FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm.)

DRAWING NO. 14394037002

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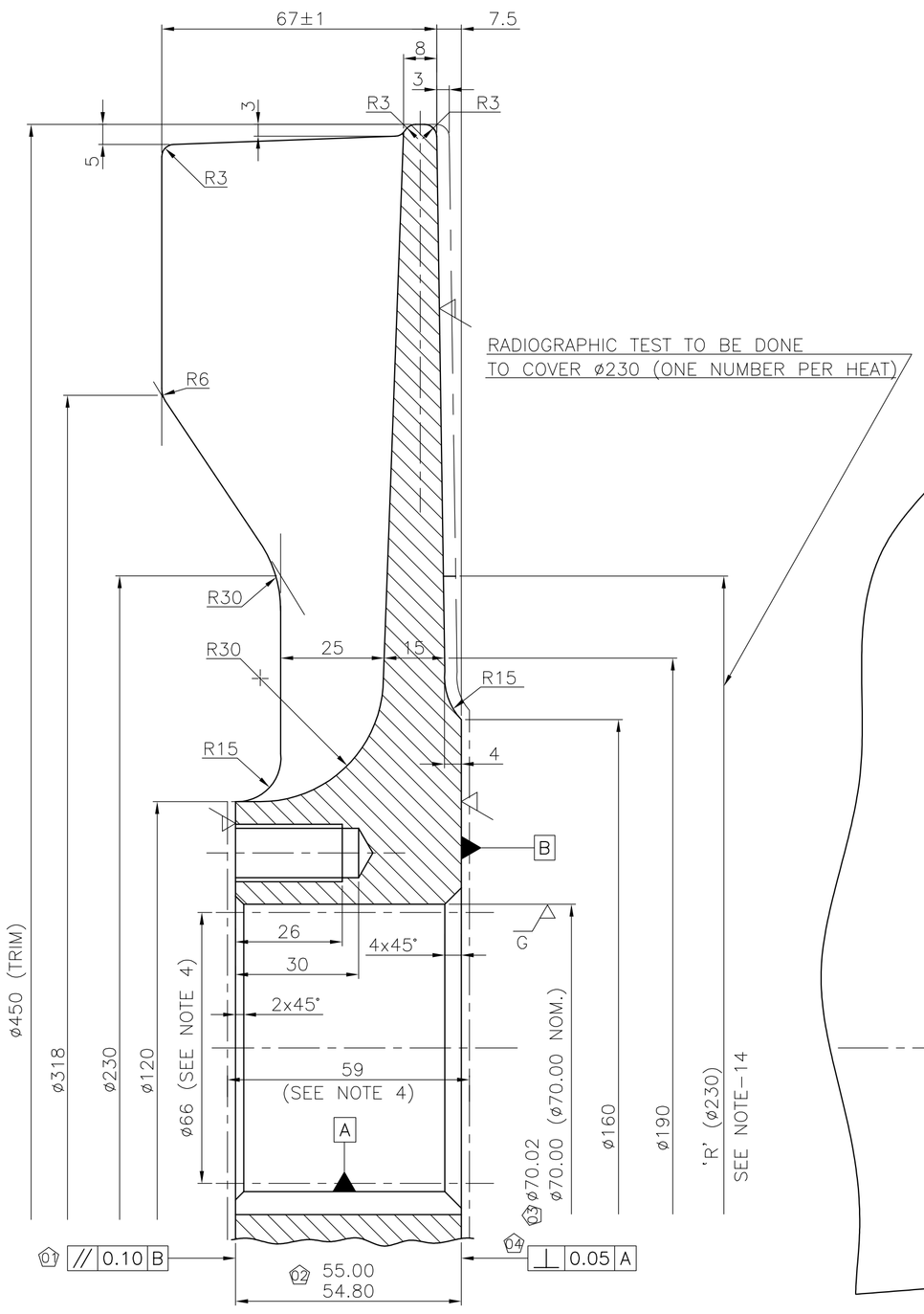
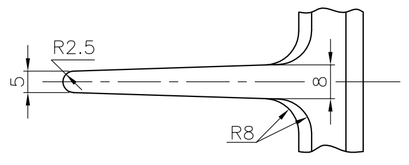
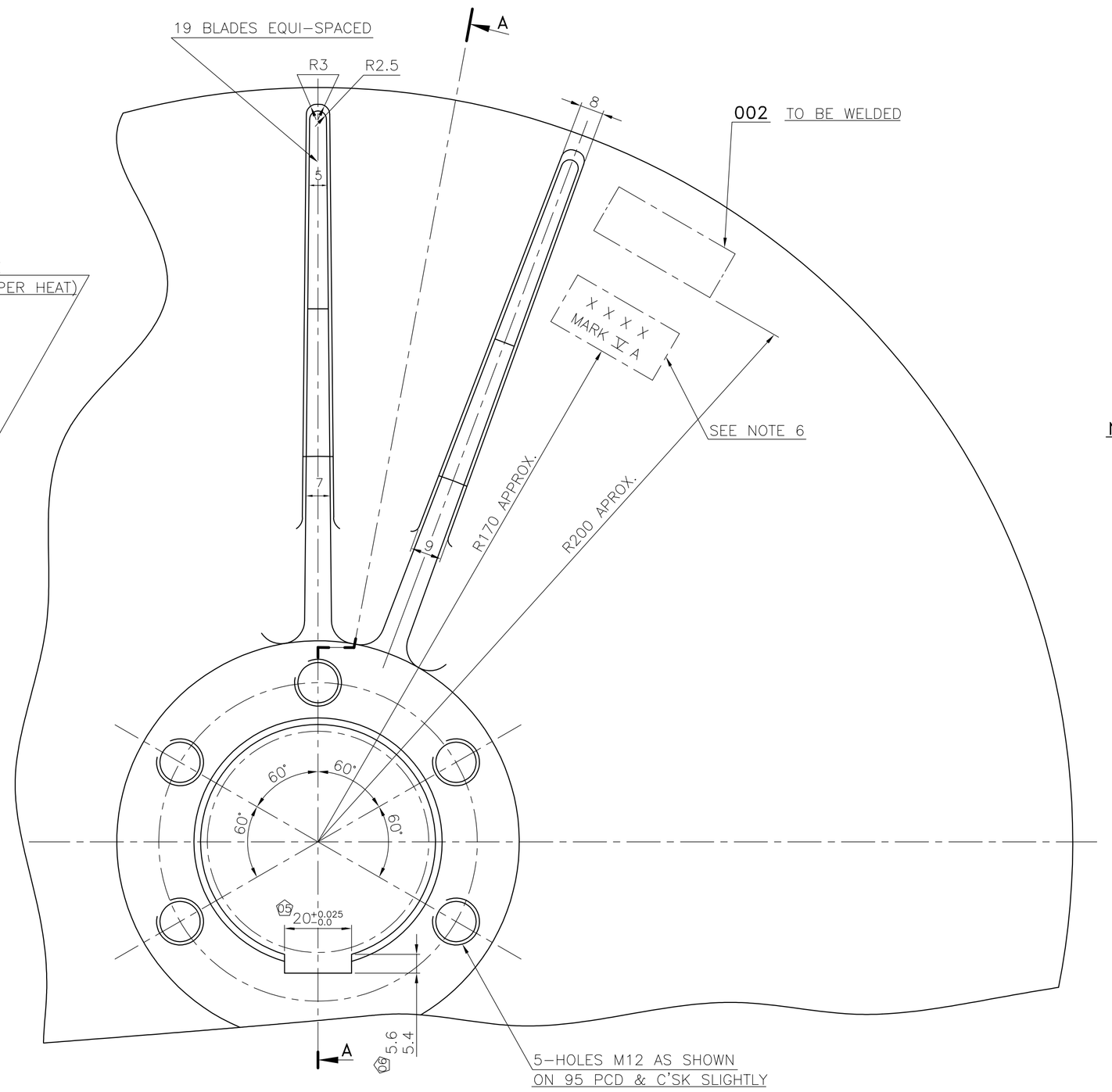


