



Haynes
shows you how

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

14 Oil seals - replacement

Crankshaft front oil seal

1 The procedure is described as part of the timing chain cover removal and installation procedure in [Section 6](#) .

Crankshaft rear oil seal

2 Remove the flywheel/driveplate (see [Section 15](#)).

3 Working at the bottom of the oil seal housing, unscrew the bolts securing the rear of the oil pan to the housing.

4 Unscrew the bolts securing the oil seal housing to the engine block.

5 If the housing is stuck to the oil pan gasket, run a sharp, thin blade between the housing and the oil pan gasket. Take care not to damage the oil pan gasket.

6 Withdraw the housing from the engine block. If the housing is stuck, tap it gently using a soft-faced mallet. Do not pry between the housing and the engine block, as this may damage the gasket surfaces.

7 Remove the gasket.

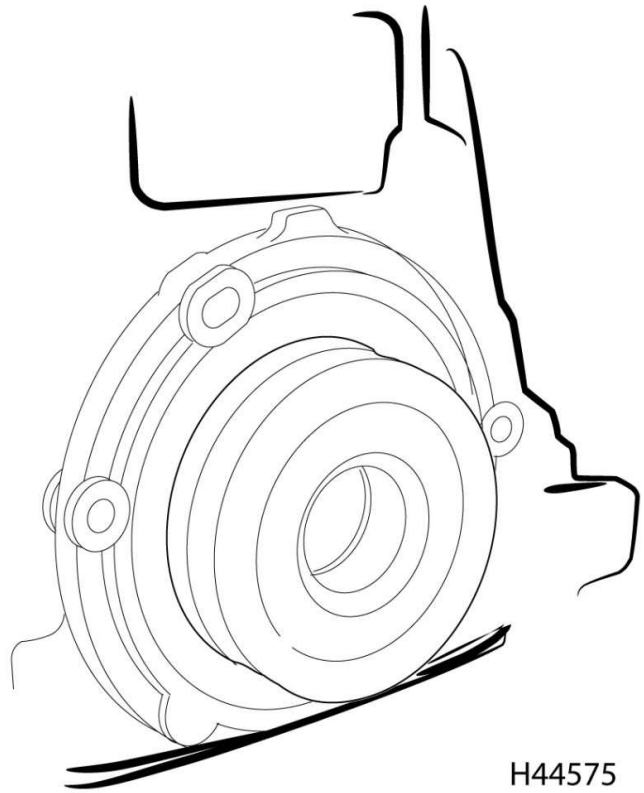
8 Thoroughly clean all traces of old gasket and sealant from the mating faces of the oil seal housing and the engine block. Again, take care not to damage the oil pan gasket. If the oil pan gasket has been damaged during removal, it is advisable to install a new one with reference to [Section 12](#) .

9 Support the oil seal housing on blocks of wood, then drive out the seal from the rear of the housing using a hammer and drift.

10 Clean the seal mating surfaces in the housing.

11 The seal must only be installed with the aid of the seal protector (supplied with the seal). Leave the seal protector installed into the center of the seal at this stage. Do not touch the sealing lip with your fingers, the lip is very sensitive and must not be kinked. Carefully drive it into position in the housing, using a seal driver to avoid damage to the seal (see illustration) .

14.11 Leave the seal protector in the center of the seal and drive it into place



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12 Ensure that the locating dowels are in position in the rear of the engine block, then locate a new oil seal housing gasket over the dowels. **Note:** *A new oil seal housing gasket will be required on installation.*

13 Carefully install the housing to the engine block, sliding the oil seal protector over the crankshaft flange, and push the seal and housing into place. Take care not to damage the oil seal lips.

14 Reinstall the housing-to-engine block and the oil pan-to-housing bolts, and tighten them lightly by hand.

15 Tighten the housing-to-engine block bolts to the torque listed in [this Chapter's Specifications](#), then tighten the oil pan-to-housing bolts to the torque listed in [this Chapter's Specifications](#).

16 Reinstall the flywheel/driveplate as described in [Section 15](#).

Camshaft oil seals

17 As this is a timing chain engine, no camshaft oil seals are installed. Sealing is provided by the valve cover gasket and the timing chain cover gaskets.