**Maintenance Programme (IHP)**

For a non-commercial ELA-1 **Sailplane** in accordance with

Regulation

(EC) 1321/2014

|  |  |  |
| --- | --- | --- |
| Registration Mark: | **D -** | **7828** |
|  |  | Official Registration Mark |
| Type/variant: |  | **LS4** |
| Serial Number: |  | **4366** |
| TCDS |  | **EASA.A.095** |
|  | | [M.A. 302 (h) 1.] |

**1**. General

Responsible for airworthiness management:

|  |  |
| --- | --- |
| Operator: | Aquí los datos personales |
| Street / No.: |  |
| Postal Code / Place of Residence / Country: |  |
| Email: |  |
| Tel. No. (during the day) |  |
|  | [M.A. 302 (h) 1.] |

**2**. Self-Declaration

I hereby declare that this is the maintenance programme for the abovementioned aircraft with the relevant registration mark and that I assume full responsibility for its contents and, above all, for any possible deviation from the recommendations of the holder of the Type Certificate.

[M.A.302 (h) 4.]

IHP according to M.A. 302(h)(2) in compliance with the information given in the manuals and SBs of the holder of the Type Certificate according to M.A. 302 (d), (e)

Note: **Complete** section 4 **and** section 6

[M.A. 302 (h) 2.]

IHP according to M.A. 302(h)(2) subject to a minimum inspection programme according to M.A.302(i)

Note: **Complete annually** section 5 and **complete** section 6

[M.A. 302 (i) & AMC M.A. 302(i) ]

The aircraft is maintained in accordance with the present maintenance programme.

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| Ocaña, 10.03.2017 | | CARLOS DEL HOYO | |  |
| place, date |  | name (in printed letters) |  | operator’s signature |

**3**. Utilization

This aircraft is only flown non commercially. If the aircraft is used in a training organization, provisions about maintenance specified by the competent authority (i.e. maintenance contract with a maintenance organization, declaration about airworthiness management, etc.) will be complied with.

**4**. Maintenance According to M.A. 302 (d) and (e)

Maintenance is carried out in the basis of the documents specified in the TCDS and the manuals of the equipment includes in the Minimum Equipment List.

|  |  |  |
| --- | --- | --- |
| **Component** | **document no** | **Issue / Revision** |
| *Flight Manual* | *Flight Manual LS4a* | *Issued 05 Jan. 1984*  *Rev. 5 from 28 Sept. 2011* |
| *Maintenance Manual* | *Maintenance Manual LS4* | *Issued May. 2011* |
| *Repair Manual* | *Section 11 of Maintenance Manual LS4* | *Issued May. 2011* |
| *Safety-Hook* | *G-73 Betriebshandbuch Tost und*  *Tost TM 1-2001* | *Dated: Feb. 1989*  *Rev.3 03/2001* |
| *Airspeed Indicator* | *Einbau und Wartung Anweisung für*  *5 FMS 421* | *dated September 2008* |
| *Altimeter* | *Einbau und Wartung Anweisung für*  *4-FGH 10* | *dated September 2008* |
| *Compass* | *Compensation Instructions for Airpath Compass C2300* | *16.10.2008*  *Rev. 18.10.2008* |
| *Safety Belts* | *Operating Manual Model FAG-7*  *AFG-GH-04-156-00-00-00* | *dated May 15, 1996* |
| *Variometer* | *Einbau und Wartung Anweisung für*  *5 STV 5* | *dated Rev.1, July 1997* |
| *Radio* | *FGS 40S Installation and Operation Manual*  *013.HB.00.001* | *dated Rev. 1 Feb. 1977* |

* All elements/components with working time restrictions are listed in a separate operating time table.
* All applicable ADs/LTAs to the aircraft and its essential components are presented in a separate ADs/LTAs table.

**5.** Minimum Inspection Programme according to M.A. 302 (i)

For the template see Annex 11.2

**6**. Additional Maintenance Instructions

[M.A. 302 (h) 3.]

