



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

31 of January, 2021

No. 2022-AHCAT, AHCAT-K-03

Applicability – ANSAT helicopters (ANSAT, ANSAT-GC models), ANSAT-K helicopters (ANSAT-K model) 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.

In connection with the aviation accident occurred on 23.08.2021 with the ANSAT helicopter RA-20059 (serial No. 33122), related to the helicopter destruction on the ground due to the occurrence of longitudinal-transverse and vertical vibrations, as well as based on Technical Decision of JSC "Kazan Helicopters" No. 2/144-2021-KB3 Revision 2 dated 24.01.2022, in order to ensure airworthiness of the ANSAT helicopters (ANSAT, ANSAT-GC models), ANSAT-K helicopters (ANSAT-K model) and their modifications being in operation, the following is

PROPOSED:

On the entire fleet of the ANSAT helicopters (ANSAT, ANSAT-GC models), ANSAT-K helicopters (ANSAT-K model), accept the following procedure of the helicopter landing gear technical maintenance for guidance and execution:

1. Establish the intervals of works associated with tightening of coupling bolts attaching the clamps 333.4000.604, 333.4000.605 in accordance with task card 032.00.00c of the Maintenance manual – every 50 ± 5 landings;
2. When carrying out the next periodic technical maintenance check 100 ± 10 flight hours:
 - 2.1 Check the landing gear position in accordance with task card 032.00.00i (temporary – Appendix 1) with the application of check marks on the landing gear cross-

over tubes in accordance with Appendix 2 of the Technical decision of JSC "Kazan Helicopters" No. 2/144-2021-KB3 Revision 2 dated 24.01.2022.

3. Establish the intervals of monitoring the position of the clamps 333.4000.604, 333.4000.605 relative to the check marks - every 50 ± 5 landings. In case of detection of displacement of clamps relative to the check marks to a distance of more than 4-1 mm (check mark width) – perform operations in accordance with the p.2.1 of present Airworthiness directive and inform the JSC "Kazan Helicopters".

4. Airworthiness directive comes into force from the date of its issue. Operators shall follow the requirements of present Airworthiness directive until the issue of service bulletin AO482-БЭ-Г by JSC "Kazan Helicopters" or issue of another Airworthiness directive on this aviation accident.

5. Directive letter of the Federal Air Transport Agency ref. No. Исх-43975/03 dated 03.12.2021 should be considered as invalid.

Appendix: Technical decision No. 2/144-2021-KB3 Revision 2 dated 24.01.2022,
7 sheets;

Deputy Director General

17. 17.

A.A. Novgorodov

Верно:



И.В. Пономарев УПЛАГ ВС

И.В. Пономарев

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

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on continued airworthiness of ANSAT helicopters (ANSAT, ANSAT-GC models),
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In connection with the aviation accident occurred on 23.08.2021 with the ANSAT helicopter No. 33122 (RA-20059) and in order to ensure the airworthiness of the ANSAT, ANSAT-K helicopters and their modifications, which are in operation and at the stage of serial production at JSC “Kazan Helicopters”, the following decision was made.

DECISION:

1. Perform the following works on the entire fleet of ANSAT helicopters (ANSAT, ANSAT-GC models), ANSAT-K helicopters and their modifications:

1.1 When carrying out the next periodic maintenance check (in the form of 100 ± 10 flight hours) since the release of the airworthiness directive, the following works should be carried out:

1.1.1 Perform landing gear position check, having completed the works according to the temporary task card 032.00.00i (Appendix 1);

1.1.2 Establish the intervals of works associated with tightening of coupling bolts attaching the clamps 333.4000.604, 333.4000.605 in accordance with task card 032.00.00c of the Maintenance manual – every 50 ± 5 landings;

1.1.3 Apply check marks on the landing gear cross-over tubes using the ЭП-140 enamel of red color in accordance with Figure 1 (Appendix 2);

1.1.4 Establish the intervals of monitoring the position of the clamps relative to the check marks - every 50 ± 5 landings. In case of detection of displacement of clamps relative to the check marks to a distance of more than 4_{-1} mm (check mark width) – perform operations in accordance with the p. 1.1.1 of present Decision and inform the JSC “Kazan Helicopters”.

