

COMMONWEALTH OF AUSTRALIA

DEPARTMENT OF TRANSPORT

AIR TRANSPORT GROUP

AIRWORTHINESS DIRECTIVE - GLIDERS

GFA/AD 64/LET N.P. KUNOVICE 6

Glider Type Affected: L-13 Blanik for all gliders to serial number 174230.

Background:

Experience has shown that operation from airfields with rough or uneven surface may lead to cracking of the fin rib carrying the rudder top mounting rib. (See also Airworthiness Directive Ref. GFA/AD 53/LET 5).

Required Actions:

Special Inspection as paragraph A and repair as paragraph B if required.

Procedure:

A. Inspection Procedure:

1. Inspect the top rib of the fin within the rudder surface mount. Should any crack propagate not more than 5 mm, proceed with a repair as per instructions of item B below. If these cracks exceed 5 mm length, then replace the whole rib as per item 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. Where there is no failure detected in either of the two structural members the sailplane may continue in service but these members must be closely checked during the prescribed regular inspections and a modification to item D incorporated during or before the next G.F.A. Form 2 inspection.

B. Repair of the Fin Top Rib: (See also AD Ref. No. GFA/AD 53/LET 5).

(For disassembly and assembly refer to 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 diameter 2.5. Also remove the 2 extreme vertical rivets joining the rudder mount fitting and the fin rib using a drill diameter 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 diameter 2.6 mm, dimple this hole and then mark and drill the vertical holes according to the original holes, using a drill diameter 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 duralumin,	1
3	Angle	L13.304-03.03	tensile strength 40 kg/mm 2 sheet thickness 1.2 mm 26 x 209mm	1
5	Rivet, countersunk head	3x6 3501A	Alloyed duralumin,	2
7	Rivet, countersunk head	3x6 3501A	sheer strength of	2
8	Rivet, countersunk head	2.6x7 CSN 02	25 kg.mm2	
		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 Paragraph E, items 1 through 11 and 18 through 22).

1. Remove all 20 rivets items 8 and 9 that are used to join 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 dimple the holes for countersunk head rivets.
7. Reinstall the rib and attach it using at least 3 pieces of the M2 screws.
8. Use 3 rivets item 10 to attach the rib to the 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
8	Rivet, countersunk	2.6x7 CSN 02 2320.5	Alloyed duralumin sheer strength	16
10	Rivet, buttonhead	2.6x5 CSN 02 2302.5	25 kg/mm	3
9	Rivet, countersunk	2.6x8 CSN 02 2320.5		4
	Cotter pin	1.6x12 CSN 02 1781.04	Steel, cadmium plated & passivated	5
	Lockwire	dia. 0.8, 2000 mm	Steel, cadmium plated & passivated	1

D. Replacement of the Fuselage Stiffener:

(For disassembly and assembly refer to 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 Figure 2).
2. Remove the heads of 3 bottom rivets, connecting the stiffener to a frame, using a drill of diam. 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. Secure 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/mm ² , cadmium-plated	1
6	Rivet, countersunk	3x7 3501A	Alloyed duralumin	1
7	Rivet, countersunk	3x8 3501A	Sheer strength	4
	Cotter pin	1.6x12 CSN 02 1781.04	25 kg/mm ² 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 1.5m 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.

Compliance:

The requirements of this Airworthiness Directive are mandatory. The inspection is to be carried out before further flight and repairs, if required, are to be completed as detailed in Paragraph A as above.

This Directive is issued pursuant to the Air Navigation Regulations under the delegated authority of the Secretary to the Department of Transport.

