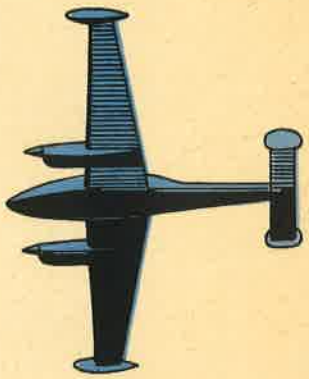
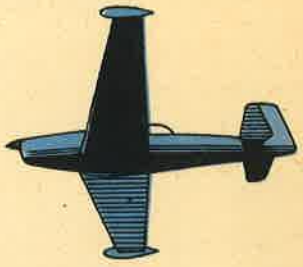
MANDATORY BULLETIN No. L 13/040



Effectivity: Vertical stabilizer of the L 13 Blaník sailplane up to PIN 174230.

Reason: Operation on the airfields with an uneven ground surface may result in cracking of the fin rib, carrying the rudder top mounting joint.



Description: Special inspection of various structural points in accordance with requirements of this Bulletin and a repair as per the Bulletin, if needed.

Date of incorporation: See the following sections

Execution: By an Operator

Costs: Material costs will be covered by the Manufacturer. Any repair costs will be covered by the Operator.

Material: The Manufacturer LET n.p. Uh. Hradiste - Kunovice will supply the items needed for domestic operators. Foreign operators will have to adress to the Omnipol FTC, Washington street 11, 110 00 PRAGUE I.

Date of validity: Starting from the date of receipt by Operator.

Manufacturer´s representative:

Čáslavský

Customer´s representative:

Ing. Lukas

State Aviation Inspection:

Kadleček

Foreign Trade Corporation:

Ing. Háva

Accomplishment Instructions

A. Inspection procedure

1. Inspect the top rib of the fin within the rudder surface mount. Should any crack propagate as far as 5 mm, proceed with a repair as per instructions of the paragraph B below. If these cracks exceed 5 mm length, then replace the whole rib as per the paragraph C below.

2. Swing the fuselage tail cone to check the central stiffener, which is designed to support the bottom mount of rudder /see Figure 2, item 1/, for cracks particularly near to the top edge. In case of crack propagation on this central stiffener as well as in case of a damage to the fin top rib it is necessary to follow the repair instructions as per the paragraph B. Should there appear cracks on the central stiffener with no damage to the fin top rib, the sailplane may continue to be operated subject to performing a repair as per the paragraphs B and D, within the maximum of 100 hours.

3. In case there had been no failure found out in any of the two structural members the sailplane may be further operated but these members must be closely checked during the prescribed reguler inspections and a modification to the paragraph D incorporated during an overhaul.

NOTE: the sailplanes which were lately over hauled by the manufacturer may already have either or both modifications incorporated /a modification to the top rib is consistent with Figure 1, while the central stiffener is made of steel as against the former duralumin version/.

B. Repair of the fin top rib

/For disassembly and assembly refer to the paragraph E, items 1 through 11 and 18 through 22/.

1. Remove the two rivets on each side, connecting the skin panel, fin tip and the rib /see Figure 3/ using a drill dia. 2.5. Also remove the 2 extreme vertical rivets joining the rudder mount fitting and the fin rib using a drill dia. 3 mm.

2. Prevent further crack propagation /if the cracks are no longer than 5 mm/ by drilling a 2 mm hole at each end of the crack. Deburr these holes carefully.

3. Place two angles items 2 and 3 under the rib, mark the holes for rivets, drill a hole dia. 2.6 mm, recess this hole and then mark and drill the vertical holes according the original holes, using a drill dia. 3.1 mm.

4. Deburr the drilled holes thoroughly on both the angles and the fin.

5. Install both angles properly and attach by riveting.

Material Information

Item	Nomenclature	Designation	Material	Qty
2	Angle	L13.304-03.02	Alloyed dura-	1
3	Angle	L13.304-03.03	lumin, tensile strength 40 kg/mm2 sheet thickness 1.2 mm 26x209 mm	1
5	Rivet, countersunk head	3x6 3501A	Alloyed duralu-	2
7	Rivet, countersunk head	3x6 3501A	min, shear strength of 25 kg/mm2	2
8	Rivet, countersunk head	2.6x7 CSN 02 2320.5		2
9	Rivet, countersunk head	2.6x8 CSN 02 2320.5		2
	Cotter pin	1,6x12 CSN 02 1781.04	Steel, cadmium plated	5
	Lockwire	dia.0.8, 2000 mm	Steel, cadmium plated	1

