AEROPRAKT
INFORMATION BULLETIN
INSPECTION AND REINFORCEMENT OF THE MAIN LANDING GEAR BEAM OF A-22 AIRCRAFT
IB A-22-04

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 aircraft from №1 to №130

1.2) Reason
It has been found out, that the cracks in the landing gear beam and brackets (fig. 1) appear due to fatigue damage in the result of intensive aircraft operation on airfields with rough surface.

1.3) Subject
The landing gear beam, brackets

1.4) Compliance
Inspection of the main landing gear beam and brackets is to be carried out on the aircraft after 5000 landings.

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

1.6) Manpower
Estimated man-hours:
Retrofit work according to the section 3.1.1 can be performed within 5 or 6 hours, according to section 3.1.2 within 2 hours

1.7) Mass data
Change of weight - insignificant

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 reinforcement shapes and angles are supplied free of charge, excluding delivery

2.2) Special tooling / primer
For inspection beam and brackets: wrench set.
For repair: wrench set, drills: Ø3, Ø4.7, Ø6.2, reamer Ø5H7, powered drill, primer.

3) Accomplishment / Instructions

3.1) Instructions
Remove the lending gear legs (1), right and left brackets (2, see fig.1). Inspect the landing gear beam (3) and brackets for absence of cracks in the specified area. If any cracks are detected on the beam, perform the retrofit work according to section 3.1.1 (fig.2a, 2b). In case if cracks are detected on the brackets, perform retrofit work according to section 3.1.2 (fig.3).

◆ **NOTE**: Both right and left side of the landing gear beam and brackets must be inspected, though only right LG leg is shown on the pictures.

3.1.1) Reinforcement of the LG beam

The work is carried out according to fig. 1, 2a, 2b

1) Drill out and remove the rivets (14).
2) Remove the old shape (4).
3) Drill the ends of the cracks with Ø3 drill;
4) Install new reinforcement shape (5) inside the beam;
5) Mark with pencil positions of the M6 bolts through the holes in the beam and remove the shape.
6) Drill Ø6.2 holes in the shape at the marks.
7) Install the shape and bracket and fix them with M6 bolts (8, 9, 10).
8) Mark the holes for M5 bolts in the beam (fig. 2b).
9) Drill Ø4.7 holes and enlarge them with Ø5H7 reamer.
10) Install M5 bolts (11, 12, 14) with primer.

