

Championship Bulletin ONE

ProAlloy LOTRDC001 Motorsport Fuel Filler Neck

The series 2 Lotus Elise and derivatives (including 2-Eleven and Exige Series 2) with both Toyota and Rover engines and some series 1 Elises with Rover engines have a narrow filler neck due to fuel cap design. The filler neck was also installed with an unleaded fuel flap. Both these elements prevent the use of 'Tuff Jug' dry break style fuel filling systems (figure 1) without the use of a narrow adapter on the fuel dispenser which limits fuel flow and hinders the seating of the 'Tuff Jug' into the filler neck assembly increasing the possibility of fuel spillage.



Figure 1: Tuff Jug dry brake fuel container.

An aftermarket solution for this issue has been developed by a fuel tank manufacturer to directly replace the standard filler neck, part of the Lotus Elise/Exige fuel system as shown in figure 2.

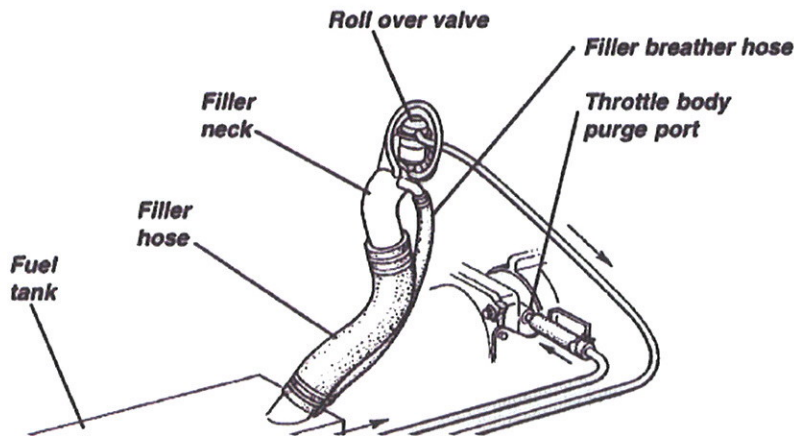


Figure 2: Lotus Elise (and derivatives) fuel system.

The new filler neck is compatible with the existing filler hose, filler breather hose and roll over valve which are all retained, without modification, on fitment. The standard fuel cap is also retained with fitment of this part and no modification is required to the bodywork of the vehicle.

The new assembly allows the 'Tuff Jug' nozzle to fit correctly into the filler aperture with the collar of the nozzle fitting precisely against the filler cap surround (figure 4). Due to the deeper elbow on the back of the assembly the 'Tuff Jug' nozzle can also now fully open, and with the restrictive unleaded flap removed there is also an improvement in filling speeds using this system.

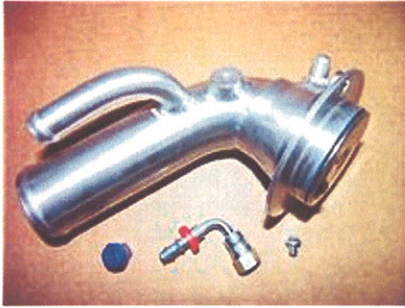
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Figure 3: ProAlloyLOTRDC001 Motorsport Fuel Filler Neck Assembly.



Figure 4: ProAlloyLOTRDC001 Motorsport Fuel Filler Neck fitted to Elise Series 2.

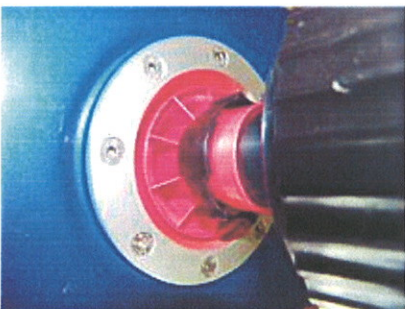


Figure 5: Improved Filler seating.

This modification is recommended to improve safety during the refuelling process by shortening the time spent in the act of refuelling and improving the connection between the refuelling container and vehicle. The standard series 2 filler neck will seat appropriately when positioned correctly and although fuel flow is restricted it is possible to complete refuelling and a driver change within the pit stop minimum time - so entrants may continue to use the standard Lotus filler if they wish.

About ProAlloy

Pro Alloy Motorsport Ltd has over 25 years of combined experience in the design and manufacture of specialist alloy racing components. From race cars to fast road cars through to thoroughbred classics and even marine sports and leisure craft, Pro Alloy has the solution to ensure your vehicle of choice stands head and shoulders above the competition. Unlike many companies, Pro Alloy have always been happy to manufacture products to a customer's specific, individual requirements.



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During the fabrication process we like to work closely with our clients to help and advise on tolerances, specifications and the design and of an individual component.

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About LOTRDC (Lotus on Track Racing Drivers' Club)

The Lotus on Track Racing Drivers' Club was formed to create a race series for Lotus Elise owners. The LoTRDC was launched at the end of 2006 in conjunction with MSVR – the racing club division of Motor Sport Vision – owners of Brands Hatch and four other major circuits. LoTRDC runs three race series - Lotus on Track Elise Trophy (launched at Brands Hatch in March 2007), Lotus Cup Europe (take over from the start of the 2009 season) and Lotus Cup UK (a championship started in 2011).

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