

Bevel gear, replacing

Special tools: [951 2050](#) , [999 5540](#) , [999 5561](#) , [999 5562](#) , [999 5563](#)

Note! Follow the instructions on positioning the lift arms carefully. See [Towing, changing wheels and rolling road/wheel spinner test](#) .

Removing bevel gear

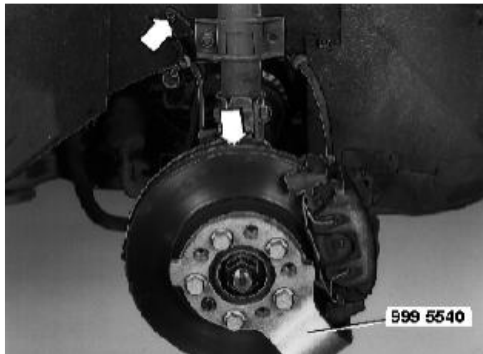
Removing the front wheel

Remove:

- the right front wheel
- the screw for the brake hose bracket.
Unhook the bracket
- the ABS sensor. Hang up the sensor.

Note! Do not disconnect the connector.

- the nut for the drive shaft. Use counterhold [999 5540](#) . Tap the end of the drive shaft 10–15 mm into the hub. Use a copper or rubber mallet.



Removing the control arm and ball joint

Remove:

- the nut for the anti-roll bar link. Unhook the link
- the wheel spindle - ball joint screw. Remove the ball-joint from the wheel spindle. Install the protective socket [999 5562](#) on the ball joint.



Installing the control arm holder

Install holder [999 5563](#) to hold the control arm down

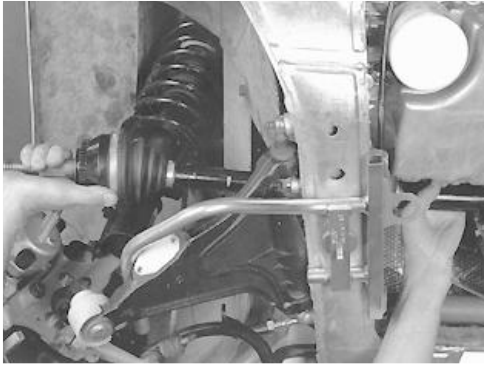
Press the drive shaft into its inner position. Turn and fold out the spring strut. Remove the drive shaft from the hub.



Removing the drive shaft

Remove:

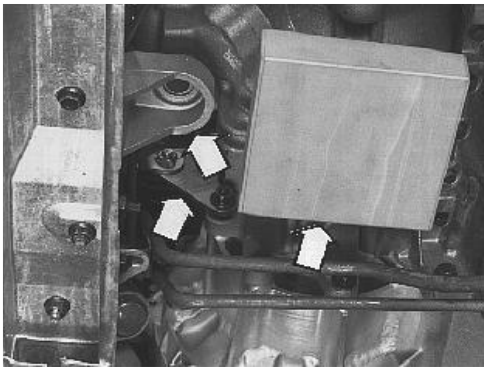
- the bearing cap for the drive shaft
- the shaft. Carefully pull the shaft straight out from the transmission so that sealing ring is not damaged.



Removing the vibration damper and the support bracket

Remove:

- the bevel gear vibration damper and the limiter from the sub-frame
- the support bracket between the exhaust pipe and the bevel gear.



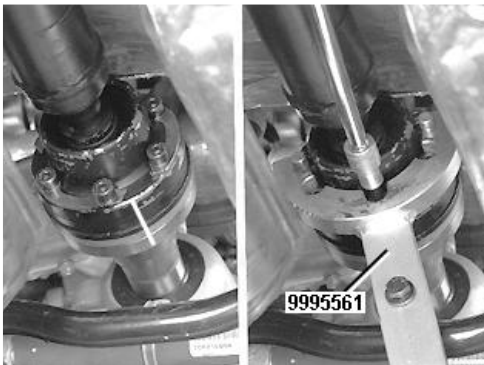
Marking the flange

Mark the position of the propeller shaft flange in relation to the bevel gear flange

Note! Mark up only if reinstalling the bevel gear.

