

Б-Б

For conical gear pinion Z = 36

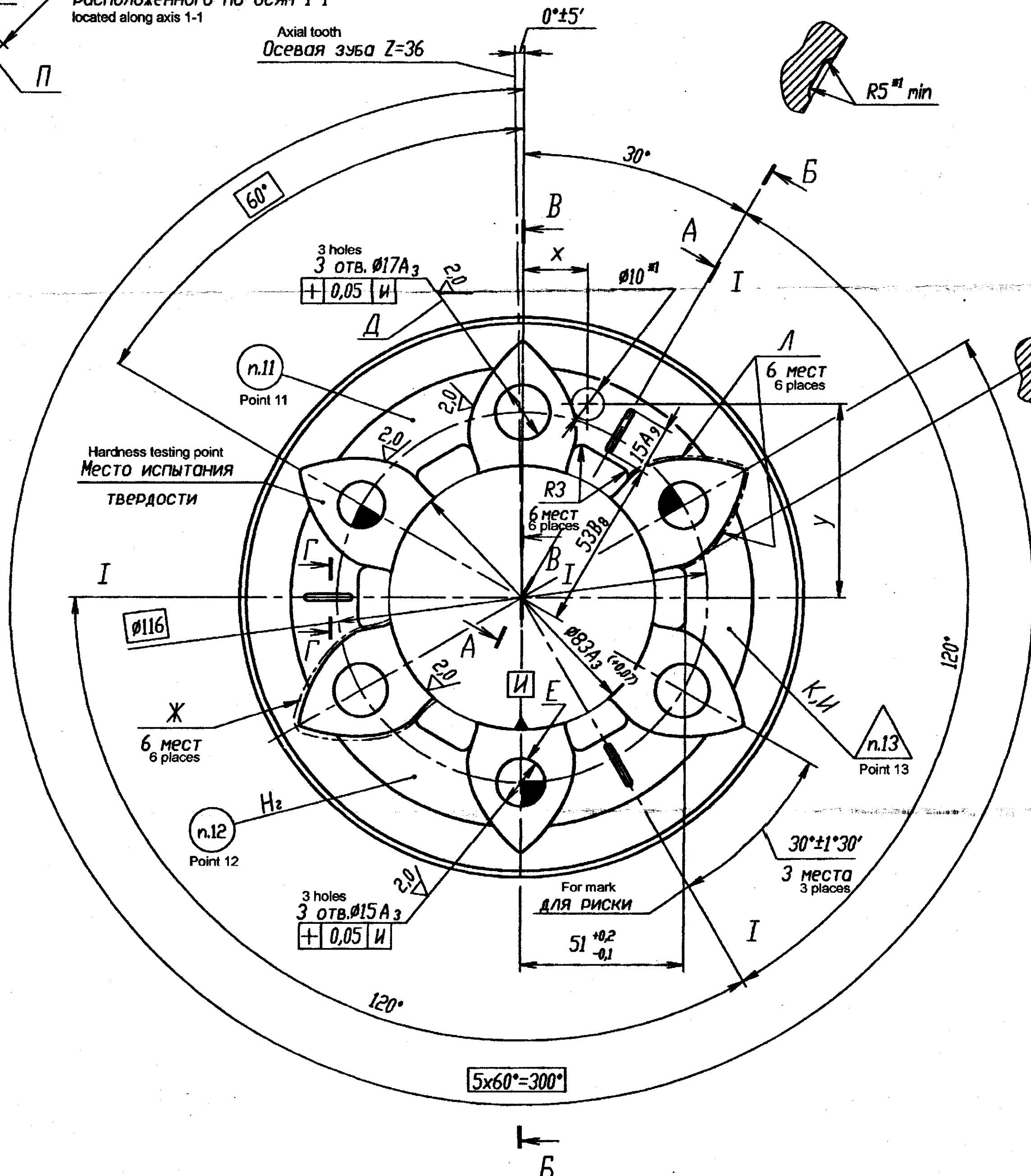
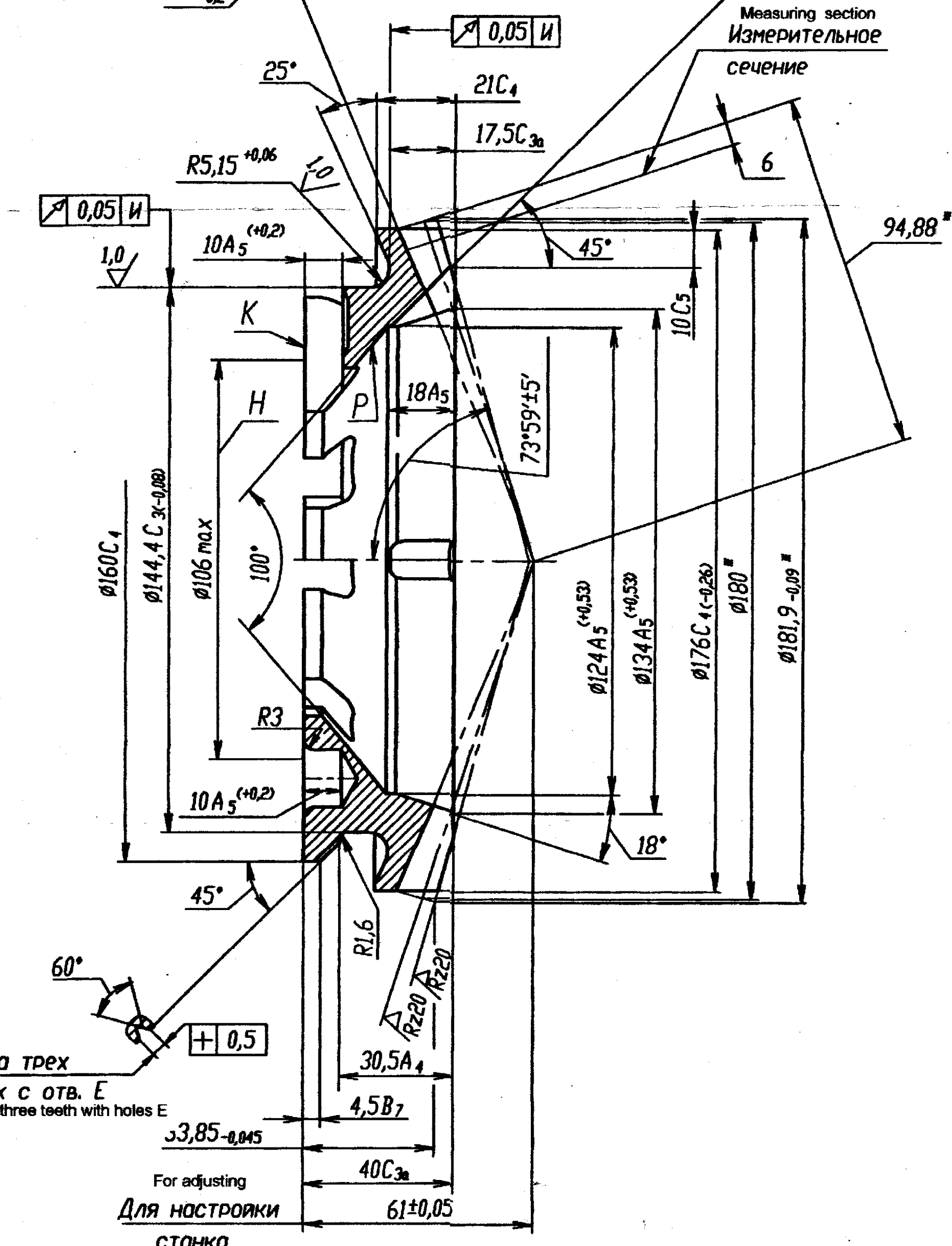
Для зуба конической шестерни Z=36  
расположенного по осям I-I  
located along axis I-I

