

Airworthiness Inspection Check List

Airplane Light-Sport Aircraft

Builder: _____ Model _____ S/N _____

Date of Inspection _____ Inspector _____

Regulatory Prerequisites & Placards

Satisfactory / **U**nsatisfactory Item

S **U**

- | | | | |
|--|------------------------------|-----------------------------|------------------------------|
| 1. Meets rule for LSA aircraft | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 2. Presents Program Letter with proper address and flight test area | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 3. Presents FAA Form 8130-6 Application for A/W Certificate properly filled out | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 4. ID data plate is fireproof (steel), has builder's name, model, serial number. | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 5. ID data plate is installed in proper external location per FAR 45. 11(a). | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 6. N-Numbers installed, block letters, 3" proper location per FAR 45.25, or 12 inch, if a/c has cruise speed over 120 Knots CAS. | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 7. Word Experimental Displayed, 2" min size, proper location per FAR 45.23(b). | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 8. Passenger warning placard (not required for single place) ". Light Sport certification | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 9. Registration certificate available in aircraft. (NOT pink slip!) | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 10. Logbook has current annual condition inspection. | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 11. A/C weight and balance done, and shows within designer's limits. FAR 91.9 Placards | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 12. ALL controls - flight and engine, marked as to use. | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 13. Markings for: | | | |
| a. Throttle- open-closed | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| b. Carb Heat- pull on | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| c. Flaps: Up- Down, Degrees/Inches and Take Off Setting Marked | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| d. Trim Tab: Nose Up, Nose Down, Take Off setting | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| e. Trim Tab: rudder left, rudder right, neutral | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| f. Mixture- Push rich | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |

Cockpit interior

- | | | | |
|---|------------------------------|-----------------------------|------------------------------|
| 1. Seat Belts function, and angle is slightly rearward | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 2. Shoulder harness function. | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 3. Seat Belt Anchor Points firm, no interference | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 4. Shoulder Harness Anchor Points firm, no interference | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 5. Seats and if installed seat tracks o.k., stops on aft of rails | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |

Instruments and required equipment

- | | | | |
|---|------------------------------|-----------------------------|------------------------------|
| 1. ELT meeting TSO-C91A properly installed, with remote switch and battery date current and recorded in aircraft records. For details FAR 91.205 and others | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 2. Fuel gauge each tank, has been calibrated and calibration in records showing unusable fuel. | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 3. Analog instruments marked with green/red range limitation marks and slippage mark | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 4. EIS instruments with limitations placard on instrument panel | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 5. VFR Day instruments if installed: | | | |
| a. Altimeter | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| b. Airspeed indicator | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| c. Tachometer | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| d. CHT | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| e. EGT | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| f. Coolant temperature | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| g. Oil Pressure | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| h. Oil Temperature | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |

- | | |
|--|---|
| 6. VFR Night Requirements- Day VFR plus: | |
| a. Compass | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| b. Position Lights | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| c. Anti collision strobes/rotating beacon which meets FAA standards | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| d. Spare fuses | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| e. Electrical energy sufficient for duration of aircraft range, plus reserve | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 5. Slippage mark on glass face of ROUND analog gauges. | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |

Electrical

- | | |
|---|---|
| 1. There is a battery installed | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| 2. Battery wiring adequate size and secure | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 3. Battery case and battery securely mounted | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 4. Battery vented overboard | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 5. Electrical system wiring adequate size and secure | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 6. Switches marked for operation, and wired properly | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 7. Circuit Breakers or fuses labeled for value and function, and wired properly | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 8. Ground on battery to airframe, or wired into place properly | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 9. Ammeter functions properly (if installed) | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 10. Voltmeter functions properly (if installed) | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 11. Landing Lights / Position Lights wired correctly | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 12. Cockpit lights/ Instrument lighting | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 13. Rubber insulating boots on positive cable ends | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |

Avionics

- | | |
|--|---|
| 1. Antennas are properly installed, and have proper support/doubler plates | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 2. Coax Cable secured, with slack enough to prevent disconnection | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 3. Radios/Avionics and cooling fans are mounted securely | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 4. Avionics gear is wired properly, and functions | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 5. Transponder "Mode C" check done, and in aircraft records | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |

Fuel System

- | | |
|--|---|
| 1. Caps fit tight and are secure | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 2. Fuel drains, if installed, at lowest portion of tank, and at lowest point in fuel lines | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 3. Fuel Vent System contains no loops which would block venting | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 4. Shutoff valve/ Selector switch ease of operation, and clearly marked for intended operation | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 5. Fuel Line routing proper material and diameter for intended fuel supply | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 6. Fuel gascolator functional and safety wired | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 7. Fuel filter installed, proper orientation | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 8. Fuel Lines protected from chafing, and secure from "catching a foot" | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 9. Fuel line routing avoids areas of heat | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |

Gear/Wheel/Brake Systems

- | | |
|---|---|
| 1. Landing gear attachment secure, drag links secure | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 2. Brake System line routing, reservoir, pumps secure | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 3. Brake & Wheel installation secure | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 4. Tires are clear of pants or struts, including clearance of "mud scraper", no binding | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 5. Wheel Pants are secure | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 6. Tail Spring secure, well designed, and is clear of rudder | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |

Control Surfaces

Designer has recommended limits in aircraft documentation

Yes No

Designers Recommended limits:

This aircraft measures:

- Aileron Up travel Degrees or Inches _____
- Down travel Degrees or Inches _____
- Elevator Up travel Degrees or Inches _____
- Down travel Degrees or Inches _____
- Rudder Left/Right Degrees or Inches _____

- Degrees/Inches _____
- Degrees/Inches _____
- Degrees/Inches _____
- Degrees/Inches _____
- Left _____ Right _____

Remarks: _____

General Condition- Fuselage, Wing, Tail Assembly

- | | |
|--|---|
| 1. Skin condition good, no wrinkles, smoking rivets, or loose tape | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 2. Vertical Fin has proper movement and in good condition | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 3. Elevator assembly has proper movement and good condition | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 4. Trim Tabs function, no binding, heavy structure to reduce flutter potential | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 5. Doors close securely and open properly, if open in flight, markings. | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 6. Windows secure, and markings for distance if open in flight | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 7. Canopy secure | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 8. Canopy emergency release marked red and copper safety wired | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 9. Canopy locks/door locks work | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 10. All bolts long enough, minimum 1.5 threads showing | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |

Flight Controls

- | | |
|--|---|
| 1. Control stops required by aircraft designer? | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| 2. On elevator | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 3. On rudder | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 4. On ailerons | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 5. Cables have proper tension. | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 6. Cable turnbuckles, if installed, safety wired or safety clips installed | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 7. There is clearance on controls/no hitting inst. panel or floorboards | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 8. Controls have freedom of movement to full range | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 9. Counterweights, if installed, secure | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 10. Castellated nuts and cotter pins on flight controls(no nylocs) | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |

Engine

Is everything safetied? Engine Compartment

Yes No N/A

- | | |
|--|---|
| 1. Throttle cables anchored and functional | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 2. Clearances in engine compartment | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 3. Carb Heat Control - Functional | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 4. Mixture Control - Functional | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 5. Fuel Hose routing to avoid heat & bends | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 6. Fuel Hose diameter sufficient for engine | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 7. Fuel and Oil Hoses proper material | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 8. Oil System Hose & Cooler installation | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 9. Firewall material steel, <u>no openings</u> in firewall (tractor installations) | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 10. Engine Mount secure, no cracks | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 11. Alternator, belts, accessories properly installed | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 12. Heater hoses proper material | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 13. Heater design minimizes CO poisoning chances | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 14. Baffles appear correct | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |
| 15. All electrical and ignition wires appear correct | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> |

Propeller

- | | | | | | | |
|--|-----|--------------------------|----|--------------------------|-----|--------------------------|
| 1. Propeller in good condition, no nicks, cracks or damage | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> | N/A | <input type="checkbox"/> |
| 2. Bolts safety wired or lock nuts and of sufficient size | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> | N/A | <input type="checkbox"/> |
| 3. Bolts clear of engine, proper length | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> | N/A | <input type="checkbox"/> |
| 4. Prop clears ground in takeoff attitude by >7" | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> | N/A | <input type="checkbox"/> |
| 5. Prop Spinner o.k., clear of cowl, not uneven spin | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> | N/A | <input type="checkbox"/> |

Certification

Logs present and builder records the following statement:

“I certify that this aircraft has been inspected on [insert date] in accordance with the scope and detail of appendix D to part 43 and was found to be in a condition for safe operation.”

- | | | | | |
|---|-----|--------------------------|----|--------------------------|
| 1. Discuss operating limitations with applicant, flight test areas, and flight test time. | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| 2. Airworthiness application properly filled out and signed? | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| 3. Sign Logbook and issue certificate, if applicable OR | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| 4. Provide list of deficiencies to applicant, if applicable Unsatisfactory Conditions | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |

N_____ Owner _____

I have read and understand the operating limitations issued with the airworthiness certificate for this aircraft

.

Owner: _____
signed Date