GFA/AD53

COMMONWEALTH OF AUSTRALIA.

DEPARTMENT OF TRANSPORT

AIR TRANSPORT GROUP

AIRWORTHINESS DIRECTIVE - GLIDERS GFA/AD 53/LET 5

Glider Types affected - L-13 Blanik (all serial numbers)

Subject:

Amendment to the maximum time in service between major inspections (G.F.A. Form 2 inspections) and amendment to flight manual airspeed values in annex 2 Performance Characteristics - refer Pilot's notes for the L-13 Sailplane, 2nd and 3rd edition.

Background:

This directive arises out of information contained in information bulletin No. L13/034 and operating bulletin No. L13/035 issued by the maker.

Required Actions:

Part A - The following items are to be included in the G.F.A. Form 2 inspection at intervals not exceeding twelve months or 600 hrs. in service or after 4000 take-offs (which ever occurs first).

1. Check the rivets in the flangeplates of the wing spar (in the area of about 200 mm from rib No. 1) for looseness. If the number of rivets on the top and bottom flange plates exceeds 6, the sailplane is to be overhauled.

2. Check the rivets on ribs Nos. 13, 19, 25 in the area between the main spar and trailing edge (on both top and bottom skins) for looseness. If the number of loosened rivets exceeds 25% of the total number of rivets in the checked area of each rib, or if there are 4 loosened rivets located one beside another, it is necessary to replace them by new ones of the diameter larger by one grade.

3. Check the bottom flangeplate of the centre-section spar for water penetration (see Fig. 1). Wipe out water, if any, and check for corrosion. Clean the affected spots using emery cloth and coat with varnish. Seal the gap between the rib and the fitting on the fuselage with fabric strip.

4. Check the cables of the rudder control for correct tension and for broken wires in their bends over the pulleys. If broken wires are found, the cables must be replaced. This check is to be carried out during every pre-flight inspection. If the cables are replaced by new ones, stretch them by applying a force of about 65 kp, since the tension will decrease in service. Should the original cables be loosened, apply a force of approx. 45 kp.

5. Check the bulkhead No. 15 for cracks in the area of tail-skid suspension. (See Fig. 2) Two cracks of 10 mm max. in length are permissable in the lower part of the bulkhead in the area of tail-skid suspension. In such a case, holes must be drilled into the ends of the cracks using a 2.1 mm dia. drill. If the length of cracks exceeds 10 mm or if there are more cracks found, it is necessary to replace the bulkhead.

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6. Check the tail-skid rubber shock absorber. Replace if torn up.

7. Check the pivoted suspension of the undercarriage shock absorber and the single-arm lever (see Fig. 3) for cracks. Check all weds - replace defective parts.

8. Check the rocker arm of the front pedal unit for cracks (See Fig. 4). Replace if cracks are found out. Check the clearance of the pedals. If larger than 2 mm, the pedals must only be set in the two extreme positions.

9. Check for clearance of the rear pedal unit. Should the clearance at the end of the pedal be more than 1 mm when deflecting the pedal aside, replace the bushes.

10. Check the elevator actuating arm for cracks (See Fig. 5). Replace if cracks are found out.

11. Check the stiffeners for cracks in the areas marked by arrows (See Fig. 6). Replace if cracked.

12. Inspect the front suspension of the tail skid, check its attachment. If damaged, replace it by a new one, SK-L 13.165, and reinforce the attachment area of both sides of the fuselage by means of a 0.8 mm thick, 60 x 100 mm size sheet, made of B16T material (See Fig. 7, detail T).

13. Check the upper suspension lug of rudder and its vicinity for cracks. Reinforce the cracked areas, if any, by means of angle irons L 13.304 -03.02. (See Fig. 7, View S).
03.03.

14. Check the airframe for cracks in covering sheets, particularly around the cut-outs for hinges. For cracks of up to 10 mm drill holes into the ends using a 2.1 mm dia. drill. If longer cracks are found out, these are to be repaired separately, or the damaged parts replaced.

15. Inspect the airframe for damaged protective coat. Apply a layer of AR 113 primer and AS 82 finishing coat on the damaged spots.

16. Check the spacing pins of the main hinges of wings for damage (applies to the sailplanes Serial Nos. 170101 up to 172530). The same check applies to the sailplanes starting from Serial No. 172601. If damaged, replace the pins by new ones.