Axial tooth  
Осевая зубя Z=36

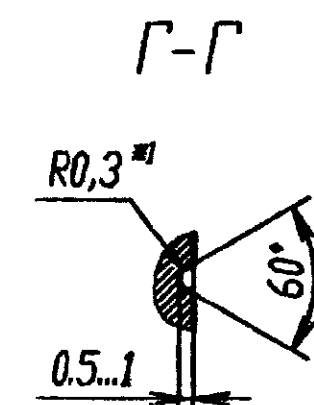
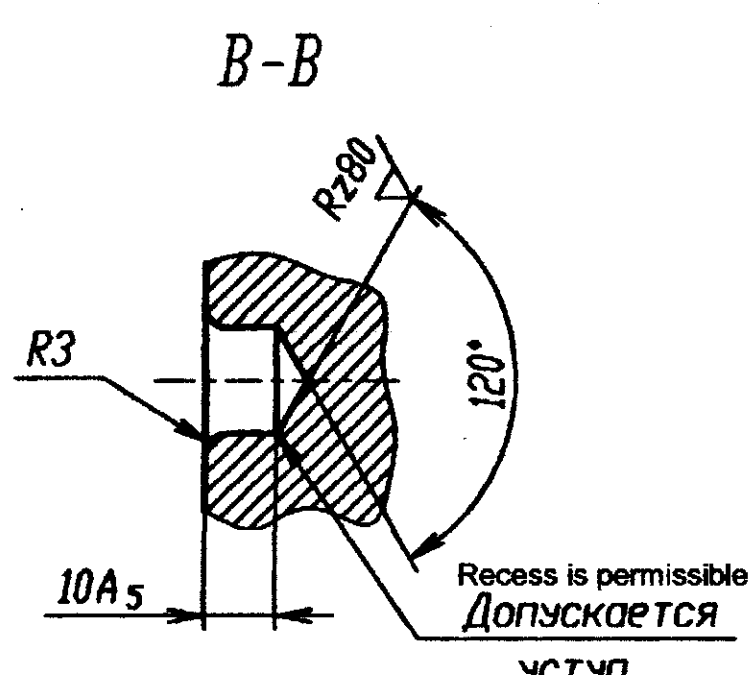
A-A

