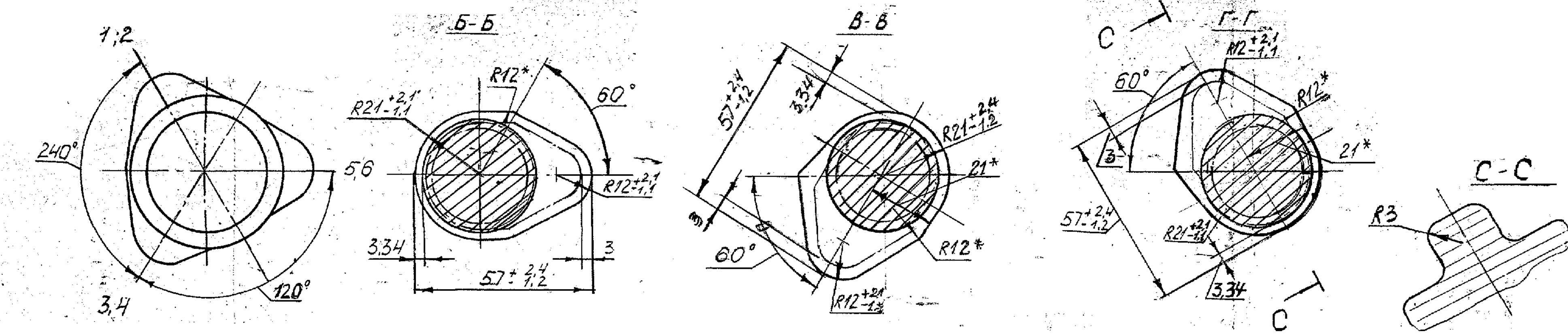
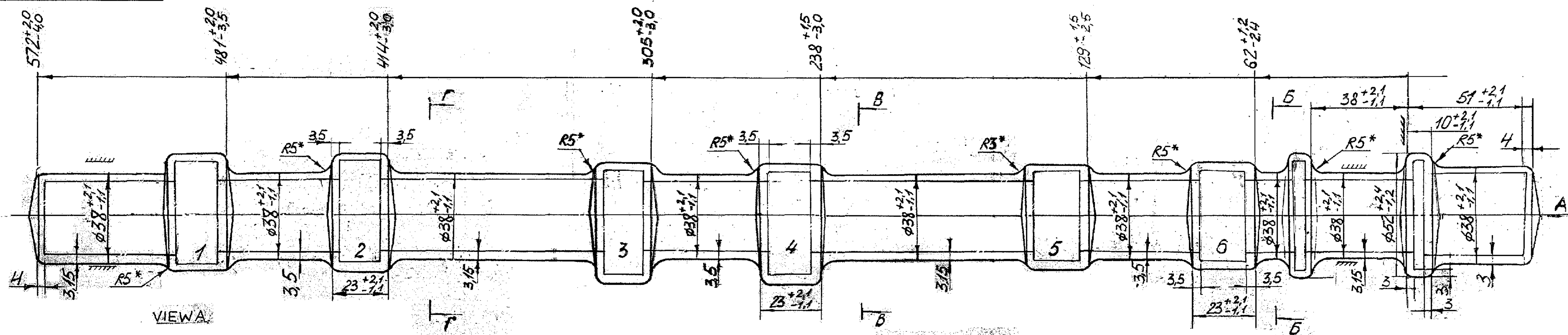


- INSPECTION GROUP III AS PER TECHNICAL REQUIREMENTS IT-11, HB163 TO 207, IF NOT SPECIFIED OTHERWISE
- REDUCTION IN HARDNESS TO HRC 48 ON THE WORKING SURFACES OF CAMS AT A DISTANCE OF UP TO 1.5mm FROM THE BUTT-END IS PERMITTED.
- CHECK THE DEPTH OF HARDNESS LAYER AFTER FINAL GRINDING ON ONE CAM FROM EACH PAIR OF CAMS OF ONE CAM-SHAFT FROM A BATCH OF 100 PIECES.
- INCREASE IN DEPTH OF HARDENED LAYER UP TO 5.5mm ON THE CREST OF CAM IS PERMITTED.
- UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS ARE AS FOLLOWS: FOR HOLES - AS PER A₇, SHAFTS - AS PER B₇, OTHERS - AS PER CM₇.
- VARIATION IN WALL THICKNESS OF SIZE 'K' SHOULD NOT EXCEED 1mm.
- LIMIT DEVIATIONS OF BEARING-NECKS AND SPLINES ALONG THE EXTERNAL DIAMETER FROM THE ROUNDNESS SHOULD NOT EXCEED 0.01mm. (PROVIDE BY A CHECKING QUALITY, TAPER, BORE AND BOW).
- RADIAL RUNOUT OF BEARING NECKS AND SPLINES ALONG THE EXTERNAL DIAMETER WITH RESPECT TO THE AXIS SHOULD NOT EXCEED 0.05mm.
- NON-PARALLELITY OF CAM GENERATRIXES SURFACES WITH RESPECT TO THE AXIS OF CAM-SHAFT SHOULD NOT EXCEED 0.015mm.
- WHEN THE SHAFT IS INSTALLED WITH BEARING NECKS 2 AND 4 ON KNIFE EDGES THE FOLLOWING IS PERMITTED:
- RUNOUT ON SURFACES X AND 3 SHOULD NOT EXCEED 0.3mm
- RUNOUT OF THREAD SHOULD NOT EXCEED 0.25mm
- RUNOUT OF CAM HEEL SHOULD NOT EXCEED 0.05mm
- MACHINE SHARP EDGES OF CAMS FROM BOTH SIDES TO RADIUS = 0.3 TO 0.7mm, AND GRIND THE CORNERS AT THE PLACES OF THE BEGINNING AND END OF THE PLACE, ACCEPT AS PER STANDARD.
- FIRST FOUR THREADS OF THREAD 11 MAY BE INCREASED UP TO M22X1.5 H6H.
- IT IS PERMITTED TO CUT THREAD E AS PER 22X1.5 H6H.
- CRACKS, RAGS, SCABS, NICKS, BLACK SPOTS AND BURRS ON THE MACHINED SURFACES ARE NOT PERMITTED.
- CAM HEEL MAY HAVE SURFACE FINISH 1.25.
- COATING: CHEMICALLY OXIDISED, OILED.
- CHECK THE PART BY USING THE MAGNETIC FLAW-DETECTOR IN ACCORDANCE WITH INSTRUCTIONS UB 20-17.
- CHECK CAMS AS PER INSTRUCTIONS UB 20-16.
- MARK THE TRADE MARK WITH DIMENSIONS 5x5x25mm ON CAM-SHAFTS TO BE DELIVERED AS SPARE PARTS.
- TEST PROCEDURE, MARKING, PACKING, TRANSPORTATION AND STORAGE ARE AS PER COST 15965-70.
- * DIMENSIONS ARE GIVEN FOR REFERENCE.
- AVAILABILITY OF STEP h=0.2 mm IS ALLOWABLE IN 'M' SURFACE.