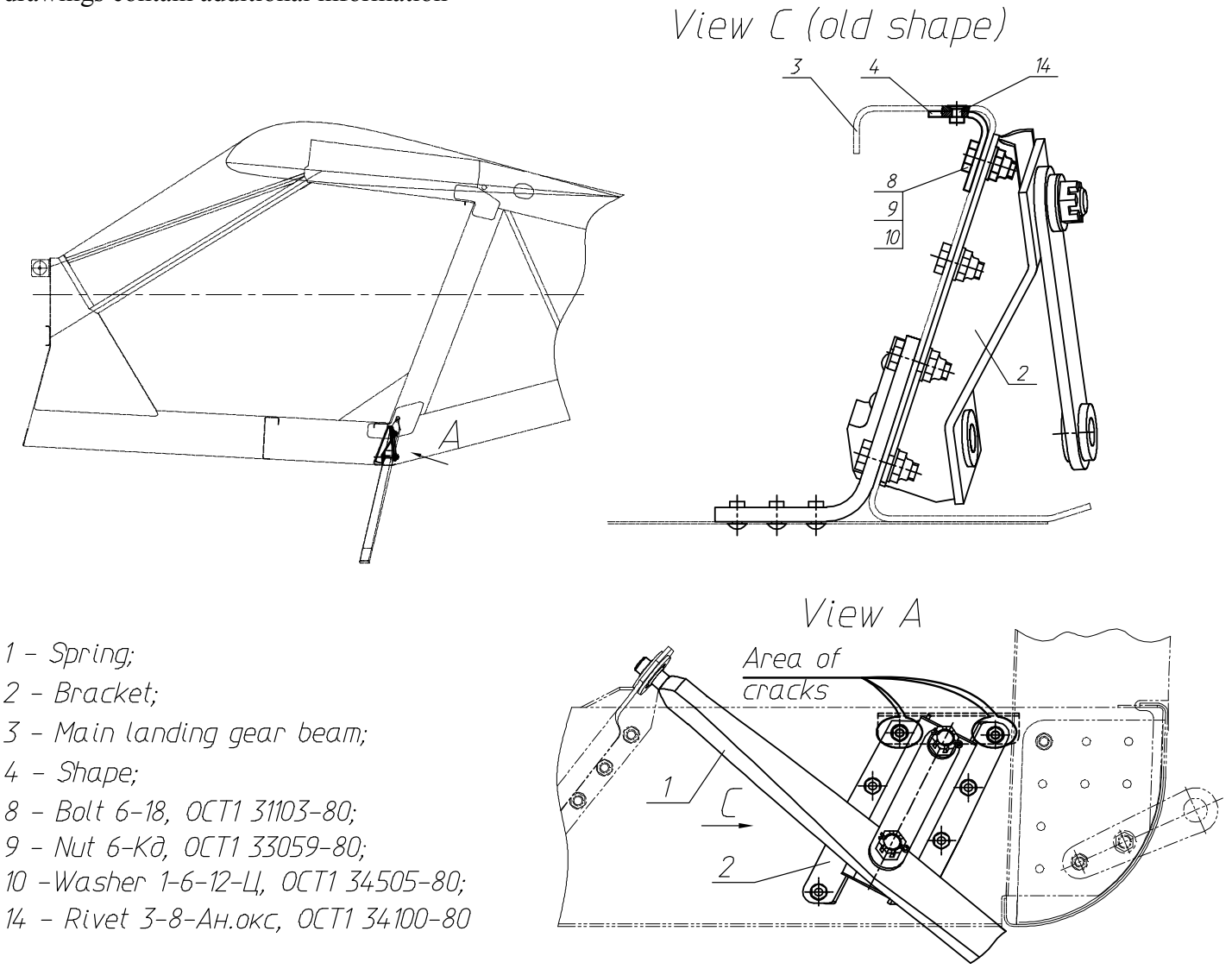
3.1.2) Reinforcement of the bracket

The work is carried out according to fig. 3

1) Drill the ends of the cracks with Ø3 drill and weld the cracks.
2) Fit the reinforcement angles (6 and 7, fig.3) and weld them (use TIG welding) all along their perimeter.
3) Drill Ø6 holes in the reinforcement shapes through the holes in the bracket.
4) Attach the bracket to the main landing gear beam (install M6 bolts with primer).