6.1 Additional Maintenance Tasks due to special equipment and modifications (EMZ, STC)

Not Applicable

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **component** | **task** | **document** | **interval** | **Release to service acc. to M.A.801** |
|  |  |  |  |  |
|  |  |  |  |  |

6.2 Additional Maintenance Tasks due to repairs

Not Applicable

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **component** | **task** | **document** | **interval** | **Release to service acc. to M.A.801** |
|  |  |  |  |  |
|  |  |  |  |  |

6.3 Additional Maintenance Tasks due to life-limited parts

Not Applicable

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **component** | **task** | **document** | **interval** | **Release to service acc. to M.A.801** |
| *Safety Belts*  *Autoflug GmbH* | *Textile renew* | *Operating Manual Model FAG-7*  *AFG-GH-04-156-00-00-00* | *12 years* | *part 66 certif. staff, Subpart F, part 145 organization* |
| *Safety-Hook*  *Tost G 73* | *Overhaul* | *Tost*  *TM 1-2001* | *every 2000 take offs* | *Tost or Authorized company* |

6.4 Additional Maintenance Tasks due to ALIs, CMRs, TCDS requirements

Not Applicable

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **component** | **task** | **document** | **interval** | **Release to service acc. to M.A.801** |
|  |  |  |  |  |
|  |  |  |  |  |

6.5 Additional Maintenance Tasks due to repetitive ADs/LTAs

Not Applicable

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **component** | **task** | **AD/LTA** | **interval** | **Release to service acc. to M.A.801** |
|  |  |  |  |  |
|  |  |  |  |  |

6.6 Additional Maintenance Tasks due to special operating or airspace requirements (Altimeter, compass, transponder)

Not Applicable

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **component** | **task** | **document** | **interval** | **Release to service acc. to M.A.801** |
| *Compass Airpath*  *C 2300* | *Check the compensation* | *Compensation Instructions for Airpath Compass* | *yearly/after changes on the instrument panel* | *part 66 certif. staff, Subpart F, part 145 organization* |
| *Winter Altimeter*  *4-FGH 10* | *Check leaks*  *Review* | *Einbau und wartungs anweisung für*  *5 FMS 421* | *check yearly*  *Inspection every 5 years* | *part 66 certif. staff, Subpart F, part 145 organization* |

6.7 Additional Maintenance Tasks due to operating mode or operational approvals (eg. Aerobatics)

Not Applicable

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **component** | **task** | **document** | **interval** | **Release to service acc. to M.A.801** |
|  |  |  |  |  |
|  |  |  |  |  |

6.8 Additional Maintenance Tasks due to national requirements

Not Applicable

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **component** | **task** | **document** | **interval** | **Release to service acc. to M.A.801** |
| *Cell* | *weighing* | *NfL II 41/09* | *4 years* | *part 66 certif. staff, Subpart F, part 145 organization* |
| *Winter Altimeter*  *4-FGH 10* | *Check altitude measurement* | NfL II-25/09  (for test programme see appendix) | 2 years | *part 66 certif. staff, Subpart F, part 145 organization* |
| *Cell/Components* | *periodic checks* | *NfL II 44/09* | *All See Annex 6* |  |

6.9 Deviation from the recommendations of the holder of the Type Certificate (TBO, TCI)

Not Applicable

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **component** | **task and original interval** | **document** | **Alternative task and interval** | **Release to service acc. to M.A.801** |
| Aquí ha sugerido Martin incluir Hotelliers, ganchos, cinturones y los instrumentos winter. Para evitar las revisiones periódicas que recomienda el “holder of the Type Certificate” | | | | |
|  |  |  |  |  |

TBO = Time between two overhaul. TCI = Time Change Interval

Exceedance recommended TBO or TCI are possible at all products / components whose operating time is not:

* In the TCDS
* By an LTA/AD
* By one of the Authorities / Agency in other definite limits

**Excess life limits are excluded**

**7**. Annual inspection of the Maintenance Programme

The annual inspection is carried out in conjunction with the annual inspection of the airworthiness by the ARS staff of CAMO and is documented in Annex 11.1

[M.A. 302 (h) 5.]

