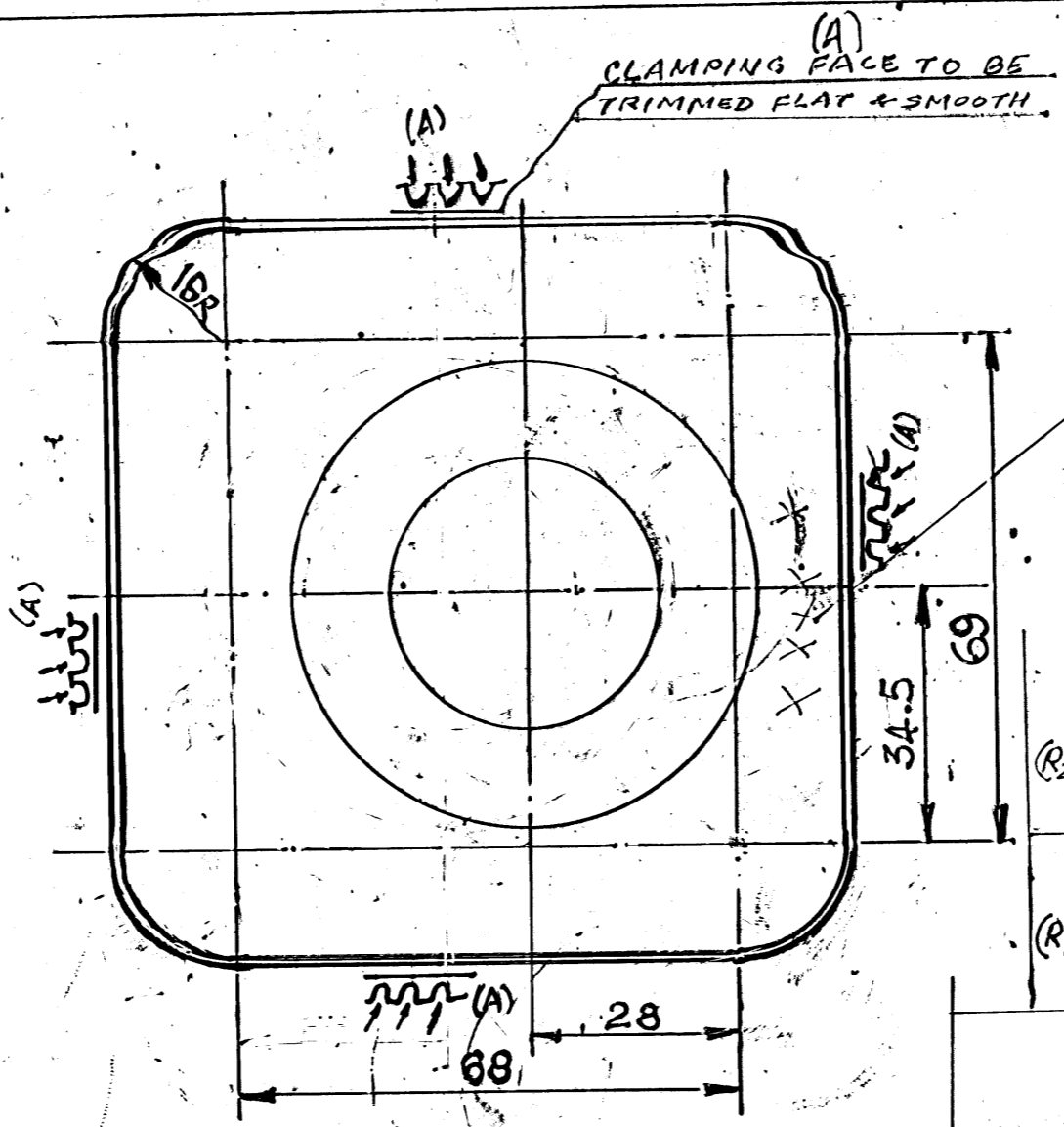
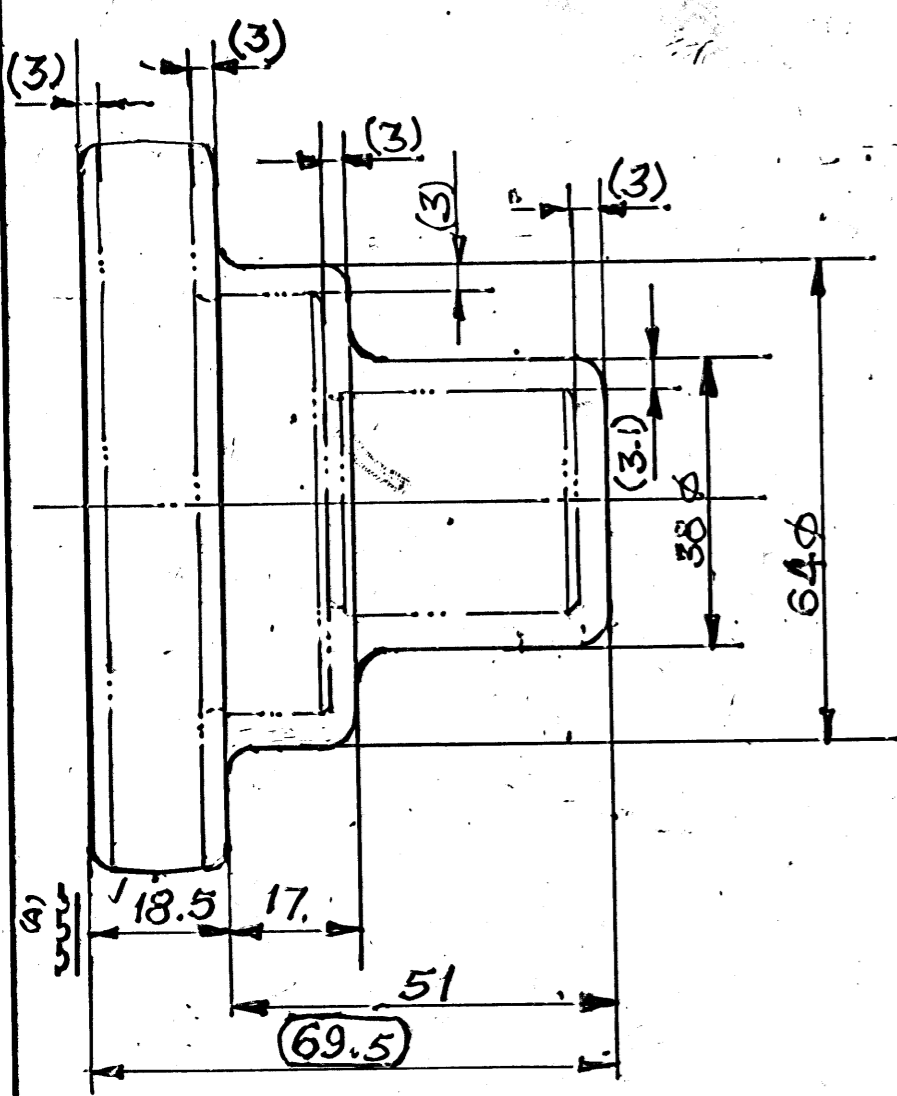