17. Check for clearance of the front and main hinges of wings and of the tail unit. The dimensions of the pins and holes must comply with those stated in the Table below, column O. If they do not, the holes may be reamed to the diameters given in the column I, II or III at the most. New pins must, of course, be used for these reamed holes.

	"O"	I	II	III
Front hinge pin of wing	$\varnothing 12^{-0.016}_{-0.034}$	$\varnothing 12.1^{-0.016}_{-0.034}$	$\varnothing 12.2^{-0.016}_{-0.034}$	$\varnothing 12.3^{-0.016}_{-0.034}$
Front hinge of wing	$\varnothing 12^{+0.027}_{-0.00}$	$\varnothing 12.1^{+0.027}_{-0.00}$	$\varnothing 12.2^{+0.027}_{-0.00}$	$\varnothing 12.3^{+0.027}_{-0.00}$
Main hinge pin of wing, upper-lower ends	$\varnothing 22(^{-0.020}_{-0.033}$ $\varnothing 20(^{-0.020}_{-0.033}$	$\varnothing 22.1(^{-0.020}_{-0.033}$ $\varnothing 20.1(^{-0.020}_{-0.033}$	$\varnothing 22.2(^{-0.020}_{-0.033}$ $\varnothing 20.2(^{-0.020}_{-0.033}$	$\varnothing 22.3(^{-0.020}_{-0.033}$ $\varnothing 20.3(^{-0.020}_{-0.033}$
Main hinges of wing, upper-lower	$\varnothing 22(^{+0.033}_{-0.00}$ $\varnothing 20(^{+0.033}_{-0.00}$	$\varnothing 22.1(^{+0.033}_{-0.00}$ $\varnothing 20.1(^{+0.033}_{-0.00}$	$\varnothing 22.2(^{+0.033}_{-0.00}$ $\varnothing 20.2(^{+0.033}_{-0.00}$	$\varnothing 22.3(^{+0.033}_{-0.00}$ $\varnothing 20.3(^{+0.033}_{-0.00}$
Securing pin of tailplane	$\varnothing 10^{-0.005}_{-0.014}$	$\varnothing 10.1^{-0.006}_{-0.017}$	$\varnothing 10.2^{-0.006}_{-0.017}$	$\varnothing 10.3^{-0.006}_{-0.017}$
Hole for securing pin	$\varnothing 10^{+0.015}_{-0.00}$	$\varnothing 10.1^{+0.018}_{-0.00}$	$\varnothing 10.2^{+0.018}_{-0.00}$	$\varnothing 10.3^{+0.018}_{-0.00}$

18. Inspect all push rod ends for free movement of bearings and check for excessive wear and security of the bearings in their housings.

19. Inspect the push rod end for the elevator control at the base of the rear control column, check for excessive slack in the screw thread; if end play exceeds 0.3 mm (0.012") the rod end must be replaced.

The result of the inspection is to be entered in the airframe logbook.

Part B. - Amendment to Pilot's notes.

The following amendments are to be made to 2nd and 3rd editions of Pilot's notes for the L-13 Blanik sailplane due to a misplacement by 10 km/hr - 5 knots in the performance polar.

The values of indicated air speed in annex 2 Performance Characteristics by adding 10 km/hr i.e. to read 60 instead of 50, 70 instead of 60, etc. and in the British units adding 5 knots to the original values i.e. to read 30 instead of 25, 35 instead of 30 etc..

Compliance:

The requirements of this directive are mandatory. Part A is to be carried out at the intervals set out. Part B is to be carried out on receipt of this directive. This directive is issued pursuant to the Air Navigation Regulations under the delegated authority of the Secretary to the Department of Transport.