C. Replacement of the fin top rib

/For disassembly and assembly refer to the paragraph E, items 1 through 11 and 18 through 22/

1. Remove all 20 rivets items 8 and 9 that are used to joint the skin panel with the fin tip as well as rib, using a drill of 2.5 mm dia. /see Figure 4/.
2. Remove the fin tip.
3. Remove 3 rivets joining the rib with spar using a drill and then remove this rib.
4. Drill a hole of dia. 3.5 mm in the spar-see Figure 4, view P. Deburr an edge of the hole thoroughly.
5. Install a new rib into the fin and mark the centres of holes for the rivets item 10 according to original holes in the spar. Take the rib out and drill holes dia. 2.1 mm as per markings. Install the rib again and enlarge the holes using a drill dia. 2.6 mm, then attach the rib by two M2 screws. Place the fin tip into its original position and drill a hole of 2.6 mm dia. in the rib through the original holes. Observe that the distance of rivets from an edge in the rib border is maintained 7 mm min.
6. Remove the rib and recess the holes for countersunk head rivets.
7. Reinstal the rib and attach it using at least 3 pcs of the M2 screws.
8. Use 3 rivets item 10 to attach the rib with spar.
9. Remove the joining screws, reinstall the fin rib and attach it by means of a few screws.
10. Rivet all the members successively using the rivets items 8 and 9.

Material Information

Item	Nomenclature	Designation	Material	Qty
4	Rib	L13.304-03	/assembly/ 1	1
8	Rivet, counter-sunk	2.6x7 CSN 02 2320.5	Alloyed duralumin shear strenght = 25 kg/mm	16
10	Rivet, button head	2.6x5 CSN 02 2302.5		3
9	Rivet, counter-sunk	2.6x8 CSN 02 2320.5		4
	Cotter pin	1.6x12 CSN 02 1781.04	Steel, cadmium plated	5
	Lockwire	dia. 0.8, 2000 mm	Steel, cadmium plated	1

D. Replacement of the fuselage stiffener

/For disassembly and assembly refer to the paragraph E, items 1 through 23/

1. Remove the heads of two rear vertical rivets connecting the rudder mount /view S/, using a drill of dia. 3 mm /see Fig.2/.
2. Remove the heads of 3 bottom rivets, connecting the stiffener to a frame, using a drill of dia. 3 mm.
3. Install a new steel stiffener and mark the centres for rivets holes through the original holes up and down. Observe the minimum distance of 7 mm from an edge. Take out the stiffener and drill holes dia 2.6 mm as per markings.
4. Reinstall the stiffener into fuselage and attach it on each side by means of screws. Drill the hole of dia. 3.1 mm.
5. Safeguard the stiffener against any movements by inserting a rivet of 3 mm dia into the above hole. Then remove the mounting screws and drill the remaining holes dia. 3.1 mm.
6. Take out the stiffener and thoroughly deburr all the openings in the stiffener as well as in the fuselage.
7. Reinstall the stiffener into the fuselage and attach successively through riveting.

NOTE: the drilling and riveting operations are easily performed through an opening of 60 mm dia. in the rear bulkhead, using an extended drill and a riveting die.

Material Information

Item	Nomenclature	Designation	Material	Qty
1	Stiffener	SK-L13.262	Sheet of 0.8 mm thickness, size = 80x200 mm, steel, strength after heat treatment 90 to 110 kg/mm2, cadmium-plated	1
6	Rivet, counter-sunk	3x7 3501A	Alloyed duralumin	1
7	Rivet, counter-sunk	3x8 3501A	Shear strength 25 kg/mm2	4
	Cotter pin	1,6x12 CSN 02 1781.04	Steel, cadmium-plated	5
	Lockwire	0.8, 2000 mm	Steel, cadmium-plated	1

E. Disassembly and assembly

1. Swing the fuselage tail cone.
2. Unlock and remove the central joining pin of the stabilizing surfaces.
3. Put the left stabilizer into vertical position and open the access cover on the left side of fuselage rear of the frame No. 14.
4. Remove the castle nut, holding the rudder in the bottom rudder mount fitting on fuselage.
5. Unscrew the two bolts and swing the fuselage nose cap. Remove the fabric cover at the front rudder pedal controls.
6. Unlock and release both the turnbuckles in the rudder control circuit near the frame No. 1.
7. Remove the rubber floor cover in the front cockpit or cut out an opening along the circumference of the central access door rear of the frame No. 1.
8. Unscrew the central door and disconnect the electrical bonding strip in the rudder control cable circuit rear of the frame No. 1.
9. Unlock and remove the bolts attaching the rudder control cable system in front of the frame No. 1.

