

TECHNICAL REPORT OF INSPECTION:

HELICOPTER MI-24D TAIL NUMBER SERIAL NUMBER

ESSENTIAL DATA:

Manufacturing Date – 18.05.1982
Date of last overhaul – 26.02.2004
Assigned TBO life - 1000 hours /till 31.12.2009
Operating hours:

- After last overhaul – 794 hours 26 min;
- TSN – 2640 hours 57 min.

Landings: - After last overhaul – 2236;
- TSN – 6968.

Last Flight – 19.11.2009

Trial run on engines/ conservation – 28.09.2011

Main Gear Box- VR-24

Serial Number:

Manufacturing date – 22.11.1988

Last overhaul date – 01.10.2002 r.

Assigned TBO life - 1000 hours /6 years

Operating hours:

- After last overhaul – 794 hours 26 min;
- TSN– 1789 hours 39 min.

TV3-117, series 3 Engines, left

Serial Number

Manufacturing Date – 23.01.1986

Last overhaul date – 27.04.2002

Assigned life:

- Time between overhaul – 1000 hours/ 6 years;
- Assigned – 4500 hours / -

Operating hours:

- After last overhaul – 794 hours 26 min;
- TSN – 1789 hours 39 min.

TV3-117, series 3 Engines, right

Serial Number

Manufacturing Date – 29.01.1982 r.

Last overhaul date – 24.04.2002 r.

Assigned life:

- Time between overhaul – 1000 hours/ 6 years;
- Assigned – 4500 hours / -

Operating hours:

- After last overhaul – 794 hours 26 min;
- TSN – 1552 hours 06 min.

Auxiliary Power Unit AI-9V

Serial Number

Manufacturing Date – 07.08.1991

Last overhaul date – 01.08.2003

Assigned lifespan:

- TBO – 150 hours in general mode/ 900 startings/ 1500 air bleedings / 6 years;

- Assigned – 600 hours in general mode/ 3600 startings/ 6000 air bleedings/ -

Operating hours:

- After last overhaul – 49 hours 36 min in general mode/ 950 startings /1914 air bleedings .

- TSN – - hours in general mode/ 2218 startings /4573 air bleedings. -

While inspecting the Helicopter on 19 August 2022 it was detected the following:

1. No any visible damages being detected, no deformation, no corrosion of the power units and the fuselage shell, no central part of the fuselage, tail boom and tail rotor pylon were found.
2. Painting of the external parts of the fuselage does not have any crucial damages, state – satisfactory.
3. Painting of the engine, gear box compartments, hydraulic systems compartments, APU AI-9V with no any crucial damages, state – satisfactory.
4. Paintwork of the air conditioning system compartment, radio compartment, the inner surface of the tail and keel booms were detected without any significant damages, condition – good.
5. Bars and shafts, walking beams, cable circuits, aggregates, actuators elements, over-booster parts of the helicopter and engines control systems do not contain any visible damages, deformations, either corrosion.
6. Bushing lugs of the hydro boosters and its mounting bracket to the body of the main gear box do not contain any damages, cracks or any traces of the corrosion.
7. Engines, its aggregates, pipelines, electric knots and sockets do not contain any damages, or corrosion, turbo compressors rotors and starters rotation is smooth, no any jam or any other external sounds, manual reversal of the steering units is smooth, no any scuffing.
8. No any traces of oil leakage in VR-24 main gear box body, mounting flanges of the sensors and accessory drives, as well as the tail shaft are not detected.
9. No twisting, no visible damages and deformations of the tail shaft were detected.
10. No traces of grease leakage, no signs of rotation or displacement of the rubber cages of the tail shaft bearings were found.
11. No traces of oil leakage along the connectors of the gearbox housings, the intermediary and the tail gears, sensors mounting flanges and aggregates shafts and the tail shaft were detected.
12. No oil leakage traces along the shock absorbers and hydraulic cylinders for retracting and extending the landing gear was detected.
13. No visible deformations and no cracks on the nodes of the landing gears and in the places of its attachment to the airframe were detected.

Detected Deficiencies:

1. Puncture mark on the leading edge of the blade of the 1st stage of the compressor of the left engine with a depth of about 0.3 mm in zone 1 (acceptable).
2. Puncture mark on the leading edge of the blade of the 1st stage of the compressor of the left engine with a depth of about 0.2 mm in zone 1 (acceptable).
3. Puncture mark on the leading edge of the blade of the 1st stage of the compressor of the right engine with a depth of about 0.2 mm in zone 1 (acceptable).
4. Jamming of the left freewheel of VR-24 gearbox in the coupled state with the shaft of the free turbine of the left engine.
5. Traces of water and altax in the oil of VR-24 gearbox, being identified during the inspection of the magnetic plugs of the gearbox.
6. Oil leakage from the seals of the two axial hinges of the tail rotor hub.
7. Low pressure in the cylinders of the fire-fighting system.
8. No squibs in the pyro-heads of the cylinders of the fire-fighting system, the neutral gas system, the systems of emergency release of the pilot's cabin door and the hatch of the operator's cabin.
9. Stabilizer fabric covering is damaged.
10. No armoured plates of the cargo compartment (4 pcs).
11. No oxygen equipment.
12. No manual fire extinguisher OU-2.
13. No covers, no plugs (except for fan plug and RIO-3 hood), no on-board tools set.

Conclusion:

Pursuant to the result of the inspection being done of MI-24D Helicopter, Serial Number 340215, it was concluded that the general condition of the Helicopter, its systems and units allows to overhaul this Helicopter and accomplishing of its refurbishment at the repair plant facilities (or other conditions) with the matter of its further operation.