Finish recess and radius before heat treatment  
Впадину и радиус полировать  
перед термообработкой.  
Следы от режущего инструмента  
не допускаются.  
Traces of cutting tool is  
not permissible

Measuring section  
Измерительное  
сечение



По контуру А  
Along contour L

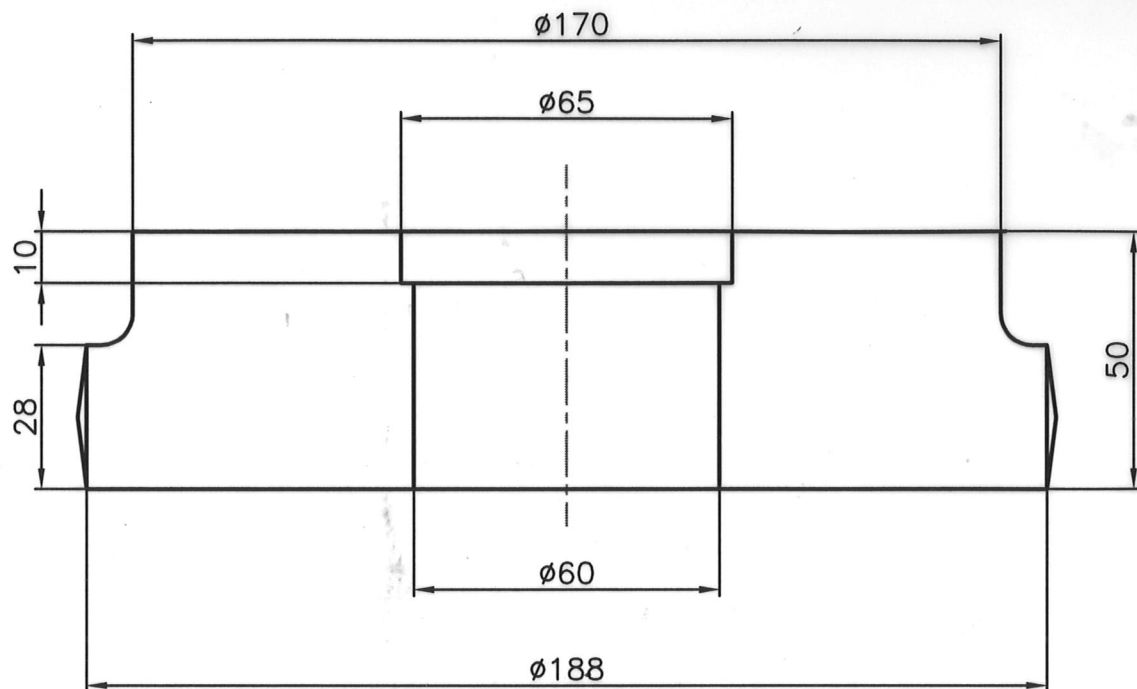


Y	X	ΔX	Y	X	ΔX	Y	X	ΔX
40	18,66	0,35	55	21,38	-0,14	70	15,67	-0,63
41	19,01	0,34	56	21,24	-0,18	71	15,04	-0,66
42	19,35	0,34	57	21,06	-0,21	72	14,38	-0,69
43	19,69	0,33	58	20,85	-0,25	73	13,69	-0,72
44	20,02	0,33	59	20,60	-0,29	74	12,97	-0,75
45	20,35	0,32	60	20,31	-0,32	75	12,22	-0,78
46	20,67	0,31	61	19,99	-0,36	76	11,44	-0,82
47	20,98	0,28	62	19,63	-0,39	77	10,62	-0,86
48	21,26	0,18	63	19,24	-0,42	78	9,76	-0,90
49	21,44	0,09	64	18,82	-0,45	79	8,86	-0,95
50	21,53	0,04	65	18,37	-0,48	80	7,91	-1,00
51	21,57	0,01	66	17,89	-0,51	81	6,91	-1,05
52	21,58	-0,03	67	17,38	-0,54	82	5,86	-1,12
53	21,55	-0,07	68	16,84	-0,57	83	4,74	-1,24
54	21,48	-0,10	69	16,27	-0,60	84	3,50	-1,46
						85	2,04	

