

1. Перекос (сдвиг осей штампов) до 0,7 мм.
2. Кривизна стержня до 1,0 мм.
3. Незаполнение углов в пределах 0,5 припуска.
4. Эллиптичность диаметров в пределах допусков.
5. Глубина поверхностных дефектов до 0,5 фактического припуска на обработку.
6. Завуленец по линиям разреза штампов до 1,5 мм на сторону и после обрэки затянутый торцевой до 2,0 мм по $\phi 50$ мм.
7. Размеры без допусков служат для построения и контроля не подвергаются.
8. Глубина клеев до 1,0 мм.
9. В скобках размеры чистой детали.
10. Разнотолстость головки по толщине в пределах 1,5 мм.
11. Допускается утолщение стержня под головкой до 2,2 мм на длине ≈ 60 мм.
12. Смещение оси головки относительно оси стержня до 0,1 мм.
13. Допускается перекос стержня до $\phi 27^{+0,2}$ мм.
14. Допускается изготовление из стали 18X2H4MA по ТУ 14-1-381-72 с твердостью ≈ 250 HB.

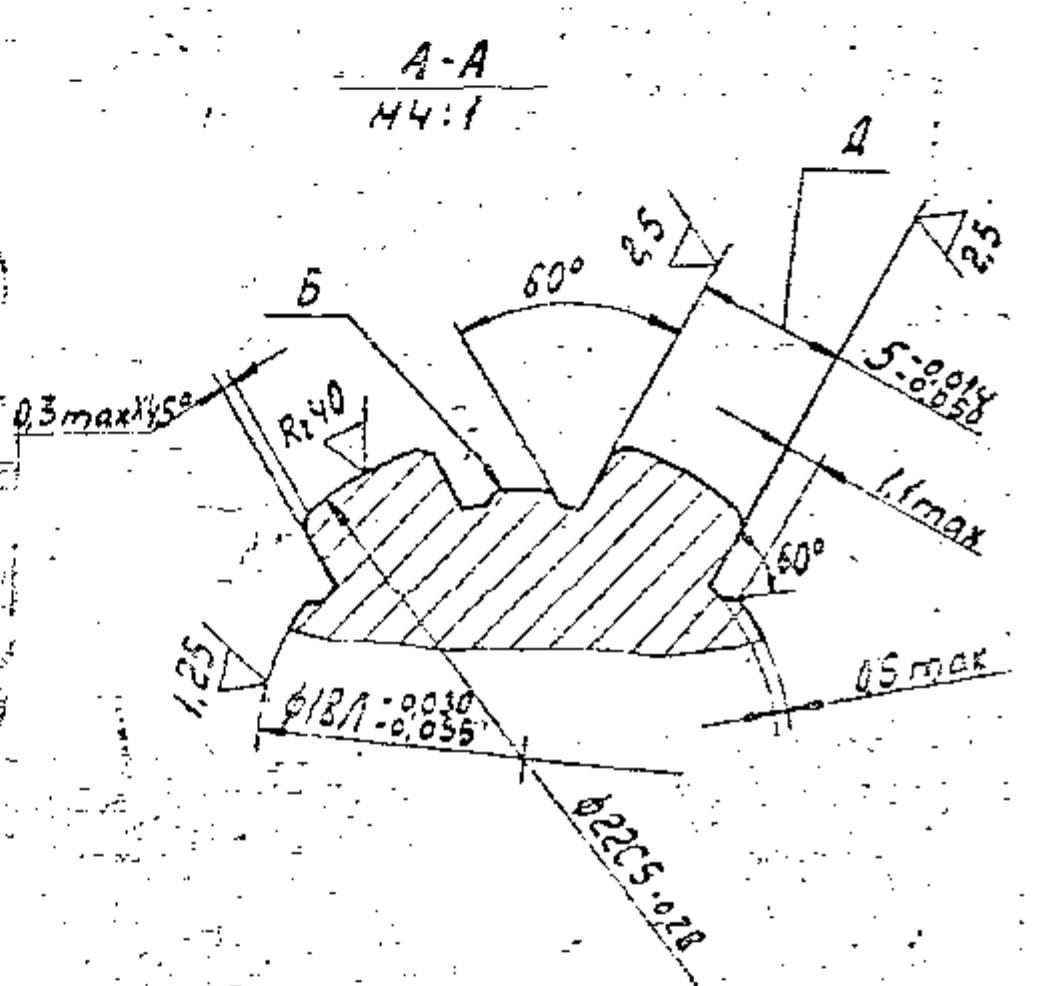
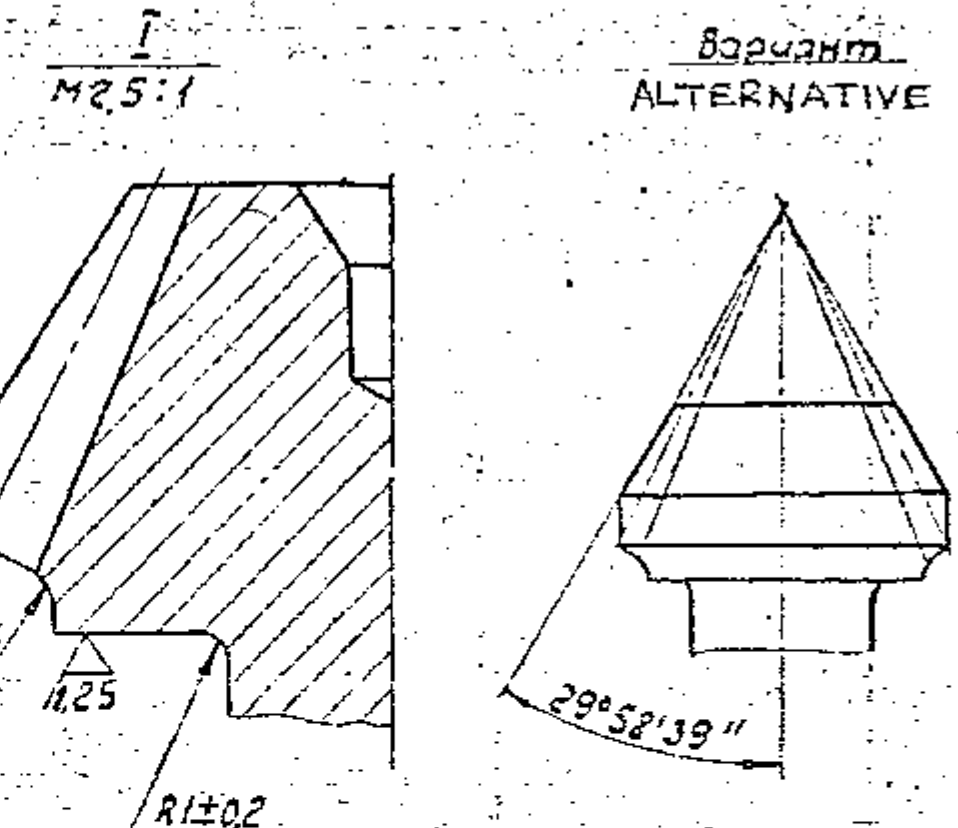
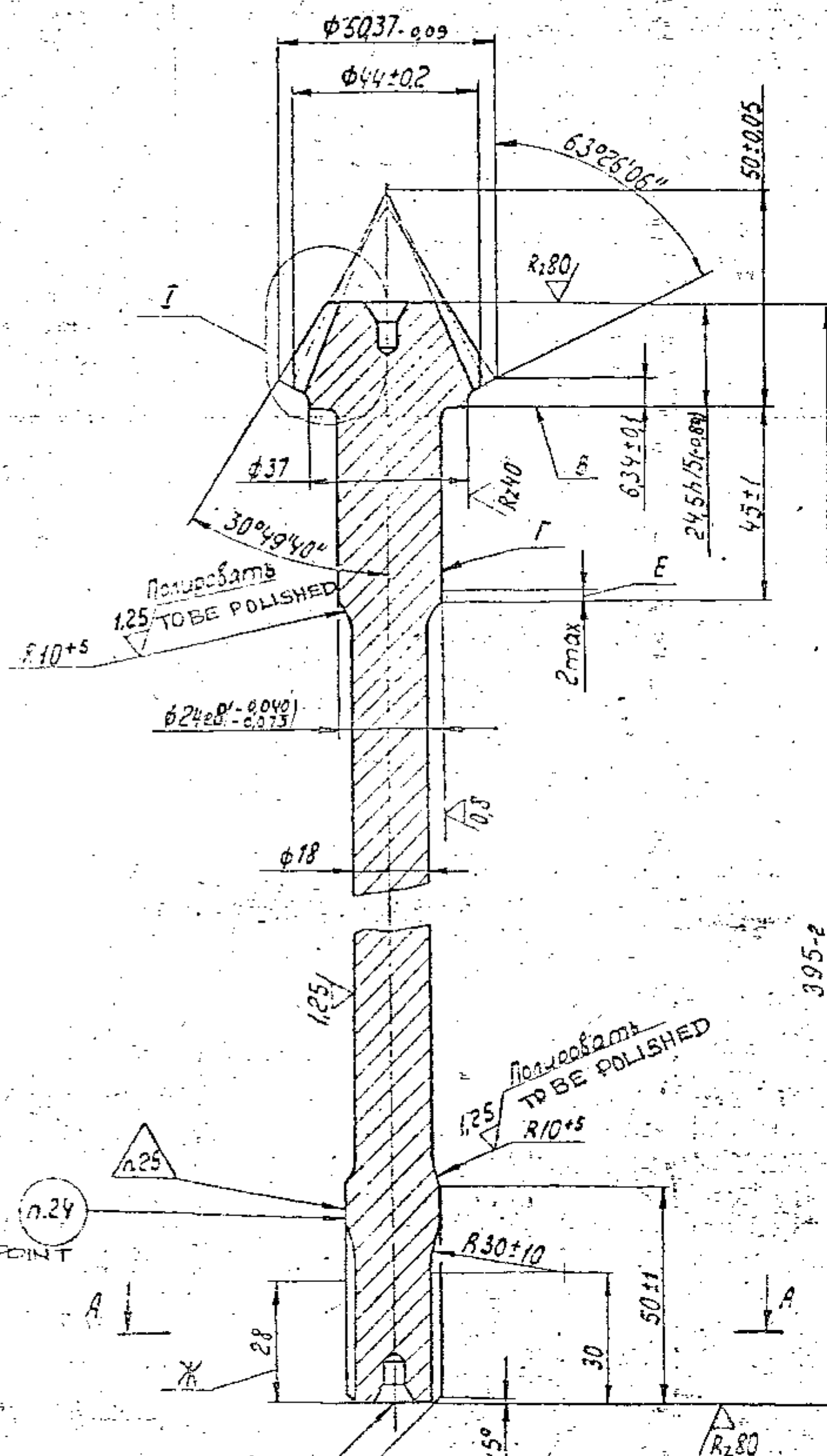
Согласовано:

