

AEROPRAKT INFORMATION BULLETIN

REPLACEMENT OF THE WING STRUT ATTACHMENT FITTINGS OF A-20 AIRCRAFT. IB A-20-03

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-20 aircraft

1.2) Reason

Expired service life of the wing strut attachment fittings

1.3) Subject

Wing strut attachment fittings

1.4) Compliance

Replacement of the wing strut attachment fittings is to be carried out on the aircraft after 2000 flight hours

1.5) Approval

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

1.6) Manpower

Estimated man-hours:

Replacement of the wing-to-strut attachment fittings can be performed within 10 to 15 hours

1.7) Mass data

No change of weight

1.8) Other publications affected

None

1.9) Spare parts

Spare parts are supplied upon request of aircraft owner

2) Replacement part information

2.1) Replacement part – cost and availability

The price of the strut attachment fittings is 90 euro including return delivery

The price of the repair kit is 150 euro.

2.2) Special tooling / lubricants

Wrench set; 283-150 VOC primer, 352-228 activator of Glasurit company; knife; powered drill; Ø3 mm drill; pop-riveter; zigzag scissors; Terostat-8517H primer of Teroson company; 08689 polyurethane sealant of 3M company; hand squeezer for sealants in syringe-type tubes; Cecofill filler of AFS company; four polyethylene strips, 60x700 mm; “scotch bright” abrasive sponge or sandpaper 360; solid roller; iron; pre-cut Diatex 1500 fabric (350x700 mm); mohair brush; toothed spatula.

Repair kit: 283-150 VOC primer, -228 activator of Glasurit company; 08689 polyurethane sealant of 3M company; hand squeezer for sealants in syringe-type tubes; Cecofill filler of AFS company; four polyethylene strips, 60x700 mm; “scotch bright” abrasive sponge; solid roller; pre-cut Diatex 1500 fabric (350x700 mm), 2; mohair brush; toothed spatula, self-locking nuts (8).

3) Accomplishment / Instructions

3.1) Instructions

- 1) Disconnect the right and left wing.
- 2) Cut the fabric covering between the ribs near the strut attachment fitting (1, fig. 2) as shown on fig. 1.
- 3) Drill out old rivets (5, fig. 2) using Ø2.5 mm drill (remove the rivet cores beforehand) and remove the chips.
- 4) Undo the bolts (6) and remove wing strut attachment fittings.
- 5) Send the wing strut attachment fittings to Aeroprakt.

◆ **NOTE:** Send the strut attachment fittings with the angles riveted to them

3.1.1) Replacement of the wing strut attachment fittings

- 1) Install the new strut attachment fittings supplied by Aeroprakt, to the same holes using old bolt (install bolts with primer) and new self-locking nuts.
- 2) Rivet the new angles (2) to the wing skin.
- 3) Remove the paint from the fabric using the sandpaper and from the skin using the paint wash-off liquid (the area where the fabric will be cemented) fig. 3.
- 4) Clean only the area of the wing structure to which the new fabric will be cemented, i.e. 25-40 mm and clean with acetone the entire surface to which the sealant will be applied.
- 5) Apply thin layer of Terostat-8517H primer on the degreased surface using a piece of felt and let the primer dry. The primer dries up in approximately 5 minutes.
- 6) Lay preliminarily the fabric down on the repaired surface, mark and make cut-outs around the strut attachment fitting and remove the fabric (fig. 4).
- 7) Apply 08689 sealant of 3M company on the repaired surface coated with primer and spread it evenly with the toothed spatula.

8) Lay Diatex 1500 fabric pre-cut in advance with zigzag scissors and press it to the areas with applied sealant.

◆ **NOTE:** It is necessary to lay and press the fabric immediately after the sealant is applied and before it hardens. The sealant hardens in approximately 5-10 minutes.

9) The laid fabric is pressed with a solid roller through the polyethylene strips. Leave the covered portion of the component for approximately 5 hours until complete hardening of the sealant.

10) One day later the fabric is shrunk thermally using an iron with the temperature regulator set to “cotton-line” mark. Press the fabric with the iron gently, to avoid burning it through. Press the fabric along the trailing edge and ribs first smoothing out wrinkles that appear in the fabric, then inside the “square”.

