

A-A SHEET 3
E

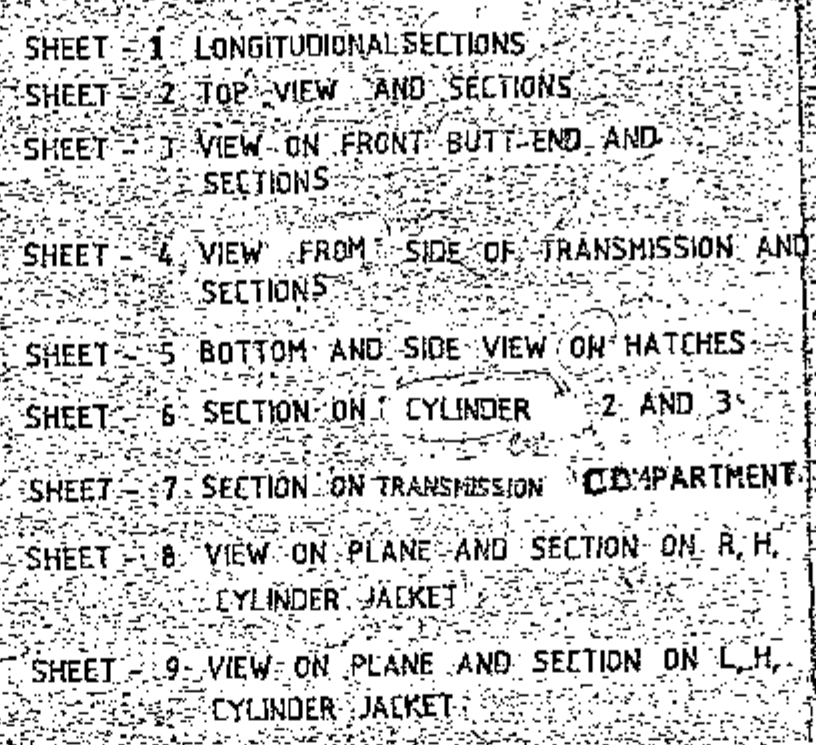
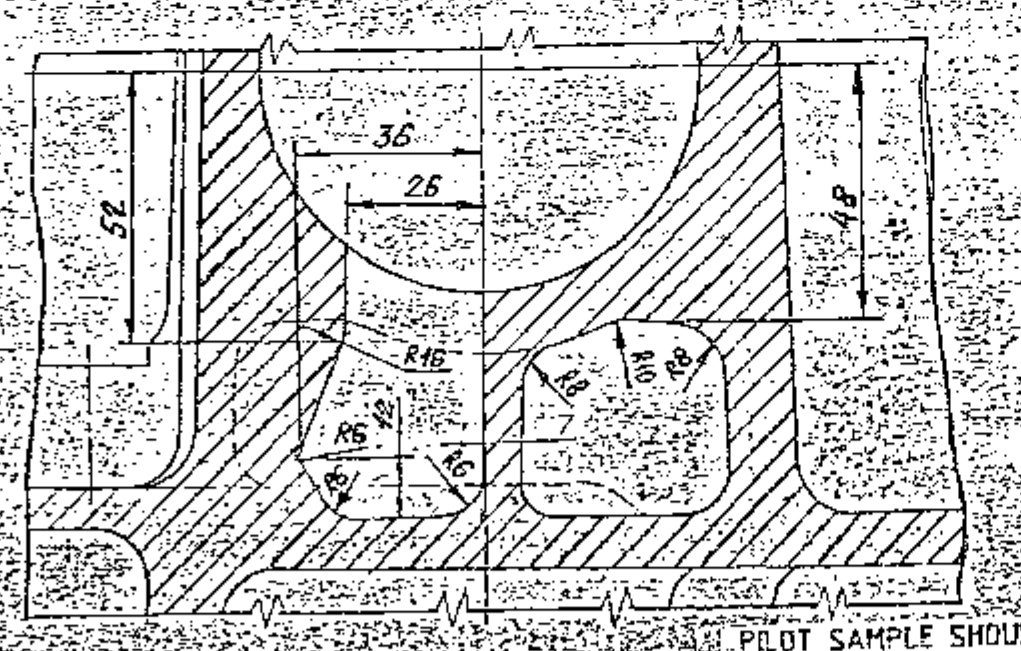
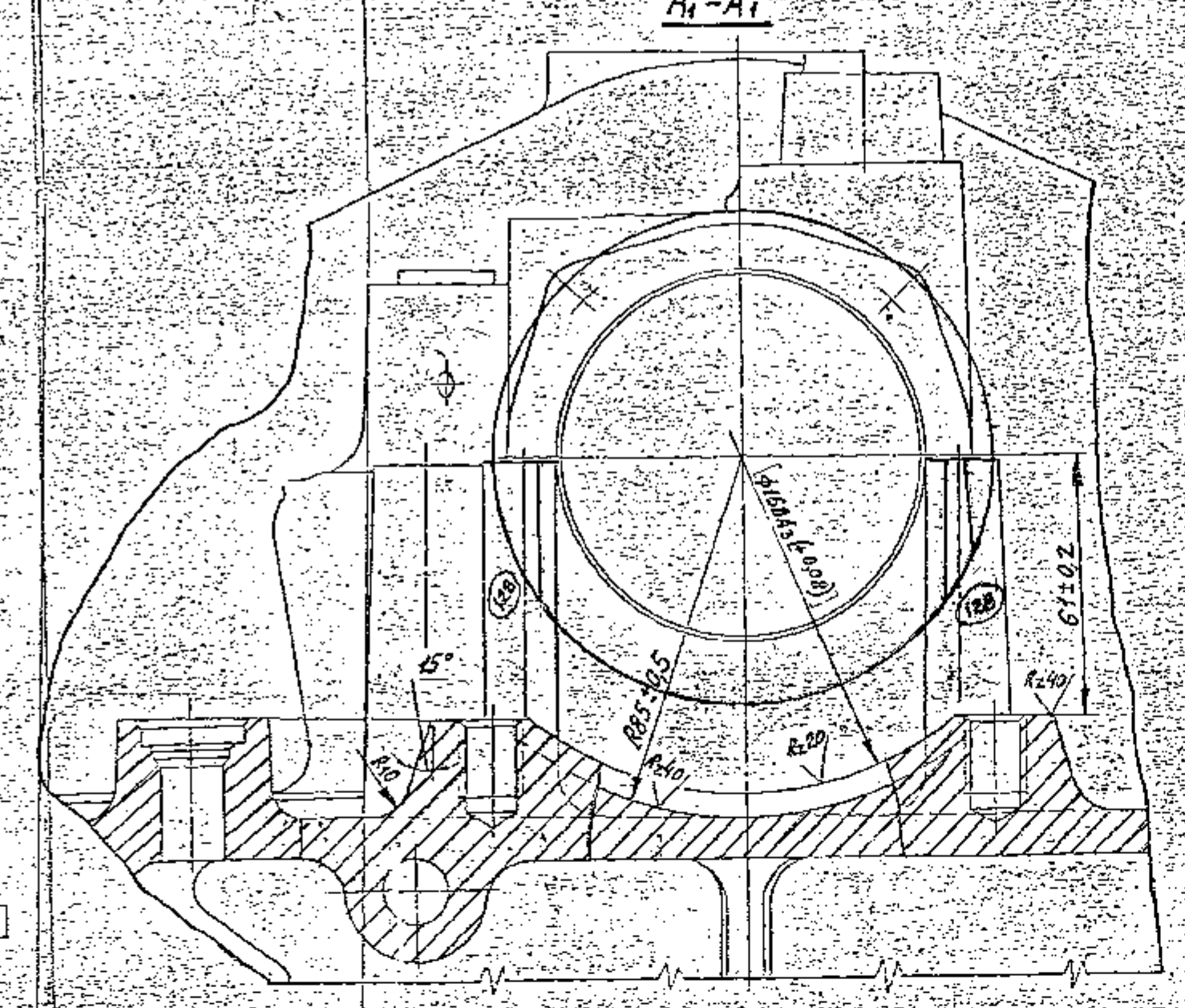
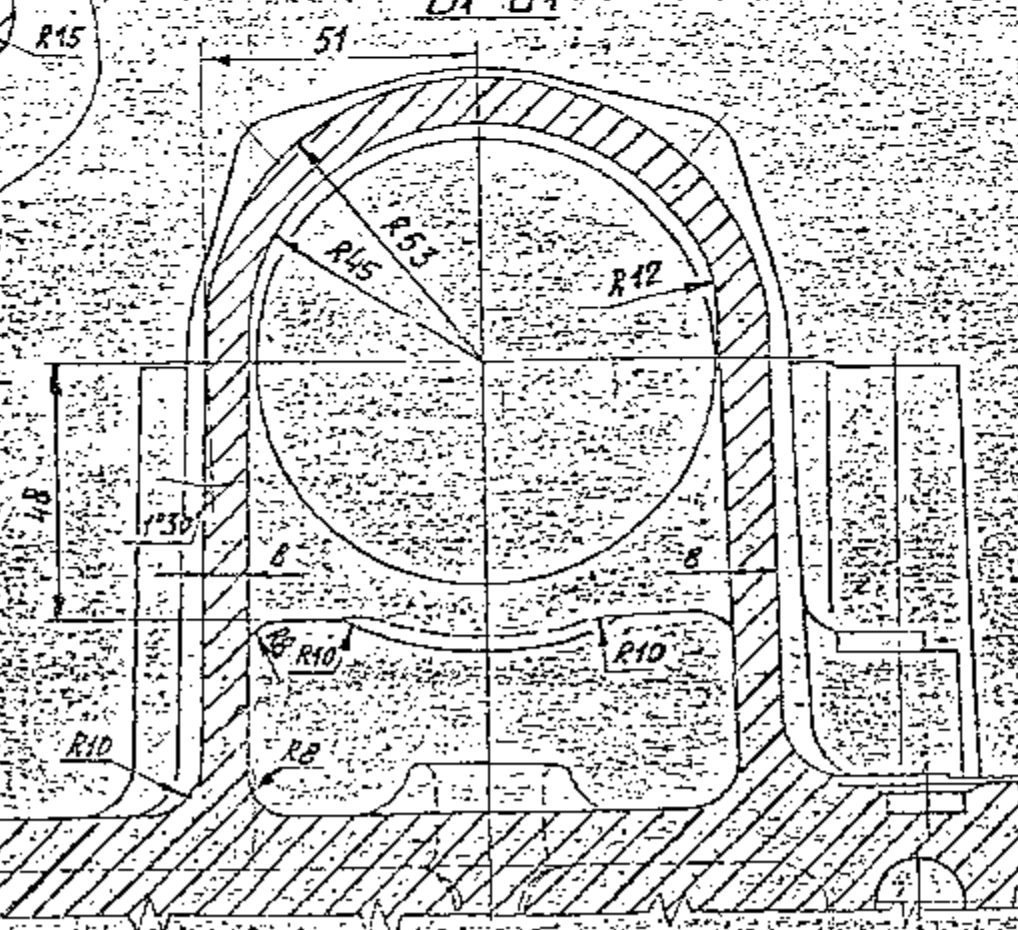
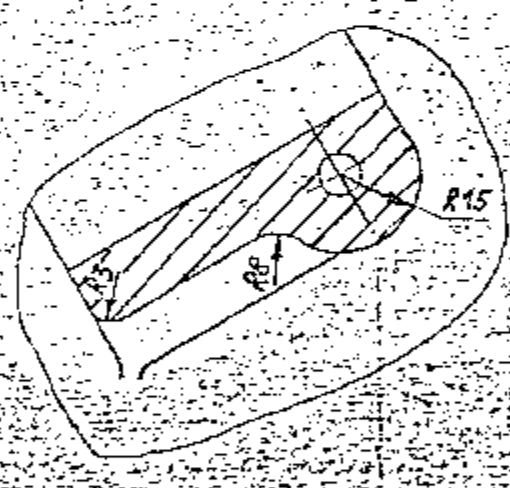
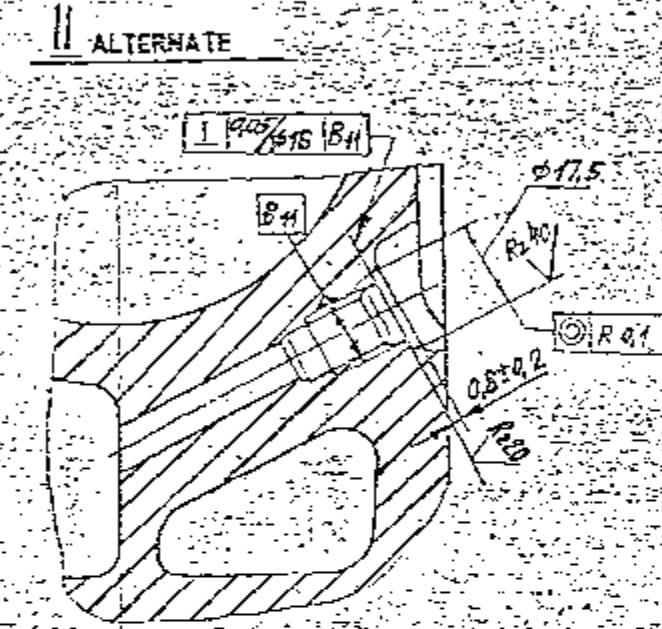
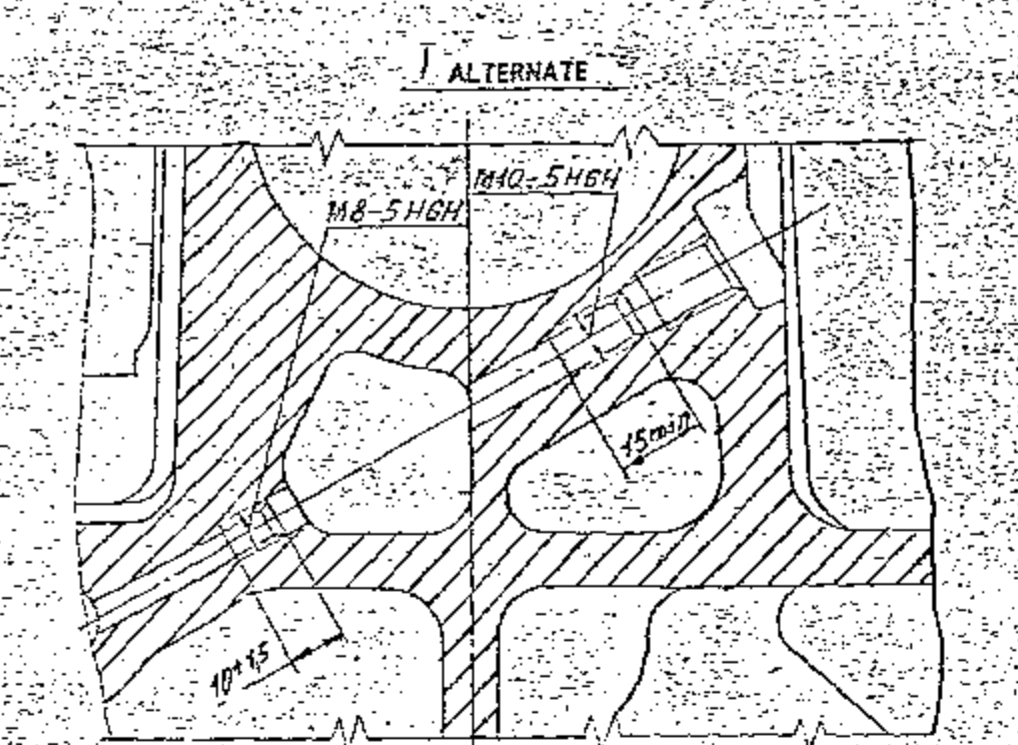
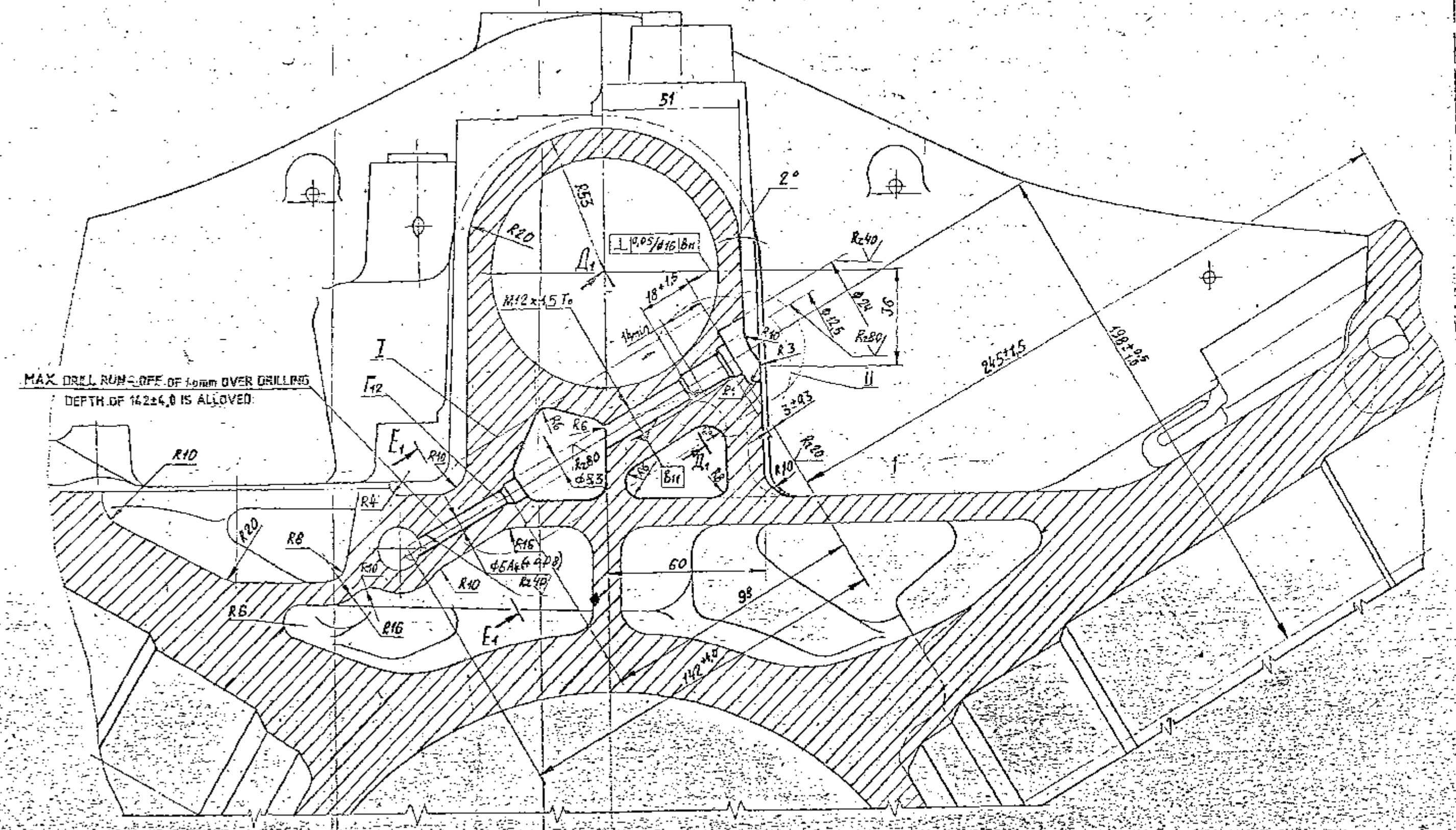
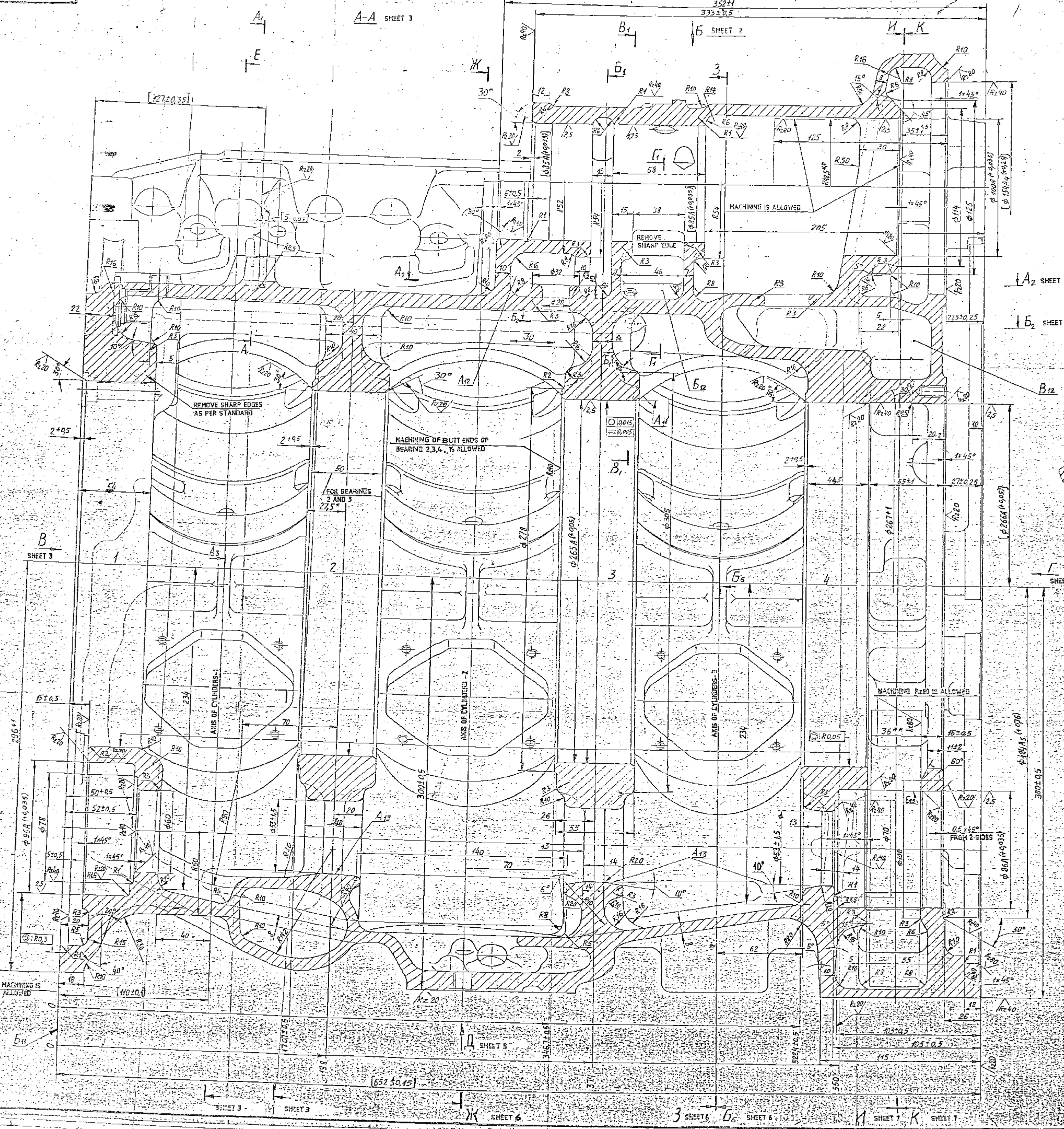
B1 SHEET 2
K