ISSUE		DATE		REFERENCE	
②	30.5.44	DIM $\phi 52^{+2}$ WAS $\phi 50^{+2}$			
①	21.12.30	Jt C.M's letter Date 13.12.30			
APPROVED	[Signature]		MATERIAL: 18X2H4MA		
CHECKED	[Signature]		TU 14-1-381-72		
DRAWN	K. VANIL KUMAR		ENGINE FACTORY AVADI		

1. MISMATCH OF DIE AXES SHOULD NOT EXCEED 0.7MM.
2. CURVATURE OF THE BAR SHOULD NOT EXCEED 1.0 MM.
3. UNDERFILLING OF CORNERS SHOULD BE WITHIN 0.5 OF THE MACHINING ALLOWANCE.
4. ELLIPTICITY OF THE DIAMETERS SHOULD BE WITHIN THE TOLERANCES.
5. DEPTH OF SURFACE DEFECTS SHOULD NOT EXCEED 0.5 OF THE ACTUAL MACHINING ALLOWANCE.
6. FIN ALONG THE PARTING LINE OF THE DIES SHOULD NOT EXCEED 1.5MM PER SIDE AND AFTER TRIMMING, PRESSED-IN FIN ON FACE $\phi 50$ MM SHOULD NOT BE MORE 2.0MM.
7. DIMENSIONS WITH UNSPECIFIED TOLERANCES ARE PROVIDED TO AID IN CONSTRUCTION AND SHOULD NOT BE SUBJECTED TO INSPECTION.
8. DIMENSIONS GIVEN IN BRACKETS ARE OBTAINED AFTER MACHINING THE COMPONENT.
9. VARIATION IN THICKNESS OF THE HEAD IS TO BE WITHIN 1.5MM.
10. DIAMETER OF THE ROD UNDER THE HEAD MAY BE INCREASED BY 2.2MM MAX. OVER A LENGTH OF APPROX. 60MM.
11. OFF SET OF THE HEAD RELATIVE TO THE AXIS OF ROD SHOULD NOT EXCEED 0.7MM.
12. FULLERING OF THE ROD TO $\phi 27^{+0,2}$ MM-MAX. IS ALLOWED. MAY BE MANUFACTURED FROM STEEL 18X2 H4MA AS PER TY 14-1-381-72.
13. FORGINGS TO BE SUPPLIED, NORMALISED AT $940^{\circ}\text{C} + 20^{\circ}\text{C}$, HIGH TEMPERED AT $640^{\circ}\text{C} + 20^{\circ}\text{C}$. HARDNESS 207-255 BHN.

308-67.2

ECKQ



2 централья
AS ГОСТ 14034-74
2 CENTRE HOLE

A5
79

- INSPECTION GROUP III, TT-11
- GEAR TEETH AND SURFACES B AND Г SHOULD BE CARBURIZED: TOOTH $h=0.6\text{---}0.9\text{ mm HRC} \geq 54$; SURFACES B AND Г $h \geq 0.4\text{ mm HRC} \geq 50$.
- HRC 35-43 IS FOR UNCARBURIZED SURFACES.
- ALTERNATE MATERIAL: STEEL 18X2H4 MA TY 14-1-381-72
- UNSPECIFIED TOLERANCES FOR DIMENSIONS: HOLES AS PER H14 SHAFTS AS PER H14, OTHER DIMENSIONS AS PER $\pm \frac{IT14}{2}$.
- DIMENSIONS AND SURFACE FINISH OF SPLINES SHOULD BE MAINTAINED AT LENGTH *.
- DIMENSION D SHOULD BE MAINTAINED UP TO THE POINT OF INTERSECTION WITH THE DIAMETER OF SURFACE Б.
- SHARP EDGES OF GEAR TEETH SHOULD BE ROUNDED OFF WITH RADIUS R2 OR BLUNTED WITH CHAMFER $0.2 \times 45^\circ$.
- PROFILE OF TRANSITION CURVE IN THE GEAR TOOTH SPACE SHOULD BE ENSURED WITH A TOOL HAVING A FILLET RADIUS INDICATED IN THE TABLE OF PARAMETERS.
- RUNOUT OF THE REFERENCE CONE OF THE TOOTHED RIM RELATIVE TO THE AXIS OF SURFACE Г SHOULD NOT EXCEED 0.08 MM. DURING THE CHECK THE MEASURING TOOL SHOULD BE REST AGAINST FACE B.
- RUNOUT OF THE TEETH TIP CONE RELATIVE TO THE AXIS OF SURFACE Г SHOULD NOT EXCEED 0.08 MM BEFORE THE HEAT TREATMENT. DURING THE CHECK THE MEASURING TOOL SHOULD BE REST AGAINST SURFACE Б.
- FACE OUT OF SURFACE Б RELATIVE TO THE AXIS OF SURFACE Г SHOULD NOT EXCEED 0.02 MM ON $\phi 35$ MM.
- RADIAL RUNOUT OF SURFACE Б RELATIVE TO THE AXIS OF CENTRES SHOULD NOT EXCEED 0.03.
- SURFACE Б SHOULD BE CHECKED BY BLUEING THE IMPRINT SHOULD BE EVENLY FORMED ON AT LEAST 80% OF THE SURFACE.
- THE COMPONENT SHOULD BE CHECKED FOR DEFECTS BY MAGNETIC FIELD FLOW DETECTOR. TECHNICAL REQUIREMENTS AND ACCEPTANCE RULES SHOULD BE IN ACCORDANCE WITH TECHNICAL REQUIREMENTS UB-17.
- TECHNICAL REQUIREMENTS AND ACCEPTANCE RULES OF SPLINES ARE IN ACCORDANCE WITH INSTRUCTIONS UB-19.
- MESHING SHOULD BE CHECKED BY BLUEING AND ROLLING WITH STANDARD GEAR IN ACCORDANCE WITH INSTRUCTIONS UB-19.
- THE QUALITY OF ENGAGEMENT OF TEETH IS TO BE CHECKED BY IMPRINT OF PAINT USING TOOTHED MASTER GEAR IN ACCORDANCE WITH THE INSTRUCTION UB-13.