STEEL 45 SELECT (042 TO 047)		TY 14-1-361-72	
PILOT SAMPLE SHOULD BE APPROVED BY A H&P BEFORE BULK PRODUCTION			
EST. MASS	2.5 Kg	TO BE STAMPED OR MARKED WHERE SHOWN IN THIS DRAWING	
NO. IN LOT	10	ALL SHARP EDGES AND CORNERS TO BE ROUNDED UNLESS OTHERWISE STATED IN THIS DRAWING	
ISSUE DATE	1997-05	N.B. EQUIVALENT DIMENSIONS AND TOLERANCES TO BE USED UNLESS OTHERWISE STATED ON THIS DRAWING	
ISSUE NO.	1	CG 20-05-12-6	
END BY		CG 20-06-13-6	
APPROVED BY		CONTRACTOR'S OFFICE OF INSPECTION	
DATE		FILE NO.	
DRAWING NUMBER		EXHAUST CAM-SHAFT	
20-07-15A		20-07-15A	

20-07-15A



1. STEEL GRADE M2 AS PER GOST 7505-74.
2. COMPLEXITY GRADE C5 AS PER GOST 7505-74.
3. ACCURACY OF FORGING MANUFACTURE CLASS II AS PER GOST 7505-74.
4. HOT STAMPING.
5. NORMALIZATION HARDNESS BRINELL 207...163 (DIA OF INDENTATION 4.2...4.7).
- * 6. DIMENSIONS TO BE ENSURED BY TOOL.
7. UNSPECIFIED DRAFTS 5°...7°.
8. UNSPECIFIED RADII OF ROUNDING OFF R 3 MM.
9. UNFILLING OF CORNERS WITHIN THE LIMIT OF 0.5 OF ACTUAL ALLOWANCE.
10. BEND NOT TO EXCEED 2 M-M ON SHAFT LENGTH, ON POSITIONS OF OTHER.
11. TOLERANCE CAMS IN RELATION TO FIRST CAM IS MAXIMUM ± 2°.
12. SHIFT OF PARTING LINE NOT TO EXCEED 1.0 M-M.
13. FLASH ALONG THE PARTING LINE NOT TO EXCEED 1.4 M-M. FOLDING OF FLASH MAXIMUM 3 M-M. FLASHES MAY BE GROUND.
14. SCALE DEPRESSIONS AND OTHER SURFACE DEFECTS TO A DEPTH OF NOT EXCEEDING 0.5 OF ACTUAL ALLOWANCE.
15. CRAMP, HARKLINE CRACK AND OTHER SURFACE DEFECTS TO A DEPTH NOT EXCEEDING 0.5 OF ACTUAL ALLOWANCE IS ALLOWED. DEFECT DEPTH IS TO BE DETERMINED BY MACHINING 0.5% FROM A BATCH.
16. DRESS THE SCALES.
17. INSPECTION GROUP II AS PER GOST 8479-70.
18. REST OF THE TECHNICAL REQUIREMENT GOST 8479-70 AND GOST 7505-74.

ISSUE	DATE	REFERENCE	20-07-15A		
APPROVED	K.R.S.	<i>[Signature]</i>	LETTERS	MASS	SCALE
CHECKED	S.RAVAN	<i>[Signature]</i>		6.6	1:1
DRAWN	PRK.RAO	<i>[Signature]</i>	SHEET	SHEETS 1	
			EXHAUST CAM-SHAFT (FORGING)		
			45 SELECT (C-0-42.047) TY 14-1-381-72		
			ENGINE FACTORY AVADI		