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

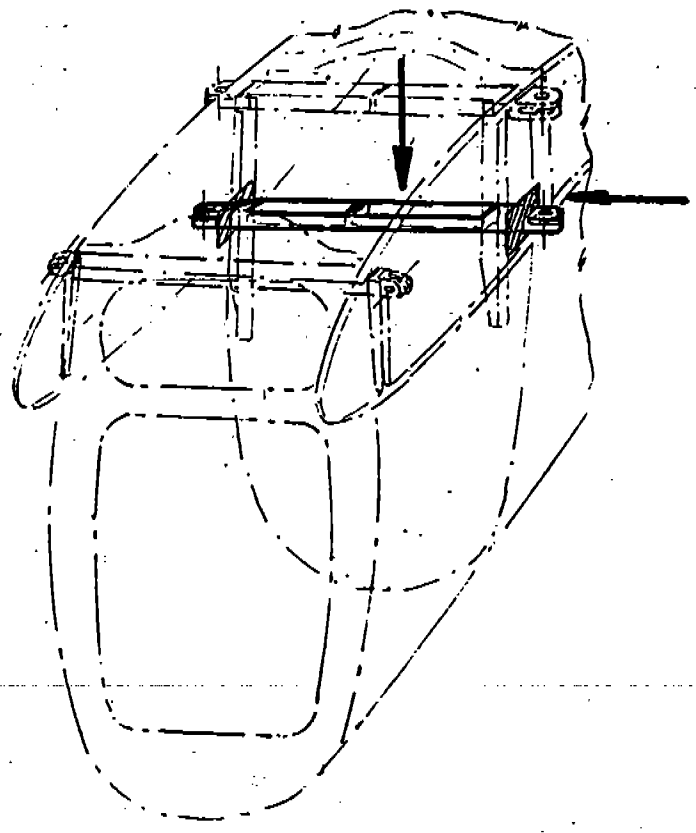
DATE OF ISSUE: 11TH MARCH, 1975.

Distribution:

L-13 Blanik Owners
C.T.O./A & Ops
R.T.O.'s/A
A.T.O.
D of T
G.F.A. Secretary
R. Keane
G. Detto
R. Martin
D. Vanstan
G. Simpkins

Drawings Figures 1 to 7 attached.

1



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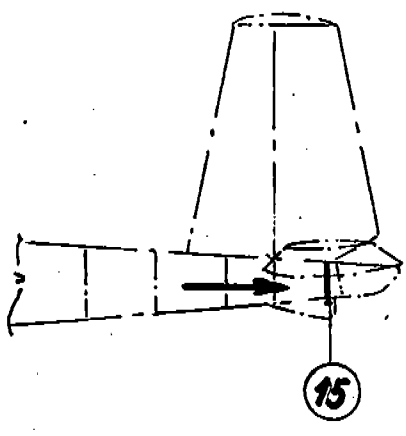

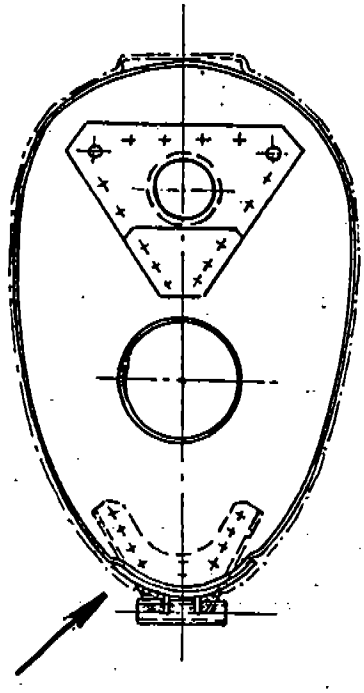

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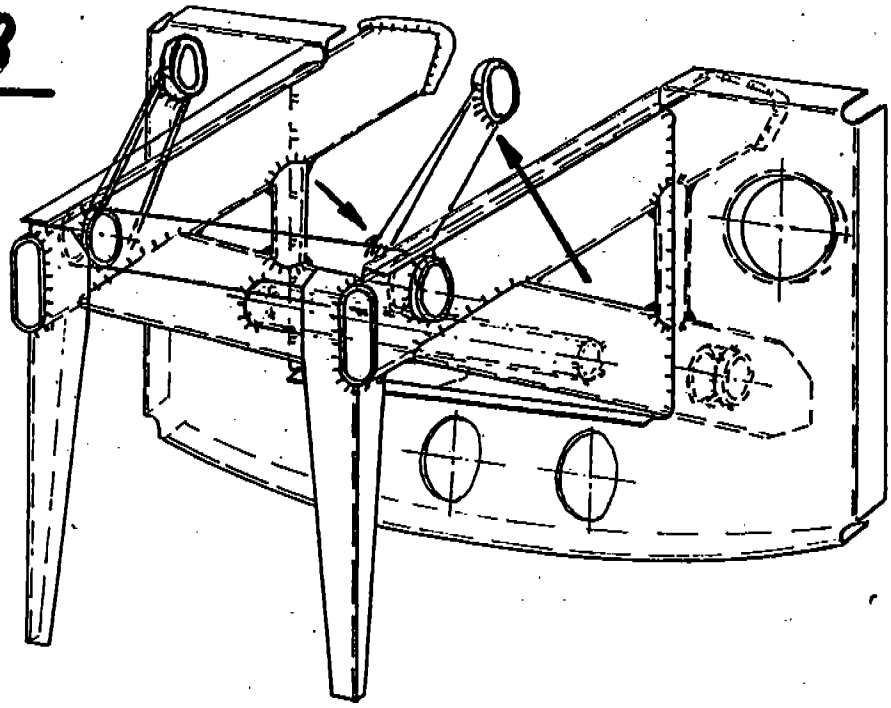
3



