

Checklist:

Builder: _____

Model: _____

Date of Inspection: _____

S/N: _____

Inspector: _____

Regulatory Prerequisites & Placards

S U

- ____ Meets 51% rule, has invoices, plans, pictures and building records
- ____ Presents notarized statement FAA Form Eligibility Statement
- ____ Presents FAA Form 8130-6 Application for A/W Certificate properly filled out
- ____ ID data plate is fireproof, has builder's name, model, serial number.
- ____ ID data plate is installed in proper external location per FAR 45. 11(a).
- ____ N-Numbers installed, block letters, 3" proper location per FAR 45.25.
- ____ Word Experimental Displayed, 2" min size, proper location per FAR 45.23(b).
- ____ Passenger warning placard (not required for single place) ".This aircraft does not meet" "
- ____ Registration certificate available in aircraft. (NOT pink slip!)
- ____ Builder makes statement in logbook that aircraft has been inspected
- ____ A/C Weight and balance done, and shows within designer's limits.

FAR 91.9 Placards

- ____ ALL controls - flight and engine, marked as to use.
- ____ Markings for :
 - ____ Throttle- open-closed
 - ____ Flaperons- Up- Down
 - ____ Fuel quantity and type marked on or near cap

Cockpit Interior

- ____ Seat Belts function, and angle is slightly rearward
- ____ Shoulder harness function, and angle is -5 to + 30 degrees
- ____ Seat Belt Anchor Points firm, no interference
- ____ Shoulder Harness Anchor Points firm, no interference

Instruments and Required Equipment

- ____ ELT meeting TSO-C91A properly installed, with remote switch and battery date current and recorded in aircraft records (See Checklist explanations Page) for details FAR 91.205 and others
- ____ Fuel gauge has been calibrated and calibration in records showing unusable fuel
- ____ VFR Day requirements: * Note: All instruments should be marked with green/red line ranges
 - ____ Altimeter
 - ____ Airspeed indicator
 - ____ Tachometer
 - ____ Compass
- ____ VFR Night Requirements- Day VFR plus:
 - ____ Position Lights
 - ____ Anti collision strobes/rotating beacon which meets FAA standards
 - ____ Spare fuses
 - ____ Electrical energy sufficient for duration of aircraft range, plus reserve

Electrical

- ____ Wire type and size is appropriate for load being carried, connections are solid. All systems perform as intended.
- ____ Battery & Electrical System, wiring adequate size and secure
- ____ Switches marked for operation, and wired properly
- ____ Circuit Breakers or fuses labeled for value and function, and wired properly
- ____ Ground on battery to airframe, or wired into place properly
- ____ Landing Lights / Position Lights wired correctly
- ____ Battery case and battery securely mounted

Avionics

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- ___ ___ Antennas are properly installed, and have proper support/doubler plates
- ___ ___ Coax Cable secured, with slack enough to prevent disconnection
- ___ ___ Radios/Avionics and cooling fans are mounted securely
- ___ ___ Avionics gear is wired properly, and functions

Fuel System

- ___ ___ Caps fit, and are vented
- ___ ___ Fuel Line routing proper material and diameter for intended fuel supply
- ___ ___ Fuel filter functional and safety wired
- ___ ___ Fuel Lines protected from chafing, and secure from "catching a foot."(Checklist explanations Page)
- ___ ___ Fuel line routing avoids areas of heat

Gear/Wheel/Brake Systems

- ___ ___ Brake system line routing
- ___ ___ Brake & wheel installation secure
- ___ ___ Taxi test on gear toe in/ toe out o.k.
- ___ ___ Tires are clear of pants or struts, including clearance of "mud scraper", no binding
- ___ ___ Wheel pants are secure

Control Surfaces

Designers Recommended travel: / This Plane Measures:

Aileron

Up travel: _____ Degrees / _____ Degrees

Down travel : _____ Degrees / _____ Degrees

Elevator

Up travel: _____ Degrees / _____ Degrees

Down travel : _____ Degrees / _____ Degrees

Rudder

Left/Right: _____ Degrees / _____ Left _____ Right

General Condition- Fuselage, Wing, Tail Assembly

- ___ ___ Skin condition, wrinkles, rivets, or tape
- ___ ___ Vertical Fin, movement and condition
- ___ ___ Elevator assembly, movement and condition
- ___ ___ Trim Tabs function, no binding, heavy structure to reduce flutter potential
- ___ ___ Control Travel "Stops"
- ___ ___ Control Cables Safety Wired Correctly
- ___ ___ Doors close securely and open properly
- ___ ___ Canopy secure

Flight Controls

- ___ ___ Proper tension of cables
- ___ ___ Safety wiring of cables
- ___ ___ Clearance on controls/no hitting panel or floorboards
- ___ ___ Freedom of movement
- ___ ___ ***PROPER DIRECTION***
- ___ ___ Is everything safetied?

Engine Compartment

- ___ ___ Throttle cables anchored and functional
- ___ ___ Clearances in engine compartment
- ___ ___ Fuel hose routing to avoid heat & bends
- ___ ___ Fuel Hose diameter sufficient for engine
- ___ ___ Fuel and oil hoses proper material
- ___ ___ Oil system hose
- ___ ___ Engine mount secure, no cracks
- ___ ___ All electrical and ignition wires appear correct

Propeller

S U

- ___ ___ Propeller nicks
- ___ ___ Safety wired and bolts of sufficient size
- ___ ___ Bolts torqued properly
- ___ ___ Bolts clear engine, proper length
- ___ ___ Ready for run-up.

Test Run Engine

Note: At least one hour of runup should have been done previously, and logged in the aircraft logbook. The engine compressions should also be recorded after one hour of runup. Some may be low on a fresh overhaul engine, but it is important to get this information as a base line!

- ___ ___ Engine starts easily
- ___ ___ Check all instrument operations/tach/oil/volts/ etc.

Record all data five minutes after startup here

- ___ ___ RPM Drop, Left is ___ Right is ___
- ___ ___ Fuel Gauges show calibrated
- ___ ___ Throttle controls work
- ___ ___ No abnormal vibration
- ___ ___ Propeller tracks within specs

Certification

___ ___ Logs present and builder records the following statement:

I certify that I have built this aircraft for my own education and recreation, and I have inspected it fully. I am the manufacturer, and I consider it eligible for issuance of an Experimental Airworthiness Certificate for the purpose of operating amateur-built aircraft under provisions of FAR 21.191(g).

___ ___ Discuss operating limitations with applicant, flight test areas, and flight test time.

___ ___ Airworthiness application properly filled out and signed?

___ ___ Sign Logbook and issue certificate, if applicable.

OR

___ ___ Provide list of deficiencies to applicant, if applicable Unsatisfactory Conditions

N _____ Owner _____

The following unsatisfactory conditions were noted in your inspection. It is your responsibility to correct these conditions prior to obtaining an airworthiness certificate. Please correct the deficiencies and return this list, with evidence of the corrections, to the certifying inspector.

1. Condition: _____

Corrective action taken: _____

2. Condition: _____

Corrective action taken: _____

Signed: _____

Inspection Check List for Amateur Built Aircraft

The following checklist was generated by M. K. Blalock, (D.A.R.) for use during my inspection of Amateur Built aircraft. Feel free to print it out and share it with your friends. This is NOT an official source of information. Always contact your local FAA office for official information.

Note: This checklist has been further modified from Mr. Blalock's original checklist to more suit the inspection of Challenger aircraft. For additional information and view the original checklist visit:

<http://www.spava.com/AmateurBuilt.html>