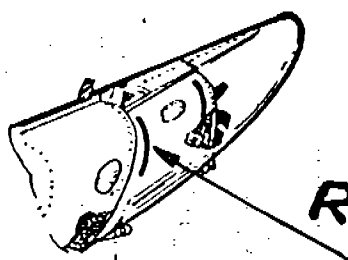
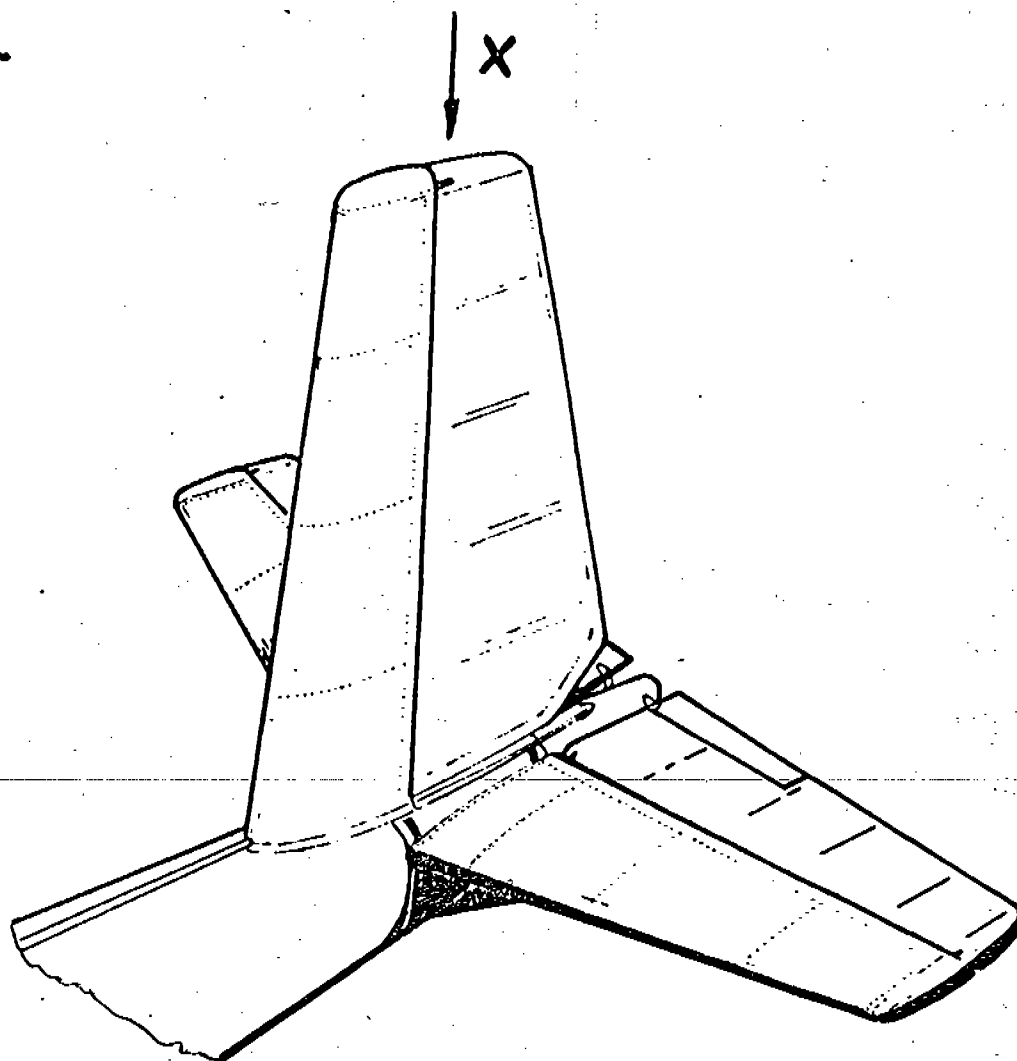
DATE OF ISSUE: 17TH SEPTEMBER 1975.

Douglas Lyon,
CHIEF TECHNICAL OFFICER - AIRWORTHINESS
GLIDING FEDERATION OF AUSTRALIA.

Distribution:

L-13 Blanik Owners
C.T.O./A and Ops
R.T.O.'s/A
A.T.O.
T.L.O.
D of T (A.W.O.R.)
GFA Secretary
R. Keane
G. Detto
R. Martin
D. Vanstan
G. Simpkins
R. Pollard
C. Willis

1

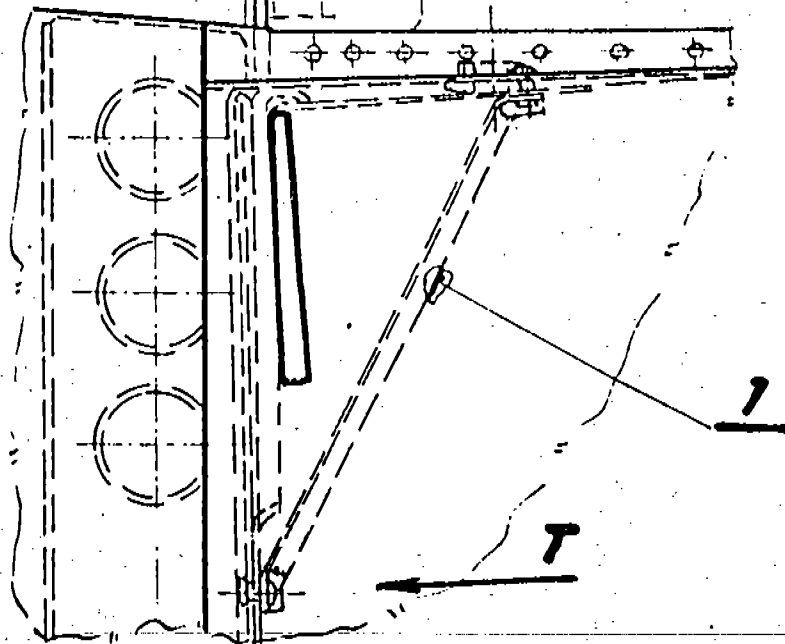


	Vypracoval	Kontroloval	Schválil	List:
				Listo:

