

**Haynes**
shows you how

BMW 3-Series and Z4 (99-05) Includes 2006 325ci/330ci Coupe and Convertible models Haynes Online Manual.

18 Steering column - removal, inspection and installation

Warning:

These models are equipped with a Supplemental Restraint System (SRS), more commonly known as airbags. Always disable the airbag system before working in the vicinity of any airbag system component to avoid the possibility of accidental deployment of the airbag(s), which could cause personal injury (see Chapter 12).

Warning:

Do not use a memory saving device to preserve the PCM or radio memory when working on or near airbag system components.

Note:

New steering column shear-bolts, and an intermediate shaft clamp bolt/nut, will be required on installation.

Removal

- 1 Park the vehicle with the front wheels point straight ahead. Disconnect the cable(s) from the battery negative terminal(s) (see [Chapter 5, Section 1](#)).
- 2 Remove the steering wheel as described in [Section 17](#) .
- 3 Remove the steering column combination switches (refer to [Chapter 12](#)).
- 4 Working in the engine compartment, using paint or a suitable marker pen, make alignment marks between the lower end of the steering column and the intermediate shaft upper joint.
- 5 Loosen and remove the nut and clamp bolt, and disengage the shaft from the column.
- 6 Disconnect the electrical connectors from the ignition switch and free the harness from its retaining clips on the column (see illustration) .

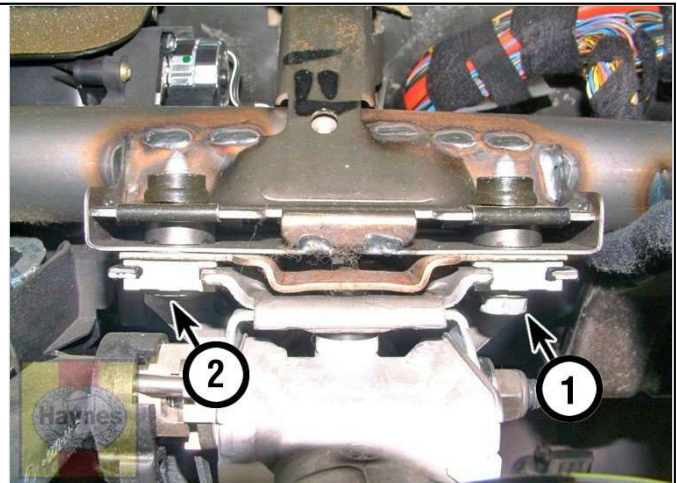
18.6 Disconnect the electrical connector from the ignition switch



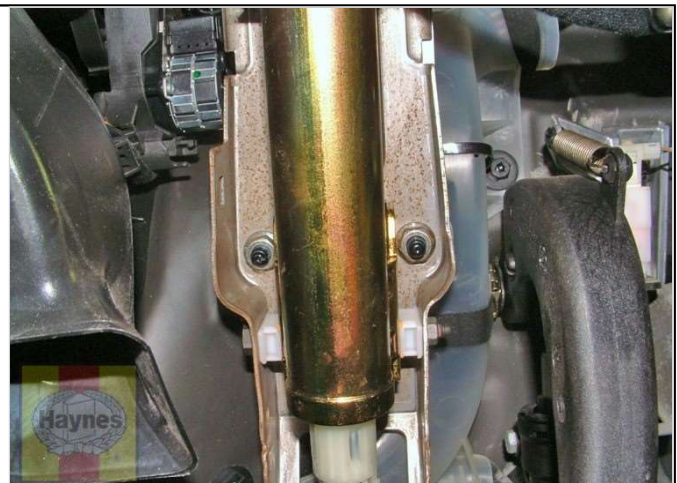
7 Release the retaining clip and detach the interlock cable (where installed) from the steering column (see illustration 19.6) .

8 The steering column is secured in position with two nuts, one bolt and one shear-bolt. The shear-bolt can be extracted using a hammer and suitable chisel to tap the bolt head around until it can be unscrewed by hand. Alternatively, drill a hole in the center of the bolt head and extract it using a bolt/ stud extractor (sometimes called an Easy-out). Unscrew the remaining mounting bolt/nuts (see illustrations) .

18.8a Remove the column retaining bolt (1) and shear-bolt (2) . . .



