

Section H3

Compliance assembly, triangle levers, suspension ball joints, and stabilizer

Lower triangle levers - To remove

1. Ensure that the gear selector lever is in the Park position and apply the parking brake.
2. Remove the wheel trim from the respective wheel and slacken the wheel nuts.
3. Jack up the front of the car and place sill blocks beneath the front end of the body sills to support the car.
4. Remove the road wheel.
5. Place a jack under the lower triangle levers and jack up the suspension to partially compress the road spring. Ensure the body is still supported by the sill blocks.
6. Fit the support plate halves of the road spring retension tool (RH 8809) around the lower section of the damper and secure them together.

Insert the four long studs of the tool through the upper spring plate and screw them securely into the tool support plate.

Fit the special nuts, thrust races, and washers to the top of each stud (see Fig. H9).

Warning

Always examine the spring retention tool for signs of thread wear or damage prior to its use. If you have doubts concerning any parts of the tool and their ability to withstand spring load you should renew those parts.

It is recommended that the use of the tool is restricted to a maximum of 200 applications.

7. Evenly tighten the retaining tool nuts until the road spring is fully supported.
8. Slacken the large nuts securing the lower triangle levers to the sub-frame pivot bushes (see Figs. H13 and H14).
9. Disconnect the stabilizer bar from the front triangle lever as described under Front stabilizer bar - To remove.
10. Remove the split pin and castellated nut securing the front shock damper ball joint. Using extractor tool (RH 8100) release the ball joint taper. Lower the triangle levers to allow the taper to be withdrawn from the ball joint carrier.

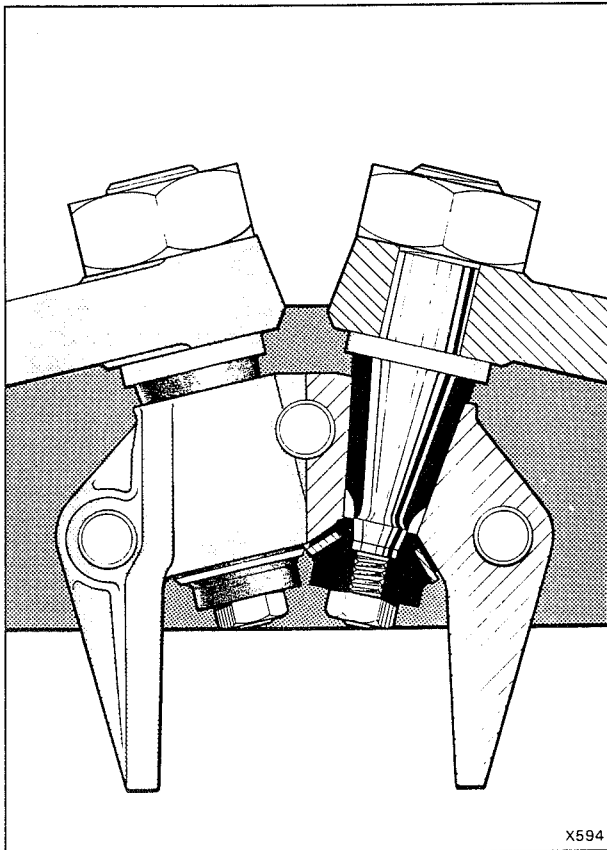


Fig. H13 Front triangle lever mounts

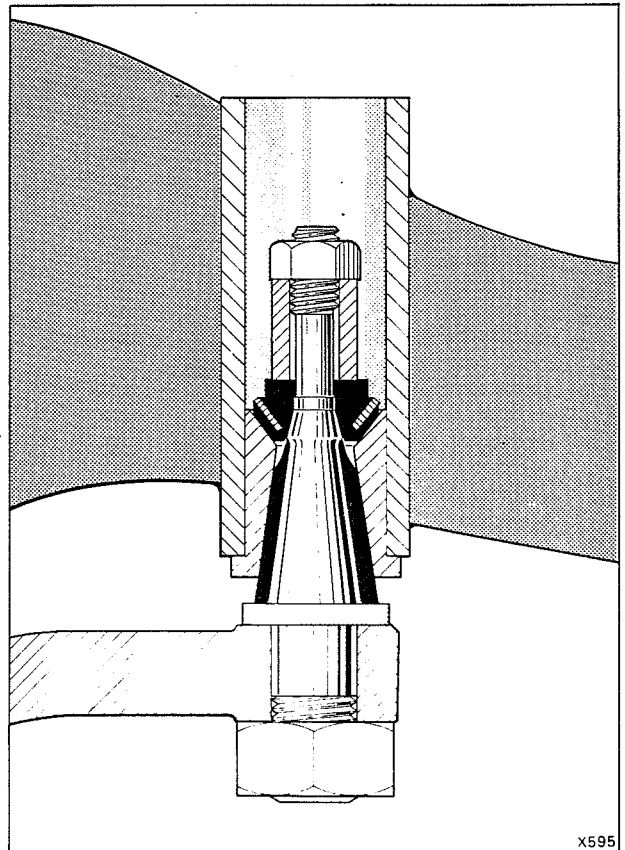


Fig. H14 Rear triangle lever mount

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11. Support the hub assembly with a jack.
12. Remove the split pin and castellated nut securing the lower suspension ball joint to the yoke. Using extractor tool (RH 8100) release the ball joint taper.
13. Remove the dowel bolt and setscrew securing the

