

Replacing Steering Gear

Special Tools

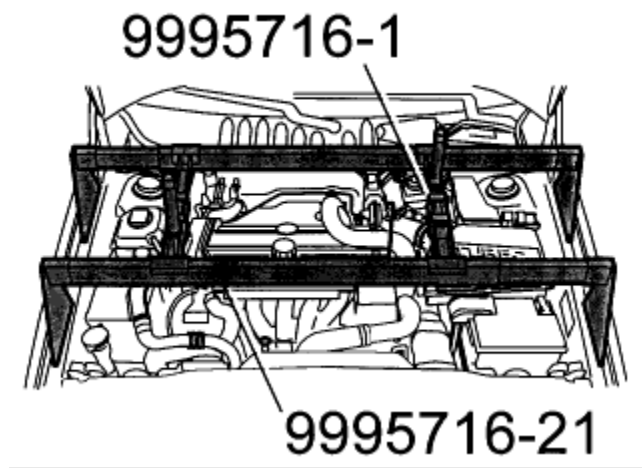
999 5716

999 5259

999 5460

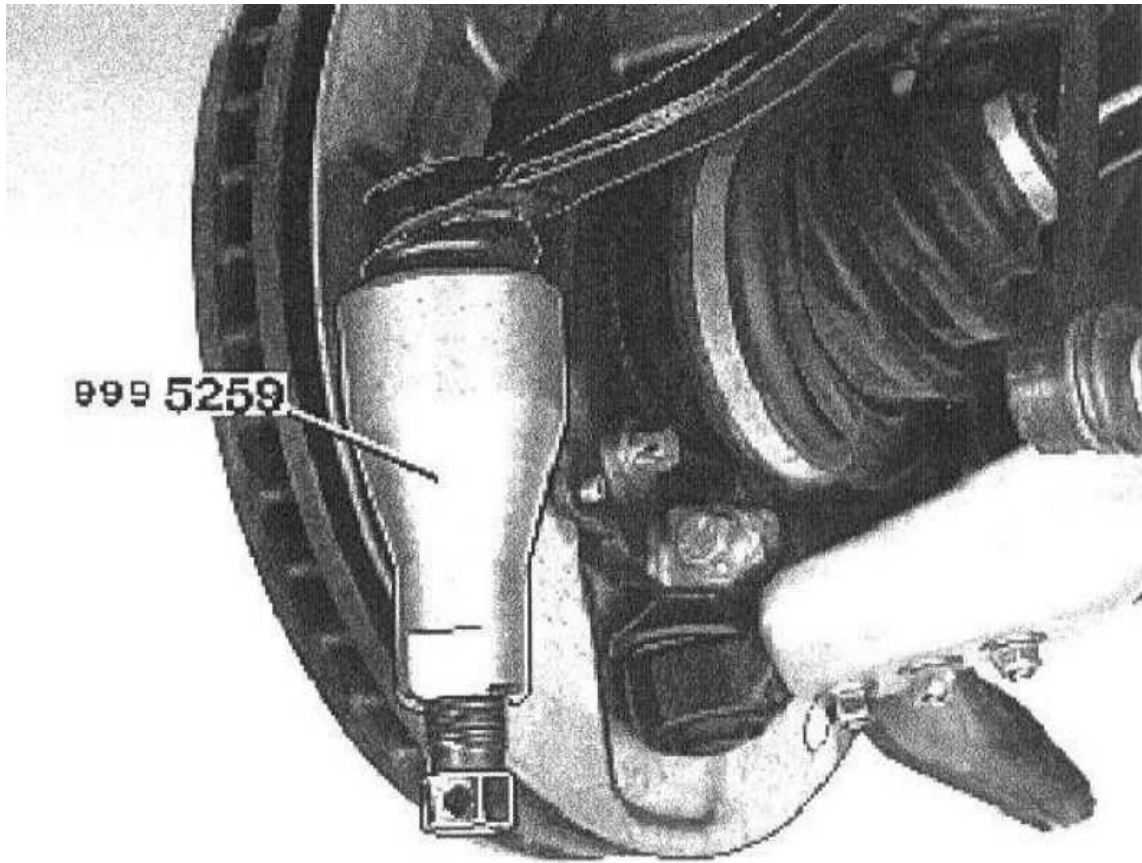
Note! Ensure that the front [wheels](#) are pointing straight ahead. Also lock the [steering wheel](#) with the steering lock before detaching [tie rods](#) (track rods) or [steering shaft](#) joint. This must be done to prevent the SRS-system contact reel reaching end position.

Removing the steering gear

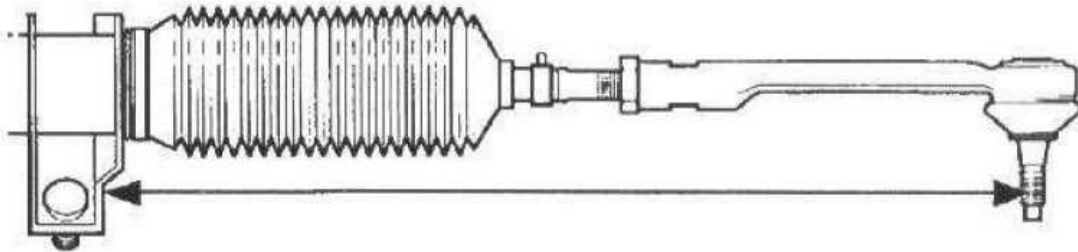


Connect brackets 999 5716-21 and 999 5716-land lifting hooks 999 5460-21.
Lift the engine to relieve the load on the engine pads.

