



Modification to undercarriage system

Classification - Mandatory

Applicability - All monowheel Europa aircraft

Compliance - Before the next flight

Introduction

This modification provides reinforcement to the bottom horizontal tube (swinging arm pivot) of the undercarriage mounting frame. It also calls up minor modifications to the shock absorber assembly.

Action

(A) Frame fully assembled in aircraft

All aircraft

- 1. Support the aircraft with the main wheel clear of the ground.**
- 2. Remove the engine silencer. Remove the stainless steel firewall. Remove the gear retraction assist bungee. Disconnect the brake caliper from the main wheel and support it clear of the undercarriage.**
- 3. Withdraw the pin LG04 and remove the swinging arm from the aircraft. Remove the clevis pins at the bottom of the retraction arms LG08 and withdraw the shock absorber assembly from the aircraft.**
- 4. Disassemble the shock absorber unit, and discard any shims which have been fitted previously to the shock absorber block.. Shorten the limit stops LG10 to 1" long (they will then act as location guides only).**

5(a). Post Mod 29 Issue 1

If the damper modification was fitted to your aircraft before the date of this Modification discard the lower reaction plate LG07, the stops LG10, the support LG14 and the rubber block LG06. Fit the oilite bushes AIC060816 to the new lower reaction plate LG07-5. Rebuild the damper assembly with the new lower reaction plate, the new support LG14-2, and the new rubber block LG06-3. Precompress the shock absorber unit to 5 1/4" +/- 1/16" (133mm +/- 1.5mm) between mounting hole centres.



Note: *this does not apply to damper kits sent out after the date of this Mod.*

5 (b). Pre Mod 29

Reassemble the shock absorber unit with a ¼” thick plywood spacer. Precompress the unit to 5 ¼” +/- 1/16” (133mm +/- 1.5mm) between mounting hole centres.

All aircraft

Note: *the welding modification which is described below must be carried out by a suitably qualified welder. We only recommend T.I.G. welding as the heat transfer to the surrounding fibreglass structure with gas welding would be too great. It is essential that a heat barrier is used to protect the glassfibre structure close to where welding will be carried out. Polished steel sheet will reflect heat but will eventually become hot itself, so will require an insulating backing material such as that used to lag exhaust systems. Alternatively heat barrier pastes such as Coldfront barrier paste can be used to minimise this heat transfer. It is helpful to have an observer monitoring the walls of the centre tunnel inside the cockpit, with wet rags available to help keep the fibreglass structure cool. Have the fire extinguisher handy and ready for use. It is necessary to remove the carpet locally in the cockpit, and to ensure that the fuel sight gauge tube is well clear of and protected from the heat.*

6. Refer to figure 1, and remove the paint finish from the areas affected by the welding.

7. The bearing side location guides are tack welded to the bottom horizontal tubes. Fully weld those three edges which do not provide the bearing location. File the two supplied tubes to fit over these guides. The top of the tubes should be positioned to allow a full weld around them, and as close to the existing vertical support tubes as possible. Weld the tubes in place.

8. Weld the 4 reinforcing straps as shown. It may be easier to accomplish this by cutting each strap into two halves, forming them into “J” sections, and welding them separately, finishing off with a joining weld at the bottom of the tubes.

9. Restore the paint finish. Take especial care to apply a good paint coverage between the outer gusset plates. After the paint has fully dried apply a mastic material such as silicone between the gussets to prevent a water trap.

10. Reassemble in the reverse order of removal.

B. Frames not fitted to the aircraft.

1. Carry out item 6 (b) above.

2. Either (a) carry out items 7,8, and 9 above Or (b) send the frame back to Europa Aviation for modification.



All aircraft

Annotate the aircraft records - Mod 37 incorporated.

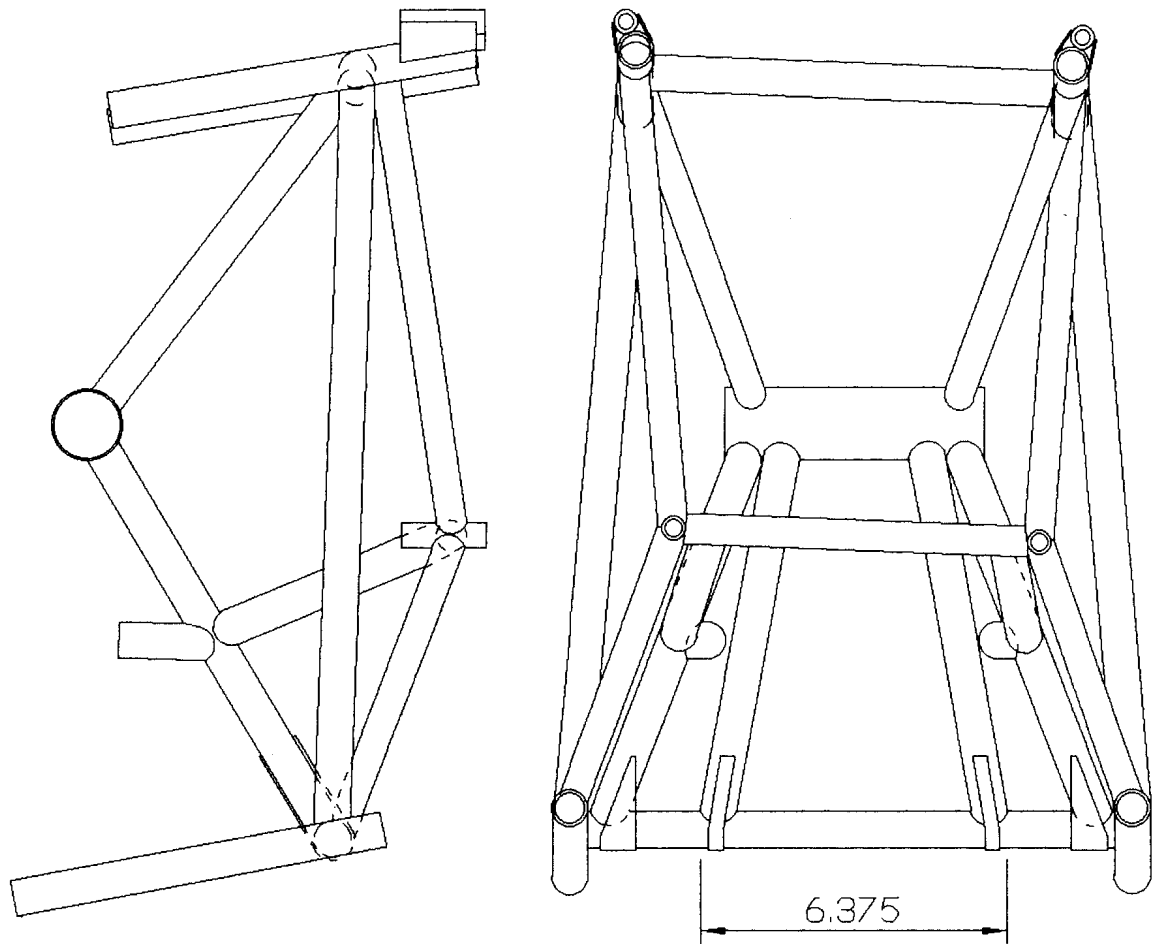


Fig 1. View showing positions for welding extra tubes.