



Uni-Body, Subframe and Mounting System - Front Axle Crossmember Rear Bushing

Removal and Installation

Special Tool(s)	
	Engine Support Beam 303-021 (MS 53D)
E36400	

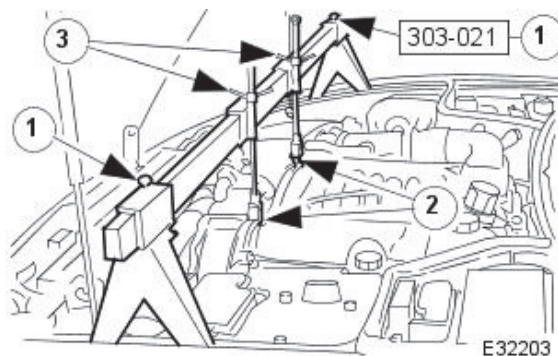
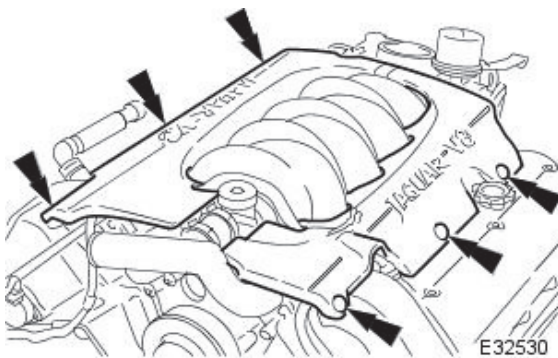
Removal

1.  **CAUTION:** Replacement of nuts and bolts: Various thread-locking devices are used on nuts and bolts throughout the vehicle. These devices restrict the number of times a nut or bolt can be used. See section 100-00 for information.

Position vehicle on a four-post lift.

2. Open the engine compartment to the service position.
3. Fit paintwork protection covers to fenders.
4. Disconnect battery ground cable. Refer to section 414-01.
5. Remove both engine covers.

- Release retaining pegs.
- Remove covers.



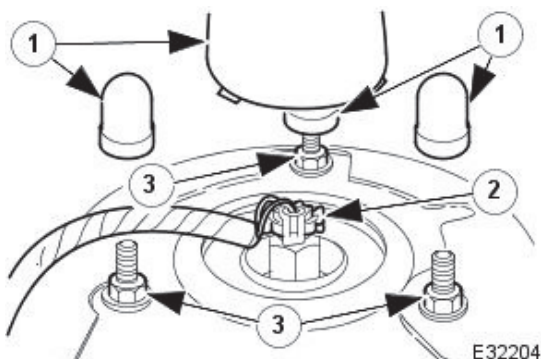
6. Support weight of engine.

1. Position tool in RH and LH fender channels and tighten beam fixings.
2. Engage hooks into engine front lifting eyes.
3. Tighten hook adjustment nuts until the weight of engine is supported.

7. Position steering in the central position and remove ignition keys to lock steering.

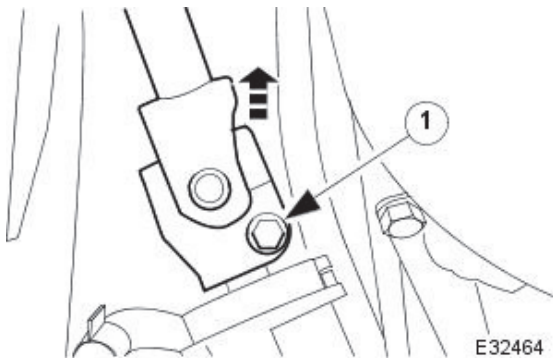
8. Release both front shock absorber upper mountings from body.

1. Remove covers.
 2. Vehicles fitted with adaptive damping : disconnect connector.
 3. Remove nuts.
- Repeat procedure to release opposite-side shock absorber.



9. NOTE: Guide shock absorber upper mounting studs through body when raising front of vehicle.

Raise front of vehicle and support on stands. Refer to section 100-02.



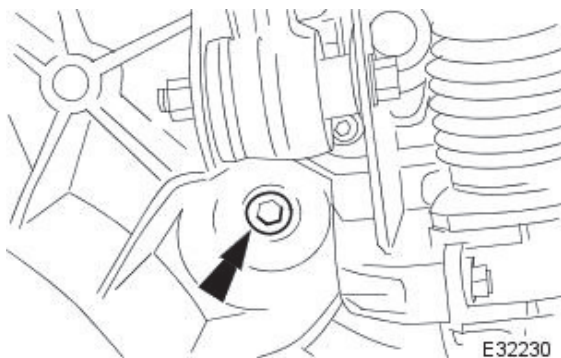
10. Release lower steering column from pinion shaft.

1. Remove bolt.

- Disconnect steering column.




11. Disconnect connector from steering rack transducer.



12. Release front engine-mountings from crossbeam.

- Remove bolt.
- Repeat procedure to release opposite-side mounting.