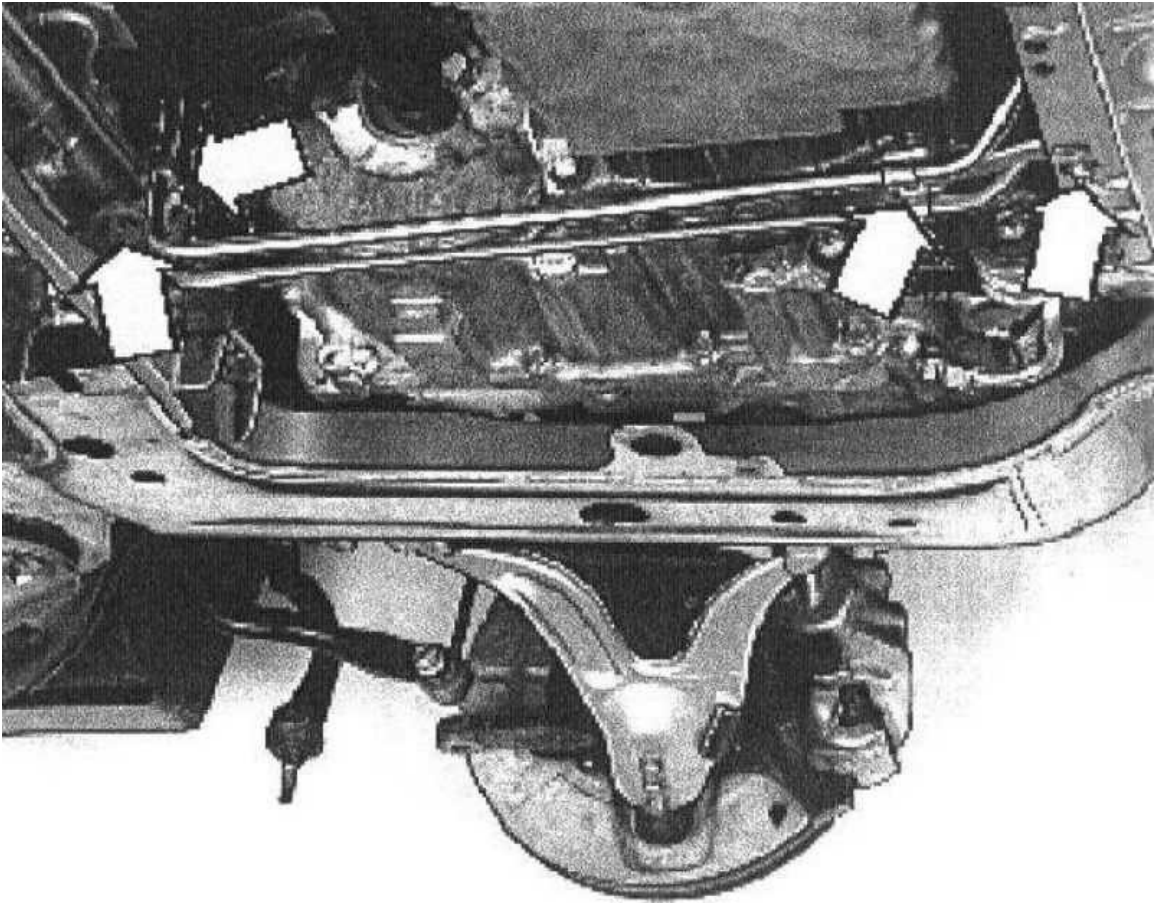
Remove



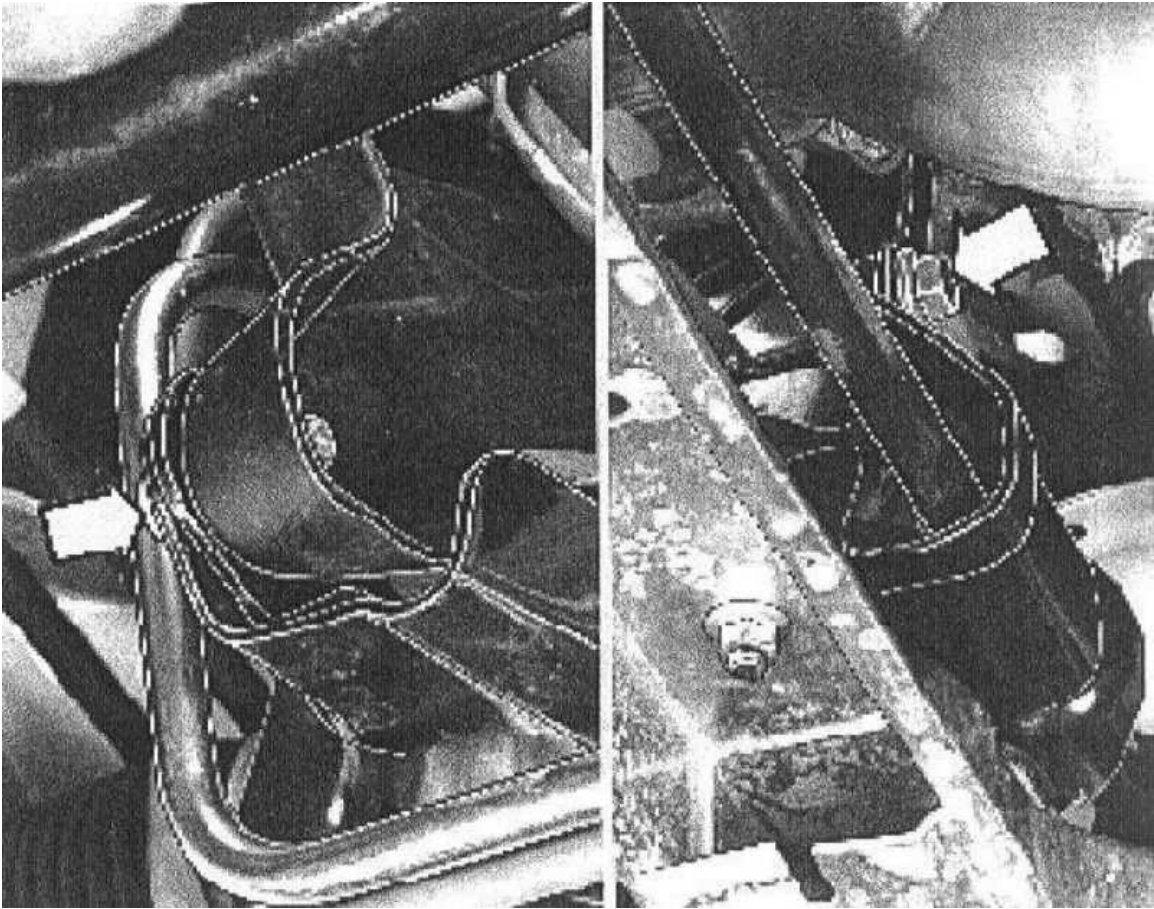
- the front [wheels](#).
- [tie rod ends](#) from [tie rods](#). Use puller 999 5259.



