**Minimum Inspection Programme task/inspection checklist/worksheet**

(**ELA1 sailplanes and ELA1 powered sailplanes not involved in commercial operations**)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Aircraft registration:** |  | **Aircraft total time:** |  | **Aircraft Tach:** |  |
| **Station:** |  | **Work Order:** |  | **Date – period:** |  |
|  |
| **Documentations/manuals used including revision status** |
| **Document Type** | **Document reference** | **Revision** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

**Note 1: The below task list is based on AMC M.A.302(i) in Annex I to ED Decision 2015/024/R (2015/029/R).**

**Note 2:** To be performed every annaul/100 h interval for Touring Motor Glider (TMG)), whichever comes first; or every annual interval for other than TMGs. A tolerance of one month or 10 h, as applicable, may be applied. However the next interval shall be calculated from the date/hours originally scheduled (without the tolerance).

**Note 3:** Use the current manufacturer’s maintenance manual to accomplish each task/inspection

**Note 4:** Proper function of back-up or secondary systems and components should be included for every instance where a check is performed for improper installation / operation

**Note 5:** State **Y** (yes) **N** (no) in defect column. All defect must be recorded on a worksheet or in the appropriate logbook(s) with rectification taken

**(Annual / 100 hour inspection)**

|  |  |  |  |
| --- | --- | --- | --- |
| **System / component / area** | **Task & Inspection detail** | **defect****Y**es / **N**o | **Accomplished (initial)** |
| **GENERAL** |
| General - all tasks | The aircraft must be clean prior to inspection. Inspect for security, damage, wear, integrity, drain/vent holes clear, signs of overheating, leaks, chafing, cleanliness and condition as appropriate to the particular task. Whilst checking composite structures, check for signs of impact or pressure damage that may indicate underlying damage. |  |  |
| Lubrication/servicing | Lubricate and replenish fluids in accordance with manufacturer’s requirements. |  |  |
| Markings | Check that side and under-wing registration markings are correct. If applicable, check that an exemption for alternate display is approved. Identification plate for National Aviation Authority registered aircraft is present. 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 Regulation Part-NCO. |  |  |
| **AIRFRAME** |
| Fuselage paint/gelcoat, includingregistration markings | Inspect external surface and fairings, gel coat, fabric covering or metal skin, and paintwork. Check that registration marks are correctly applied. |  |  |
| Fuselage structure | Check frames, formers, tubular structure, skin, and attachments. Inspect for signs of corrosion on tubular framework. |  |  |
| Nose fairing | Inspect for evidence of impact with ground or objects. |  |  |
| Release hook(s) | Inspect nose and Centre of Gravity (C of G) release hooks and controls. Check operational life. Carry out operational test. If more than one release hook or control is fitted, check operation of all release hooks from all positions. |  |  |
| Pot pitot/ventilator | Check alignment of probe, check operation of ventilator. |  |  |
| Pitot/static system | Inspect pitot probes, static ports all accessible tubing for security, damage, cleanliness, and condition. Drain any water from condensation drains. |  |  |
| Bonding/vents drains | Check all bonding leads and straps. Check that all vents and drains are clear from debris. |  |  |
| **CABIN AND COCKPIT** |
| Cleanliness/loosearticles | Check under cockpit floor/seat pan and in rear fuselage for debris and foreign items. |  |  |
| Canopy, locks &jettison | Inspect canopy, canopy frame and transparencies for cracks, unacceptable distortion, and discolouration. Check operation of all locks and catches. Carry out an operational test of the canopy jettison system from all positions. |  |  |
| Seat/cockpit floor | Inspect seat(s). Check that all loose cushions are correctly installed and, as appropriate, energy absorbing foam cushions are fitted correctly. Ensure that all seat adjusters fit and lock correctly. |  |  |
| Harness(es) | Inspect all harnesses for condition and wear of all fastenings, webbing, and fittings. Check operation of release and adjustments. |  |  |
| Rudder pedal assemblies | Inspect rudder pedal assemblies and adjusters. |  |  |
| Flight control circuits/stops  | Inspect flight controls rods/cables. Check that control stops are secure and make contact. Pay particular attention to wear and security of liners and cables in ‘S’ tubes. Inspect self-connecting control devices.  |  |  |
| Instrument panelassemblies | Inspect instrument panel and all instruments/equipment. Check instrument readings are consistent with ambient conditions. Check marking of all switches, circuit breakers, and fuses. Check operation of all installed equipment as possible in accordance with manufacturer’s instructions.Check markings of instruments in accordance with Flight Manual. |  |  |
| Oxygen system | Inspect oxygen system. Check bottle hydrostatic test date expiry in accordance with manufacturer’s recommendations. Ensure that bottle is not completely empty (13.8 bars/200 psi minimum) and refill with aviator’s oxygen only. Clean masks and regulators with suitable wipes.Ensure that oxygen installation is recorded on weight and C of G schedule. CAUTION: OBSERVE ALL SAFETY PRECAUTIONS. |  |  |
| Colour-coding ofcontrols | Ensure that controls are colour coded and in good condition, as follows:Tow release: yellowAir Brakes: blueTrimmer: greenCanopy normal operation: whiteCanopy jettison: redOther controls: clearly marked but not using any of the above colours. |  |  |
| Equipment stowed incentre section | Check for security and condition. Check validity of any safety equipment. Check manufacturer’s and NAA’s (if required) data plates. |  |  |
| Speed/weight/manoeuvre placard | Check that the placard is correct and legible and accurately reflects the status of the aircraft. |  |  |
| **LANDING GEAR** |
| Front skid/nose wheeland mounts | Inspect for evidence of hard/heavy landings. Check skid wear. Inspect wheel, tyre, and wheel box. Check tyre pressure. |  |  |
| Main wheel & brakeassembly | Check for integrity of hydraulic seals and leaks in pipe work. Check life of hydraulic hoses and components if specified by the manufacturer. Remove brake drums, check brake lining wear. Check disk/drum wear. Check brake adjustment. CAUTION: BRAKE DUST MAY CONTAIN ASBESTOS.Check operation of brake. Check level of brake fluid and replenish if necessary. Check tyre pressure. CAUTION: CHECK TYPE OF BRAKE FLUID USED AND OBSERVE SAFETY PRECAUTIONS. |  |  |
| Undercarriage suspension | Check springs, bungees, shock absorbers, and attachments. Check for signs of damage.Service strut if applicable. |  |  |
| Undercarriage retractsystem and doors | Check retraction mechanism and controls, warning system if fitted, gas struts, doors and linkages/springs, over- entre/locking device.Perform retraction test. |  |  |
| Tail skid/wheel | Inspect for evidence of hard/heavy landings. Check skid wear. Inspect wheel, tyre, and wheel box. Check bond of bonded skids. Check tyre pressure. |  |  |
| Wheel brake controlcircuit | Inspect wheel brake control rods/cables. If combined with air brake, ensure correct rigging relationship. Check parking brake operation if fitted. |  |  |
| **WING AND CENTRE SECTION** |
| Centre section fairing | Inspect for security, damage, and condition. |  |  |
| Wing attachments | Inspect the wing structural attachments. Check for damage, wear, and security. Check for rigging damage. Check condition of wing attachment pins. |  |  |
| Aileron control circuit/stops | Inspect aileron control rods/cables. Check that control stops are secure and make contact.Inspect self-connecting control devices. |  |  |
| Air brake controlcircuit | Inspect air brake control rods/cables. Check friction/locking device (if fitted). Inspect self-connecting control devices. |  |  |
| Wing struts/wires | Inspect struts for damage and internal corrosion. Re-inhibit wing struts internally every 3 years or in accordance with manufacturer’s instructions. |  |  |
| Wings includingunderside registrationmarkings | Check mainplane structure externally and internally as far as possible. Check gel coat, fabric covering, or metal skin. Check that registration marks are correctly applied. |  |  |
| Ailerons & controls | Inspect aileron and flaperon assemblies, hinges, control connections, springs/bungees, tapes, and seals. Ensure that seals do not impair full range of movement. |  |  |
| Air brakes/spoilers | Inspect air brake/spoiler panel(s) operating rods, closure springs, and friction devices as fitted. |  |  |
| Flaps | Check flap system and control. Inspect self-connecting control devices. |  |  |
| Control deflections &free play and recordon worksheets | Check and record range of movements and cable tensions, if specified, and check free play. |  |  |
| **EMPENNAGE** |
| Tailplane and elevator | With tailplane de-rigged, check tailplane and attachments, self-connecting and manual control connections. Check gel coat, fabric covering, or metal skin. |  |  |
| Rudder | Check rudder assembly, hinges, attachments, balance weights. |  |  |
| Rudder control circuit/stops | Inspect rudder control rods/cables. Check that control stops are secure and make contact. Pay particular attention to wear and security of liners and cables in ‘S’ tubes. |  |  |
| Elevator controlcircuit/stops | Inspect elevator control rods/cables. Check that control stops are secure and make contact.Inspect self-connecting control devices. |  |  |
| Trimmer control circuit | Inspect trimmer control rods/cables. Check friction/locking device. |  |  |
| Control deflections and free play and record on worksheets | Check and record range of movements and cable tensions, if specified, and check free play. |  |  |
| **AVIONICS AND ELECTRICS** |
| Electricalinstallation/fuses | Check all electrical wiring for condition. Check for signs of overheating and poor connections. Check fuses/trips for condition and correct rating. |  |  |
| Battery security &corrosion | Check battery mounting for security and operation of clamp. Check for evidence of electrolyte spillage and corrosion. Check that battery has correct main fuse fitted.It is recommended to carry out battery capacity test on gliders equipped with radio, used for cross-country, controlled airspace, or competition flying. |  |  |
| Radio installations andplacards | Check radio installation, microphones, speakers and intercom, if fitted. Check that call sign placard is installed. Carry out ground function test. Record radio type fitted. |  |  |
| Altimeter datum | Check barometric sub scale. Maximum error 2 Mb. |  |  |
| Pitot-static system | Perform operational check. |  |  |
| Transponder | Perform operational check. |  |  |
| **MISCELLANEOUS** |
| Removable ballast | Check removable ballast mountings and securing devices (including fin ballast, if applicable) for condition. Check that ballast weights are painted with conspicuous colour. Check that provision is made for the ballast on the loading placard. |  |  |
| Drag chute & controls | Inspect chute, packing and release mechanism. Check packing intervals. |  |  |
| Water ballast system | Check water ballast system, wing and tail tanks as fitted. Check filling points, level indicators, vents, dump and frost drains for operation and leakage. If loose bladders are used, check for leakage and expiry date as applicable. |  |  |
| **POWERPLANT (when applicable)** |
| Engine pylons &mountings | Inspect engine and pylon installation. Check engine compartment and fire sealing. |  |  |
| Gas strut | Check gas strut. |  |  |
| Pylon/engine stops | Check limit stops on retractable pylons. Check restraint cables. |  |  |
| Electric actuator | Inspect electric actuator, motor, spindle drive, and mountings. |  |  |
| Electrical wiring | Inspect all electrical wiring. Pay special attention to wiring that is subject to bending during extension and retraction of engine/pylon. |  |  |
| Limit switches | Check operation of all limit switches & strike plates. Make sure that they are not damaged by impact. |  |  |
| Fuel tank(s) | Check fuel tank mountings and tank integrity. Check fuel quantity indication system if fitted. |  |  |
| Fuel pipes & vents | Check all fuel pipes especially those subject to bending during extension and retraction of engine/pylon. Check that vents are clear. Make sure that overboard drains do not drain into engine compartment. Check self-sealing. |  |  |
| Fuel cock or shut offvalve | Check operation of fuel cock or shut-off valve & indications. |  |  |
| Fuel pumps and filters | Clean or replace filters as recommended by the manufacturer. Check operation of fuel pumps for engine supply or tank replenishment. Check fuel pump controls and indications. |  |  |
| Decompression valve | Inspect decompression valve and operating control. |  |  |
| Spark plugs | Carry out spark plug service. It is recommended to replace spark plugs at annual intervals. |  |  |
| Harnesses andMagneto | Inspect low tension and high-tension wiring, connectors, spark plug caps. Check magneto to engine timing. Check impulse coupling operation. |  |  |
| Propeller bolts,assembly, mounting,torquing & drive belt | Inspect propeller, hub, folding mechanism, brake, pitch change mechanism, stow sensors. |  |  |
| Doors | Check engine compartment doors, operating cables, rods, and cams. |  |  |
| Safety springs | Check all safety and counterbalance springs. |  |  |
| Extension andretraction | Check that extension and retraction operation times are within limits specified by manufacturer. Check light indications and interlocks for correct operation. |  |  |
| Exhaust | Inspect exhaust system, silencer, shock mounts, and links. |  |  |
| Engine installation | Inspect engine and all accessories. Carry out compression test and record results.Compression test results:No1 (left/front):No2 (right/rear): |  |  |
| Lubrication | Change engine oil and filter. Replenish oil and additive tanks. |  |  |
| Engine instruments | Inspect all engine instruments and controls. Check control unit, mounts, bonding and connections. Carry out internal self-test, if fitted. |  |  |
| Flexible vibration dampers  | Check for poor condition and deterioration. |  |  |
| Engine battery | If separate from airframe battery, inspect battery and mountings. If the main fuse is fitted, check rating and condition.Perform a functional test. |  |  |
| Placards | Check that all placards are in accordance with flight manual andlegible. |  |  |
| Oil and fuel leaks | With the engine fully serviced check the fuel and oil system for leaks. |  |  |

|  |  |  |
| --- | --- | --- |
| **After completion of all maintenance** | **Task & Inspection detail** | **Accomplished (initial)** |
| Carry out general verification to ensure: | - the aircraft is clear of all tools, equipment and any other extraneous parts and material |  |
| - that all access panels removed have been refitted  |  |
| Aircraft certificate of release to service | At the completion of all maintenance and verification above, when satisfied that all maintenance required has been properly carried out, issue aircraft release to service in the appropriate logbook(s) in accordance with Part-M Subpart H (M.A.801) |  |

|  |  |  |
| --- | --- | --- |
| **Date completed:** |  |  |
| **Part-66 Licence number:** |  |  |
| **Certifying staff Name:** |  |  |
| **Certifying staff signature:** |  |  |