A2 SHEET 2

B2 SHEET 2

E-E

B1-B1



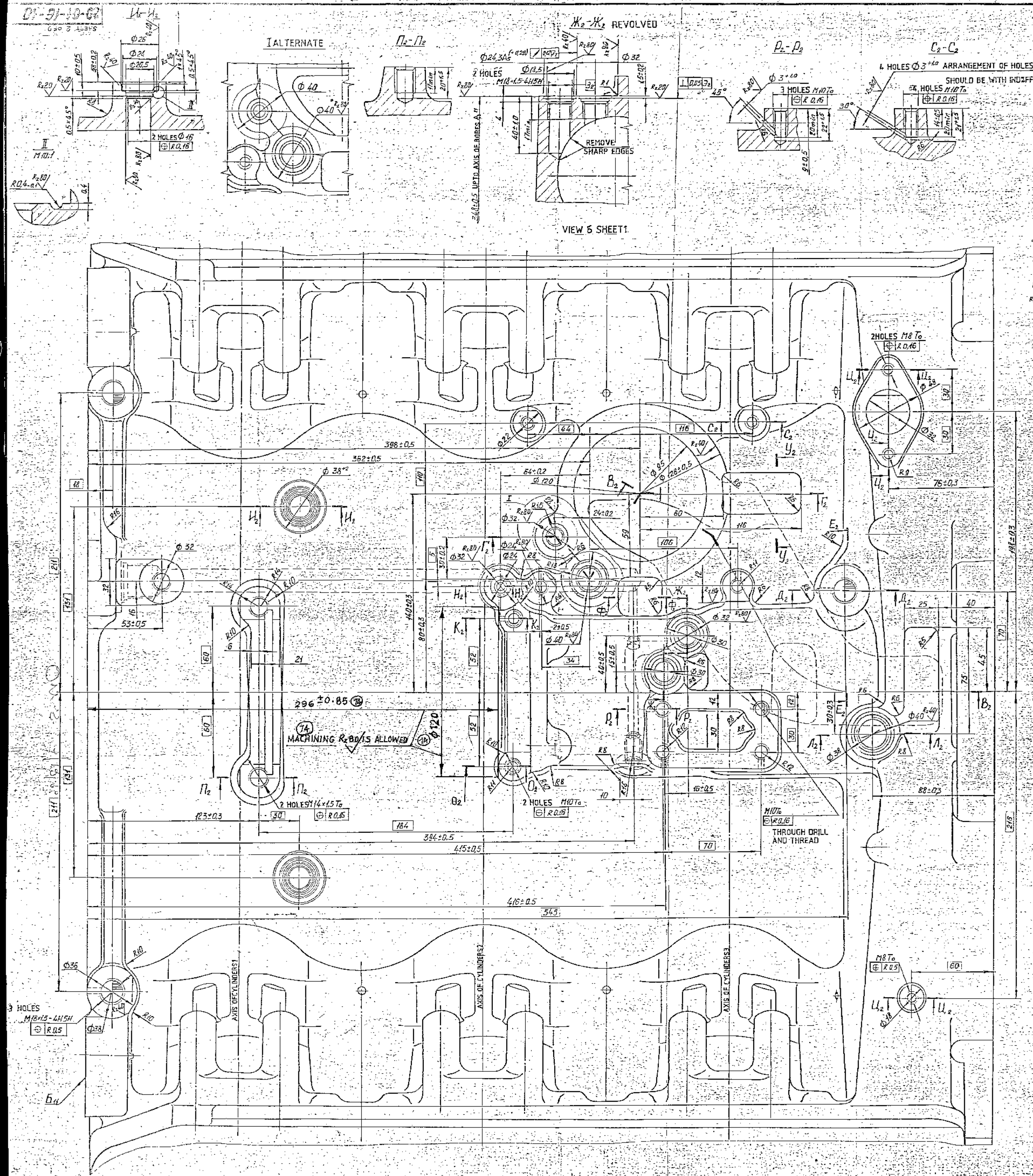
SHEET 1 LONGITUDINAL SECTIONS
SHEET 2 TOP VIEW AND SECTIONS
SHEET 3 VIEW ON FRONT BUTT-END AND SECTIONS
SHEET 4 VIEW FROM SIDE OF TRANSMISSION AND SECTIONS
SHEET 5 BOTTOM AND SIDE VIEW ON MATCHES
SHEET 6 SECTION ON CYLINDER 2 AND 3
SHEET 7 SECTION ON TRANSMISSION COMPARTMENT
SHEET 8 VIEW ON PLANE AND SECTION ON R, H CYLINDER JACKET
SHEET 9 VIEW ON PLANE AND SECTION ON L, H CYLINDER JACKET

*** IT IS ENSURED BY THE ADAPTABILITY TO MANUFACTURE

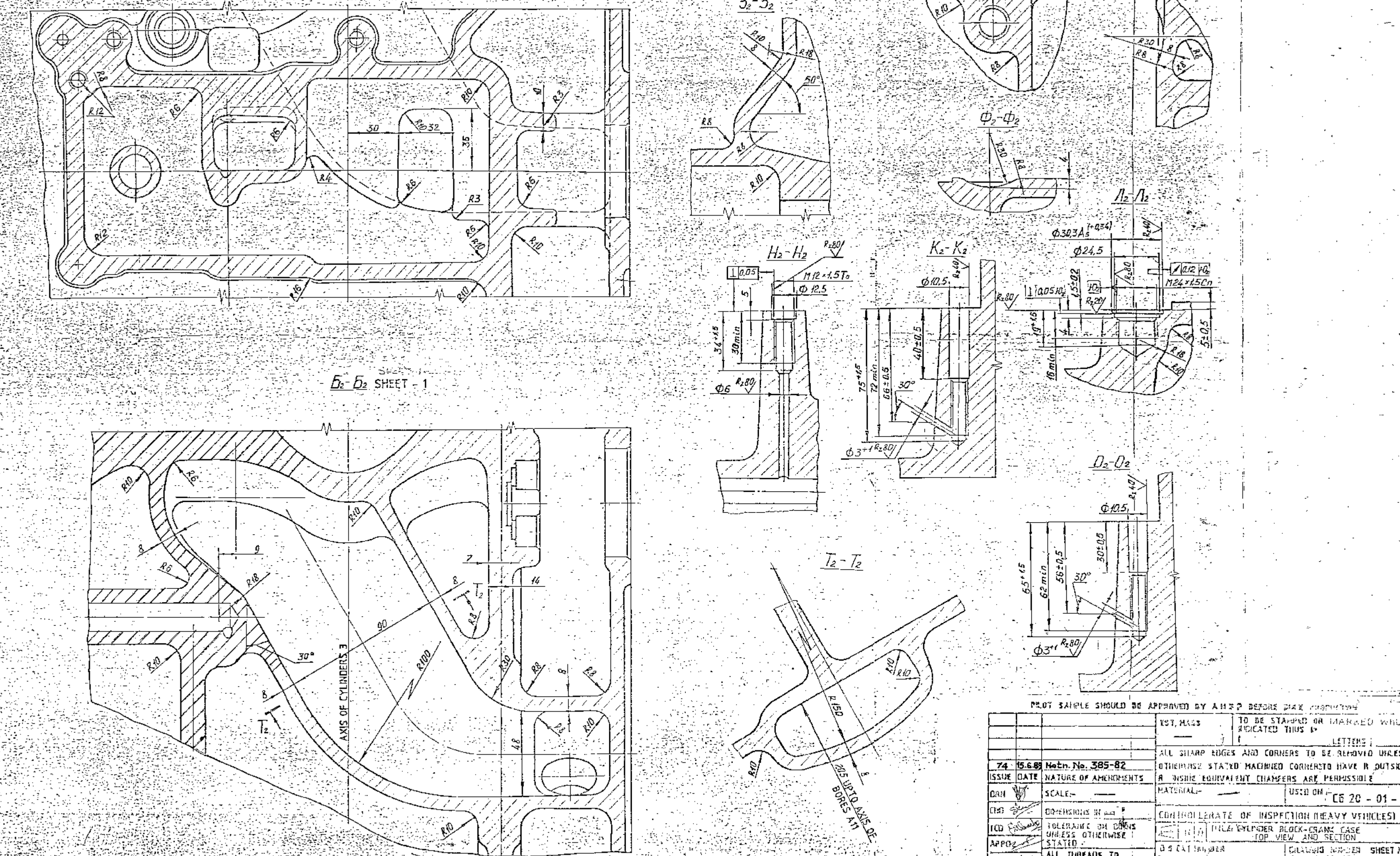
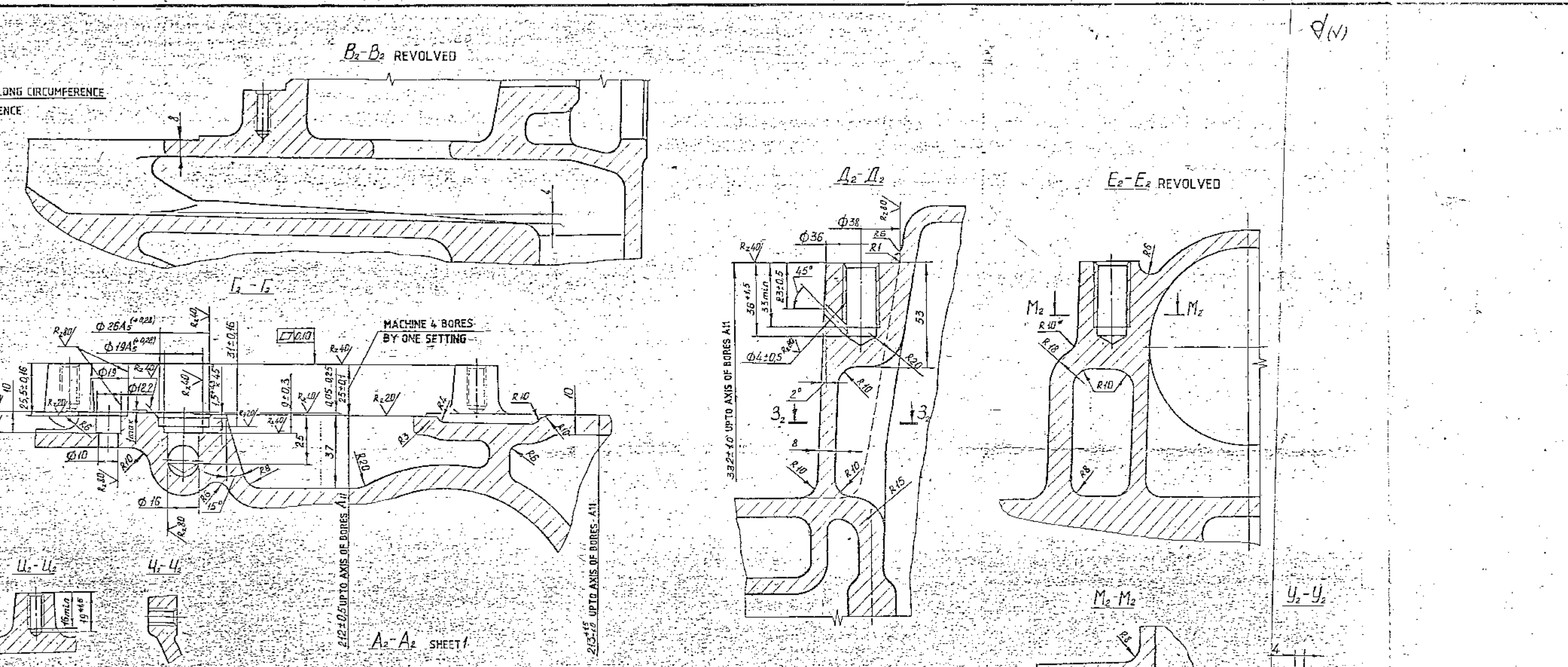
- 1) INSPECTION GROUP I AS PER TECHNICAL REQUIREMENTS T1-11.
- 2) REQUIREMENTS PLACED UPON CASING ARE AS PER TECHNICAL REQUIREMENTS T1-10-4, '65, EDITION 3, AND STANDARD 82050-15, ISSUE 3.
- 3) UNSPECIFIED PATTERN DRAFTS SHOULD BE WITHIN THE LIMITS OF 1° TO 2°.
- 4) UNSPECIFIED CAST RADI SHOULD BE WITHIN THE LIMITS OF R3 TO R5m.
- 5) INTERNAL UNMACHINED HARD-TO-GETAT CAVITIES OF THE CYLINDER BLOCK CRANKCASE WHICH ARE MARKED AS A2, E12, B2, (SHEET-1) AND A12, P2 (SHEET-5) SHOULD BE CLEAN CASTED IN, CORE BURRS, SCABS, FOULING ARE NOT ALLOWED.
- 6) UNMACHINED SURFACE FINISH SHOULD COMPLY WITH STANDARD.
- 7) BOSSES K1, M2 SHOULD NOT PROJECT BEYOND PLANES K1, M2 (A4-A6, B4-B6 SHEET 4).
- 8) UNSPECIFIED LIMIT DEVIATIONS OF MACHINING DIMENSIONS ARE AS FOLLOWS:-
FOR HOLES - AS PER A2
OTHERS - AS PER C4
ANGULAR DIMENSIONS - ±2° - 30°
RADI AND CHAMFERS OF UPTO 1.0mm - ±0.3
AND FOR THOSE OF MORE THAN 1.0mm - ±0.5
- 9) MAKE THREADS:-
-M6 TO M8 TO AS PER STANDARD 82020-12 ISSUE 7
-M 10 TO M12 TO AS PER STANDARD 82020-12 ISSUE 4
-M14 X 1.5 TO AS PER STANDARD 82020-07 ISSUE 4
-M18 X 1.5 Co M24 X 1.5 Co AS PER STANDARD 82020-14 ISSUE 7
-M22 X 2 Co M24 X 2 Co AS PER FACTORY STANDARD CT1013-71
- 10) CARRY OUT THE MACHINING AS PER THE DIMENSION SQUARE BRACKETS IN THE ASSEMBLY.
- 11) DIMENSION IS GIVEN FOR REFERENCE.
- 12) CHECK THE DIMENSION AS BY THE TEMPLATE.
- 13) MACHINING R20 OF THE AREAS TO BE CHECKED BY TEMPLATE IS ALLOWED.
- 14) QUALITY AND SIZE OF ROUNDING OFF AND BLUNTING OF THE SHARP EDGES MENTIONED SEPARATLY, SHOULD COMPLY WITH A STANDARD.
- 15) THE PROFILE OF THE GROOVES ARE TO BE CHECKED BY MASS PARTS (U6-10 SHEET 8, K9, K9 SHEET 9) SHOULD COMPLY WITH A STANDARD LATERAL NOTCHES AND DENTS ON RIDGES MARKED Y11 (X11 SHEET 9).
- 16) CHECK HOLES A3 (A - A SHEET 1) BY GO-GUAGE Ø 51mm REFERRING TO DATUM SURFACE B3 IT IS ALLOWED TO PERFORM THE CHECK BY MACHINING REF.
- 17) SEPARATE DRESSED NOTCHES ARE PERMITTED OVER DIAMETERS OF BORES A 11.
- 18) EXTERNAL AND INTERNAL UNMACHINED SURFACE AND BORES G11, P11, C11 (SHEET 6) OF CYLINDER PACKETS ARE COATED WITH BAKELITE VARNISH-M-1, GOST 901-70V IN PRESENCE OF PACKLITE IN OIL PASSAGE A12 (A3-A3) SHEET - 3) T12 (B1-B1 SHEET 11) AND IN CAVITY A12 (A-A, SHEET 1) IS NOT PERMITTED.
- 19) SUBJECT CYLINDER JACKETS TO A PRESSURE TEST BY SUPPLYING WATER TO A TEMPERATURE OF 60° TO 90° C UNDER THE PRESSURE OF 0.5 MPa (5 kgf/cm²) FOR 5 MIN BEFORE BAKELITE VARNISHING.
- 20) SUBJECT INTERNAL CHAMBERS OF THE CYLINDER BLOCK CRANKCASE (CYLINDER COMPARTMENTS, TRANSMISSION CHAMBER, FUEL INJECTION, ADVANCE COUPLING CHAMBER) TO A PRESSURE TEST BY SUPPLYING WATER AT A TEMPERATURE NOT BELOW 60° C UNDER A PRESSURE OF 0.1 TO 0.15 MPa (1 TO 1.5 kgf/cm²) FOR 5 MIN OR SUPPLYING AIR BEFORE BAKELITE VARNISHING.
- 21) SUBJECT OIL PASSAGE A12 (A3-A3 SHEET 3), T12 (B1-B1 SHEET 11) TO A PRESSURE TEST BY SUPPLYING MOTOR OIL AT A TEMPERATURE OF 0° TO 100° C UNDER A PRESSURE OF 12 TO 13 MPa (12 TO 13 kgf/cm²) FOR 3 MINUTES OIL PASSAGES MAY BE SUBJECT TO A PRESSURE TEST BY SUPPLYING WATER.
- 22) MARK THE MATERIAL GRADE AS PER GOST 2171-79 BY USING TYPE W-12, GOST 2930-62
- 23) IT IS PERMITTED THAT MEASUREMENT AFTER COORDINATES OF HOLES W12 W12 (VIEW T1 SHEET=B) 312-1012 (VIEW H SHEET=9) TO BE CARRIED OUT FROM FACE B31 WITH LIMITED DEVIATIONS ±0.15mm.
- 24) LAP B15 SURFACES (SHT. 8 P VIEW, SHT. 3 H VIEW) WITH POWDER No. 40 GOST 3647-80 TO F13 DIMENSION, ROUND A GEARING PORT TO GET THE SURFACE ROUGHNESS OF R2.80; TAKE BY THE GAUGING PLUG.

DRN	CHD	TEC	APPU	DATE	SCALE	EST. MASS	118.19 Kg
MATERIAL: A04 GOST 2685-75				USED ON: CB 20-01-02-9		TO BE STAMPED OR MARKED WHERE INDICATED THIS =	
CONTROLLETER OF INSPECTION/HEAVY VEHICLES AVADI 96				TITLE: CYLINDER BLOCK - CRANK CASE LONGITUDINAL SECTION		DRAWING NUMBER: SHT 1	
PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE S.U.K. PRODUCTION.				D.S. CAT NUMBER		DRAWING NUMBER: SHT 1	
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED LOTNERS TO HAVE R OUT-POE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.				NATURE OF AMENDMENTS		DRAWING NUMBER: SHT 1	
128 15-0-89 Notn. No. 385-82				128 14-6-89 Notn. No. 1694-81		128 14-6-89 Notn. No. 1191-82	
DATE				DATE		DATE	

01-21-19-62



VIEW 5 SHEET 1



B-B SHEET - 1

PLAT SAMPLE SHOULD BE APPROVED BY A.H.F.P. BEFORE DISK COMPLETION

REV	NO.	DATE	NATURE OF AMENDMENTS
	74	15-6-88	Issue No. 385-82
DESIGNED BY	E. S. B. (S)		
DRAWN BY	S. C. S. (S)		
CHECKED BY	S. C. S. (S)		
APPROVED BY	S. C. S. (S)		
DATE	15-6-88		

TESTING	TESTED BY	DATE	RESULTS

1. ALL SHARP EDGES AND CORNERS TO BE ROUNDED UNLESS OTHERWISE STATED. MAINTAIN CORNER TO HAVE R OUTSIDE R UNLESS OTHERWISE STATED.

2. DIMENSIONS IN PARENTHESES ARE PERMISSIBLE UNLESS OTHERWISE STATED.

3. ALL DIMENSIONS TO BE TAKEN TO CENTER UNLESS OTHERWISE STATED.

4. DIMENSIONS IN PARENTHESES ARE PERMISSIBLE UNLESS OTHERWISE STATED.

5. DIMENSIONS IN PARENTHESES ARE PERMISSIBLE UNLESS OTHERWISE STATED.

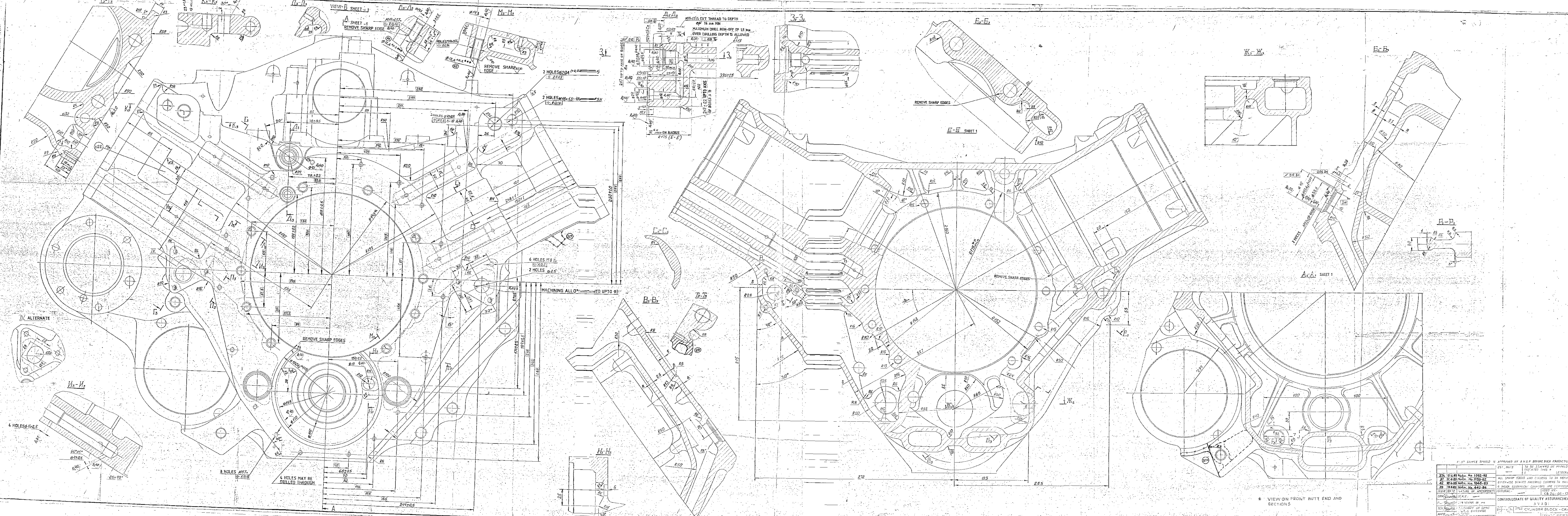
6. DIMENSIONS IN PARENTHESES ARE PERMISSIBLE UNLESS OTHERWISE STATED.