Outer circular modules	m <sub>e</sub>	5
No. of teeth	Z	36
Type of teeth	-	Straight
Basic rack	-	ГОСТ 13754-81
Addendum modification coefficient	x <sub>e</sub>	-0,4
Pitch angle	δ	71°33'54"
Accuracy level as per GOST 1758-81	-	7-B
Fixed chord	S <sub>c</sub>	5,292 <sup>+0,11</sup> <sub>-0,2</sub>
Height up to fixed chord	h <sub>c</sub>	1,79
Spot contact, should not be less than	On length	60%
	On height	60%
External fixed chord	S <sub>ce</sub>	5,649 <sup>+0,11</sup> <sub>-0,2</sub>
Height up to external fixed chord	h <sub>ce</sub>	2,04
Root cone angle	δ <sub>f</sub>	66°44'
Angle of tooth base mergence line	β <sub>f</sub>	3°40'
Drawing designation of mating of ring	-	9-A-621.06.001 9-A-621.06.008

- 43.5...51.5 HRCe.
- \* Dimensions for reference.
- \* Dimensions are ensured by tool.
- Buckling of surface K on section H not more than 0.2 mm after heat treatment is permissible.
- Tolerance along contour Ж 0.1 mm from holes Д and И.
- Internal angle R = 0.4 mm
- Blunt edges and tooth vertex R = 0.8 mm.
- Shot blast clean the surfaces of teeth Z = 36. Traces of shots on remaining surfaces is permissible.
- Coating : Cad 9 Phos/ Impreg. Adhesive БФ-4 GOST 12172-74, 1 layer.
- Fill the marks with black enamel ПФ-115 GOST 6465-76.
- Mark the inscription "47 balls" by engraving with letter size PO-5 GOST 2930-62. Fill the inscription with black enamel ПФ-115 GOST 6465-76.
- Mark with letter size PO-5 GOST 2930-62.
- Stamp.
- Traces from tool during markings the groove П on surface P is permissible as per test specimen.
- Marks with surface finish Rz20 on surfaces E, Д is permissible.

9-A-621.06.009						
Amend	Sheet	Doc. No.	Sign	Date	Type	Weight
					Pinion	2.13
					Scale	1:1
					Sheet	Sheets 1
					Steel 30KhRA	
					OST 3-98-80	



- 1> Heat treatment - normalization .
- 2> Dressing from scaling - pickling .
- 3> Displacement in joint plane should not be above 1.1 mm.
- 4> Remaining burrs on line on stamp joints should not be more than 1.3 mm.
- 5> Oscillation should not be more than 0.6 mm.
- 6> Surface defects with depth should not be more than 0.7 mm .
- 7> Unspecified stamping deviation not more than 7°.
- 8> Unspecified radii 3.0 mm .
- 9> Allowance as per II class GOST 7505-74
- 10> Tolerance as per II class GOST 7505-74  
 Vertical  $\begin{matrix} +1.8 \\ -0.9 \end{matrix}$   
 Horizontal  $\begin{matrix} +2.2 \\ -1.3 \end{matrix}$  Die forging .
- 11> Number of components with forging 1 piece .
- 12> Dimensions in brackets - for machining .
- 13> Face burrs should not be more than 7 mm .

## GEAR-BOX

MATL. RUSSIAN ORIGN - STEEL 30khRA  
 OST 3-98-80  
 INDGNS. EQUIVALENT: AS PER CQA(MET)  
 STEEL 25cr13M06  
 IS: 4367-91  
 (Secondary refined steel)

ALL DIMENSIONS ARE IN MM.  
 UNTOL DIMNS. ARE AS PER IS:2102.

1	NO. OFF	STEEL 30khRA OST 3-98-80	
ITEM NO.	NO. OFF	MATERIAL	DESCRIPTION

### LIST OF PARTS

SCHEDULE NO. :		Compt. : GEAR BOX	St. Drg. No. :
SCALE : 1:1	PROJECTION THIRD ANGLE	9A-621.06.009	AO-18 for AK--630 GUN.
DRAWN BY:		<b>STAMPING FOR GEAR BOX</b>	
TRACED BY:			
CHECKED BY:			
APPROVED BY:			
APPROVED BY:		DRG. NO.: F-2296	
DT. & SG.	DESCRIPTION	APPROVED BY:	NO. OF SHEETS:
AMENDMENT	DATE:	SIGR.:	G & S FY. COSSIPORE SHEET NO.: 1