STEERING LINKAGE

DROP ARM

To Remove

Remove steering box from vehicle (Refer to Sub-section L110).

Secure steering box in a suitable vice.

Knock back the drop arm tab washer securing the nut.

Obtain a suitable tube to fit over the drop arm and position it in such a manner that the drop arm is prevented from moving when unscrewing the securing nut (Right hand thread). Unscrew the nut two or three turns only.

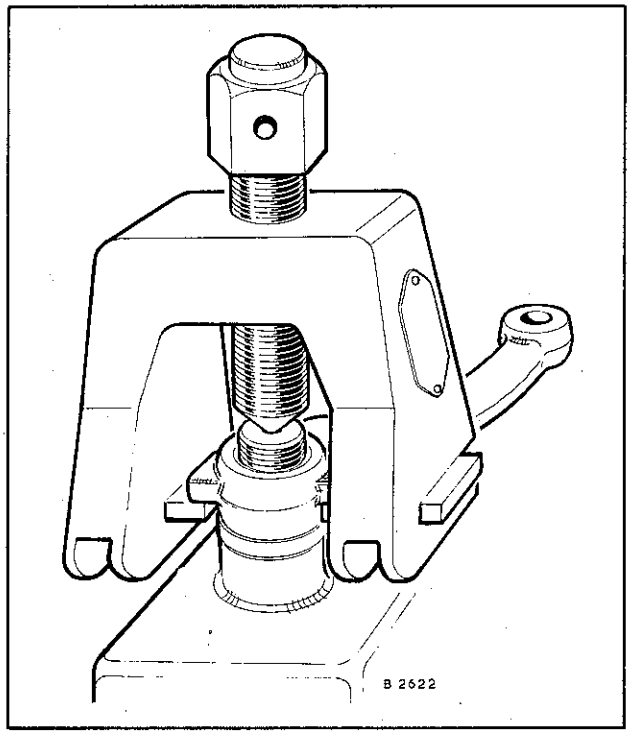

Fig. 1 *Using Tool RG 59A to remove the drop arm*

Position Tool RG 59A so that the feet engage behind the drop arm (Fig. 1). Tighten the centre bolt of the tool to release the drop arm from the rocker shaft and then remove the tool.

Unscrew the nut and remove the tab washer and drop arm from the rocker shaft. Recover the sponge rubber washer from the shaft.

Check the drop arm against DATA figures. If damaged, it must be renewed.

To Refit

Secure the steering box in a vice in the 'Installed in vehicle' attitude.

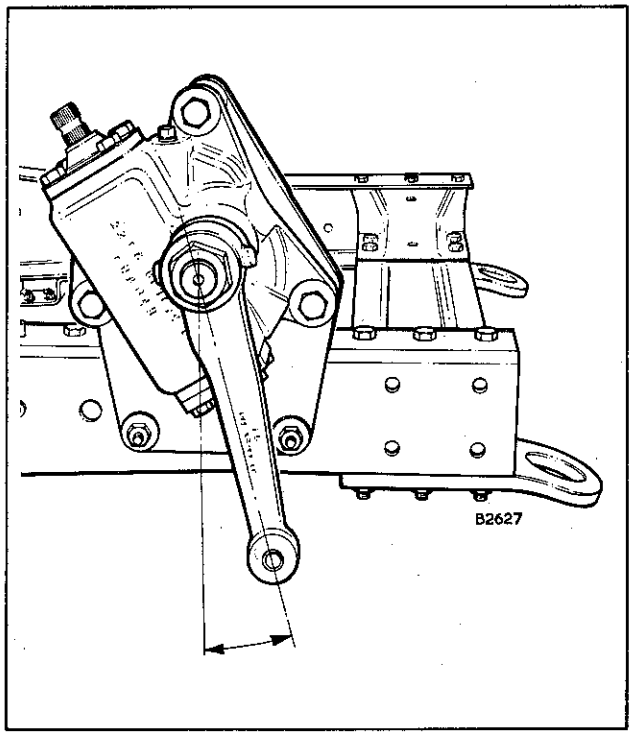

Fig. 2 *Drop arm to steering box relationship.*

Rotate the input shaft between the limits of its travel and count the number of revolutions obtained. Turn back the shaft exactly half the number of revolutions counted. The rocker shaft should now be mid-way through its travel.

Fit the sponge rubber washer over the rocker shaft followed by the drop arm. The drop arm should engage the four master splines when adjacent to the 6 o'clock position (Fig. 2) providing the previous instructions have been accurately followed.