11) Before applying primer clean the component with an air gun. Apply 2 layers of Cecofill primer (using mohair brush 1-29-911 of Stanley Company). In the beginning apply the first layer of primer along the fabric edge, and then apply the primer over the entire surface with circular motions. Let the primer dry for approximately 2 hours.

12) When the first layer dries, smooth out the primed surface with the sandpaper. Do it gently.

13) Apply the second layer and let it dry completely. The second layer is applied in the same manner and smoothed out with sandpaper when it is dry.

14) Paint the repaired surface in appropriate color.

▲ **WARNING:** In case if the strut attachment fittings are not replaced in time they may fail and cause corresponding consequences.

4) Appendix

The following drawings contain additional information

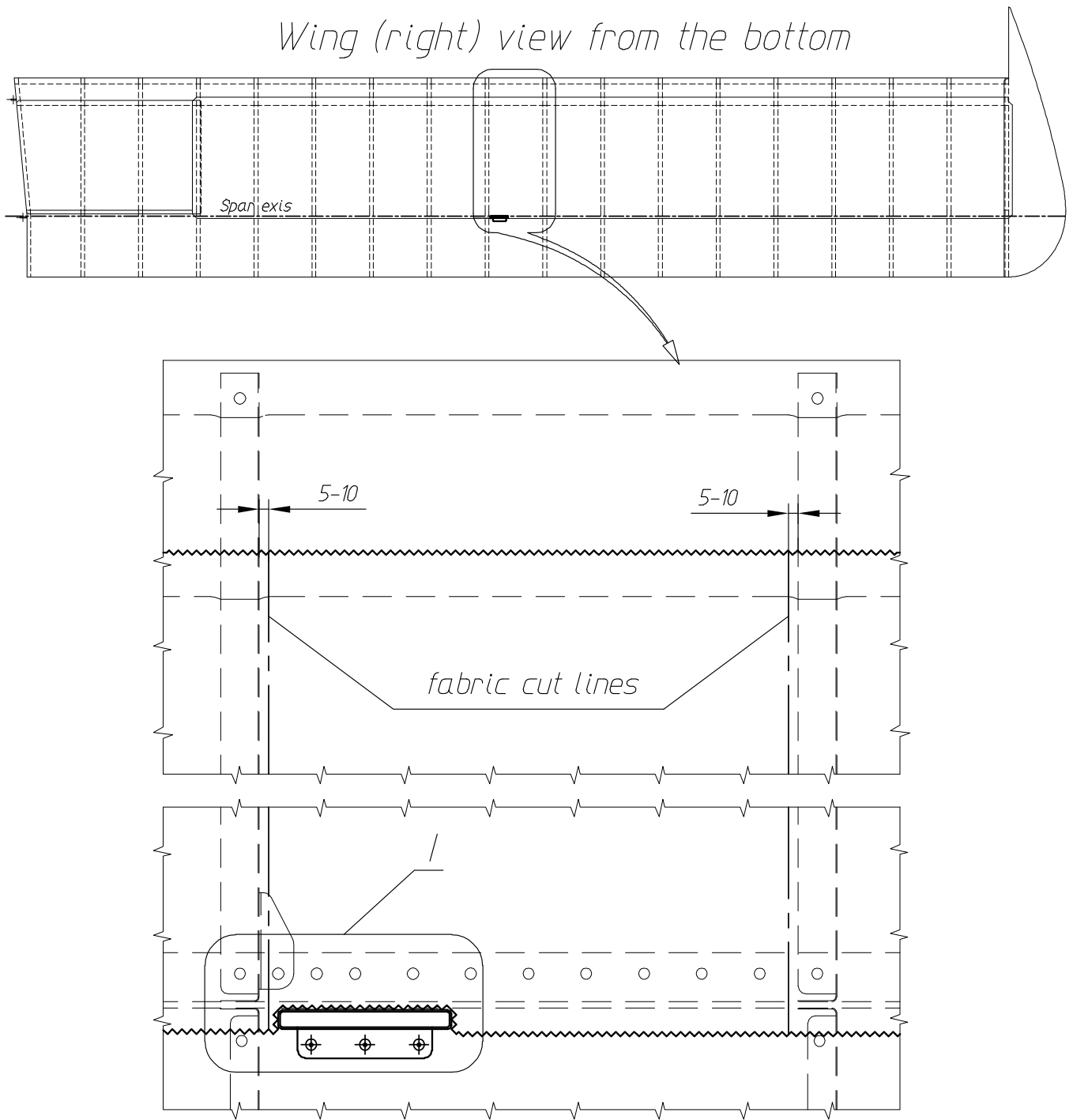
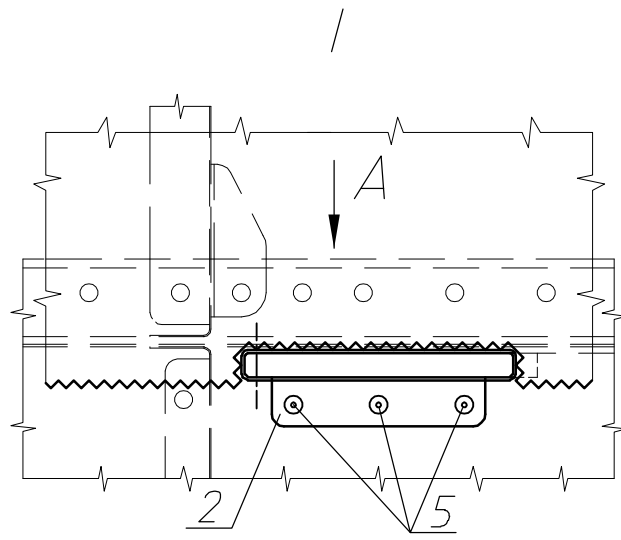


