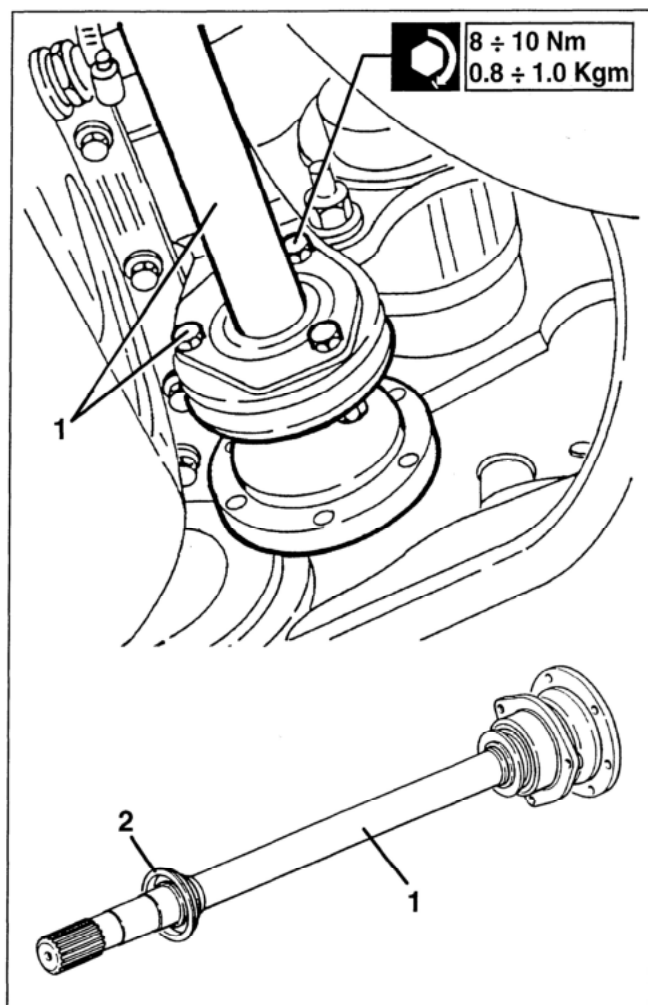


1. Slacken the three fastening bolts and withdraw the intermediate shaft
2. Remove the dust guard.

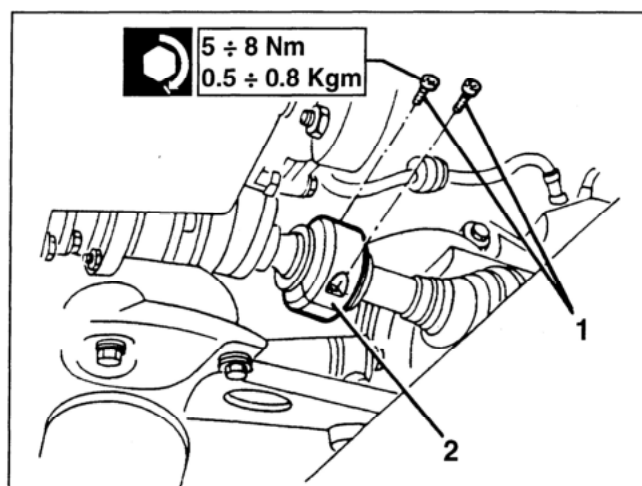


Refit the intermediate shaft reversing the sequence followed for removal. Tighten the bolts fastening the upright to the shock absorber as described in GROUP 44 - Wheels and Hubs.

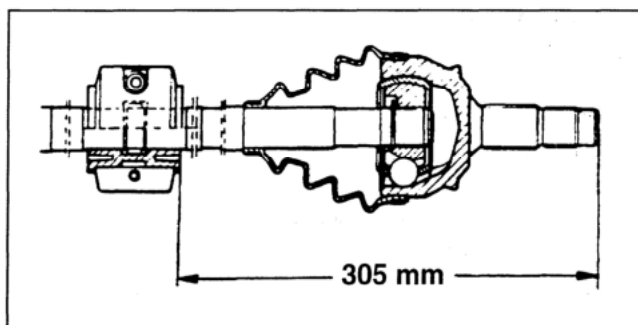
LEFT AXLE SHAFT DAMPING MASS (Only 4-cylinder)

