



9.2 DRIVE SHAFT, ALIGN

SRO 47.15.51

CAUTION: To preserve 'drive line' refinement, individual parts, other than fixings, **MUST NOT** be renewed. In the event of any balance or drive shaft component related problem, the complete assembly must be renewed. Under no circumstances must the flexible coupling (or its fixings) be loosened or removed from the drive shaft flange.

Preliminary Checks

Before this procedure is actioned it is advisable to ensure that:

The gearbox mounting should be fitted squarely with equal spaces between the bump stops both axially and laterally.

The crossmember is central on the body fixings and not 'hard over' to one side.

The differential spigot radial run-out is 0.075mm.

If the vehicle has been standing for a period the tires may be 'flat-spotted'. If so, this will clear in approximately 400 km (250 miles). After this distance the source of vibration should be re-assessed.

12 Cylinder

- Remove exhaust center section.

All

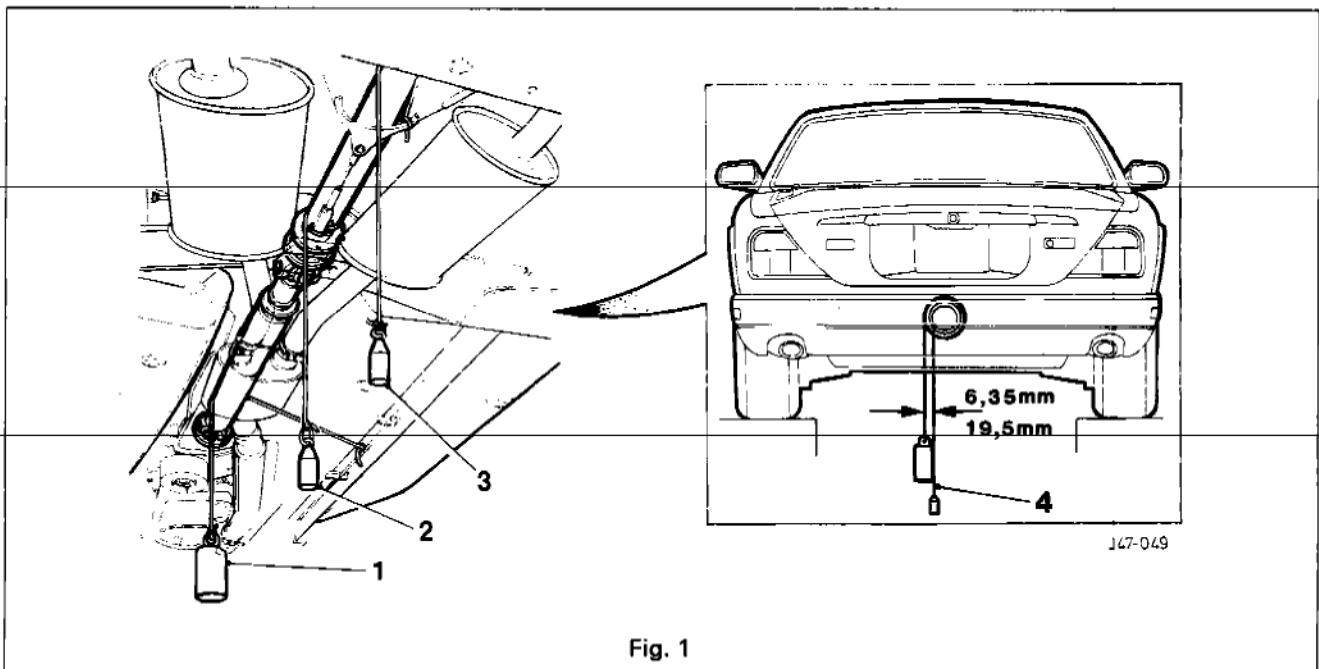
- Locate suitable 'plumb lines' over drive shaft outside diameter, but NOT over any balance weight or weld:

- Front section – behind gearbox output coupling (shaft without rubber damping), 12,7 mm diameter weight (1 Fig. 1).
- Rear section – immediately behind center bearing (shaft with rubber damping), 38.1mm diameter weight (2 Fig. 1).
- Rear section – in front of differential flange (3 Fig. 1)

Note: It is essential that the front weight should be as specified so that the different diameters of the two shafts may be taken into account.