2

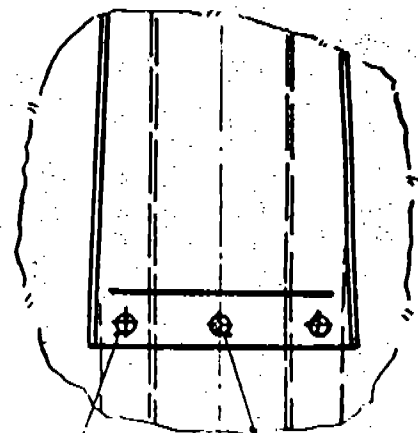
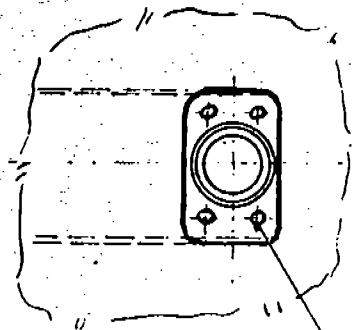
R

S



S

T



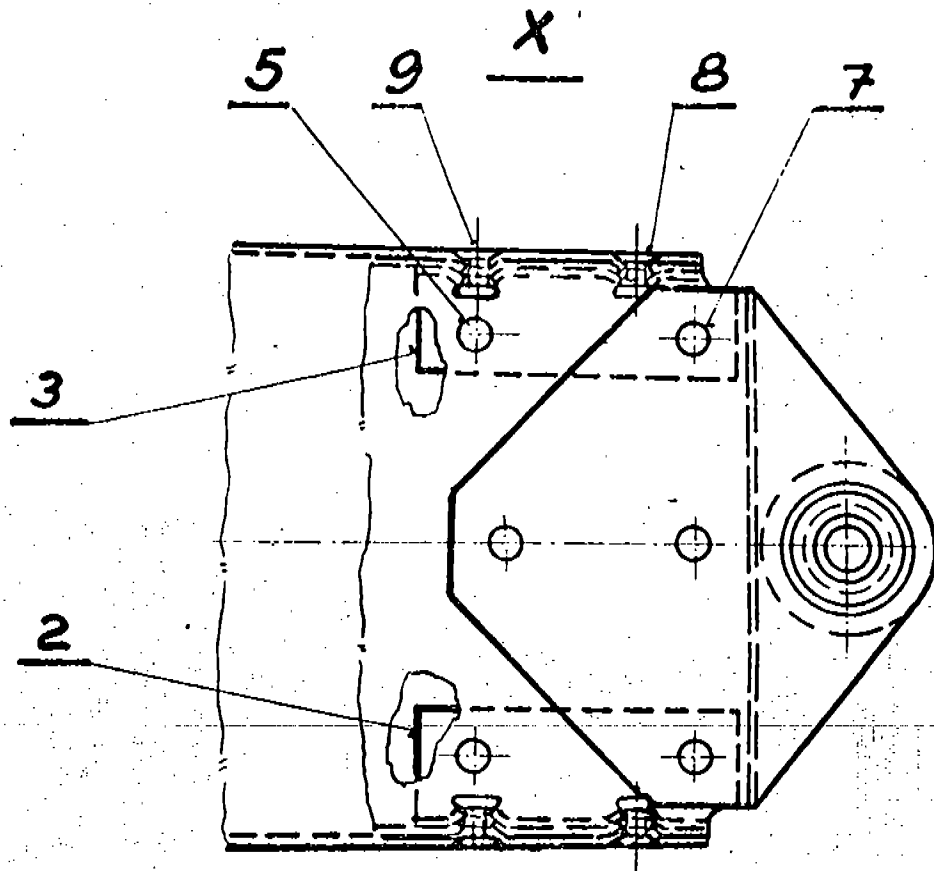
7

7

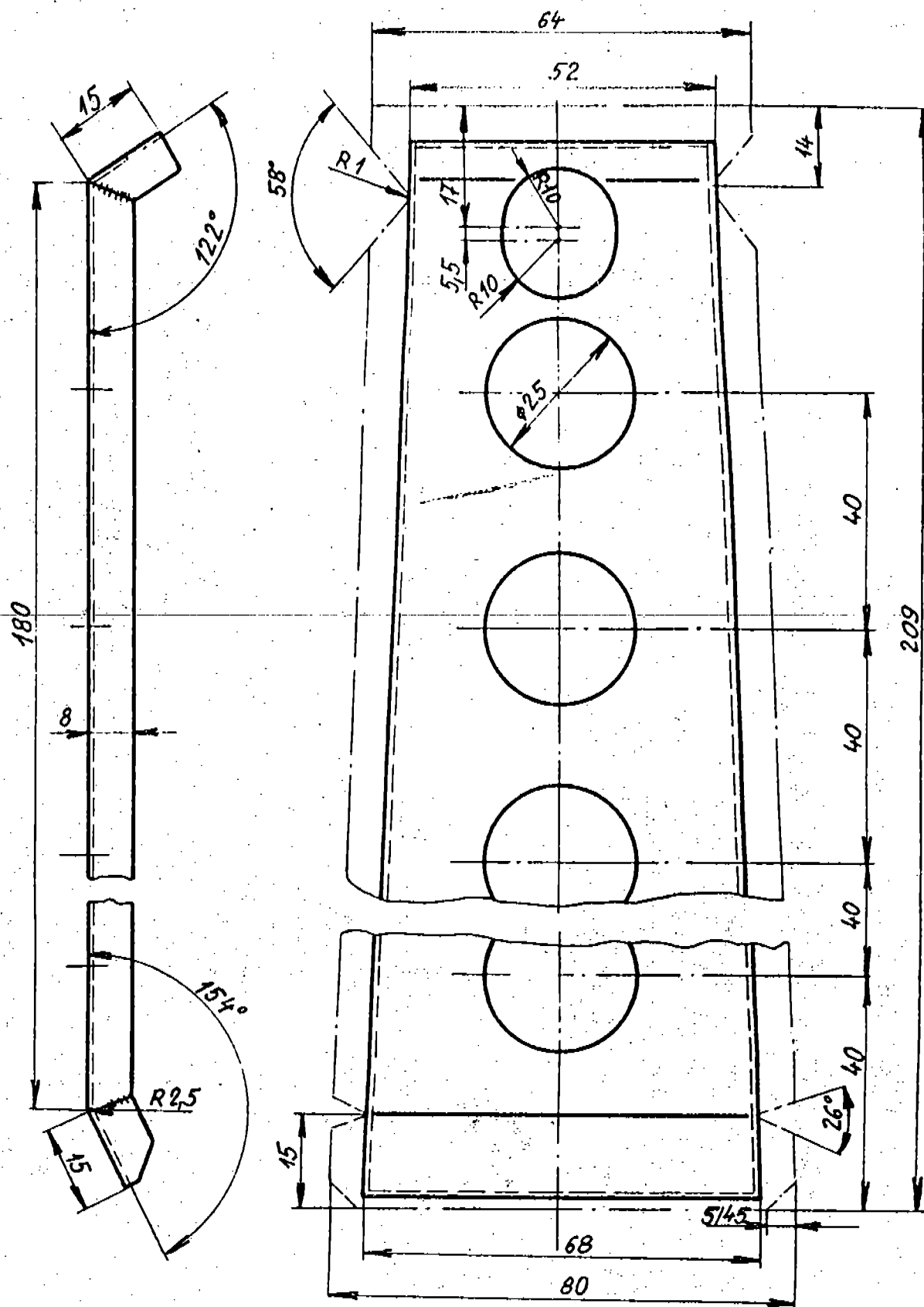
6

	Vypracoval	Kontroloval	Schválil	Listr
				Listo:

3



	Vypracoval	Kontroloval	Schválil	List: Listů:
--	------------	-------------	----------	-----------------