2. JSC “Kazan Helicopters” initiates changes in the design and operational documentation of the ANSAT helicopters (ANSAT, ANSAT-GC models), ANSAT-K helicopters and their modifications in terms of application of check marks on the forward and aft cross-over tubes in order to control position of the landing gear, as well as in terms of introduction of procedures for periodic monitoring of position of the landing gear relative to the check marks and periodic tightening of the nuts attaching the clamps on the landing gear cross-over tubes, with further issue of service bulletin A0482-БЭ-Г in accordance with the established procedure;

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3. Operators shall follow the requirements of the paragraphs of this technical decision until the issue of service bulletin A0482-БЭ-Г by JSC “Kazan Helicopters” or issue of another airworthiness directive;

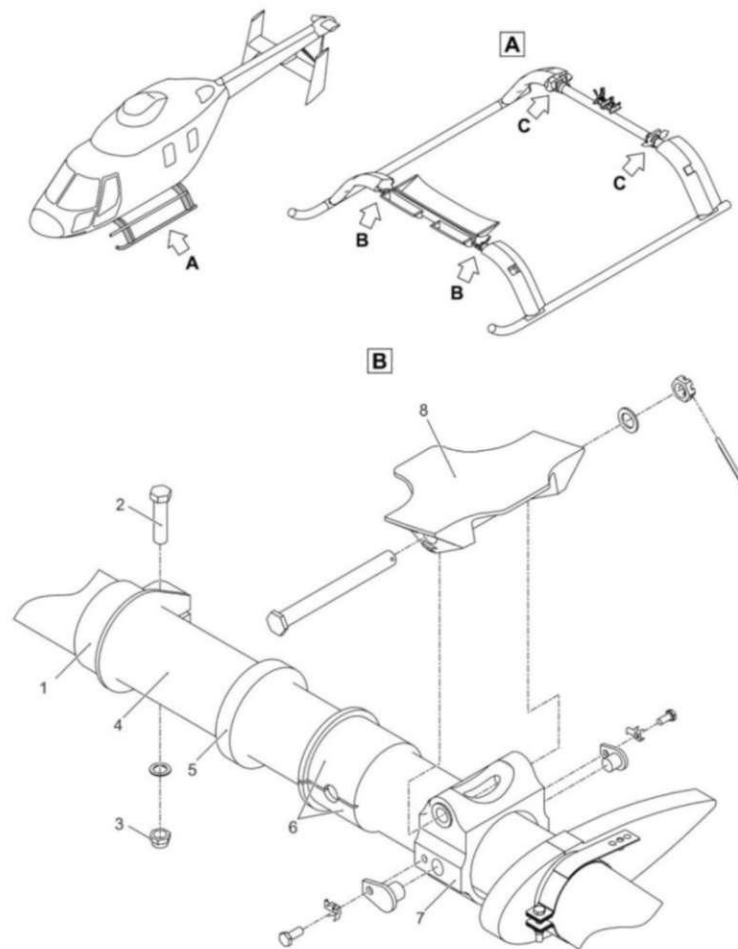
4. The present technical decision applies to ANSAT helicopters (ANSAT, ANSAT-GC models), ANSAT-K helicopters and their modifications, being in operation.

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APPENDIX 1

Temporary task card 032.00.00 i	
Procedure: Monitoring of the landing gear position	
Operations and technical requirements	Corrective actions
<p>1. Perform the preparatory works:</p> <p>1.1. Lift the helicopter using jacks;</p> <p>1.2. If necessary, for the convenience of carrying out the works, remove the fairings of the forward and aft cross-over tubes;</p> <p>2. Level the helicopter according to the section 008.10.00;</p> <p>Proceed as follows if the landing gear position parameters exceed the tolerance limits:</p> <p>2.1 Loosen the nuts (3) of bolts (2) of coupling clamps (1) on the forward or aft cross-over tubes (4);</p> <p>2.2 Move the coupling clamps (1) and rubber rings (5) by 50 mm closer to the center of the cross-over tubes;</p> <p>2.3 Perform landing gear positioning, move its forward and aft cross-over tubes relative to the lateral axis of the helicopter until the required parameters are reached;</p> <p>2.4 Move the rubber rings (5) and coupling clamps (1), having tightly pressed them to the rings (7) of cross-over tubes (4) hinging, without moving the cross-over tubes themselves;</p> <p>2.5 Tighten the nuts (3) of coupling bolts (2) of clamps using torque wrench with torque of 3.5 kgf·m;</p> <p>3. Perform the final works;</p> <p>3.1. Install the fairings of landing gear cross-over tubes;</p> <p>3.2. Lower the helicopter from jacks.</p>	

