

LAA/AWA/20/11

29<sup>th</sup> April 2020

(Superseding LAA/AWA/20/06 of 27.03.20)

## Aerotechnik EV-97 Eurostar (All Marks)

### Publication of Airworthiness Information Leaflet LAA/MOD/315/005 Issue 2 - Inspection of Fuel Filler Hose

Following the report of a recent in-flight incident, where a pilot became aware of a strong smell of fuel in the cockpit of an Aerotechnik EV-97 Eurostar aircraft, LAA Engineering issued an Airworthiness Information Leaflet (AIL) (LAA/MOD/315/005 Issue 1) mandating the manufacturer's annual inspection requirement to inspect fuel hoses, specifically, the fuel filler hose.

The aircraft involved in this event was assembled from a kit of parts which was originally delivered in 2009. When delivered, the kit included the flexible fuel filler hose. So, this part was possibly at least ten years old when it eventually succumbed to the natural ageing process, a process normal to all components manufactured from rubber.

The 'event' aircraft received its first Permit to Fly in 2019, though the fuselage (including the fuel tank fit) was completed 'some time ago'. It is possible that, despite this component's age, it hadn't been inspected for many years.

Since the Leaflet was issued, feedback received from owners and LAA Inspectors suggests that the manufactured quality of filler hoses fitted to EV-97 aircraft varies considerably, and that the hose that suffered the failure was of an unusually low quality.

Taking this new information into consideration, the Leaflet has been raised to Issue 2 which, under some circumstances, allows a decrease in the inspection frequency from an annual inspection to an inspection every three years.

LAA/MOD/315/005 Issue 2 may be downloaded [HERE](#).

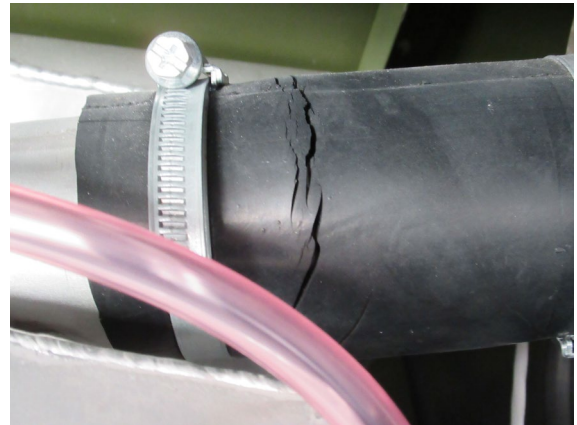


Fig. 1 This rubber fuel filler hose has failed such that fuel has leaked into the fuselage. Naturally, this fuel has the very real potential of causing an in-flight cockpit fire. Note though, this hose didn't degrade completely in one go, and that this materials failure is likely to affect both the external and internal structure. Material degradation inside the pipe will mean that there's a huge risk of a fuel blockage (and therefore engine failure) due to 'breakaway' rubber debris collecting in the fuel system.



Fig. 2 This picture shows an example of a higher quality fuel hose which remains in perfect condition after many years' service. It can be seen that it is clearly marked as suitable for use with fuel. Should a pipe of this quality be fitted to an aircraft under inspection then, at the discretion of the LAA Inspector, the inspection frequency for this part may be reduced to every three years.