REMOVAL / REFITTING

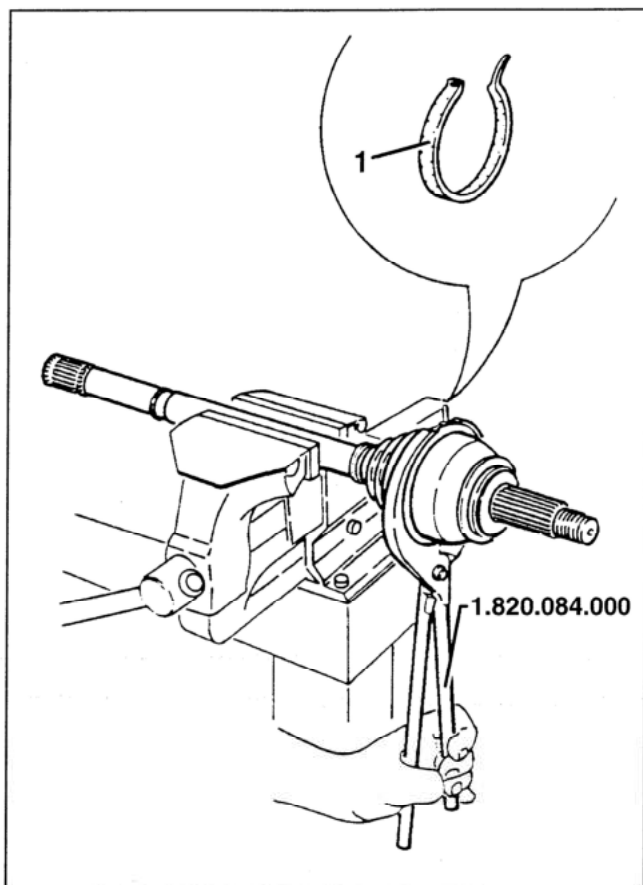
- On the left-hand side of the car, proceed as follows:
1. Slacken the screws fastening the two half shells forming the damping mass.
 2. Remove the mass together with the rubber pad below.



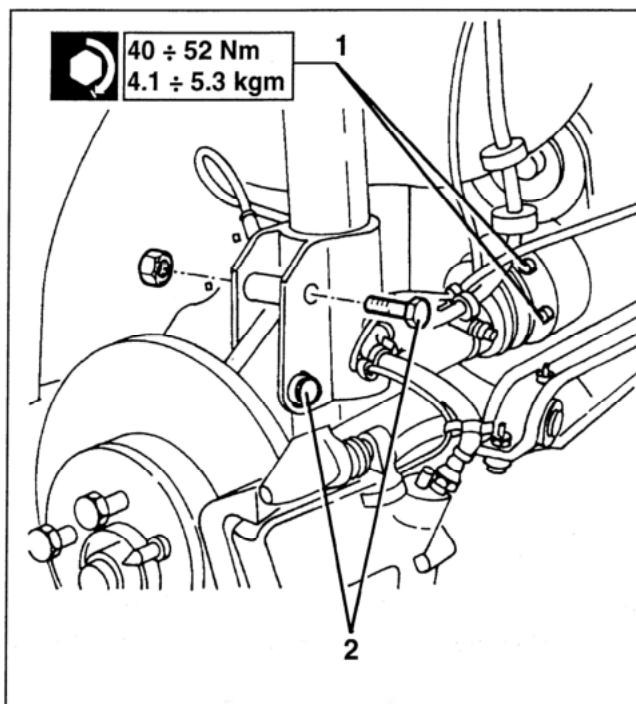
Refit reversing the sequence followed for removal taking care to position the mass according to the dimensions illustrated.



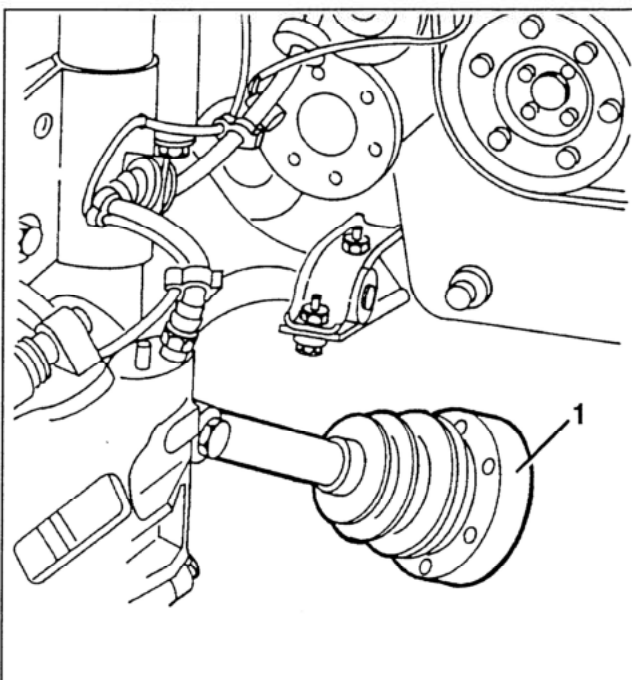
1. Using tool no. 1.820.084.000 install the outer boot fastening clamp.



