

Europa Aircraft Fuel Cap Replacement

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Some owners have forgotten to put their cap back on the fuel filler due to others breaking their concentration during re-fuelling. Consequently their fuel cap was lost. In the beginning we could easily call a supplier and get a replacement. This is no longer the case.

Unfortunately in the course of building the Europa XS our manufacturer of fuel caps, Newton SPRL, changed their design. Newer kits (2003 and later) were supplied with the newer smaller fuel caps. However, the caps are all different and are not interchangeable. There are three caps which the Europa kits were sold with.

Original Classic Aircraft:

The cap and flange were made of aluminum and polished. This cap is still in production but the cap and flange must be purchased along with the cap.

The Classic cap is the Aero 300



Shown with a holed flange as used in Kit Autos.

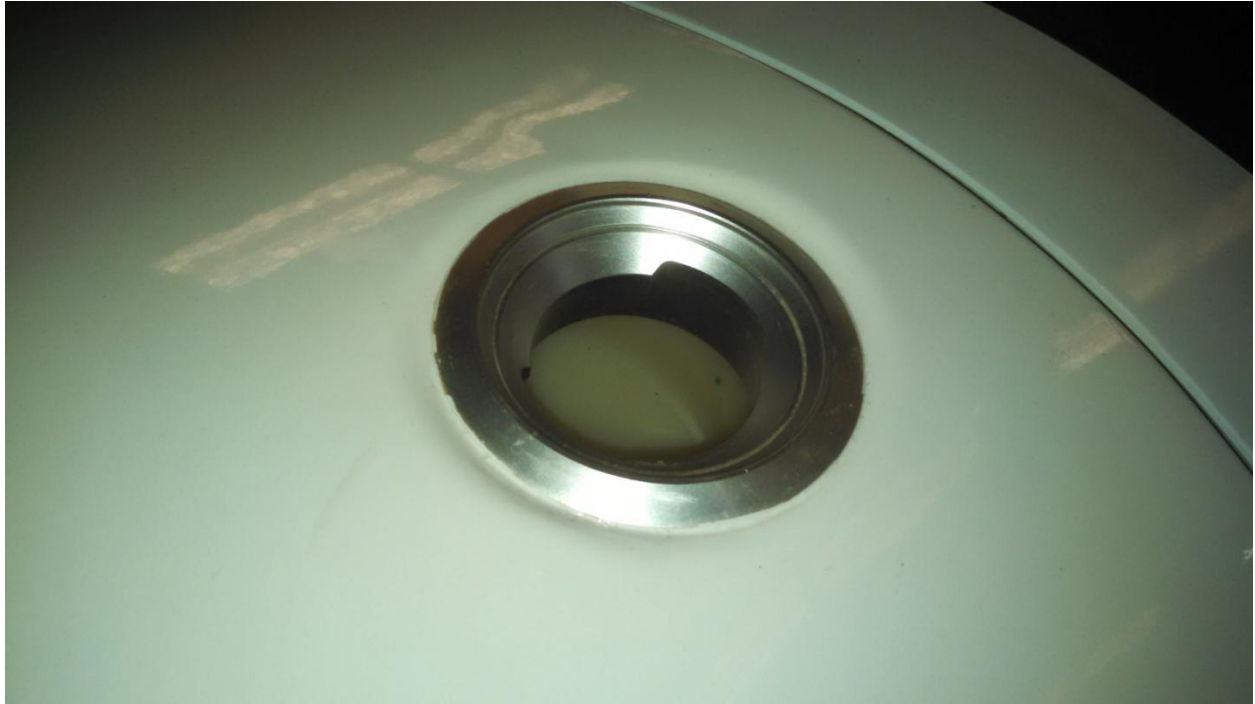
XS Aircraft up to 2003:

The XS used another cap with a tapered edge and threading on the boss. The cap itself measured 70mm and was tapered from the edge to the rubber O ring. These were discontinued in about 2003. The cap was sold in locking and non-locking and its part number was SPRL -S-S if memory serves. These are no longer in production.

Note the tapered edge on the side of the cap.



The aluminum ring was also tapered making for a very nice fit.



Later in 2003 Newton remade the caps to fit aluminum skinned aircraft but maintained the tapered aluminum ring for the composite auto and aircraft market, but the cap and inside of the aluminum ring is smaller and reshaped. The new cap is only 65 mm OD and has a square lip rather than the taper. The receptacle also has a distinct squared off recess to match. These are still in production as SPRL -S-G/S

Note the flange has a distinct vertical drop of about 3mm to the taper.



The new cap below will seat in the older aluminum flange, but may or may not seal properly depending on the age of the O-ring. See below.



Note the red ring above is from Aircraft Spruce and is for a metal aircraft with about a .025 metal wing skin thickness or less which is typical for a metal aircraft. The cap has a deep recess and the O-ring actually sets half way onto the taper which does not assure a good seal. My concern is for fuel leakage when full to the top in turbulence as at flight speeds there is a low pressure area above the tank, as well as water dripping in the ring when on the ground.

To replace this old style ring and replace with the current model, one would have to cut out the existing ring, order the SPRL-S-S/G cap and receptacle (a special order as it is not currently carried by Wicks or Spruce) then build up the inner layer of the fuel cobra neck to accommodate the 5mm smaller ring.

A special order for the older 70mm cap is in the works but not final yet. Price is very reasonable.

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