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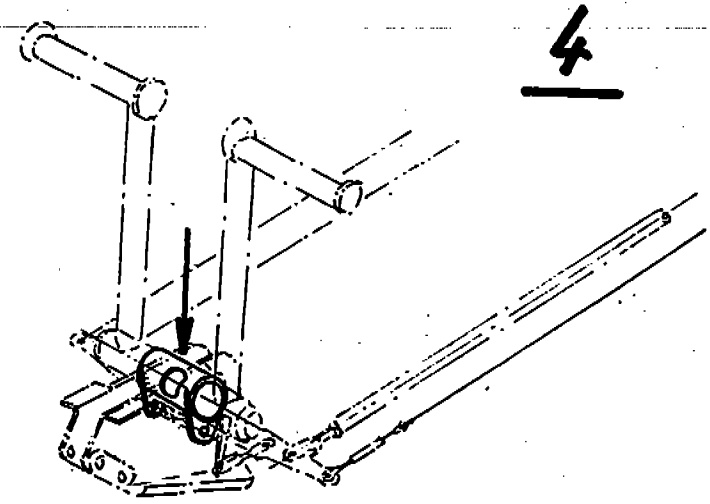

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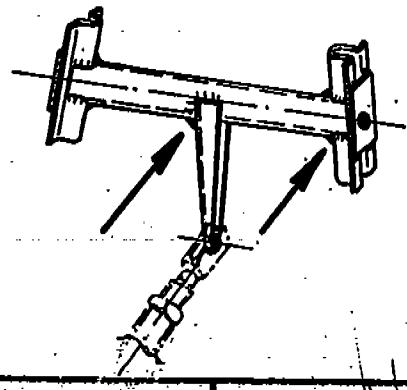

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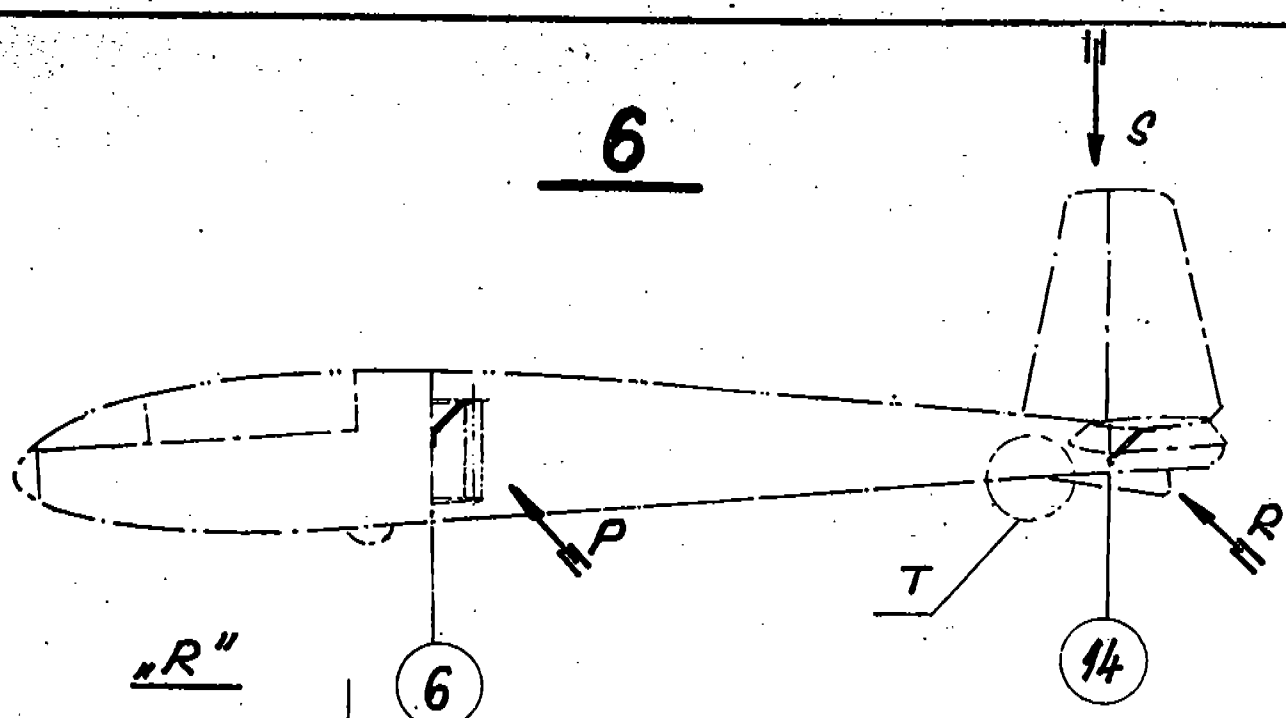
6



