**MIP for aeroplanes of 2,730 kg MTOM and below**

This AMC contains an acceptable MIP for aeroplanes of 2 730 kg maximum take-off mass (MTOM) and below, and for ELA2 aircraft other than rotorcraft or airships, grouped in the following categories:

— aeroplanes of 2 730 kg MTOM and below;

These MIPs already comply with the requirements of ML.A.302(d) and may be used in order to define the basic information for the maintenance programme as required by ML.A.302(c)(2)(a). However, the maintenance programme must be customised as required by ML.A.302(c)(5), which may be achieved by using the standard template contained in AMC ML.A.302.

It should be noted that using the 1-month tolerance permitted by ML.A.302(d)(1) for the annual inspection may result in an expired ARC.

**MIP for aeroplanes of 2,730 kg MTOM and below**

To be performed at every annual/100-h interval, whichever comes first.

A tolerance of 1 month or 10 h may be applied. The next interval shall be calculated from the time the inspection takes place.

Note 1: Use the manufacturer’s maintenance manual to accomplish each task/inspection.

Note 2: Proper operation of backup or secondary systems and components should be performed wherever a check for improper installation/operation is carried out.

|  |
| --- |
| **Aeroplanes of 2 730 kg MTOM and below** |
| **System/component/area** | **Task and inspection detail** |
| **GENERAL** |
| General | Remove or open all necessary inspection plates, access doors, fairings, and cowlings. Clean the aircraft and aircraft engine as required. |
| Lubrication/servicing | Lubricate and replenish fluids in accordance with the manufacturer’s requirements. |
| Markings | Check that side and underwing registration markings are correct. If applicable, check that an exemption for alternate display is approved. Identification plate for national aviation authority (NAA)-registered aircraft is present, as well as other identification markings on fuselage in accordance with local (national) rules. |
| Weighing | Review weighing record to establish accuracy against installed equipment.Weigh the aircraft as required by Part-NCO or Part-SPO, as applicable. |
| Service life limits | Check the records that the service life limits and airworthiness limits are within the life time limits of the maintenance programme. |
| Software | Check for updated software/firmware status and databases for engine and equipment. |
| **AIRFRAME** |
| Fabric and skin | Inspect for deterioration, distortion, other evidence of failure, and defective or insecure attachment of fittings.NOTE: When checking composite structures, check for signs of impact or pressure damage that may indicate underlying damage. |
| Fuselage structure | Check frames, formers, tubular structure, braces, and attachments. Inspect for signs of corrosion and cracks. |
| Systems and components | Inspect for improper installation, apparent defects, and unsatisfactory operation. |
| Pitot-static system | Inspect for security, damage, cleanliness, and condition. Drain any water from condensation drains. |
| General | Inspect for lack of cleanliness and loose equipment that may foul the controls. |
| Tow hooks | Inspect for condition of moving parts and wear.Check service life.Carry out operational test. |
| **CABIN AND COCKPIT** |
| Seats, safety belts and harnesses | Inspect for poor condition and apparent defects.Check for service life. |
| Windows, canopies and windshields | Inspect for deterioration and damage, and for function of emergency jettison. |
| Instrument panel assemblies | Inspect for poor condition, mounting, marking, and (where practicable) improper operation.Check markings of instruments in accordance with the flight manual. |
| Flight and engine controls | Inspect for improper installation and improper operation. |
| Speed/weight/manoeuvre placard | Check that the placard is correct and legible, and accurately reflects the status of the aircraft. |
| All systems | Inspect for improper installation, poor general condition, apparent and obvious defects, and insecurity of attachment. |
| **LANDING GEAR** |
| Shock-absorbing devices | Inspect for improper oleo fluid level.Inspect for wear and deformation of rubber pads, bungees, and springs. |
| All units | Inspect for poor condition and insecurity of attachment, including the related structure. |
| Retracting and locking mechanism | Inspect mechanism. Operational check. |
| Linkages, trusses and members | Inspect for undue or excessive wear fatigue and distortion. |
| Steering | Inspect the nose/tail wheel steering for proper function and wear. |
| Hydraulic lines | Inspect for leakage.Check condition and replace if necessary.  |
| Electrical system | Inspect for chafing. Operational check of switches. |
| Wheels | Inspect for cracks, defects, and condition of bearings. |
| Tires | Inspect for wear and cuts. |
| Brakes | Inspect for improper adjustment and wear.Carry out operational test. |
| Floats and skis | Inspect for insecure attachment and apparent defects. |
| **WING AND CENTRE SECTION** |
| All components | Inspect all components of the wing and centre section assembly for poor general condition, fabric or skin deterioration, distortion, evidence of failure and insecurity of attachment.  |
| Connections | Inspect main connections (e.g. between wings, fuselage, wing tips) for proper fit, play within tolerances, wear or corrosion on bolts and bushings. |
| **FLIGHT CONTROLS** |
| Control circuit/stops | Inspect control rods and cables. Check that the control primary stops are secure and make contact. |
| Control surfaces | Inspect aileron, flap, elevator, air brake and rudder assemblies, hinges, control connections, springs/bungees, tapes and seals.Check full range of motion and free play. |
| Trim systems | Inspect trim surfaces, controls, and connections.Check full range of motion. |
| **EMPENNAGE** |
