

**Haynes**
shows you how

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

7 Engine overhaul - disassembly sequence

1 It's much easier to remove the external components if it's mounted on a portable engine stand. A stand can often be rented quite cheaply from an equipment rental yard. Before the engine is mounted on a stand, the driveplate should be removed from the engine.

2 If a stand isn't available, it's possible to remove the external engine components with it blocked up on the floor. Be extra careful not to tip or drop the engine when working without a stand.

3 If you're going to obtain a rebuilt engine, all external components must come off first, to be transferred to the replacement engine. These components include:

Driveplate/flywheel

Ignition system components

Emissions-related components

Engine mounts and mount brackets

Intake/exhaust manifolds

Fuel injection components

Oil filter

Spark plug wires and spark plugs

Thermostat and housing assembly

Water pump

Note:

When removing the external components from the engine, pay close attention to details that may be helpful or important during installation. Note the installed position of gaskets, seals, spacers, pins, brackets, washers, bolts and other small items.

4 If you're going to obtain a short block (assembled engine block, crankshaft, pistons and connecting rods), then remove the timing chain, cylinder heads, oil pan, oil pump pick-up tube, oil pump and water pump from your

engine so that you can turn in your old short block to the rebuilder as a core. See *Engine rebuilding alternatives* for additional information regarding the different possibilities to be considered.