

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

## Specifications

### General

#### Engine code

M52 TU B25	152 cubic inches (2494 cc)
M52 TU B28	170 cubic inches (2793 cc)
M54 B25	152 cubic inches (2494 cc)
M54 B30	182 cubic inches (2979 cc)
M56 B25	152 cubic inches (2494 cc)

#### Bore

M52 TU B25	3.307 inches (84.0 mm)
M52 TU B28	3.307 inches (84.0 mm)
M54 B25	3.307 inches (84.0 mm)
M54 B30	3.307 inches (84.0 mm)
M56 B25	3.307 inches (84.0 mm)

#### Stroke

M52 TU B25	2.953 inches (75.0 mm)
M52 TU B28	3.307 inches (84.0 mm)
M54 B25	2.953 inches (75.0 mm)
M54 B30	3.528 inches (89.6 mm)
M56 B25	2.953 inches (75.0 mm)

Direction of engine rotation      Clockwise (viewed from front of vehicle)

No 1 cylinder location      Timing chain end

Firing order      1-5-3-6-2-4

Minimum compression pressure      See [Chapter 2A](#)

Minimum oil pressure at idle speed      7 psi (0.5 bar)

Regulated oil pressure (maximum)      59 psi (4.0 bar)

Ft-lbs (unless otherwise indicated)Nm

# Torque specifications

**Note:**  
One foot-pound (ft-lb) of torque is equivalent to 12 inch-pounds (in-lbs) of torque. Torque values below approximately 15 foot-pounds are expressed in inch-pounds, because most foot-pound torque wrenches are not accurate at these smaller values.

Connecting rod bearing cap bolts*		
1999 and 2000		
Step 1	17	23
Step 2	Tighten an additional 70-degrees	
2001 and later		
Step 1	44 in-lbs	5
Step 2	15	20
Step 3	Tighten an additional 70-degrees	
Main bearing cap bolts*		
1999 and 2000		
Step 1	18	24
Step 2	Tighten an additional 70-degrees	
2001 and later		
Step 1	20	27
Step 2	Tighten an additional 70-degrees	
Transmission-to-engine bolts	See Chapter <a href="#">7A</a> or <a href="#">7B</a>	

\* Use new bolts