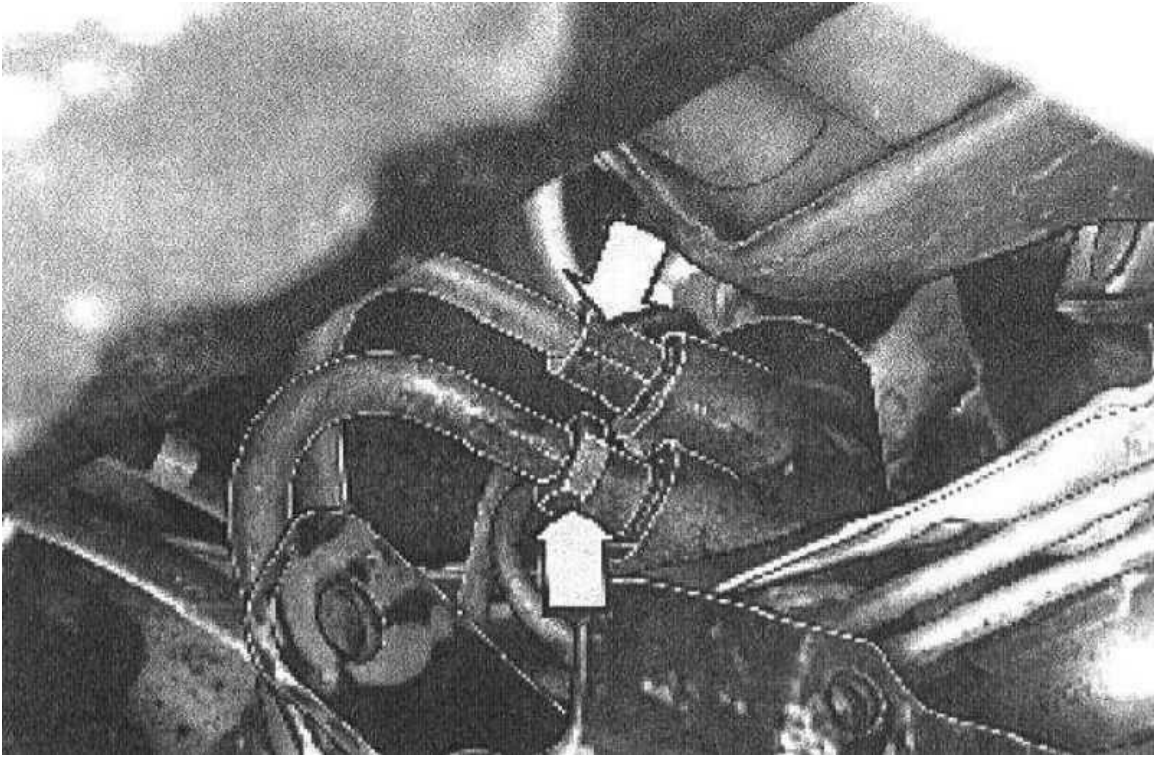
On one side, measure the length of the [tie rod](#) relative to the steering gear housing.
Note the measurement