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1 – clamp (333.4000.604)

2 – bolt

3 – nut

4 – forward cross-over
tube

5 – rubber ring
(333.4000.601-03)

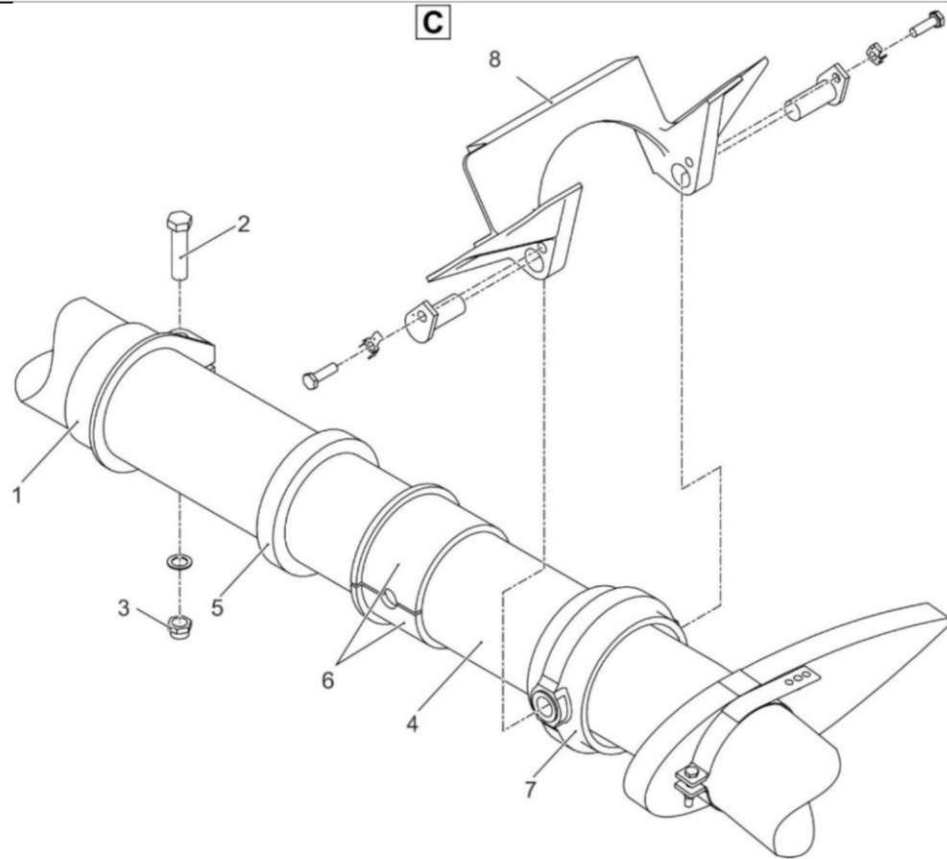
6 – inserts

7 – ring

8 – bracket

Figure 1

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- | | | | |
|--------------------------|----------------------------|--------------------------------------|-------------|
| 1 – clamp (333.4000.605) | 3 – nut | 5 – rubber ring
(333.4000.601-05) | 7 – ring |
| 2 – bolt | 4 – aft cross-over
tube | 6 – inserts | 8 – bracket |

