



TO: All Dealers

BULLETIN #T-61-17

DEPT: Service and Parts

DATE: June 1, 1961

SUBJECT: RACK AND PINION STEERING UNIT - TRIUMPH HERALD

To prevent over-tightening of an inner ball joint assembly, (reference Bulletin #T-61-20), a new steering unit, incorporating shims for ball joint adjustment, has been introduced from Commission Numbers:

Coupe and ConvertibleSedan

Y-21476

G-59682

The redesigned inner ball joint assembly permits detachment and re-attachment of the steering tie-rod to the rack without the need for re-adjustment, provided that the existing shim pack remains intact and that wear is not excessive. Should either condition permit "ball-lift" in excess of 0.002", then re-adjustment will be necessary.

Referring to Figure 1, of attached drawings, the servicing operations are as follows:

To Remove Ball Joint Assembly

1. Release the rubber bellows and move this clear of the ball joint.
2. Slacken the locknut (7) and remove the ball joint assembly by unscrewing the sleeve nut (6) from the rack (8).
3. If necessary, dismantle the ball joint by releasing the lockplate (5) and unscrewing the sleeve nut (6) from the cup nut (2).

Assembly and Adjustment

1. Slide the cup nut (2) over the tie-rod (1) and insert the thrust ring (3) into the cup.
2. Position the lockplate (5) over the sleeve nut (6) and screw this fully into the cup nut.



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3. With the cup nut held in a vise, pull and push the tie-rod to estimate the approximate amount of "ball-lift".
4. Prepare a shim pack (4) slightly thicker than the estimated "ball-lift" and insert this between the thrust ring (3) and the sleeve nut (6).
5. Add or remove shims to obtain the requisite .002" ball-lift when the sleeve nut is firmly screwed into the cup nut.

IMPORTANT:

The ball should now move freely in the joint. If tightness occurs at any point, increase the shim thickness sufficiently to overcome this.

6. When adjustment is satisfactory, lock the assembly by bending the lockplate (5) over the sleeve nut (6) and the cup nut (2).

Refitting Ball Joint to Steering Rack

1. Screw the locknut as far as possible on to the end of the rack (8).
2. Insert the spring (9) into the end of the rack and screw the ball joint assembly as far as possible up to the locknut.
3. Finally tighten the ball joint against the end of the rack and secure the joint in this position by tightening the locknut against it.
4. Repack the bellows with grease ($\frac{1}{2}$ oz. Retinax "A" from dry) before securing this in position.

Early type inner ball joint assemblies cannot be fitted to the new steering unit, but the new ball joint assemblies may be fitted to the earlier type steering units provided that the rack is modified as shown on Figure 2.

Part numbers affected are as follows:

Part Number

304689 - Rack and Pinion Assembly R.H. replaced by
 304690 - Rack and Pinion Assembly L.H. replaced by
 207384 - Steering Rack replaced by
 120954 - Adaptor replaced by