**8**. List of IHP revisions

|  |  |  |
| --- | --- | --- |
| Issue | change/s | Date / signature |
| *Issue1* | *First edition* | *10.03.2017* |
|  |  |  |
|  |  |  |

**9**. Pilot / Owner Maintenance

9.1 Scope

Within the scope of the limited pilot-owner maintenance:

All task addressed in the Annex 11.3 table that are applicable to the aircraft **or**

Only those tasks not crossed out in the Annex 11.3 table that are applicable to the aircraft

will be performed and released by the pilot/owner in accordance with M.A. 803 and Appendix VIII to the Part-M

9.1 List of Authorized staff of the club, the operator community in accordance with M.A. 803

|  |  |  |  |
| --- | --- | --- | --- |
| name | first name | scope of authorization | Pilot license no. |
| *del Hoyo*  *Milla* | *Carlos* | *Pilot/Owner – Complete in accordance with item 9.1* | *E/FCL/00062814* |
| *Garcia*  *Gomez* | *Jose Miguel* | *Pilot/Owner – Complete in accordance with item 9.1* |  |
| *Viviente*  *Core* | *Angel* | *Pilot/Owner – Complete in accordance with item 9.1* |  |

**10**. Periodic Maintenance

[M.A. 302 (h) 3.]

All maintenance shall be carried out in accordance with Chapters 4 and 6 of this IHP and shall be listed in the table only if it is periodic maintenance.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **component** | **task** | **reference** | **interval** | **Release to service acc. to M.A.801** |
|  | Yearly Inspection | Maintenance Manual | yearly | *Pilot/Owner*  *part 66 certif. staff, Subpart F, part 145 organization* |
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**11**. Annexes

**11.1 ANNUAL INSPECTION OF THE IHP**

**11.2 MINIMUM INSPECTION PROGRAMME (MIP)**

**11.3 PILOTS / SUPPORT MAINTENANCE (ANNEX VIII OF THE REGULATION)**

**11.4 permitted extensions of time limits and variations from maintenance intervals in accordance with NfL II-44/09**

**11.5 ADs/LTAs SUMMARY**

**11.6 OPERATING TIME SUMMARY**

**Annex 1**

**11.1 ANNUAL INSPECTION OF THE IHP**

[AMC M.A. 302 (h) 3.& AMC M.A. 710 (GA)]

The IHP must be checked annually for plausibility and actuality.

The check shall be carried out by the person conducting the annual inspection or the company which carried out the maintenance of airworthiness according to M.A. subsection G, unless the check is carried out in conjunction with the airworthiness test

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Revision state  Description of the change | Name | Signature  ARS / CAMO |
| *10.03.2017* | *First Edition* | *Carlos del Hoyo* |  |
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**Annex 2**

**11.2 MINIMUM INSPECTION PROGRAMME (MIP)**

***AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014***

*SUBPART C CONTINUING AIRWORTHINESS [AMC M.A.302(i)]*

|  |  |
| --- | --- |
| ELA1 sailplanes and ELA1 powered sailplanes not involved in commercial operations | |
| System/component/area | Task & Inspection detail |
| **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 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 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 the Part-NCO rules. |
| **AIRFRAME** | |
| Fuselage paint/gel coat, including registration 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 and 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. |

**Annex 2 Cont. (2) MINIMUM INSPECTION PROGRAMME (MIP)**

***AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014***

*SUBPART C CONTINUING AIRWORTHINESS [AMC M.A.302(i)]*

|  |  |
| --- | --- |
| **CABIN AND COCKPIT** | |
| Cleanliness/loose articles | Check under cockpit floor/seat pan and in rear fuselage for debris and foreign items. |
| Canopy, locks and 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 Inspect self-connecting control devices. |
| Instrument panel assemblies | 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 Check markings of instruments in accordance with the Flight Manual.  Check markings of instruments in accordance with the Flight Manual. |
| Oxygen system | Inspect oxygen system. Check bottle hydrostatic test date expiry in accordance with (13,8 bars/200 regulators with suitable cleaning wipes.  Ensure that the oxygen installation is recorded on weight and C of G schedule. CAUTION: OBSERVE ALL SAFETY PRECAUTIONS. |
| Colour-coding of controls | Ensure that controls are colour-coded  and in good condition, as follows:  Tow release: yellow  Air Brakes: blue  Trimmer: green  Canopy normal operation: white  Canopy jettison: red  Other controls: clearly marked but not using any of the above colours. |
| Equipment stowed in centre section | Check for security and condition. Check validity of any safety equipment. Check the 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. |