1. Slacken the six fastening bolts and disconnect the constant velocity joint from the intermediate shaft.
2. Slacken the two bolts fastening the right upright to the shock absorber then withdraw only the upper bolt.



1. Move the axle shaft back just enough to disconnect it from the intermediate shaft and set it as illustrated.

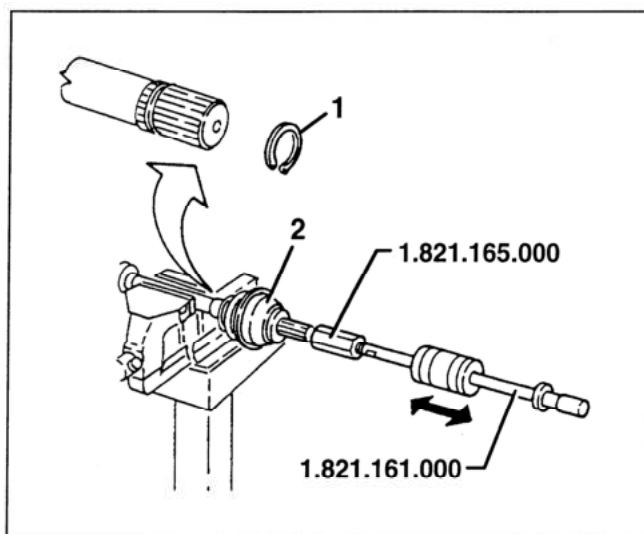


INTERMEDIATE SHAFT

REMOVAL / REFITTING

- Set the car on a lift.
- Disconnect the battery.
- Raise the car.
- Remove the wheel and mud flap from the right-hand wheel house.
- Working from the right wheelhouse, disconnect the electrical connection of the brake pad wear sensor.
- Release the ABS inductive sensor cable from the support bracket.

1. Remove the flexible retainer ring.
2. Using tools no. 1.821.165.000 and no. 1.821.161.000, remove the constant velocity joint from the axle shaft.

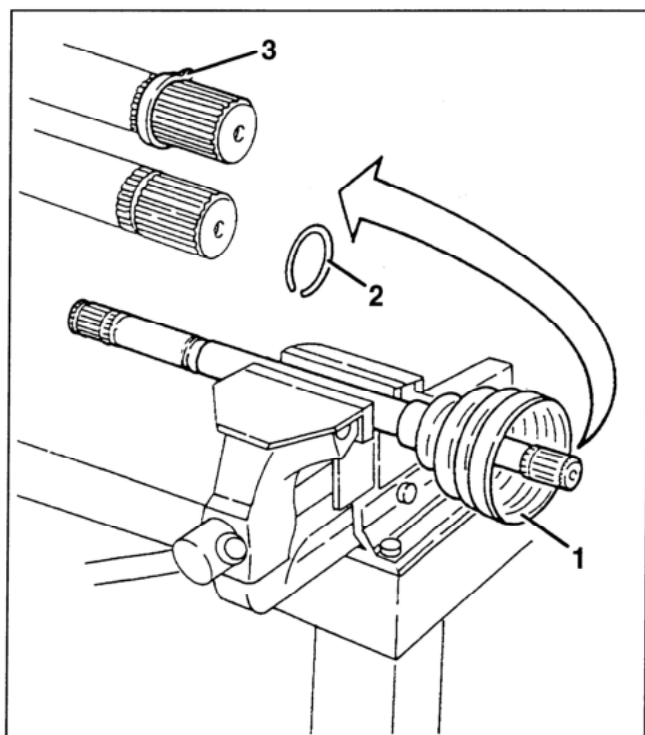


INSPECTIONS

Degrease the joint components with fuel oil and check the balls and their housings for signs of wear and cracks. Check the shaft for distortion, cracks and signs of wear.