   WARNING: attach a wire of about 1.5 m length to the end of the cable and let the cable slide into the fuselage. Ends of the wire must be protected so as to prevent its inadvertant slipping into the fuselage interior. These wires are used to pull the control cables out of the fuselage during their reinstallation.

10. Disassemble the rudder top mount fitting.
11. Remove the rudder and place it on the top of the right stabilizer so as not to cause any damage.
12. Disconnect the control bolt connecting the elevator layshaft with the end cable.
13. Remove the rear seat as well as the cover panel on bulkhead No. 6.
14. Remove the cover, situated under the rubber floor carpet on the right side, rear of the frame No. 3. The rubber carpet will be removed as specified in the item 7 above.
15. Release the turnbuckles in the elevator control cable circuit under the floor on the right side - rear of the frame No. 3 and in front of the frame No. 14 at the left access hole.
16. Remove the central bolt in the elevator control stick system in front of the frame No. 14.
17. Put the elevator control stick as well as the end control cable into the central fuselage section.
18. Clean the aircraft inside to remove all foreign matters, like scrap after drilling, riveting and other operations.

19. Reinstall all the components and items within the control system in the reversed sequence as listed in items 1 through 17 above. The cables must be properly tensioned in compliance with the Technical Manual, Chapter III.

20. Check the deflection angles of both elevator and rudder.

21. Check for proper lockwiring of all nuts and turnbuckles.

22. Repair or attach the rubber covers on the cockpit floors.

23. Enter the above operations performed into the aircraft logbook.

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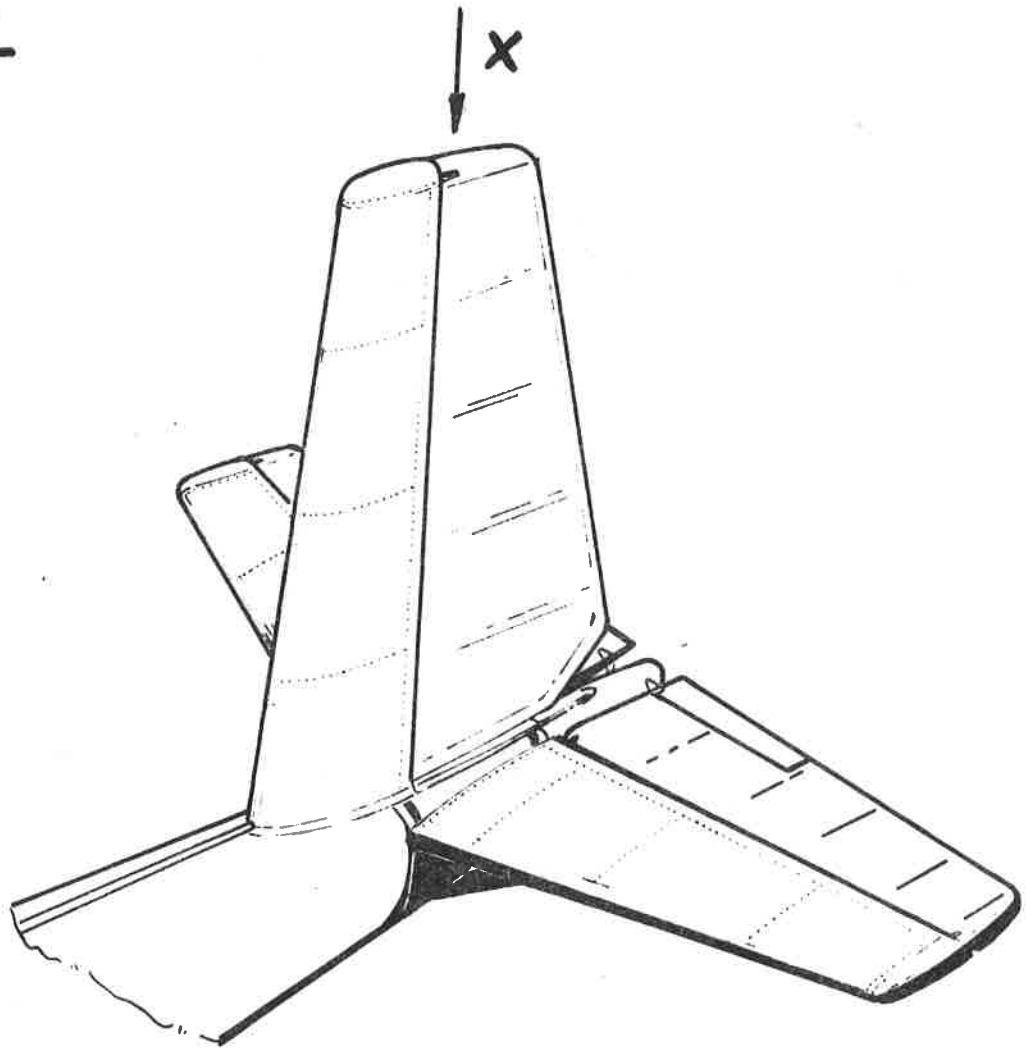

