



Haynes
shows you how

BMW 3-Series (92-98) & Z3 (96-98) Haynes Online Manual

Specifications

Recommended lubricants and fluids

Note:

Listed here are manufacturer recommendations at the time this manual was written. Manufacturers occasionally upgrade their fluid and lubricant specifications, so check with your local auto parts store for current recommendations.

Engine oil

Type API "certified for gasoline engines"

Viscosity SAE 10W/40 to 20W/50

Cooling system 50/50 mixture of ethylene glycol based antifreeze

Manual transmission

1992

Green label Gear Lubricant Special (GLS)*

Red label DEXRON III type ATF*

No label 80W GL-4*

1993 and later DEXRON III type ATF*

Automatic transmission

1992 through 1996 DEXRON III type ATF*

1997 and later Special Lubricant Fluid (SLF)*

Final drive unit Hypoid gear oil*

Braking system DOT 4 brake fluid

Power steering DEXRON II type ATF*

**Refer to your BMW dealer for brand name and type recommendations.*

Capacities*

Engine oil (including filter)

Four-cylinder engines	4.7 quarts
Six-cylinder engines	6.8 quarts

Cooling system

Four-cylinder engines	6.8 quarts
Six-cylinder engines	11 quarts

Transmission

Manual transmission	
1992	1.2 quarts
1993 and later	
318, 320 and 325	1.2 quarts
328 and Z3	1.3 quarts
Automatic transmission	3.2 quarts

Differential

Four-cylinder models	1.2 quarts
Six-cylinder models	1.8 quarts

Power-assisted steering

All models (approximate)	1.5 quarts
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Ignition system

Spark plug type	
Four-cylinder engines	Champion RC9YC
Six-cylinder engines	
2.5L	Champion RC9YC
2.8L	Champion R12YC
Spark plug electrode gap (all)	0.035 inch

Drivebelts

Air conditioning compressor drivebelt tensioning torque (see [Section 7](#)):

Used drivebelt	5.0 to 6.0 ft-lbs
New drivebelt	4.0 to 5.0 ft-lbs

Brakes

Brake pad friction material minimum thickness	5/64 inch
Parking brake shoe friction material minimum thickness	1/16 inch

Ft-lbs (unless otherwise indicated)	
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Torque specifications

Engine oil pan oil drain plug:	
M12 plug	26
M22 plug	44
Cylinder block coolant drain plug	21
Automatic transmission oil drain plug	133 to 150 in-lbs
Automatic transmission oil filler/level plug	
1994 and earlier	Not available
1995 on	74
Automatic transmission fluid pan bolts	62 to 71 in-lbs
Automatic transmission oil screen screws	44 in-lbs
Manual transmission oil drain plug	37
Manual transmission oil filler/level plug	37
Differential filler/level and drain plugs	52
Spark plugs	22
Wheel bolts	74