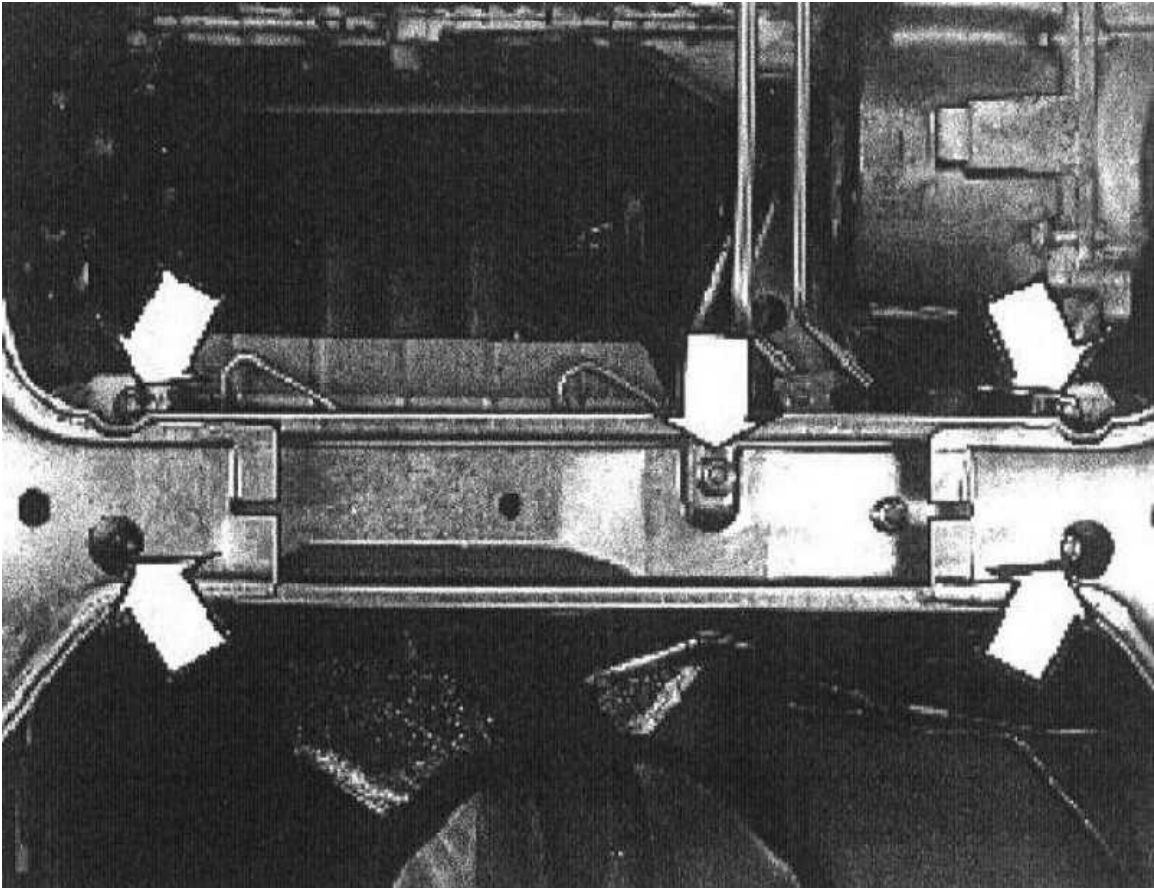
Remove the oil line brackets and clips at front and rear.



Remove the collision protection system over the steering gear (2 screws). (Applies only to right-hand drive cars).



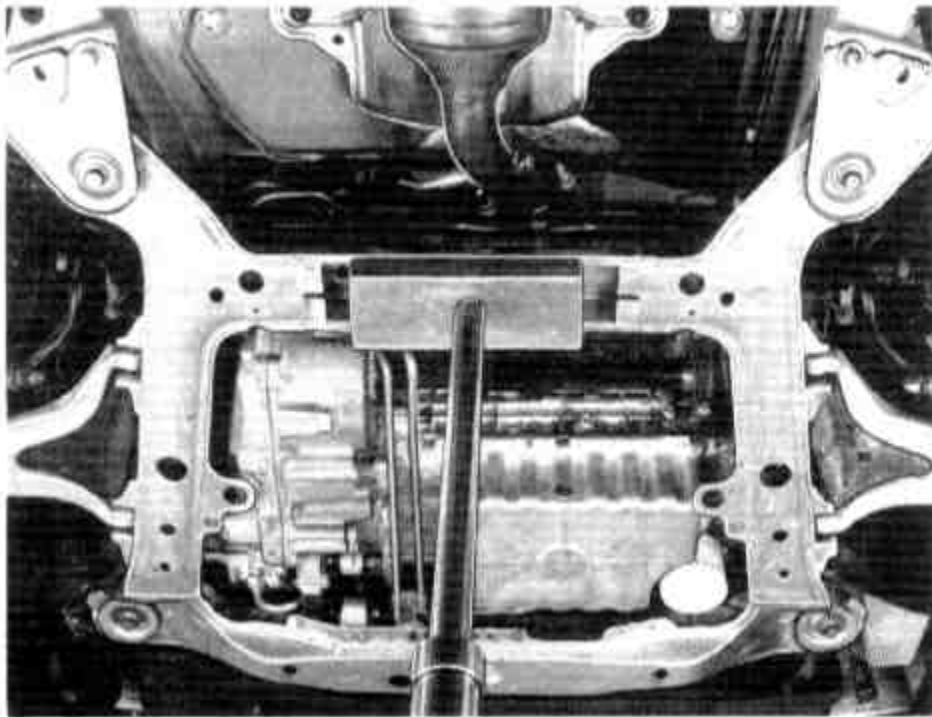
Place a container under the steering gear.
Disconnect the oil lines from the steering gear and pull them forward so that they clear the crash guard when the subframe is lowered.
(Applies only to right-hand drive cars).



Remove the five nuts securing the steering gear to the subframe.

Remove the plastic nut holding the tab in the right fender liner and bend the tab to one side.

Remove the screws for the right engine mounting.



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Position a mobile jack at the rear edge of the sub-frame.

