



**Haynes**  
shows you how

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

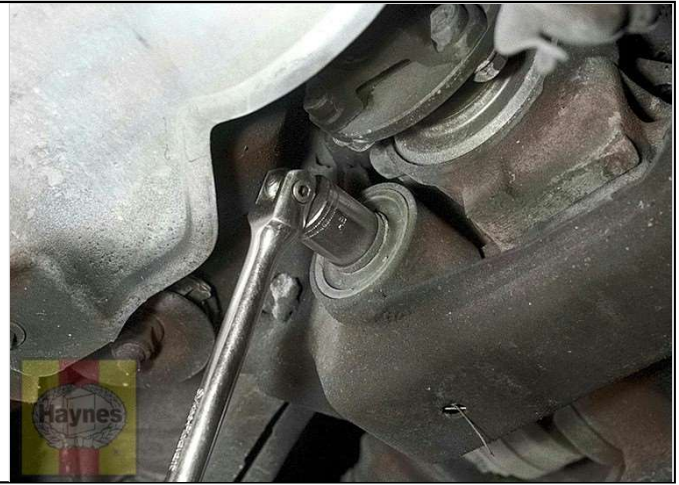
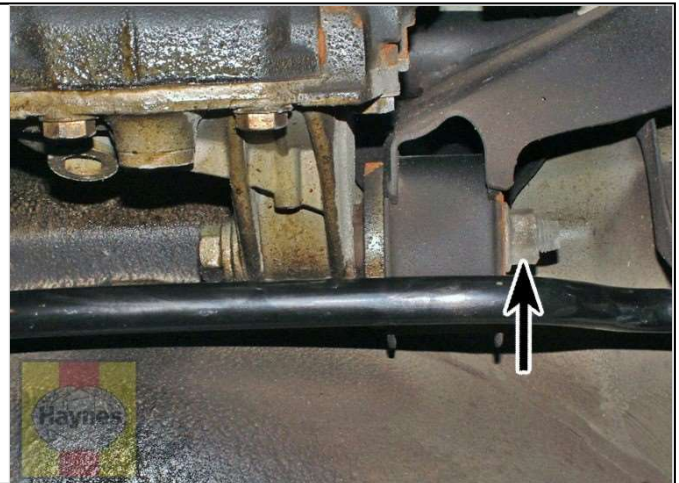
## 8 Differential - removal and installation

### Note:

New driveshaft rear coupling nuts and driveshaft retaining bolts will be required on installation.

### Removal

- 1 Chock the front wheels. Loosen the rear wheel bolts, raise the rear of the vehicle and support it securely on jackstands. Remove both rear wheels. If necessary, drain the differential unit as described in [Chapter 1](#).
- 2 Using paint or a suitable marker pen, make alignment marks between the driveshaft and differential unit flange. Unscrew the nuts securing the driveshaft to the differential unit and discard them; new ones must be used on installation.
- 3 Loosen and remove the retaining bolts and plates securing the right-hand driveshaft to the differential unit flange and support the driveshaft by tying it to the vehicle underbody using a piece of wire. **Note:** *Do not allow the driveshaft to hang under its own weight as the CV joint may be damaged. Discard the bolts, new ones should be used on installation.*
- 4 Disconnect the left-hand driveshaft from the differential as described in Paragraph 3.
- 5 Unscrew the nuts/bolts and remove the heat shield panel from the left-hand end of the tension strut beneath the differential input shaft flange.
- 6 Disconnect the electrical connector from the speedometer drive on the rear of the differential unit (if equipped).
- 7 Loosen and remove the left- and right-hand stabilizer bar mounts (see [Chapter 10](#)).
- 8 Move a jack into position and raise it so that it is supporting the weight of the differential unit.
- 9 Making sure the differential unit is safely supported, remove the two bolts securing the front of the unit in position and the single bolt securing the rear of the unit in position (see illustrations).

**8.9a Unscrew the front . . .****8.9b . . . and rear differential mounting bolts**

10 Carefully lower the differential unit out of position and remove it from underneath the vehicle. Examine the differential unit mounting bushings for signs of wear or damage and replace if necessary.

## Installation

11 Installation is a reversal of removal noting the following.

- A. Raise the differential unit into position and engage it with the driveshaft rear joint, making sure the marks made prior to removal are correctly aligned.
- B. Tighten the differential unit mounting bolts to the specified torque setting.
- C. Install the new driveshaft joint nuts and tighten them to the specified torque.
- D. Install the stabilizer bar mountings (see [Chapter 10](#) ).
- E. Install the new driveshaft joint retaining bolts and plates and tighten them to the specified torque.
- F. On completion, refill/top-up the differential unit with oil as described in [Chapter 1](#) .