

# TR 4 POWER STEERING FITTING INSTRUCTIONS

## CUT OFF / CHANGE CHASSIS NUMBERS

1961 CT 1 to CT 2470  
1962 from CT2471 to CT 18403  
1963 from CT 18404 to CT 28485  
1964 from CT 28486 to CT 40000  
1965 from CT 40001 to CT 40304

CT 9953 on - Radiator Extension Neck deleted – mid '62  
CT 16463 wire/CT16350 disc- Horizontal Rack Mounts – late '62  
CT20063 LHD / CT20265 RHD- chassis change to accommodate horizontal rack mounts – mid '63

## TRIUMPH TR4 POWER ASSISTED STEERING

### CUT OFF / CHANGE CHASSIS NUMBERS

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**In fitting this power assisted steering kit you are going to re-use certain original components:**

- Radiator
- Lower hose assembly
- Track rod ends
- Steering column UJ
- Water Pump

#### **You will need:**

- Narrow Belt Kit
- An electric cooling fan has to be fitted

#### **You may need:**

- Alternator Kit (to replace dynamo) Check & correct wiring

## **PLEASE READ THESE INSTRUCTIONS BEFORE STARTING**

Lift front of car and support safely and securely on axle stands.

Remove front road wheels.

Secure steering wheel in the straight-ahead position

Disconnect battery.

Undo the 2 bolts attaching the starter motor to the bell housing and move forwards so that the flywheel can be locked with a large flat bladed screwdriver (wires stay attached).

OR

Enlarge the drain hole in the bottom of the clutch housing and use the large flat bladed screwdriver to engage the teeth of the flywheel to lock it.

Remove crank mounted cooling fan and extension shaft. You may want to remove the radiator to make life a bit easier and more room to work in.

Remove steering rack and intermediate column; note position of the reinforcements under the rack mountings and check the mountings for cracks, repair if necessary. Check universal joint for condition, this will be used as the top joint so renew if necessary.

Fit the new crank pulley, follow the instructions with the Narrow Belt Kit.

Replace the starter motor if removed

Remove the water pump pulley, and fit the new double sheaf one.

Change the dynamo pulley, OR the alternator, line up the pulley belt path with the crank pulley belt path.

Remove the lower 2 bolts from the water pump mounting.

Fit the pump mounting bracket to the 2 lower holes (use bolts and narrow spacers provided. And the larger spacer and bolt to the original alternator / dynamo mount on the engine.

Fit appropriate adjuster strap. The dynamo strap may need some alteration.

Refit alternator / dynamo / fan drive belt. Tighten.

Fit pump to front mountings M8 x 25 bolt + washer, and fit rear mounting, use the manifold stud with original nut and lock washer. (Make sure the clamp sits into the dimples on the manifolds before tightening)

Fit pas pump belt and tighten (belt does not have to be very tight) now tighten the M8 adjuster bolts and the two M8 main mounting bolts.

Now fit the rack mounting plate, counter sunk hole uppermost and to the nearside. Use the original rack mounting reinforcements (one may have to be trimmed). On all fixings hold the head still and turn the nut to tighten.

Fit the power steer rack using the M10 bolts with spacers between the rack and the mounting.

Check clearance on the inner wing flange ref the rack gaiters, bend flange if necessary.

Centre the rack using the 114 long strip between the end of the ram cylinder and the post nut.

Fit intermediate column,

It is possible that the column will not align with the steering wheel held centrally, in which case the rack must be central and the intermediate column fitted. Straighten the steering wheel by altering its' position on the top spline.

Tighten bolts on top steering column UJ

Fit electric fan to radiator and wire into the vehicle system.

Fit the fluid reservoir to .....

Now mount the reservoir to the bracket using an M6 bolt at the top and a ty-rap at the bottom.

Connect the large diameter feed hose (warm hose and use Vaseline) from the reservoir to the pump, cut to length as required.

The pressure and return hose connection is made by push in connectors (wet the seal with a little PAS fluid and push in while making a small circular motion)

The hoses are held into the rack by a keeper plate, fit & tighten socket head cap screw.

Attach banjo to pump with bolt & seal washers and tighten, then tighten the hose to reservoir jubilees.

Refill the coolant system. Fill the PAS system with the Dexron II fluid provided.

Reconnect the battery.

Start the engine: topping up the fluids as required to their correct levels while working the steering from lock to lock 8 or 10 times (do not hold on full lock). Check for leaks.

Centre the rack.

Fit the track rod end lock nuts to the new rack and then the track rod ends. The engaged thread length is the same as the manual rack.

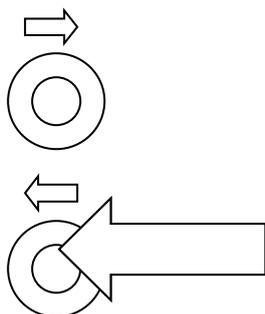
Now fit the track rods to the steering arms. It may be that new track rod ends will not fully seat, do not worry, engage the nut on the thread and lower the car to the ground now completely tighten the nut.

Re track the car to the standard setting, 1/16 inch (1.6 mm) toe in, do not tighten the lock nuts.

Drive a short distance and determine where the steering wheel is relative to the straight-ahead position.

See diagram to correct small misalignment: for large misalignment move steering wheel hub on the top column spline.

To turn steering wheel:



Turn track rod ends:

N/S - IN  
O/S - OUT

N/S - OUT  
O/S - IN

Do this and test drive again. If OK, then re-track.

**New components are used in this conversion, they will take some miles to 'loosed up'.**

**When driving, take time to become accustomed to the steering.**