Fig. 1



View A

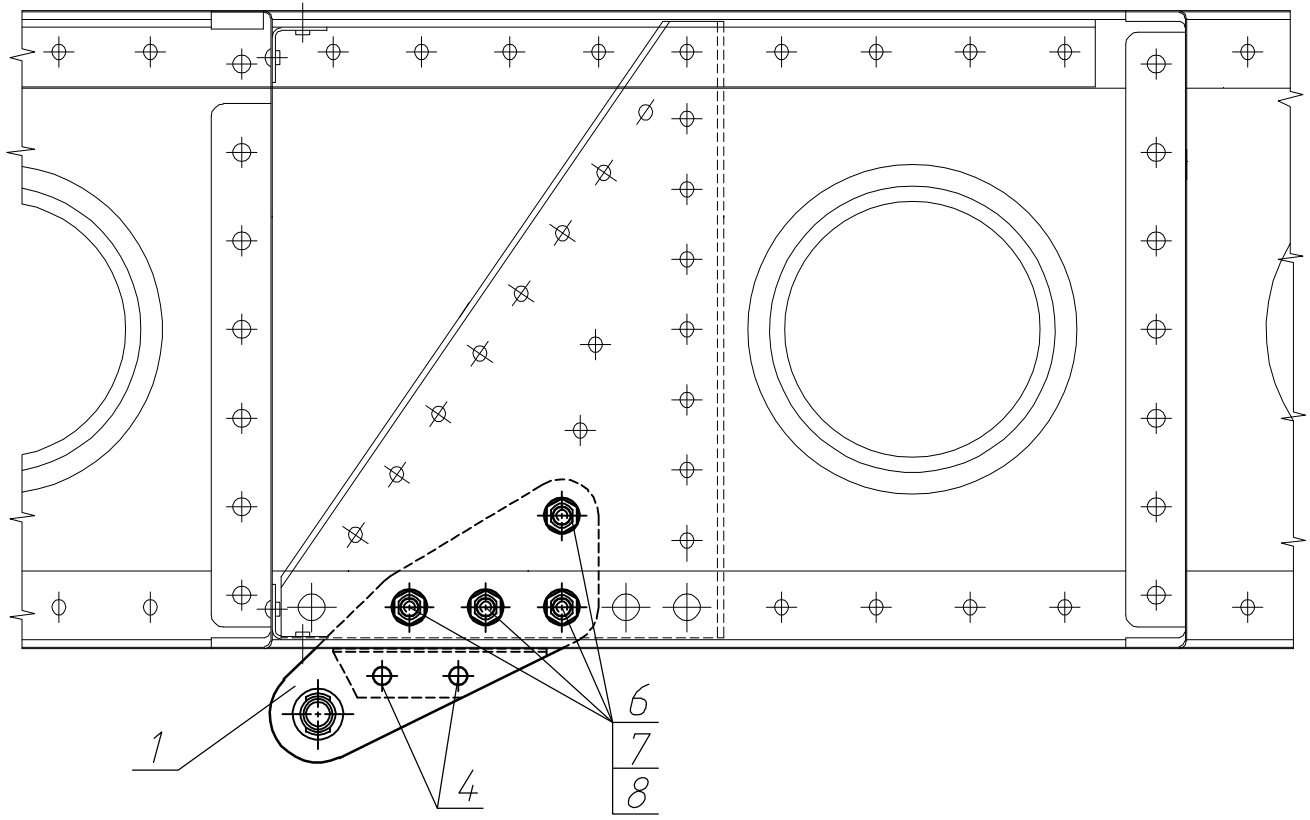


