

RUSSIAN FEDERATION
MINISTRY OF TRANSPORT OF THE RUSSIAN FEDERATION
FEDERAL AIR TRANSPORT AGENCY
AIRWORTHINESS DIRECTIVE

24 of August, 2023

No. 2023-AHCAT, AHCAT-CK-03

Applicability – ANSAT helicopters (ANSAT, ANSAT-GC models) and their modifications

Designer's State - RUSSIAN FEDERATION

Corrective actions stated in the present Airworthiness Directive are mandatory. None of the operators is allowed to operate the aircraft covered by present Airworthiness Directive otherwise than according to the requirements of present Directive.

During the inspections of the tail rotors 333.3510.0000 of the ANSAT helicopters being in operation and in the production cycle, a manufacturing defect of blades 333.3950.1000 was revealed – non-glueing of the blade edge tippings 333.3950.1203-03(05) together with the rubber layer of the strip 333.3950.1200 due to the low adhesion of the rubber layer to the fiberglass layers.

In order to ensure flight safety and maintain the airworthiness of the entire fleet of ANSAT helicopters in the civil aviation of the Russian Federation and based on the Technical decision of JSC "Kazan Helicopters" No. 1/144-2023-KB3 dated 22.08.2023

PROPOSED:

To accept the following maintenance procedure for execution on the ANSAT helicopters (ANSAT, ANSAT-GC models) and their modifications with tail rotor blades 333.3950.1000 manufactured before 31.08.2023:

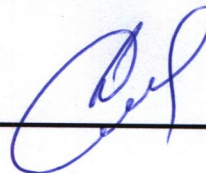
1. When carrying out periodic technical maintenance within the scope of "50 flight hours // 12 calendar months" maintenance form, additionally check the tail rotor blades 333.3950.1000 for the absence of non-glueing of the strips 333.3950.1200 and blade edge tippings 333.3950.1203-03(05) in accordance with the paragraph 1 of Technical decision No. 1/144-2023-KB3.

2. In case of detection of non-glueing, the tail rotor should be removed from operation and sent to JSC "Kazan Helicopters" for repair.

3. Airworthiness directive comes into force from the date of its issue. Operators shall follow the requirements of present Airworthiness directive until the identified manufacturing defects are eliminated by JSC "Kazan Helicopters" or the issuance of another Airworthiness directive.

Appendix: Technical decision No. 1/144-2023-KB3 dated 22.08.2023, on 5 sheets;

Deputy Head of FATA



A.A. Dobryakov

APPROVED
Deputy managing director –
Head of Design
JSC “Kazan Helicopters”
A.O. Garipov

TECHNICAL DECISION No. 1/144-2023-KB3
on continued airworthiness of the ANSAT helicopters (ANSAT, ANSAT-GC models)

During the post-flight technical maintenance of the ANSAT helicopter (ANSAT-GC model) No. 33150 RA-20084 on the 17.05.2023, the missing of tail rotor blade edge tipping was detected, there was no damage to the helicopter. In addition, during the flight on 20.05.2023 there was a noticeable vibration (imbalance) in the area of the tail rotor on the ANSAT helicopter (ANSAT-GC model) No. 33148 RA-20082, crew captain decided to land the helicopter. During the inspection, the missing of two tail rotor blade edge tipping was detected, there was no damage to the helicopter. In the course of additional inspections of the tail rotors of the ANSAT helicopters being in operation and in the production cycle of manufacturing, according to the results of technical analysis, a manufacturing defect was revealed – non-glueing of the blade edge tippings 333.3950.1203-03(05) together with the rubber layer of the strip 333.3950.1200 on the tail rotor blades due to the low adhesion of the rubber layer to the fiberglass layers.

In order to ensure the airworthiness of the ANSAT helicopters (ANSAT, ANSAT-GC models) being in operation, the following decision was made.

DECISION:

On the ANSAT helicopters (ANSAT, ANSAT-GC models) with tail rotor blades 333.3950.1000 manufactured before 31.08.2023, since the issue of present Technical Decision:

1. When carrying out periodic technical maintenance within the scope of "50 flight hours // 12 calendar months" maintenance form, additionally check for the absence of non-glueing of the strips 333.3950.1200 and blade edge tippings 333.3950.1203-03(05) (pos. 2 and 3, Fig. 1, Appendix 1) of the tail rotor blades 333.3950.1000 according to the temporary task card 064.10.00k (Appendix 2), at that, in case of detection of non-glueing, the tail rotor should be removed from operation and sent to JSC "Kazan Helicopters" to eliminate the defect.
2. Elimination of detected defects according to paragraph 1 of this Technical decision is carried out by JSC "Kazan Helicopters" at its own expense.
3. Operators shall follow the requirements of the paragraphs of this Technical decision until the identified defects are eliminated in accordance with paragraph 1 of this Technical decision or the issuance of another airworthiness directive.

