Wheel Bearing

Service and Repair

Special Tools
951 2050
999 5259
999 5562
999 5563

Preparation
Remove

* the wheel.
* the ABS sensor. Detach the ABS sensor cable from the spring strut.
Remove the 2 mounting screws on the brake caliper.

Hang up the brake caliper, for example on the spring strut.  
**Note!** Take care not to damage the brake hose while working.
Remove the screw holding the drive shaft. Counterhold the brake disc with a screwdriver.

Remove

* the brake disc locating pin.
* the brake disc.
Tap the end of the drive shaft into the hub approximately 10 - 15 mm (0.39" - 0.59") . Use a brass drift.

Remove the upper anti-roll bar link from the spring strut.
Remove the steering arm from the stub axle. Use puller 999 5259.
Blow clean around the ball joint with compressed air.
Generously spray rust penetrant on to the area around the ball joint and the screw and nut retaining the ball joint.
If the screw has rusted solid, slacken off the nut a few turns and knock the screw so that it loosens.
Remove the nut and screw.
Spray the ball joint with rust penetrant again.

**Note!** Do not insert a screwdriver or punch between the "ears" on the stub axle.
Tap the ball joint off the stub axle
Use a sleeve as a spacer

**Note!** The inner diameter of the sleeve must be larger than the outer diameter of the cover. This is to prevent damage to the cover.

Spray the ball joint with rust penetrant again.
Move the ball joint up and down by hand (alternatively a jimmy bar can be used) until the ball joint detaches from the stub axle.
Install protective sleeve 999 5562 on the ball joint.
Secure the control arm in the depressed position using tool 999 5563.

Remove the drive shaft from the hub.
Turn the spring strut a half turn and "lock" it by placing the steering arm on the control arm.

Note! Take care not to damage the brake hose.

Hang the drive shaft on the spring strut.
Replacing the front wheel bearing / hub

Remove the wheel bearing unit.
Check the stub axle surfaces mating against the wheel bearing unit. Also check the screw head mating surfaces on the stub axle. Lubricate all the mating surfaces a little.

Install the wheel bearing unit with new screws. Lubricate the outer threads a little and tighten crosswise to **65 Nm (47.9 ft. lbs.)**. Angle-tighten the screws for the wheel bearing unit to 60°. Use protractor 951 2050.
Check the drive shaft for damage to the mating surfaces with the wheel bearing. Check the booms (splines).
Clean the pulse wheel and check the shape of its cogs.
Lubricate the booms (splines) and mating surfaces to the wheel bearing a little.

Detach the drive shaft from where it was placed earlier.
Turn the spring strut a half turn to detach it from the control arm.

Note! Take care not to damage the brake hose.
Install the drive shaft in the hub by hand, but only to the extent that the drive shaft can easily move backward and forward in its position.
Lubricate a new drive shaft screw and screen it in a few turns by hand.

Clean off any rust from the ball joint and stub axle.
Lubricate the ball joint pinion and the stub axle.
Install the ball joint in the stub axle.

**Note!** Press the ball joint upwards so that the conical top is visible above the screwed joint on the stub axle.
Install the screw and a new nut. Tighten to 50 Nm (36.9 ft. lbs.).

Check the dust boot on the anti-roll bar link for damage. Check the link threads for damage. Lubricate the threads. Reinstall the upper link of the anti-roll bar on the spring strut. Use a new locknut. Tighten to 50 Nm (36.9 ft. lbs.).

Install the tie rod on the stub axle. Use a new locknut. Tighten to 70 Nm.
Check that the brake disc mating surfaces to the wheel bearing unit are smooth and even.

Install

* the brake disc.
* the brake disc locating pin. Tighten to **8 Nm (5.9 ft. lbs.)**.

Check the mating surfaces of the brake caliper and stub axle.
Clean and grease the surfaces of the steering limiter.
Install the brake caliper. Use new screws. Tighten to **100 Nm (73.8 ft. lbs.)**.
Tighten the center screw of the drive shaft to **50 Nm (36.9 ft. lbs.)**. Counterhold the brake disc with a screwdriver.
Clean and check that the ABS sensor mating surface on the stub axle is flat.
Apply a very small amount of grease to the mating surface.
Install the ABS sensor cable in the holder on the spring strut.
Install the ABS sensor. Lubricate the screw and tighten to **10 Nm (7.4 ft. lbs.)**.

Install the wheel
Install the wheel studs lightly. Then tighten them crosswise to **110 Nm (7.4 ft. lbs.)**.