7. DIMENSIONS IN PARENTHESES ARE PERMISSIBLE UNLESS OTHERWISE STATED.

8. DIMENSIONS IN PARENTHESES ARE PERMISSIBLE UNLESS OTHERWISE STATED.

9. DIMENSIONS IN PARENTHESES ARE PERMISSIBLE UNLESS OTHERWISE STATED.

10. DIMENSIONS IN PARENTHESES ARE PERMISSIBLE UNLESS OTHERWISE STATED.



372 FILED No. 1002-02

373 10-80 No. 1153-02

374 10-80 No. 1043-05

375 10-80 No. 1043-04

376 10-80 No. 1043-04

377 10-80 No. 1043-04

378 10-80 No. 1043-04

379 10-80 No. 1043-04

380 10-80 No. 1043-04

381 10-80 No. 1043-04

382 10-80 No. 1043-04

383 10-80 No. 1043-04

384 10-80 No. 1043-04

385 10-80 No. 1043-04

386 10-80 No. 1043-04

387 10-80 No. 1043-04

388 10-80 No. 1043-04

389 10-80 No. 1043-04

390 10-80 No. 1043-04

391 10-80 No. 1043-04

392 10-80 No. 1043-04

393 10-80 No. 1043-04

394 10-80 No. 1043-04

395 10-80 No. 1043-04

396 10-80 No. 1043-04

397 10-80 No. 1043-04

398 10-80 No. 1043-04

399 10-80 No. 1043-04

400 10-80 No. 1043-04

401 10-80 No. 1043-04

402 10-80 No. 1043-04

403 10-80 No. 1043-04

404 10-80 No. 1043-04

405 10-80 No. 1043-04

406 10-80 No. 1043-04

407 10-80 No. 1043-04

408 10-80 No. 1043-04

409 10-80 No. 1043-04

410 10-80 No. 1043-04

411 10-80 No. 1043-04

412 10-80 No. 1043-04

413 10-80 No. 1043-04

414 10-80 No. 1043-04

415 10-80 No. 1043-04

416 10-80 No. 1043-04

417 10-80 No. 1043-04

418 10-80 No. 1043-04

419 10-80 No. 1043-04

420 10-80 No. 1043-04

421 10-80 No. 1043-04

422 10-80 No. 1043-04

423 10-80 No. 1043-04

424 10-80 No. 1043-04

425 10-80 No. 1043-04

426 10-80 No. 1043-04

427 10-80 No. 1043-04

428 10-80 No. 1043-04

429 10-80 No. 1043-04

430 10-80 No. 1043-04

431 10-80 No. 1043-04

432 10-80 No. 1043-04

433 10-80 No. 1043-04

434 10-80 No. 1043-04

435 10-80 No. 1043-04

436 10-80 No. 1043-04

437 10-80 No. 1043-04

438 10-80 No. 1043-04

439 10-80 No. 1043-04

440 10-80 No. 1043-04

441 10-80 No. 1043-04

442 10-80 No. 1043-04

443 10-80 No. 1043-04

444 10-80 No. 1043-04

445 10-80 No. 1043-04

446 10-80 No. 1043-04

447 10-80 No. 1043-04

448 10-80 No. 1043-04

449 10-80 No. 1043-04

450 10-80 No. 1043-04

451 10-80 No. 1043-04

452 10-80 No. 1043-04

453 10-80 No. 1043-04

454 10-80 No. 1043-04

455 10-80 No. 1043-04

456 10-80 No. 1043-04

457 10-80 No. 1043-04

458 10-80 No. 1043-04

459 10-80 No. 1043-04

460 10-80 No. 1043-04

461 10-80 No. 1043-04

462 10-80 No. 1043-04

463 10-80 No. 1043-04

464 10-80 No. 1043-04

465 10-80 No. 1043-04

466 10-80 No. 1043-04

467 10-80 No. 1043-04

468 10-80 No. 1043-04

469 10-80 No. 1043-04

470 10-80 No. 1043-04

471 10-80 No. 1043-04

472 10-80 No. 1043-04

473 10-80 No. 1043-04

474 10-80 No. 1043-04

475 10-80 No. 1043-04

476 10-80 No. 1043-04

477 10-80 No. 1043-04

478 10-80 No. 1043-04

479 10-80 No. 1043-04

480 10-80 No. 1043-04

481 10-80 No. 1043-04

482 10-80 No. 1043-04

483 10-80 No. 1043-04

484 10-80 No. 1043-04

485 10-80 No. 1043-04

486 10-80 No. 1043-04

487 10-80 No. 1043-04

488 10-80 No. 1043-04

489 10-80 No. 1043-04

490 10-80 No. 1043-04

491 10-80 No. 1043-04

492 10-80 No. 1043-04

493 10-80 No. 1043-04

494 10-80 No. 1043-04

495 10-80 No. 1043-04

496 10-80 No. 1043-04

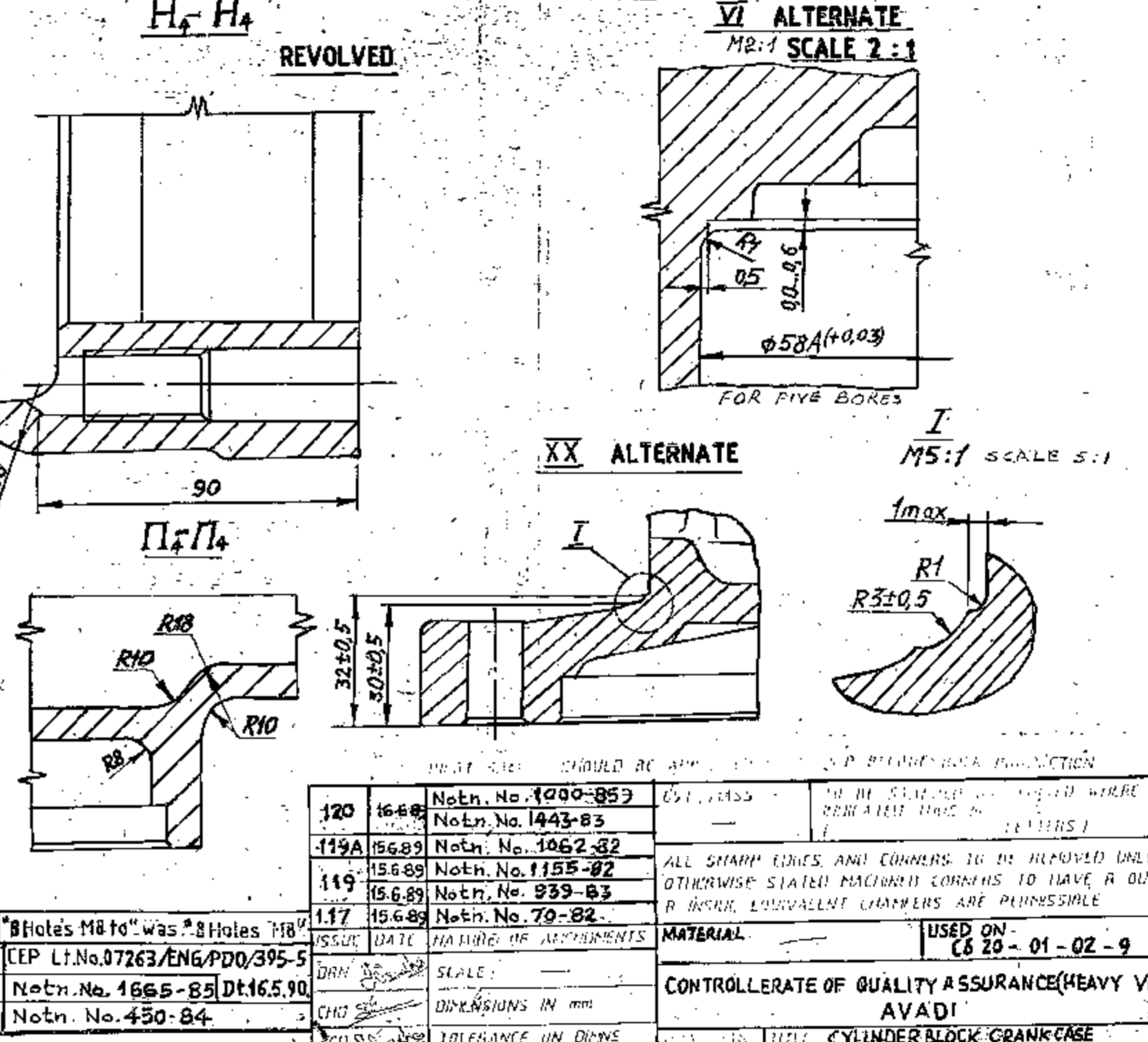
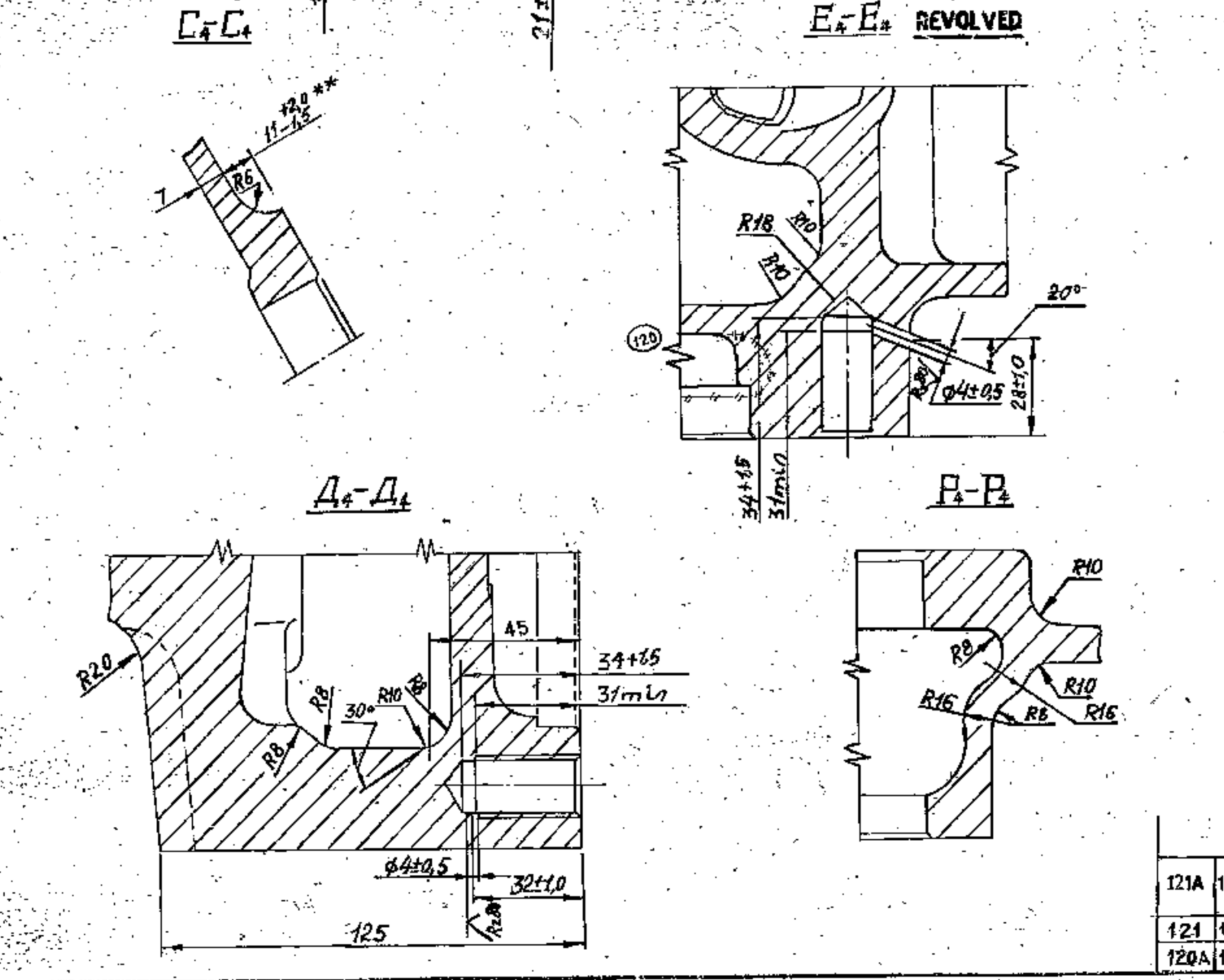
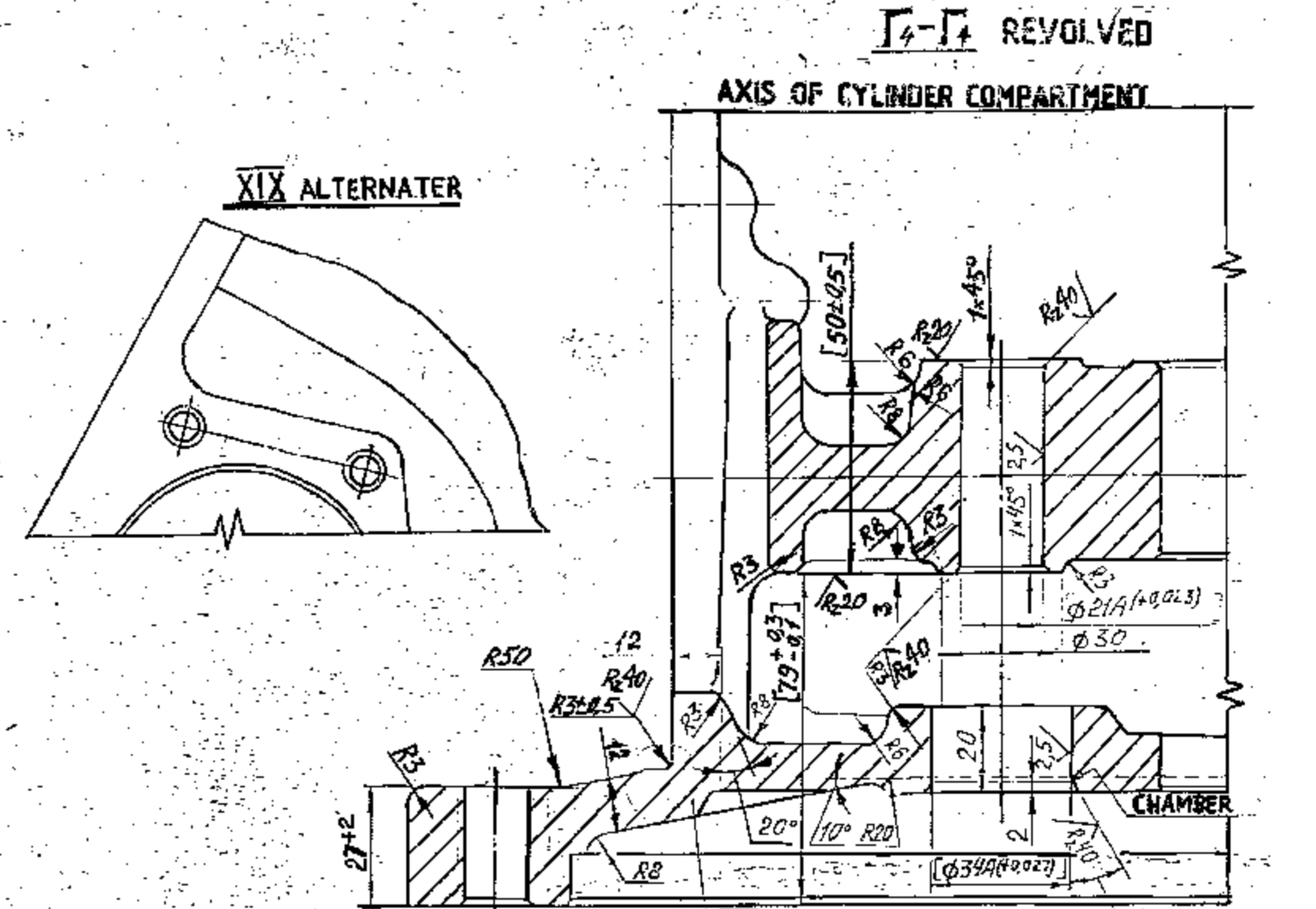
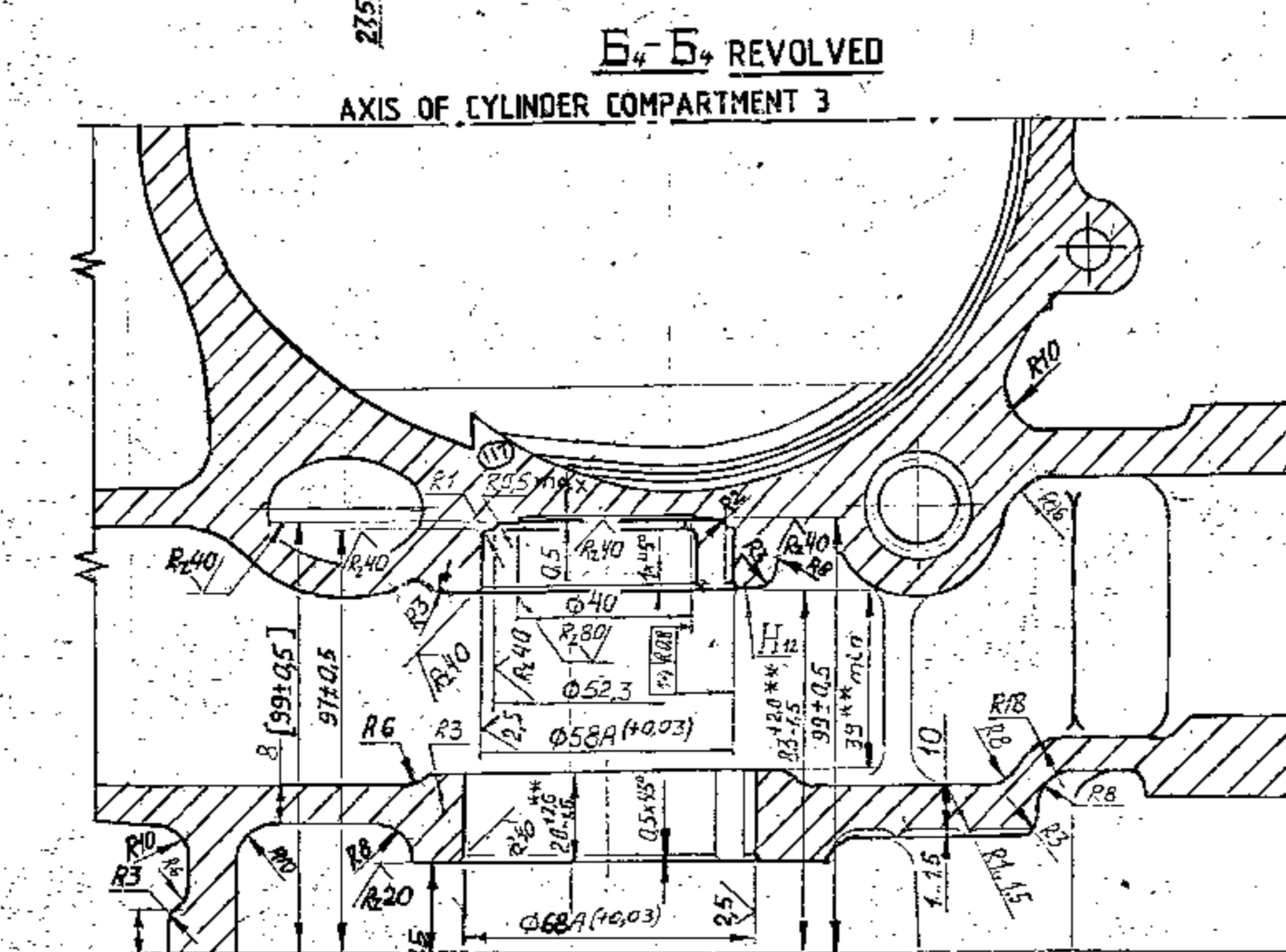
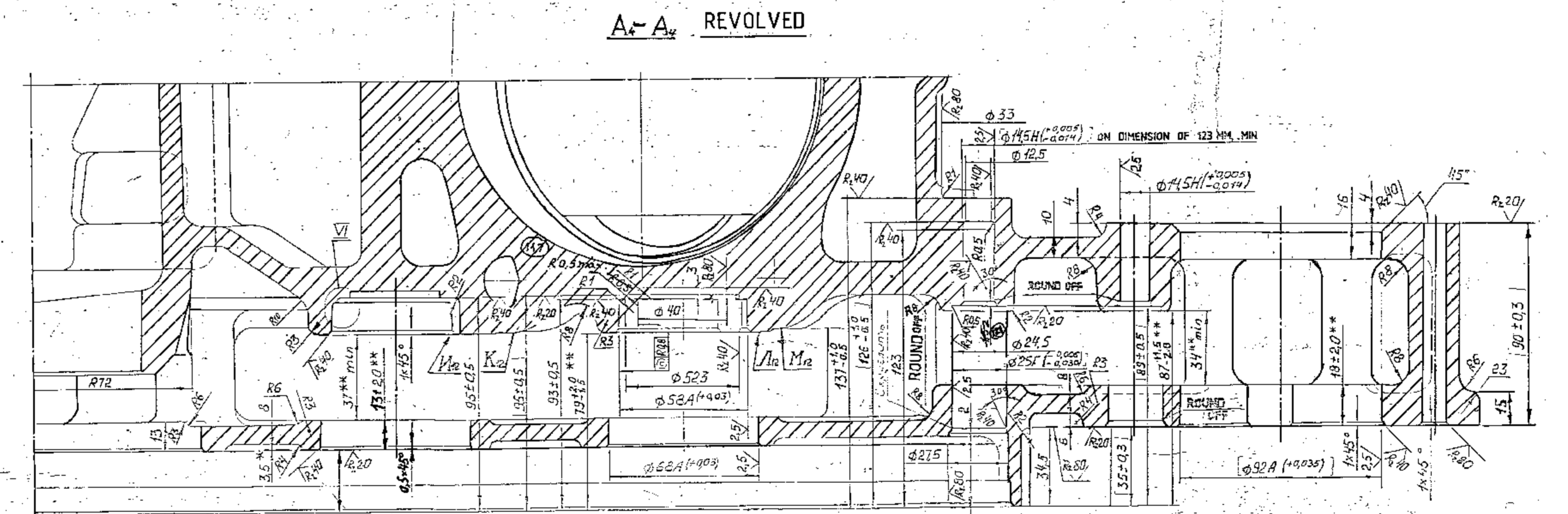
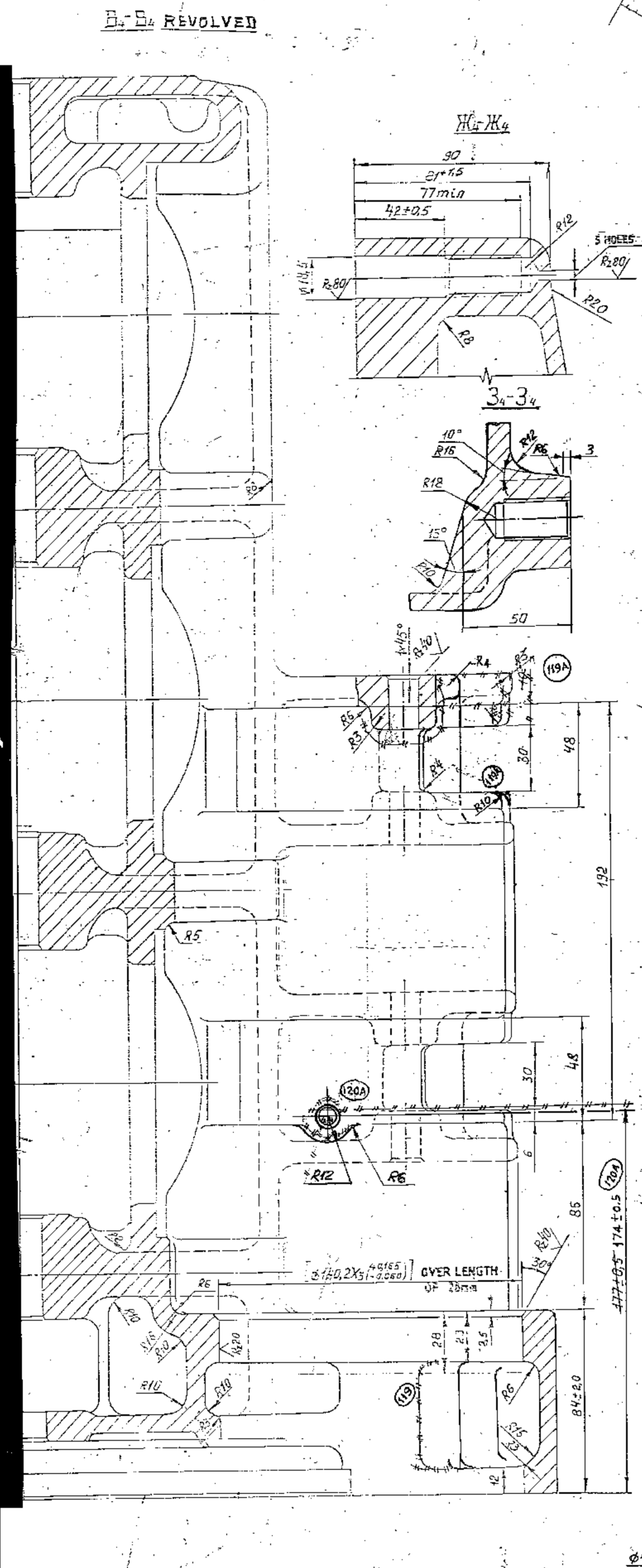
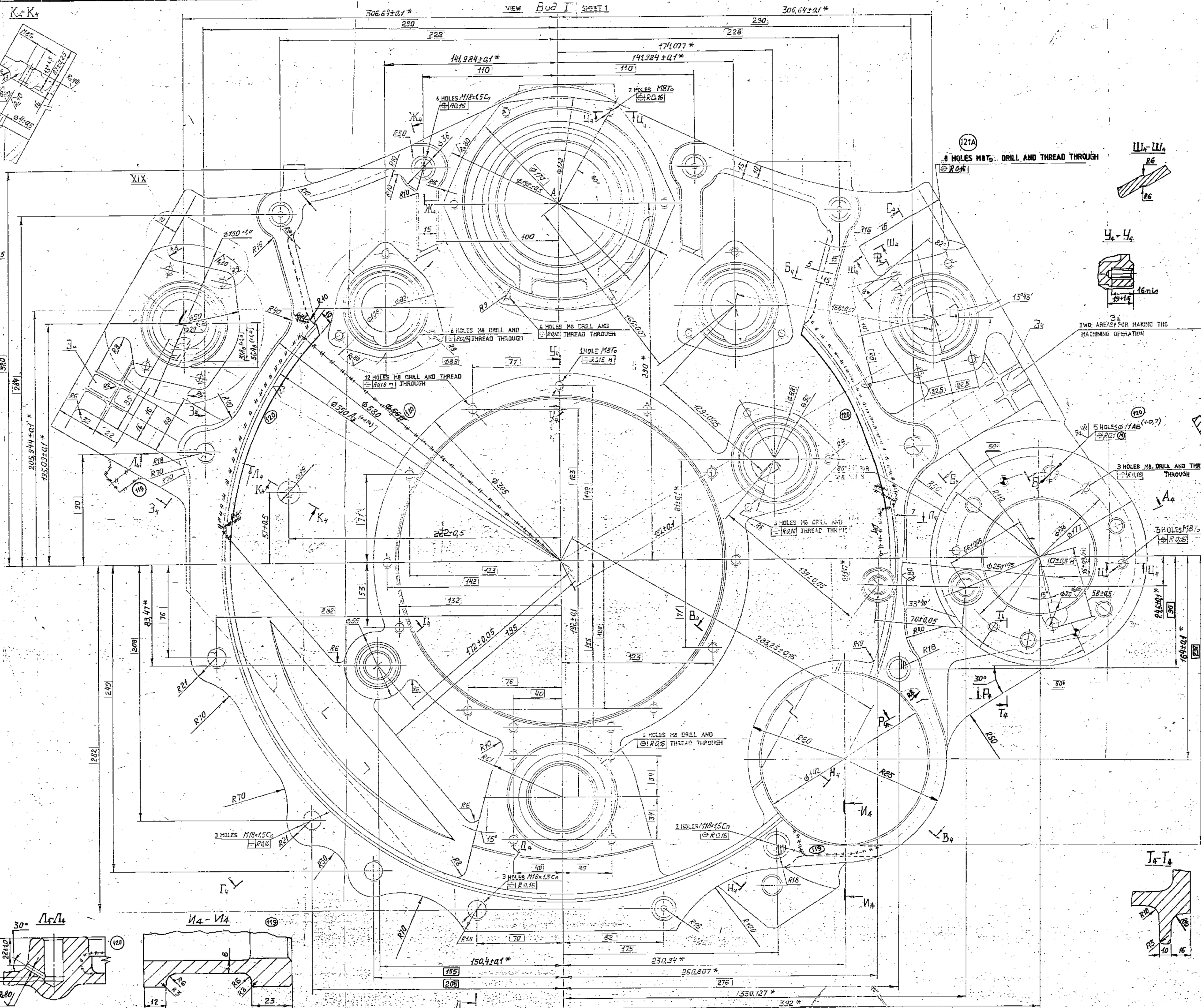
497 10-80 No. 1043-04

