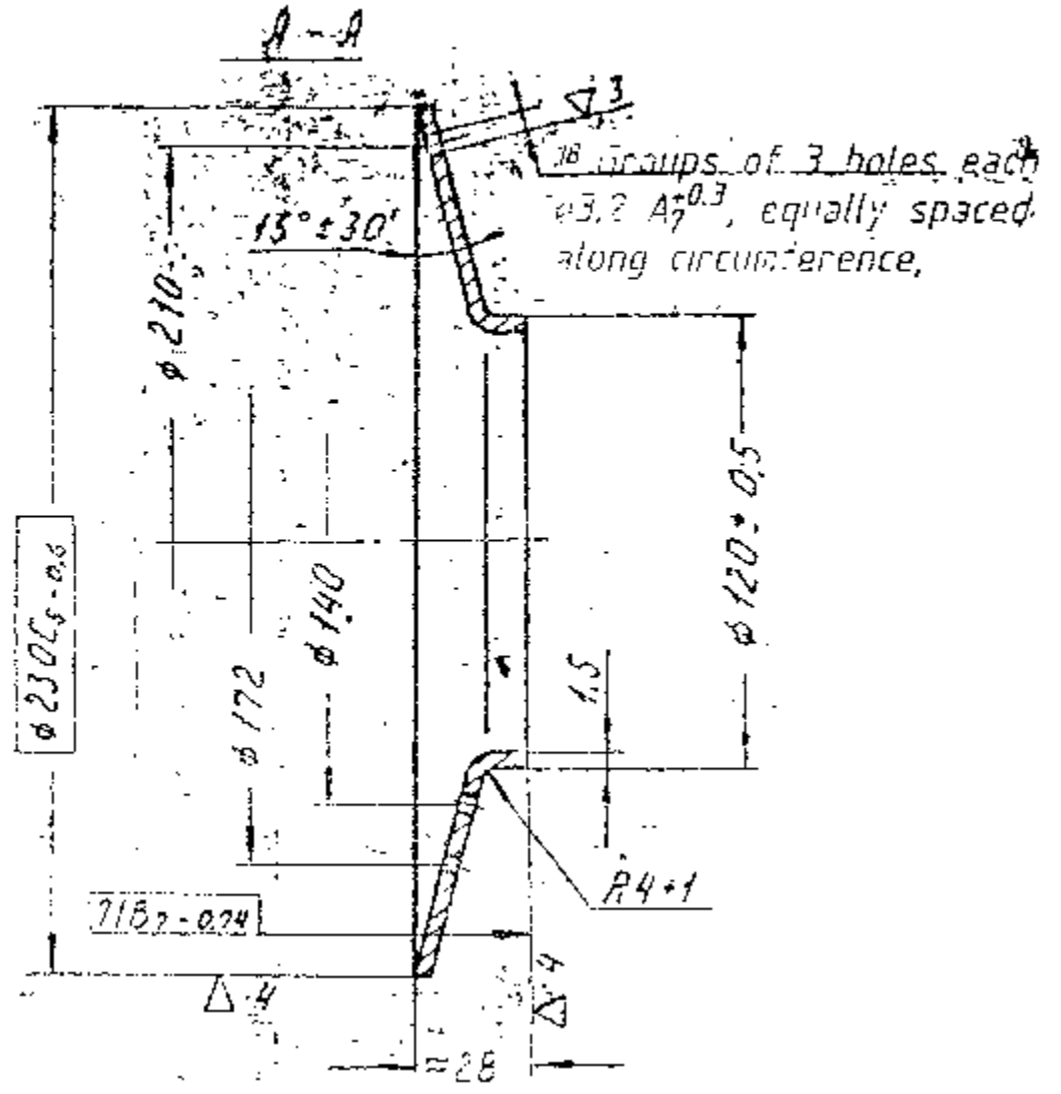
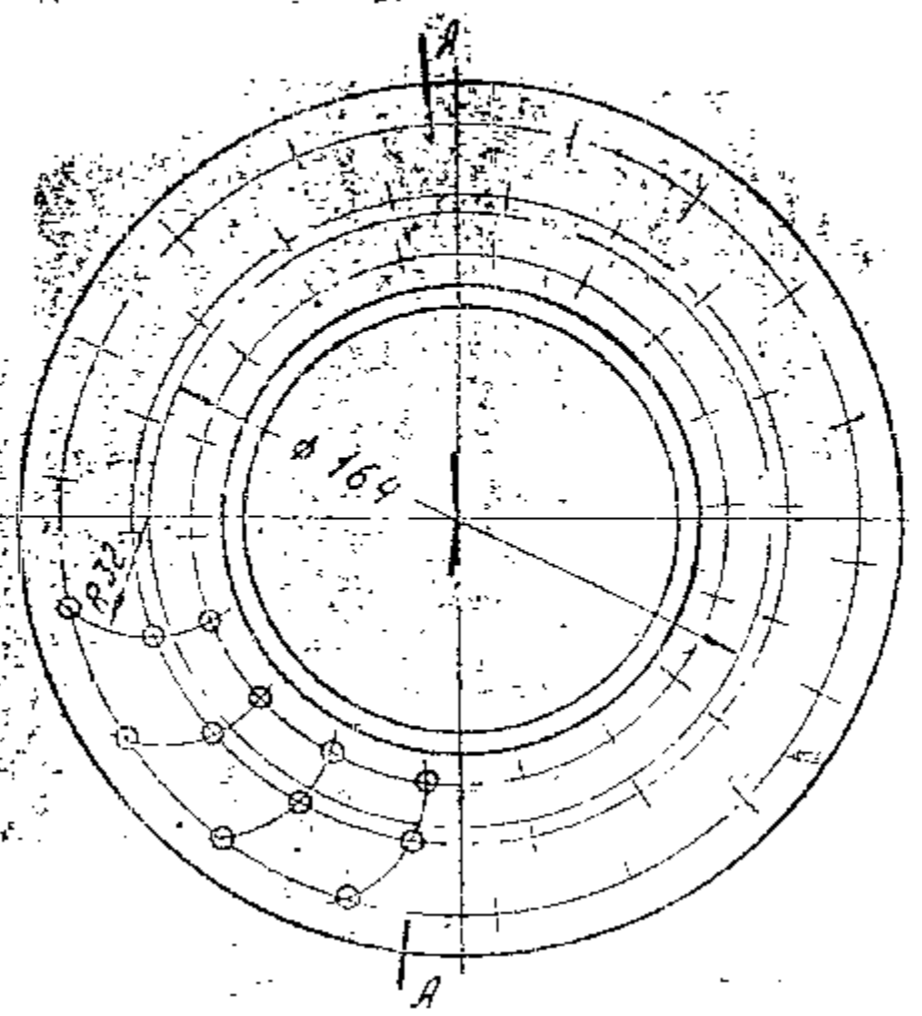


- 1) Blunt sharp edges.
- 2) Non-flatness of surface B should not exceed 0.4mm
- 3) Displacement of axes of holes from true position should not exceed 0.1mm (Qualified tolerance)
- 4) Machine as per dimensions given in [] in assembly
- 5) Relative position of holes on φ60 with other groups of holes is arbitrary
- 6) coating anodic oxidation, chromotizing.
- 7) Alternate material is sheet AMr5M, GOST 21631-76.