**Annex 2 Cont. (3) MINIMUM INSPECTION PROGRAMME (MIP)**

***AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014***

*SUBPART C CONTINUING AIRWORTHINESS [AMC M.A.302(i)]*

|  |  |
| --- | --- |
| **LANDING GEAR** | |
| Front skid/nose wheel and mounts | Inspect for evidence of hard/heavy landings. Check skid wear. Inspect wheel, tyre, and wheel box. Check tyre pressure. |
| Main wheel and 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. Remove brake drums, check brake lining wear. Check disk/drum wear. Refit drum. 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 retract system and doors | Check retraction mechanism and controls, warning system if fitted, gas struts, doors and linkages/springs, over-centre / 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 control circuit | 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 control circuit | Inspect air brake control rods/cables. Check friction/locking device (if fitted). Inspect self-connecting control devices. |
| Wing struts/wires | Inspect wing struts for damage and internal corrosion. Re-inhibit wing struts internally every three years or in accordance with the manufacturer’s instructions |
| Wings including underside registration markings | Check main-plane structure externally and internally as far as possible. Check gel coat, fabric covering, or metal skin. Check that registration marks are correctly applied. |
| Ailerons and controls | Inspect aileron and flaperon assemblies, hinges, control connections, springs/bungees, tapes, and seals. Ensure that seals do not impair full range of movement. |

**Annex 2 Cont. (4) MINIMUM INSPECTION PROGRAMME (MIP)**

***AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014***

*SUBPART C CONTINUING AIRWORTHINESS [AMC M.A.302(i)]*

|  |  |
| --- | --- |
| 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 and free play, and record on 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 cable in “S” tubes |
| Elevator control circuit/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** | |
| Electrical Installation / 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 and corrosion | Check battery mounting for security and operation of clamp. Check for evidence of electrolyte spillage and corrosion. Check that the battery has the main fuse fitted correctly.  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 and placards | Check radio installation, microphones, speakers and intercom, if fitted. Check that the call sign placard is installed. Carry out ground function test. Record radio type fitted. |
| Altimeter datum | Check barometric subscale. Maximum error 2 Mb. |
| Pitot-static system | Perform operational check. |

**Annex 2 Cont. (5) MINIMUM INSPECTION PROGRAMME (MIP)**

***AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014***

*SUBPART C CONTINUING AIRWORTHINESS [AMC M.A.302(i)]*

|  |  |
| --- | --- |
| 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 and 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 and 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 and 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 and 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 off valve | Check operation of fuel cock or shutoff valve and 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. |

**Annex 2 Cont. (6) MINIMUM INSPECTION PROGRAMME (MIP)**

***AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014***

*SUBPART C CONTINUING AIRWORTHINESS [AMC M.A.302(i)]*

|  |  |
| --- | --- |
| Spark plugs | Carry out spark plug service. It is recommended to replace spark plugs at annual intervals. |
| Harnesses and Magneto | 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 and retraction | 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 and legible. |
| Oil and fuel leaks | With the engine fully serviced, check the fuel and oil system for leaks. |