| All components and systems | Inspect all components and systems that make up the complete empennage assembly for poor general condition, fabric or skin deterioration, distortion, evidence of failure, insecure attachment, improper component installation, and improper component operation. |
| **AVIONICS AND ELECTRICS** |
| Batteries | Inspect for improper installation, improper charge, spillage and corrosion. |
| Radio and electronic equipment | Inspect for improper installation and insecure mounting.Carry out ground function test. |
| Wiring and conduits | Inspect for improper routing, insecure mounting, and obvious defects. |
| Bonding and shielding | Inspect for improper installation, poor condition, chafing and wear of insulation. |
| Antennas | Inspect for poor condition, insecure mounting, and improper operation. |
| Lights | Operational check of the interior, exterior and instrument lightning  |
| **POWER PLANT (OTHER THAN TURBOPROP ENGINE)** |
| Engine section | Inspect for visual evidence of oil, fuel or hydraulic leaks and sources of such leaks. |
| Studs and nuts | Inspect for looseness, signs of rotation and obvious defects. |
| Internal engine | Inspect for proper cylinder compression (record measures for each cylinder) and for metal particles or foreign matter in oil filter, screens and sump drain plugs.  |
| Engine mounts | Inspect for cracks, looseness of mounting, and looseness of the engine to the engine-mount attachment. |
| Flexible vibration dampeners | Inspect for poor condition and deterioration. |
| Engine controls | Inspect for defects, improper travel, and improper safe tying. |
| Lines, hoses and clamps | Inspect for leaks, improper condition, and looseness. |
| Exhaust stacks | Inspect for cracks, defects, and improper attachment. |
| Turbocharger and intercooler | Inspect for leaks, improper condition, and looseness of connections and fittings.Check MP controller or density controller for leakage and free movement of controls.Check waste gate or overpressure relief valve for free movements. |
| Heating | Inspect cabin heating heat exchanger for improper condition and function. For exhaust heat exchanger, check CO (Carbon Monoxide) concentration. |
| Liquid cooling systems | Inspect for leaks and proper fluid level. |
| Electronic engine control | Inspect for signs of chafing, and proper electronics and sensor installation. |
| Accessories | Inspect for apparent defects in security of mounting. |
| All systems | Inspect for improper installation, poor general condition, defects and insecure attachment. |
| Cowling | Inspect for cracks and defects.Check cowling flaps. |
| Cooling baffles and seals | Inspect for defects, improper attachment, and wear. |
| **TURBOPROP ENGINE** |
| Incoming power check | Perform in accordance with the graphs found in the engine maintenance manual (EMM). |
| Inertial separator | Functional check |
| Engine cowling | Remove, inspect for damage. |
| General condition | Inspect for oil, fuel, bleed-air or other leaks.  |
| 1st stage compressor blades | Remove screen, check for foreign object debris (FOD) or other damage. |
| P3 filter | Replace |
| Oil filter | Inspection and cleaning |
| Fuel low pressure filter | Replace |
| Fuel high pressure filter | Inspection and cleaning |
| Oil scavenge filter | Inspection and cleaning |
| Chip detector | Inspection and cleaning |
| Exhaust duct | Inspection |
| Starter/generator brushes | Inspection for proper length |
| Ignitor/glow plugs | Functional check |
| Overspeed governor | Inspect for oil leaks. |
| Governor and beta-valve | Inspect for oil leaks or binding of controls. |
| Propeller | Inspect blades for damage and hub leaks. |
| (if installed) fire detector loop or sense module | Functional check |
| Engine cowling | Install |
| Power check | Perform in accordance with the graphs found in the EMM, record values. |
| Oil level | Check within 10 minutes after shutdown. |
| **FUEL** |
| Fuel tanks | Inspect for leaks and improper installation and connection.Verify proper sealing and function of tank drains. |
| **CLUTCHES AND GEARBOXES** |
| Filters, screens, and chip detectors | Inspect for metal particles and foreign matter. |
| Exterior | Inspect for oil leaks. |
| Output shaft | Inspect for excessive bearings’ play and condition. |
| **PROPELLER** |
| Propeller assembly | Inspect for cracks, nicks, binds, and oil leakage. |
| Propeller bolts | Inspect for proper installation, looseness, signs of rotation, and lack of safe tying. |
| Propeller control mechanism | Inspect for improper operation, insecure mounting, and restricted travel. |
| Anti-icing devices | Inspect for improper operation and obvious defects. |
| **MISCELLANEOUS** |
| Ballistic rescue system | Inspect for proper installation, unbroken activation mechanism, proper securing while on ground, validity of inspection periods of pyrotechnic devices, and parachute-packing intervals. |
| Other miscellaneous items | Inspect installed miscellaneous items that are not otherwise covered by this listing for improper installation and improper operation. |
| **OPERATIONAL AND FUNCTIONAL CHECKS** |
| Power and revolutions per minute (rpm) | Check that power output, static and idle rpm are within published limits. |
| Magnetos | Check for normal function. |
| Fuel and oil pressure | Check that they are within normal values. Check fuel pumps for proper operation. |
| Engine temperatures | Check that they are within normal values. |
| Engine | For engines equipped with automated engine control (e.g. FADEC), perform the published run-up procedure and check for discrepancies. |
| Engine | For dry-sump engines, engines with turbochargers and liquid-cooled engines, check for signs of disturbed fluid circulation. |
| Pitot-static system | Perform functional check. |
| Transponder | Perform operational check. |
| Ice protection | Perform operational check of ice protection system. |
| Fuel quantity indication | Check the fuel quantity indication for proper indication. |
| Caution and warning | Operational check of cautions and warnings lights.  |