MATERIAL - SHEET AMr 5 M-3 GOST 21631-76		
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	ALL THREADS TO CONFORM TO SPECIFICATION	STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.
DRG NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:-
SCALE :-	DATE :-	
DRN 55	WT :- (Kg) 2.10	DISC 765-78-840
TCD 55		
CHD 12		
APD 12		

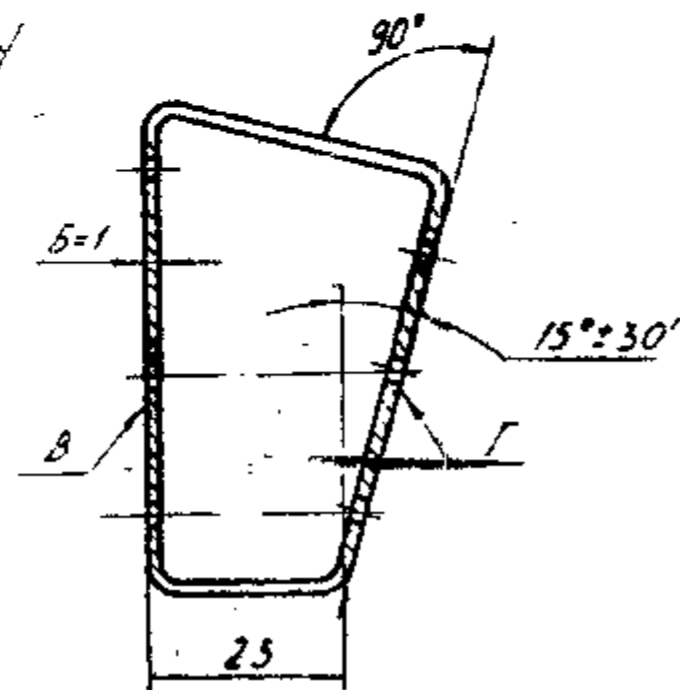
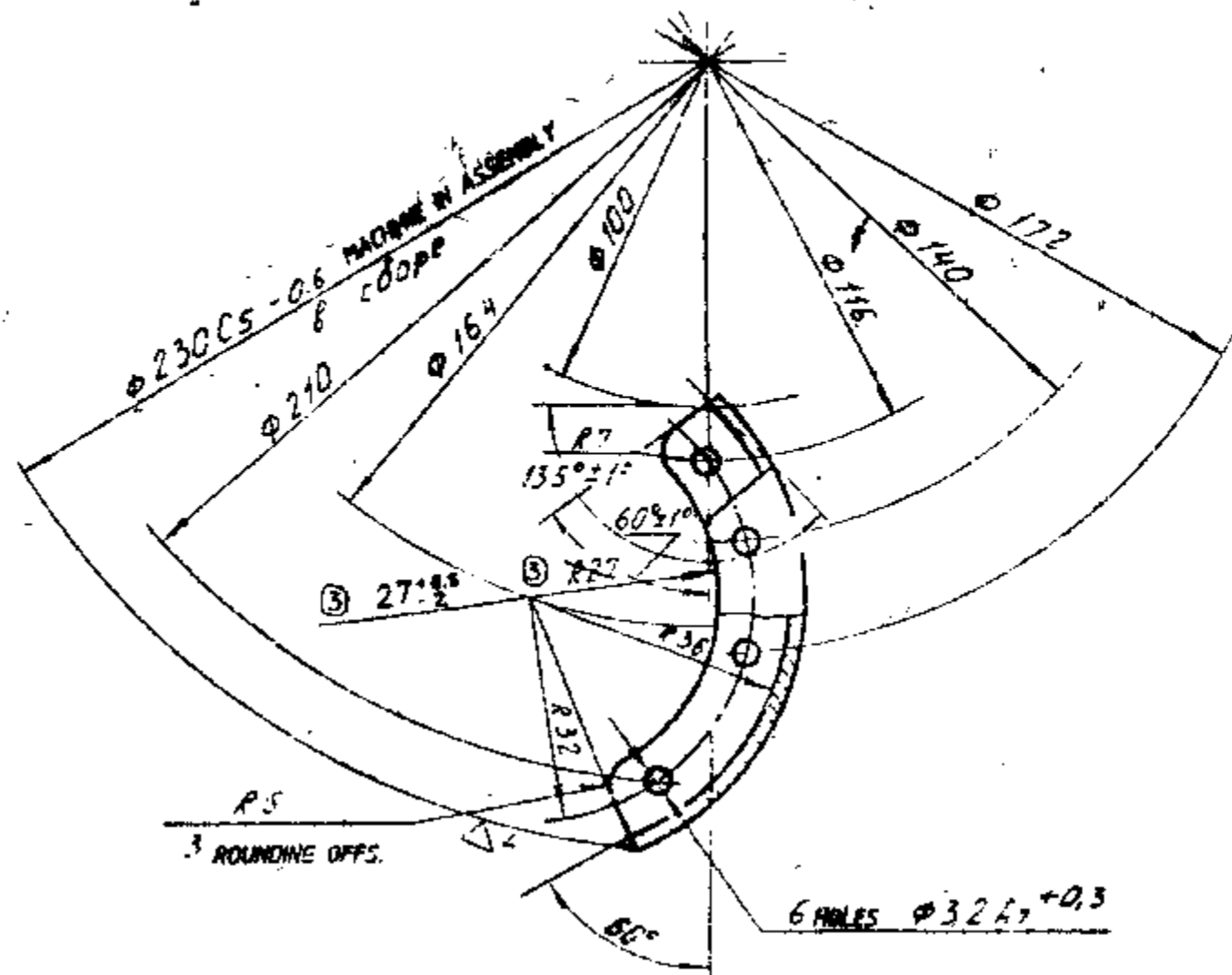
CONTROLLERATE OF QUALITY ASSURANCE
(INFANTRY COMBAT VEHICLES)

10
 11-12-82
 13-14-82
 15-16-82
 17-18-82
 19-20-82
 21-22-82
 23-24-82
 25-26-82
 27-28-82
 29-30-82
 31-01-83
 02-03-83
 04-05-83
 06-07-83
 08-09-83
 10-11-83
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 14-15-83
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 13-14-84
 15-16-84
 17-18-84
 19-20-84
 21-22-84
 23-24-84
 25-26-84
 27-28-84
 29-30-84
 31-12-84



- 1) Blunt sharp edges.
- 2) Displacement of axes of holes from true position should not exceed 0.1 mm.
- 3) Coating. Anodic oxidation chromating.
- 4) Diffuser may be made by butt-welding Followed by dressing of welds flush.
- 5) Thinning of material upto 1 min is allowed
- 6) Machine as per dimensions given in [] in assembly
- 7) Alternate material is sheer AMF 5M. GOST 21631-76