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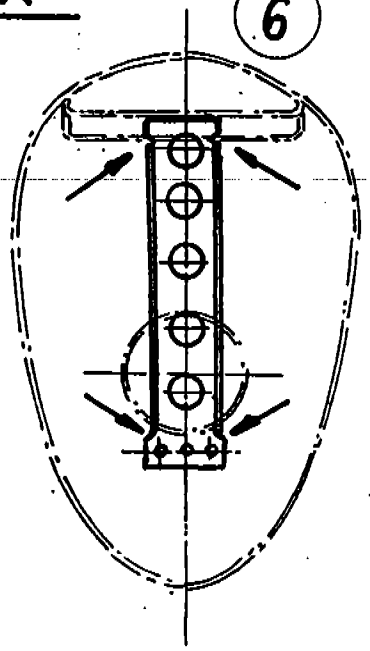

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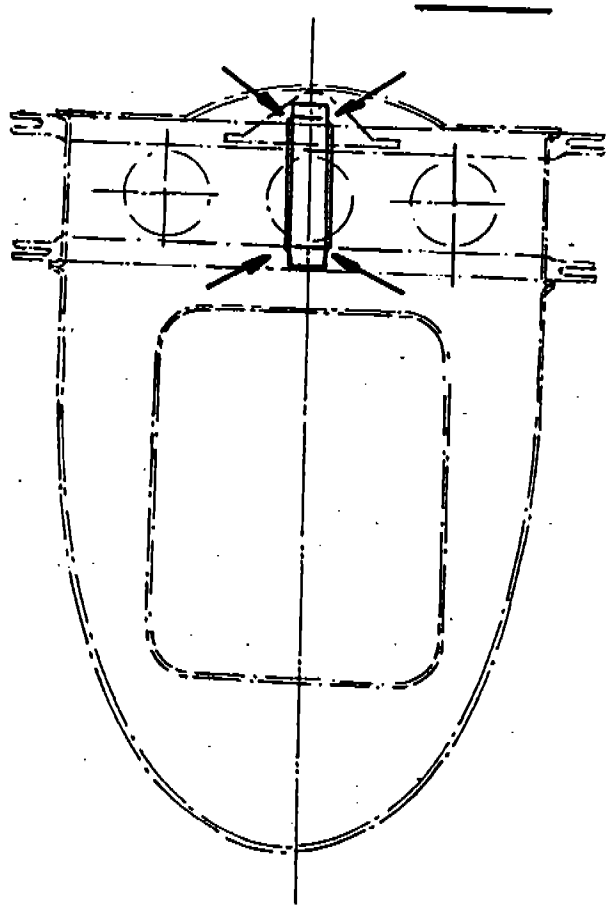