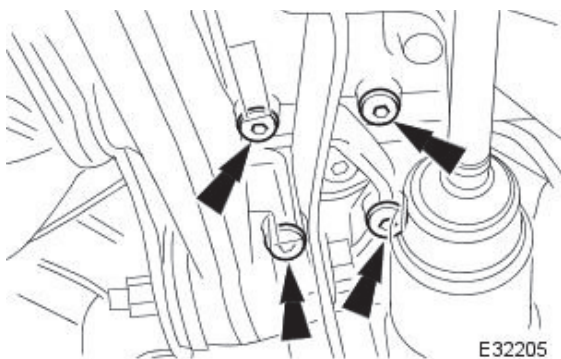
13.  **CAUTION:** To prevent damage to the crossbeam, use a wooden block between the jack and crossbeam.

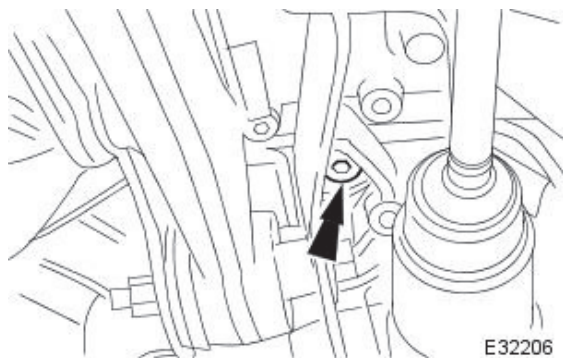
Using a suitable jack support weight of front crossbeam.

14. **NOTE:** The bolt situated directly above the wishbone will remain captive.

Release rear mounting from crossbeam.


- Remove bolts.





15. Release crossbeam rear mountings from body.

- Remove center bolt.
- Repeat procedure to release opposite-side mounting from body.

16.  **CAUTION:** Take care not to damage power steering hydraulic-pipes when lowering crossbeam.

Lower crossbeam sufficiently to remove rear mounting.

17. Remove rear mounting.

18. Clean relevant parts.

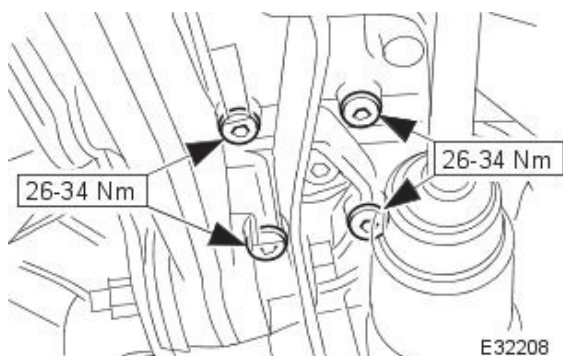
Installation

1. Apply Loctite 270 or 243 to the rear-mounting captive bolt.

2. Position rear mounting to crossbeam.

3. Secure rear mounting to crossbeam.

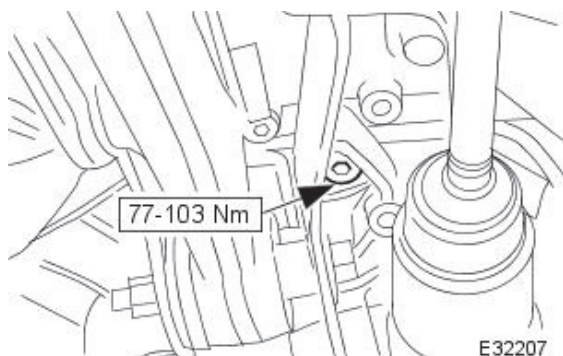
- Align mounting.
- Fit and tighten bolts.



4. Raise crossbeam.

5. Secure crossbeam rear mountings to body.

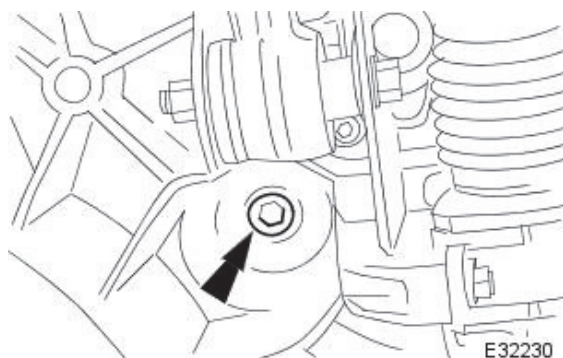
- Fit and tighten bolt.
- Repeat procedure to secure opposite-side mounting to body.