Fig. 2

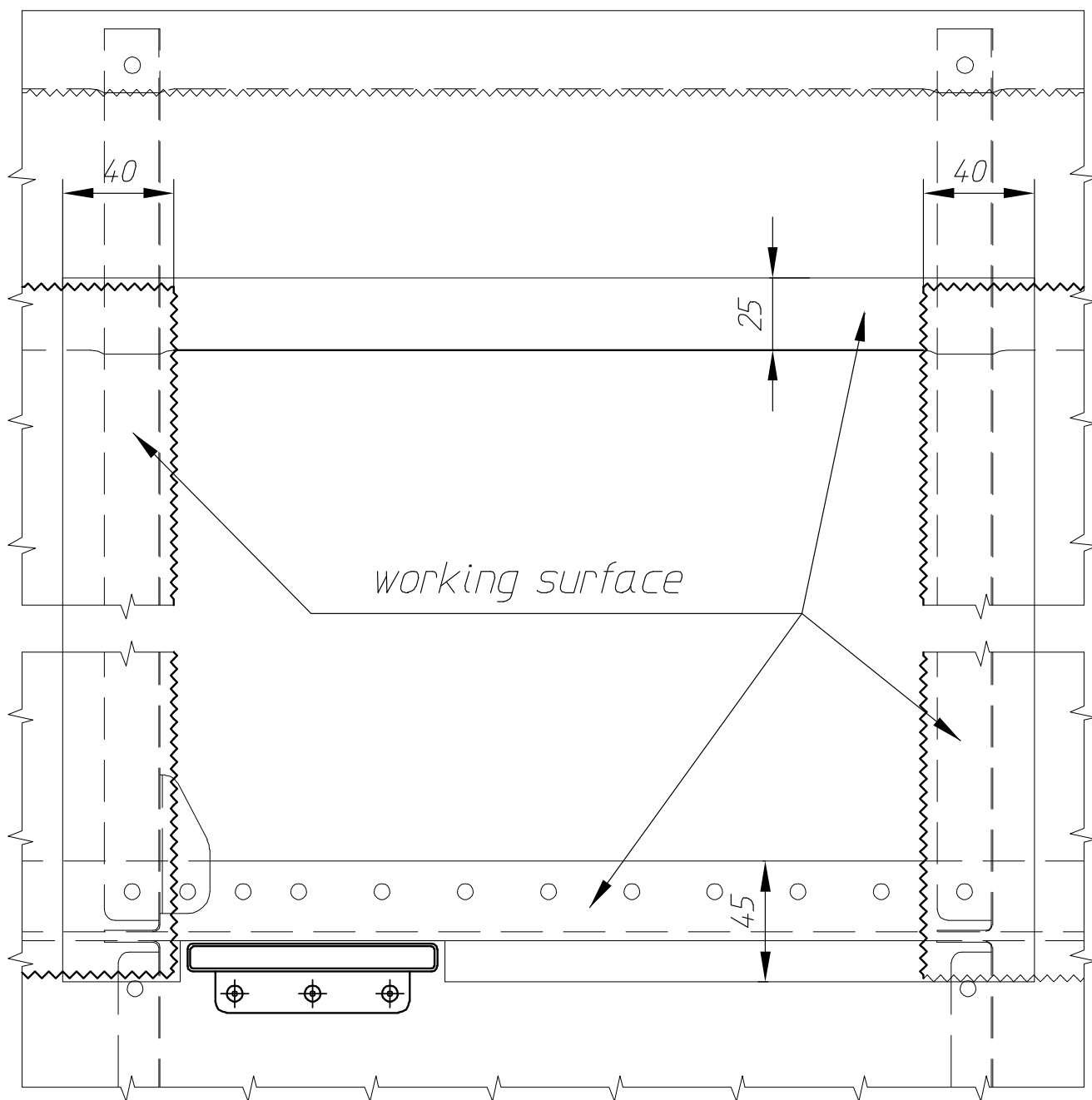


