

Compliance with this bulletin is

MANDATORY

EFFECTIVE DATE

21.06.2022

SUBJECT

Aviation Artur Trendak Rotor - flat hubbar

APPLICABILITY

The bulletin is applicable for Aviation Artur Trendak rotors with s/n without letter "C". For example:
„AAT&S – 000 – 8.x – yyy” - Rotors covered by this Bulletin.
„AAT&S – 000 – 8.x – yyy – C” - Rotors for which the bulletin does not apply.

ACTION

- The rotor should be checked every 100 hours or once a year
- Rotors above 1000 hours work - replacement

RISK OF NEGLECT

Failure to comply with this instruction might result in:

- Damage of the aircraft
- Loss of the rotor blade

REQUIREMENTS

The inspection should be performed by a technician with the appropriate knowledge or a mechanic from Aviation Artur Trendak company.

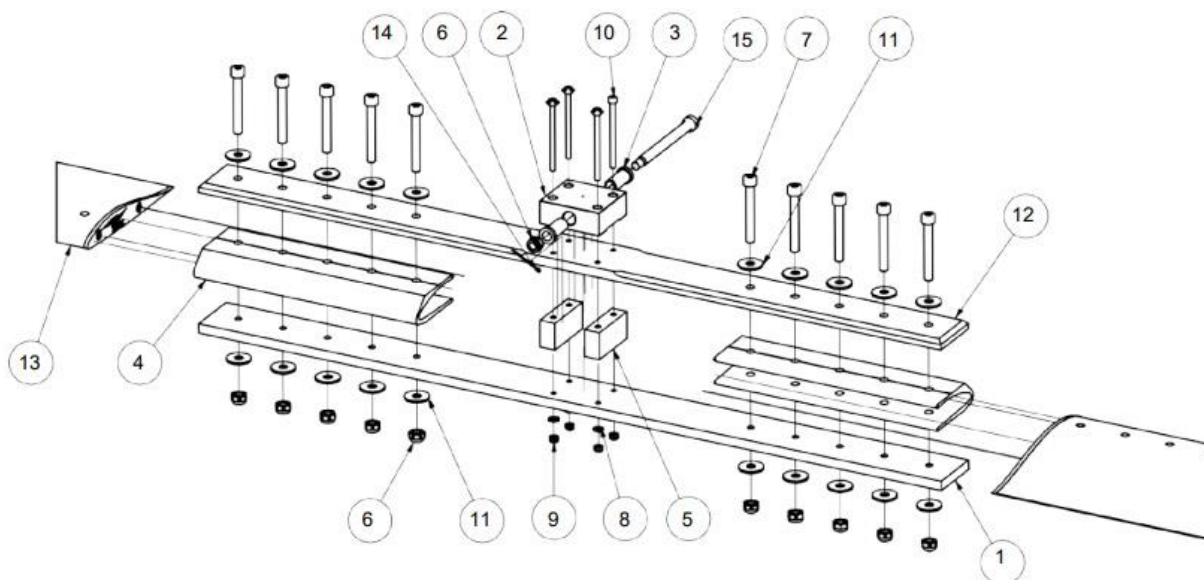
The rotor should be checked every 100 hours or once a year. Checking the rotor every 25 hours according to the bulletin "rotor v2" is no longer necessary.

All other activities remain unchanged according to the instructions: *Pilot Operating Handbook* and *Aircraft Maintenance Manual*.

ROTOR INSPECTION GUIDELINES

NOTE!

Remember to make every flight inspection related to the Pilot's Operating Handbook.



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	ZE1.000.RHT.300.01.00.0	Rotor blade mounting plate down
2	1	ZE1.000.RHT.300.03.00.0	Top rotor hub cube
3	2	ZE1.000.RHT.300.04.00.0	Bronze bush
4	2	ZE1.000.RHT.300.06.03.0	Blade pocket
5	2	ZE1.000.RHT.300.02.01.0	Small rotor cube
6	11	DIN 985 - M10	Hex nut
7	10	DIN 912 - M10 x 75 cięta z 90	Screw with semicircle head
8	4	DIN 125 - A 6,4	Washer
9	4	DIN 985 - M6	Nut
10	4	DIN 912 - M6 x 85 cięta z 100	Screw with semicircle head
11	20	DIN 9021 - 10,5	Washer
12	1	ZE1.000.RHT.300.09.00.0	Rotor blade mounting plate top
13	2	ZE1.000.RHT.320.01.01.0	Rotor blade
14	1	Agrafka	Safety pin
15	1	ZE1.000.RHT.300.07.00.0	Hhubbar's bolt

Fig. 1 Installation of the rotor hub and blades with mounting plates

1) Remove rotor from the gyro.

- Make sure that the wheel brakes are on (position 1)
- Position and attach the control stick to the extreme forward position with the securing belt so that the rotor head disc rests on the brake.
- Remove the securing pin (14) and unscrew the nut (6) from the hubbar mounting bolt (15) of the rotor hub suspension in the cylinder head (pivot pin).

