

AEROPRAKT

INFORMATION BULLETIN

INSPECTION AND REPLACEMENT OF THE MAIN LANDING GEAR PADS, BRACKETS AND SPRINGS IN A-22 AIRPLANES IB A-22-12

MANDATORY

Repeating symbols:

Please, pay attention to the following symbols throughout this document marking important information.

- ▲ **WARNING:** Identifies an instruction, which if not followed may cause serious injury or even death.
- **CAUTION:** Denotes an instruction, which if not followed, may cause severe damage.
- ◆ **NOTE:** Information useful for better handling.

1) Planning information

1.1) Aircraft affected

All versions of Aeroprakt-22 and Aeroprakt-22L airplanes.

1.2) Reason

Fatigue damage (cracks) in the MLG pads, brackets and spring due to intensive operation of the aircraft on a rough surface airfield.

1.3) Subject

Main landing gear pads, brackets and springs.

1.4) Compliance

Inspection of the MLG pads, brackets and springs shall be performed after 10 000 landings.

1.5) Approval

The technical content of this Information Bulletin has been approved by Aeroprakt.

1.6) Manpower

Estimated man-hours:

Work according to p. 3.1.2 is performed within 5-6 hours.

1.7) Mass data

Weight change – none.

1.8) Revision of other documents

None

1.9) Spare parts

Spare parts are supplied by local dealer.

2) Spare parts information

2.1) Spare parts cost

On all matters concerning the spare parts costs contact local dealer.

2.2) Special tooling / materials

For inspection of the pads, brackets and springs: set of wrenches.

For repair: a set of wrenches, drills: $\varnothing 3.5$, $\varnothing 3.6$, $\varnothing 4.7$, $\varnothing 5.7$, $\varnothing 11$; reamers: $\varnothing 5H7$, $\varnothing 6H7$; drill, primer, riveting gun.

3) Accomplishment / Instructions

3.1) Instructions:

3.1.1) Inspection of the brackets and springs

1. Remove the seats and inspect the pad (5) (see fig.2).
2. Remove the main wheel fairings.
3. Lift the airplane on supports in the specified area 1 along entire length of the MLG beam (see fig.1) putting a soft pad underneath the fuselage to avoid damaging the corrugations on the fuselage bottom.
4. Release the braking system tubing by removing the plastic cable ties fixing it.
5. Disconnect the wheel and fitting (2) from the spring (1) (see fig.3).
6. Un-lock, undo and remove the nuts (15), remove the shackle (4) (see fig.3).
7. Take out the spring (1) and inspect for cracks, especially in the specified area (see fig.4).
8. Remove the bracket (3) after detaching the eight bolts (14) and inspect it for cracks.

If cracks are detected it is necessary to replace the old parts for the new ones according to p.3.1.2.
If no cracks are detected – inspect every 500 landings.

◆ **NOTE:** Inspection of the spring, pads and brackets must be performed for both right and left MLG legs although the pictures below show only right leg.

3.1.2) Replacement of the pad, bracket and spring (see fig.2)

1. Drill out the rivets (11) using $\varnothing 3.5$ mm drill, remove the pad (5).
2. Drill out the rivets (11) using $\varnothing 3.5$ mm drill, remove the fitting (6).
3. Take a new pad, position it in place of the old one and mark on it the position of the bolt holes (14) through the holes in the beam. Take the pad (5) out of fuselage. The following operations to step 13 including make on a table.
4. Drill two of the holes marked on the pad to $\varnothing 5.7$ mm.
5. Ream one of the holes with $\varnothing 6H7$ reamer.
6. Align the pad (5) with the bracket (3) by inserting $\varnothing 6$ mm bolt into the reamed hole and fix them with a clamp. Ream the other hole.
7. Insert another $\varnothing 6$ mm bolt into the reamed hole.
8. Drill the remaining two holes through the bracket (3) with $\varnothing 5.7$ mm drill.
9. Ream the drilled holes with $\varnothing 6H7$ reamer together with the bracket (3).
10. Disassemble the parts by removing the bolts and clamps.
11. Fix the pad (5) to the bracket (3) with 2 mm washers between them using $\varnothing 6$ mm bolts.
12. Using $\varnothing 10$ mm hole in the bracket (3) drill at its center a $\varnothing 3.5$ pilot hole in the pad.
13. Disassemble the parts. Drill the pilot hole to $\varnothing 11$ mm.
14. Install the pad (5) and bracket (3) on the airplane with $\varnothing 6$ mm bolts.