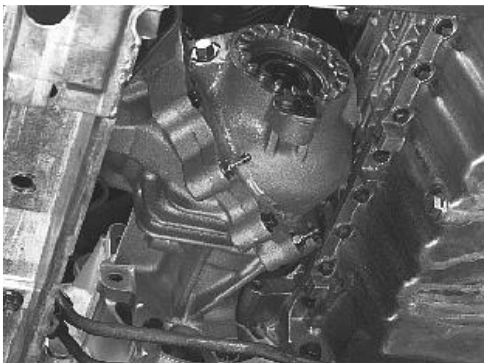
Remove the screws for the propeller shaft, use counterhold 999 5561

Modify the counterhold according to Tool Bulletin.



Removing bevel gear

Remove other screws holding bevel gear. Lift down the bevel gear

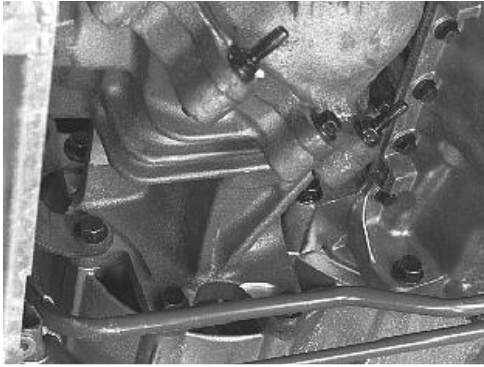


Installing the bevel gear

Installing the bevel gear

Install the bevel gear

Check that the coupling sleeve between the



transmission and bevel gear is in place. See [Sealing rings, connection sleeve, replacing](#). Ensure that mating surfaces are clean. Install the screws. Do not forget the exhaust pipe bracket. Lightly tighten the screws crosswise. Then tighten to **50 Nm**.

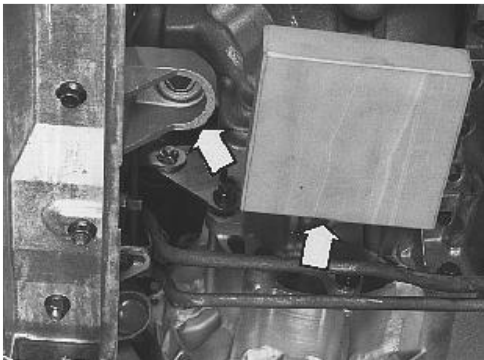
Note! When replacing the bevel gear: The bevel gear is supplied filled with oil to the correct level.

When checking the oil level in the bevel gear
Check the oil level in the bevel gear. See [Replacing the pinion seal for the bevel gear](#).

Installing limiter and vibration damper

Install:

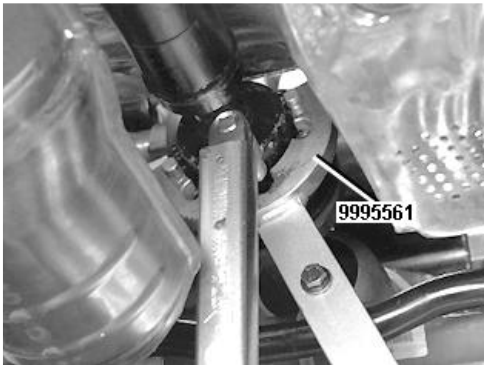
- the limiter
- the vibration damper.



Installing the propeller shaft on the bevel gear

Install the propeller shaft. See "reference to C6" to the bevel gear flange

Use new screws.
Tighten the screws crosswise. Tighten to **8 Nm**. Then tighten to **30 Nm**. Start tightening with the same screw both times.
Use counterhold [999 5561](#). The tool must be modified according to the Tool Bulletin.