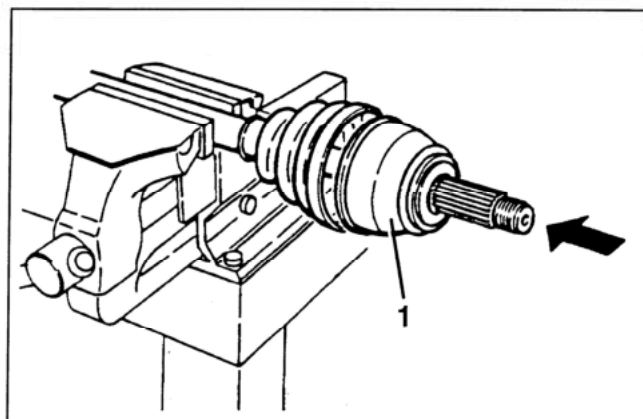
RE-ASSEMBLY

1. Install a new protection boot.
2. Position the flexible retainer ring in its housing.
3. Compress the ring with the fastening clamp.

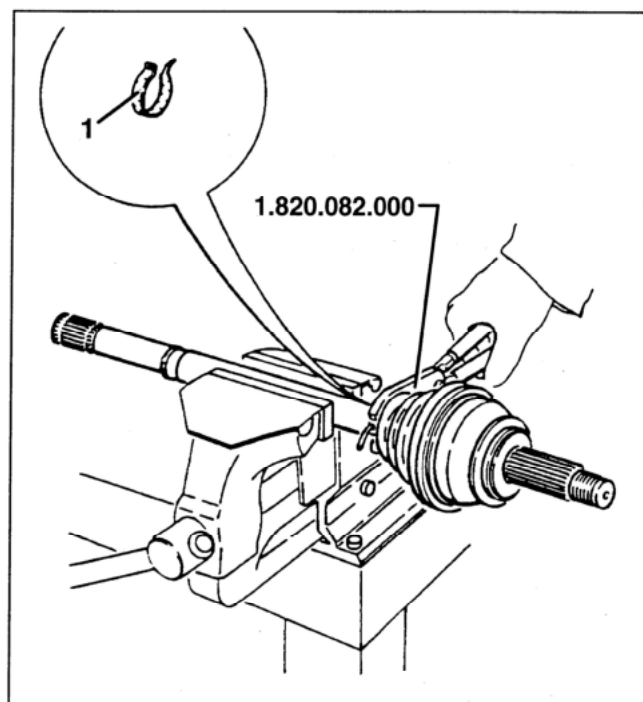


1. Position the constant velocity joint on the axle shaft and using a soft hammer, push it into its housing.

Fill the boot and grease the joint with appr. 120 g of the specified grease.