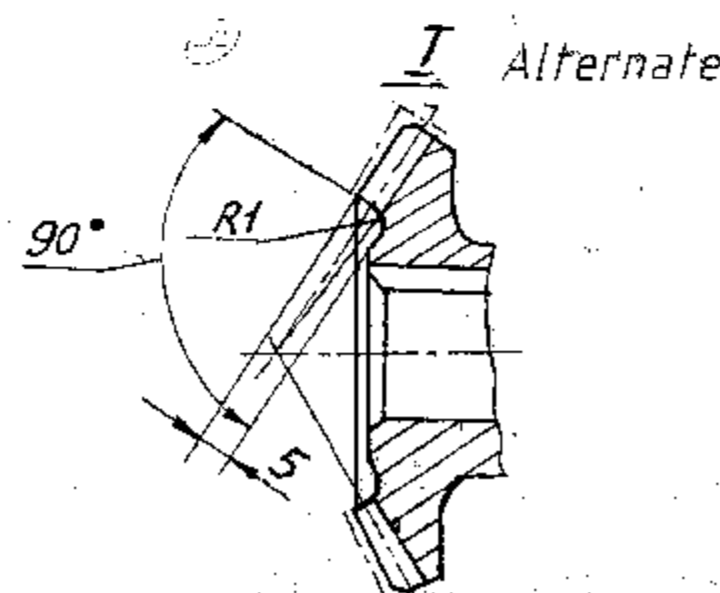
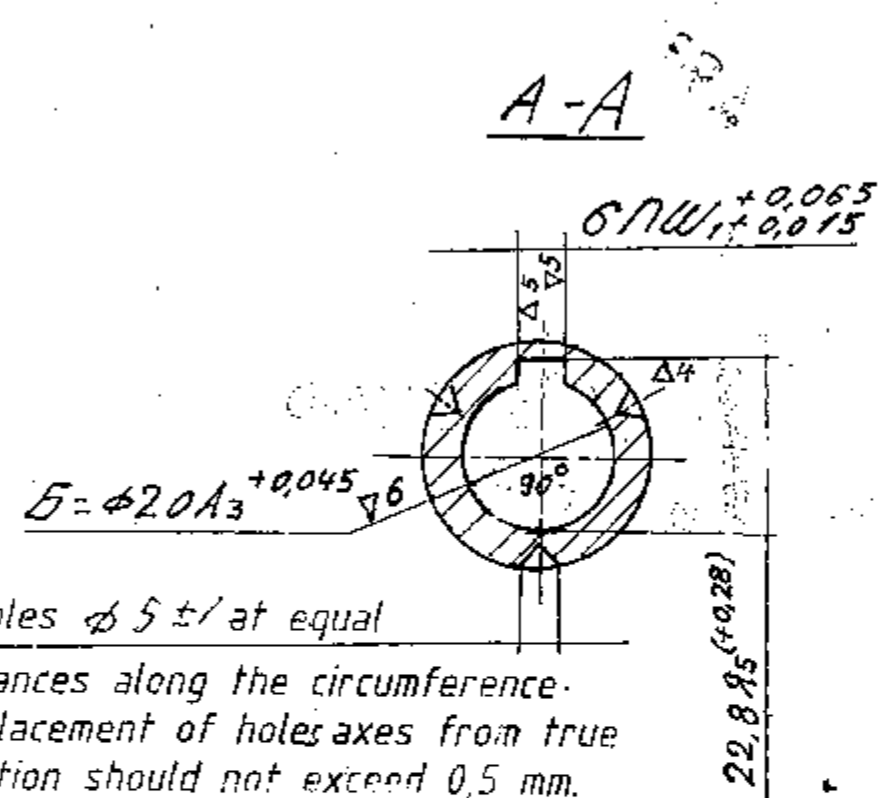
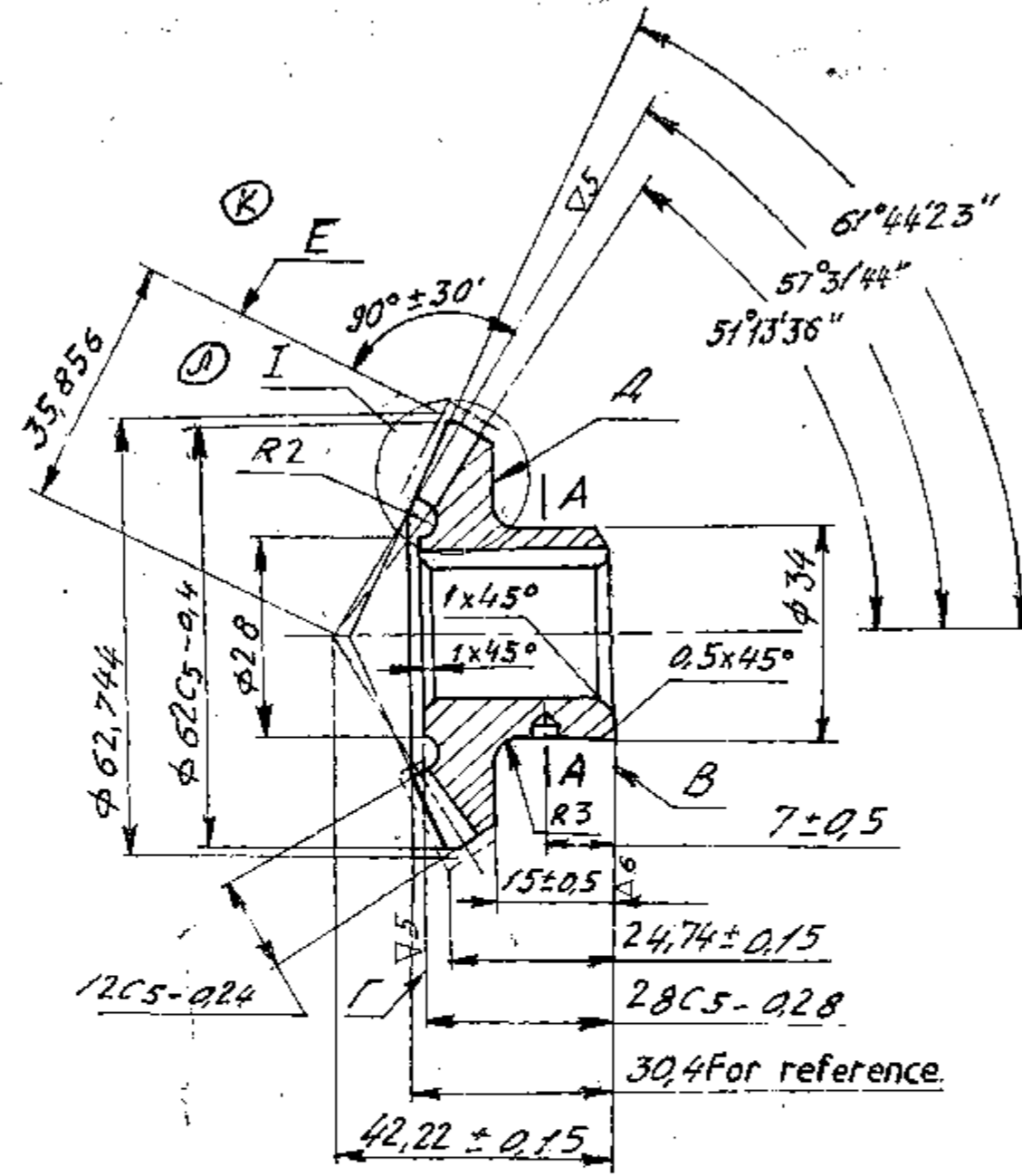
MATERIAL - AMF 6 5M-1.5 GOST 21631-76.		
ALL SHARP EDGES & CORNERS TO BE ROUNDED BY	ALL THREADS TO CONFORM TO SPECIFICATION	STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFG.
DRG NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON-
SCALE :- 1:2		
DATE :- 8-8-95		
DRW SK	WT :- (Kg) 0.120	DIFFUSER
FCB SK		
END 26		765-78-841
APD		
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)		



- 1) Blunt sharp edges.
- 2) Provide dimensions without deviations with an accuracy of ± 0.5 .
- 3) Displacement of axes of holes from true position should not exceed 0.1 mm.
- 4) Unspecified stamping radii are R2.
- 5) Coating: Anodic oxidation, chromating.
- 6) Alternate material is sheet AMF 5M. GOST. 21631-76.
- 7) Increase in dimension δ not exceeding 0.3 mm is allowed.
- 8) Non-flatness of surfaces B and Γ not exceeding 0.3 mm is allowed.

MATERIAL - SHEET AMF 66M1 GOST 21631-76		
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	ALL THREADS TO CONFORM TO SPECIFICATION	STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.
DRG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:-
SCALE 1- 1:1	DATE 1- 8-8-95	
DRN SK	WT 1- (kg) 0.01	BLADE
TCD SK		765-78-842
CHD SK		
APD SK		

CONTROLLERATE OF QUALITY ASSURANCE
(INFANTRY COMBAT VEHICLES)

