



## Classic Build Manuals

### Classic Build Manuals

The build manuals for the Europa have gone through many changes since the aircraft was introduced. These were necessary to improve explanations, correct errors, introduce improvements and explain new techniques. Most important of all, some changes imposed by safety requirements have had to be incorporated.

The original aircraft, which we now refer to as the “Classic”, had wings made from foam cores, a foam core fin and the engine cowling was included. In 1998 the XS version was introduced with moulded fin and wings. As builders were able to buy kits in stages some aircraft started in era of the Classic become effectively XS aircraft as the wings or engine were ordered later.

The first manual (created in Coral Ventura) covered the mono-wheel “Classic”. This was complemented by an “engine kit manual”. In 1998, with the introduction of the XS two separate manuals for the mono-wheel and Trigear were produced. Two “Firewall Forward” manuals, covering the 912 and 914, were introduced covering the engine installation and cowl. From 2002, a “combined” manual was introduced covering both the mono-wheel and Trigear. Separate Firewall Forward manuals were retained. A manual covering additions for the Glider wing was produced.

At this time (2010), the build manuals available on the company web site are updated as necessary but do not cover the areas specific to the “Classic”. Machine readable copies of the original manual are not available. Even if they were, they would be impossible to work with unless updated with the subsequent changes. After careful consideration it has been decided that a supplement to the present manuals covering the work specific to the “Classic” model is preferable, and easier to follow than copies of the old manuals which then have to be updated for various reasons. Generally this has been produced by scanning (as an image) the original manuals with minimum editing. In consequence they leave the builder to decide if time can be saved, for example by affecting the changes needed for Mod 74 while the wing is being built and the fuselage completed.

While this addition to the manuals is unlikely to be needed for a “new build” of a very old kit it is valuable as a reference for repair and maintenance purposes.

### Classic Differences

The current manuals are correct and can be used to build the aircraft except for the following topics specific to the “Classic”:-

#### Wing

The file “Wing Build” covers:-

- a) Biaxial cloth (1-7)
- b) Building the foam wings (7-1 to 7-33).
- c) Mod 50 Use the current combined pitot and static (available from Europa) and locate it as specified on page 8-12 of the current manual. Follow the instructions to install the ply mount at this location. Route the tubes through the foam of the trailing edge cores via the aileron bell-crank access hole (or follow the instructions in Mod 50).
- d) Mass balance cut-outs (8-13,14).
- e) Aileron access panels (8-17 to 21).
- f) Wing tips (9-17 to 20).
- g) Wing root fairings (30-7,8).

The references (e.g. 1-7) give the page number from the original “Classic” manual.

#### Fuselage & Fin

The file Fuselage & Fin section covers the differences including:-



## Classic Build Manuals

- a) The integral rear bulkhead (11-2). If you wish to fit the extended baggage bay see Mod 47. You may also wish to review the optional Mod 24 (seat width increase).
- b) Reinforcement needed for brake master cylinder (12-2,3), the factory fits this on the XS
- c) Fuel tank access holes (17-1&2), these are factory made on the XS
- d) The fuel filler and fuel cock installation, The original "Classic" fuel filler location can be used. The fuel cock location can be original or located as for the XS. For the fuel system layout follow 30-4 in the current manual.
- e) Fin construction (2-1 to 2-7),
- f) Mounting the fin to the fuselage (28-1&2),
- g) Rudder mounting (28-3 to 28-7). Either install the rudder cables as per the current manual (2.13 and 32.7) or if you wish to retain the push rod rudder drive then see LAA Mod 10371 (Mono) or LAA Mod SM10414 (Trigear). The Europa Club holds copies if required.
- h) Fin rear closeout (28-7&8)

Some instructions unique to the "Classic" have **not** been provided:-

- a) The original tail-wheel. The later tail-wheel should be used (see Mod 43). The Europa Club has a copy of the original instructions if required.
- b) Rear Wing Pins. These must now comply with Mod 74 and/or Mod 52. While the Mod 52 spar strap, the 1/2in bushes and pip pin for the spar are not mandatory they must be fitted if the aircraft maximum all up weight is to be 1370lbs. You must review Mods 52 and 74.

### Firewall Forward

The firewall forward kit of the XS aircraft can be fitted to the "Classic" fuselage aircraft. This is the recommended procedure for a build requiring a firewall forward kit today (2010) as the original kit is no longer available. However, the unique parts (such as the MR01 engine mounting frame) are available. If the original kit is used note that the heavy duty starter fitted to late 912S engines cannot be fitted.

If a "Classic" engine kit is being built then, as with the fuselage, the current manuals can be used with some exceptions:

The file "Engine differences" covers:-

- a) Cowl installation (this was in the original the fuselage manual 25-1&2).
- b) Making the throttle lever housing (E2-1). This can now be purchased from Europa).
- c) The choke was mounted on the instrument panel (E1-4). Instruction for making the panel (26-3)
- d) Water pump housing changes (E2-1).
- e) Ignition box relocation (E2-2).
- f) Engine mount (E2-3), the later Rotax Ring mount is not used and the engine is mounted on the aircraft centreline not offset 1.5°.
- g) The exhaust is unique to the "Classic" (E3-1)
- h) The radiators, both oil and water, are unique to the "Classic" (E4-1 to 3).
- g) The oil tank bracket is taller, does not have a right angle extension and is mounted on the port side (E5-1 to 3)
- h) The fuel system should be installed according to the current instructions. The electric fuel pump may be located on the tunnel bulkhead, rather than behind the tank shelf.
- e) As standard no air inlet plenum is fitted and you must ensure the small bore tubes fitted to the top of the carburettor air inlet terminate at a position having the same pressure as the inlet air. To fit the plenum chamber see Mod 42 (cold air inlet plenum).