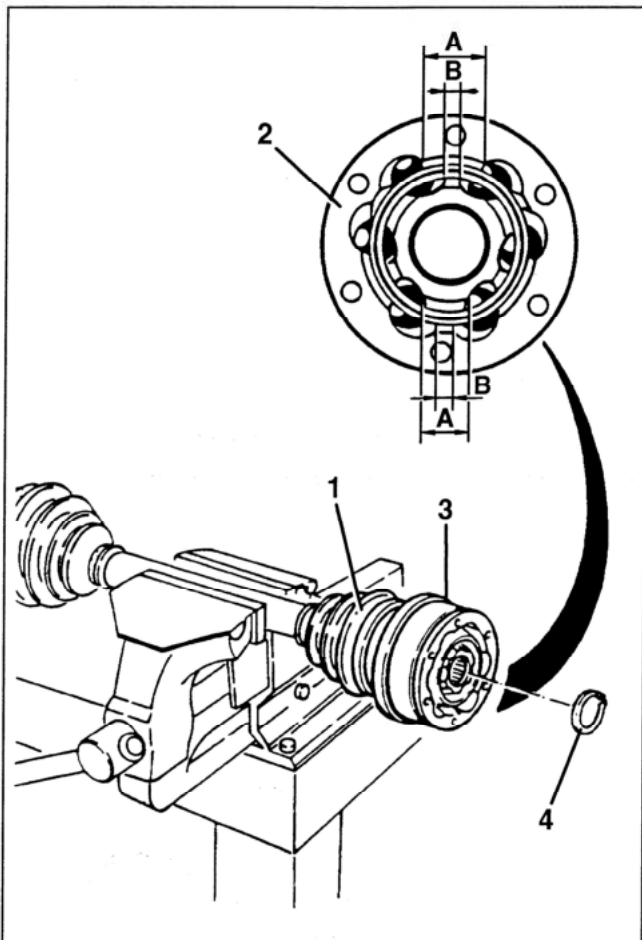


1. Using tool no. 1.820.082.000 install the inner boot fastening clamp.



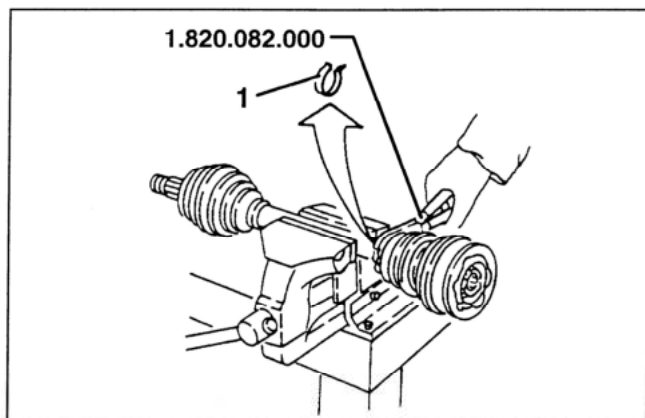
RE-ASSEMBLY

1. Fit a new boot on the axle shaft.
2. If disassembled previously, re-assemble the components of the constant velocity joint as illustrated.
Fill the boot and grease the joint with appr. 120 g of the specified grease.
3. Assemble the gearbox side constant velocity joint.
4. Fit the flexible retainer ring.

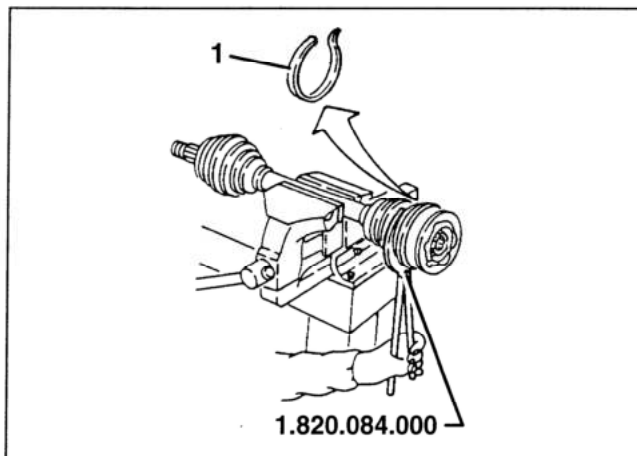


A = Greater distance between balls
B = Smallest distance between balls

1. Using tool no. 1.820.082.000 install the inner boot fastening clamp.



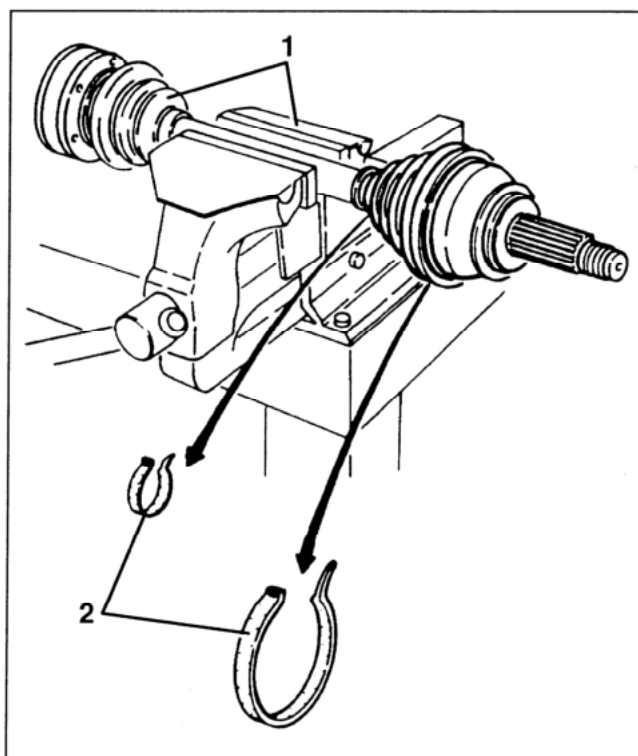
1. Using tool no. 1.820.084.000 install the outer boot fastening clamp.



