

**Haynes**
shows you how

BMW 3-Series (92-98) & Z3 (96-98) Haynes Online Manual

3 Steering knuckle - removal and installation

Removal

- 1 Firmly apply the parking brake, then jack up the front of the vehicle and support it on axle stands. Remove the relevant front wheel.
- 2 If the steering knuckle is to be replaced, remove the hub assembly (see [Section 2](#)).
- 3 If the steering knuckle assembly is to be reinstalled, loosen and remove the two bolts securing the brake caliper mounting bracket to the knuckle then slide the caliper assembly off the disc. Using a piece of wire or string, tie the caliper to the front suspension coil spring, to avoid placing any strain on the hydraulic brake hose. On models with ABS, also remove the wheel sensor (see [Chapter 9](#)).
- 4 Loosen and remove the nut securing the steering gear tie-rod end to the steering knuckle, and release the balljoint tapered shank using a universal balljoint separator.
- 5 Loosen and remove the two lower bolts securing the suspension strut to the steering knuckle, and the upper nut and bolt.
- 6 Unscrew the control arm balljoint and remove the steering knuckle from the vehicle. If necessary, release the steering knuckle from the control arm using the balljoint separator.
- 7 Examine the knuckle for signs of wear or damage, and replace if necessary.

Installation

Note:

New suspension strut-to-steering knuckle lower bolts, and tie-rod end, control arm balljoint, and strut-to-knuckle upper bolt nuts, will be required on installation.

- 8 Prior to installation, clean the threads of the strut-to- steering knuckle lower bolt holes by running a tap of the correct thread size and pitch down them.

9 Engage the knuckle with the control arm bushing stud, and install the new retaining nut.

10 Locate the knuckle correctly with the suspension strut, and insert the upper retaining bolt and new nut. Install the two new lower bolts securing the strut to the knuckle, and tighten both the lower and upper bolt to the specified torque.

11 Tighten the control arm balljoint nut to the specified torque.

12 Engage the tie-rod end in the steering knuckle, then install a new retaining nut and tighten it to the specified torque.

13 Install the new hub assembly (see [Section 2](#)).

14 On models where the hub was not disturbed, slide the caliper into position over the disc, making sure the pads pass either side of the disc. Lightly oil the threads of the caliper bracket mounting bolts prior to installation, and tighten them to the specified torque (see [Chapter 9](#)).

15 Install the wheel, then lower the vehicle to the ground and tighten the wheel bolts to the specified torque.