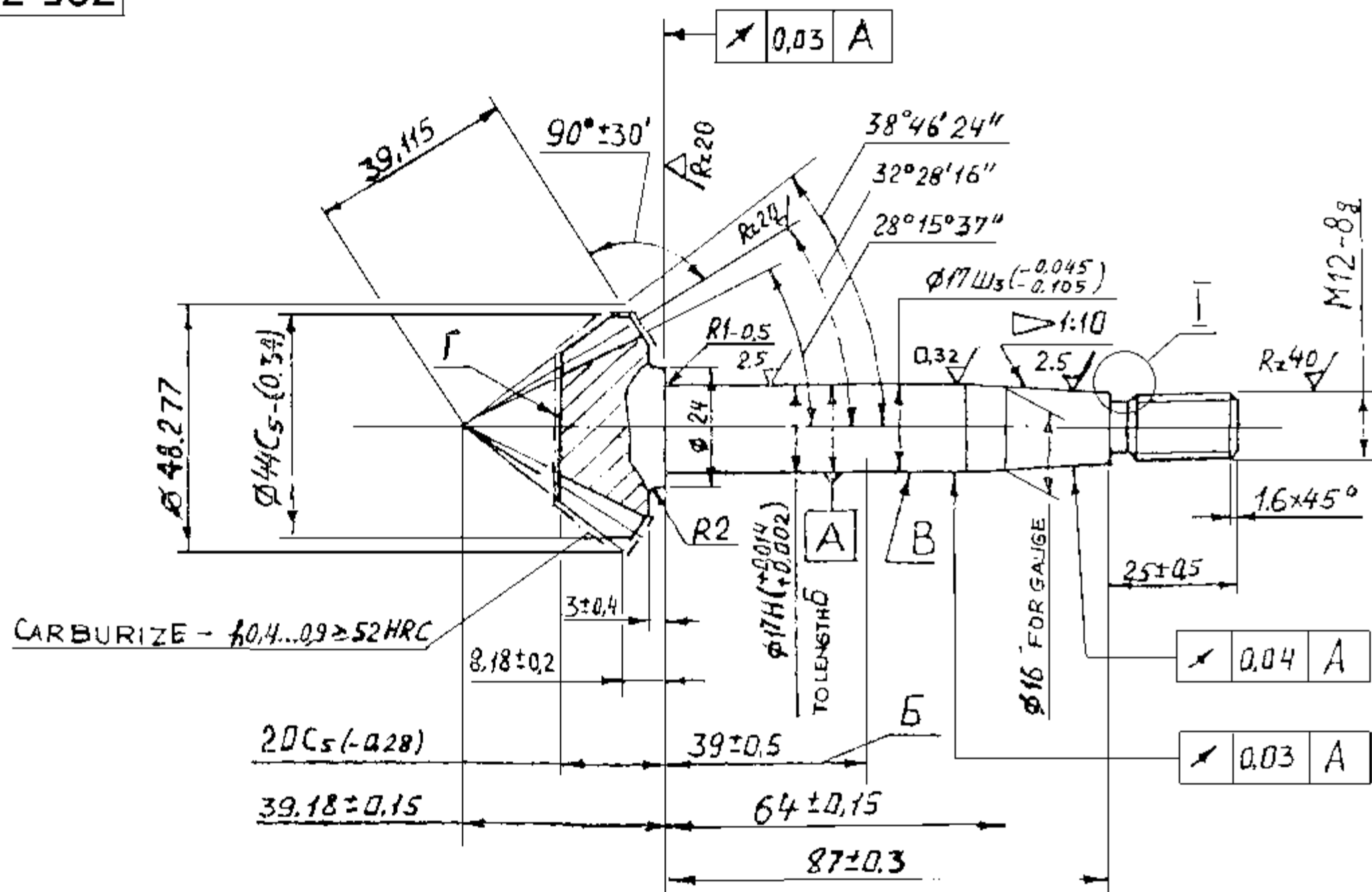


1. Blunt sharp edges.
 2. Perform dimensions without deviations as per accuracy class 7, OCT 1010.
 3. Run-out of surface B and F not exceeding 0,04 mm with respect to the axis of surface B is allowed.
 4. Displacement of axis of key way with respect to the axis of surface B should not exceed 0,1 mm.
 5. Carburize. Carburization of other surfaces is allowed.
- For finished part:-
- a) complete depth of carburization is 0,4 to 0,9.
 - b) rockwell hardness of carburized surface is C752.
 - c) checking with the file calibrated for specified hardness is allowed.
6. Check for engagement of bevel pinions as per 765- Technical requirements TT107.
 7. Apply marking as per instructions M-50-6. Place of marking is surface D. Marking of the part on surface E by electrographic method is allowed.
 8. Increase of the width of key way not exceeding 0,3 mm above tolerance is allowed after heattreatment.
 9. Alternate material is 18x2 H4MA GOST 4543-71, 18x2 H4BA Tethnical specifications TY 14-1-381-72.

Unless otherwise specified.

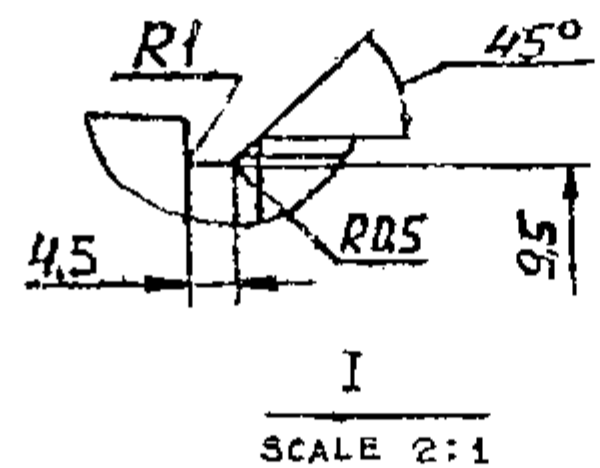
Module	m	2,75
Number of teeth	Z	22
Type of teeth		straight
Basic Parameter		GOST 13754-81
rack Height of tooth		6,45
Addendum modification coefficient		-0,24
Grade of accuracy is as per GOST 1758-56		8-K
Data for checking		
CIRCUMFERENTIAL BACKLASH IN PAIR WITH STANDARD GEAR	Valve Variation	δ_{cn} 0,085
RUN-OUT OF TOOTHING		δ_e 0,085
Difference of circular pitch		δ_c
Bearing pattern with standard gear teeth	In length	% 50
	In height	% 50
Data for reference		
Thickness of tooth at a distance of 3 from big module	s	3,106
Measurement height	h _m	1,304
Teeth taper angle	δ_y	
Coupled gear		765-78-1092
		765-78-1092

MATERIAL 18x2 H4MA TY 14-1-381-72		ALL THREADS TO CONFORM TO SPECIFICATION		STAMP OR TECH. PART NO. MANUFACTURERS NAME & YEAR OF MFG.	
HOT TO BE SEALED		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED 765-78-06754	
SCALE 1:1	DATE 04-08-1944	WT (kg) 0,25		765-78-1090	
DWG. No.	WT (kg)	0,25		765-78-1090	
TCD					
CND					
SPD					
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)					