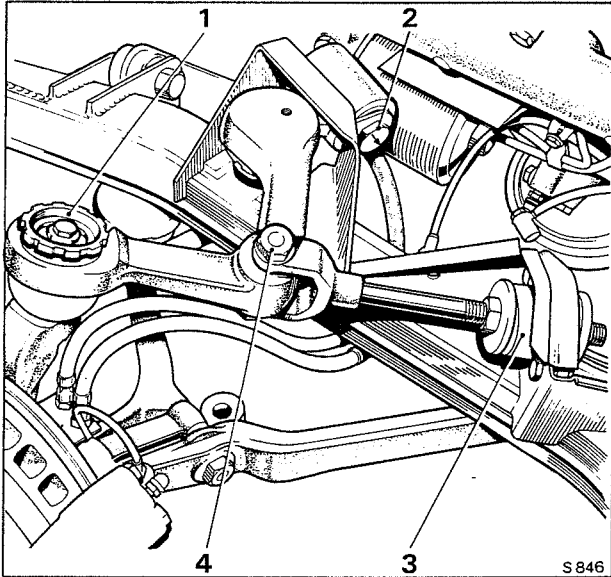


Fig. H15 Upper levers assembly (damper dismantled)

- 1 Ball joint upper ring nut
- 2 Eccentric bolt showing correct (below centre line) arrow position
- 3 Compliance mount
- 4 Jaw and rod assembly

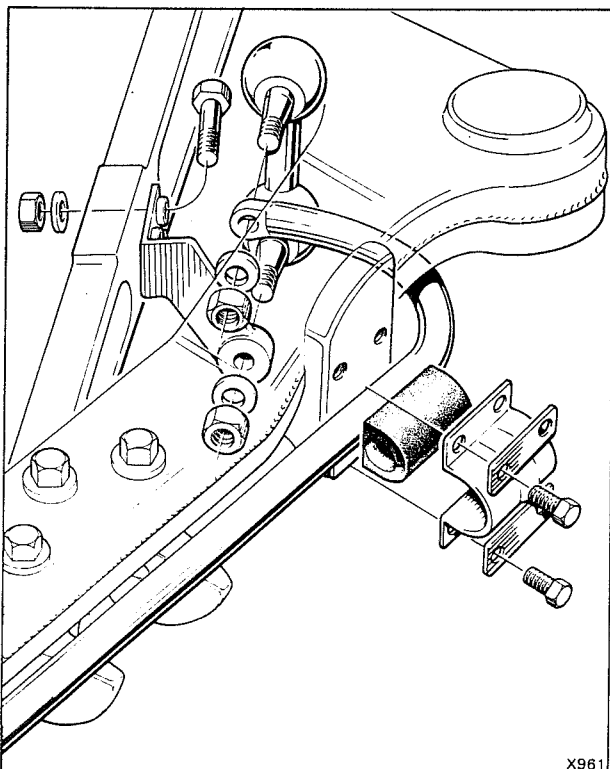


Fig. H16 Front stabilizer components

triangle levers to the ball pin carrier. Collect the carrier and steering lock stop (if fitted).

14. Remove the large nuts from the triangle lever pivot bushes and remove the triangle levers.
15. Examine the pivot bushes for serviceability and renew if necessary.

Lower triangle lever bushes - To renew

1. Remove the lower triangle levers as described under Lower triangle levers - To remove.
2. To remove the bushes, remove the retaining nut and collect the conical seat and distance piece (rear mounts only). Withdraw the pivot bush from its housing.
3. Fit the new bushes by reversing the removal procedure.

Lower triangle levers - To fit

1. Assemble the triangle levers onto the pivot bushes as shown in figures H13 and H14. Do not tighten the large retaining nut.
2. Fit the ball pin carrier between the triangle levers, then fit and torque tighten the dowel bolt and setscrew together with the lock stop plate (if fitted). Do not attach the damper ball joint to the carrier.
3. Set the triangle levers in their normal ride position.
4. Torque tighten the large triangle lever mount nuts to the figure quoted in Chapter P.
5. Complete the assembly by reversing the removal procedure.

Compliance lever - To remove

1. Carry out Operations 1 to 7 inclusive as described under Lower triangle levers - To remove.
2. Remove the split pin and castellated nut retaining the upper ball pin.
3. Support the hub with a jack and using extractor tool (RH 8100) release the ball pin taper from the yoke.
4. Remove the bolt securing the compliance rod jaw to the compliance lever.
5. Note the position of the arrow on the compliance lever pivot bolt (see Fig. H15). Remove the bolt and withdraw the lever from the sub-frame bracket. Collect the special washers.
6. Examine the rubber bushes and ball joint for serviceability and renew as necessary.