SECTION–'AA'





GAUGE LIST					
ITEM	LIMIT	NOM SIZE	SYM.	TOOL NO.	TYPE
001	55.00/54.80	–	–	1458164	SNAP
001	70.02/70.00	–	–	1458208	PIN

TOOL LIST		
ITEM	TOOL NO.	DESCRIPTION
001 002	1458163	DRILL JIG FOR 5 HOLES
001 002	1406969	KEY WAY CUTTER 20+0.028
	1406974	DYNAMIC BALANCING MANDREL

STYLE LIST		
SL.NO.	DESCRIPTION	ST.NO.
001	FAN M/CD	BP9094762145

NOTES:–

1. FAN TO BE GIVEN AN ACCURATE STATIC BALANCE BY THE ADDITION OF BALANCE WEIGHTS ITEM 002 OF SUITABLE SIZE.
2. ~~FACES TO BE PARALLEL TO EACH OTHER & SQUARE WITH THE BORE WITHIN TIR 0.05.~~
3. ALTERNATIVE MATERIAL FOR ITEM 001 M.I. TO AA19731. MARK ▽ B.
4. PROOF MACHINE TO CHAIN DOTTED LINES AS SHOWN.
5. CASTING TOLERANCES TO IS 4897 CL.–1.
6. MANUFACTURER'S SHORT NAME TO BE EMBOSSED HERE. ALSO EMBOSS MARK ▽ A OR ▽ B FOR CAST STEEL OR M.I. (ALT. MATERIAL SEE NOTE 3) RESPECTIVELY.
7. SHELL PATTERN NO. 1150013.
8. ~~ST. NO. 454274.~~
9. WEIGHT OF CASTING 37 KGS.
10. CASTING TO BE STRESS RELIEVED.
11. CASTING TO BE SAND/SHOT BLASTED.
12. SURFACE FINISH ON UN–MACHINED CASTED SURFACE TO BE AS PER IS:3073.
13. QAP FOR CASTING TO BE AS PER QTM/QAP/VENDOR/13–14/001 (LATEST REVISION).
14. NDT TESTS IN THE LOT SHALL BE DONE AS PER DETAIL GIVEN BELOW (MIN. ONE NO.) :–

SL.NO.	TYPE OF TEST	TEST SPEC.	ACCEPTANCE CRITERIA	QUANTUM OF INSPECTION IN THE LOT	
				T.P. (TASK PERFORMER)	BHEL Q.C. (MIN. QTY.)
001	D.P.	AA0850131	AA0850132 LEVEL–II	100%	20%
002	M.P.I.	AA0850133	AA0850134 LEVEL–II	100%	20%
003	RADIOGRAPHY ON PORTION "R"	ASTM E446	LEVEL–3	1 PER HEAT	2%

15. ALL 06 NOS. "⬠" MARKED DIMENSIONS ARE CRITICAL TO QUALITY (CTQ) & SL. NO. OF CTQ DIMENSIONS ARE INSCRIBED IN ⬠e.g.⑯.
16. a) CTQ DIMENSIONS TO BE CHECKED & ENSURED ON 100% JOBS.
    IF CTQ DIMENSION IS CHECKED BY GAUGE ON 100% JOBS, SAME SHALL BE ENSURED BY CHECKING THROUGH INSTRUMENT (IF FEASIBLE BY INSTRUMENT) ON RANDOM BASIS IN MIN. 10% JOBS OF THE LOT(MIN. 1 NO.).
    b) REMAINING DIMENSIONS TO BE CHECKED ON SAMPLE BASIS.
    c) QUANTUM OF INSPECTION IN THE LOT SHALL BE AS GIVEN BELOW (MIN. 1 NO) :–