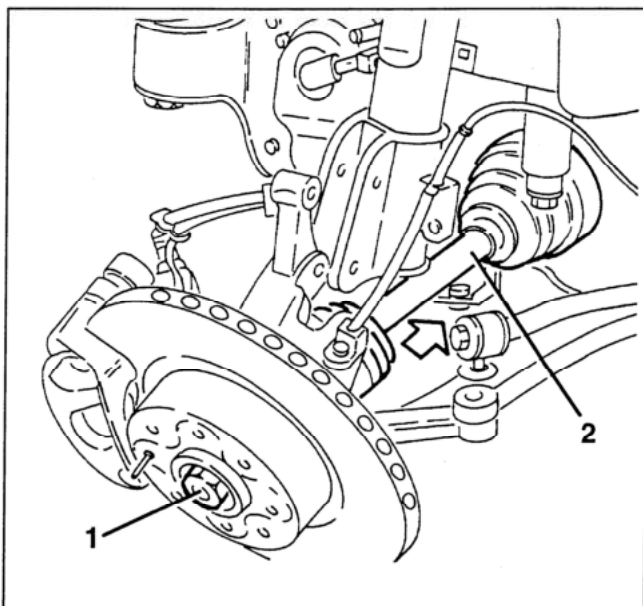
WHEEL SIDE CONSTANT VELOCITY JOINT

DIS-ASSEMBLY

1. Clamp the axle shaft in a vice with protective jaws.
2. Remove the wheel side boot fastening clamps.
When refitting change the boot and its fastening clamps.



1. Remove the caulking and slacken the nut fastening the constant velocity joint to the wheel hub.
2. Withdraw the axle shaft and remove it.

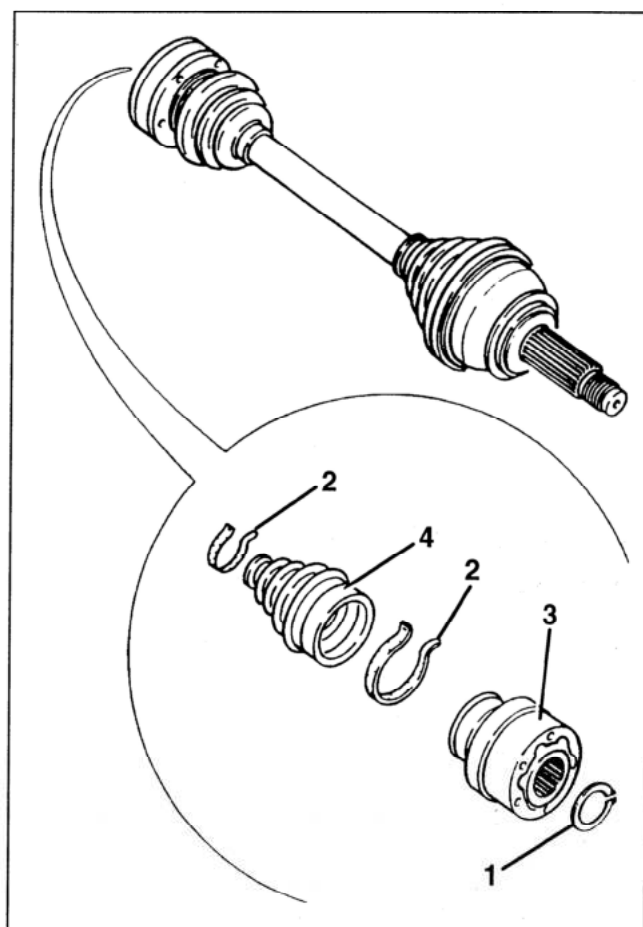


When refitting tighten the nut fastening the axle shaft to the hub and the bolts fastening the upright to the shock absorber as described in GROUP 44 - Wheels and Hubs.

GEARBOX SIDE COSTANT VELOCITY JOINT

DIS-ASSEMBLY

1. Remove the flexible retainer ring.
2. Remove the the gearbox side boot fastening clamps.
3. Withdraw the gearbox side constant velocity joint from the axle shaft.
4. Separate the protective boot from the constant velocity joint.



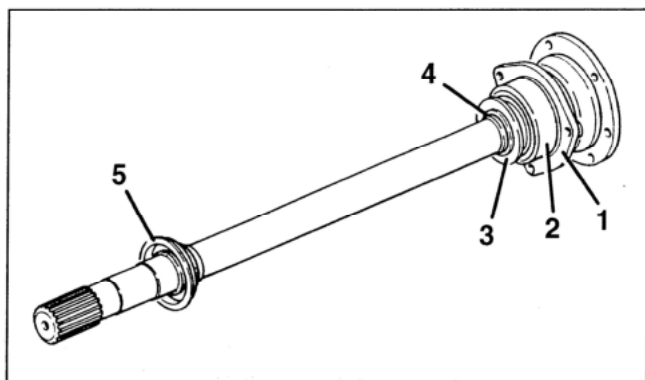
WARNING:
When refitting change the boot and its clamps.