- With the help of the other person holding the rotor, remove the hubbar fixing bolt (15) (making sure that the bushings remain in place) and remove the rotor from the head.
- 2) Unscrew the blades and sockets from the hubbar.
 - Unscrew the nuts (6), remove the M10 screws (7) and remove the rotor blades (13) from the mounting plates (4).
 - 3) Wash the blades with extraction naphtha.
 - 4) Carry out a visual inspection of the blades around the holes (fig.2, fig.3) that attach it to the hubbar. Use 5x or 10x magnifier. Look for scratches, chafing, cracks or other signs of damage. If any irregularities are found, the rotor must be replaced with a new one. Contact Aviation Artur Trendak company for more information.

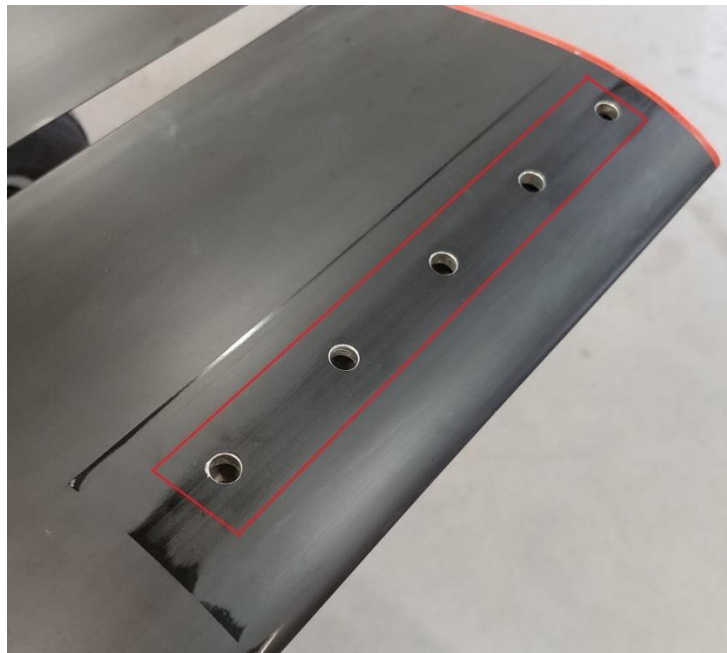


Fig. 2

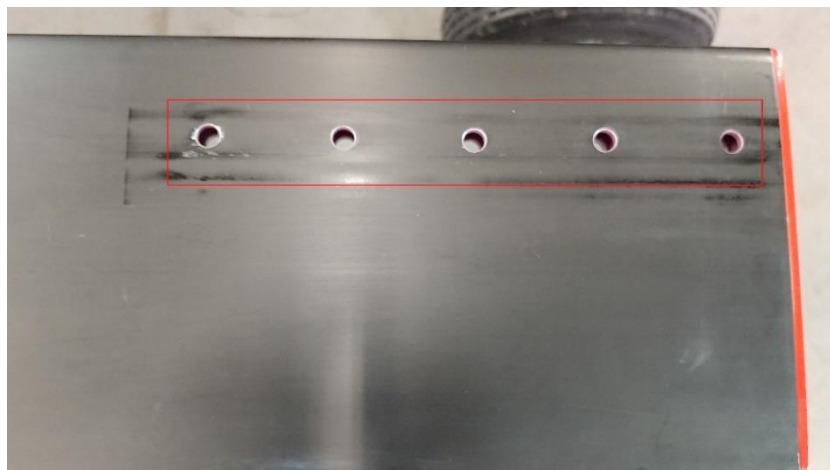


Fig. 3

Carry out a visual inspection of the blades near the end of the hubbar (fig.4, fig.5). Look for scratches, chafing, cracks or other signs of damage. If any irregularities are found, the rotor must be replaced with a new one. Contact Aviation Artur Trendak company for more information.



Fig. 4



Fig. 5

- 5) If no damage or permanent deformation is visible on the blades and hubbar, the rotor must be checked by penetrant. Apply penetrant on the surface close to the hubbar. If penetrant collects in drops clean the surface again. After application please leave it's on the surface for some period of time (time should be specified on the penetrant).
Clean the surface with a towel. The removal method is controlled by the type of penetrant used. Please read the manual on the label carefully.
Apply the developer. Application depend on the developer which is used. Please read the manual on the label carefully.

Carry out a visual inspection of the blades around the holes (fig.2, fig.3) and the blades near the end of the hubbar (fig.4, fig.5). Use 5x or 10x magnifier. The defects will be marked by a bright color. A solid or broken lights means a crack, rolling, or tearing. There are a lot of penetrants and developers available on the market e.g. produced by SPOTCHECK. In case of doubt, contact Aviation Artur Trendak company.

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- 6) If the penetrant does not show any changes, the rotor can be assembled in the reverse order.
- Collect and assemble the hub, M10 screws (8), washers (12) and nuts (10).
 - Insert the pin (7) (teeter bolt- Hubbar fixing bolt) with the bushings in the hub, screw on the nut (10) and insert the cotter pin.

Please note that the all nuts used to assemble the rotor are disposable and must be replaced each time the rotor was disassembled (even if the nuts have only been loosened) !

If any scratches, chafing, cracks or other signs of damage or permanent deformations are found on blades, the gyrocopter can't be operated! Please immediately contact with manufacturer Aviation Artur Trendak.

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