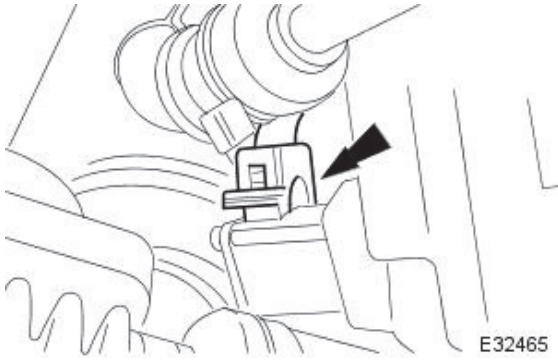
6. Lower and remove jack from beneath crossbeam.

7. Fit front engine mounting bolts, but DO NOT tighten at this stage.

- Repeat procedure on opposite-side mounting.



8. Connect connector to steering rack transducer.

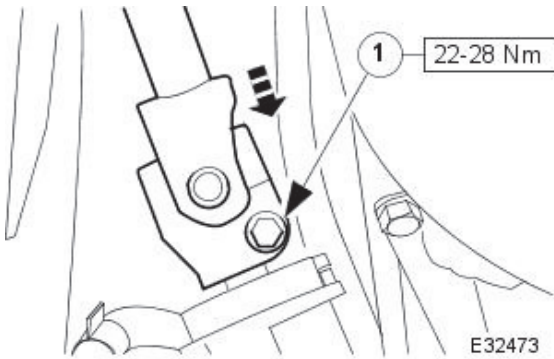


9. NOTE: Make sure steering wheel and road wheels are in the central position.

Connect steering column to pinion shaft.

- Align steering column to pinion shaft.

1. Fit and tighten bolt.

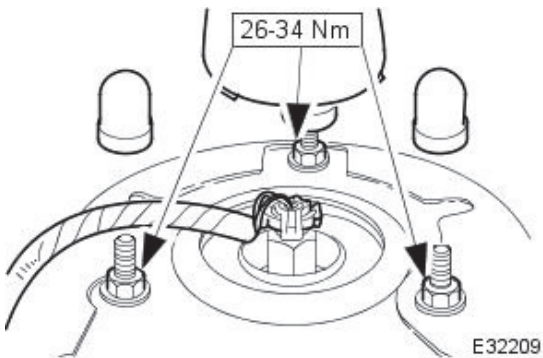


10. NOTE: Guide shock absorber upper mountings into body apertures when lowering vehicle.

Remove stands and lower front of vehicle.

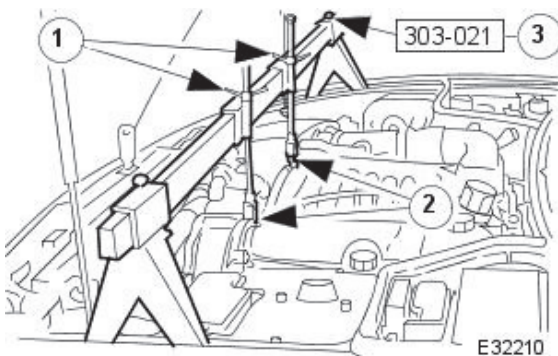
11. Secure shock absorber upper mountings to body.

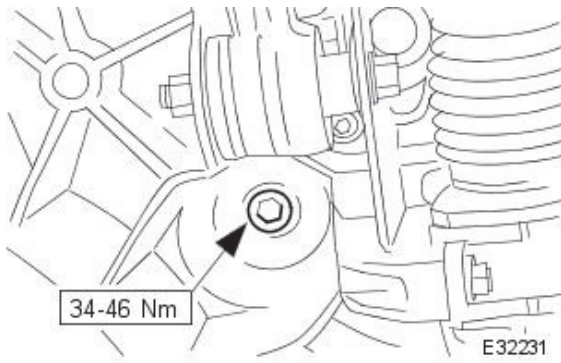
- Fit and tighten nuts.
- Vehicles fitted with adaptive damping: connect connector.
- Fit covers.
- Repeat procedure to secure opposite-side shock absorber.



12. Release weight of engine.

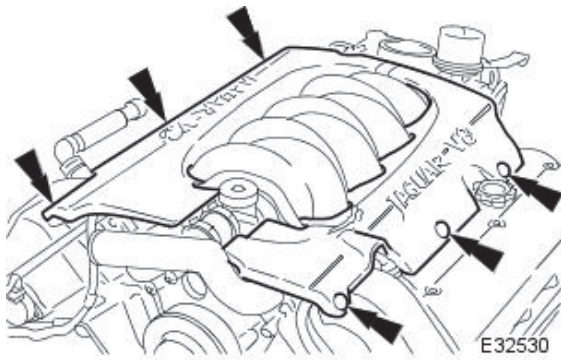
1. Loosen hook adjustment nuts.
2. Remove hooks from lifting eyes.
3. Remove special tool.





13. Secure engine mountings to crossbeam.

- Tighten bolt.
- Repeat procedure to secure opposite-side mounting.



14. Fit both engine covers.

- Position covers to engine.
- Fit retaining pegs.

15. Connect battery ground cable. Refer to section 414-01, Battery Connection Procedure.

16. Remove paintwork protection covers.