Part Number

305050
 305051
 208058
 129963

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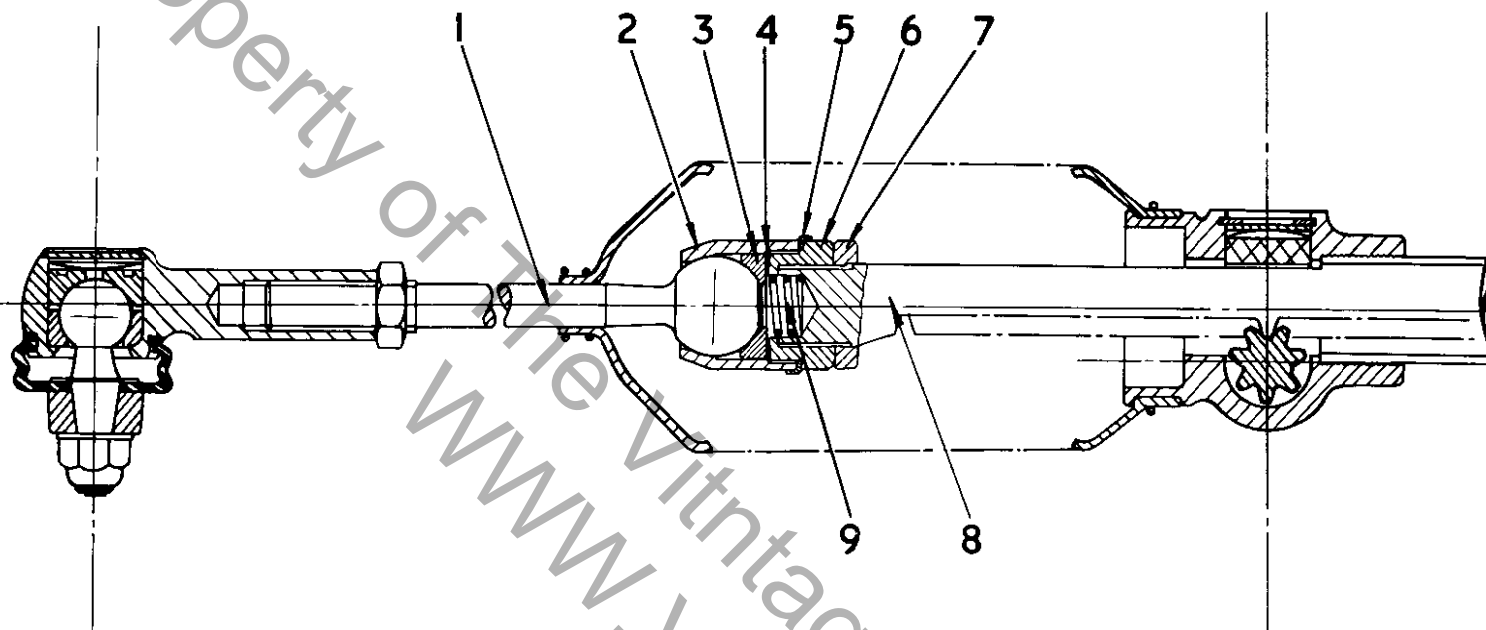


FIG. 1

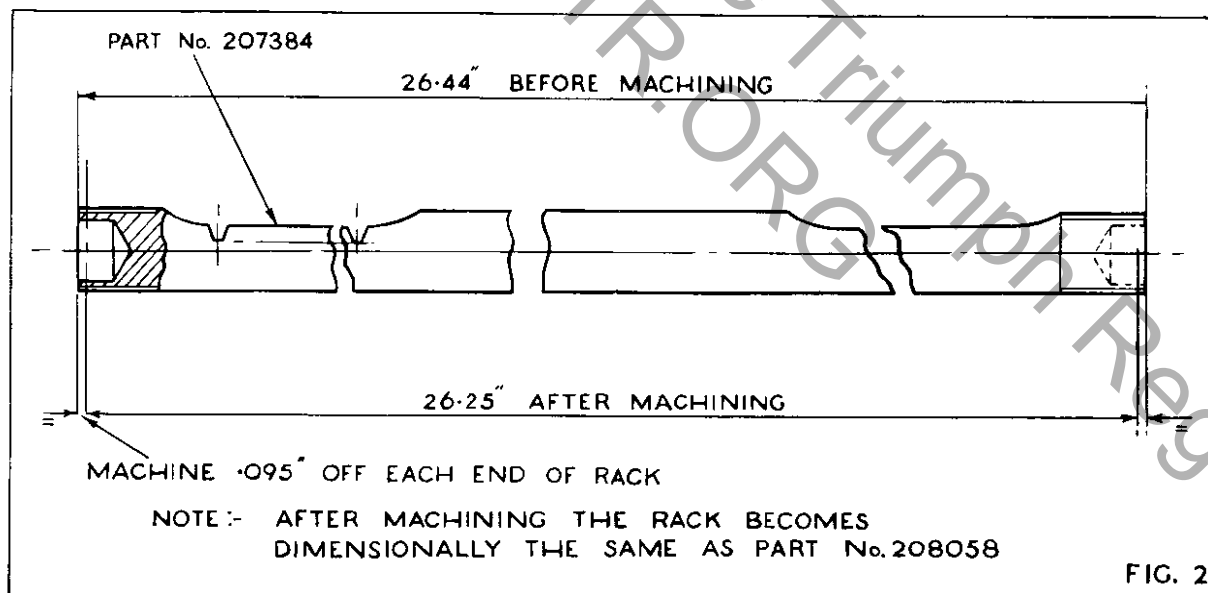


FIG. 2