Note: When correctly fitted, the cranked portion of the drop arm will be towards the steering box (Fig. 3).

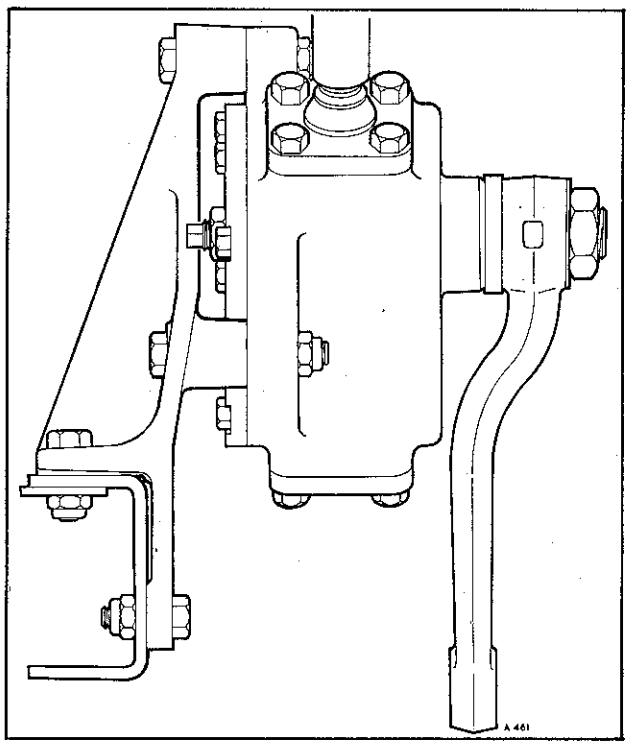

Fig. 3 *Position of cranked portion of the drop arm*

Fit a new tab washer and the drop arm securing nut to the rocker shaft.

Use a suitable piece of tubing to anchor the drop arm and prevent it from turning as the nut is tightened to a torque of 169 Nm (125 lbf ft.). The internal mechanism of the steering box must **NOT** be allowed to take the torque reaction as the nut is tightened.

Bend over the tab washer to secure the nut and also check that it is properly seated in the flats of the drop arm.

With the steering box still secured in the installed position, remove the filler plug, top-up with the recommended grade of oil and refit the plug.

If a replacement steering box is to be fitted, carry out the above operation using approximately 600 ml (1 1/8 pints) of the recommended grade of oil.

Refit steering box and drop arm assembly to vehicle (Refer to Sub-section L110).

Adjust the steering stops (Refer to STEERING STOPS – this section).

STEERING STOPS

The steering stops must be checked and if necessary adjusted following the disturbance of the steering box, drop arm, side steering rod, track rod or steering arms.

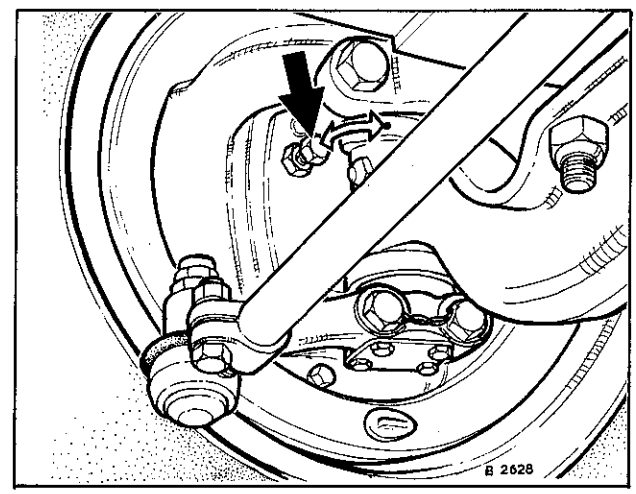

Fig. 4 *Adjustable steering stops*

To Adjust

Raise and support the vehicle so that the front road wheels are clear of the ground.

Slacken the steering stop lock nut and screw the stop into the stub axle assembly approximately three turns.

Turn the steering wheel until the steering box reaches the limit of its travel, but do not force it.

Check that the adjustable stop is clear of the forged stop on the axle. Unscrew the adjustable stop until it just contacts the forged stop. After contact is made unscrew the stop exactly half a revolution more and secure in position by tightening the lock nut.

Repeat the above operation at the opposite side of the vehicle.

SIDE STEERING ROD

To Remove

Position steering on full lock to permit easy access.

Remove split pin from nut of ball joint at drop arm and upper steering arm and remove the securing nuts.