TECHNICAL CONDITIONS

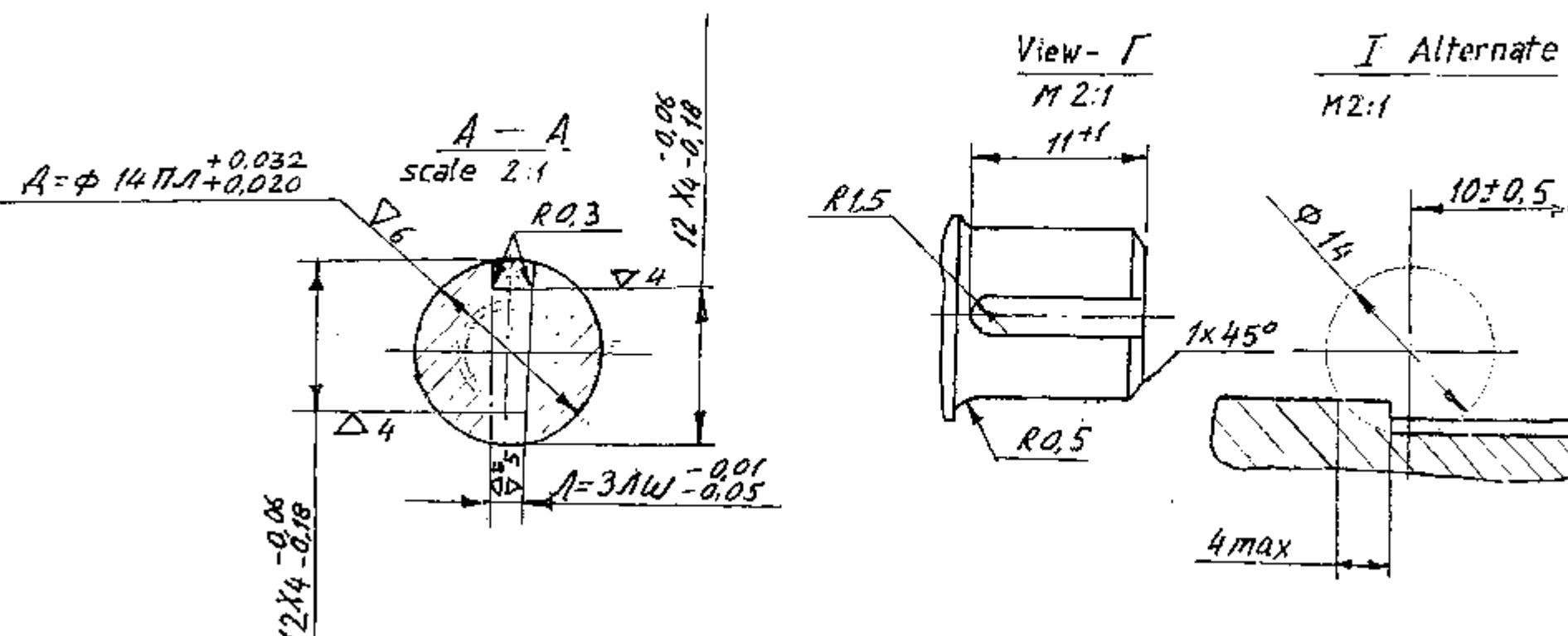
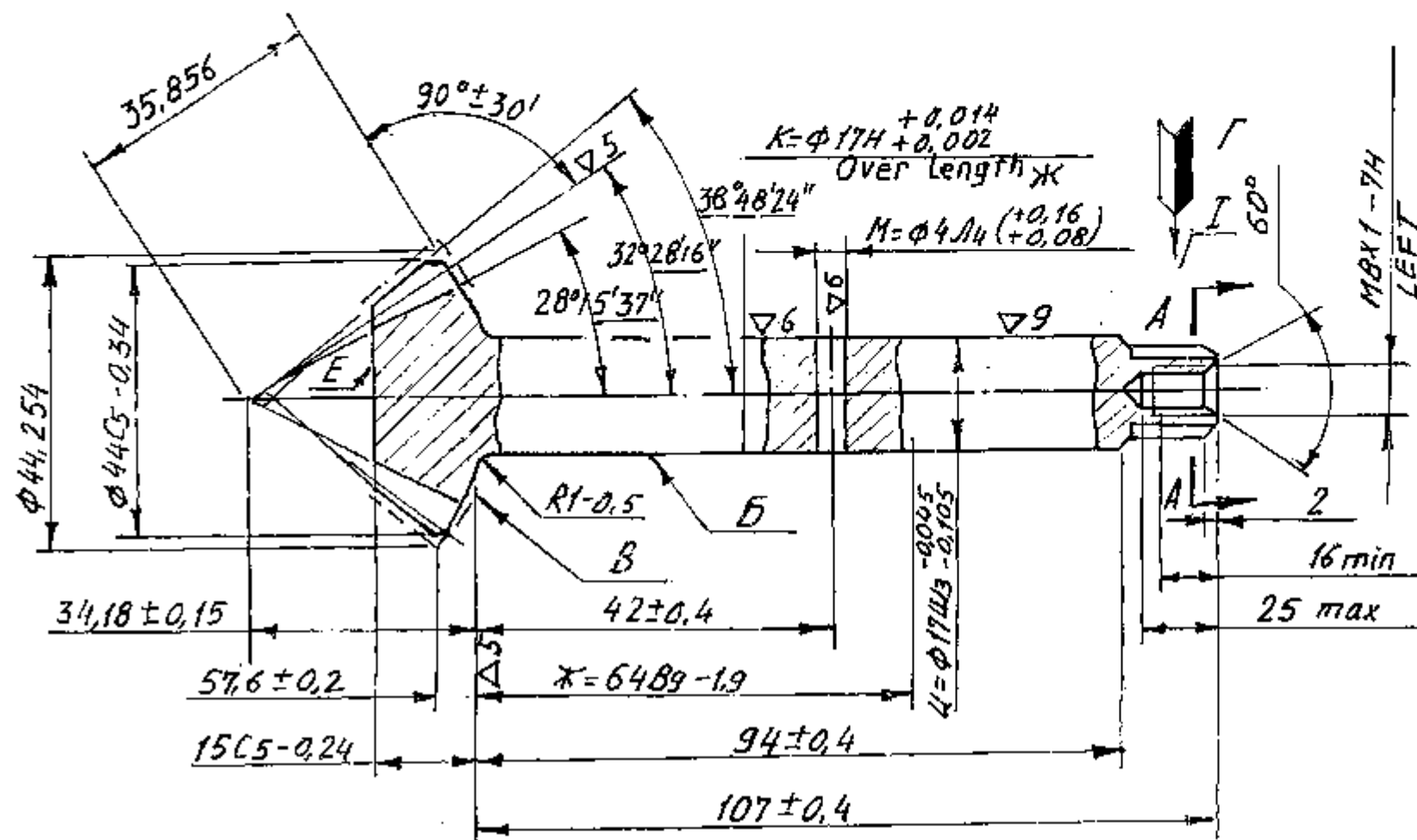
- ALTERNATE MATERIAL IS STEEL 18X2H4MA GOST 4543-71, 18X2H4BA TY-14-1-381 72.
- PROTECT THE THREAD FROM CARBURIZATION, CARBURIZATION OF OTHER SURFACES IS PERMISSIBLE.
- A7, B7, ±CM7.
- CHECKING OF HARDNESS WITH FILE CALIBRATED TO SPECIFIED HARDNESS IS ALLOWED.
- FOR CHECKING HARDNESS OF SURFACE 'A' A FLAT MAY BE MADE TO DEPTH NOT EXCEEDING 0.15mm ON THE AREA LIMITED BY A CHORD WHICH INCLUDES FIVE ADJACENT TEETH.
- CHECK TAPER BY BLUEING AREA OF BEARING PATTERN SHOULD CONSIST OF AT LEAST 80% OF THE AREA OF TAPER SURFACE.
- MARK AS PER INSTRUCTION N-50-6, PLACE OF MARKING IS SURFACE 'A' TYPE 2.5 GOST 2930-62.
- DIMENSIONS AND PARAMETERS OF TOOTHING AND DIMENSIONS OF ELEMENTS OF THREAD ARE CHECKED BEFORE HEATTREATMENT.
- PROVIDE MICROSPIRAL ON SURFACE 'B' BY ELASTIC EMERY CLOTH DIC 2Г 24 А 12-П СФ * А GOST-13344-79 PITCH OF THE SPIRAL IS 5 TO 6mm, DIRECTION OF THE SPIRAL IS LEFTHAND. SURFACE FINISH AFTER MARKING THE MICROSPIRAL IS NOT BELOW 1.0. ABSENCE OF MICROSPIRAL (BLANKS) IS NOT ALLOWED. THE MICROSPIRAL MAY BE BROUGHT TO SURFACE A TO BE ACCEPTED.
- PERFORM $f_m \text{ min} = 0.085 \text{ MICRONS}$, $F_vj = 0.06 \text{ MICRONS}$, $F_z = 0.05 \text{ MICRONS}$, BEARING PATTERN WITH TEETH OF STANDARD GEAR ALONG LENGTH - 50%, ALONG WIDTH - 50%, INSTEAD OF VALUES OF PARAMETERS TO BE CHECKED SPECIFIED IN TABLE.
- MICROSPIRAL IS MADE WITH EMERY PAPER D1 C1Г 24А-12-0 GOST-13344-79.



EXTERNAL CIRCULAR MODULE	m_e	3	
NUMBER OF TEETH	Z	14	
TYPE OF TEETH	-	STRAIGHT	
BASIC RACK	-	GOST-13751-81	
TOOTH HEIGHT	h	6.6	
ADDENDUM MODIFICATION SHIFT	X_e	+ 0.24	
DEGREE OF ACCURACY	-	9-C	
GUARANTEED CIRCUMFERENTIAL BACKLASH	$J_{m \text{ mtn}}$	0.062	
TOLERANCE FOR OSCILLATION OF CIRCUMFERENTIAL BACKLASH	F_{vj}	0.075	
TOLERANCE FOR PLAY OF TOOTHING	F_z	0.056	
BEARING PATTERN WITH STANDARD GEAR TEETH	ALONG LENGTH	%	50
	ALONG HEIGHT	%	55
THICKNESS OF TOOTH ALONG THE CHORD AT A DISTANCE OF 6.26 FROM BIG MODULE	S	3.884	
MEASUREMENT HEIGHT	h_m	2.322	
DESIGNATION OF DRAWING OF MATING TOOTHED GEAR		765-78-1090	

- NOTES:-
- ALL DIMENSIONS ARE IN MM.
 - THE ABBREVIATIONS AND SYMBOLS ARE BASED ON RUSSIAN SPECIFICATIONS.

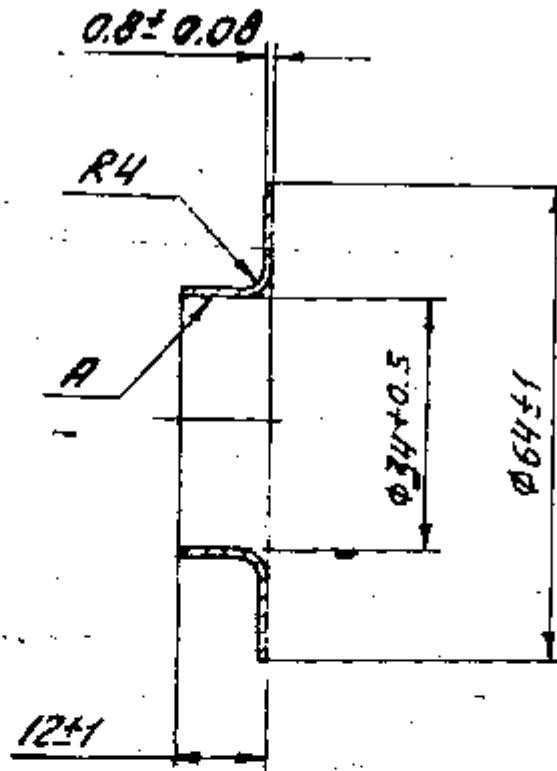
NEAREST EQ. MATERIAL		FORMS THE PART OF CQA(ICV) SET NO: LV2/ICVS/CQA(ICV) SET/054	
18X2H4MA, TY 14-1-381-72		NEW DRG. PREPARED BASED ON NEW DRG. INTRODUCED BY THE COLLABORATORS IN PLACE OF 765-78-1091 (D-633/ICV)	
ORGL MATERIAL:-	DCT/No. & DATE	ISSUE	AMENDMENTS
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	ALL THREADS TO CONFORM TO SPECIFICATION		STAMP OR ETCH, PART No. MANUFACTURER'S NAME & YEAR OF MFR.
DRG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON:
SCALE: 1:1	DATE: 20-12-90		765-78-1091-1
DRN. [Signature]	WT. (Kg)	GEAR	
TCD. [Signature]	0.23		
CHD. [Signature]			
APPD. [Signature]			
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)			SET No. (A) LV2/ICVS/CQA(ICV)SET/054