18.8b . . . followed by the lower mounting nuts



9 Pull the column upwards and away from the firewall, and slide off the rubber mounting, mounting seat, washer and fixing ring off from the column lower end. Remove the collars and rubber mountings from the column mountings.

Inspection

10 The steering column incorporates a telescopic safety feature. In the event of a front-end crash, the shaft collapses and prevents the steering wheel injuring the driver. Before installation the steering column, examine the column and mountings for damage and deformation, and replace as necessary.

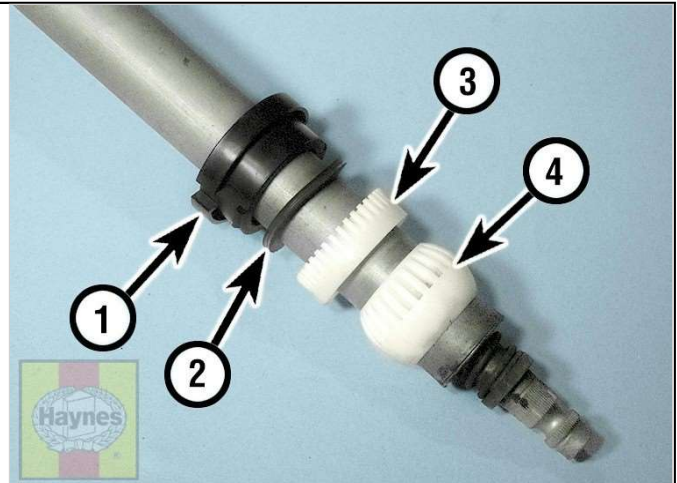
11 Check the steering shaft for signs of free play in the column bushings. If any damage or wear is found on the steering column bushings, the column should be overhauled. Overhaul of the column is a complex task requiring several special tools, and should be entrusted to a BMW dealer or other qualified repair shop.

Installation

12 Ensure the mounting rubbers are in position, and install the collars to the rear of the mounting rubbers.

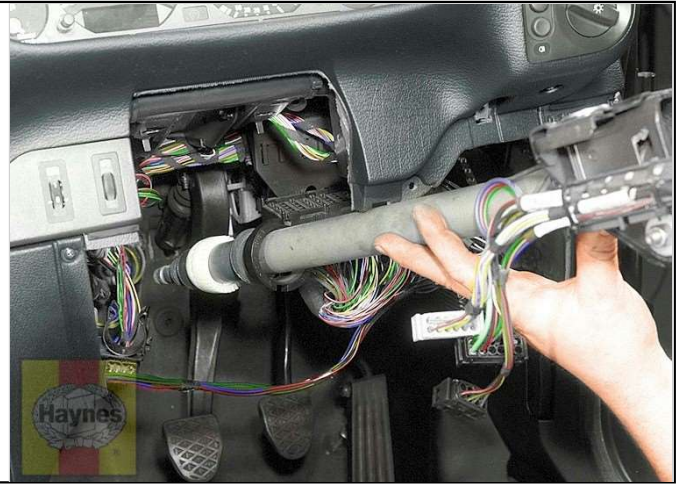
13 Slide the fixing ring, washer, mounting seat and rubber mounting onto the base of the steering column (see illustration) .

18.13 Slide the fixing ring (1), washer (2), mounting seat (3) and rubber mounting (4) onto the base of the steering column . . .



14 Maneuver the column into position and engage it with the intermediate shaft splines, aligning the marks made prior to removal (see illustration) .

18.14 . . . and reinstall the column to the vehicle



15 Locate the lower end of the column in its seat and screw in the mounting bolts and new shear-bolt; tighten them lightly only at this stage.

16 Tighten the column shear-bolt until its head breaks off. Tighten the remaining column mounting fasteners securely

17 Reconnect the wiring connectors to the ignition switch, and secure the wiring to the column, ensuring it is correctly routed.

18 Ensure the intermediate shaft and column marks are correctly aligned, and insert the column into the shaft. Install the new clamp bolt nut and tighten it to the specified torque.

19 Where necessary, reconnect the interlock cable to the switch and secure it in position.

20 Install the combination switches as described in [Chapter 12](#) .

21 Reinstall the steering wheel as described in [Section 17](#) .