

## TR5. TR6 AND 2.5 PI THROTTLE IMPROVEMENT KITS



Revington TR have innovated and developed a new throttle improvement kit, which will fit all Triumph TR5 and 6 sports cars and Petrol Injected saloon models fitted with Lucas fuel injection.

The new throttle rods incorporate spring-loaded ball and socket units, completely replacing the old system thus ensuring even slow-running and improved smooth pick-up.

Neil Revington designed the kit in 1987, which immediately became a best seller the world over. Some have even found their way to the USA where no petrol-injected cars were imported! Obviously some cars have found their way over in later years.

Our kit has been copied which is often the case with our products, but it is reassuring to know that in choosing the Revington TR kit, you will be fitting the original design, manufactured from the original drawings with significant benefits listed below.

The throttle mechanism was designed to fit over the top of the inlets on a PI TR5-6 primarily to allow space below for an exhaust manifold with superior gas flow Neil Revington was designing at the time. The exhaust manifold needed to come out of the head straight for 50mm before turning downwards, and this was the space occupied by the original throttle mechanism. By placing the mechanism over the top, the design of the exhaust manifold could be optimised.

#### The throttle kit is available in 3 main versions:

- CP throttle bodies, with the cross bar above the inlet manifolds and 3 independent ball jointed rods passing down to the butterfly spindles. This system (which can feature a dual cable throttle operation for reliability in competition use) facilitates ease of fine-tuning and removes all remnants of the original linkage.
- A simplified version of 1. This kit can be fitted to all 'CP' series TR5's, TR6's and early PI saloon cars. This system retains the standard under-slung cross shaft below the inlet manifolds to which are added three independent ball jointed rods passing up to the butterfly spindles. These new rod assemblies have been designed to eliminate inlet butterfly 'flutter' and are incorporated in the Full CP and CR kits described here in 1. and 3. This kit cannot be used with our superior flow extractor manifold.
- CR throttle bodies. These are normally actioned in procession, meaning that the 1st pair is actioned by the throttle cable; the second pair is actioned from the first, followed by the third pair being actioned from the second. This just about works with all brand new components, but can leave the third pair at half throttle whilst the first pair is fully open, once the parts are worn. Our kit actions the three pairs independently from the overhead cross bar in the CP manner.

#### All kits benefit from the following: -

- Full throttle can be achieved on all 3 pairs with accurate balancing. (We have seen cars in our workshop with a copy mechanism from another supplier fitted and it was impossible to achieve full throttle however much you tried to adjust the mechanism).
- 2. The throttle rods include ball and socket ends, which are spring loaded so that butterfly flutter is eliminated.
- The throttle rod ends are provided with very fine adjustment for accurate throttle balance.
- The central throttle rods provide course adjustment.
- The cross shaft bearings provided are a high quality self lubricated bearing material that ensure low frictional resistance. The bearing design offers knifepoint contact to ensure smooth performance under all operating conditions. A long plain bearing would be prone to seizure. Our bearings should not to be confused with the original parts, which are susceptible to heat, UV and oil and have a tendency to break up in a short space of time.
- The cross shaft can be disassembled so that the bearings can be changed.
- As the fine adjusters are on the top of the ball joints it is extremely easy to fine-tune the balance of the set.
- A choke mechanism is included that operates all three pairs.
- A slow running screw is provided for those wishing to dispense with the air bleed valve.
- 3mm pressed steel construction provides rigidity without weight penalty.
- 12. Full fitting instructions are provided.

#### Important notes: -

NOTE 1: CR owners only; if you have a standard CR cam fitted, the vacuum generated by this cam is very high. This would explain why triumph designed the later throttle mechanism, to enable the throttle to be opened slowly and smoothly. The high vacuum tends to hold the butterfly discs shut. CR owners with worn mechanisms will know that the throttle response is so slow as to be boring. The new RTR mechanism, having introduced the more positive direct action of the CP mechanism will appear incredibly sharp, which will surprise some drivers and take some getting used to. The great advantage offered by our kit to late TR and PI saloon engined cars, using 'CR' type manifolds, is the complete removal of slow running and balancing difficulties associated with this type of manifold. This is achieved by converting the operation method to CP type, where each manifold pair is activated by its own throttle rod, from the cross shaft sited above the manifolds.

NOTE 2: Versions 1 and 3 above will be of particular interest to those wishing to use our extractor exhaust manifolds. The new throttle system leaves a clear space under the inlet manifolds, which has enabled us to develop a new and much improved extractor manifold. Supplied complete with intermediate pipe and silencer, this system is suitable for both road and race use. Order part number RTR2042.

NOTE 3: CR and late 2.5 PI cars cannot use versions 1 or 2 and must use version 3.

Revington TR will be happy to fit any of the systems if required.



# **Throttle Improvement Kits**

### **Parts List**

Part No. Application

RTR4211K TR5-6 CP single cable overhead operation RTR4211DK TR5-6 CP double cable overhead operation TR6 CR single cable overhead operation RTR4213K

RTR4029K TR5-6 CP

RTR4045K 2.5 PI simplified version using existing lower cross shaft

RTR4046K 2.5 PI single cable overhead operation



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