INSPECTIONS

Degrease the joint components with fuel oil and check the balls and their housings for traces of wear and cracks. Check the shaft for distortion, cracks and signs of wear.

The intermediate shaft is also grooved and, like the axle shafts, it is made from high strength steel. Its purpose is to connect the output of the differential with the right hand axle shaft to which it is connected by a flange.

For this reason, to limit the overhang between the connection points, the intermediate shaft is supported by a seat machined especially on the gearbox.



1. Bearing retainer plate
2. Ball bearing
3. Spring washer
4. Bearing retainer ring
5. Cup for bearing

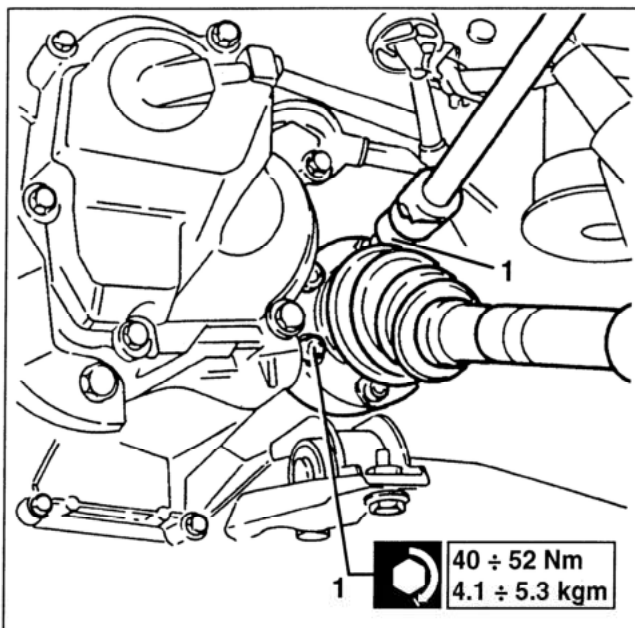
REMOVAL / REFITTING

The following procedure refers to removing/refitting the left-hand axle shaft.

It is however possible to follow the whole procedure also for removing the right-hand axle shaft.

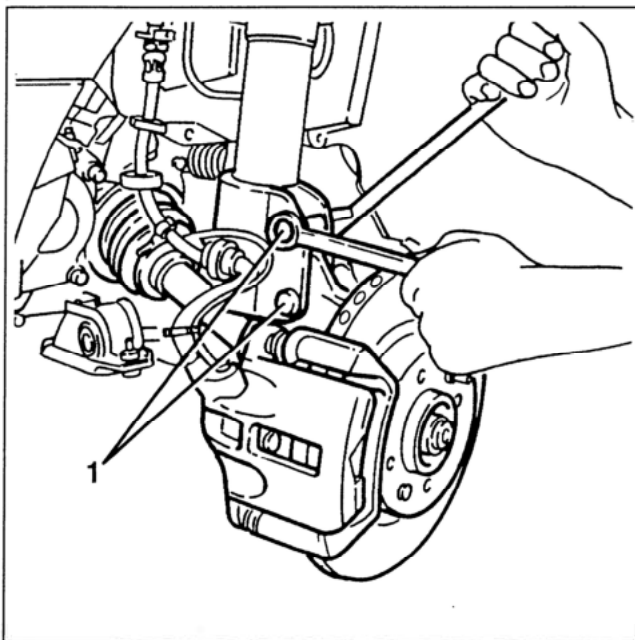
- Set the car on a lift.
- Disconnect the battery.
- Raise the car.
- Remove the wheel and mud flap from the left-hand wheel house.
- Working from the left-hand wheelhouse, disconnect the brake pad wear sensor electrical connection.
- Release the ABS inductive sensor from the support bracket.

1. Slacken the bolts fastening the left constant velocity joint from the differential flange retrieving the safety plates.



1. Slacken the two bolts fastening the left wheel upright to the shock absorber, then withdraw only the upper bolt.

This operation makes it possible to move back the axle shaft just enough to disconnect the constant velocity joint.