498 10-80 No. 1043-04

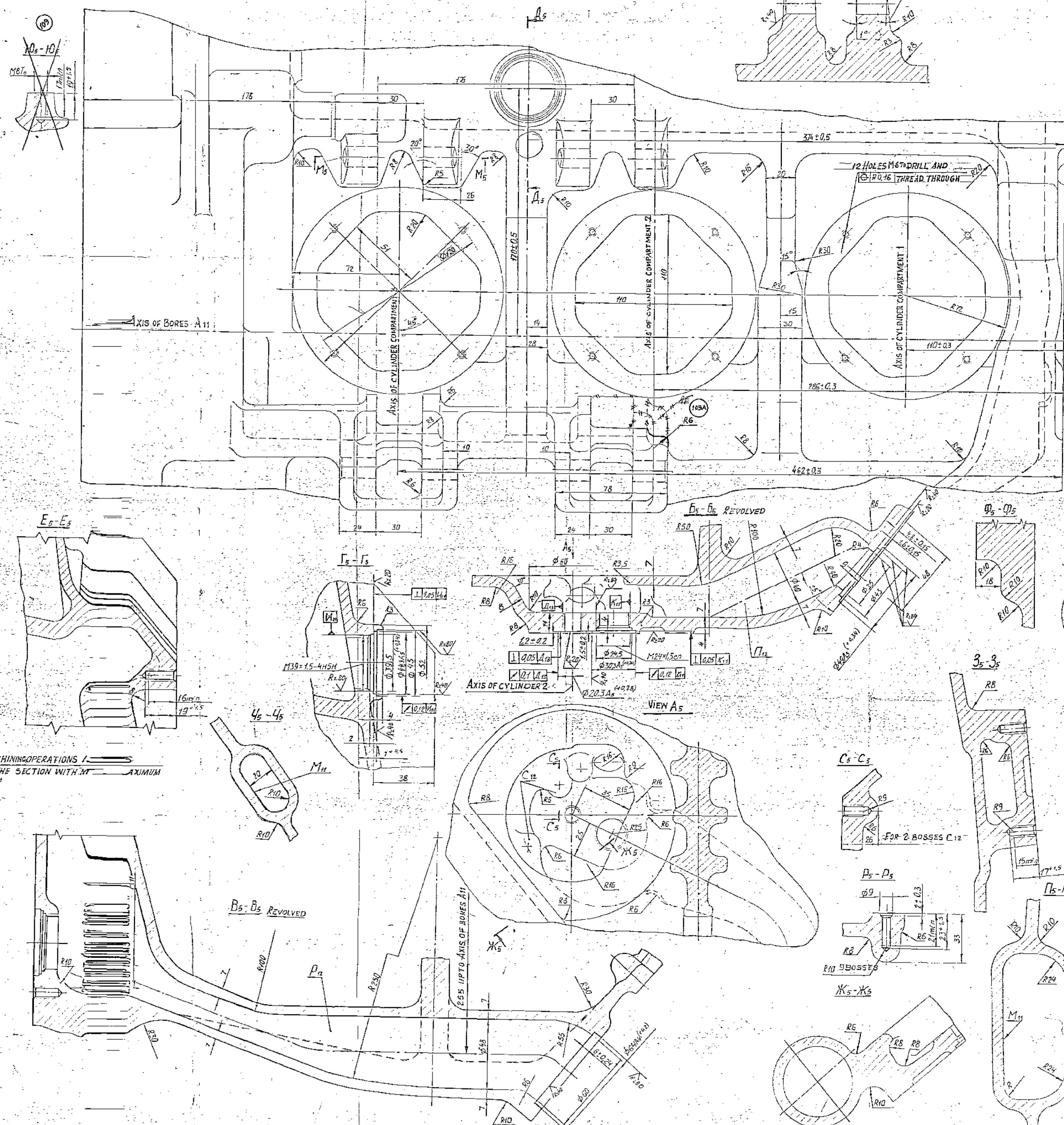
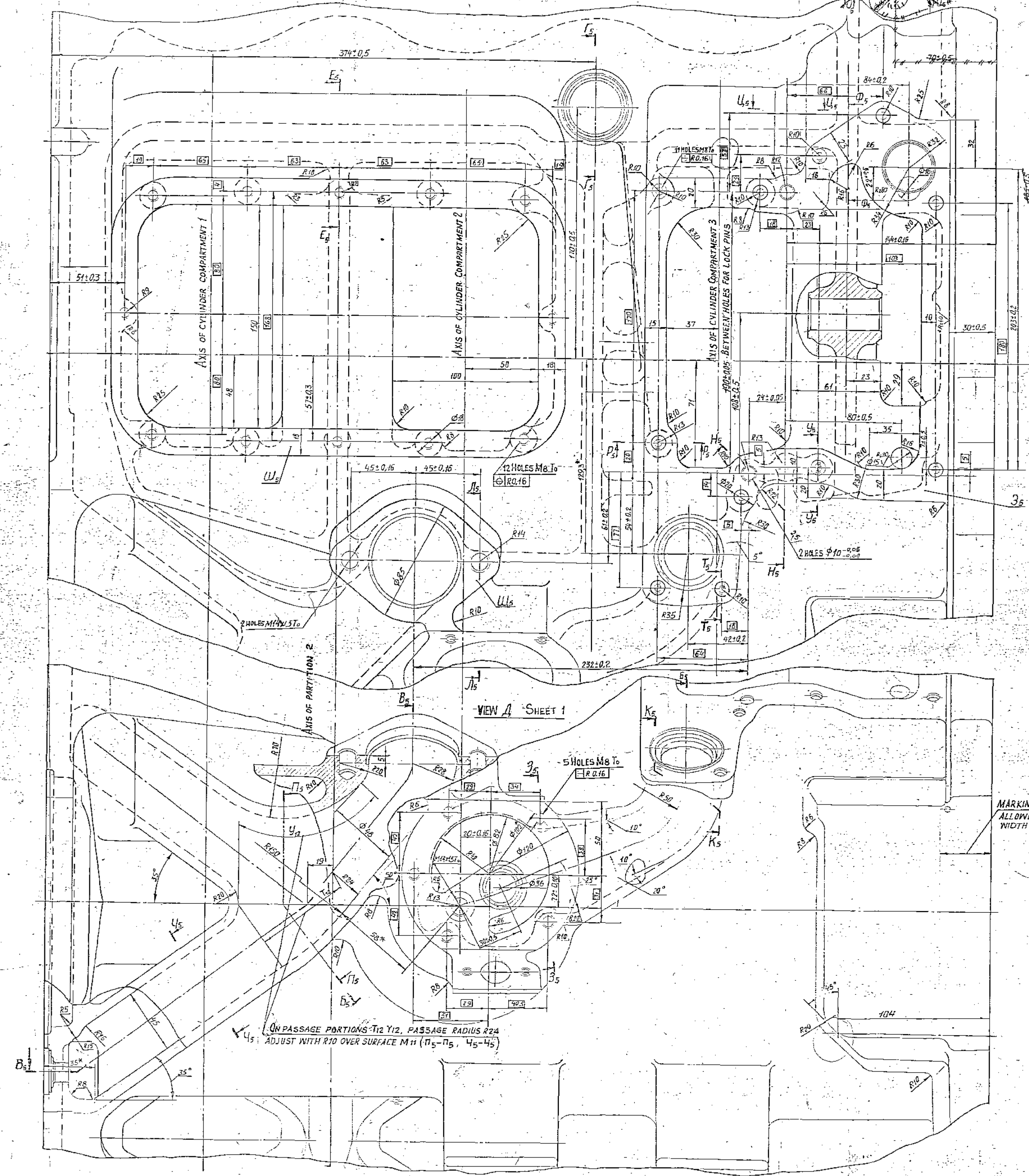
499 10-80 No. 1043-04

500 10-80 No. 1043-04

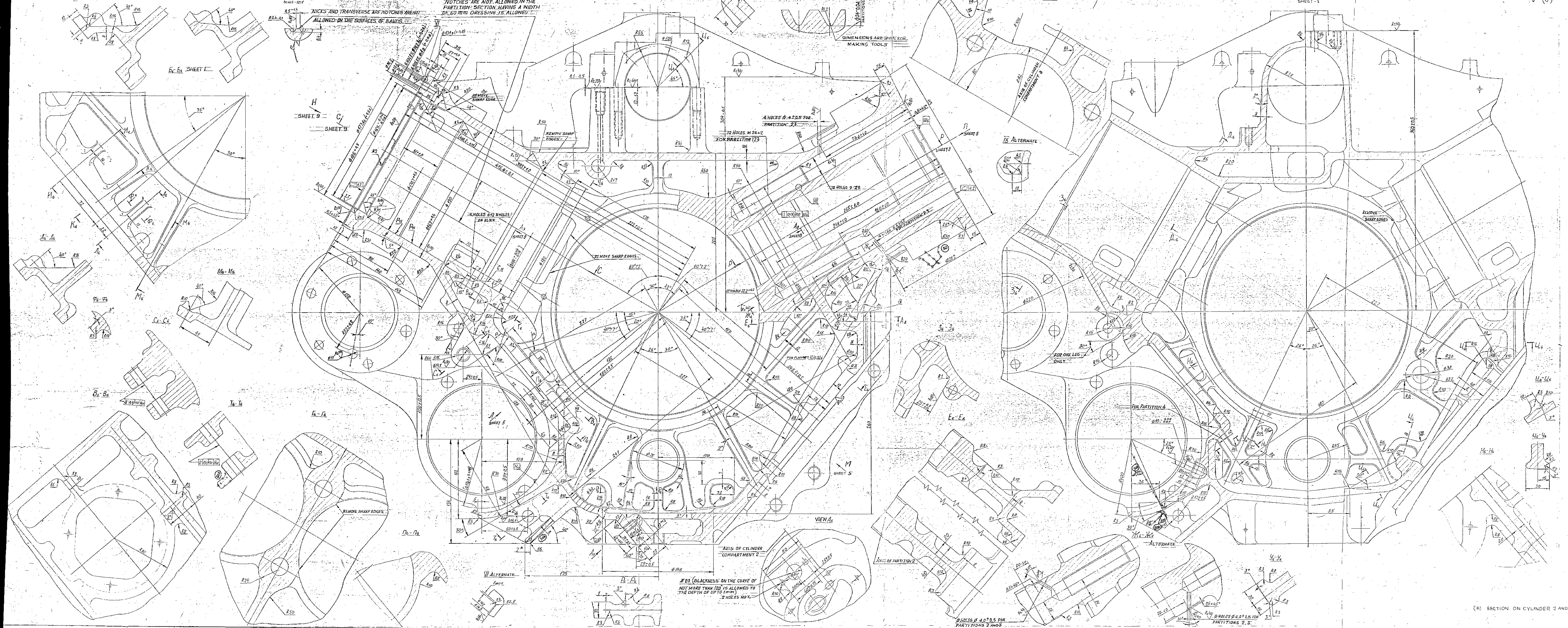
* VIEW ON FRONT BUTT END AND SECTIONS



120	16.64	Notch No. 1000-852	
119A	16.64	Notch No. 1443-85	
119B	16.64	Notch No. 1062-82	
119C	16.64	Notch No. 1152-82	
119D	16.64	Notch No. 933-82	
117	15.64	Notch No. 79-82	
121A	15.64	Notch No. 1000-852	
121	15.64	Notch No. 1062-82	
121A	15.64	Notch No. 1062-82	
121A	15.64	Notch No. 1062-82	
121A	15.64	Notch No. 1062-82	



109A (1699) No. 1062-82	EST. PARTS TO BE ASSEMBLED WITH PROTECTIVE FILM
109 (1649) No. 1155-82	ALL SHARP EDGES MUST BE ROUNDED TO AN R MINIMUM UNLESS OTHERWISE STATED. MACHINING CONGRUITY TO BE IN UNIFORMITY WITH SURFACE FINISHES AND PROFILES.
ISSUE DATE: NATURE OF AMENDMENTS:	MATERIAL: USED ON: CE 20-01-02-9
CON: SCALE:	CONTROL RATE OF QUALITY APPROVAL: HEAVY VEHICLES A V A 111
CND: DIMENSIONS IN MM:	CYLINDER BLOCK-CRANK CASE
ICCN: UNLESS OTHERWISE STATED:	DRAWING NUMBER: 20-01-16-10
APPD: ALL THREADS TO CONFORM TO:	SHEET 5 OF 9



PROT SAMPLE SHOULD BE APPROVED BY A H.S.P. BEFORE USE IN PRODUCTION

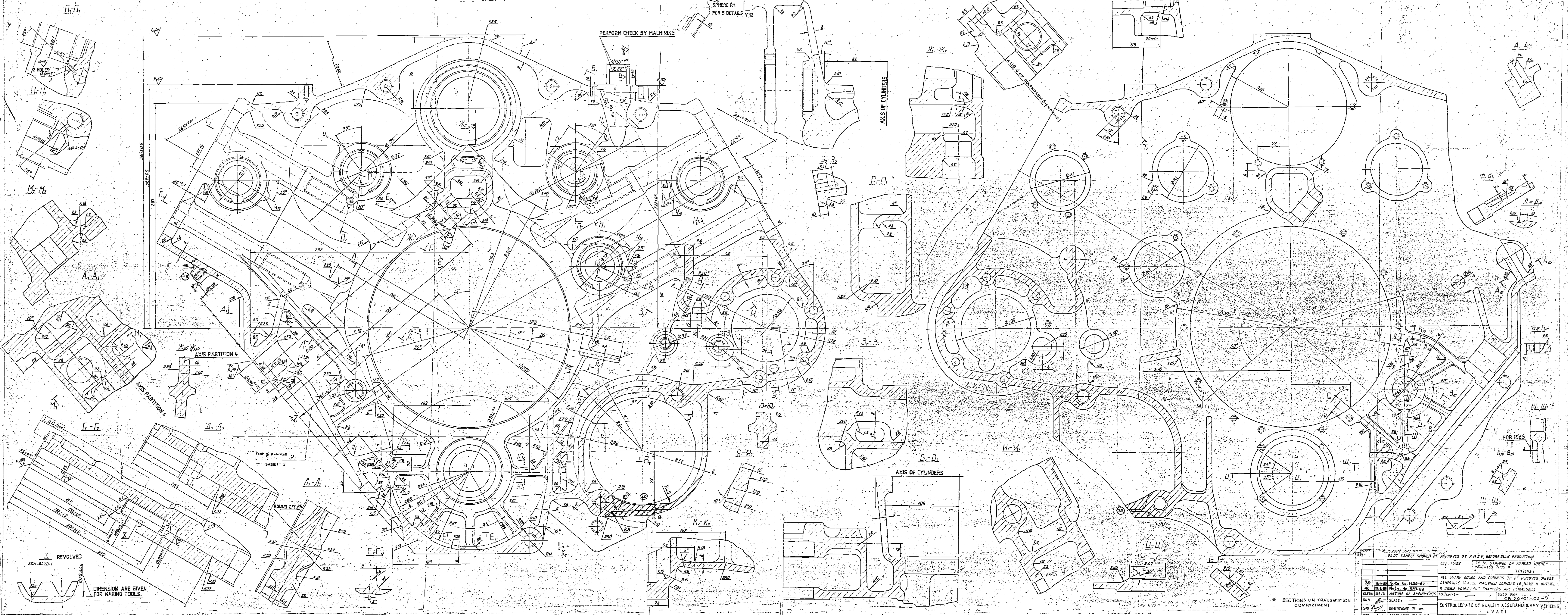
DATE	BY	REVISION

24 17650 Note No 1082-82
 50 16849 Note No 1196-82
 ISSUE DATE 1/10/50 APPROVED BY C.B. 20-01-02-0