SL.NO.	CHECKING PARAMETER		T. P. (TASK PERFORMER)	BHEL Q.C.
001	CTQ DIMS.	DIMENSIONAL TOLERANCE	100%	20%
		GEOMETRICAL TOLERANCE	100%	20%
002	REMAINING DIMS.		20%	5%

17. FAN TO BE PRIMER PAINTED TO AA56105 AS PER PROCESS SEPC. TM94217.

AS REQD.	SEE NOTE 1		002	BALANCE WEIGHT					
001	PATT.1245244 SEE NOTE 3,7		001	FAN C. STL. CASTING MARK ▽ A	1		BP9094761157	KG	25.00
							AA19511		
VAR □□	REMARKS	VAR ITEM NO.		DESCRIPTION	STD	DRAWING NO.	IT.NO.	MATL.CODE	UNIT WT.
							VAR	MATL SPECN.	QTY.
28 CARD TYPE-3			28 CARD TYPE-1				28 CARD TYPE-2		

ADDITIONAL INFORMATION
F 4626076

STATUS OF DRAWING

DISTRIBUTION OF PRINTS
TME–1 FYM–6
TXM–4
TNX–1

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT: TM4601 AZ/BZ & BY/BX A.C. EMU

BHARAT HEAVY ELECTRICALS LTD. BHOPAL

	NAME	SIGN.	DATE	NO. OF VAR.
DRN.	BHADAURIA	SD/–	21.12.88	01
CKD.	SGD	SD/–	22.12.88	
APPD.	SKB/SKS	SD/–	25.12.88	

DEPT. TME | CODE. 405 | UNTOL. DIMS. GR. M | AA0230208 | SCALE NTS | WEIGHT (K.G.) 25.0 | REF. TO ASSY. 0439403700 1 | ITEM NO. 017 | NO. OF ITEM 002

TITLE: FAN (CAST) (MARK ▽ A) M/CD

DRAWING NO. 14394037002 REV. 09

SHT NO. 01 | No.OF SHT 01

REV	DATE	ALTERED / CHECKED / APPROVED	INVENTORY No.	SIGN. & DATE	REF. DRG. NO.
09	16.06.16	A. JHARIA / R. CHAUDHARY / R. CHAUDHARY	NOTE–2 WAS ON. NOTES 10 TO 17 ADDED. IN SECTION–AA, GEOMETRICAL TOLERANCE ADDED IN PLACE OF NOTE–2. DRG. DIGITIZED. CTQ DIMS. MARKED BY "⬠".		
08	05.10.08	SKG / DK / DK	IN BOM IT.NO. 001 STYLE NO. & STYLE NO. TABLE WERE NOT ON. NOTE–8 WAS ON.		
07	28.01.02	–SD– / –SD– / –SD–	IN TOOL LIST TOOL NO.1406974 WAS NOT ON. (TCM294/85)		
06	22.07.99	–SD– / –SD– / –SD–	TOOL LIST TOOL NO. 1458207 WAS ON. TOOL NO. 1406969 WAS NOT ON. (TCM273/105)		
05	26.05.99	–SD– / –SD– / –SD–	D/8 DIM.20+0.025 0 WAS 19.950 19.975 .		
04	18.03.97	–SD– / –SD– / –SD–	NOTE–9 WAS NOT ON.		
03	04.05.96	–SD– / –SD– / –SD–	▽G WAS ▽ IN THE BORE. M/C REF. TM4601BY WAS NOT ON.		
02	23.01.93	–SD– / –SD– / –SD–	BOM UPDATED.		
01	03.11.89	–SD– / –SD– / –SD–	H/11 DIM.3 WAS NOT ON. CHAIN DOTTED LINE ON BACK PLATE WAS NOT ON. REVISED PER LETTER TXM/MP–04911579 DT 20.10.89.		

414851/2024/HEP-TXM20500