Fig. 3

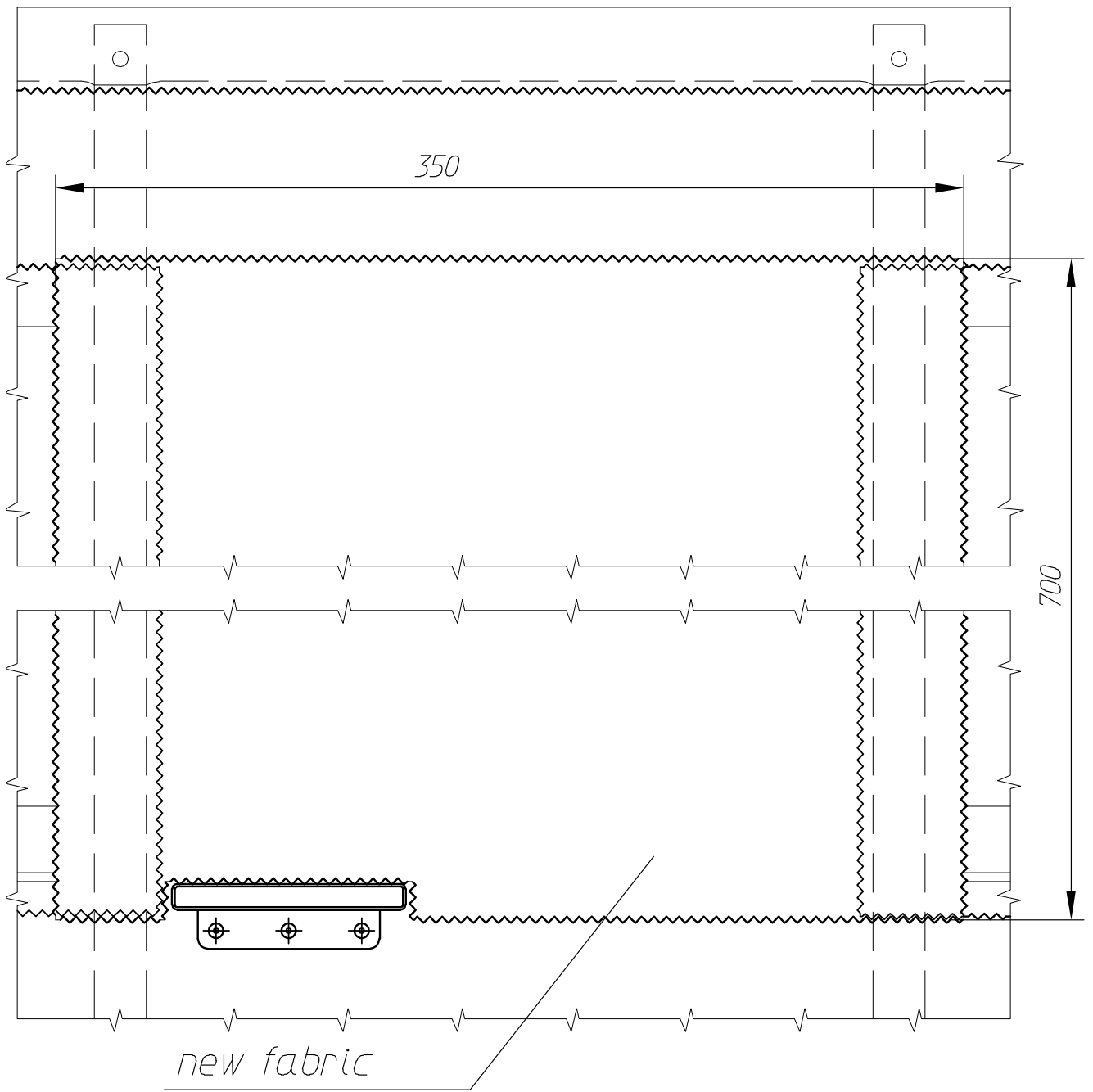


Fig. 4