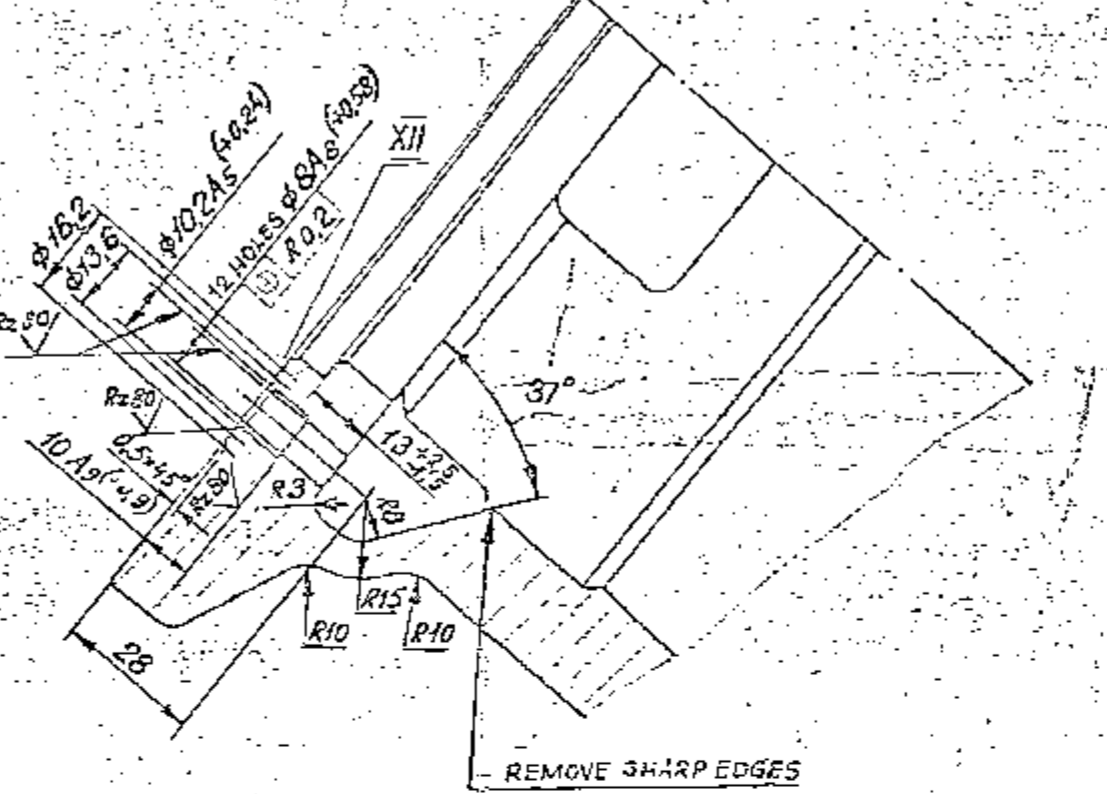
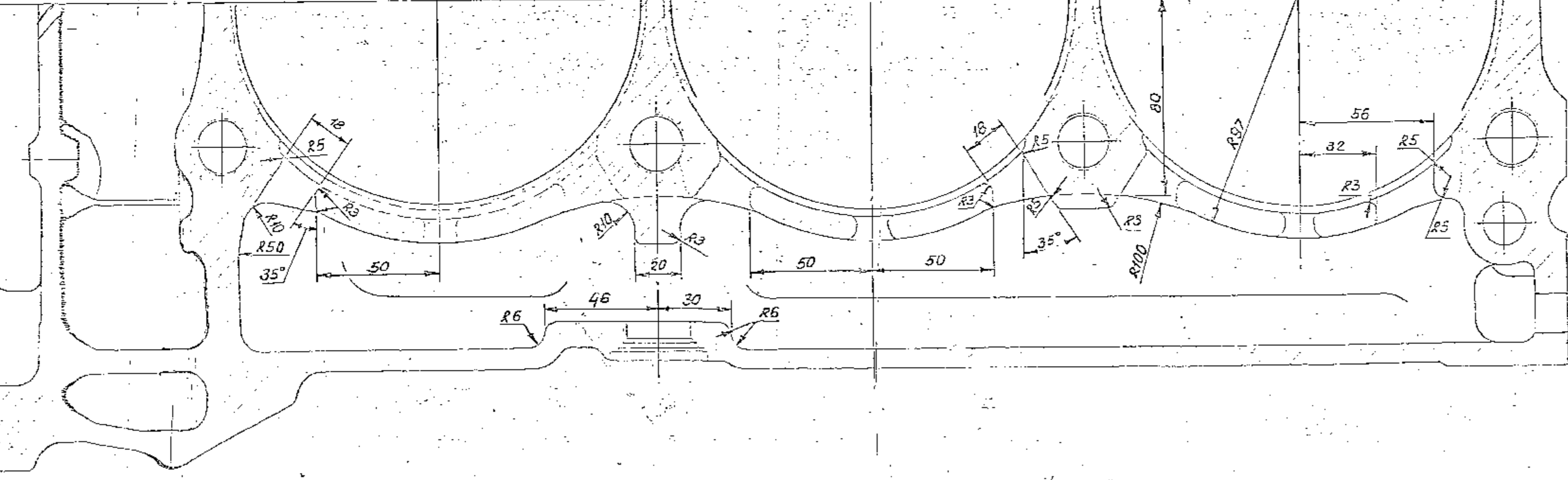
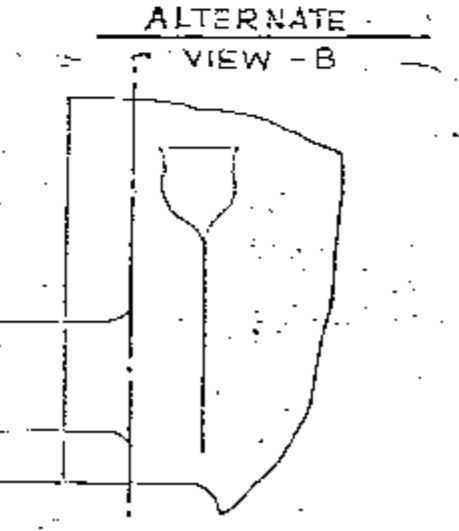
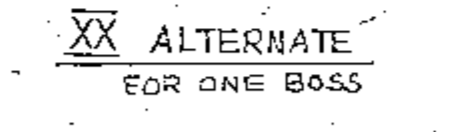
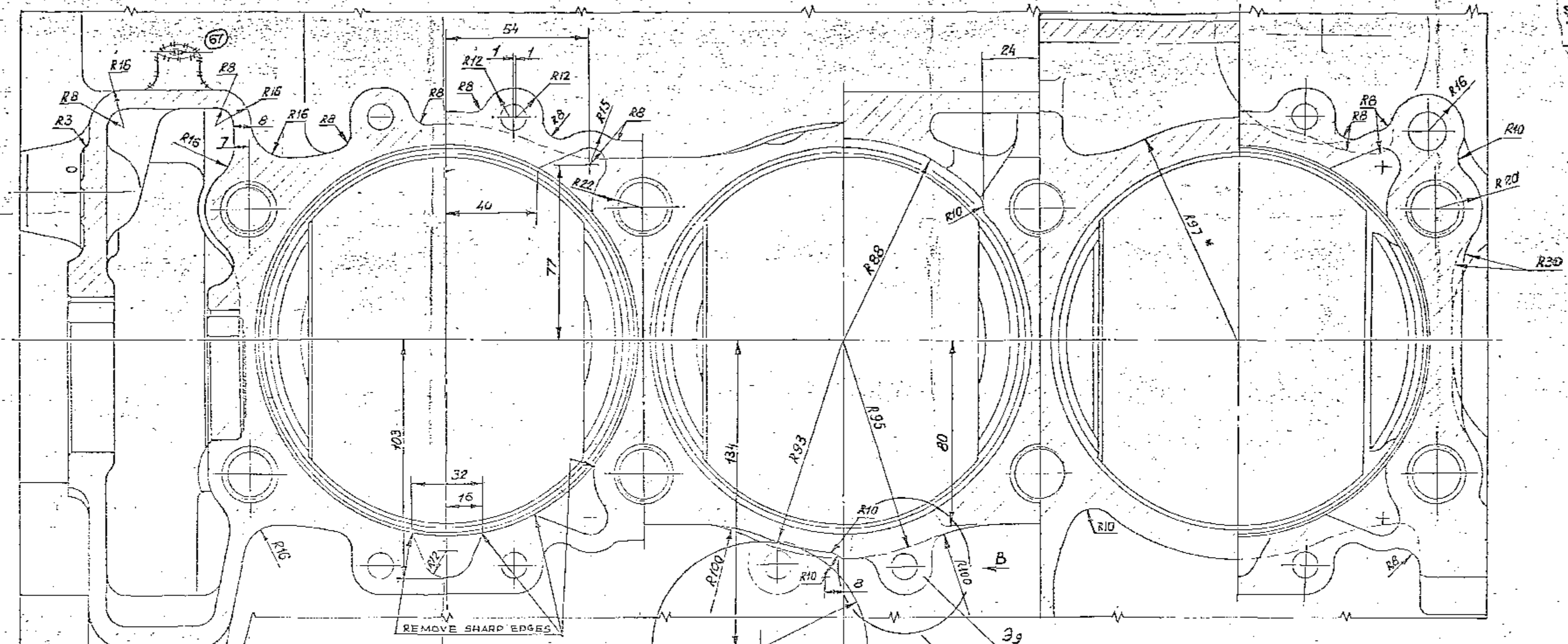
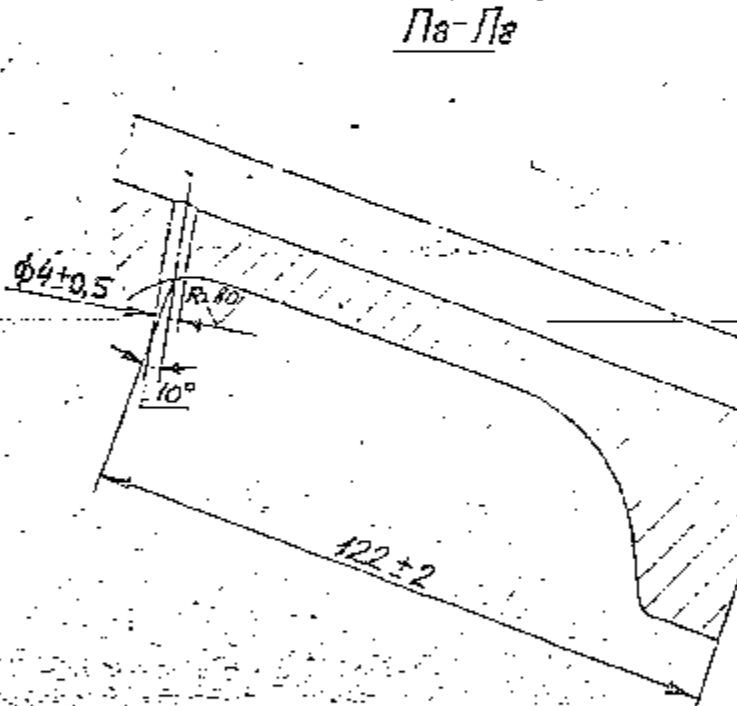
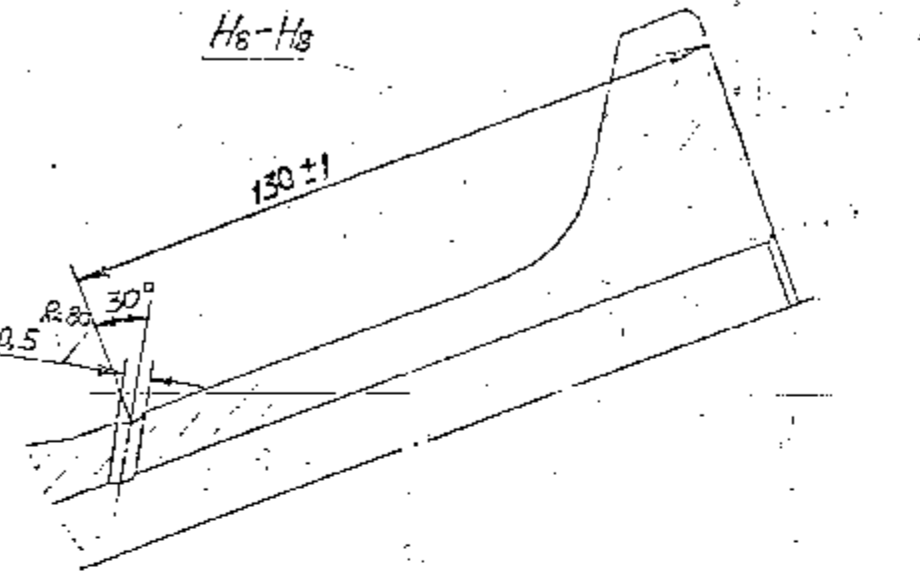
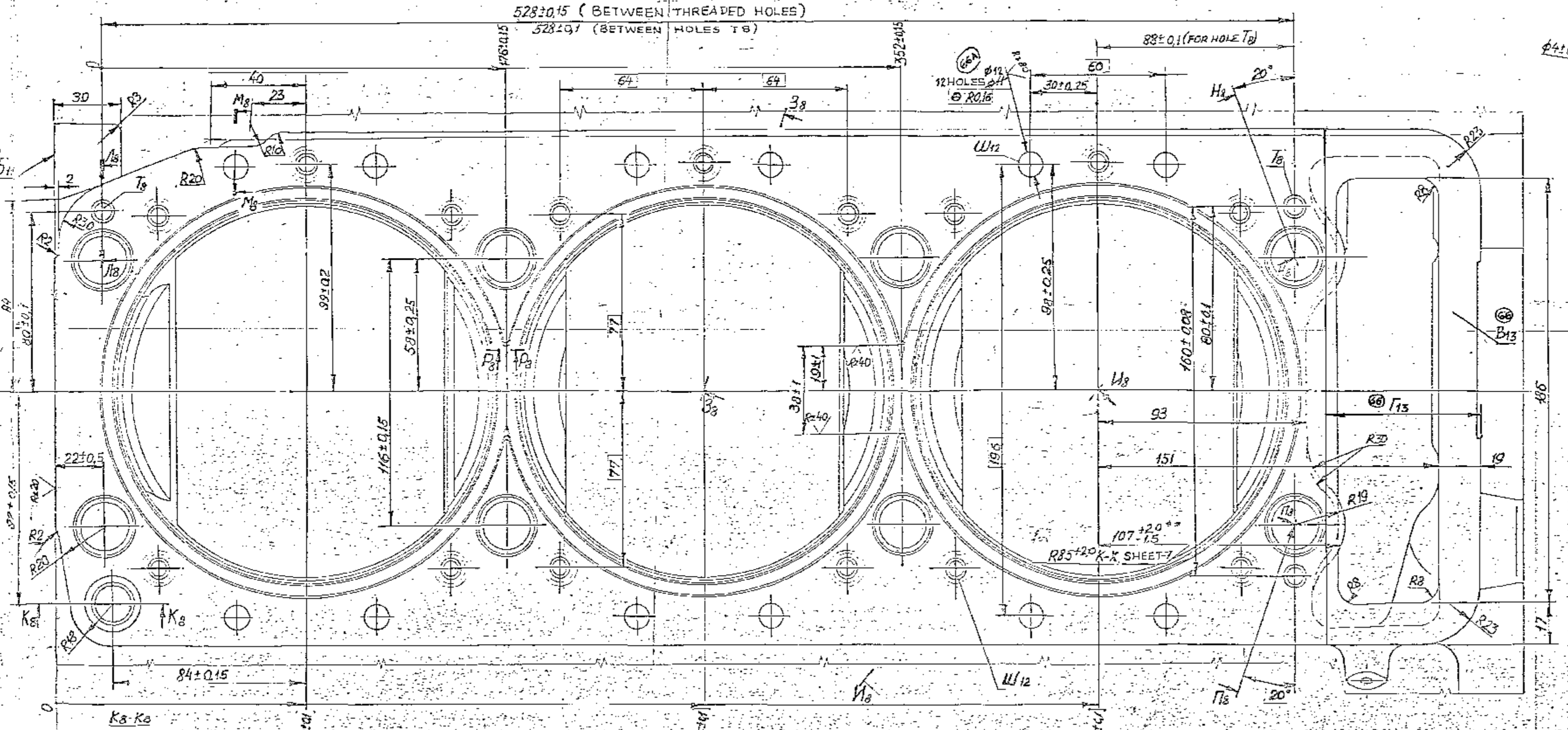
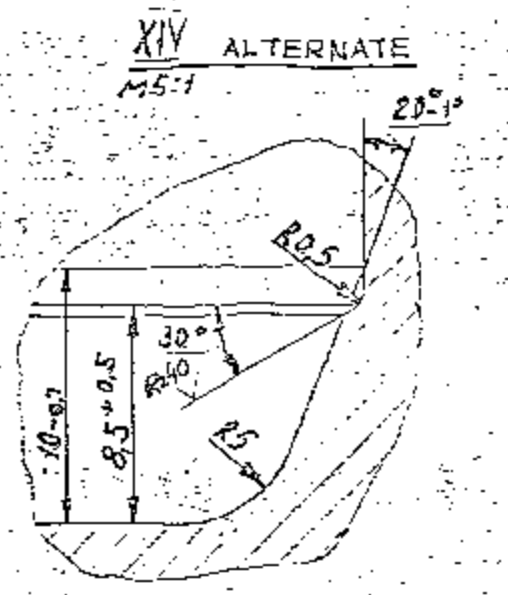
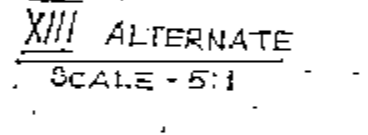
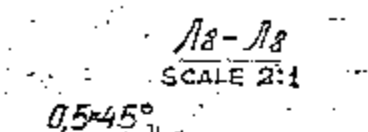
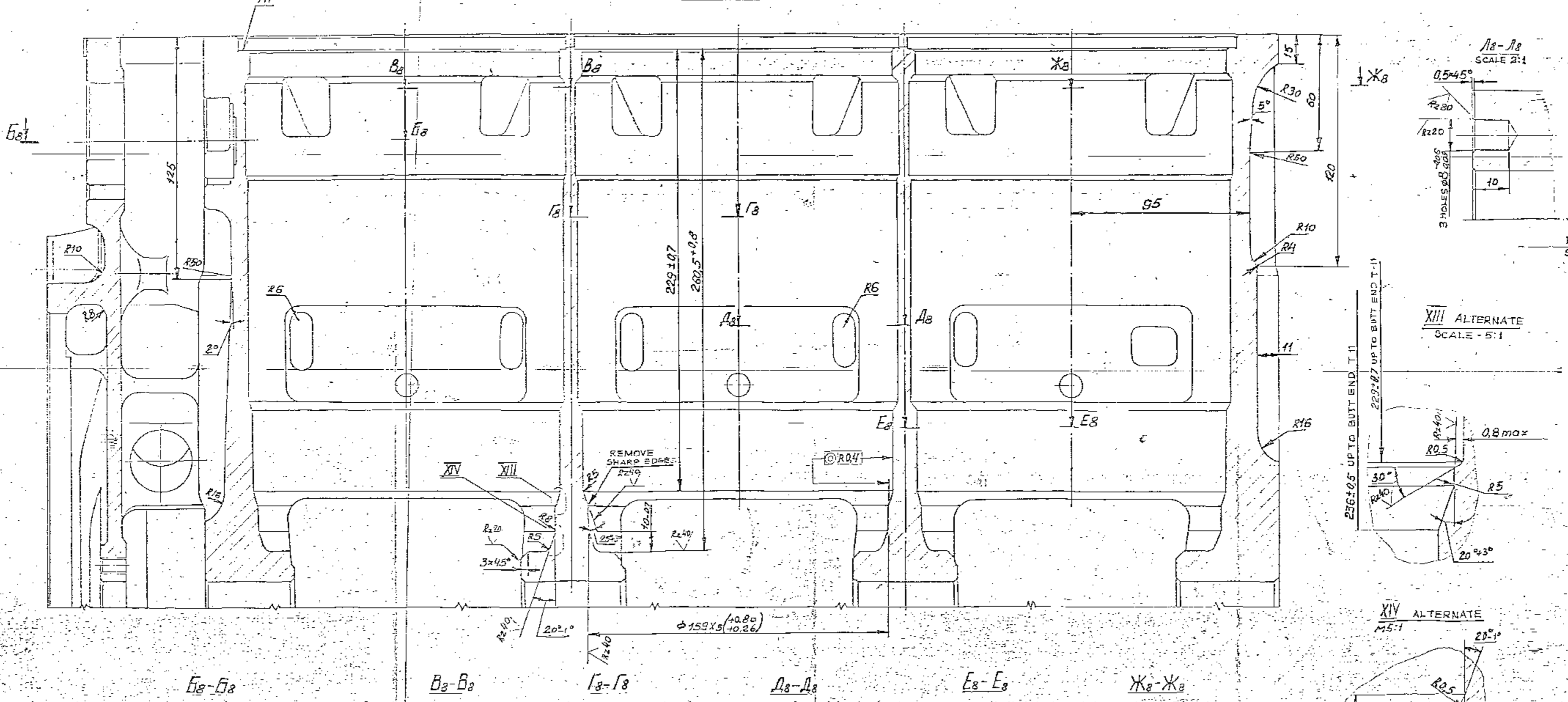
SCALE: 1:1
 DIMENSIONS IN MILLIMETERS
 UNLESS OTHERWISE SPECIFIED

CONTOUR LINE OF QUALITY SIGNATURE
 DATE: 1/10/50
 BY: C.B. 20-01-02-0

20-01-16-10

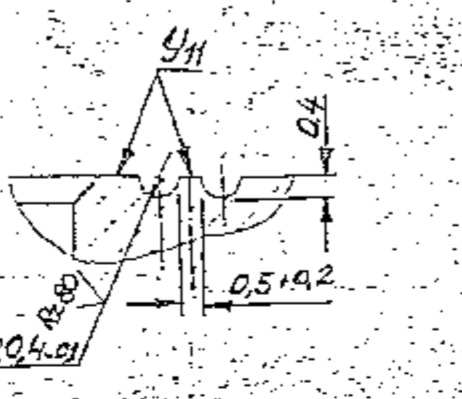


PILG SAMPLE SHOULD BE APPROVED BY A N.S.P. BEFORE BULK PRODUCTION		EST. PASS	TO BE STAMPED OR MARKED WHEN ASSOCIATED THIS N (LETTERS)
33	REV. 01	40	REV. 02
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED. FINISHED CORNERS TO HAVE R OUTSIDE R INSIDE UNLESS OTHERWISE STATED.		MATERIAL - USED ON: C5 20-01-02-9	
ISSUE DATE	NATURE OF AMENDMENTS	CONTROL CENTER OF QUALITY ASSURANCE HEAVY VEHICLES	
DNV	SCALE: 20:1	A V A D I	
CHD	DIMENSIONS IN mm	CYLINDER BLOCK - CRANK CASE	
TCB	TOLERANCE ON DIMS UNLESS OTHERWISE STATED	DATE: 1971	
APPD:	ALL THREADS TO CONFORM TO	20-01-16-10	