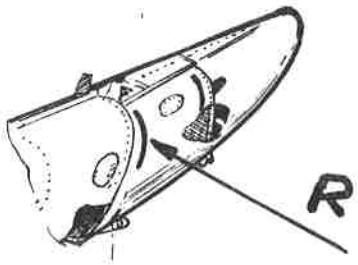

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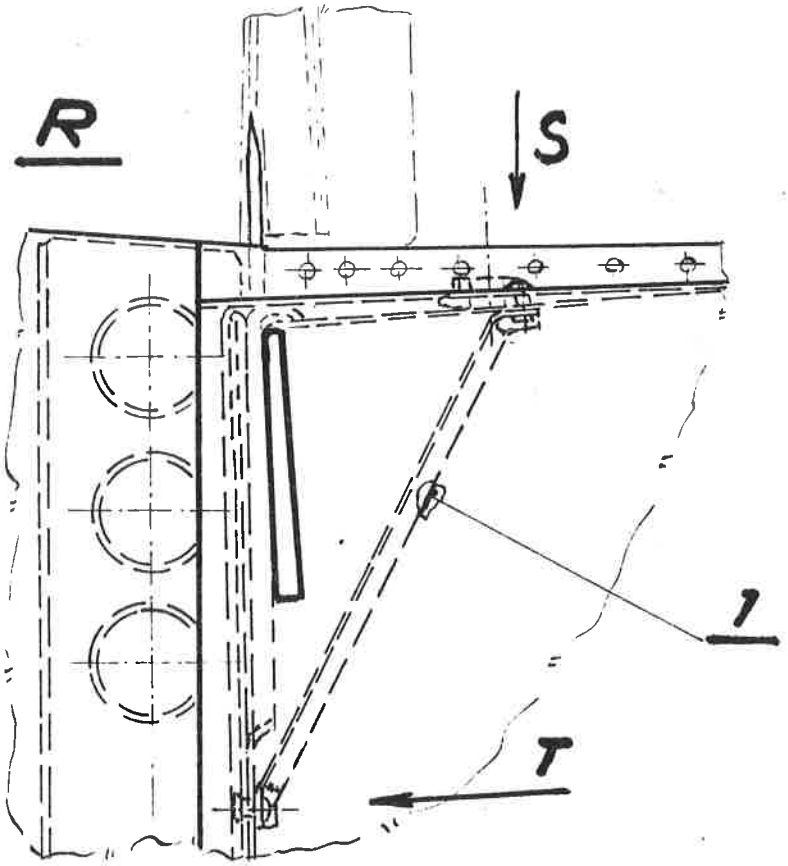

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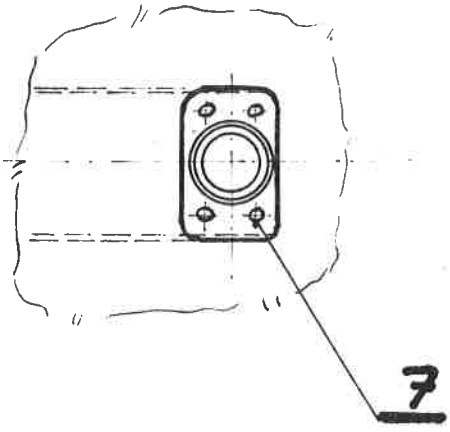