- TEETH THICKNESS MAY NOT BE CHECKED WHEN GEAR TEETH ARE CHECKED AS PER INSTRUCTIONS UB-13.
- THE FACE OF TOOTHED RIM AND CENTRE HOLES MAY BE CARBURIZED.
- CARBURIZATION MAY NOT BE DONE AT LENGTH E.
- THE INCREASED DEPTH OF THE ROOT OF GEAR TOOTH LEFT AFTER PRELIMINARY CUTTING SHOULD NOT EXCEED PROVIDED THE TOOTH IS NOT UNDERCUT.
- INCREASED DEPTH OF THE ROOT OF GEAR TOOTH IS PERMITTED IF THE TEETH ARE CUT WITH TWO DISC CUTTERS $\phi 276$ MINIMUM.
- WHEN INTENDED AS SPARES; COATING: CHEMICAL OXIDIZING, OIL FINISHING.
- WHEN INTENDED AS SPARES THE MANUFACTURER'S CODE AND DESIGNATION, OF COMPONENTS SHOULD BE MARKED BY ELECTRIC ETCHING.
- TO BE MARKED BY PUNCHING. MAY BE MARKED BY ELECTROCHEMICAL METHOD AS PER INSTRUCTION PM-32 OR BY ELECTRIC ETCHING.

TIP CIRCLE MODULE		Me	3.75
NUMBER OF TEETH		Z	12
TYPE OF TEETH			STRAIGHT
BASIC RACK	PROFILE ANGLE	α_r	20°
	COEFFICIENT OF ADDENDUM	h_a^*	0.8
	COEFFICIENT OF RADIAL CLEARANCE	c^*	0.2
	FILLET RADIUS	f_e	1-0.3
MODIFICATION COEFFICIENT		x_e	0
CORRECTION COEFFICIENT OF TOOTH THICKNESS		x_z	0
ANGLE OF REFERENCE CONE		δ	$28^\circ 33' 54''$ ©
ACCURACY			
TOOTH THICKNESS ALONG CHORD		S_e	$5.87_{-0.16}$
CHORDAL HEIGHT		h_a	3.18
SHAFT ANGLE		Σ	90°
ROOT CONE RADIUS		R_e	50.312
ROOT CONE ANGLE		δ_f	$22^\circ 18' 08''$
REFERENCE DIAMETER		d_e	45°
TOOTH HEIGHT		h_e	6.75
MATING WHEEL DRAWING DESIGNATION			307-07-2

DESIGNATION OF HOLE AS PER GOST 1139-58	$d_6 \times 18 \times 22 A-S_1 X$
NUMBER OF TEETH	6

Pilot sample should be approved by JHS P-DEPT. (INDICATION)		1.025 Kg.	
C	1939 AS PER ORIGINAL	ALL DIMENSIONS AND CORRECTIONS TO BE INDICATED UNLESS OTHERWISE STATED. DIMENSIONS TO HAVE H UNLESS H DIMENSIONS ARE OTHERWISE SPECIFIED.	
B	12.000 SGT CORRECTION	MATERIAL - STEEL 18X2H4 MA TY 14-1-381-72	
A	20100 AUTHY No. BR 86-62	SCALE: 1:1	
ISSUE DATE	NATURE OF AMENDMENTS	CONTROL UNIT OF QUALITY ASSURANCE (BY VEHICLES)	
END	DIMENSIONS IN mm	TITLE OBLIQUE SHAFT	
TCD	TOLERANCE ON DIMS UNLESS OTHERWISE STATED	DRAWING NUMBER 308-67-2	
DATE 15/6/82	ALL THREADS TO STANDARD	P. 5/11	