MAXIMUM DRILL RUN-OFF OF 1.00 MM OVER DRILLING DEPT=4 IS ALLOWED

XII REVOLVED SCALE 10:1



A8-A8 REVOLVED SHEET-6

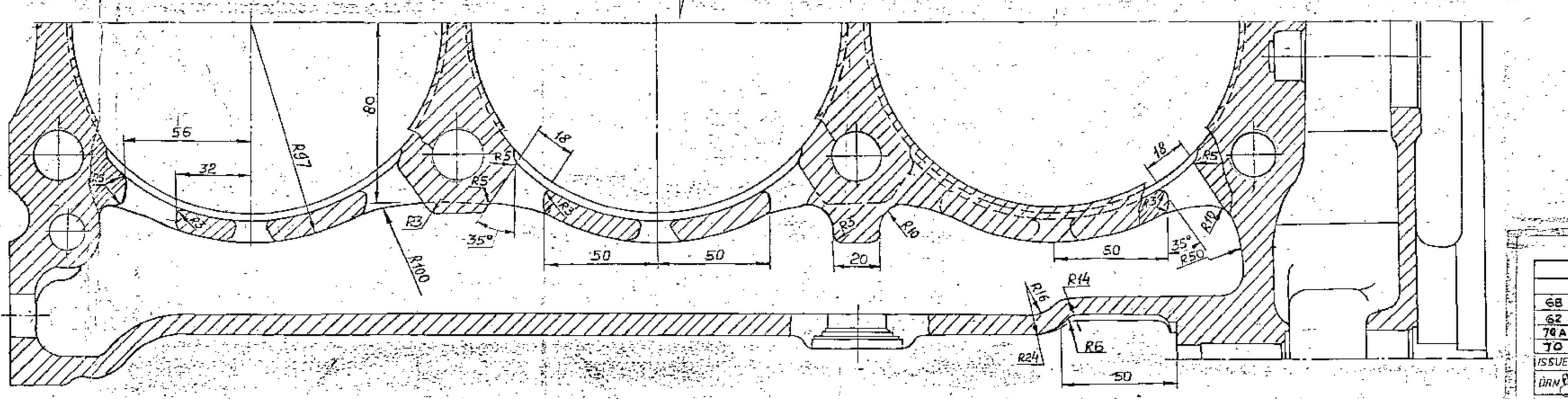
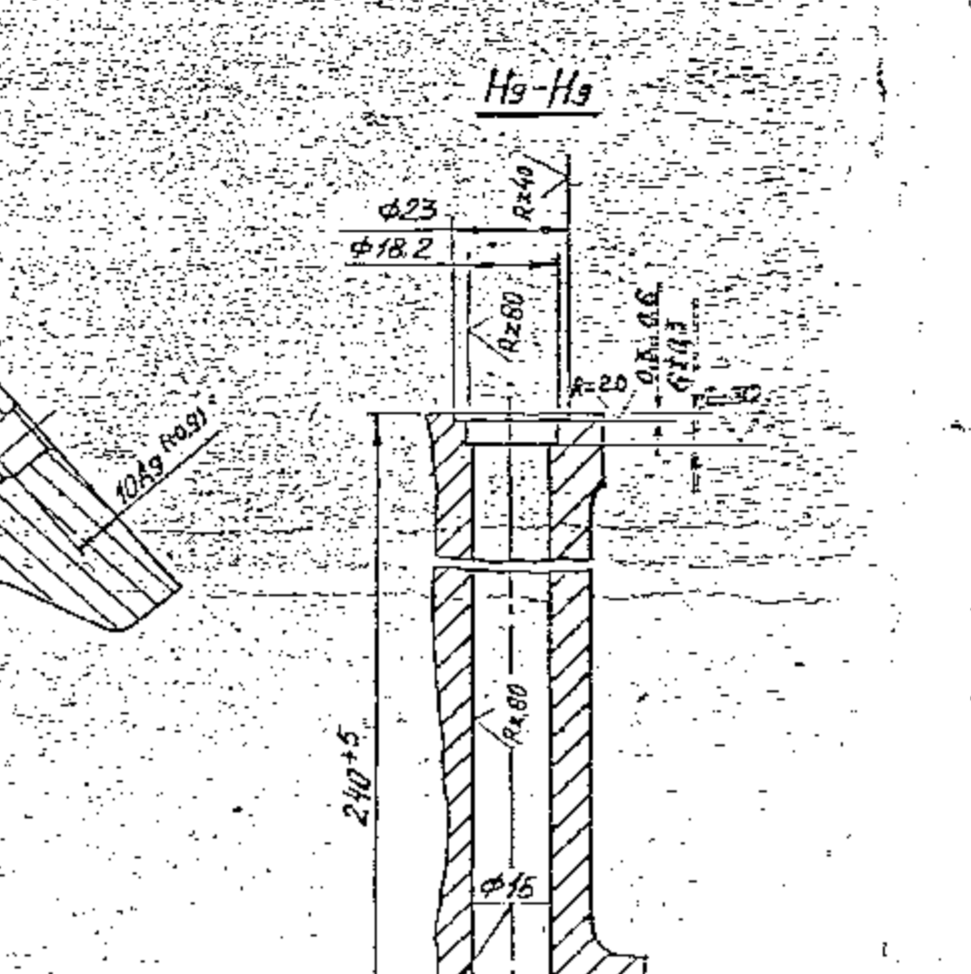
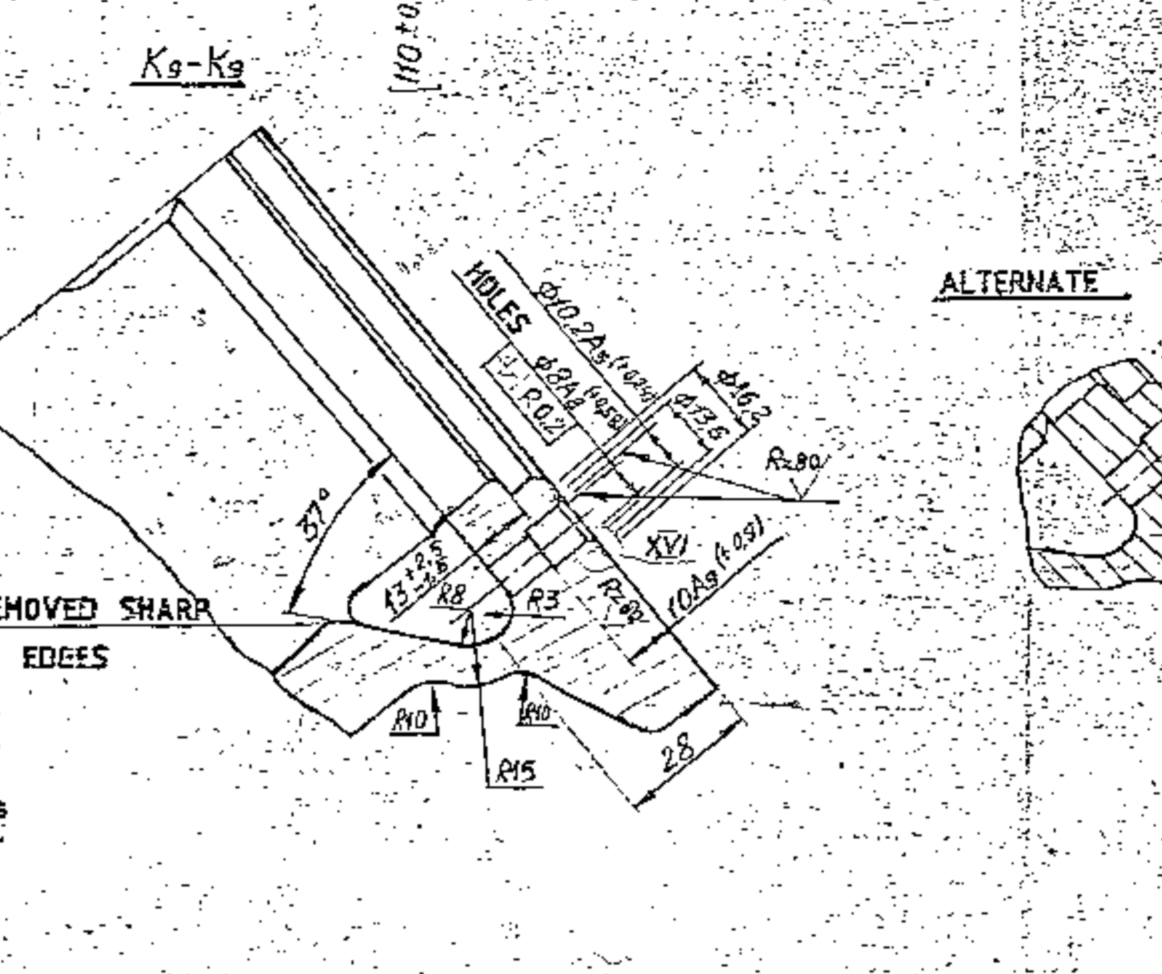
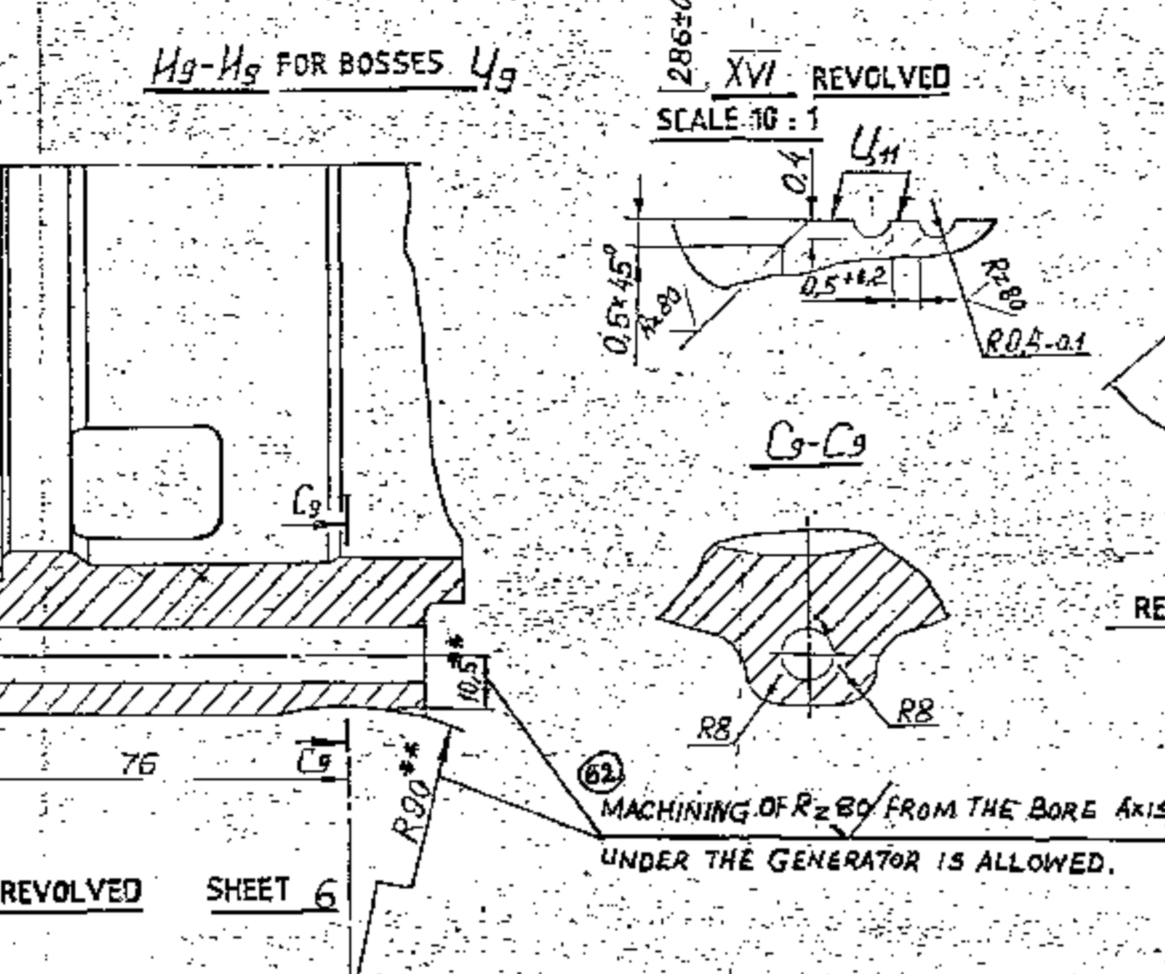
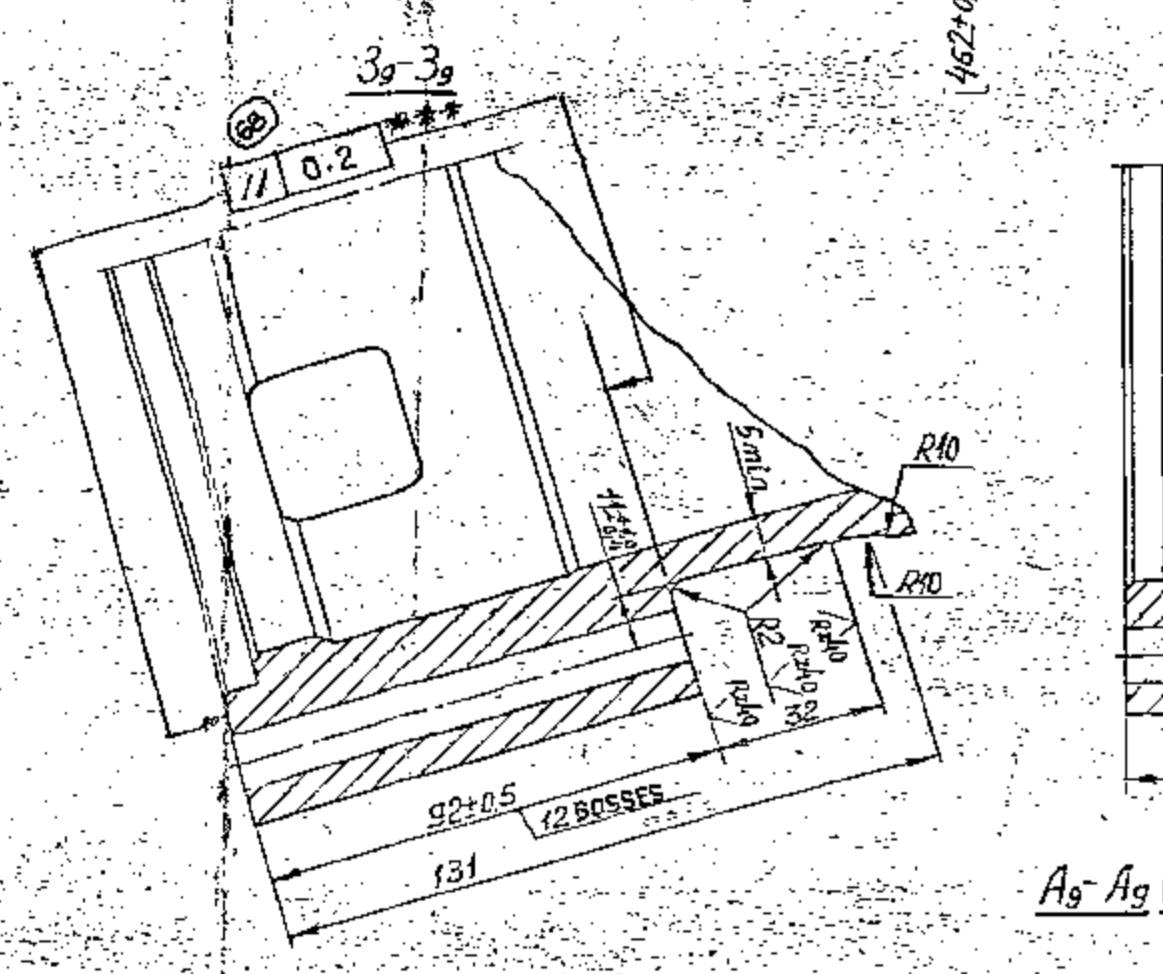
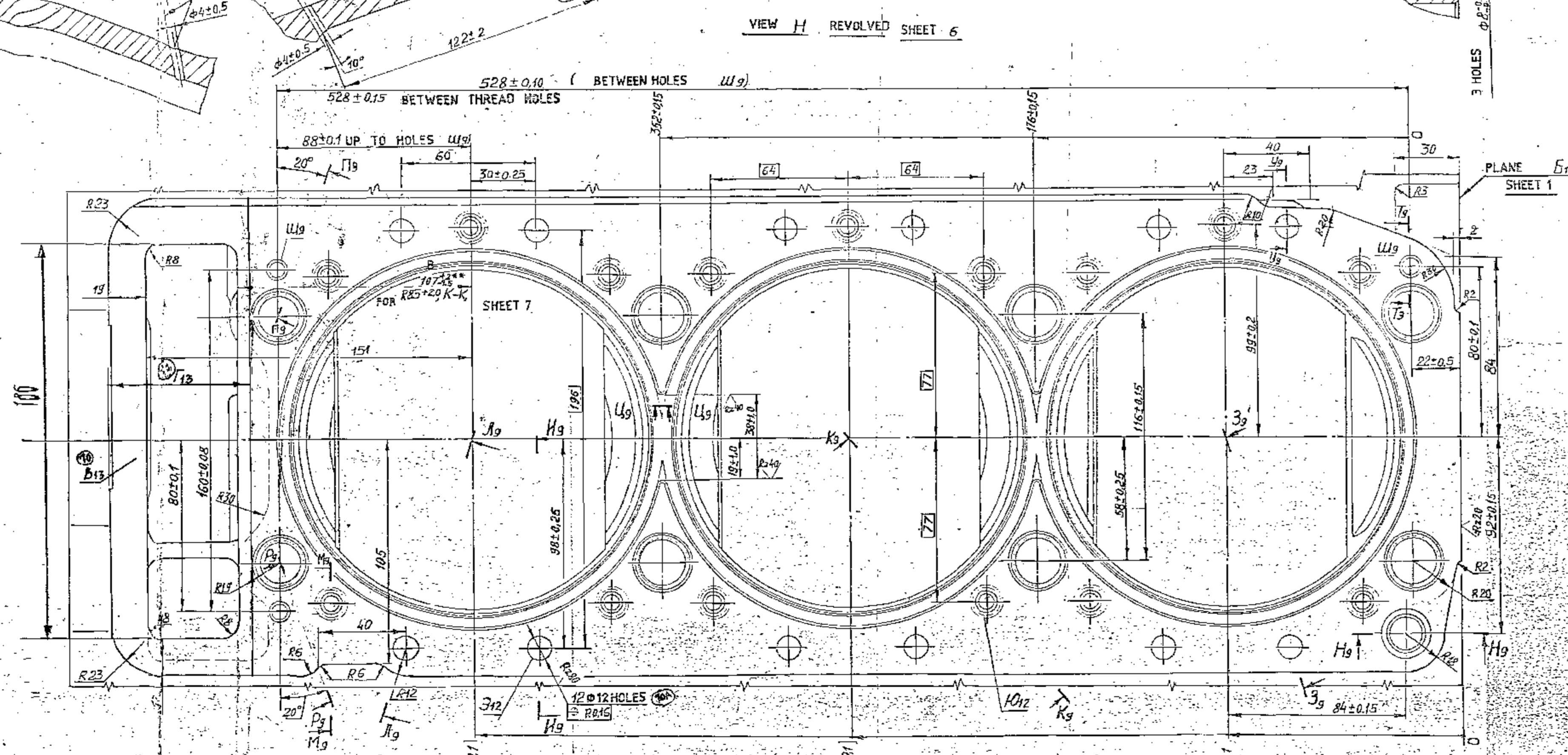
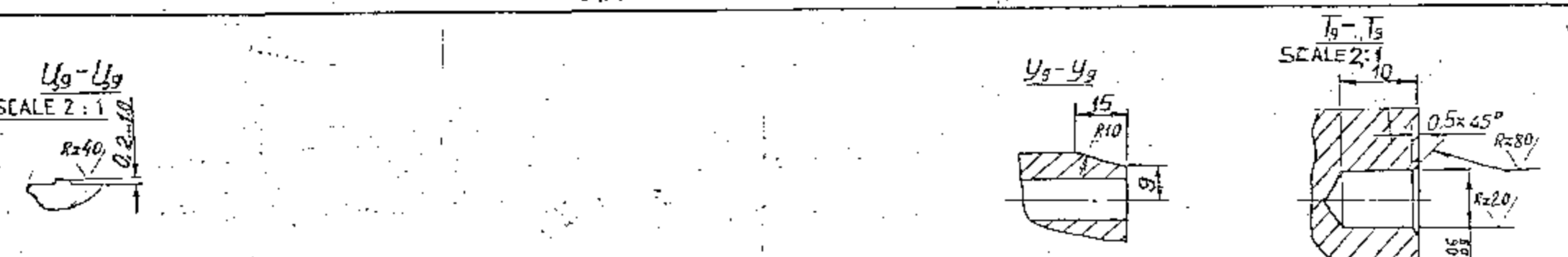
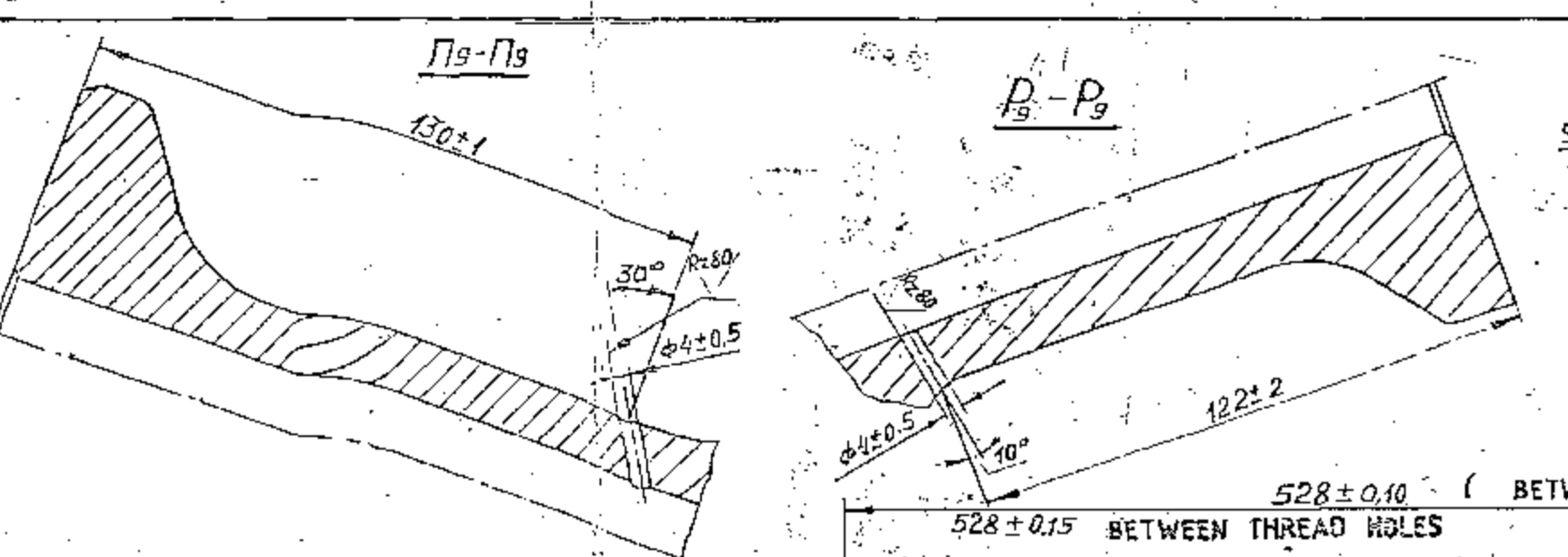
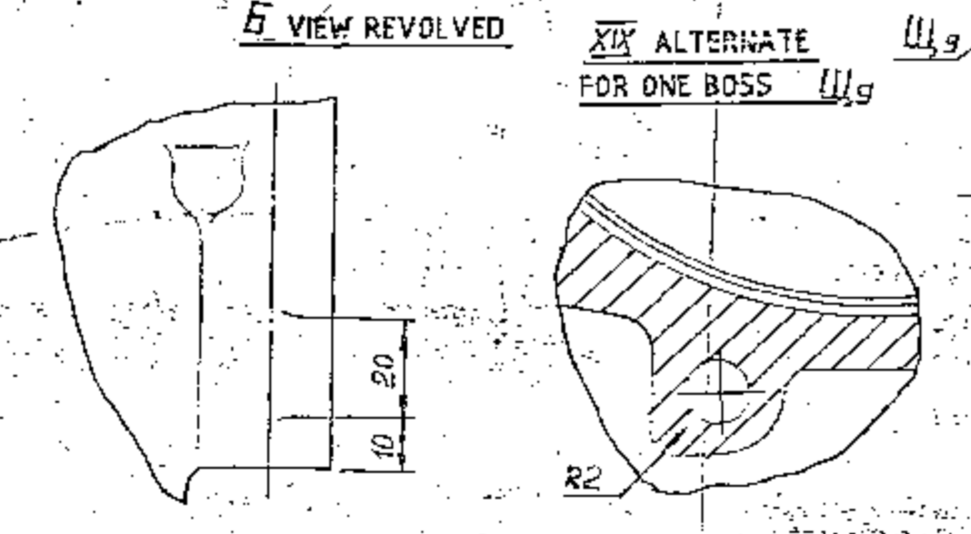
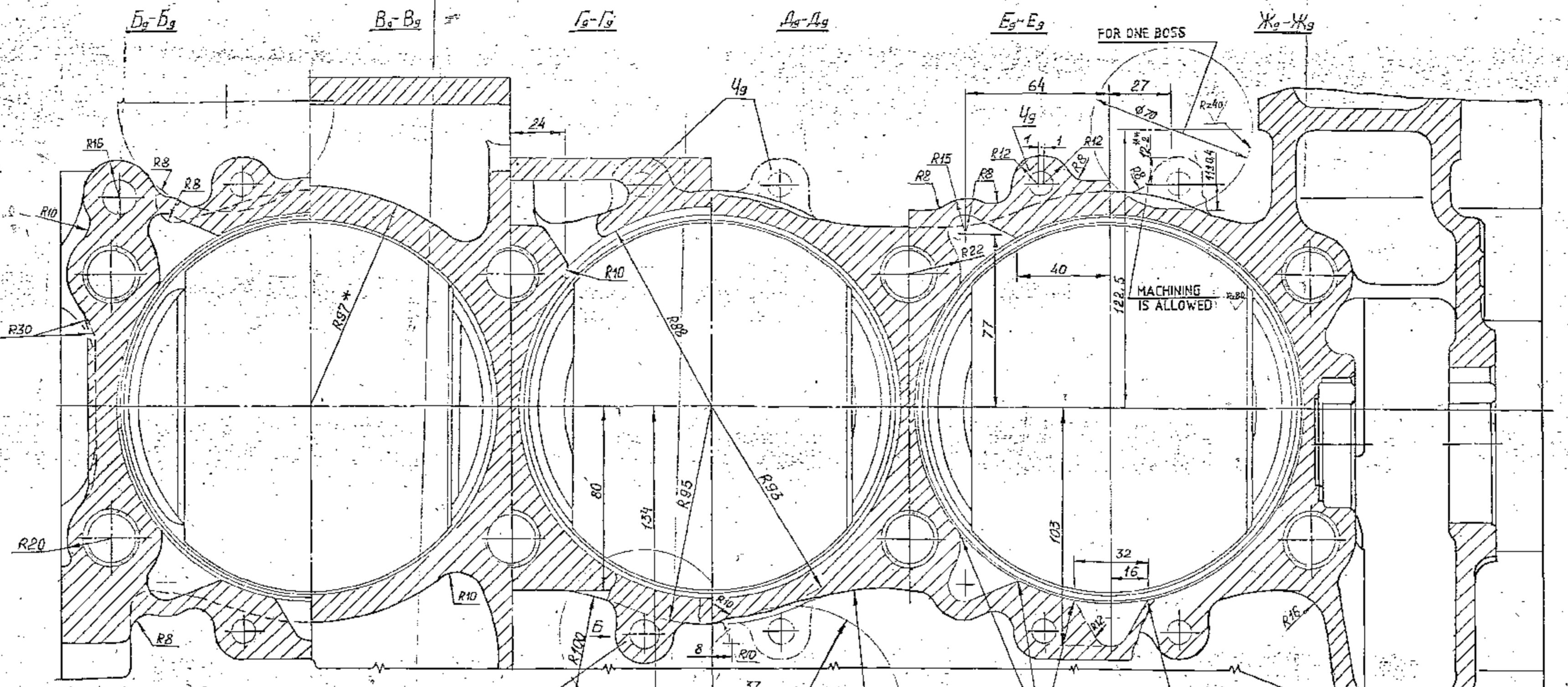
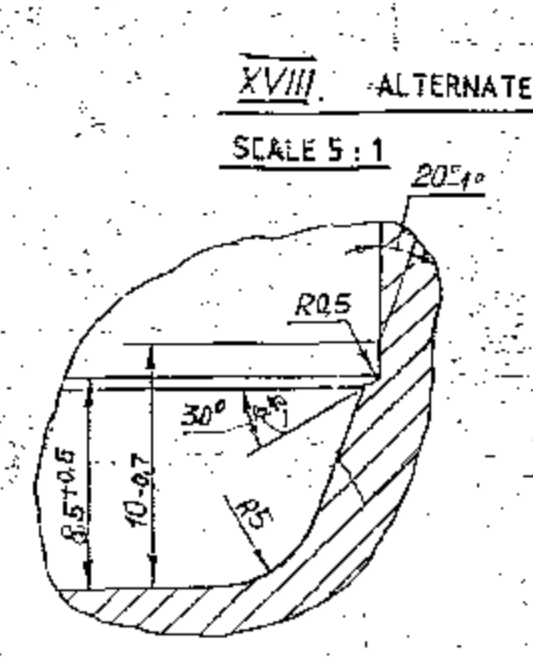
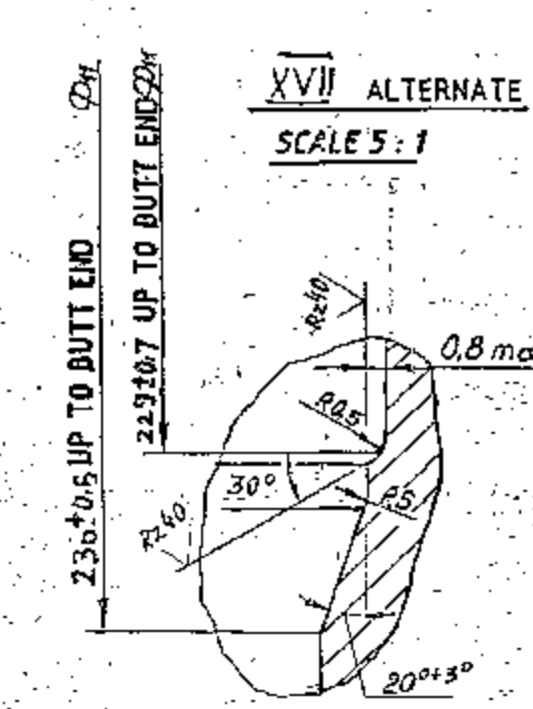
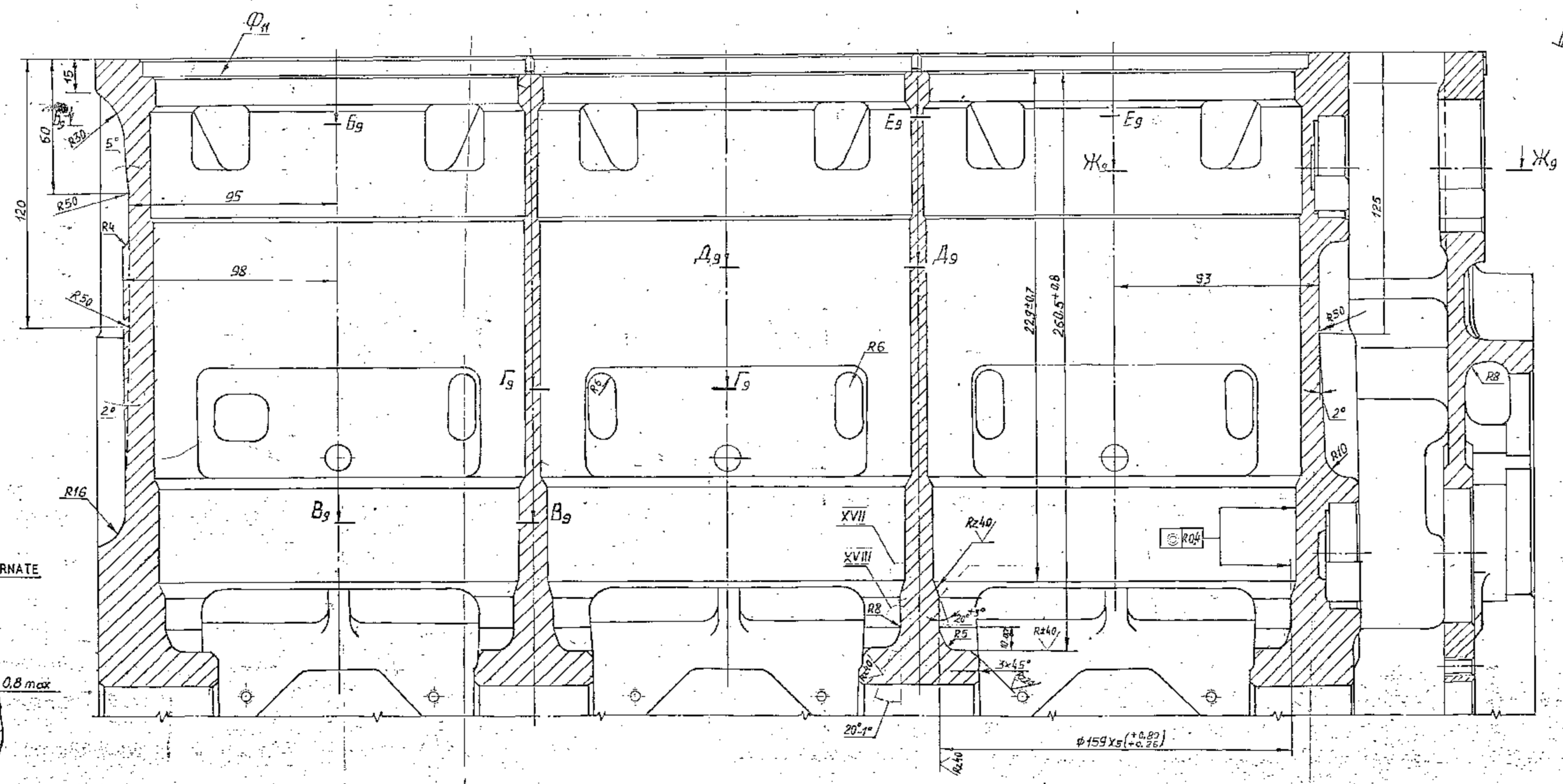
ALTERNATE