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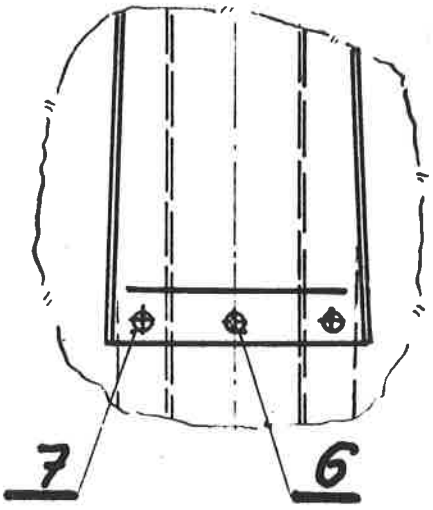

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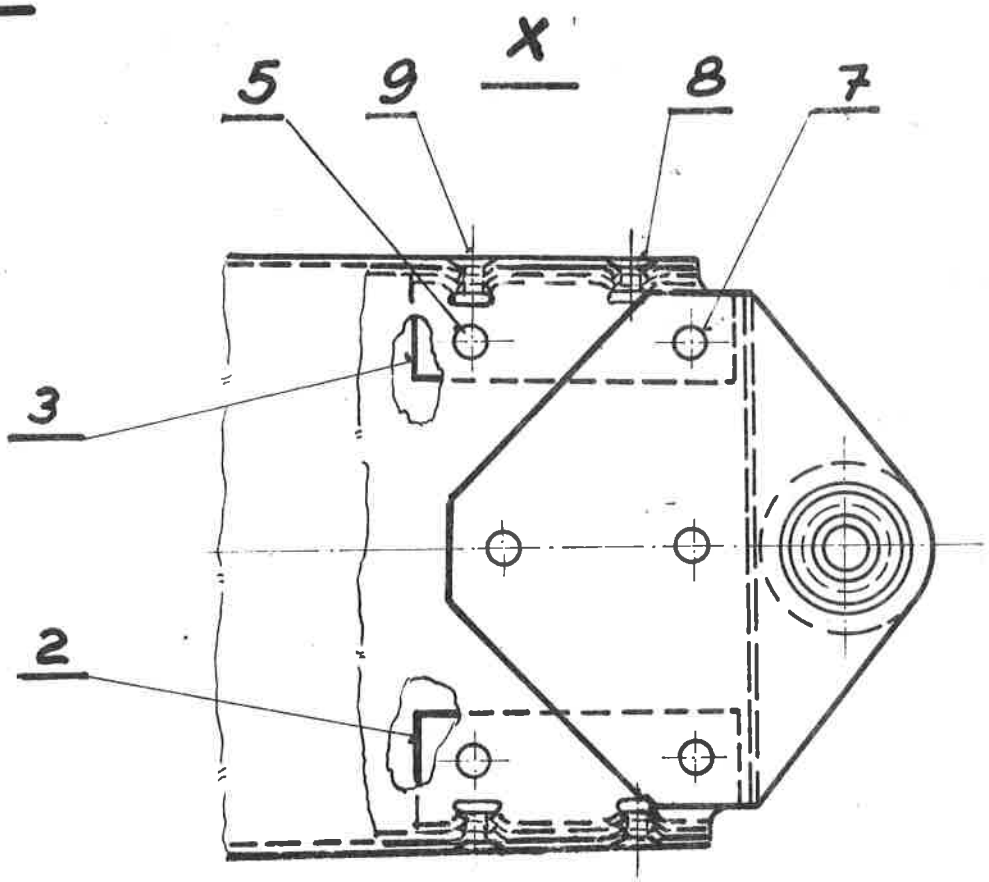

