

STEERING GEAR

STEERING COLUMN

IMPORTANT NOTE: When towing the vehicle for recovery purposes, it is essential that the steering is an unlocked condition. To obtain this condition the key must be inserted and turned to **position 1** (petrol engine) or **position 2** (diesel engine). The positions are stamped on the steering lock assembly and by adopting the above procedure the steering lock will be inoperative. The key must **NEVER** be removed while the vehicle is in motion.

To Remove

Disconnect battery.

Ensure that the road wheels are in the 'Straight Ahead' position and remove the steering lock key.

Remove two screws from combination switch cover and displace cover towards steering wheel.

Remove four screws and detach lower cowl.

Remove the two screws securing the upper cowl to the steering column support bracket and detach the cowl.

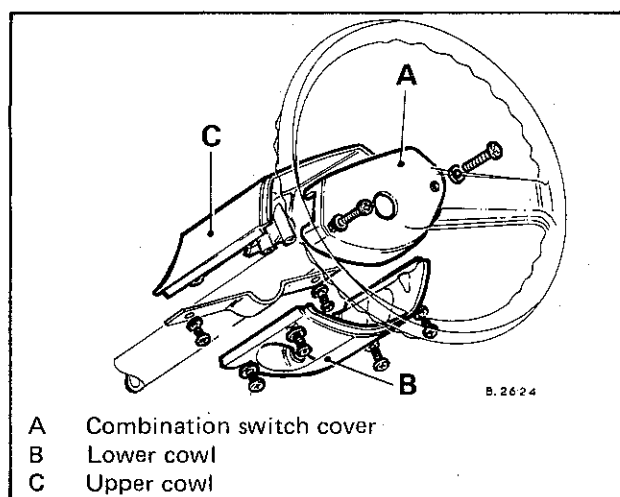


Fig. 1 Location of cowl securing screws

Disconnect two multi-plugs from underside of switchgear housing.

Disconnect multi-plug and large Lucar connector at steering column lock harness.

Note: If the steering column is to be dismantled following its removal from the vehicle it is advisable to remove the steering wheel at this stage and lift off the combination switch cover.

Slacken the bolt securing the clamp plate to lower end of outer column.

Remove the three bolts from the clamp plate to cab floor joint and displace the plate and seal.

Remove the universal joint pinch bolt. If the same inner shaft is to be refitted, mark the shaft and universal joint. This will ensure that the splines engage in their original positions.

Release the column assembly by removing the two bolts securing it to the top support bracket, disengaging the universal joint and removing the complete assembly from the cab.

To Refit

Refitting is a reversal of the removal instructions, noting the following.

Where the original inner shaft is being refitted, align the markings previously made on the shaft and universal joint. If a new, and therefore unmarked, inner shaft is being fitted, proceed as follows:

Ensure that the road wheels are in the 'Straight Ahead' position.

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Turn the inner shaft until the indicator cancellation drive collar spring is at the 9 o'clock position as viewed from the driving seat. This will ensure the symmetrical operation of the indicator cancelling mechanism.

If the steering lock assembly has been removed for any reason, check its operation before fully tightening the shear bolts.

Before finally tightening the outer column upper securing bolts and lower clamp bolt, ensure that the column is raised as far as it will go, i.e. pulled away from the cab floor. If this operation is not carried out, a 'knock' can occur in the steering column which is very difficult to diagnose.

To Dismantle

Secure the column assembly in a vice equipped with soft jaw clamps. Do not distort the outer column.

Insert key and unlock the steering lock to allow the inner shaft to rotate freely.

Slacken clamp bolt of switchgear housing and withdraw the housing.

Remove the circlip from the lower end of the inner shaft followed by a plain washer, coil spring and a further plain washer.

Using a soft mallet, gently tap the inner shaft upwards just enough to permit the removal of the upper circlip.

Remove the upper circlip from the inner shaft and lift off the split collar which normally seats on the upper bearing.

Use a soft mallet to drive the inner shaft downwards. A drift may be used in the later stages of the operation to drive the shaft clear of the upper bearing. As the shaft is driven downwards, it will extract the lower bush from the outer column. Remove the bush from the inner shaft.

Insert a long drift through the bottom of the outer column and drift the upper bearing from the column.

Note: The upper bearing may be left in-situ if it is to be used again and the original outer column is to be refitted.