Compliance lever - To fit

Fit the compliance lever by reversing the removal procedure noting the following.

1. Ensure that the eccentric adjustment components on the compliance lever pivot are correctly located in the sub-frame bracket. Turn the bolt until the arrow is in the position noted on removal.
2. Check the wheel caster and camber as described in Section H5.

Compliance rod mount - To renew

1. When renewing the compliance mount adjacent to the starter motor, the battery must be disconnected.
2. Remove the nut and large washer from the rear of

the compliance mount. **Do not** disturb the position of the outer nut. If this nut is undisturbed, it should not be necessary to check the caster and camber settings after completion of the mount renewal operations.

3. Remove the two bolts securing the compliance mount to the sub-frame and withdraw the mount.
4. Remove the bolt securing the compliance rod jaw to the lever. Examine the bush for serviceability and renew if necessary.
5. Fit the new compliance mount and components by reversing the removal procedure. Ensure that the large washer is fitted with the concave side towards the mount.
6. Torque tighten the nuts to the figures quoted in Chapter P.
7. If the position of the outer compliance rod nut has been moved the caster and camber should be checked as described in Section H5 and adjusted as necessary.

Suspension ball joints - To renew

Prior to commencement of the following operations the spring retention tool (RH 8809) should be fitted as described in Operations 1 to 7 inclusive of Lower triangle levers - To remove.

Upper ball joint

1. Using the tube spanner (RH 7775) remove the locking ring from the top of the ball joint.
2. Remove the split pin and castellated nut from the ball pin.
3. Support the hub with a jack, and using extractor tool (RH 8100) release the ball pin taper from the yoke.
4. Fit extractor tool (RH 7768) onto the compliance lever and carefully press the ball joint out of the lever.
5. Carefully place the new ball joint into position on the underside of the compliance lever. Using the extractor tool (RH 7768) as the insertion tool, draw the ball joint into the lever.
6. Fit and torque tighten the locking ring to the figure quoted in Chapter P.
7. Complete the assembly by reversing the removal procedure.

Lower ball joint

1. Depressurize the hydraulic braking systems as described in Chapter G.
2. Disconnect the two brake hoses from the rear of the front hub. Fit blanks to the hoses and pipe ends.
3. Remove the split pin and castellated nut from the track rod end. Using extractor tool (RH 8100) release the ball pin taper from the side steering lever.
4. Remove the split pin and castellated nut from the upper ball pin.
5. Support the hub with a jack and using extractor tool (RH 8100) release the upper ball pin taper from the yoke.
6. Remove the split pin and castellated nut from the lower ball pin.
7. Using extractor tool (RH 8100) release the lower ball pin taper from the ball pin carrier. Lift the yoke and hub assembly from the car.

8. Remove the ball joint assembly and housing from the yoke.
9. Remove the ball joint from the housing and collect the shim washers.
10. Thoroughly clean the housing and shim washers.
11. Enter the new ball joint into the housing without fitting the shim washers. Fit and lock together two nuts onto the ball pin.

Note

The ball joint is supplied as a complete assembly and is pre-packed with lubricant.

12. Carefully tighten the ball joint until a torque of 0,40 kgf.m. and 0,86 kgf.m. (35 lbf.in. and 75 lbf.in.) is required to rotate the ball. This torque figure should be measured after the ball has been rotated through four complete revolutions, and with the ball pin in its vertical position.
13. Measure the gap between the ball joint face and the housing.
14. Remove the ball joint from the housing and fit shims, equivalent to the gap previously measured, onto the ball joint.
15. Fit the ball joint and shims to the housing and torque tighten the assembly to the figure quoted in Chapter P.
16. Check that the torque required to rotate the ball pin is within the limits given in Operation 12. If necessary make adjustments by increasing or decreasing the shim thickness to obtain the correct torque reading.
17. Fit and torque tighten the ball joint assembly into the yoke to the figure quoted in Chapter P.
18. Fit the yoke and hub assembly by reversing the removal procedure.
19. Bleed the braking system as described in Chapter G.

Front stabilizer - To remove

1. Remove the nuts and washers securing the stabilizer links to the triangle lever brackets and stabilizer bar.
2. Using extractor tool (RH 8019) separate the tapers of the stabilizer links from their locations. Remove the links.
3. Remove the setscrews and bolts securing the stabilizer bar mounts to the sub-frame.
4. Remove the brackets and stabilizer bar. Collect the towing brackets (if fitted).
5. Examine the rubbers of the mounts and links for serviceability and renew as necessary.

Front stabilizer - To fit

Fit the stabilizer by reversing the removal procedure noting the following.

1. Set the suspension triangle levers to the normal ride position.
2. Attach the stabilizer links to the triangle levers and the stabilizer. Do not tighten the securing nuts.
3. Fit the stabilizer to the sub-frame without forcing the clamping brackets into position.
4. Torque tighten the bolts, setscrews, and link nuts to the figures quoted in Chapter P.