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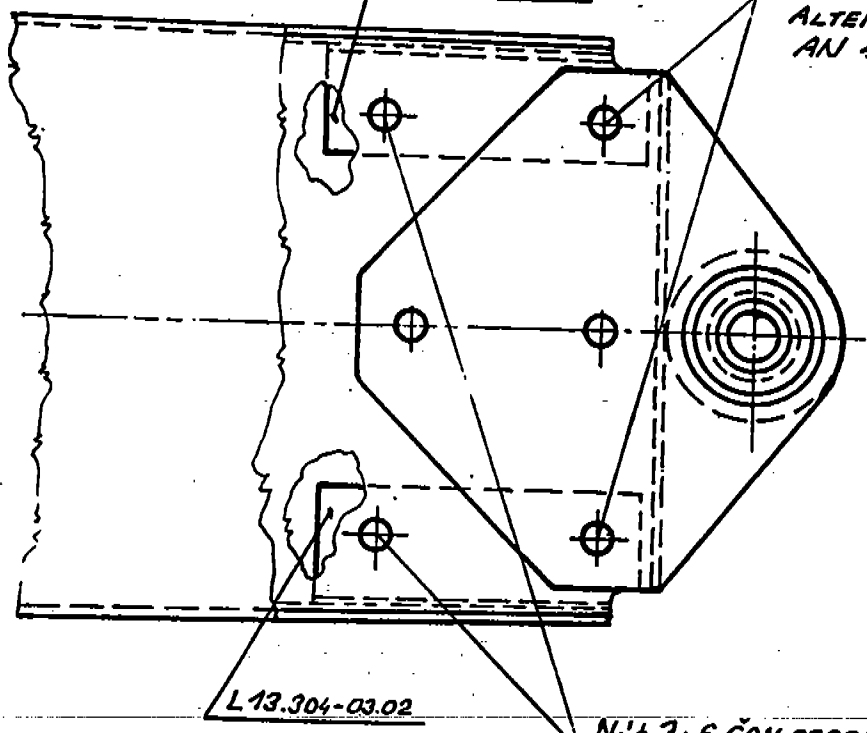
SK 435

"S"

7



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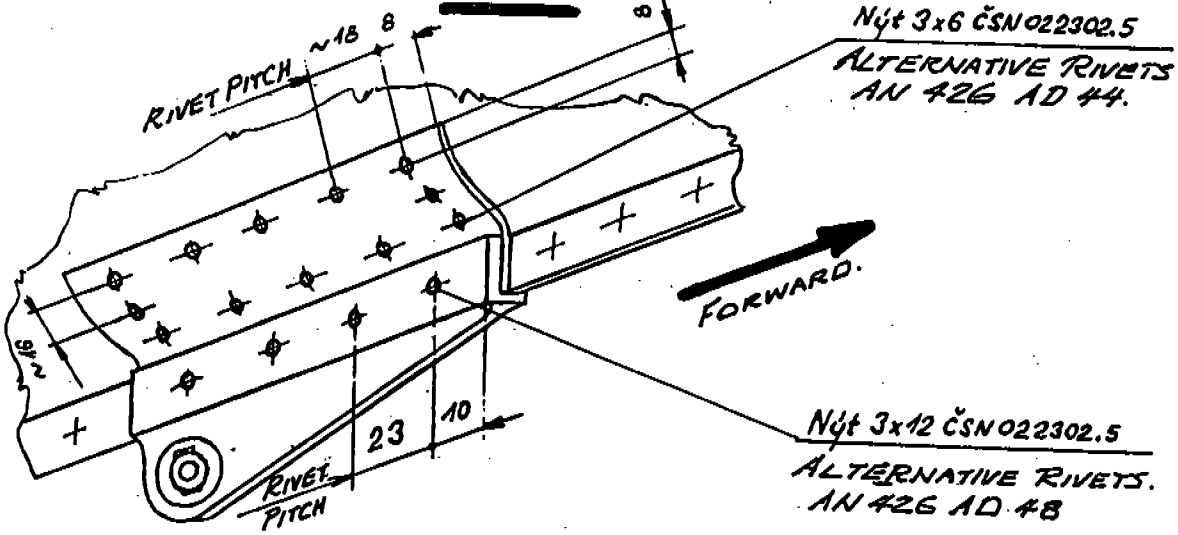

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P.O. BOX 78 TOCUMWAL 2714

	Vypracoval	Kontroloval	Schválil	List:
I.B.L13/042				Listů:

SK 436

1885 72