Figure 2

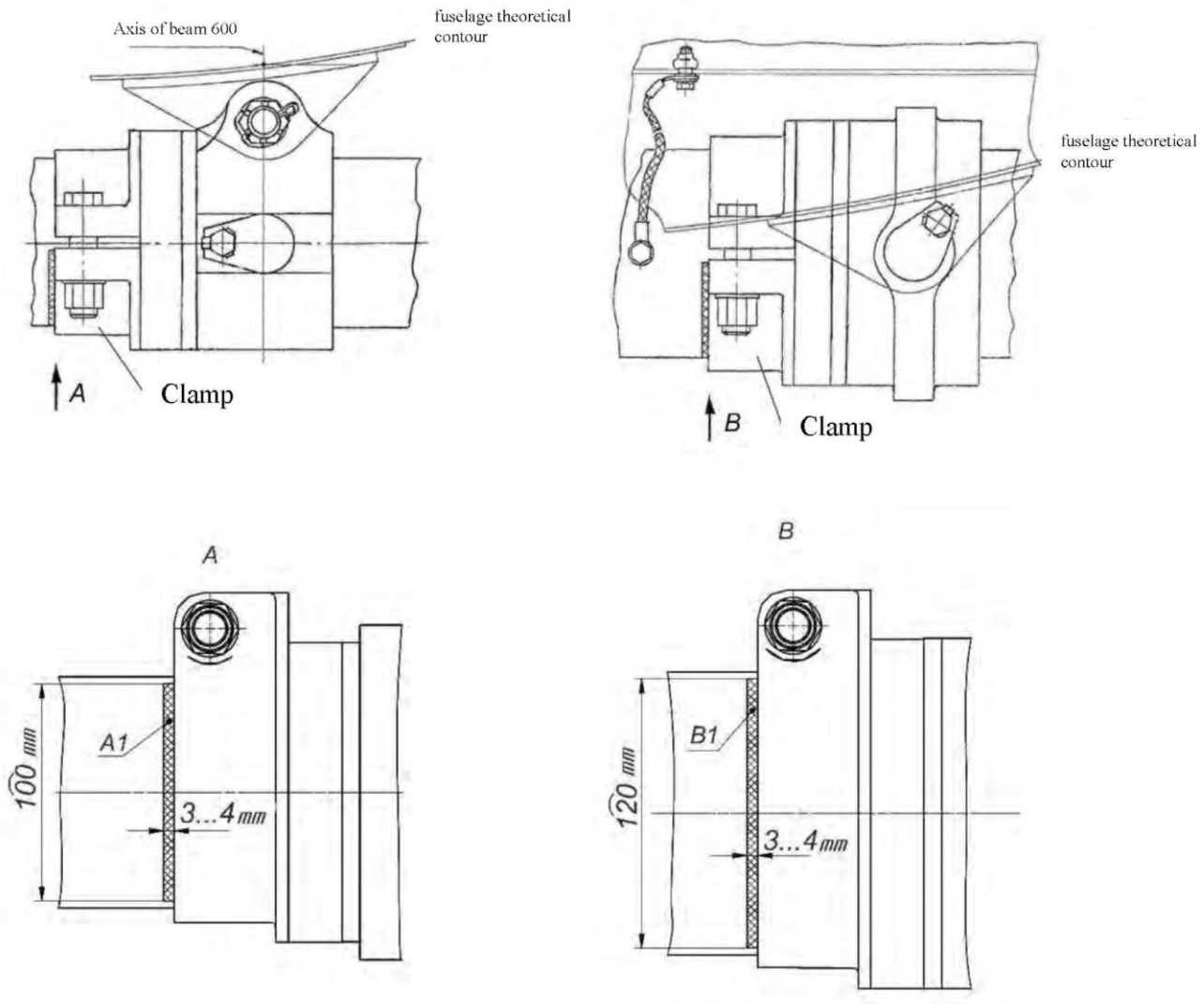
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Test equipment	Tools and appliances	Expendable materials
	Combination pliers L=160 mm Set of jacks AHC.9925.000 Wrenches 10x12 Torque wrench 20-100 Nm	

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APPENDIX 2

Forward cross-over tube
(Shown is the right attachment point. On the left one
- apply a check mark in the same way)
Aft cross-over tube
(Shown is the right attachment point. On the left one
- apply a check mark in the same way)



Apply check marks A1 and B1 to the surfaces of the cross-over tubes along the edges of clamps using ЭП-140 enamel of red color per ГОСТ 24709 standard, 2 layers (on the portside and starboard).

Figure 1