Method 1

- Viewed from the rear with the rear 'plumb line' coincidental with the outside diameter of the front weight, the center 'plumb line' should align with the rear 'plumb line' (4 Fig. 1).
- To re-align the center bearing, slacken bearing fixings and position to suit.
- Tighten all fixings to specification ensuring that the 'anti-twist' plate is allowed to freely align before the center bearing fixings are secured.

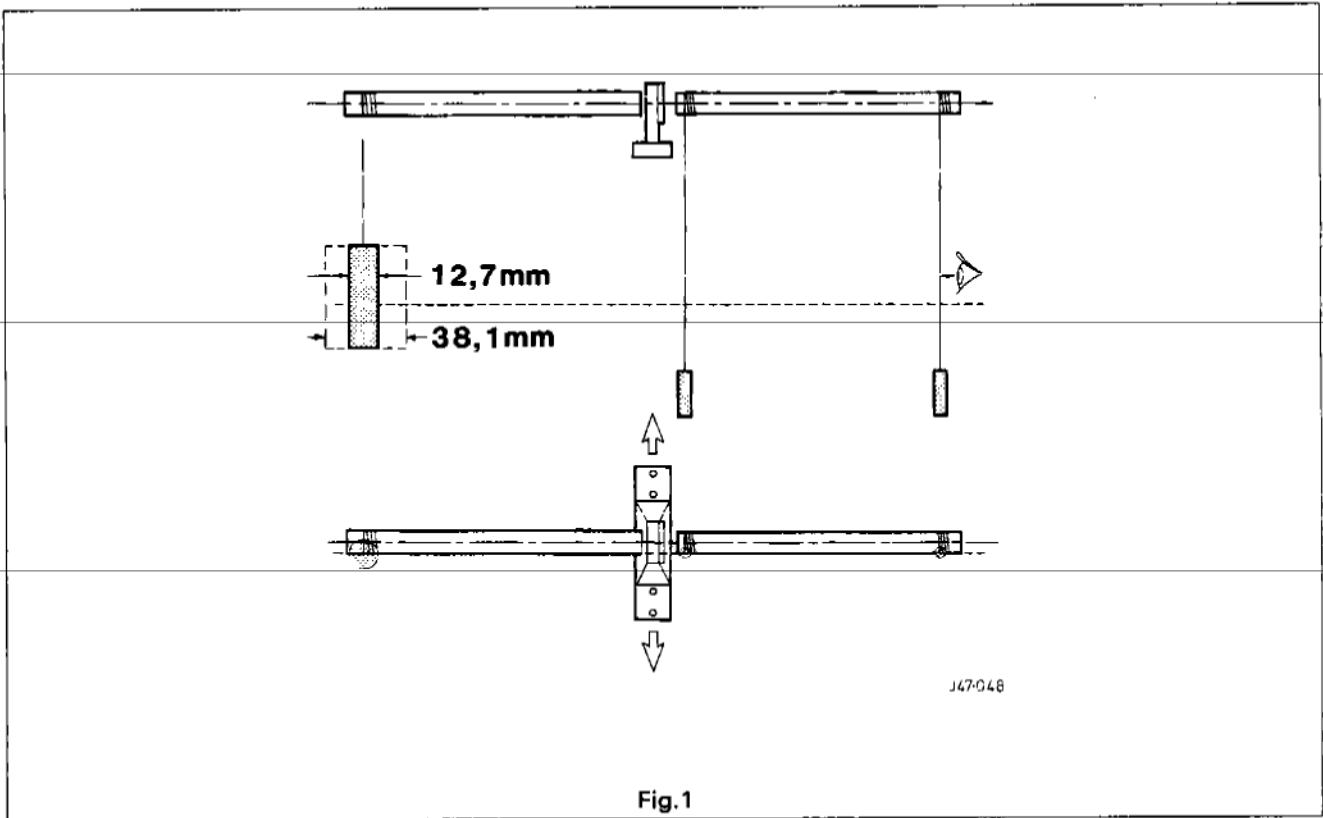




Method 2

A refinement to Method 1 may be made by stretching a line horizontally along the center line of the vehicle to touch the outside diameter of the front weight and the rear 'plumb line'. Take care not to bias the vertical lines with the horizontal line.

- Set the center 'plumb line' to touch the horizontal line by movement of the center bearing (Fig. 1).
- To re-align the center bearing, slacken bearing fixings and position to suit.
- Tighten all fixings to specification ensuring that the 'anti-twist' plate is allowed to freely align before the center bearing fixings are secured.



Recommended locally made tools

Plumb line **Locally made**

Weight **Locally made 12,7mm diameter mild steel**