15. Apply the fitting (6) to the pad, insert $\varnothing 10$ mm spring attachment bolt into the $\varnothing 11$ mm hole and position the fitting so that the bolt head lies on the fitting face without a clearance. Drill two $\varnothing 4.7$ mm holes in the pad and MLG beam using available $\varnothing 3.5$ mm holes in the fitting as pilot holes, then ream the holes with the $\varnothing 5H7$ reamer.
16. Using the holes in fuselage bottom drill $\varnothing 3.6$ mm holes for rivets in the pad (5).
17. Remove the pad and bracket, de-burr the edges of all holes drilled in the pad and beam.
18. Put the pad (5) in place.
19. Attach the fitting (6) with M5 bolts (13) and selflocking nuts.
20. Attach the bracket (3) with M6 bolts (14) and selflocking nuts.
21. Set $\varnothing 3.6$ mm rivets (11).
22. Coat with primer the bolt thread extending from the nuts.
23. Install the spring.
24. Attach the wheel with axle fitting to the spring.
25. Remove supports from under the airplane.
26. Fix the brake system line with plastic cable ties.
27. Install the wheel fairings and seats.

4) Appendix:

The following drawings contain additional information.

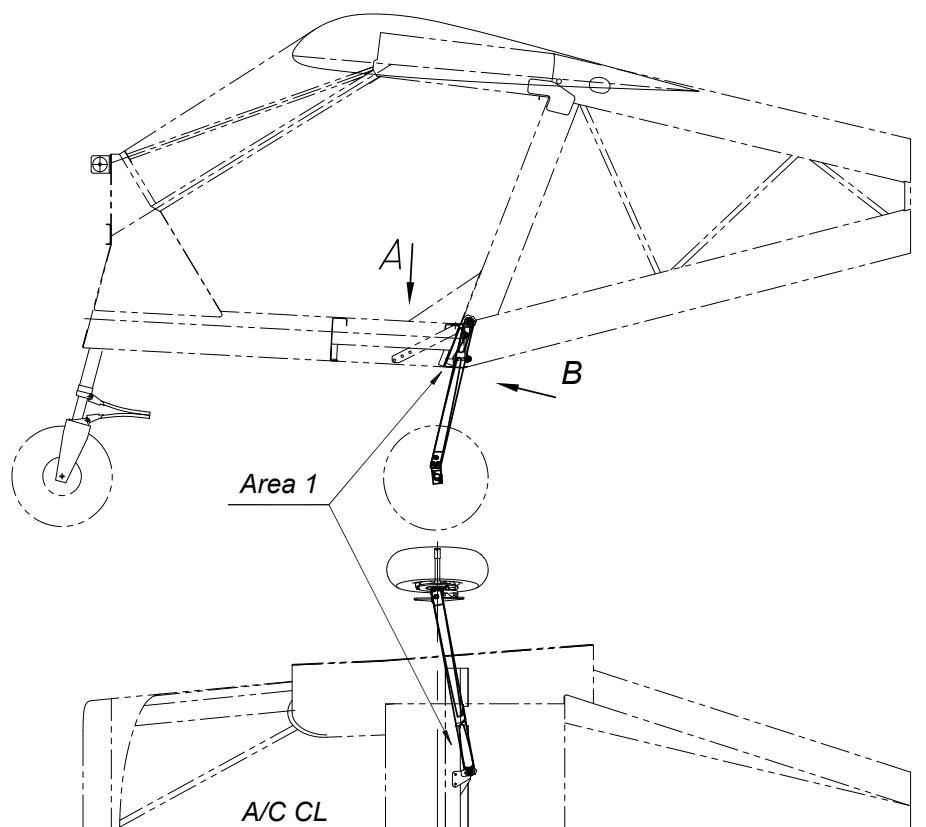


Fig. 1

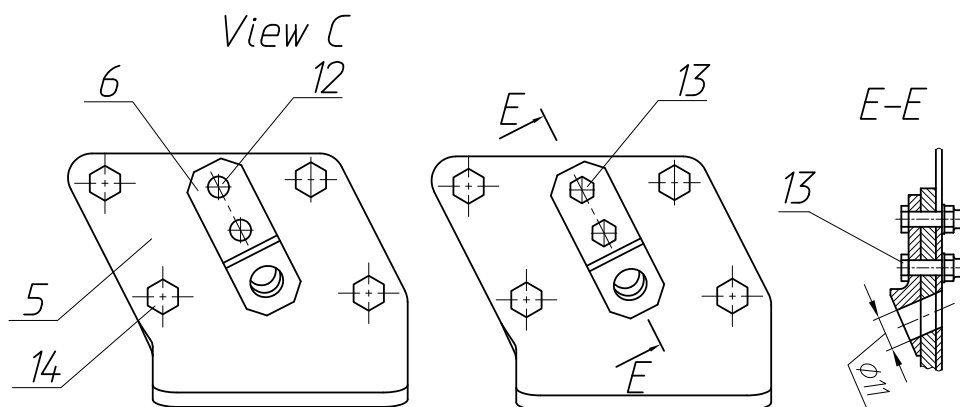
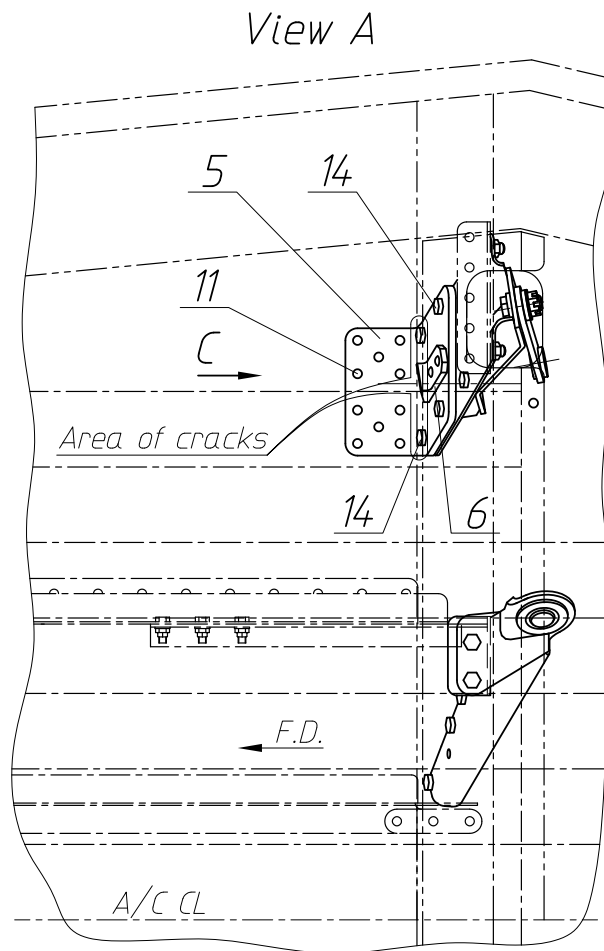