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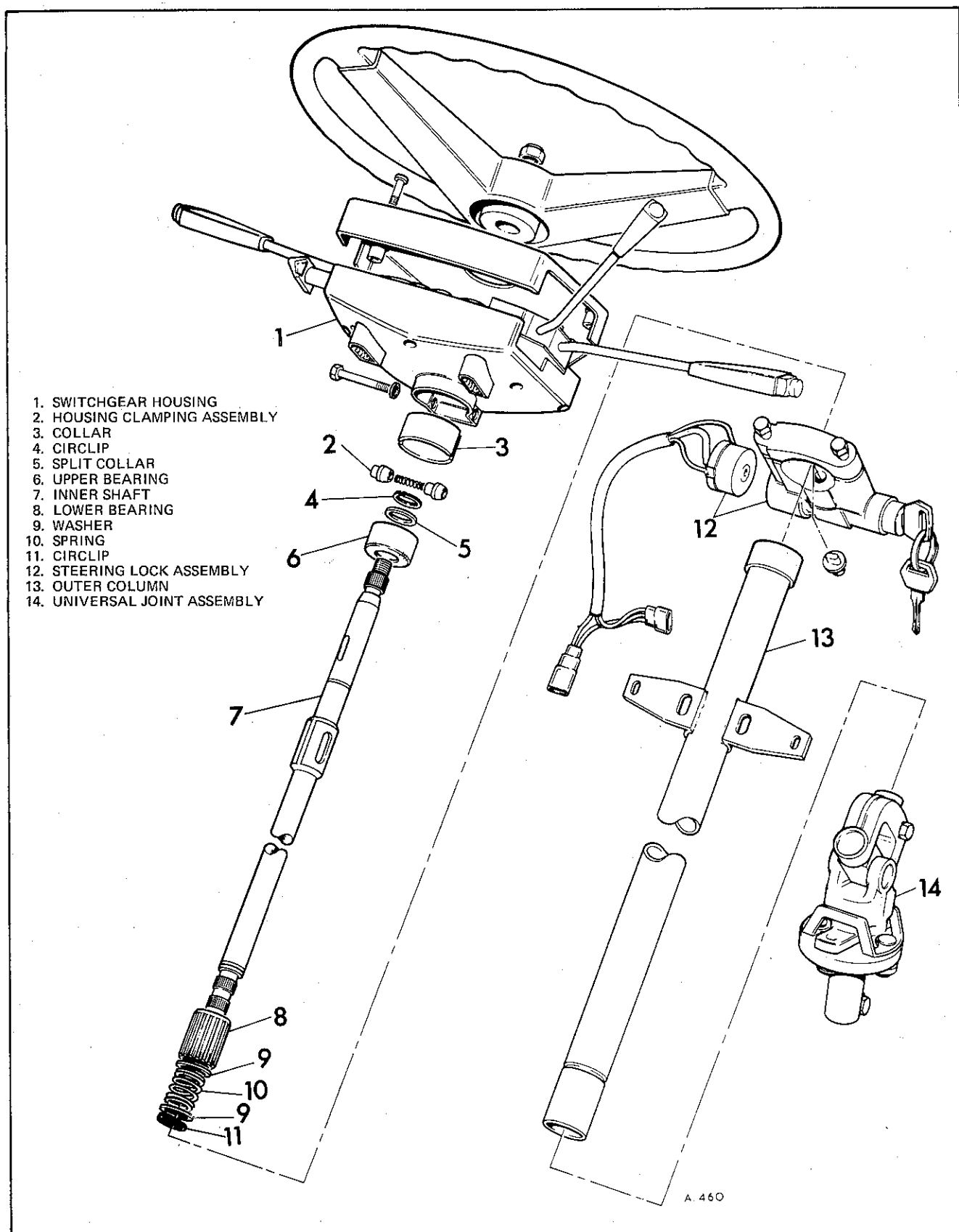


Fig. 2 Dismantled view of steering column

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If a replacement outer column or steering lock is to be fitted, separate the lock from the column using the following method:

Remove the key from the lock.

Accurately centre pop both steering lock shear bolts. Pilot drill the bolts using a 0,3 mm (1/8 in) drill.

Use a 0,7 mm (9/32 in) drill to remove the remains of the secondary heads of the shear bolts from their positions in the lock assembly.

Detach the lock and bracket assembly from the outer column.

To Reassemble

Inspect all components for damage or excessive wear and renew as necessary.

Fit the upper bearing to the outer column with the dish of the bearing uppermost. It should be carefully drifted into position using a suitable tube. Grease the bearing using a good quality general purpose grease.

Grease the insert of the lower bush using a good quality general purpose grease. Assemble the bush to the lower part of the inner shaft and enter the shaft into the outer column. The bush will act as a guide for the lower end of the inner shaft.

Press the lower bush into position in the outer column and push the inner shaft through the top bearing until the circlip locating groove can be clearly seen.

Fit the split collar, dish uppermost, followed by the circlip.

Use a soft mallet to tap the inner shaft downwards until the split collar and circlip abut the upper bearing.

Fit the plain washer, coil spring and further plain washer to the lower end of the inner shaft and secure with circlip.

Insert the key into the steering lock and turn to unlock the assembly.

Position the unlocked steering lock assembly on the outer column with the key below and to the left of the column as viewed from the driving seat. Fit the shear bolts **finger tight only**.

Check that the inner shaft is free to rotate and also the locking action of the steering lock.

Refit the switchgear housing to the outer column making sure that the locating peg of the clamping sleeve engages with the slot on the underside of the outer column and that the indicator switch cancellation spring engages in the key way machined in the inner shaft.

Refit the steering column as detailed previously — this section.

Check the operation of the steering lock and allied circuitry before tightening the securing bolts to the point where the heads shear.