Remove

- the four screws holding the sub-frame brackets to the bodywork on both sides.
- the two screws together with the brackets and washers. Slacken off the front sub-frame screws **10 - 15 mm (0.39" - 0.5979)**.

Lower the rear edge of the sub-frame. Ensure that the steering gear screws release from the frame.

Remove the mobile jack.

Position a container to catch oil under the steering gear and remove the oil pipes from the steering gear. (Applies only to left-hand drive cars.)

Remove

- the screw in the [steering shaft](#) joint. Push the joint clear of the steering gear.
- the screw securing the steering gear to the rear engine pad. Allow the steering gear to rest on the sub-frame and remove the heat deflector plate (TX25). (Applies only to right-hand drive cars).

Lift out the steering gear to the right.

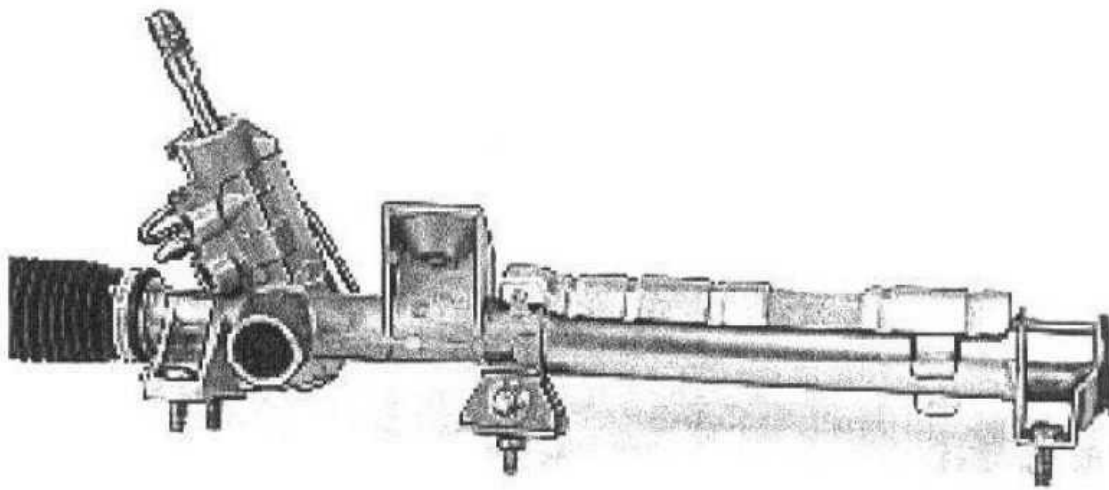
Installing steering gear

Note! When replacing the steering gear and the mounting for the center mounting: Do not tighten the bracket screws yet.

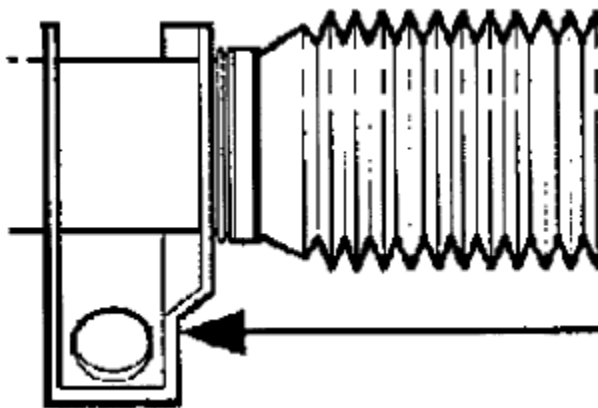
Left-hand drive cars

Transfer the heat shield.