Fig. 2

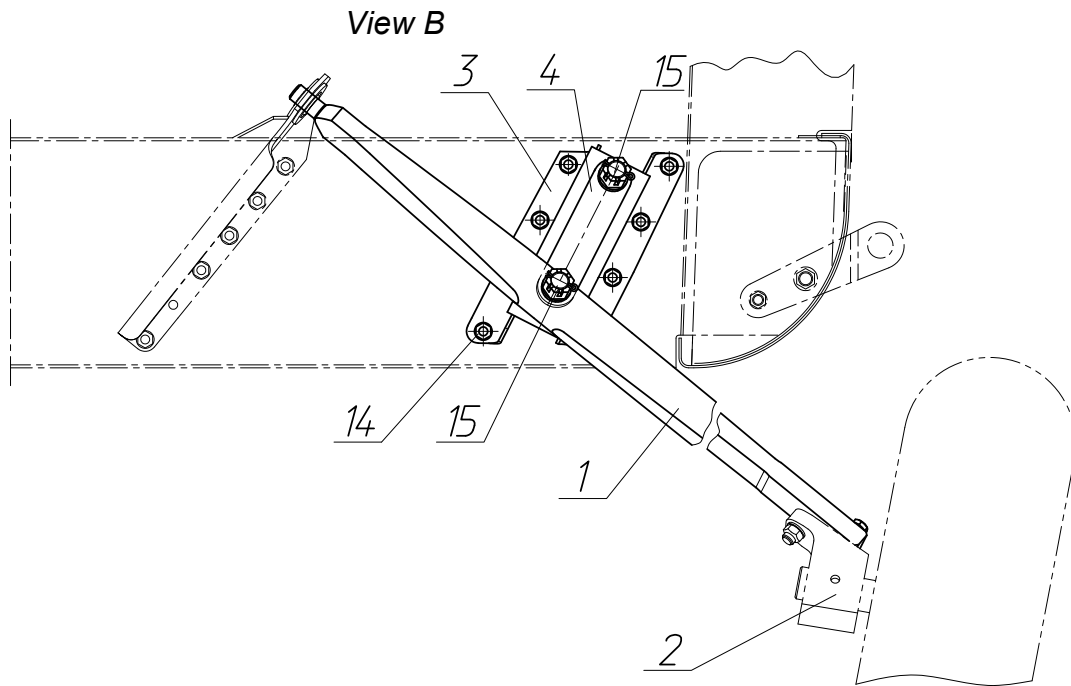


Fig. 3

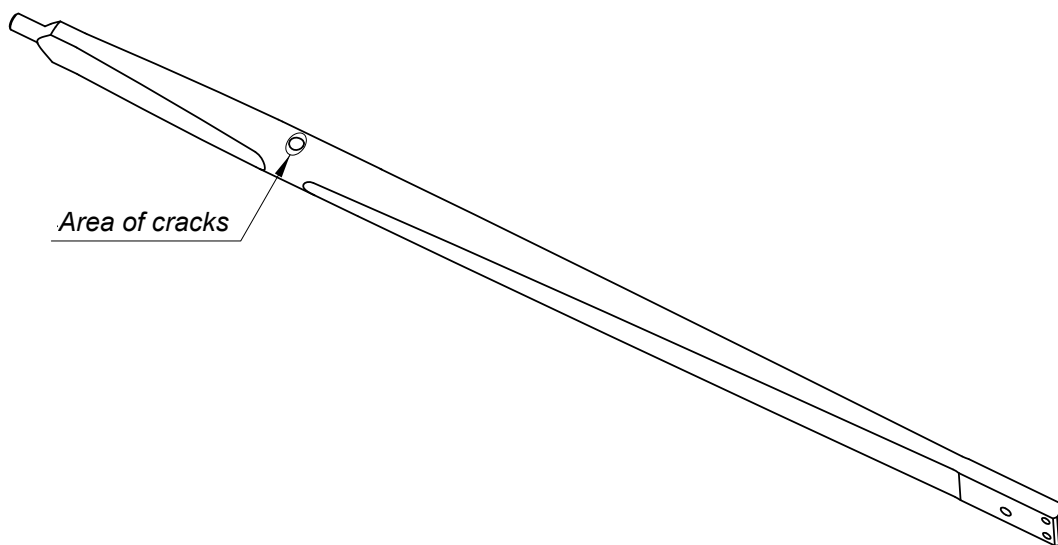


Fig. 4