ALL DIMS ARE IN M.M.



DRG. NO., SUPPLIER'S INITIAL,  
MFG. MONTH & YEAR TO BE RAISED

(R2)	HARDNESS 140-187 BHN WAS 170-217 BHN CHANGE AS PER COMMENTS GIVEN BY JAGM/QAT ON DGM/TMM LINO. 740/TMM/TELCO/ENR 0082, DB. 19.7.03. K.L. @L	24.7.03	JWM/TDO
(R1)	DRAFT ANGLE 3° ADDED AS PER JT.GM/TMM LINO. 740/TMM/TELCO/ENR, DB. 11.3.03. K.L. @L	12.3.03	JWM/TDO
(B)	H.T. ISO-THERMAL ANNEALED WAS NORMALISED CHANGE AS PER DIN STANDARD & INSTRUCTION OF J.G.M/T. K.L. @L	9.3.2001	JWM/TDO
(A)	CLAMPING FACE & STOP FACE SHOWN & NOTE ADDED AS PER P/SCHEDULE. K.L. @L	22.8.99	JWM/TDO
INDEX	ALTERATION	DATE	SIGN

- NOTE:-
1. FORGING RIDGES TO BE TRIMMED CLEAN & SMOOTH FINISH ALL OVER
  2. FORGING TO BE SHOT BLASTED.
  3. FORGING TO BE COATED WITH RED OXIDE PRIMER TO JSS: 3-47-13 BY BRUSHING OR SPRAYING.
  4. SAMPLE TO BE APPROVED BEFORE BULK SUPPLY.
  5. DIM. IN BRACKET INDICATES MACHINING ALLOWANCE.
  6. STEEL SHOULD BE FREE FROM CENTRE SEGREGATION PIPING FLAKES ETC.
  7. DRAFT ANGLE - 3° (R1)
  8. UNSPECIFIED RADII. - 2.5R
  9. CLAMPING FACE & STOP FACE FOR 1<sup>ST</sup> MACHINING OPERATION.

MATL. 20 MnCr5	EQVT. MATL.
T13 SS 4027	
CHEMICAL COMPOSITION IN %	
ISO-THERMAL ANNEALED	
HEAT-TREATMENT: - NORMALISED - (A) 140-187 BHN (R2)	
HARDNESS: - 170-217 BHN (R2)	
MICRO-STRUCTURE: - FINE FERRITE & PEARLITE.	
GRAIN SIZE: - ASTM 5 OR FINER	
INCLUSION RATING: 3A B C D THIN SERIES OR FINER AS PER IS: 4163-1987. STEEL SHOULD NOT HAVE ANY LARGE INCLUSIONS OR A CONGLOMERATION OF INCLUSION.	

FORGING TOL. AS PER IS: 3469-74				
FORGING WEIGHT	ENVELOP WEIGHT	COMPLE. XITY.	INTRAC. OF MATL	FORGING GRADE
2.23	55kg	S2	M1	NORMAL
KIND OF DIM.	TOL.	KIND OF DIM.	TOL.	
LENGTH/DIA	+1.3 -0.7	RESIDUAL FLAT	0.8	
THICKNESS	+0.1 -0.5	TRIMMED FLAT	0.8	
MISMATCH	0.7	ANGULAR	+2° -1°	
STRAIGHTNESS	0.6	RADII.	+50% -25%	
INTERNAL DIMS. REVERSE SIGN. + & -				

DRN	TCD	CKD	JWM/TDO	JWM/PR	NM/HT	/MC	APPD
FORGING DRAWING							REF. DRG. No.
KING PIN UPPER							1:1 SCALE
AXLE LPTA 713							M/C
M/S TELCO							T.D.O
VEHICLE FACTORY JBP.							SECTION DATE
2574 3325 5102-3 (R2)							DEMANDED BY YCTPE NO. 138/TPE/LPTA- AGB-FA-RA/DRG. 110 Dt. 6.3.99
1313-2103							1/1 SHEET
30.6.024							CHANGE NO.