TECHNICAL DECISION No. 1/144-2023-KB3
on continued airworthiness of the ANSAT helicopters (ANSAT, ANSAT-GC models)

APPENDIX 1

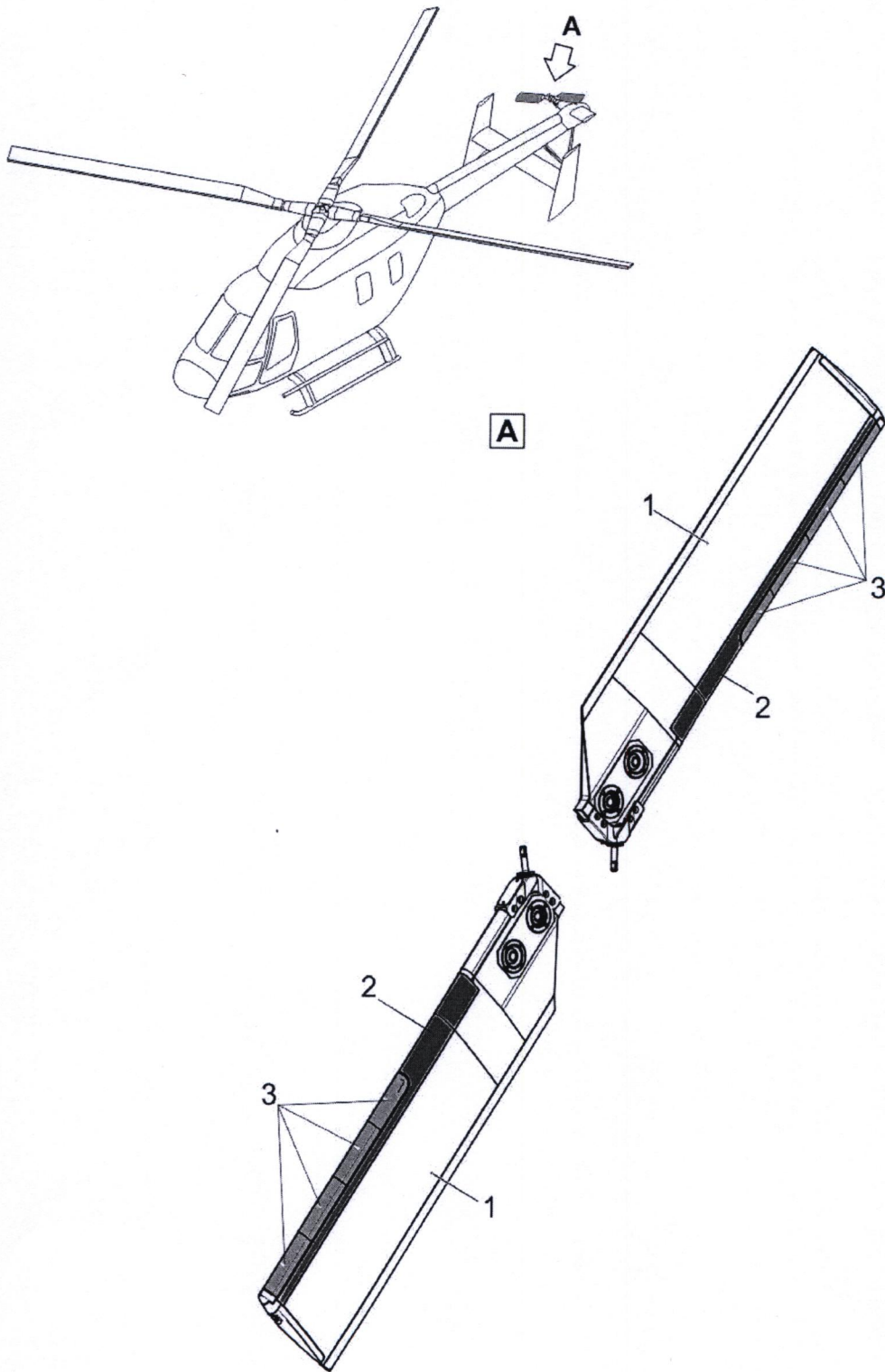


Fig. 1 TR blade

Table 1

Position	Qty	Description	Designation
1	2	Tail rotor blade	333.3950.1000
2	2	Strip	333.3950.1200
3	8	Blade edge tipping	333.3950.1203-03(05)

