

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

Specifications

Recommended lubricants and fluids

Note:

The fluids and lubricants listed here are those recommended by the manufacturer at the time this manual was written. Vehicle manufacturers occasionally upgrade their fluid and lubricant specifications, so check with your local auto parts store for the most current recommendations.

Engine oil**Type**

BMW long-life oil or fully synthetic, API SJ/CD, EC II
“Certified for gasoline engines”

Viscosity

SAE 5W-30 or 5W-40

Automatic Transmission fluid

BMW Lifetime Transmission oil*

Manual Transmission fluid

BMW Lifetime Transmission oil MTF-LT-2

Rear differential fluid

BMW Synthetic Final Drive Oil (SAF-XO)*

Brake and clutch fluid type

DOT 4 brake fluid

Power steering fluid

Dexron III*

Fuel type

91 Octane (or higher) is recommended

Engine coolant

50/50 mixture of long-life ethylene glycol based
antifreeze and water*

*Refer to your BMW dealer or local auto parts store for brand name and type recommendations

Capacities*

Engine oil (including filter)

6.9 quarts (6.5 liters)

Cooling system

8.9 quarts (8.4 liters)

Manual transmission**Getrag transmission**

1.1 quarts (1.0 liter)

ZF transmission

1.3 quarts (1.2 liters)

S6S420G transmission

1.8 quarts (1.7 liter)

GS6-37BZ transmission	1.6 quarts (1.5 liters)
Automatic transmission (drain and refill)**	
A5S 325Z (2.5L engine)	
Without torque converter	6.5 quarts (6.2 liters)
With torque converter	9.4 quarts (8.9 liters)
A5S 325Z (3.0L engine)	
Without torque converter	6.4 quarts (6.1 liters)
With torque converter	9.2 quarts (8.7 liter)
A5S 360R and A5S 390R	
Without torque converter	4.2 quarts (4 liters)
With torque converter	9.5 quarts (9 liters)
Differential	1.8 quarts (1.7 liters)
With automatic transmission	0.95 quart (0.9 liter)
With manual transmission	1.06 quarts (1.0 liter)

* All capacities approximate. Add as necessary to bring to appropriate level.

**If you want to flush the converter during a fluid change, purchase twice the amount of fluid listed here.

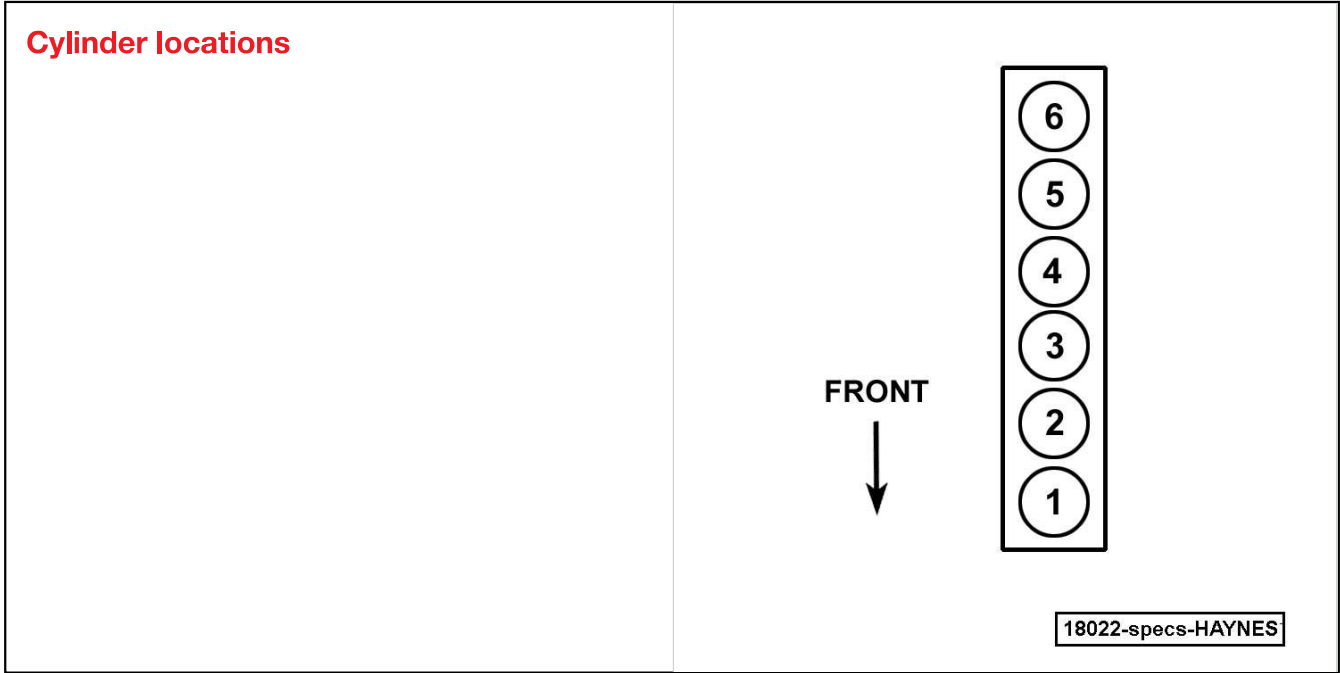
Ignition system

Spark plugs

Type	NGK BKR6 EQUIP or equivalent
Gap	Do not adjust (see Section 19)

Brakes

Brake pad friction material minimum thickness	0.079 inch (2.0 mm)
Parking brake shoe friction material minimum thickness	0.059 inch (1.5 mm)



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.

Automatic transmission fluid pan bolts

A5S 325Z	48 in-lbs	6
A5S 360R/A5S 390R	84 in-lbs	10

Automatic transmission drain plug

A5S 325Z	26	35
A5S 360R/A5S 390R	168 in-lbs	18

Cylinder block coolant drain plug	18	25
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Engine oil drain plug	18	25
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Oil filter housing cover	18	25
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Spark plugs	18	25
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Wheel bolts	74	100
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