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

## 11 Oil pan - removal and installation

### Removal

- 1 Disconnect the negative battery cable (see [Chapter 5, Section 3](#) ).
- 2 Remove the engine cover, by lifting the front of the cover up and pulling it forwards.
- 3 Remove the strut tower crossbrace plastic push-pins and bolts, then remove the brace.
- 4 Remove the sound insulator plastic retainers and lift the insulator off of the engine.
- 5 Remove the plastic wheelwell liner from each side (see [Chapter 11, Section 10](#) ).
- 6 Drain the engine oil and engine coolant (see [chapter 1](#) ).
- 7 Working under the vehicle, disengage the coolant hose retaining clips and disconnect the hoses from under the cooling fan shroud.
- 8 Disconnect the electrical connector to the steering gear then cut the cable tie securing the wiring harness to the subframe and move the electrical harness out from the subframe.
- 9 Remove the subframe outer bolts; nearest the front control arms then unclip the cable tie on the left side.
- 10 Remove the nuts/bolts and remove the left and right torsion struts from each side under the front subframe. Discard the nuts/bolts - new ones must be installed.
- 11 Remove the steering column lower universal joint pinch-bolt and lift the column shaft upwards from the steering rack pinion. Discard the pinch-bolt - a new one must be used.

#### Caution:

Ensure the steering wheel/column is not rotated with the universal joint disconnected from the steering rack pinion. Damage to the column and airbag clockspring could result.

12 The engine must be supported in position using an engine hoist or engine support fixture. Attach the hoist or fixture to the engine lifting eyes at the front and rear of the engine. Take the weight off the engine mounts.

13 With the help of an assistant, support the front subframe at four points, using a suitable transmission type jack with extendable arms or special jacking tool #00 2 030 and attachments 31 5 251, 253 and 255, then remove the mounting bolts at each side and carefully lower the subframe a maximum of 3.9 inches (10 cm). Pay attention to the power steering hoses/pipes as the subframe is being lowered - do not allow them to be bent or stretched.

**Note:**

The subframe bolts at the front are M12, 1.77 inches (45 mm) long, the middle bolts are M12, 6.4 inches (165 mm) long, and the rearmost bolts are M14, 2.3 inches (60 mm) long. When installing, tighten down the front bolts first.

14 Disconnect the electrical connector to the oil level sensor.

15 Remove the bolts securing the transmission case to the oil pan.

16 Progressively loosen and remove the bolts securing the oil pan to the base of the cylinder block. Discard the bolts; new ones must be installed.

17 Break the oil pan joint by striking the oil pan with the palm of your hand, then lower the oil pan from the engine. Remove the gasket and discard it; a new one must be used on installation.

18 While the oil pan is removed, take the opportunity to check the oil pump intake pipe for signs of clogging or splitting. If necessary, unbolt the intake pipe, and remove it from the engine along with its gasket (see illustration) . The strainer can then be cleaned easily in solvent. Inspect the strainer mesh for signs of clogging or splitting and replace if necessary. The bolts and sealing ring must be replaced.

19 Reinstall the oil pan gasket if it is not torn, otherwise use a new gasket.

## Installation

20 Thoroughly clean the mating surfaces of the oil pan and cylinder block.

21 Place the gasket in position on the oil pan flange.

22 Raise the oil pan up to the cylinder block, ensuring that the gasket stays in place, and install the new oil pan securing bolts, tightening them finger-tight only.

23 Tighten the oil pan-to-transmission and transmission-to-engine bolts to the torque listed in this Chapter's Specifications .

24 Progressively tighten the oil pan-to- cylinder block bolts to the torque listed in this Chapter's Specifications .

26 The remainder of installation is the reverse of removal, noting the following points:

- A. When raising the subframe into position, make sure that no pipes, hoses and/or wiring are trapped.
- B. Use new subframe and reinforcement frame/plate bolts.
- C. Tighten the engine mount nuts to the torque listed in [this Chapter's Specifications](#) .
- D. On completion, refill the engine with oil and coolant (see [Chapter 1](#) ).
- E. On automatic transmission models, check the transmission fluid level (see [Chapter 1](#) ).

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