**TECHNICAL DECISION No. 1/144-2023-KB3
on continued airworthiness of the ANSAT helicopters (ANSAT, ANSAT-GC models)**

APPENDIX 2

Temporary task card 064.10.00к	
Procedure: Control of condition of the strips and tail rotor blade edge tippings rubber layer and control of the absence of non-glueing	Corrective actions
Operations and technical requirements	
<ol style="list-style-type: none"> 1 Work is allowed to be carried out without removing the tail rotor blades from the helicopter. 2 Clean the tail rotor blades according to TC No. 064.10.00c. <p align="center">ATTENTION. WIPE THE TAIL ROTOR BLADES DRY BEFORE PERFORMING THE FOLLOWING OPERATIONS.</p> <ol style="list-style-type: none"> 3 Check the absence of non-glueing of rubber layer of the strips and tail rotor blade edge tippings by tapping with a duralumin hammer, proceeding as follows: <ul style="list-style-type: none"> - tap the entire rubber area of the strips and blade edge tippings with a free fall of the duralumin hammer from a height of no more than 10 ... 15 mm or with soft blows from a distance of no more than 10 mm, avoiding traces of tapping. Violation of glueing is characterized by a change in tone; - if any defects are detected, fill in the chart of non-glueing and dents (see Figure 201), make marks on the tail rotor blades with a soft pencil. <p>The presence of non-glueing is not allowed.</p> 4 Perform a visual check of the condition of the rubber layer of the tail rotor blade strips for the absence of damage. Crumbling of the rubber layer with a total area of no more than 10 cm² with the size of a single crumbling with an area of no more than 2.5 cm² and a width of no more than 0.5 cm is allowed. 	
Test equipment	Tools and appliances
	Duralumin hammer (333.9100.005)
	Expendable materials

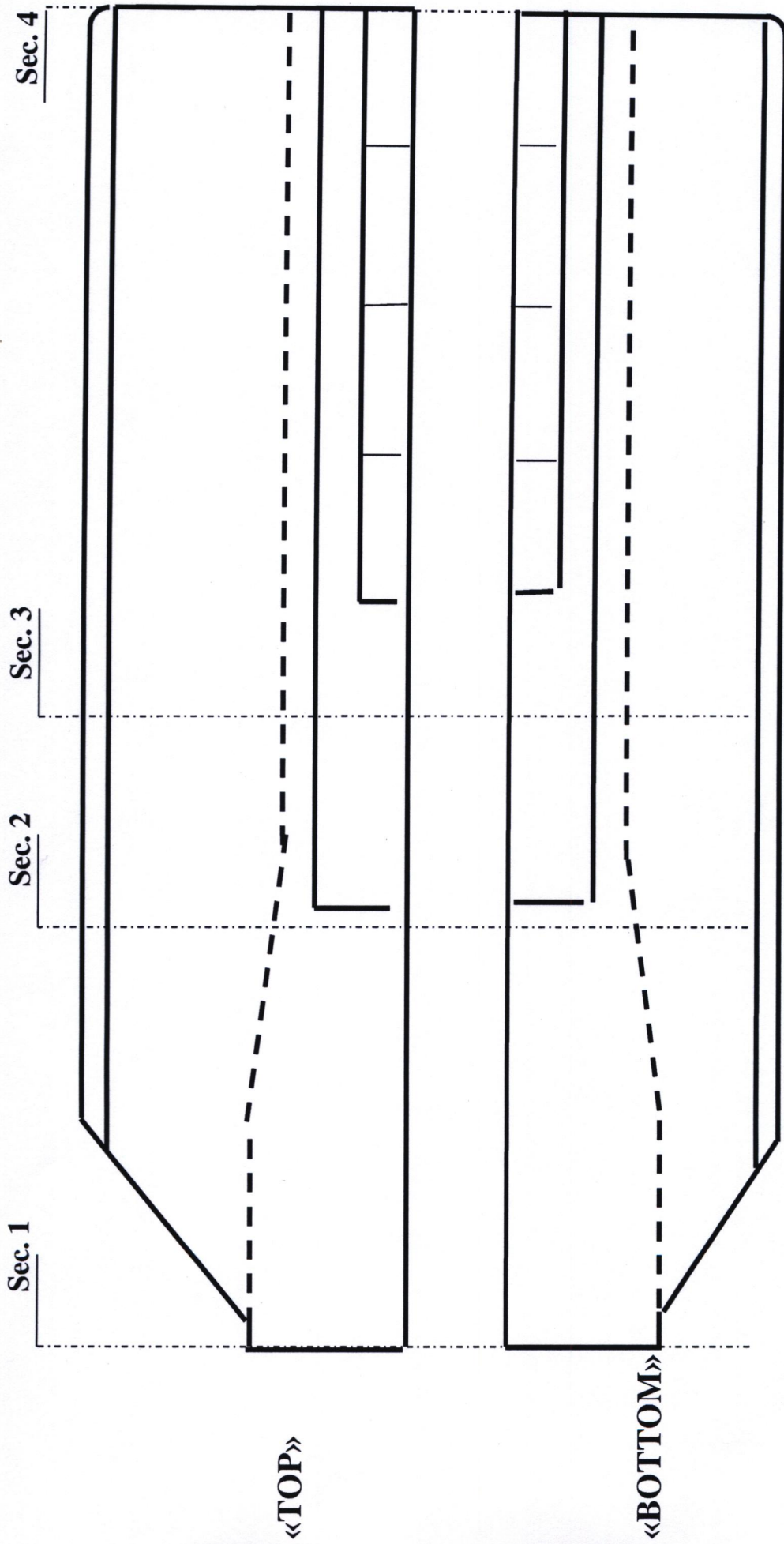


Figure 201 – The template of the chart of non-glueing and dents on the tail rotor blade (to be completed when non-glueing and dents are detected).