Using Tool 18G 1133 release ball joint from the upper steering arm and the drop arm.

Remove the side steering rod from the vehicle.

Note: If it is necessary to adjust the length of the side steering rod, slacken the clamp pinch bolts and unscrew **both** ball joint assemblies by **exactly** the same amount. Retighten the pinch bolts to a torque of 31 Nm (23 lbf ft.).

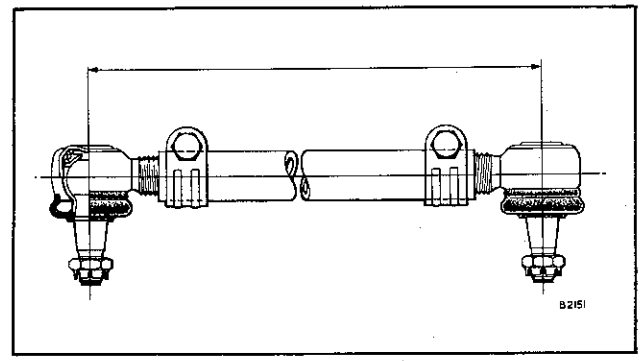

Fig. 5 *Side steering rod*

To Refit

Check both ball joints for tight spots or split gaiters and that full articulation is available.

Position side steering rod on vehicle and secure with nuts.

Tighten the ball joint securing nuts to a torque of 95 Nm (70 lbs ft).

If either nut does not align with the split pin drilling, tighten the nut just enough to allow the pin to be inserted. Do **NOT** slacken the nut to allow insertion of the pin.

Fit new split pins and bend back the legs.

Adjust the steering stops (Refer to STEERING STOPS – this section).

TRACK ROD

To Remove

Position steering 'Straight Ahead'.

Remove split pin from each ball joint securing nut and remove the nuts.

Using Tool 18G 1133 release the ball joint from each lower steering arm.

Remove the track rod from the vehicle.

Note: When renewing either or both ball joint assemblies, ensure that they are both screwed into the track rod by an equal amount.

To Refit

Check both ball joints for tight spots or split gaiters and that full articulation is available.

Position track rod on vehicle and secure with nuts.

Tighten ball joint securing nuts to a torque of 95 Nm (70 lbf ft).

If either nut does not align with the split pin drilling, tighten the nut just enough to allow the pin to be inserted. Do **NOT** slacken the nut to allow insertion of the pin.

Fit new split pins and bend back the legs.

Check and if necessary adjust the track rod setting by slackening the pinch bolt of each track rod clamp and turning the track rod to obtain the correct setting. Retighten the clamp pinch bolts to a torque of 31 Nm (23 lbf ft).

Adjust the steering stops (Refer to STEERING STOPS – this section).

UNIVERSAL JOINT

To Remove

Disconnect battery.

Open bonnet.

Remove heater air ducting from its location at bulkhead and inner wing.

Remove steering column (Refer to Sub-section L100).

Remove the pinch bolt and nut securing the universal joint to the input shaft of the steering box and release the joint from the splines (Fig. 6).

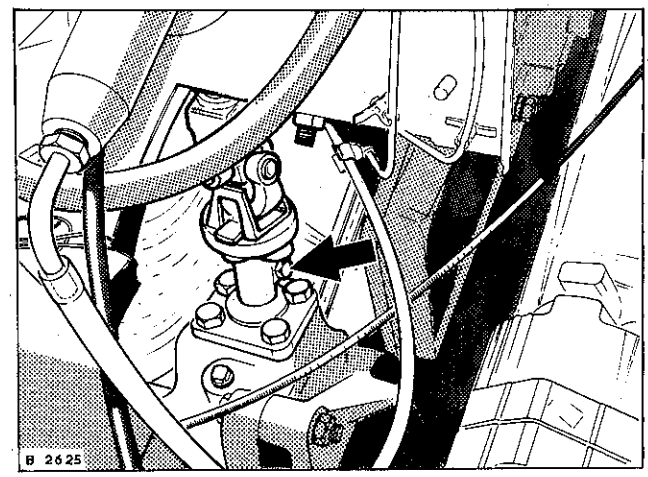

Fig. 6 *Universal joint assembly*

To Refit

Refitting is a reversal of the removal procedure.

Note: (a) The universal joint is available only as a complete assembly. Individual parts are not serviced.

(b) When correctly installed, the universal joint will be adjacent to the steering column with the compliance joint positioned below it.