**Annex 3**

**11.3 PILOTS / SUPPORT MAINTENANCE (ANNEX VIII OF THE REGULATION)**

|  |  |  |
| --- | --- | --- |
| **ATA** | **Area** | **Task** |
| 08 | Weighing | Recalculation – Small changes of the Trim plan without needing a reweighing. |
| 09 | Towing | Tow release unit and tow cable retraction mechanism – Cleaning, lubrication and tow cable replacement (including weak links).  Mirror – Installation and replacement of mirrors. |
| 11 | Placards | Placards, Markings – Installation and renewal of placards and markings required by AFM and AMM. |
| 12 | Servicing | Lubrication – Those items not requiring a disassembly other than of non-structural items such as cover plates, cowlings and fairings. |
| 20 | Standard Practices | Safety Wiring – Replacement of defective safety wiring or cotter keys, **excluding those in engine controls, transmission controls and flight control systems.**  Simple Non-Structural Standard Fasteners – Replacement and adjustment, **excluding the replacement of receptacles anchor nuts requiring riveting.**  Free play – Measurement of the free play in the control system and the wing to fuselage attachment including minor adjustments by simple means provided by the manufacturer. |
| 23 | Communication | Communication devices – Remove and replace self-contained, instrument panel mount communication devices with quick disconnect connectors. |
| 24 | Electrical power | Batteries and solar panels – Replacement and servicing.  Wiring – Installation of simple wiring connections to the existing wiring for additional non-required equipment such as electric variometers, flight computers but **excluding required communication, navigation systems.**  Wiring – Repairing broken circuits in landing light and any other wiring for non-required equipment such as electrical variometers or flight computers, **excluding ignition system, primary generating system and required communication, navigation system and primary flight instruments.**  Bonding – Replacement of broken bonding cable.  Switches – This includes soldering and crimping of non-required equipment such as electrical variometers or flight computers, but **excluding ignition system, primary generating system and required communication, navigation system and primary flight instruments.**  Fuses – Replacement with the correct rating. |
| 25 | Equipment | Safety Belts – Replacement of safety belts and harnesses.  Seats – Replacement of seats or seat parts not involving disassembly of any primary structure or control system.  Non-essential instruments and/or equipment – Replacement of self-contained, instrument panel mount equipment with quick disconnect connectors.  Removal and installation of non-required instruments and/or equipment.  Wing Wiper, Cleaner – Servicing, removal and reinstallation not involving disassembly or modification of any primary structure, control.  Static Probes – Removal or reinstallation of variometer static and total energy compensation probes.  Oxygen System – Replacement of portable oxygen bottles and systems in approved mountings, **excluding permanently installed bottles and systems.**  Air Brake Chute – Installation and servicing.  ALT – Removal/Reinstallation. |
| 27 | Flight Control | Gap Seals – Installation and servicing if it does not require complete flight control removal.  Control System – Measurement of the control system travel without removing the control surfaces.  Control Cables – Simple optical Inspection for Condition.  Gas Dampener – Replacement of Gas Dampener in the Control of Air Brake System.  Co-pilot stick and pedals – Removal or reinstallation where provision for quick disconnect is made by design. |
| 31 | Instruments | Instrument Panel – Removal and reinstallation provided this is a design feature with quick disconnect, **excluding IFR operations.**  Pitot Static System – Simple sense and leak check.  Instrument Panel vibration damper/shock absorbers – Replacement.  Drainage – Drainage of water drainage tapes or filters within the Pitot static system.  Flexible tubes – Replacement of damaged tubes. |
| 32 | Landing Gear | Wheels – Removal, replacement and servicing, includes replacement of wheel bearings and lubrication.  Servicing – Replenishment of hydraulic fluid.  Shock Absorber – Replacement or servicing of elastic cords or rubber dampers.  Shock Struts – Replenishment of oil or air.  Landing gear doors – Removal or reinstallation and repair including operating straps.  Skis – Changing between wheel and ski landing gear.  Skids – Removal or reinstallation and servicing of main, wind and tail skids.  Wheels fairing (spats) – Removal and reinstallation.  Mechanical brakes – Adjustment of simple cable operated systems.  Brake – Replacement of worn brake pads.  Springs – Replacement of worn or aged springs.  Gear Warning – Removal or reinstallation of simple gear warning systems. |
| 34 | Navigation | Software – Updating self-contained, instrument panel mount navigational software databases, **excluding automatic flight control systems and transponders** and including update of non-required instruments/equipment.  Navigation devices – Removal and replacement of self-contained, instrument panel mount navigation devices with quick disconnect connectors, **excluding automatic flight control systems, transponders, primary flight control system.**  Self-contained data logger – Installation, data restoration. |
| 51 | Structure | Fabric patches – Simple patches extending over not more than one rib and not requiring rib stitching or removal of structural parts or control surfaces.  Protective Coating – Applying preservative material or coatings where no disassembly of any primary structure or operating system is involved.  Surface finish – Minor restoration of paint or coating where the underlying primary structure is not affected. This includes application of signal coatings or thin foils as well as Registration markings.  Fairings – Simple repairs to non-structural fairings and cover plates which do not change the contour. |
| 53 | Fuselage | Upholstery, furnishing – Minor repairs which do not require disassembly of primary structure or operating systems, or interfere with control systems. |
| 56 | Windows | Side Windows – Replacement if it does not require riveting, bonding or any special process.  Canopies – Removal and re-fitment.  Gas dampener – Replacement of Canopy Gas dampener. |
| 57 | Wings | Wing Skids – Removal or reinstallation and service of lower wing skids or wing roller including spring assembly.  Water ballast – Removal or reinstallation of flexible tanks.  Turbulator and sealing tapes – Removal or reinstallation of approved sealing tapes and turbulator tapes. |

