/GD FOR FORGING & RM/GD CASTING
5. ALL CORNER RADII SHALL BE 0.5 MM TO AVOID SHARPNESS EXCEPT WHERE STATED.
6. ALTERNATIVELY IT 001 CAN BE MADE FROM CASTING TO BHEL SPEC. AA 19512.
7. ROUGH MACHINED CASTING TO BE ULTRASONICALLY TESTED TO AA 08501104 ROUGH MACHINED FORGINGS TO BE ULTRASONICALLY TESTED TO AA 08501118 GATE 60072.
8. EACH COMPONENT SHALL BE LEGIBLY MARKED WITH THE FOLLOWING INFORMATION BY MACHINING SUPPLIER:
 - a) SUPPLIER'S NAME.
 - b) SUPPLIER'S UNIQUE 4 DIGIT IDENTIFICATION CODE.
 - c) BHEL PO NO.
 - d) MONTH & YEAR OF FINAL MACHINING.

400 08 24 624 2 ON DRG

STYLE NO.		ST.NO.
IT.NO.	DESCRIPTION	
001	COMMR HUB & END PLATE (ROUGH M/CD)	BP9204716894



NOTES:-

1. TOLERANCE ON ROUGH M/CD CASTING/FORGING TO BE $\pm 0.5\text{MM}$.
2. CASTING TO BE SAND/SHOT BLASTED.
3. CASTING TO BE PAINTED WITH RED OXIDE PRIMER PAINT TO TM94217.
4. EACH ROUGH MACHINED FORGINGS TO BE ULTRASONICALLY TESTED TO AA0850118 CATEGORY2.
5. CASTING TO BE STRESS RELIEVED.
6. SURFACE FINISH ON ROUGH M/CD CASTING/FORGING IS $\nabla^{3/}$.
7. QAP FOR CASTING TO BE AS PER QTM/QAP/YENDER/13-14/001 (LATEST REVISION).

SECTION - 'AA'






SEE NOTE-8

8. EACH CASTING SHOULD HAVE INDIVIDUAL DISTINCT NUMBER EMBOSSED BY THE FOUNDRY SO AS TO ENSURE ITS TRACEABILITY. A SAMPLE MARKING ON CASTING IS GIVEN BELOW:
AT LEAST TWO LETTER INITIAL OF THE FOUNDRY + TWO DIGITS OF YEAR OF MANUFACTURING CODE + 4 DIGITS OF UNIQUE SERIAL NUMBER + AT LEAST TWO DIGITS OF CUSTOMER CODE FOR THE FOUNDRY+ HEAT NO.)
(EXAMPLE:BHEL/06/3991/BHEL/258).
9. MACHINE ALL OVER.
10. ALTERNATIVELY IT:001 CAN BE MADE FROM CASTING TO BHEL SPEC. TM10583.
11. NDT TEST TO BE DONE ON EACH ROUGH MACHINED CASTING AS PER REQUIREMENT OF CLAUSE 12.0 OF BHEL SPEC. TM10583

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

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

SEE NOTE-10 PATTERN NO.-1245565		001	COMMR HUB & END PLATE (FORGING)			BP94047170317	85	
VAR 00	REMARKS	VAR NO.	ITEM NO.	DESCRIPTION	DRAWING NO.	IT.NO.	MATL. CODE	UNIT WT.
						32	34	68
						VAR	MATL. SPCN.	QTY.

ADDITIONAL INFORMATION				TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT				TM4303BY/DY							
STATUS OF DRAWING				25KV BG AC EMU/1400 HP DEMU											
DISTRIBUTION OF PRINTS TME- 1 TXM- 4 TNX- 1				<div><div><div>भारत भारती</div><div></div></div><div>BHARAT HEAVY ELECTRICALS LTD. BHOPAL</div></div>				DRN A.JHARIA		SIGN 		DATE 16.04.14		NO. OF VAR.	
				CKD A.S.				16.04.14							
				APPD A.S.				16.04.14							
REV.		DATE		DEPT. T.M.E.		GRADE OF UN.TOL.		SCALE		WEIGHT(K.G.)					
01		20.10.14		CHECKED APPD.				NTS		85					
STYLE NO. BP9204716894 ADDED.				TITLE COMM R HUB & END PLATE (ROUGH M/CD)											
				DRAWING NO. 3 439 42 80 007				REV. 03							
SHT. NO.		01		NO. OF SHT.				01							