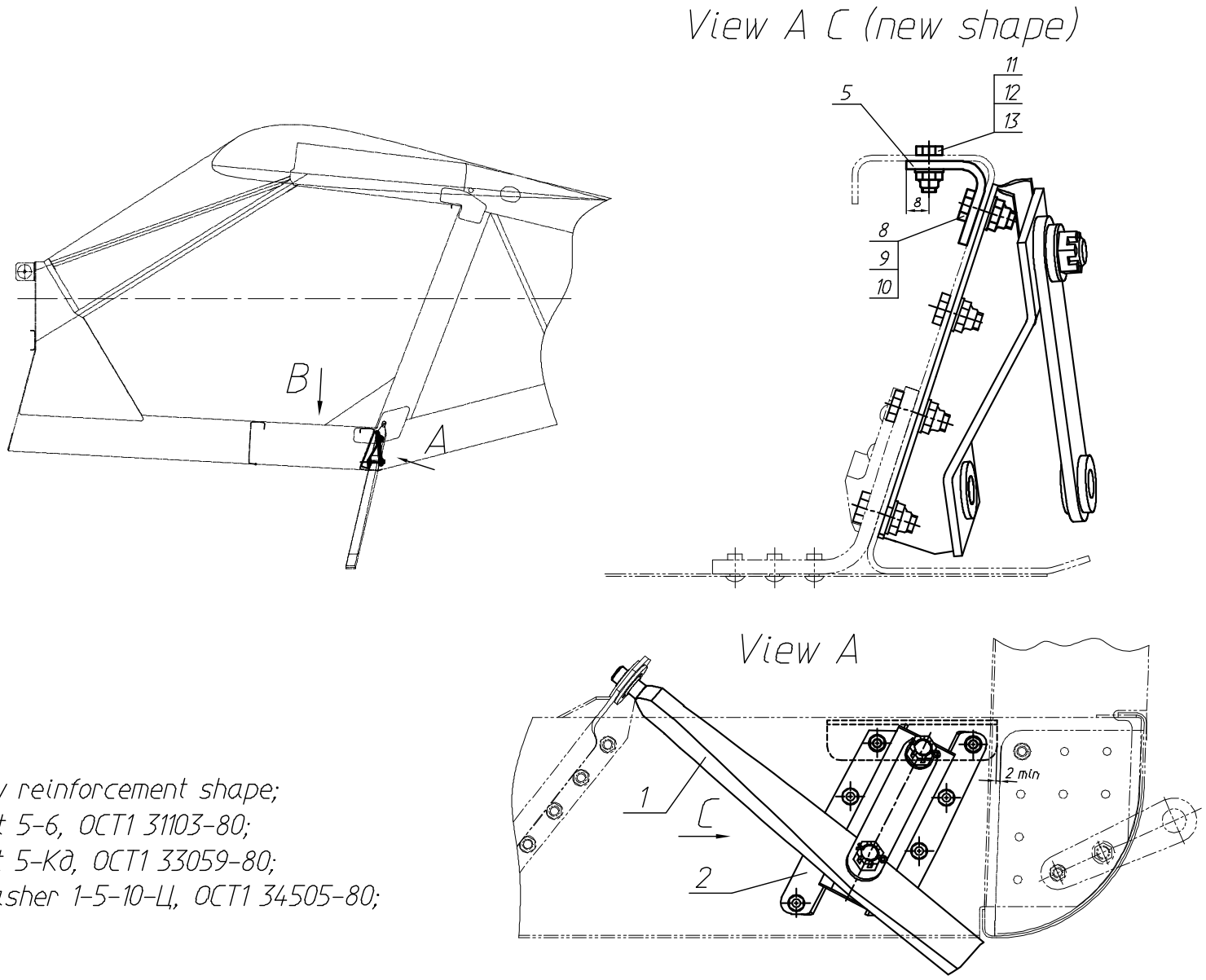
4) Appendix

The following drawings contain additional information



1 - Spring;
2 - Bracket;
3 - Main landing gear beam;
4 - Shape;
8 - Bolt 6-18, ОСТ1 31103-80;
9 - Nut 6-Кд, ОСТ1 33059-80;
10 -Washer 1-6-12-Ц, ОСТ1 34505-80;
14 - Rivet 3-8-Ан.окс, ОСТ1 34100-80

Fig. 1



5 – New reinforcement shape;
11 – Bolt 5-6, ОСТ1 31103-80;
12 – Nut 5-Кд, ОСТ1 33059-80;
13 – Washer 1-5-10-Ц, ОСТ1 34505-80;

