

## UNLEADED CONVERSION FOR LUCAS FUEL INJECTED TR5-6 AND 2.5PI

### INTRODUCTION

Revington TR have tested modified components in their own TR5. RYB 487F since 1991 with complete success.

As leaded fuel becomes more and more scarce, it will be necessary to convert all Lucas P.I. equipped cars to enable them to run unleaded.

One obvious course of action is to scrap the Lucas P.I. system and fit carburettors. We dismissed this idea as unsatisfactory to many owners who would prefer to continue using Lucas P.I. should a suitable solution be found. There is of course an alternative to the Lucas PI, Revington TR have developed a range of electronic fuel injection kits which all operate with unleaded fuel, providing a much smoother running car than can be achieved with mechanical injection. This is of course a very expensive option and not necessary purely as a consequence of unleaded fuel. If is a significant improvement in its own right but that is another issue. Please ask for information sheet IS020 if this solution appeals.

This information sheet however confines itself to those modification required to allow the Lucas system to run with unleaded fuel.

There are three areas of the Lucas system, which require attention.

### 1 FUEL PUMP

Many owners will have already experienced the trouble free Bosch conversion we have been marketing for nearly 30 years, once fitted, cavitation will be a thing of the past and as the Bosch pump is intended for unleaded use, once fitted, no further modification is required in this area when changing to unleaded.

This kit is NOT a simple pump mounted in a carrier, but consists of the following.

- a/ Large bore tank adapter
- b/ Tap to facilitate filter cleaning (RTR4050 series kits only)
- c/ Stainless steel braided hose to gauze pre filter
- d/ Gauze pre filter
- e/ Stainless steel braided hose to high pressure Bosch pump
- f/ One way valve to maintain system pressure
- g/ Stainless steel braided hose with alloy aircraft quality banjo fittings to Bosch pressurised filter
- h/ Outlet adapter to accept standard hose to PRV
- i/ Mounting carrier with anti-vibration mounts

Part number RTR4050XK (with tap)

### 2 CYLINDER HEAD

As is well known the exhaust valve seats need to be made from harder material as are the exhaust valves themselves. This is a well proven engineering conversion which is not unique to the TR using Lucas P.I. We can provide an exchange head suitably modified. Note that this only applies to CP engines. CR engines post 1973 should be unleaded fuel compatible but with so many years since new, it is worth checking as the head might have been changed to an earlier type. The seats in a cylinder head are easy to spot with a valve removed.

Part number RTR1181K exchange.

### 3 METERING UNIT

Revington TR have tested metering units which include a new rotor set made from alternative materials which will happily run on unleaded fuel. However it has been proven conclusively that provided the seals in the metering unit are compatible with unleaded fuel, the standard rotor set will work without modification. 30 year experience with zero failures is testimony to this.

This second option (standard unit with correct seals fitted) is our preferred solution and all our rebuilt metering units are now supplied with standard rotor sets and seals suitable for use with either lead free or leaded petrol.

No other modifications are required.

### OTHER PI PARTS

Whilst we have devised over the years improvements to the petrol tank, Pressure Relief Valve, injectors, injector lines etc., none of these improvements were driven by the introduction of unleaded fuel. The standard components are completely unleaded petrol compatible.

At the time of writing this issue (issue 1 31/10/16) there is increasing availability of E10 fuel especially in continental Europe. As ever there is scaremongery about the effect this will have on the components parts of TR fuel systems and especially PI parts, but to date there is no proof we have come across to suggest that E10 has specifically destroyed a part. It is more likely where owners have experienced a failure of a rubber hose say, that part may well have been 30 years old and just about to fail anyway.

Happy Motoring.

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