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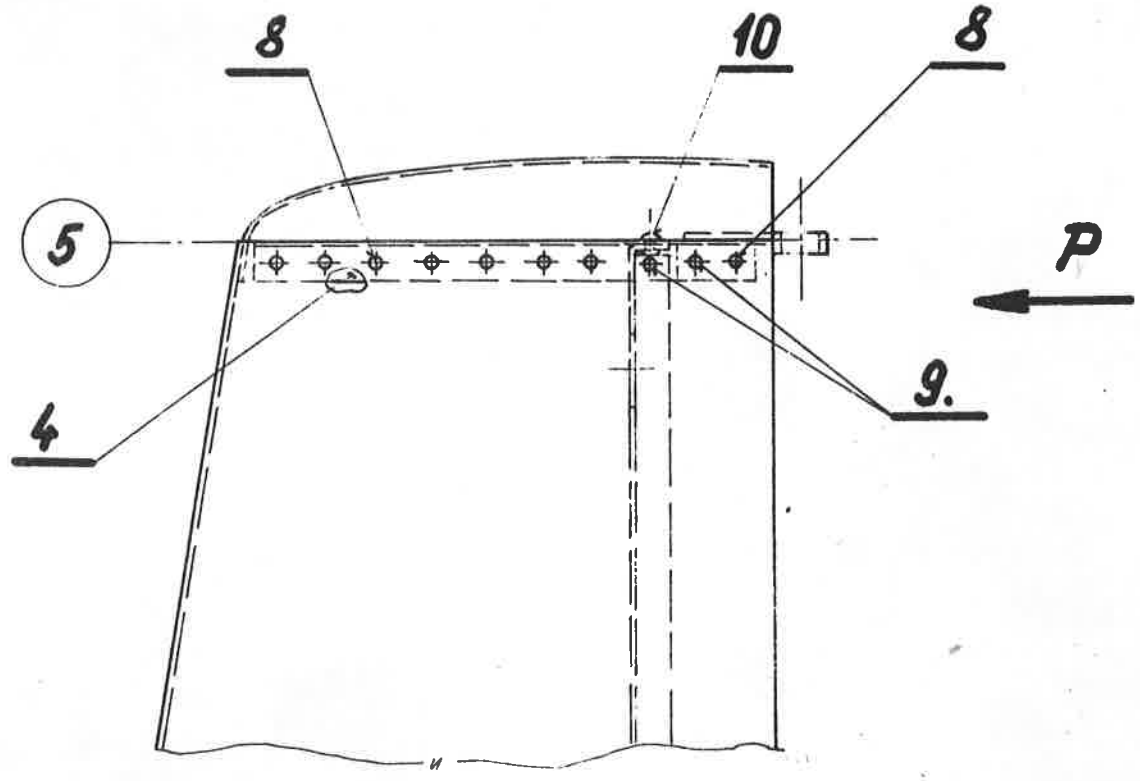

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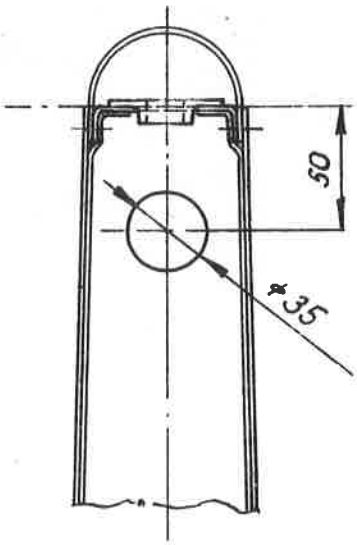

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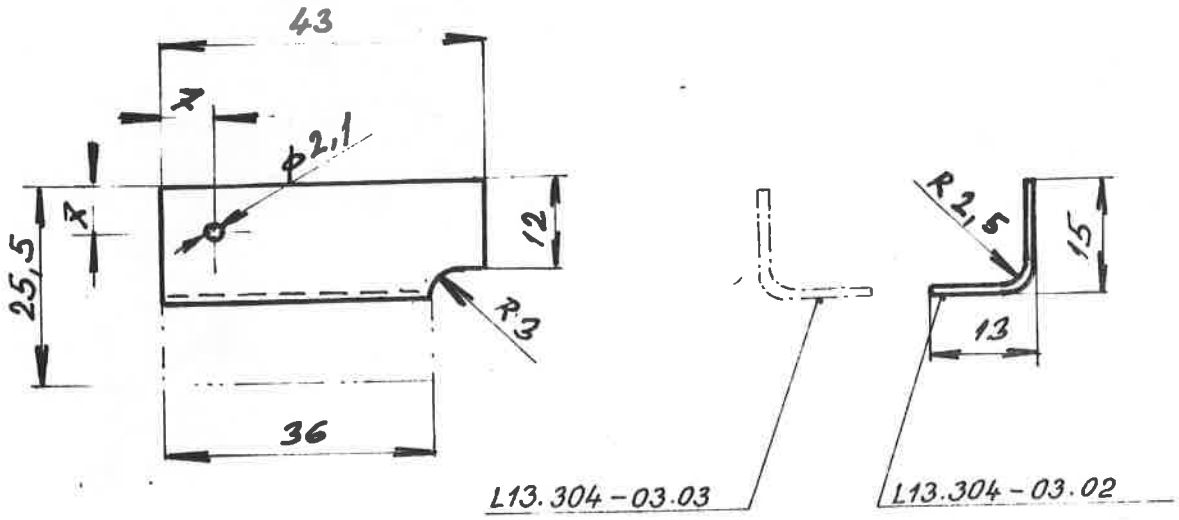