PROT SAMPLE SHOULD BE APPROVED BY A.I.P. BEFORE BULK PRODUCTION

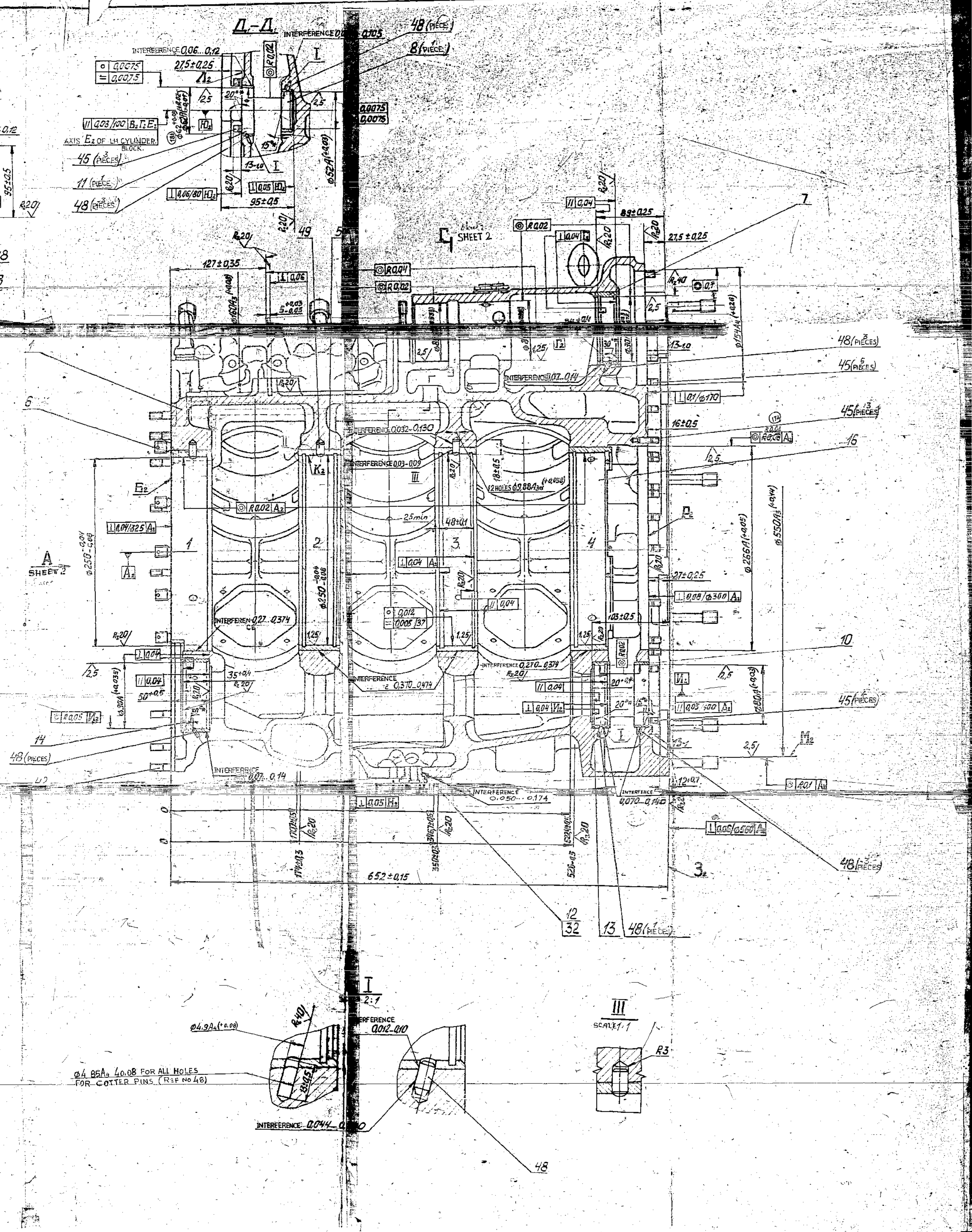
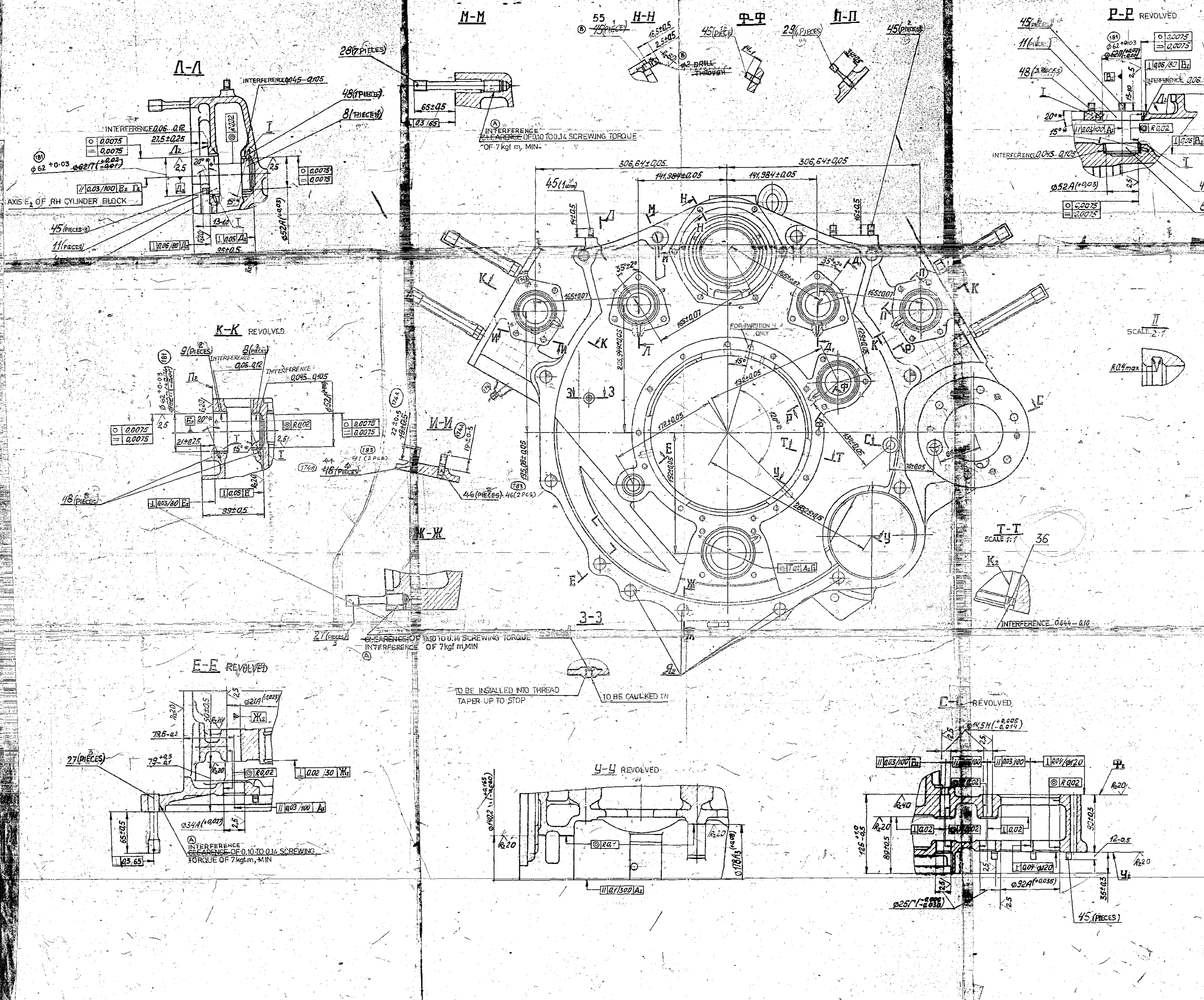
65	14.4.89	Netn. No. 1694-81	EST. P.W.S	IN OF STATED ON WHICH WHEN DRAUGHTED
67	14.6.89	Netn. No. 1155-82		LETTERS
66A	14.6.89	Netn. No. 823-81		ALL SHARP EDGES AND CORNERS TO BE ROUNDED OFF UNLESS OTHERWISE STATED. MAGNETIC TRANS TO PART A DIFFER. B. IN CASE EQUIVALENT TRANSFER WITH CONSULTATION.
66	14.6.89	Netn. No. 1191-82		
ISSUE DATE	NATURE OF AMENDMENTS	MATERIAL		
				C520-01-02-97
DRAWN BY	SCALE			CONTROL STATE OF QUALITY ASSURANCE (HEAVY VEHICLES) A V 3 01
CHKD BY	DIMENSIONS IN MM			
TCO	TOLERANCES ON DIMENS UNLESS OTHERWISE STATED			
APP'D BY	TITLES			
DATE	ALL TITLES TO BE PLACED TO CORRELATE TO			

(*) VIEW ON PLANE AND SECTION ON R H CYLINDER JACKET



MAXIMUM DRILL RUN - OFF 1.5MM OVER THE DRILLING DEPTH IS ALLOWED

SB 14-4-88	Notn. No. 1694-81	EST. MASS	TO BE STAMPED ON MARKED WHERE INDICATED THIS "M"
62 14-6-89	Notn. No. 516-79	LETTERS	
70A 14-6-89	Notn. No. 825-81	ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINE CHANNELS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE	
71 14-6-89	Notn. No. 108-82	ISSUE DATE NATURE OF AMENDMENTS MATERIAL	
ISSUE DATE NATURE OF AMENDMENTS MATERIAL		C620-01-02-9	
DIMENSIONS IN MM		CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES)	
TOLERANCE ON DIMENSIONS UNLESS OTHERWISE STATED		A A A	
APPROVED BY: [Signature]		TITLE: [Signature] (VIEW ON PLANE) [Signature] (VIEW ON PLANE) [Signature] (VIEW ON PLANE)	
DATE: 16-10-81		D.S. CAT. NUMBER: 20-01-16-10 SHEET NO: 1 OF 9	