BALL JOINT ASSEMBLIES

To Remove

Straighten the legs of the split pin and withdraw the pin.

Slacken the securing nut or, if necessary, remove it.

Position Tool 18G 1133 (Ball joint separator) and tighten the bolt of the tool until separation of the tapered joint is achieved. Remove the tool.

Slacken the adjacent clamp pinch bolt and nut.

Unscrew the ball joint assembly noting if it has a right or left hand thread and counting the number of turns necessary to remove it.

Inspection

Check that the full range of articulation of the ball pin is available. The movement should be free of any roughness or tight spots.

Observe the general condition of the assembly. If the gaiter is split, water drains from the joint or slackness is apparent in the joint, the complete assembly must be renewed.

To Refit

Screw the assembly into position using the same number of turns that were necessary to remove it.

Position the ball pin and fit the securing nut.

Tighten the nut to a torque of 95 Nm (70 lbf ft).

If the nut does not align with the split pin drilling, tighten the nut just enough to allow the pin to be inserted. Do **NOT** slacken the nut to allow insertion of the pin.

Fit a new split pin and bend back the legs.

Check and if necessary adjust any setting which may have been disturbed.

Tighten the clamp pinch bolt and nut to a torque of 31 Nm (23 lbf ft).

UPPER STEERING ARM

To Remove

Bend back the legs of the split pin and remove it from the ball joint assembly attached to the upper steering arm.

Remove the ball joint securing nut.

Position Tool 18G 1133 (Ball joint separator) and tighten the bolt of the tool until separation of the tapered joint is achieved. Remove the tool.

Lift the side steering rod clear of the steering arm.

Remove the locking wire from the two bolts securing the steering arm to the stub axle assembly.

Remove the two securing bolts and release the arm from the stub axle assembly (Fig. 7).

Inspect the arm for cracks, elongation of bolt holes or any other damage. Should wear or damage be evident, renew the arm and securing bolts.

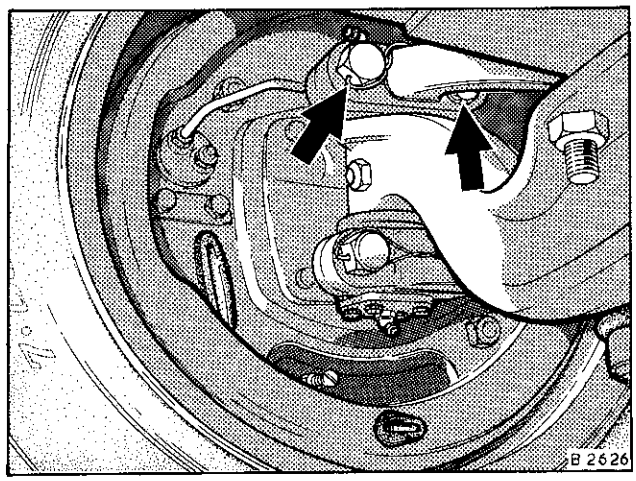

Fig. 7 *Upper steering arm bolts and locking wire*

To Refit

Position the steering arm on the stub axle assembly and fit the two securing bolts.

Tighten both bolts to a torque of 244 Nm (180 lbf ft).

Thread locking wire through the drilling in the head of each bolt and secure in such a manner that it prevents the bolts from turning.

Place the side steering rod and ball joint assembly in position and fit the securing nut.

Tighten the nut to a torque of 95 Nm (70 lbf ft).

If the nut does not align with the split pin drilling, tighten the nut just enough to allow the pin to be inserted. Do **NOT** slacken the nut to allow insertion of the pin.

Fit a new split pin and bend back the legs.

Adjust the steering stops (Refer to STEERING STOPS – this section).

LOWER STEERING ARM

To Remove

Remove track rod (Refer to TRACK ROD – this section).

Release the locking wire from the two bolts securing the steering arm to the stub axle assembly.

Remove the two securing bolts and release the arm from the stub axle assembly.

Clean and inspect the arm for cracks, elongation of bolt holes or any other damage. Should wear or damage be evident, renew the arm and securing bolts.

To Refit

Position the steering arm on the stub axle assembly and fit the two securing bolts.

Tighten both bolts to a torque of 244 Nm (180 lbf ft).

Thread the locking wire through the drilling in the head of each bolt and secure in such a manner that it prevents the bolts from turning.

Refit the track rod (Refer to TRACK ROD – this section).

Adjust the track setting (toe-in) to DATA figure.

Adjust the steering stops (Refer to STEERING STOPS – this section).