

BMW 3-Series 320i & 320xi (12-14), 325i, 325xi, 330i & 330xi (06) & 328i & 328xi (07-14) Haynes Online Manual

# 5 Manual transmission - removal and installation

#### Note:

This is an involved operation. Read through the procedure thoroughly before starting work, and ensure that adequate lifting and/or jacking/support equipment is available.

## Removal

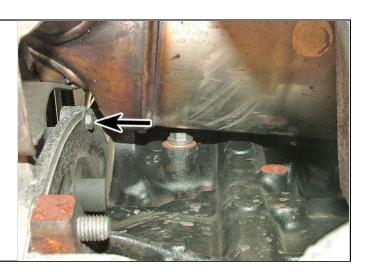
- 1 Disconnect the negative battery cable (see Chapter 5).
- 2 Raise the vehicle and support securely on jackstands. **Note:** The vehicle must be raised sufficiently to allow <u>clearance</u> for the transmission to be removed from under the vehicle. Remove the bolts and remove the engine/transmission under-shields.
- 3 Remove the starter motor (see Chapter 5).
- 4 Remove the driveshaft (see Chapter 8).
- 5 Remove the nut and remove the under-shield bracket from the side of the transmission.
- 6 Working under the vehicle, pry up the retaining clips and extract the pin securing the shift lever support bracket on each side to the transmission casing (see illustration). Similarly, disconnect the selector rod pin from the end of the shift lever (see illustration 2.6).

5.6 Pry up the clips, and slide the pin at each side from the casing



- 7 Working at the transmission bellhousing, remove the nuts and withdraw the <u>clutch</u> release cylinder from the studs on the bellhousing. Support the release cylinder clear of the working area, but do not strain the hose.
- 8 Noting their installed locations, disconnect all electrical connectors, and release any wiring harnesses from the transmission case.
- 9 On models so equipped, remove the exhaust mounting bracket from the rear of the transmission case.
- 10 Where applicable, unscrew the bolt securing the engine/transmission adapter plate to the right-hand side of the transmission bellhousing and/or remove the flywheel lower cover plate (see illustration).

### 5.10 Adapter plate retaining bolt



- 11 Place a suitable block of wood between the front of the engine oil pan and the steering gear. Once the transmission is removed, the engine will tend to tip forwards.
- 12 Place a transmission jack under the transmission casing, just behind the bellhousing. Use a block of wood to spread the load, then raise the jack to just take the weight of the transmission . Caution: *The transmission should be secured to the transmission jack with chains or heavy straps*.
- 13 Remove the crossmember and mounts from the rear of the transmission, and allow the transmission/engine

assembly to lower slightly.

- 14 Remove the engine-to-transmission bolts. Discard all aluminum bolts; new ones must be used during installation.
- 15 Slide the transmission rearward to disengage the <u>input shaft</u> from the <u>clutch</u>. Take care during this operation to ensure that the weight of the transmission is not allowed to hang on the input shaft.

# Installation

- 16 Check that the <u>clutch</u> friction disc is centered (see <u>Chapter 8</u>).
- 17 Before installing the transmission, it is advisable to inspect the <u>clutch</u> release bearing and lever (see <u>Chapter</u> <u>8</u>).
- 18 The remainder of installation is the reverse of removal, noting the following points:
  - A. Check that the transmission positioning dowels are securely in place at the rear of the engine.
  - B. Tighten all fasteners to their specified torque.
  - C. Lightly grease the gear selector arm pivot pin and the gear selector rod pin before installation.
  - D. Reconnect the driveshaft to the transmission flange (see <a href="Chapter 8">Chapter 8</a> ).
  - E. Install the starter motor (see Chapter 5).

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