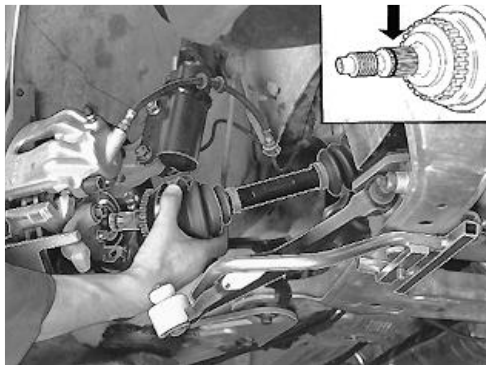
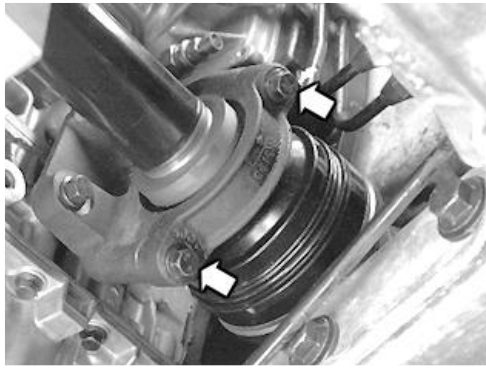
Installing the drive shaft

Note! Before installing the bevel gear, lubricate the spline joint between the transmission and the bevel gear using grease. See: [Splines greasing](#).

Installing the drive shaft on the support bearing mounting

Install the drive shaft on the support bearing mounting

Tighten the bearing cap screws. Tighten to **25 Nm**.



Installing the drive shaft on the hub

Install the drive shaft on the hub

Apply metal adhesive, P/N 1161370-0, to the drive shaft splines. See the illustration. Use holder [999 5563](#) to hold the control arm down.

Fold out and turn the spring strut. Align the drive shaft in the hub.

Install the drive shaft nut by hand. Use a new nut. Lubricate the nut.

Remove the holder.

Note! Take care not to damage the drive shaft boot.

Installing the control arm and ball joint

Reinstall the control arm and ball joint on the wheel spindle

Remove protective sleeve [999 5562](#) from the ball-joint.

Check that the groove on the ball joint spindle lines up with the screw hole in the wheel spindle.

Use a **new** lock nut. Tighten to **50 Nm**.



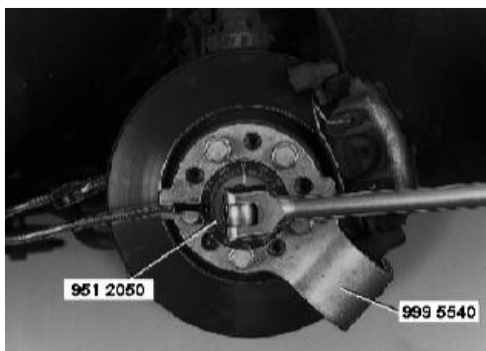
Tightening the drive shaft nut

Tighten the drive shaft nut

Use counterhold [999 5540](#) and bevel protractor [951 2050](#).

Tighten to **120 Nm + 60°** angle.

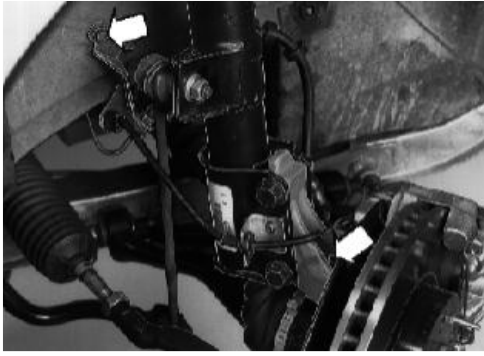
Remove the counterhold.



Installing the bracket and ABS sensor

Install:

- the bracket for the brake line and ABS cable



- the ABS sensor on the wheel spindle. Clean the sensor with a soft brush. Lubricate the sensor holes with wheel bearing grease, P/N 1161241-3.

Note! Ensure that the sensor seat is absolutely clean.

Tighten the sensor. Tighten to **10 Nm**.

Install the wheel. See [Tightening the wheel studs](#) .