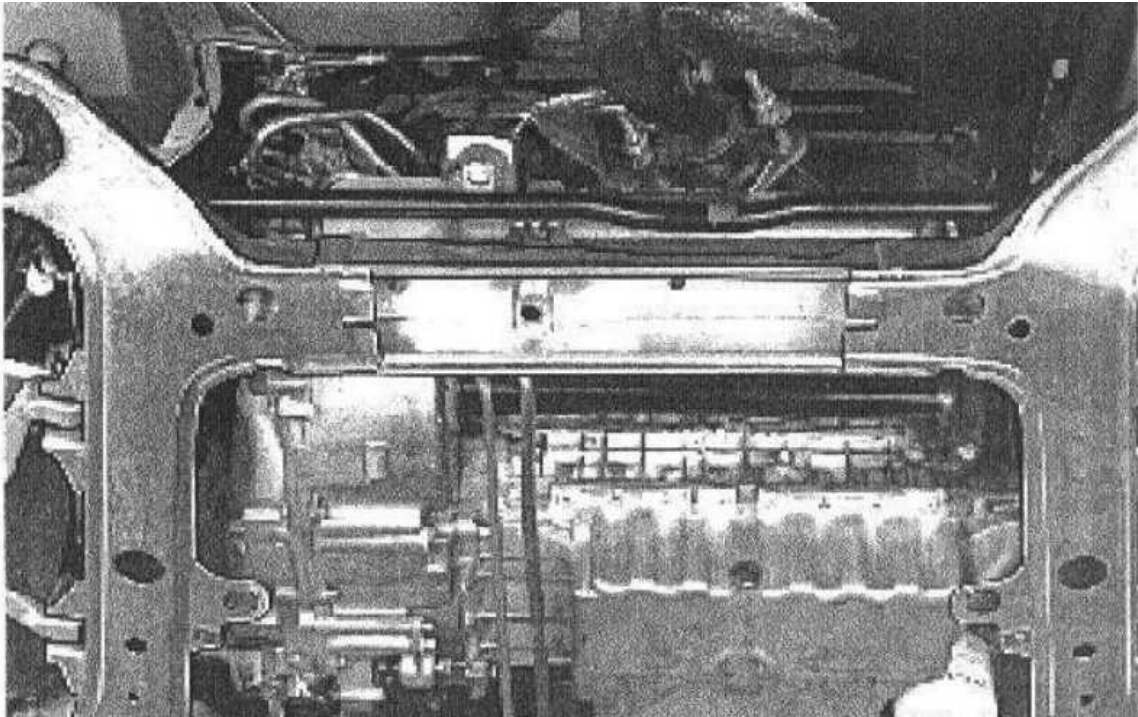
Right and left hand drive cars



Transfer the mounting for the center mounting.
Plug the open ends of pipe couplings.



Check that the [tie rod](#) is in the same position as when it was removed.



Lift the steering gear in from the right.

Allow the steering gear to rest on the sub-frame and install the heat deflector plate.

(Applies only to right-hand drive cars).

Support the steering gear on the rear engine mounting.

Hold the steering gear up so that it is positioned straight relative to the frame. Tighten the screw to **50 Nm (36.9 ft. lbs.)**.

Locate the steering gear to the [steering shaft](#) joint.

Install a new locknut on the [steering shaft](#) joint.

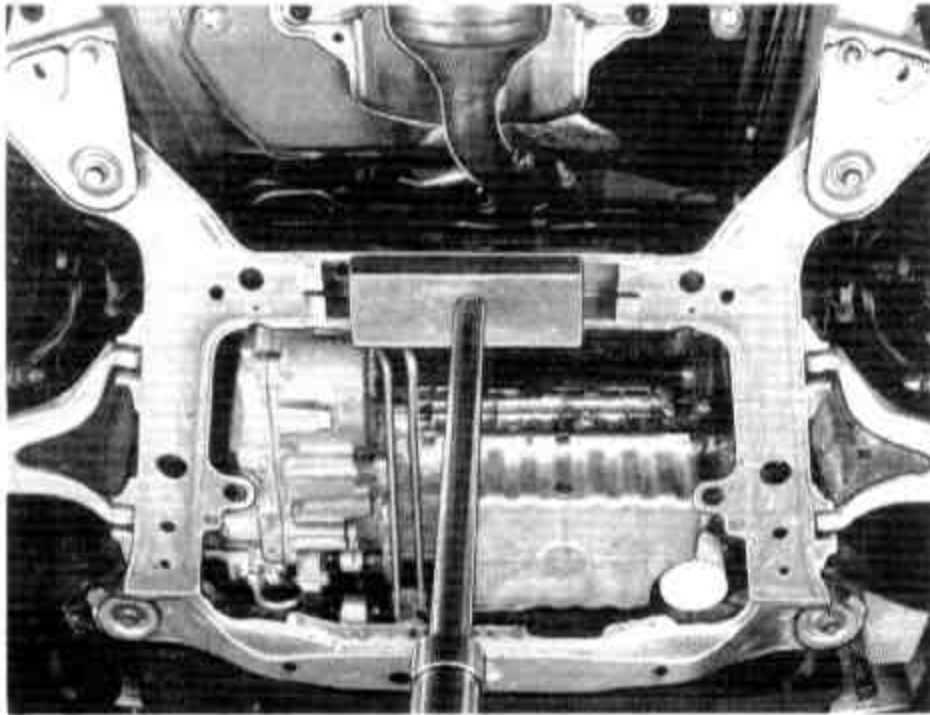
Tighten to **20 Nm (14.8 ft. lbs.)**.

Install locking shackle.

Connect oil pipes loosely to steering gear. (Applies only to left-hand drive cars.) Use new O-rings.

Install the front oil pipe brackets loosely.

Align the pipes with the bracket. Tighten the pipes to the steering gear.



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Raise the subframe at the rear. Use a mobile jack. Insert the steering gear mounting screws while raising the frame.

Install **new screws** in the subframe loosely.