**Annex 4**

**11.5 permitted extensions of time limits and variations from maintenance intervals in accordance with NfL II-44/09**

* basic intervals dependent on operating hours

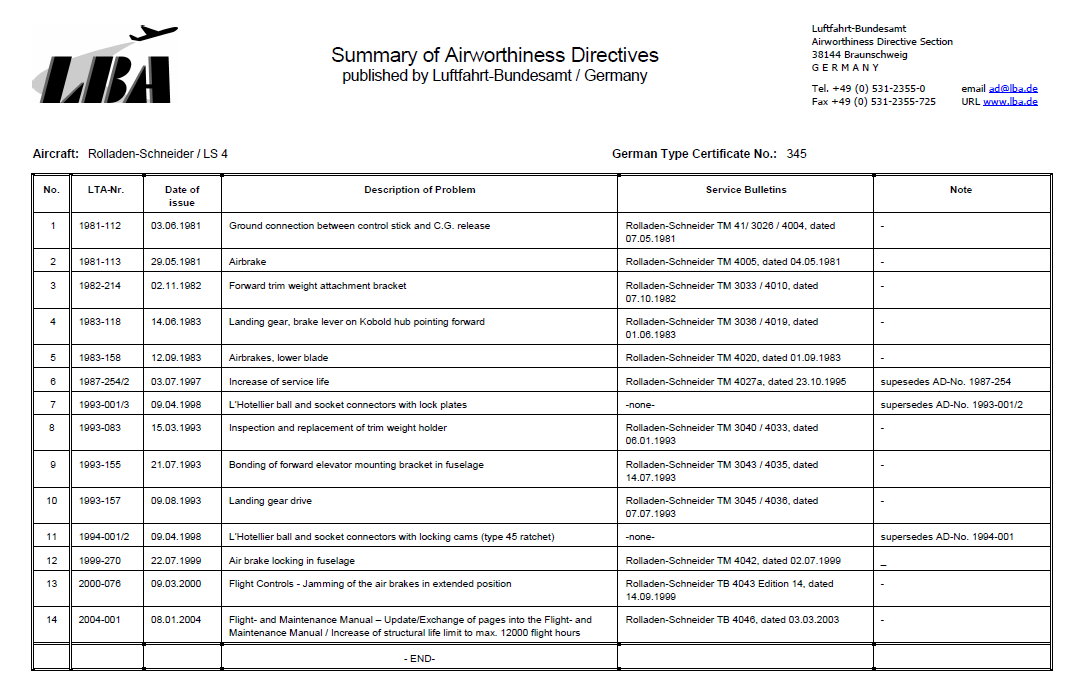
|  |  |
| --- | --- |
| scheduled maintenance according to MP with a basic interval of  **up to 100 operating hours** | **10%** |
| scheduled maintenance according to MP with a basic interval of  **over 100 up to 1000 operating hours** | **5%** |
| scheduled maintenance according to MP with a basic interval of  **over 1000 operating hours** | **50 hrs** |

* basic intervals dependent on the calendar

|  |  |
| --- | --- |
| scheduled maintenance according to MP with a basic interval of  **up to 2 months** | **5 days** |
| scheduled maintenance according to MP with a basic interval of  **more than 2 months up to 1 year** | **15 days** |
| scheduled maintenance according to MP with a basic interval of  **more than 1 year** | **30 days** |

**Annex 5**

**11.4 ADs/LTAs SUMMARY**



**Annex 6**

**11.5 OPERATING TIME SUMMARY**