- WATER GAUZY OF CYLINDER BLOCK-CRANK CASE IS SUBJECTED TO THE HYDRAULIC TEST WITH HOT WATER AT A TEMPERATURE OF 30-100°C AND PRESSURE 0.4 TO 0.5 MPa (4 TO 5 kgf/cm²) FOR 5 MIN. SUBJECT HIGH PRESSURE DIE PASSAGES TO PRESSURE TEST BY USING ENGINE OIL AT A PRESSURE OF 1.2 TO 1.3 MPa (12 TO 13 kgf/cm²) AND TEMPERATURE OF 90 TO 100°C FOR 3 MIN. PRESSURE TEST IS TO BE CARRIED OUT AFTER FITTING THE THREADED BUSHES (REF. NOS 4 AND 12, SHEET 2).
- PERFORM FINAL MACHINING OF SURFACES K2 OF SUPPORTS 2, 3, 4, BY MEANS OF PLASTIC DEFORMATION-ROLLING TO A DEPTH OF 0.01 TO 0.02 mm.
- INSTALL STEEL RACES OF MAIN SUPPORTS IN TO THE CYLINDER BLOCK-CRANK CASE, WHICH IS HEATED UP TO A TEMPERATURE OF 150 TO 180°C. PRESSING OR RACING AT A TEMPERATURE OF LESS THAN 100°C IS NOT PERMITTED.
- PERMISSIBLE TILT OF RACES WITH RESPECT TO THE VERTICAL AXIS OF THE CYLINDER BLOCK-CRANK CASE FOR PARTITIONS 1 AND 4 SHOULD NOT EXCEED 1.5 mm.
- VARIATION OF DIAMETERS OF BORES K2 IN ONE CYLINDER BLOCK-CRANK CASE SHOULD NOT BE MORE THAN 0.03 mm (ARITHMETIC MEAN OF DIAMETER OF EACH SUPPORT).
- SURFACES K2 MAY HAVE LONGITUDINAL NOTCH WITH A RADIUS OF AT LEAST 0.5 mm AND DEPTH OF NOT MORE THAN 0.15 mm CAUSED BY REMOVAL OF THE SINGLE-POINT TOOL.
- HOOKS, DENTS AND DEEP NOTCHES ARE NOT PERMITTED ON SURFACES 3 AND M.
- PROJECTION OF RACE (REF. NO 8) BEYOND PLANE 62 IS NOT PERMITTED.
- PROJECTION OF CUTTER PIN (REF. NO 36) SECTION T-T BEYOND SURFACE K2 IS NOT PERMITTED.
- INCREASE OF FIRST MAIN BORE AT ARC $\alpha = 60^\circ$ (SHEET 2, VIEW A) UP TO THE DIAMETER OF 250.00 mm IS ALLOWED.
- INSTALL CUTTER PINS (REF. NO 36) FLUSH WITH THE DIAMETER OF MAIN BORE AND FINISH TOGETHER WITH SURFACE K2.
- HOLES FOR TRANSMISSION (SHEET NO. 1)
- WHEN TRANSMISSION BEARING BUSHES ARE INSTALLED, IMPACTS UPON BUSH BUT-ENDS ARE NOT PERMITTED.
- WHEN PRESSING TRANSMISSION BEARING BUSHES INTO THE CYLINDER BLOCK-CRANK CASE, THE BUSHES SHOULD BE PRELIMINARILY COOLED OR CYLINDER BLOCK-CRANK CASE SHOULD BE HEATED.
- DIFFERENCE OF WALL THICKNESS OF BEARING BUSHES (REF. NOS 7, 8, 9, 10, 11, 13, 14) SHOULD NOT BE MORE THAN 0.3 mm.
- INTERNAL BORES OF BEARING BUSHES (REF. NOS 7, 8, 9, 10, 11, 13, 14) MAY HAVE LONGITUDINAL NOTCH WITH A RADIUS OF AT LEAST 0.5 mm AND DEPTH OF NOT MORE THAN 0.15 mm CAUSED BY REMOVAL OF THE SINGLE-POINT TOOL.
- CHECK SURFACES Φ AND Ψ BY BLUEING; CLOSE-FIT SHOULD NOT BE LESS THAN 80% UNIFORM ALONG THE WHOLE SURFACE; ACCEPT AS PER STANDARD.
- DEPRESSION OF BEARING BUSHES (REF. NOS 9, 10, 11) FROM BUT-ENDS Π_2 Λ_2 UP TO 0.3 mm IS ALLOWED.
- HOLES FOR CYLINDER BUSHINGS BLOCK PLANES (SHEET NO. 2)
- SURFACE OF Λ_2 Λ_3 SHOULD BE SMOOTH, CLEAN AND FREE FROM NOTCH AND NICKS.
- CHECK SURFACES Λ_2 BY BLUEING; CLOSE-FIT SHOULD NOT BE LESS THAN 80% UNIFORM ALONG THE WHOLE SURFACE; ACCEPT AS PER STANDARD.
- SIZE DIFFERENCE Λ_2 SHOULD NOT BE MORE THAN 0.05 mm IN ONE BLOCK.
- PLANE FOR WATER AND OIL PUMPS, FLANGES OF HATCHES (SHEET NO. 2)
- CHECK THE PLANE FOR ASSEMBLY UNIT (VIEW B, SHEET 2) BY BLUEING; CLOSE-FIT SHOULD NOT BE LESS THAN 80% UNIFORM ALONG THE WHOLE SURFACE; ACCEPT AS PER STANDARD.
- PERFORM THE CHECK BEFORE INSTALLING STUDS AND CUTTER PINS (REF. NOS 29, 48, SHEET 2, T-T, C-C).
- PLANES FOR ASSEMBLY UNIT (VIEW B, SHEET 2) FRONT COVER (VIEW A, SHEET 2), HATCH COVERS (T-T, SHEET 2) AND PLANES FOR RUBBER BAND PACKINGS SHOULD BE KEPT FREE FROM NICKS AND LATERAL NOTCHES.
- PROJECTION OF BUSHING (REF. NO 18) BEYOND SURFACE 3 IS NOT PERMITTED.
- STUDS AND OTHER DETAILS
- CHECK THE HOLES FOR AIR PASSAGE BEFORE SCREWING HEAD FASTENING STUDS (REF. NOS 2 AND 3, SHEET 2).
- ENSURE INTERFERENCE OF THE THREAD OF HEAD FASTENING STUDS (REF. NOS 2 AND 3, SHEET 2) BY MEANS OF SELECTION.
- SCREWING TORQUE - AT LEAST 20 kgf.m - FOR STUDS (REF. NO 2) AT LEAST 10 kgf.m - FOR STUDS (REF. NO 3).
- WHEN HEAD FASTENING STUDS (REF. NOS 2 AND 3, SHEET 2) ARE INSTALLED, TWO EDGES OF THE HEXAHEDRON MAY BE SLIGHTLY CRUMPLED, ACCEPT AS PER STANDARD.
29. APPLY A THIN LAYER OF VARNISH 33 U INTO THE THREADED PORTION OF STUDS 10 BE DRIVEN INTO THE THREADED HOLES WHICH GO INTO THE INTERNAL CAVITY OF CYLINDER BLOCK-CRANK CASE AS SPECIFIED IN INSTRUCTIONS IN 240-280/75.
30. NONSQUARENESS OF STUDS TO THE SCREWING SURFACE AT A LENGTH OF 40 mm SHOULD NOT EXCEED 0.2 mm, EXCEPT FOR STUDS SPECIFIED IN DRAWING.
31. NEVER STRAIGHTEN ANY DEFORMED STUDS.
32. GAUGE THE INTERNAL THREAD OF BUSHES (REF. NOS 12, SHEET 2) AND THREADS (2 TO 4) BEING ADJACENT TO THE BUT-END AS SPECIFIED IN INSTRUCTIONS IN 240-280/75, WHEN THREADED BUSHINGS (REF. NO 12, REF. NOS 4 AND 12, SHEET 2 STOPPER REF. NO 20 SHEET 2) ARE INSTALLED INTO THE CYLINDER BLOCK-CRANK CASE.
33. THOROUGHLY CLEAN THE WATER CHAMBER OF CYLINDER BLOCK-CRANK CASE BEFORE FITTING STOPPERS.
34. APPLY A THIN LAYER OF VARNISH 33 U INTO THE BUT-END OF BEAD OF PART MATING WITH THE CYLINDER BLOCK-CRANK CASE AND THREADS (2 TO 4) BEING ADJACENT TO THE BUT-END AS SPECIFIED IN INSTRUCTIONS IN 240-280/75, WHEN THREADED BUSHINGS (REF. NO 12, REF. NOS 4 AND 12, SHEET 2 STOPPER REF. NO 20 SHEET 2) ARE INSTALLED INTO THE CYLINDER BLOCK-CRANK CASE.
35. FOR STUDS MARKED Λ_2 (SHEET 1), THE POSITION OF HOLES FOR CUTTER PINS SHOULD BE HORIZONTAL, WITH TOLERANCE BEING $\pm 5^\circ$.
36. MARK CYLINDER BLOCK-CRANK CASE NO. BY FRAMING METHOD USE TYPE T100R TQ-12, GOST 2330-62.
37. APPLY MARKING ON TO THE PARTS TO BE DELIVERED AS SPARE PARTS.
38. DIMENSION IS GIVEN FOR REFERENCE.
39. BEFORE REPRESENTING THE OVER, ROUND THE EXTERNAL DIAMETER OF THE RACES OF THE MAIN BEARINGS SHOULD NOT EXCEED 0.3 mm. CRANKING OF THE RACES IS ALLOWED. SET THE RACES INTO THE CRANK CASE BLOCK, HEATED UP TO THE TEMPERATURE OF 150...180°C. REPRESENTING OF THE RACES AT THE TEMPERATURE OF LESS THAN 100°C IS NOT ALLOWED.
40. IN ONE CYLINDER BLOCK Λ_1 DIFFERENCE IN DIMENSION SHOULD BE NOT MORE THAN 0.05 mm. IN ONE CYLINDER IT SHOULD BE 0.02 mm.
41. MUTUAL MISALIGNMENT OF Λ_2 SURFACES IN ONE CYLINDER BLOCK SHOULD BE NOT MORE THAN 0.4 mm. IT SHOULD BE ENSURED BY MANUFACTURING PROCESS.
42. CHECK THE PLANE FOR ASSEMBLY UNIT (VIEW B, SHEET 2) BY BLUEING; CLOSE-FIT SHOULD NOT BE LESS THAN 80% UNIFORM ALONG THE WHOLE SURFACE; ACCEPT AS PER STANDARD.
43. PLANES FOR ASSEMBLY UNIT (VIEW B, SHEET 2) FRONT COVER (VIEW A, SHEET 2), HATCH COVERS (T-T, SHEET 2) AND PLANES FOR RUBBER BAND PACKINGS SHOULD BE KEPT FREE FROM NICKS AND LATERAL NOTCHES.
44. PROJECTION OF BUSHING (REF. NO 18) BEYOND SURFACE 3 IS NOT PERMITTED.
45. STUDS AND OTHER DETAILS
46. CHECK THE HOLES FOR AIR PASSAGE BEFORE SCREWING HEAD FASTENING STUDS (REF. NOS 2 AND 3, SHEET 2).
47. ENSURE INTERFERENCE OF THE THREAD OF HEAD FASTENING STUDS (REF. NOS 2 AND 3, SHEET 2) BY MEANS OF SELECTION.
48. SCREWING TORQUE - AT LEAST 20 kgf.m - FOR STUDS (REF. NO 2) AT LEAST 10 kgf.m - FOR STUDS (REF. NO 3).
49. WHEN HEAD FASTENING STUDS (REF. NOS 2 AND 3, SHEET 2) ARE INSTALLED, TWO EDGES OF THE HEXAHEDRON MAY BE SLIGHTLY CRUMPLED, ACCEPT AS PER STANDARD.

№	№	№	№	№	№	№	№	№	№
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

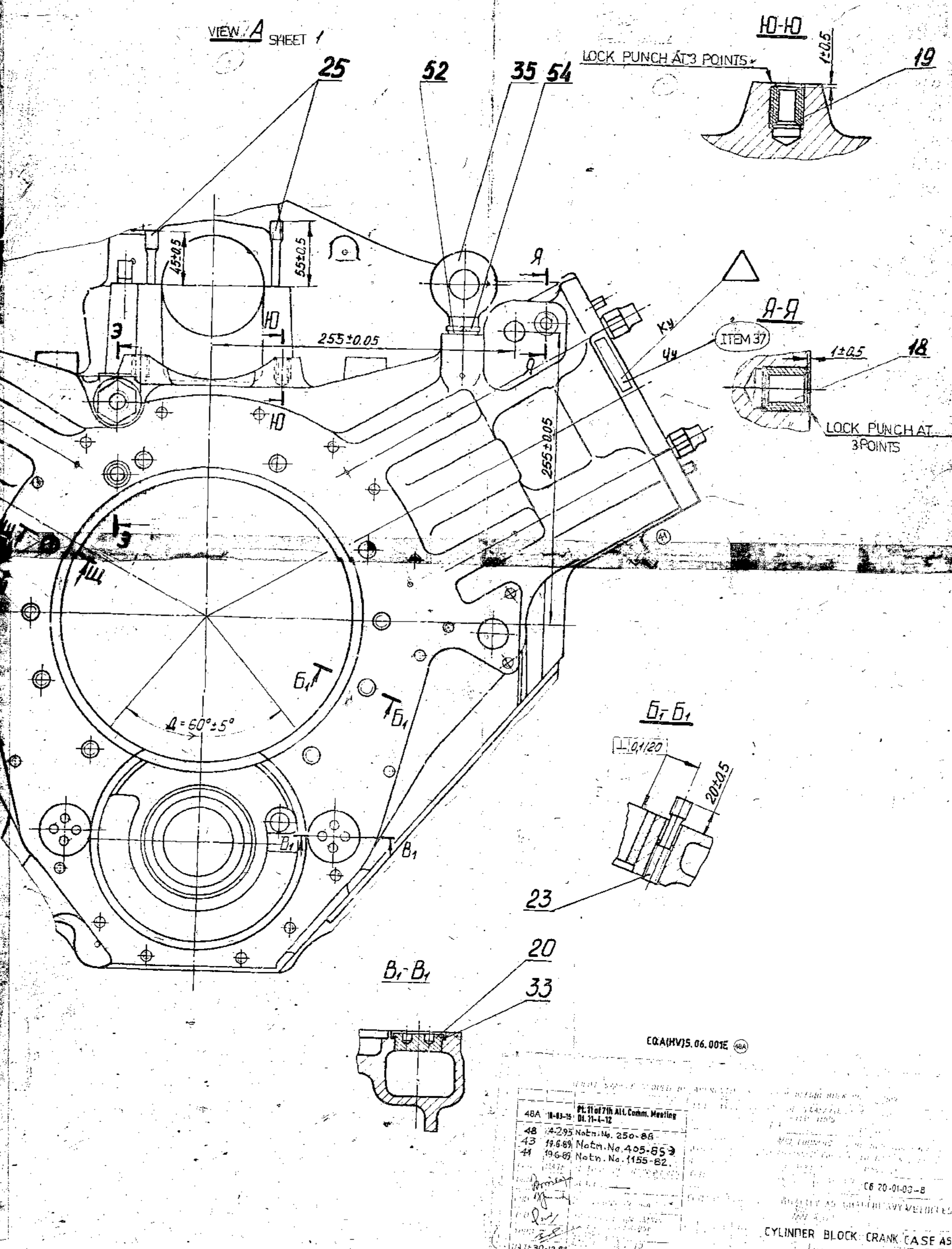
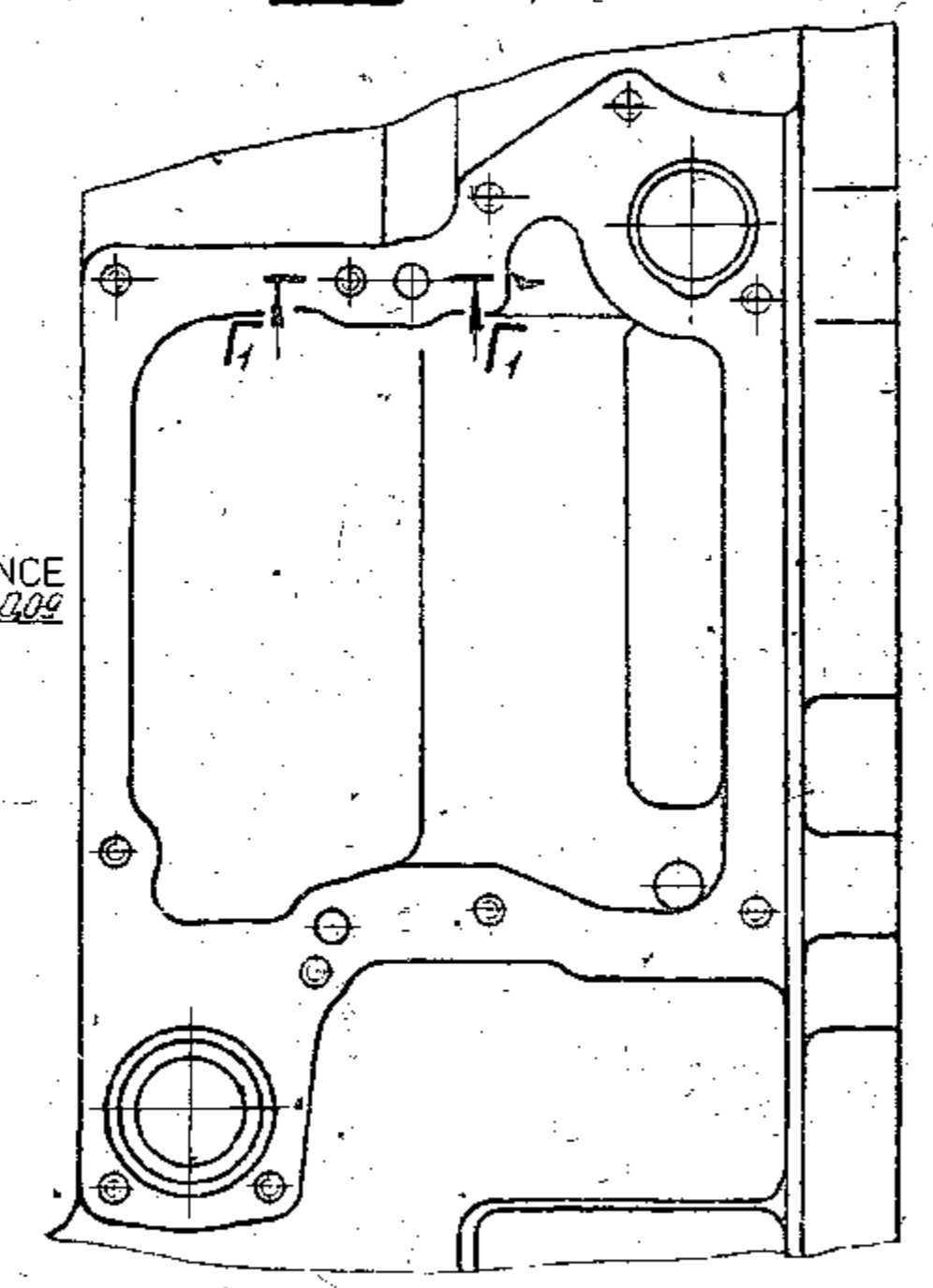
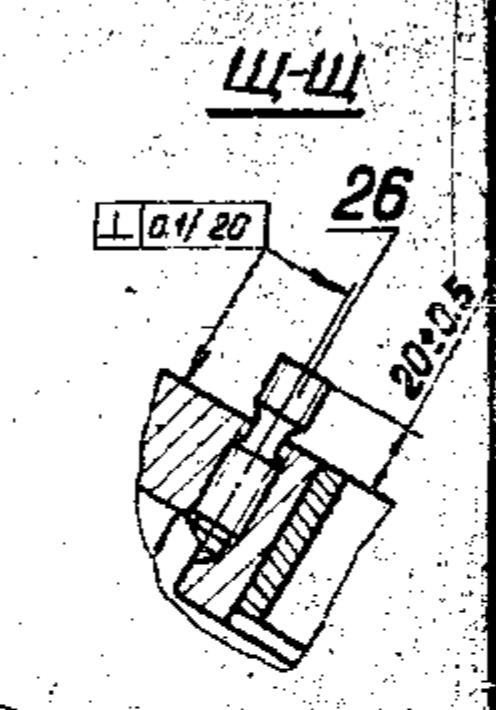
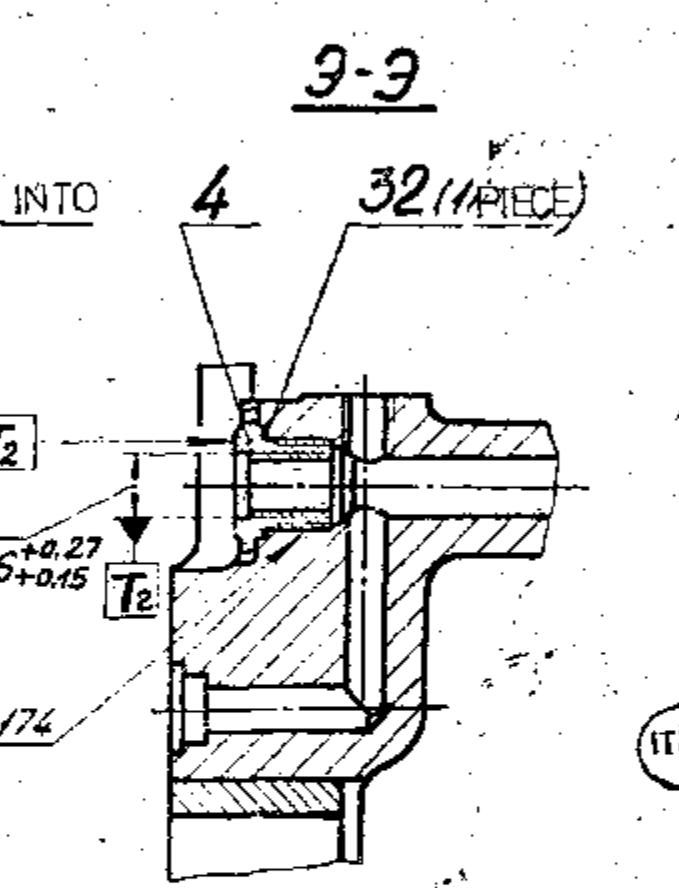
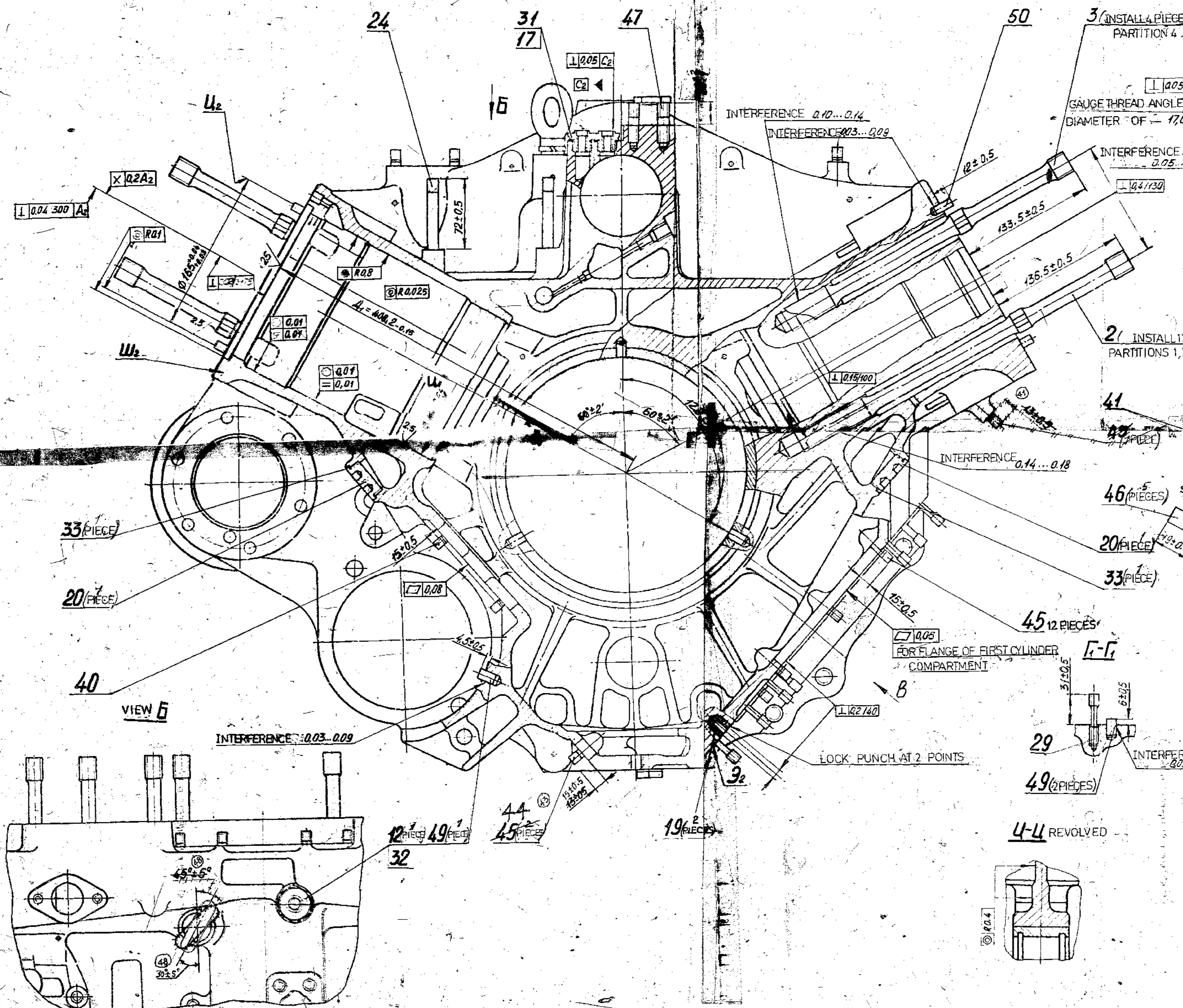
SCALE: 1:1

20-01-02-9. CRANK CASE ASSY

CYLINDER BLOCK CRANK CASE ASSY

20-01-02-9 SHEET 10/2

CC SHEET 1



No.	Description
48A	1-43-20 M. 1-1-2
48	1-42-25 Notn. No. 250-86
43	1-6-68 Notn. No. 405-85-3
41	1-6-69 Notn. No. 1185-82

CC (HV) 5.06.001E

6-20-10-02-9

CYLINDER BLOCK CRANK CASE ASSY

6-20-10-02-9 SHEET 2 OF 2