Fig. 2a

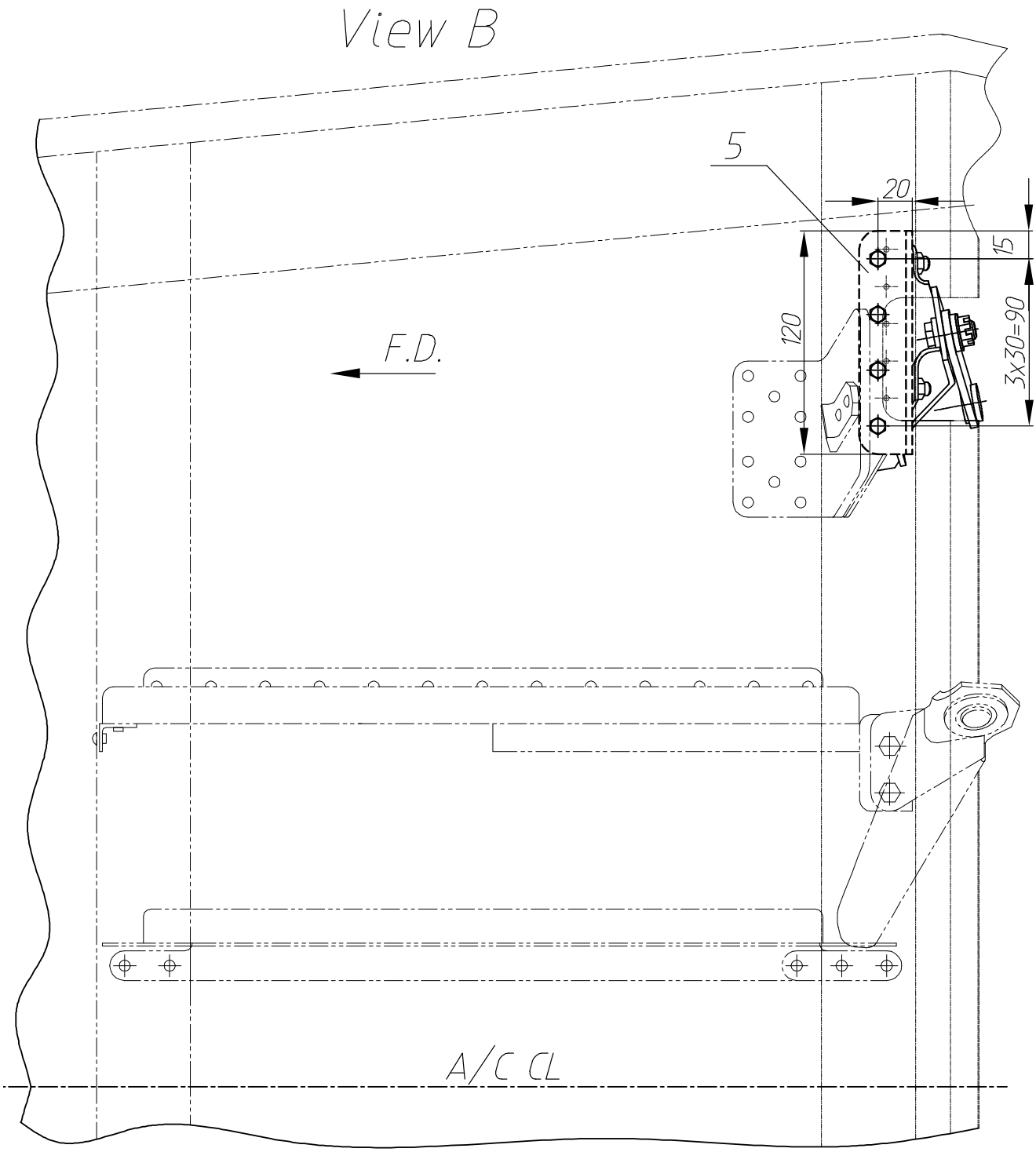


Fig. 2b

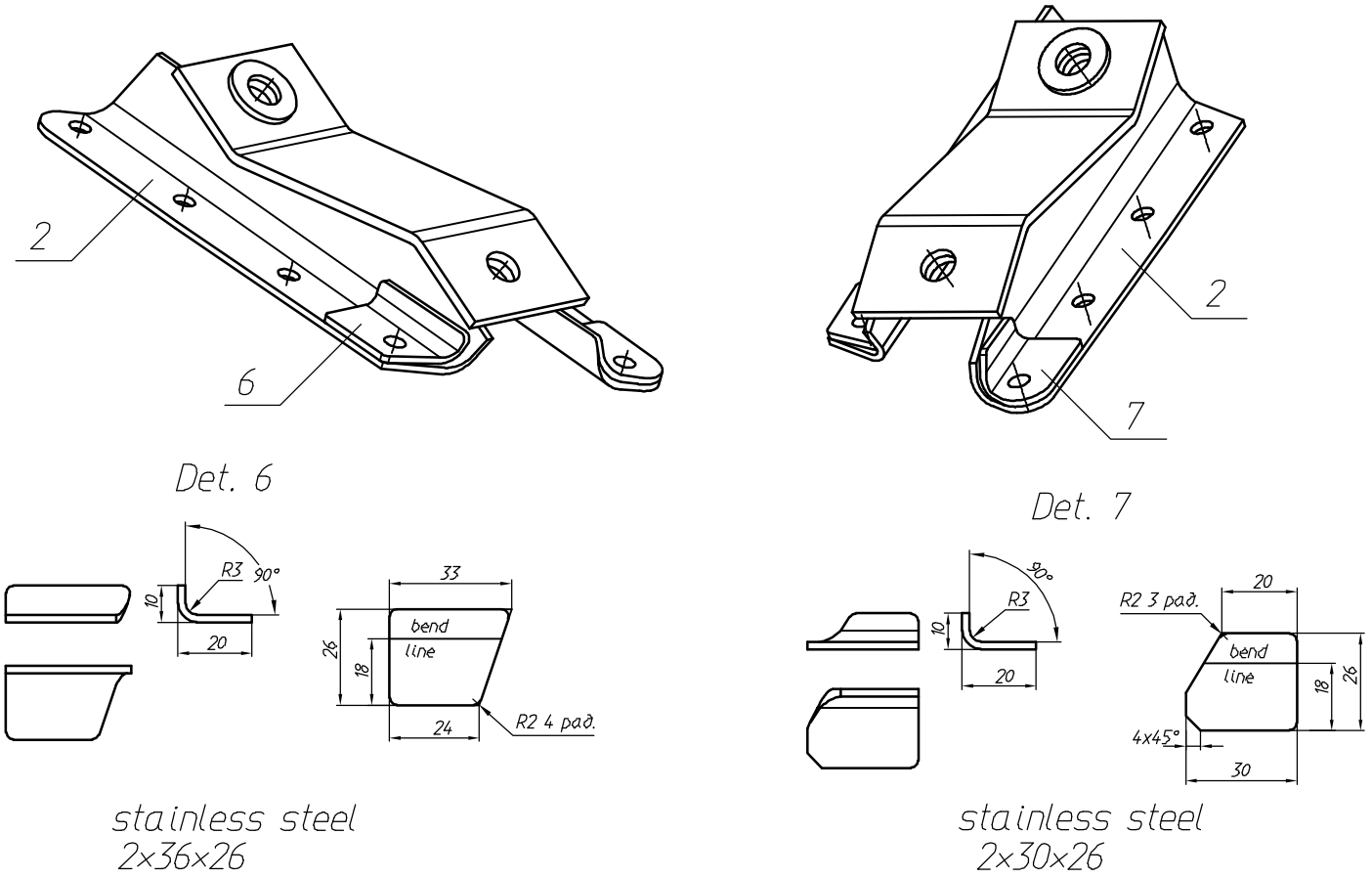

2
6
Det. 6
R3
90°
10
20
33
bend
line
26
18
24
R2 4 рад.
stainless steel
2×36×26
2
7
Det. 7
90°
R3
10
20
R2 3 рад.
20
bend
line
18
26
4x45°
30
stainless steel
2×30×26

Fig. 3