SK-L13.262

Vypracoval

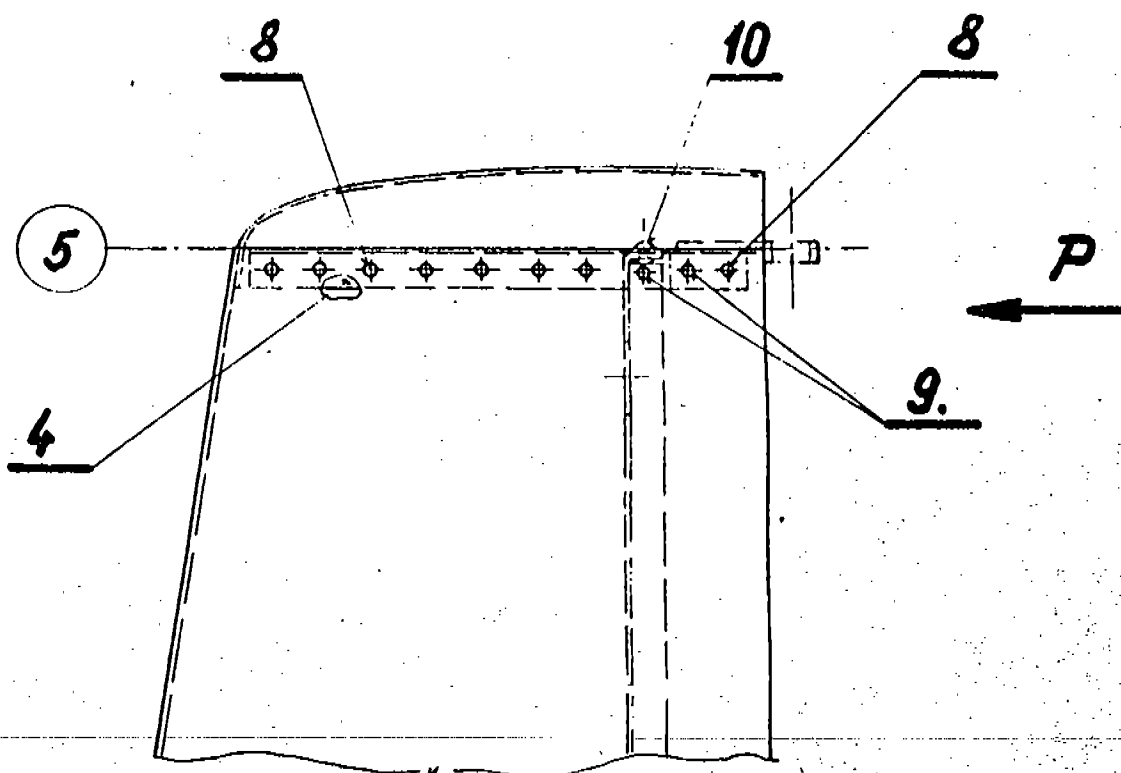
Kontroloval

Schválil

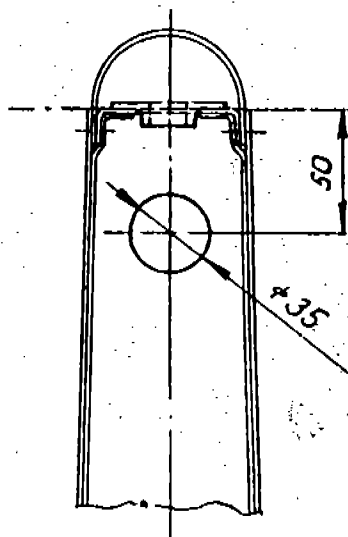
List: 1

Listů: 1

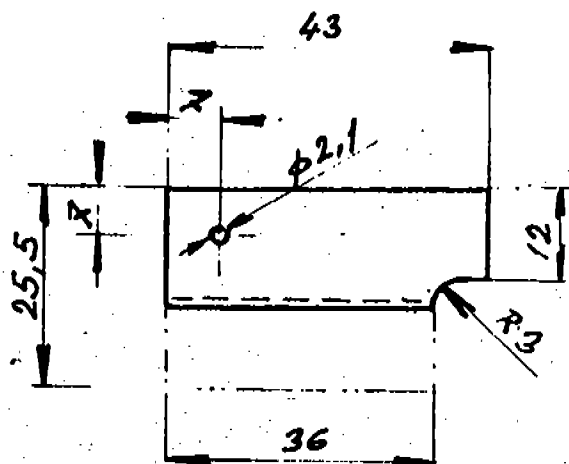
4



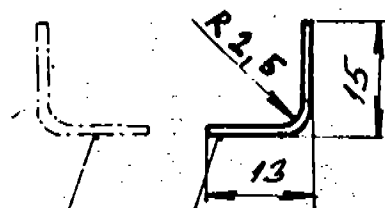
"P"



	Vypracoval <i>[Signature]</i>	Kontroloval	Schválil	Líst: Líst:
--	----------------------------------	-------------	----------	----------------



L13.304-03.03



L13.304-03.02

L13.304-03.03
L13.304-03.02

	Vypracoval	Kontroloval	Schválil	List:
				Ličeb: