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| **MPLA / G**  **Annual (Sailplanes):**  **Perform Task Nos. 1 – 58** | |
| Maintenance Organisation / Pilot-Owner |  |
| Approval Reference or IGSA Certifying Staff No: | **IE.MF.109.** |
| Site where maintenance being accomplished: | **Gowran Grange** |

NOTE: Ensure all details are as in the AMP

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| **Sailplane Registration: EI -** | | | | | | | | | |
|  | **Type** | | **Serial Number** | | | **Total Flying Hours** | | | **Hours since new / overhaul** |
| **Sailplane** |  | |  | | |  | | |  |
| **Check Start Date** | |  | | **Check Completion Date** | | |  | | |
| **Maintenance Manual Reference**  **Note:** Maintenance manuals must be those specified in the maintenance contract. | | | | | **Issue / Revision No.** | | | **Date** | |
| Airframe | | | | |  | | |  | |

All Maintenance Data used must be to the latest revision status.

All tools and ground equipment must be removed from the aircraft flowing maintenance and accounted for.

Correct grade of oil and grease used where necessary. All tank caps and covers closed as required.

If distracted in the performance of a task consider going back three steps to stop any omission.

Consider the effects of Complacency, Knowledge, Teamwork, Distractions, Fatigue, Lack of Resources, Pressure, Lack of Assertiveness, Lack of Communication, Norms (deviation from procedure), Stress and Lack of Awareness.

**Final Checks (include with all checks except for the Pre-Flight Check and Check A**

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| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Description** | | **Inspection Detail** | | **Task** | **Performed** |
| 0 | All Tasks - General | Execute all items of a Daily Inspection.  Inspect all bolted connections and locking devices.  Check all metal parts for adequate greasing and rust prevention  Inspect for security, damage, wear, integrity, drain/vent holes clear, signs of overheating, leaks, chaffing, cleanliness and condition as appropriate to the particular task.  Whilst checking GRP composite structures, check for signs of impact or pressure damage that may include underlying damage.  The manufacturer’s maintenance manual must be used for specific maintenance instructions.  The aircraft must be clean prior to starting an inspection. | | |  |  |
| 1 | Nose Fairing | Inspect for evidence of impact with ground.  Inspect nose tow release unit and aperture. | | | INS  CHK |  |
| 2 | Pot Pitot Ventilator | Alignment of probe.  Operation of ventilator. | | | INSP  INSP |  |
| 3 | Front skid / Nose Wheel / Shock Absorber | Inspect for evidence of heavy/hard landings.  Skid security and wear.  Wheel, tyre and wheel box.  Check tyre pressure. | | | INSP  INSP  INSP  SVCE |  |
| 4 | Front Fuselage Structure | Check external surface, gel coat, fabric and paintwork.  Check frames, formers, tubular structure, skin, fairings and attachments.  Inspect for signs of corrosion on tubular framework. | | | INSP  INSP  SVCE |  |
| 5 | Release Hook Assemblies | Inspect nose and CG hook assemblies.  Check operational life (2,000 flights).  Carry out operational test (from all release controls). | | | CHK  CHK  OP/C |  |
| 6 | Main Wheel / Brake Assembly | Check for integrity of hydraulic seals and leaks in pipe work.  Check life of hydraulic hoses and components if specified by the manufacturer.  Check disk / drum wear.  Check the brake adjustment.  *Caution: Brake dust may contain asbestos.*  Check brake fluid level – replenish if necessary.  Check satisfactory brake operation.  *Caution: Check that correct type of brake fluid has been used and observe safety precautions.* | | | INSP  CHK  CHK SVCE  SVCE  SVCE  OP/C |  |
| 7 | Canopy / Lock / Jettison | Inspect canopy and frame and transparencies for cracks, unacceptable distortion and discoloration.  Check operation of all catches and locks.  Carry out an operational test of the canopy jettison system from all positions. | | | INSP  INSP  OP/C |  |
| 8 | Harnesses | Inspect all harness for condition and wear of all fastenings, webbing and fitting.  Check for any life limitations imposed by the manufacturer. | | | INSP  CHK |  |
| 9 | Seat Pan Assemblies | Inspect Seats.  Check that all energy absorbing cushions are fitted correctly.  Check that all seat adjustment mechanisms fit and lock correctly. | | | INSP  INSP  OP/C |  |
| 10 | Cockpit floor Structures | Check floor structures for integrity. | | | INSP |  |
| 11 | Rudder Pedal Assemblies | Inspect Rudder Pedal assembly and adjusting mechanism.  Lubricate | | | CHK  SVCE |  |
| 12 | Rudder Control Circuit / Stops | Inspect rudder control rods/ cables.  Lubricate  Check that the control stops are contacting and secure.  Pay particular attention to wear and security of liners and cables in “S” tubes. | | | INSP  SVCE  CHK  INSP |  |
| 13 | Elevator Control Circuit / Stops | Inspect elevator control rods/ cables.  Lubricate  Check that the control stops are contacting and secure.  Inspect self-connecting control devices. | | | INSP  SVCECHK  INSP |  |
| 14 | Aileron Control Circuit / Stops | Inspect aileron control rods/ cables.  LUBRICATE  Check that the control stops are contacting and secure.  Inspect self-connecting control devices. | | | INSP  SVCE  INSP  INSP |  |
| 15 | Trimmer Control Assemblies | Inspect trimmer control rods/ cables.  Check friction/locking device. | | | INSP  CHK |  |
| 16 | Air Brake Control Circuit | Inspect air-brake control rods/ cables.  Lubricate  Inspect self-connecting control devices.  Check friction/locking device (if fitted). | | | INSP  SVCE  INSP  CHK |  |
| 17 | Wheel Brake Controls | Inspect wheel brake control rods/ cables.  If combined with airbrake lever, ensure correct rigging relationship.  Check parking brake operation if fitted. | | | SVCE  CHK  INSP |  |
| 18 | Instrument Panel Assemblies | Check instrument panel and all instruments for damage, wear and security.  Check security of all leads and tubes as fitted to each instrument.  Check that instrument readings are consistent with ambient conditions.  Check marking of all switches, fuses, and circuit breakers.  Check operation of all instruments in accordance with manufacturers’ instructions as much as is practicable. | | | INSP  INSP  CHK  CHK  FC/C |  |
| 19 | Pitot/ Static System | Inspect pitot probes, static ports, all tubing (as accessible) for security, damage cleanliness and condition.  Drain any water from condensate drains. | | | INSP  SVCE |  |
| 20 | ASI Calibration | Check ASI calibration is up-to-date in accordance with manufacturer’s instructions. | | | CHK |  |
| 21 | Electrical Installation / Fuses | Check all electrical wiring for condition.  Check for signs of overheating and poor connections.  Check fuses/ trips for condition & correct rating. | | | INSP  INSP  INSP |  |
| 22 | Battery / Corrosion | Check battery mounting for security and operation of clamp.  Check for evidence of electrolyte spillage and corrosion.  Check that the battery has the correct fuse fitted. | | | INSP  INSP  CHK |  |
| 23 | Oxygen System | Inspect the oxygen system.  Check the bottle hydrostatic expiry date in accordance with manufacturers recommendations.  Ensure that the oxygen installation is recorded on the weight and CofG schedules.  Check system for cleanliness. (Caution: Observe all safety precautions ) | | | INSP  CHK  CHK  INSP |  |
| 24 | Radio Installation/ Placarding | Check radio installation, microphone, loudspeaker and intercom if fitted.  Carry out ground functional test.  Check that call-sign placard is fitted.  Record radio type. | | | INSP  OP/C  INSP |  |
| 25 | Water Ballast System | Check water ballast system, wing and tail tanks as appropriate. Check filling points, level indicators, vents, dump and frost drains for operation and leakage.  If loose bladders are used, check for leaks and expiry date if applicable. | | | INSP  OP/C  CHK |  |
| 26 | Removable Ballast Installation | Check removable ballast mountings and securing devices for condition.  Check that ballast weights are painted a conspicuous colour.  Check that provision is made for the ballast on the loading placard. | | | INSP  INSP  INSP |  |
| 27 | Speed/ Wt./ Manoeuvre Placards | Check placard(s) is/are up-to-date, legible and accurately reflects the status of the aircraft | | | CHK |  |
| 28 | Wing Attachments | Inspect the wing structural attachments.  Check for damage, wear and security.  Check for rigging damage.  Check condition of wing attachment pins. | | | INSP  INSP  INSP  INSP |  |
| 29 | Control Systems in Centre Section | Check  Lubricate | | | INSP  SVCE |  |
| 30 | Equipment Stowed in Centre Section | Check for security and condition.  Check validity of any safety condition.  Check manufacturer’s data plates. | | | INSP  CHK  CHK |  |
| 31 | Centre Section Fairing | Inspect for security, damage and condition. | | | INSP |  |
| 32 | Mainplane Struts / Wires | Inspect struts for damage and internal corrosion.  Check external surface, gel coat, fabric and paintwork | | | INSP  INSP |  |
| 33 | Undercarriage/suspension | Check springs, bungies, shock absorbers and attachments.  Check for signs of damage.  Service strut if applicable. | | | INSP  INSP  SVCE |  |
| 34 | Undercarriage/ Retraction system | Check retraction mechanism and controls, warning system if fitted, gas struts, doors and linkages/springs, over-centre locking device.  Perform actuating test. | | | INSP  SVCE  OP/C |  |
| 35 | Tailplane Attachments | Check tailplane attachments for security and integrity.  Lubricate | | | INSP  SERVCE |  |
| 36 | Fin Structure | Check fin structure for integrity. In particular check for cracks at the fin/fuselage junction.  Check fin ballast tank. | | | INSP  INSP |  |
| 37 | Rudder Assembly & Hinges | Check rudder assembly, hinges, attachments and balance weights.  Lubricate hinges | | | INSP  SVCE |  |
| 38 | Tailplane / Elevator Assembly | With tailplane derigged, check tailplane and attachments, self-control and manual attachments.  Check pivots and bearings for lubrication and security. | | | INSP  INSP  SVCE |  |
| 39 | Tailskid / 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. | | | INSP  INSP  INSP  INSP  SVCE |  |
| 40 | Mainplane structure / port | Check mainplane structure external and internally as far as possible.  Check gel coat or fabric covering.  Check registration marks are correctly displayed.  Check fore and aft play of the wings. | | | INSP  INSP  CHK  CHK |  |
| 41 | Aileron / Hinge Assembly - Port | Inspect aileron assembly, hinges, control connections, springs/bungies, tapes and seals.  Lubricate hnges and bearings  Ensure that seals do not impair full range of movement. | | | INSP  SVCE  CHK |  |
| 42 | Airbrake / Spoiler Assembly - Port | Inspect airbrake/spoiler panel(s), operating rods, closure springs, stops and friction devices as fitted. | | | INSP  SVCE  OP/C |  |
| 43 | Flaps (port & starboard) | Check flap system & controls.  Inspect self-connecting devices. | | | INSP  SVCE |  |
| 44 | Mainplane structure / starboard | Check mainplane structure external and internally as far as possible.  Check gel coat or fabric covering.  Check fore and aft play of the wings. | | | INSP  INSP  INSP |  |
| 45 | Aileron / Hinge Assembly -Starboard | Inspect aileron assembly, hinges, control connections, springs/bungees, tapes and seals.  Ensure that seals do not impair full range of movement. | | | INSP  SVCE  CHK |  |
| 46 | Airbrake / Spoiler Assembly - Starboard | Inspect airbrake/spoiler panel(s), operating rods, closure springs, stops and friction devices as fitted. | | | INSP  SVCE |  |
| 47 | Range of Controls - Checked | Check & record range of control deflections.  Check free play. | | | FC/C  CHK |  |
| 48 | Drag Chutes | Inspect the parachute, packing & release mechanism.  Check repackaging date. | | | INSP  CHK |  |
| 49 | Duplicate Inspections | Record each item requiring a duplicate inspection on a separate worksheet and complete prior to releasing the aircraft back into service. | | |  |  |
| 50 | Bonding/ Vents/ Drains | Check all bonding leads and straps.  Check that all vents and drains are clear from debris. | | | INSP  INSP |  |
| 51 | Lubrication | Lubricate aircraft in accordance with manufacturer’s requirements. | | | SVCE |  |
| 52 | Cleanliness & Loose Articles | Check under cockpit floor/ seat pan for debris and foreign items. | | | INSP  SVCE |  |
| 53 | Mandatory Mods / Inspections | Check for compliance of all Mandatory Modifications, Airworthiness Directives and inspections relevant to the airframe, accessories and equipment. Record compliance in the logbook.  Reference sources include: Maintenance Programme | | | CHK |  |
| 54 | Colour Coding of Controls | Ensure that the controls are clearly colour coded as follows:  Tow Release: Yellow  Airbrakes: Blue  Trimmer: Green  Canopy Normal Operation: White  Canopy Jettison Operation: Red  Other Controls: Clearly marked but not using any of the above colours. | | | INSP |  |
| 55 | Logbook Entries up to Date | Ensure that all flying records are entered and up-to-date. | | | CHK |  |
| 56 | Identification Markings Displayed | Check fuselage side and under-wing markings are correct, in place and in accordance with SI 634 of 2005. | | | CHK |  |
| 57 | Manufacturer’s Recommendations and Life Inspections | Review the manufacturer’s maintenance schedules for the airframe to establish whether any additional work, servicing or preservation action is required .  Check the airframe life inspection status (3,000 hour inspections etc.). | | | CHK |  |
| 58 | Flight Manual | Verify that the Aircraft Flight Manual or Operating Handbook is at the latest revision. | | | CHK |  |
| 59 | Hrs. Flown | Hours as of this inspection | | Hours: | CHK |  |
| 60 | No. of Launches | Launches as of this inspection | | Launches: | CHK |  |
| 61 | Weight and Balance | Review weighing record to establish accuracy against installed equipment. Check date of last weighing (maximum period between weighings is 8 years). | | Date of last weighing:  Empty Weight (Kg):  Empty CofG aft of datum (mm): | CHK |  |

**Additional Tasks from Maintenance Data**

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| --- | --- | --- | --- |
| **No.** | **Area** | **Task** | **Type** |
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**Notes:**

**Certifying Person** Refer to Section 7.3

**Performers** must be proven competent to carry out maintenance tasks to any standard specified in the maintenance data and will notify supervisors of defects requiring rectification to re-establish required airworthiness standards.

**MPLA / G**

**Annual – Additional Tasks Sailplanes (Turbo)**

**Perform Task Nos. 1 – 30**

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| --- | --- | --- | --- | --- | --- |
| # | Description | | Inspection Detail | Task | Performed |
|  |  | |  |  |  |
| **All tasks to be certified on IGSA Inspection Report Form 200** | | | | | |
|  |  |  | |  |  |
| 0 | All Tasks - General | Inspect for security, damage, wear, integrity, drain/vent holes clear, signs of overheating, leaks, chaffing, cleanliness and condition as appropriate to the particular task.  The manufacturer’s maintenance manual must be used for specific maintenance instructions.  The aircraft must be clean prior to starting an inspection. | |  |  |
| 1 | Engine Pylons, Mountings & Engine Stops | Inspect mountings for delamination + damage  Inspect pylons for cracks  Inspect condition of rubber shock mounts  Check engine compartment & fire sealing.  Check compliance with Airworthiness Notice #40 re carbon monoxide contamination.  Check limit stops on retractable pylons.  Check restraint cables. | | INSP  INSP  INSP  INSP  CHK  OP/C  INSP |  |
| 2 | Gas Strut | Look for leaks  Check correct operation + security  Look for chafing  Check wiring is clear and tension free during extend / retract sequences | | INSP  OP/C  INSP  OP/C |  |
| 3 | Electric Actuator | Check correct operation + security  Inspect actuator, motor, spindle drive and mountings. | | OP/C  INSP |  |
| 4 | Electric Wiring | Inspect all wiring.  Look for chafing  Check security  Check wiring is clear and tension free during extend / retract sequences | | INSP  INSP  INSP  INSP |  |
| 5 | Fuel Tank | Look for leaks  Check for water contamination  Check for glass fibre residue  Check mountings and tank integrity.  Check fuel level indicator if fitted. | | INSP  INSP  INSP  INSP  OP/C |  |
| 6 | Fuel Pipes & Vents | Look for leaks  Look for chafing.  Check all fuel pipes especially those subject to bending during extension and retraction of the engine/pylon.  Check vents clear.  Ensure overboard drains do not drain into the engine compartment.  Check self-sealing. | | INSP  INSP  INSP  INSP  INSP  INSP |  |
| 7 | Fuel Cock or shut-off valve | Check for smooth, free operation & indications. | | INSP |  |
| 8 | Fuel Vents | Check opening is clear | | INSP |  |
| 9 | Fuel Pumps & Filter | Clean or fuel filters as recommended by the manufacturer.  Check operation of the fuel pumps for engine supply or tank replenishment.  Check fuel pump controls & indicators. | | SVCE  OP/C  INSP |  |
| 10 | Decompression Valves & operating Mechanism | Inspect the decompression valve and operating control. | | INSP  OP/C |  |
| 11 | LT & HT Harnesses & Magneto or coil | Inspect HT & LT wiring, connectors and spark plug caps.  Check magneto to engine timing.  Check impulse coupling operation. | | INSP  INSP  OP/C |  |
| 12 | Spark Plugs + Harness | Remove, clean, set gap + refit spark plugs.  It is recommended to replace spark plugs annually.  Inspect and refit harness | | SVCE  INSP |  |
| 13 | Propeller + Hub | Inspect blades for damage  Check for ease of operation  Lubricate as necessary  Inspect hub, folding mechanism brake, pitch change mechanism and stow sensors.  Check the torque of the propeller bolts. | | INSP  OP/C  SVCE  SVCE  CHK |  |
| 14 | Cable Guides, including Engine Doors | Check condition, function & tension of cables.  Check rods & cams.  Lubricate as necessary | | CHK  INSP  SVCE |  |
| 15 | Safety Springs | Check condition + attachment to operating wires | | INSP |  |
| 16 | Extension/Retraction Mechanism | Check condition + function  Check extension & retraction times are within the limits as specified by the manufacturer.  Check light indications and interlocks are functioning correctly.  Lubricate | | OP/C  OP/C  OP/C  SVCE |  |
| 17 | Exhaust System | Inspect for cracks, particularly at shock mounts & welded joints  Check security | | INSP  INSP |  |
| 18 | Engine Installation | Clean  Inspect engine and all accessories.  Carry out compression test and record results.  Check all nuts, bolts and their locking position  Inspect for leaks and cracks | | SVCE  INSP  OP/C  INSP  INSP |  |
| 19 | Engine Instruments | Inspect all engine instruments and controls.  Check control unit, mounts, bonding and connections.  Carry out internal self-test if fitted.  Check correct indications | | INSP  INSP  OP/C  OP/C |  |
| 20 | Glider General | Check security on all items that could vibrate loose  Security and condition of engine viewing mirror | | INSP  INSP |  |
| 21 | Engine Batteries | Check condition. | | INSP |  |
| 22 | Engine Operating Placards | Check that the correct placard is in accordance with the flight manual , is legible and is prominently displayed in the cockpit. | | INSP |  |
| 23 | Glider-Engine Performance Air Test (note 1) | Engine Performance Air Test (SSPS only)  (Gain 2000ft in 10 minutes. Start at 2000ft)  SLPS and TM according manufacturer’s specifications | | OP/C  OP/C |  |
| 24 | Oil /Fuel / Exhaust Leaks | Check after flight test | | OP/C |  |
| 25 | Mandatory Mods / Inspections | Check for compliance of all mandatory modifications, airworthiness directives and inspections applicable to the engine, propeller, accessories & equipment.  Record compliance in the logbook. | | CHK |  |
| 26 | Log Book Entries | Complete as necessary | | CHK |  |
| 27 | Limit Switches | Check operation of all limit switches and strike plates.  Ensure these have not been damaged by impact. | | OP/C  INSP |  |
| 28 | Manufacturer’s Recommendations | Review manufacturer’s maintenance schedules for the engine/propeller to establish if any additional work is required. | | CHK |  |
| 29 | Lubrication | Change engine oil and filter.  Replenish oil and additive tanks. | | SVCE |  |
| 30 | Throttle | Check throttle friction control. | | OP/C |  |
| 31 | Loose objects | Check for tools and other loose objects removed after maintenance | | CHK |  |