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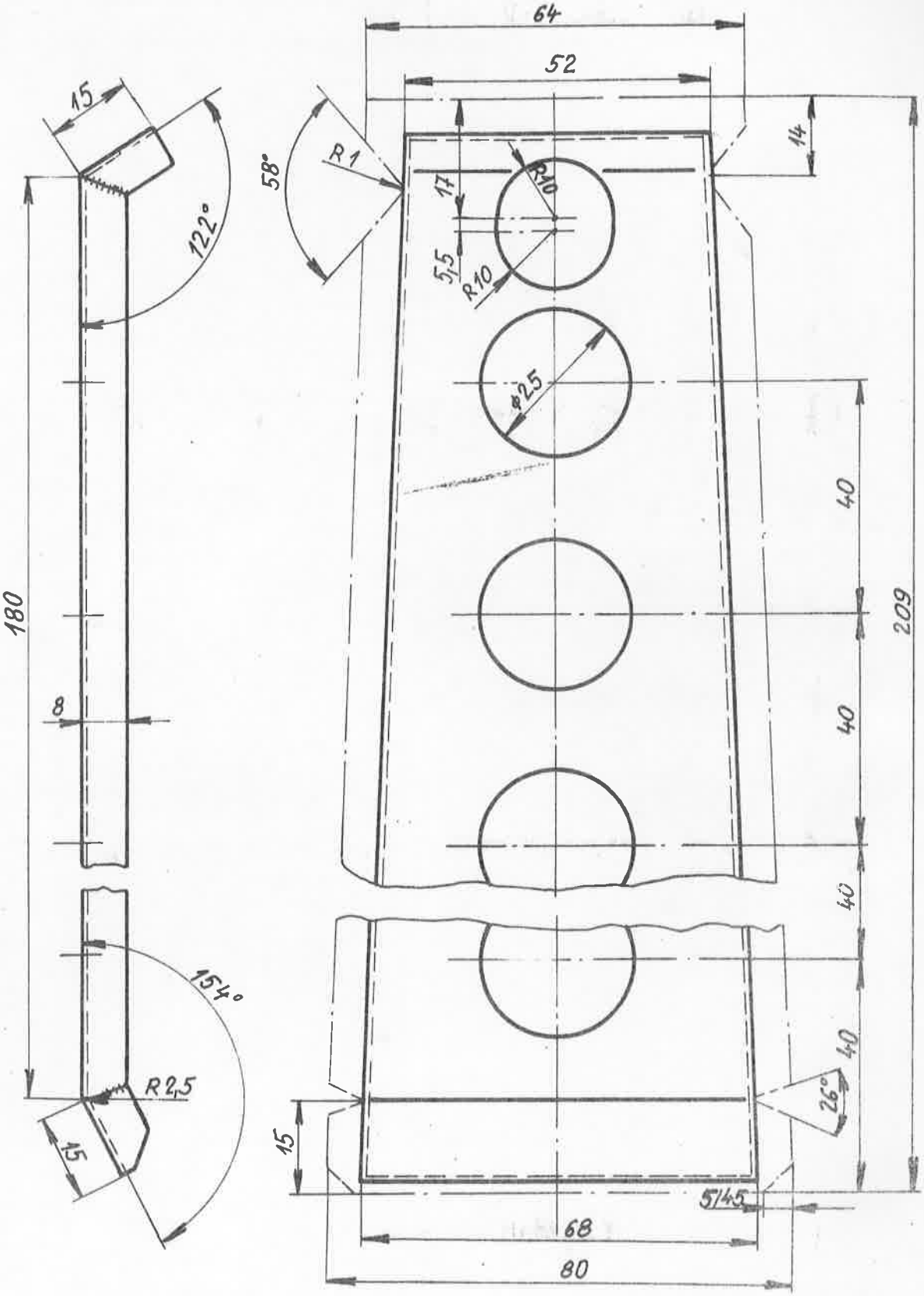

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