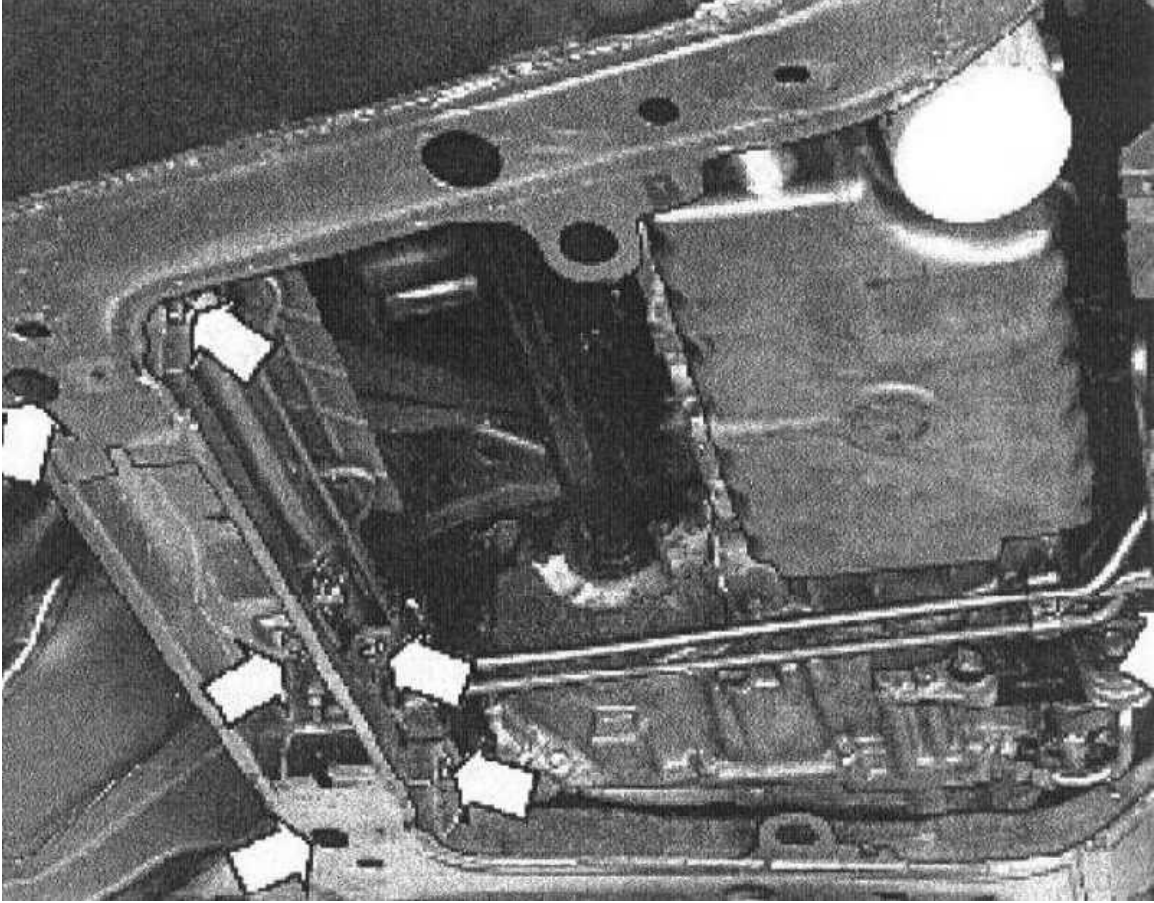
Transfer the mobile jack to the front edge of the frame and replace the front screws in the frame. **Do not tighten yet.**

First tighten the screws on the left side of the sub-frame to **105 Nm (77.4 ft. lbs.)** and angle tighten **120°**.

Then tighten right-hand side to the same values as the left side.

Tighten the screws for the brackets on both sides to **50 Nm (36.9 ft. lbs.)**.

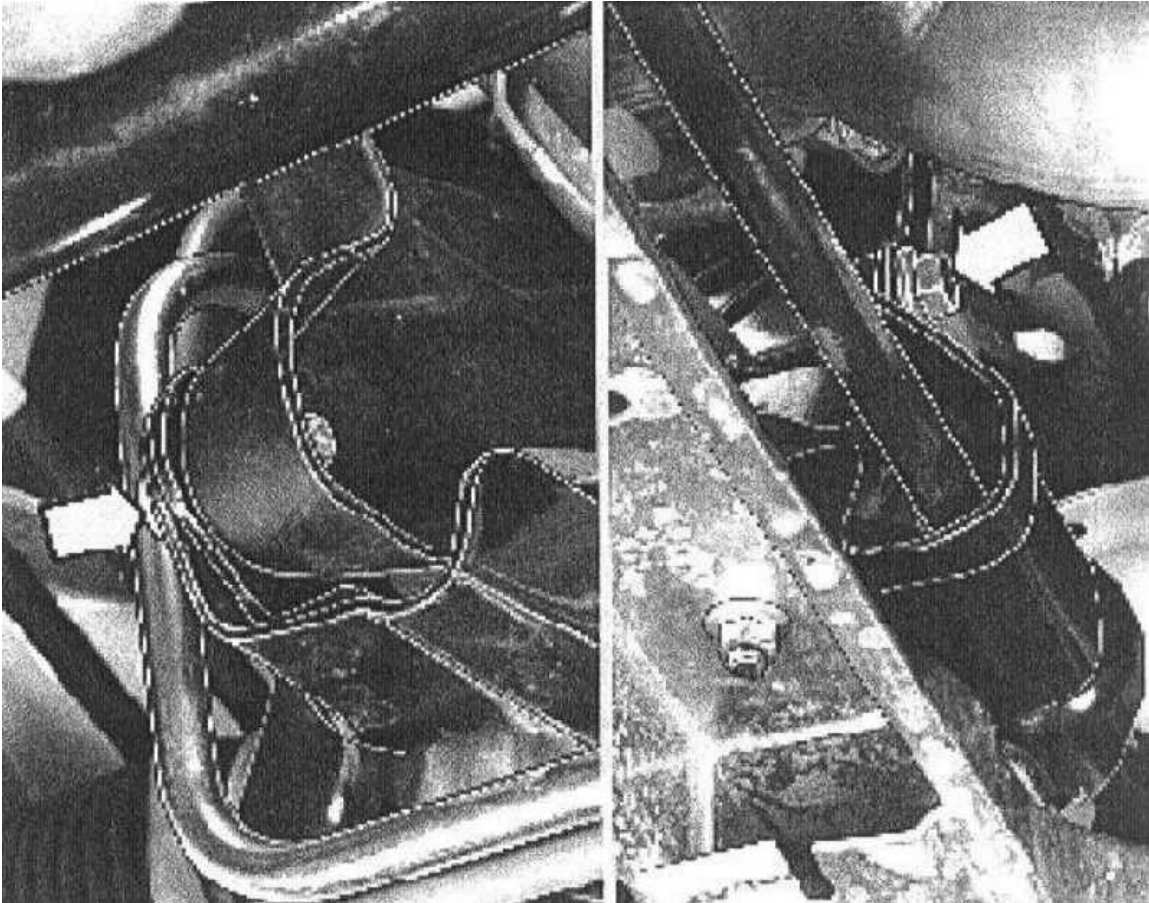
Tighten



- steering gear to 50 Nm (36.9 ft. lbs.). Use new nuts.
- the screw for the steering gear center mounting to **80 Nm (59.0 ft. lbs.)**.