AXLE SHAFTS

DESCRIPTION

The axle shafts, constant velocity joints and the intermediate shaft form the assembly of the devices which transmit motion from the gearbox to the drive wheels.

This set of devices, commonly called "transmission" when allied with the gearbox, is composed of:

- right and left-hand axle shafts;
- constant velocity joints on gearbox and wheel side;
- intermediate shaft.

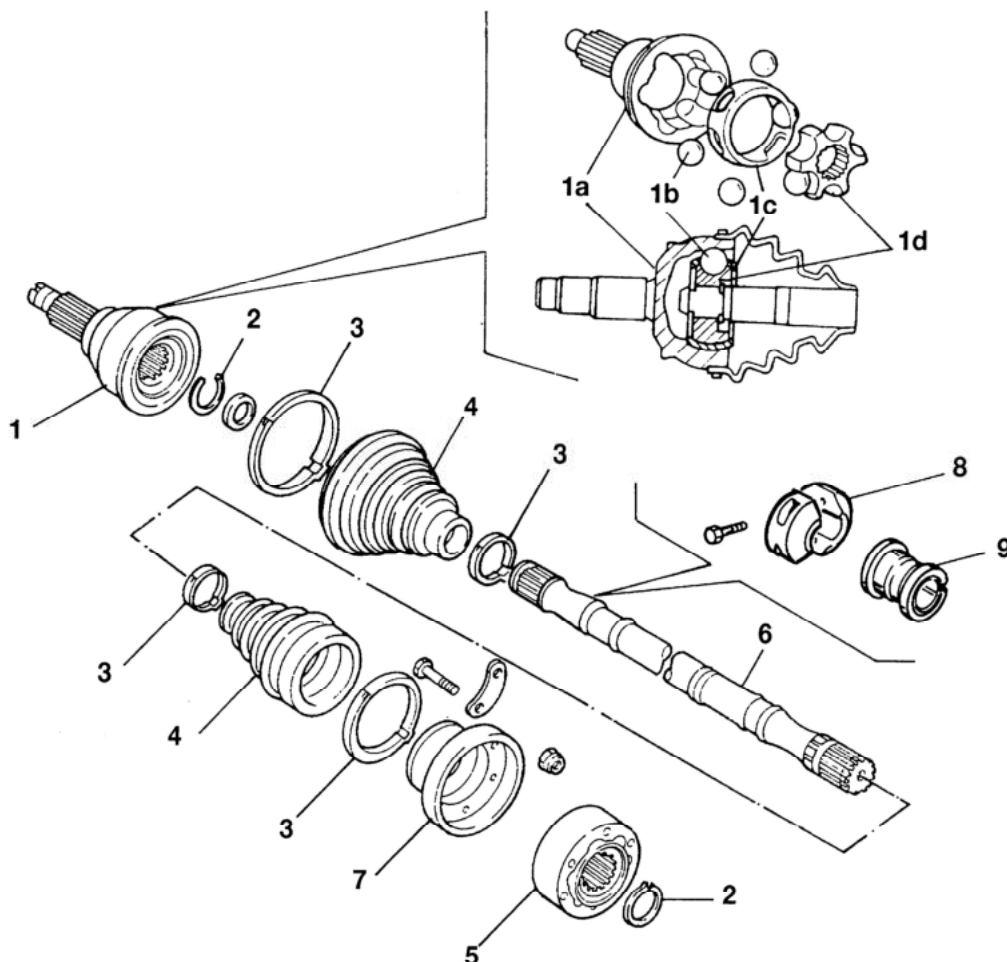
The axle shafts (6), made from high strength steel, have grooved ends for coupling with the constant velocity joints (1) and (5), which contain the housing for the flexible rings (2) which secure the joints themselves.

The constant velocity joints are composed of an inner core (1d) known as "drive", keyed onto the input shaft, and by an outer shell (1a) called "driven", which forms the outgoing element of the joint.

The inner core has six grooves on the outer surface containing six balls (1b), held in place by a retainer cage (1c).

These balls are the parts which actually transmit the motion and they are contemporaneously housed in grooves machined on the inner surface of the shell.

On the versions with 4-cylinder engine, the left-hand axle shaft is fitted with a vibration damper (8) formed of two half shells and a rubber pad (9) for positioning.



1. Wheel side constant velocity joint
2. Flexible ring
3. Retainer clamp
4. Protection boot
5. Retainer clamp

6. Axle shaft
7. Constant velocity joint coupling flange
8. Damper
9. Rubber pad

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