- 1) Blunt sharp edges.
- 2) Perform dimensions without deviations a per class 7 OCT 100.
- 3) Unspecified radii are $\approx R_f$.
- 4) Run-out of surfaces B and \bar{B} not exceeding 0,04 with respect to axis of surface \bar{B} is allowed.
- 5) Displacement of axis of key ways with respect to the axis of surface \bar{A} and to each other should not exceed 0,1mm.
- 6) Carburize.
Carburization of other surfaces, except thread is allowed.
For finished parts,
a) Complete depth of carburization is 0,4 to 0,9.
b) Rockwell hardness of carburized surface is C 7.52.
c) Checking with a file calibrated for specified hardness is allowed.
- 7) Apply marking as per instructions M-50-6. Place of marking is surface E.
- 8) Increase of the width of key ways not exceeding 0,03mm above tolerance is allowed after heat treatment.
- 9) Check all dimensions except U, K, \bar{A} , before heat treatment.
- 10) Check for meshing (engagement) of bevel pinions as per 765 TY 107.
- 11) Displacement of axis of hole M with respect to axis of part should not exceed 0,15mm.
- 12) For checking hardness flat to a depth not exceeding 0,15mm may be made on surface E on area limited by a chord which includes five adjacent teeth, 4max
- 13) Alternate material is 18x2H4MA GOST 4543-71, 18X2H4BA Technical specifications Ty-14-1-381-72.

Module	m	2,75
Number of teeth	Z	14
Type of teeth		Straight
Basic rack	Parameter	GOST 13754-81
	Height of teeth h	6,05
Addendum modification coefficient ξ		+0,24
Grade of accuracy as per GOST 1759-56		8-x
Data for checking		
Circumferential backlash with standered gear	Valve C_n	0,085
	Variation δC_n	0,06
Run-out of toothing E_b		0,05
Difference of circular Pitch	δt	
Bearing pattern with standered gear teeth.	Along length	% 50
	Along height	% 50
Data for reference		
Thickness of tooth at distance of 3 from big module.	S	3,884
Measurement height	h_m	2,363
Teeth taper angle	δy	
Coupled gear		765-78-1096

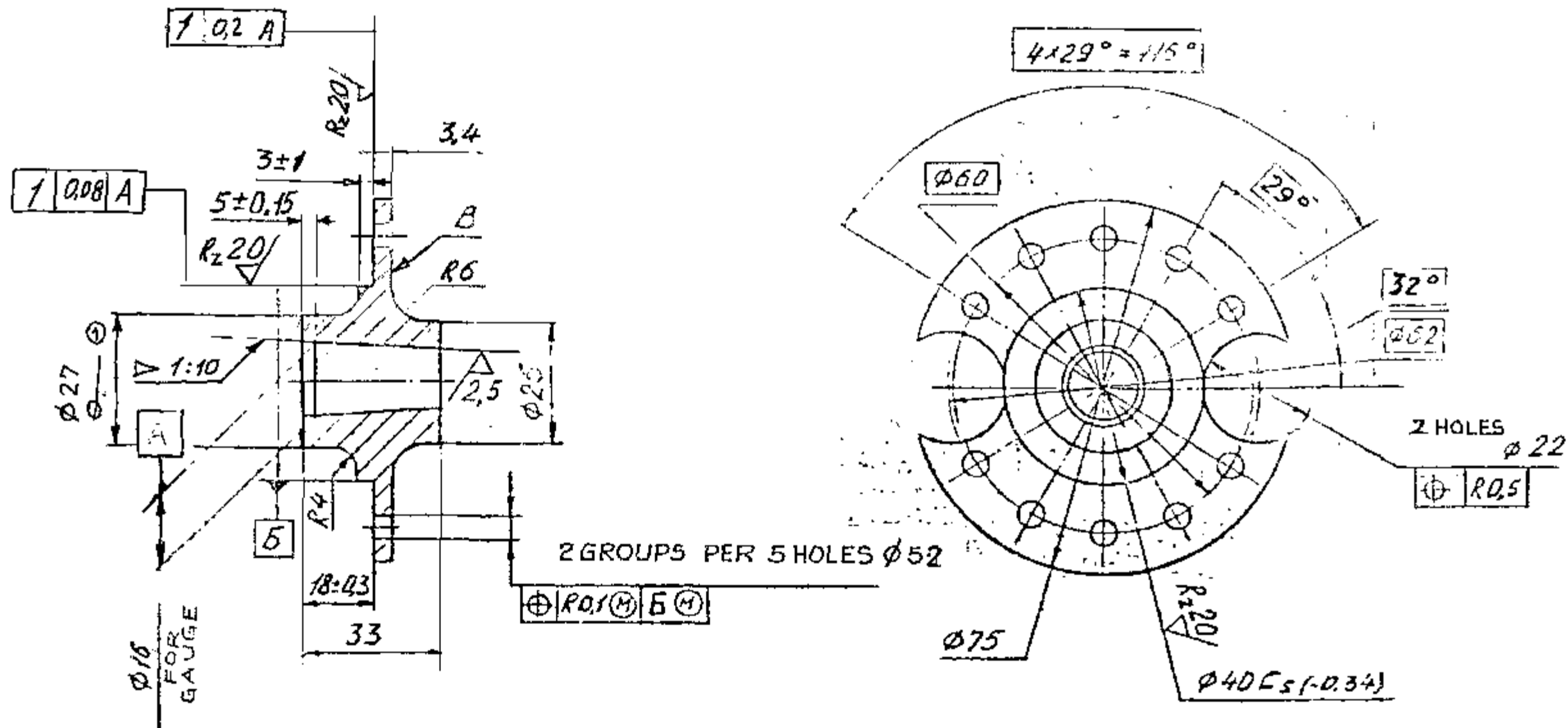
NEAREST GOVT MATERIAL		01029 (CV)	FORMS THE PART OF CBRAG(V) SET NO. LV2(ICVS) CBRAG(V) SET 054
ORGL MATERIAL 18x2H4MA TY-14-1-381-72	DATE	ISSUE	AMENDMENTS
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF.	ALL THREADS TO CONFORM TO SPECIFICATION.		STAMP OR ETCH PART NO. MANUFACTURER'S NAME & YEAR OF MFR.
DRG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON:- 765-78-65285
SCALE:-	DATE :- 14 09 94	WT: (Kg)	
DRN. No.	TCD. No.	CHD.	
APD. No.		DRAWING NO 765-78-1092	
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)			PART NO



- 1) Burrs are not allowed.
- 2) Alternate material is 08 ПС and 08КП GOST 9045-80.
- 3) Annular tool mark to a depth not more than 0.3mm, is allowed on surface A.