Install (applies only to right-hand drive cars)

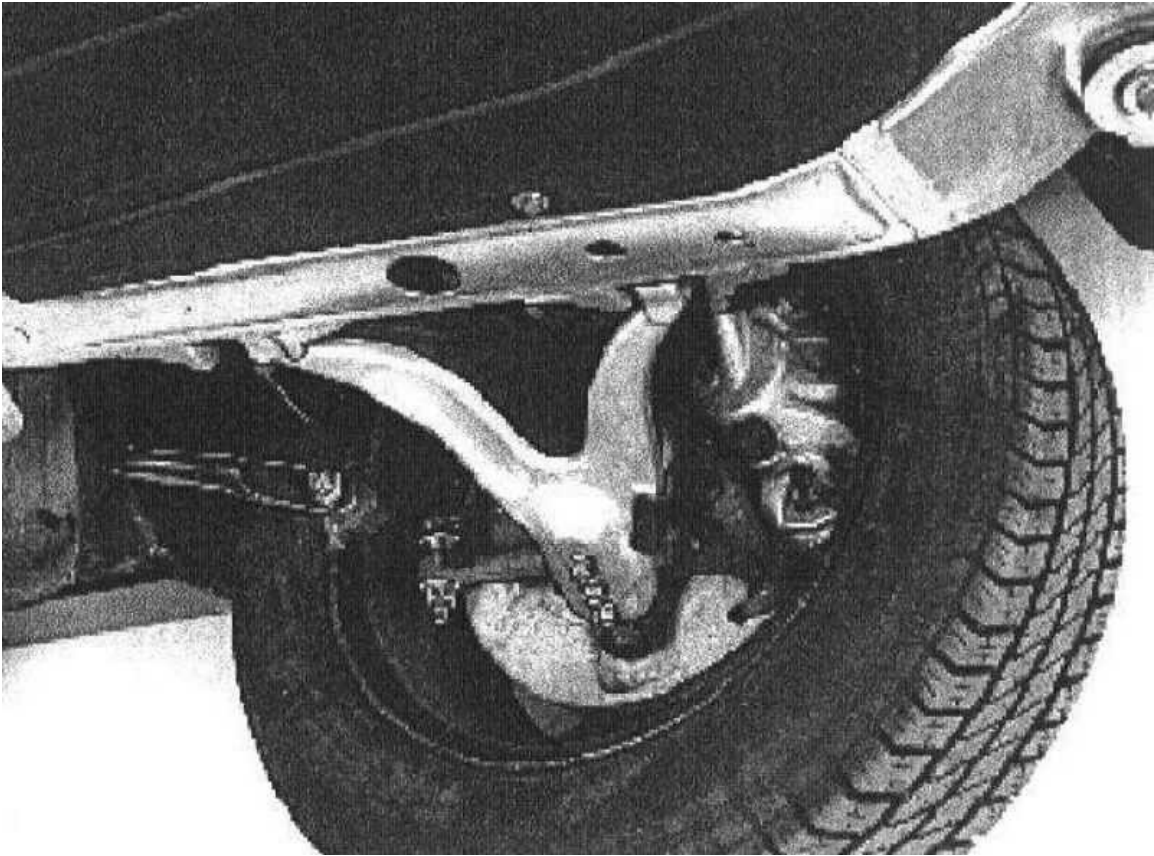
- the oil pipes with new O-rings.
- the front and rear oil pipe brackets loosely. Tighten the oil pipes. Install and tighten the oil pipe brackets and clamps at the front and rear.



Install the collision protection on the steering gear. (Applies only to right-hand drive cars.) Tighten to **80 Nm (59.0 ft. lbs.)**.

Install **new screws** to the right hand engine mounting.
Tighten to **35 Nm (25.8 ft. lbs.)** and angle tighten **90°**.
Turn the tab in the fender liner back and install the plastic nut.

Install



- [tie rods](#) to [steering arms](#). Use new nuts. Tighten to **70 Nm (51.6 ft. lbs.)**.
- the [wheels](#). Lubricate the hub guide for rims with rustproofing agent, P/N 1161030- 0. Tighten the studs lightly. Then tighten them crosswise to **110 Nm (7.4 ft. lbs.)**.



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Top up the oil level in the servo reservoir and bleed the system.

For oil type, see specifications [Steering](#).

Repeatedly turn the [steering wheel](#) between the full locks.

Top up oil if necessary.

Lower the car.

Apply the parking brake. Start the engine.

Check for the oil level during bleeding as below.

Turn the [steering wheel](#) slowly to the right. Hold on full lock for 10 seconds.

Turn the [steering wheel](#) slowly to the left. Hold it at the limit position for 10 seconds

Repeat steps A and B 20 times. Move the car after the operation has been carried out 10 times to avoid damage to the [tires](#). Check toe-in. Toe-in.