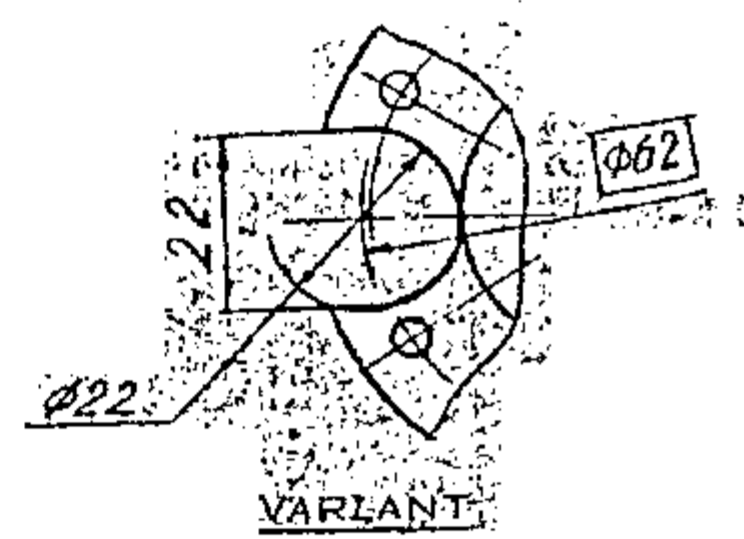
RV
589

MATERIAL :- STEEL 10 GOST 1050-74		
ALL SHARP EDGES & CORNERS TO BE BOUNDED BY	ALL THREADS TO CONFORM TO SPECIFICATION	STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFG.
DRG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:-765-78-05754
SCALE :- 1:1		
DATE :- 2.8.95.		
DRN. <i>[Signature]</i>	WT :- (Kg)	OIL DEFLECTOR
TCD. <i>[Signature]</i>		
CHD. <i>[Signature]</i>	765-78-1506	CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)
APD. <i>[Signature]</i>		



TECHNICAL CONDITIONS

1. ALTERNATE MATERIAL IS STEEL 45 X GOST 4543-71
 2. 285 TO 341 °B (Ø3-6 TO 3-3)
 3. A7, B7 ± CM7
 4. TAPER IS CHECKED BY BLUEING, AREA OF BEARING PATTERN SHOULD BE ATLEAST 80% OF AREA OF TAPER SURFACE
 5. SHOULDER NOT EXCEEDING 1.0mm ON Ø45mm IS ALLOWED ON SURFACE B
 6. COATING: ZINC PLATING, 9 MICRONS THICK, CHROMATIZED. REMOVE HYDROGEN EMBRITTLEMENT. ABSENCE OF COATING ON INTERNAL SURFACES IS ALLOWED.
- (A) EQ. MATERIAL - GRADE - 42 Cr4Mo2 TO IS: 5517-93 OR
 (B) EN 19 TO BS: 970, 709M40 (EN 19) TO BS: 970 PART-I 1985.



- NOTES:-
1. ALL DIMENSIONS ARE IN MM.
 2. THE ABBRIVIATIONS AND SYMBOLS ARE BASED ON RUSSIAN SPECIFICATIONS

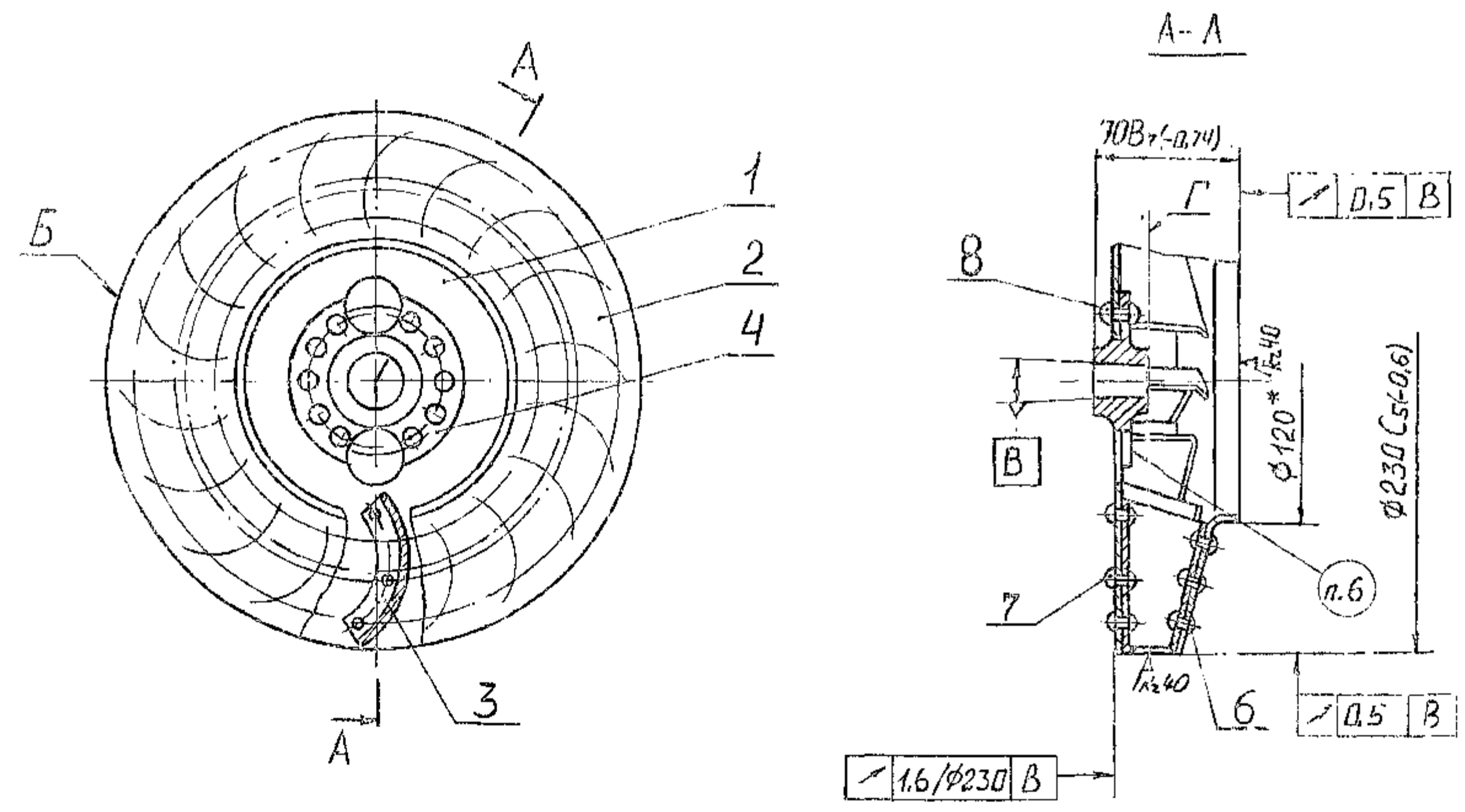
00988-ICV	(B)	IN EQ. MATERIAL, GRADE OF BS SPECN AMENDED.
06-12-04	(A)	EQ. MATERIAL ADDED IN THE DRAWING.
00836-ICV	(A)	EQ. MATERIAL ADDED IN THE DRAWING.
00210-ICV		NEW DRG. PREPARED BASED ON, NEW DRG. INTRODUCED BY THE COLLABORATORS (D-634/ICV)
20-12-90	ISSUE	AMENDMENTS
STEEL 38 XC GOST 4543-71		
ORGL MATERIAL		
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF. DRG. NOT TO BE SCALED	ALL THREADS TO CONFORM TO SPECIFICATION.	DATE OF ETCH, FROM THE MANUFACTURE OF THIS YEAR (G.L.H.)
SCALE:- 1:1	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:- 765-78-06 365-106
DATE :- 20-12-90		
DRN. P. P. P.	WT :- (KG)	<p style="text-align: center;">HUB</p> <p style="text-align: center;">765-78-1753-1</p> <p style="text-align: center;">CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)</p>
TCD. P. P. P.	0.15	
CHD. P. P. P.		
APD. P. P. P.		

REF	DESIGNATION	DESCRIPTION	DS CAT NUMBER	I.S. EQUIVALENT	QTY	REMARKS
		<u>TECHNICAL PAPERS</u>				
	765-78-CD 365-106	ASSEMBLY DRAWING				
		<u>PARTS</u>				
1	765-78-840	DISC			1	
2	765-78-841	DIFFUSER			1	
3	765-78-842	BLADE			18	
4	765-78-1753-1	HUB			1	
		<u>STANDARD ARTICLE</u>				
6		RIVET 3X8.36 ANODICALLY OXIDIZED, OILED, CHROMIUM PLATED				
		GOST 10299-80			54	
7		RIVET 3X10.36 ANODICALLY OXIDIZED, OILED, CHROMIUM PLATED,				
		GOST 10299-80			54	
8		RIVIT 5X12.36 ANODICALLY OXIDIZED, OILED, CHROMIUM PLATED				
		GOST 10290-80			10	

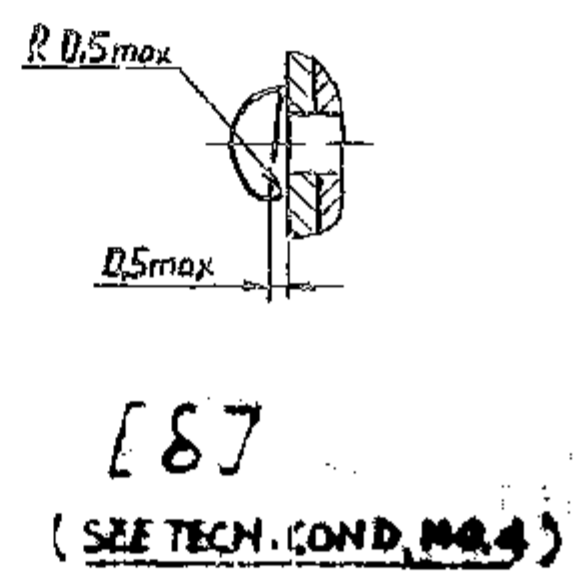
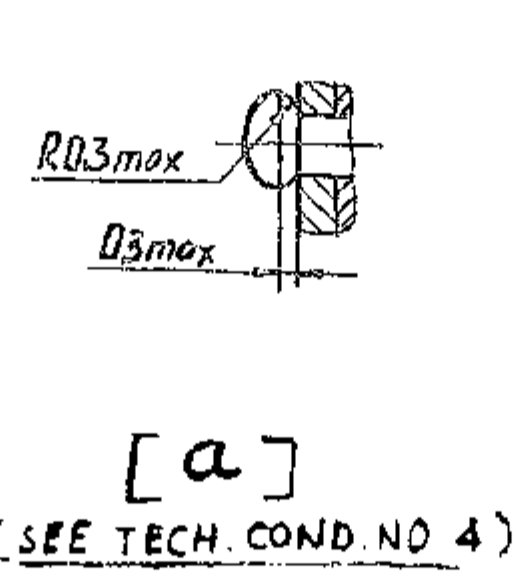
DRN	TCD	CHD	APD	DATE
SPR...		24.12.93
DRG. No.		DS CAT No.		
765-78-CD 365-1				
FAN ROTOR				SHT SHTS
				1 1
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)				

OLD REF.

TECHNICAL CONDITIONS



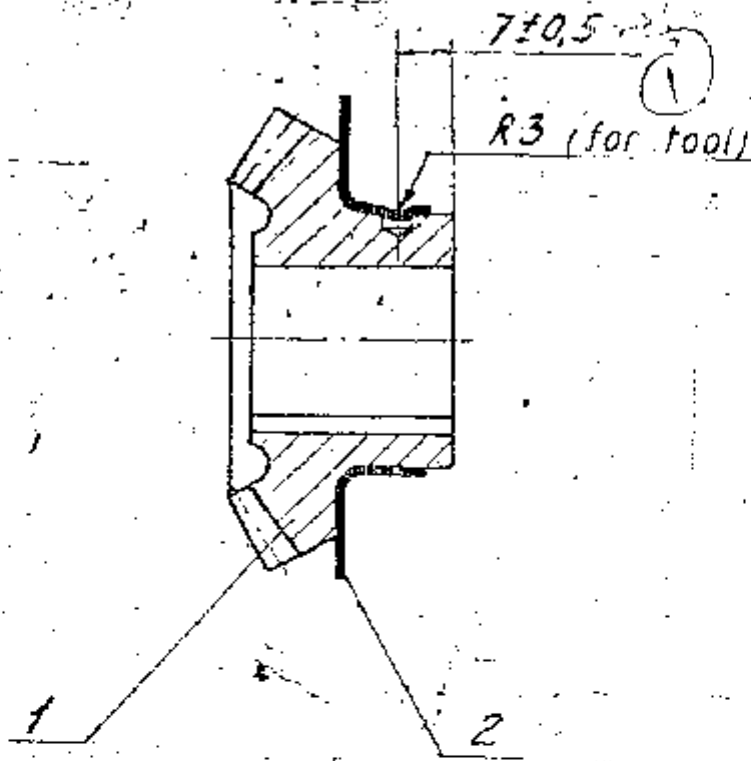
1. LOOSENESS OF RIVETS AND BLADES IS NOT ALLOWED.
2. PRESENCE OF CROWN AROUND THE RIVET HEAD IN THE SHAPE OF CONTINUOUS RING OR SEPARATE SECTIONS OF WIDTH AND THICKNESS NOT EXCEEDING 0.5MM IS ALLOWED.
3. LOCAL DENTS CAUSED BY RIVET SNAP WITH A DEPTH NOT EXCEEDING 0.1mm ON THE FLANGES OF BLADES, DIFFUSER AND DISC ARE ALLOWED.
4. DISTORTED FORM OF RIVET HEAD
[a] RING SHAPED [8] SINGLE SIDED.
5. BALANCE THE BLOWER ROTOR STATICALLY BEFORE PAINTING. STATIC UNBALANCE IS 345g-mm. WHEN BALANCING REMOVAL OF METAL FROM SURFACE 5 TO DEPTH NOT EXCEEDING 3mm IS ALLOWED.
6. MARK AS PER INSTRUCTION И-50-6 TYPE NO.3 GOST 2230-62.
7. COATING - PRIMER φА-073Ж GOST 9109-81, DARK-GREY ENAMEL ПФ-223 GOST-14923-76 EXCEPT HOLE B AND BUTT END Г.
8. * DIMENSION IS GIVEN FOR REFERENCE.



- NOTES:-
1. ALL DIMENSIONS ARE IN MM.
 2. THE ABBREVIATIONS AND SYMBOLS ARE BASED ON RUSSIAN SPECIFICATIONS.

2010-10V	NEW DRG PREPARED BASED ON NEW DRG INTRODUCED BY THE COLLABORATORS IN PLACE OF 765-78-1СБ 365
2012-90	(D-628/10V)
ISSUE	AMENDMENTS
DRG NOT TO BE SCALED	STAMP OR ETCH PART NO., MFR'S NAME & YEAR OF MANUFACTURE
SCALE: 1:2	TOLERANCE ON DIMENSION PERTAINS TO, UNLESS OTHERWISE SPECIFIED
DATE: 20-12-90	
DRN	WT: - kg
TCO	0.75
CHD	BLOWER ROTOR
APD	765-78-с8365-1СБ
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)	

765-78-cb 754



FORMS THE PART OF CGACCV SET NO. LV2/KVS/CGACCV SET 054		D.O CORRECTION	
(B)	(A)	ISSUE	NATURE OF AMENDMENT
0102910	1980	03-03	
1980	03-03	DATE	

1) Fasten part, Ref.No. 2, on part, Ref.No. 1, by pressing into 3 holes on part Ref.No. 1.
Depth of recess is 4+1

Ref. No.	DESIGNATION	DESCRIPTION	Qty.	REMARKS
1	765-78-1090	Gear ^{Set no: LV2/KVS/CGACCV SET/054} Oil deflector (A)	1	
✓2	765-78-1506	Oil deflector Gear (A)	1	

MATERIAL :-		ALL THREADS TO CONFORM TO SPECIFICATION		STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.	
ALL SHARP EDGES & CORNERS TO BE BOURNED OFF		TOLERANCE ON DIMENSIONS UNLE -SS OTHERWISE SPECIFIED		USED ON:- 765-78-CB 281	
GRG NOT TO BE SCALED		DATE :- 2-8-95		WT :- (Kg)	
SCALE :- 1:1		DRM. <u>Hand</u>		GEAR	
DATE :- 2-8-95		TCD <u>Hand</u>			
CHD. <u>28</u>		APD. <u>28</u>		765-78 c5 754	
APD. <u>28</u>		SET NO: LV2/KVS/CGACCV SET/054			

CONTROLLERATE OF QUALITY ASSURANCE
(INFANTRY COMBAT VEHICLES)

nat	Zone	Ref No.	Designation	Description	Qty	Remarks
			CQA-ICV SET No.028	ROTOR BLOWER & GEAR SET		
			ASSYS			
			765-78-Sb365-1	ROTOR FAN	1	
			765-78-Sb754	GEAR	1	
			PARTS			
			765-78-1091-1	GEAR	1	
			765-78-1092	GEAR	1	
				WASHER 120T 65F 06, GOST 6402-70	2	

APPROVED
CHECKED
CONTROLLERATE
OF
QUALITY ASSURANCE
(ICV)

G. K. ...
A. Masole

CQA-ICV SET No.028

ROTOR BLOWER & GEAR SET

	WEIGHT	SCALE
SHT 1		SHTS 1