

2006 MINI Cooper

2002-08 ENGINE Engine & Gearbox Suspension - Tightening Torques - Cooper (R50) & Cooper S (R52, R53)

2002-08 ENGINE

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MODEL IDENTIFICATION

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Model	Series	Engine	Year
Cooper	R50	W10	2002-06
Cooper S	R53	W11	2002-06
Cooper Convertible	R52	W10	2005-08
Cooper S Convertible	R52	W11	2005-08

ENGINE SUSPENSION

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ENGINE SUSPENSION - TIGHTENING TORQUES - (1AZ - 11AZ)

	Type	Thread	Tightening specification	Measure
1AZ Engine support bracket to engine mount	R50 / R52 / R53	M12x1.5 - 8		68 N.m.
2AZ Engine support bracket to engine / adapter plate	R50 / R52 / R53	M12x93 - 8.8		66 N.m.
	R50 / R52 / R53	M12x1.75x85		66 N.m.
3AZ Engine carrier bracket mount to body	R50 / R53	M12x1.5x30 - 8.8		68 N.m.
4AZ Top engine carrier bracket to engine support bracket	R50, W10 / R53	M12x1.5x60 - 8.8		100 N.m.
	R50 / W17	M12x1.5x70 - 8.8		68 N.m.
5AZ Top engine carrier bracket to engine carrier bracket holder	R50, W10 / R53,	M12x1.5x90 - 10.9		100 N.m.
	R50 / W17	M12x1.5x100 - 8.8		68 N.m.
6AZ Engine mount to body	R50 / R52 / R53	M10x110 - 10.9	Replace screw	
			Jointing torque	56 N.m.
			Torque angle	90° +/- 15°

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	R50 / R52 / R53	M12x35-8.8		68 N.m.
7AZ Bottom engine carrier bracket holder to oil sump	R50 / R52 / R53	M10x20 - 8.8		38 N.m.
8AZ Bottom engine carrier bracket to holder	R50 / R52 / R53	M12x1.5x60 - 10.9		100 N.m.
9AZ Bottom engine carrier bracket to front axle carrier	R50 / R52 / R53	M12x1.5x90 - 10.9		100 N.m.
10AZ Adapter plate to end cover	R50 / W17	M8x50, M8x65		24 +/- 5 N.m.
	R50 / W17	M10x55		55 +/- 5 N.m.
11AZ Grounding cable to engine support bracket	R50 / R52 / R53	M8 nut		13.5 N.m.

TRANSMISSION SUSPENSION

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TRANSMISSION MOUNTS - TIGHTENING TORQUES - (1AZ - 3AZ)

	Type	Thread	Tightening specification	Measure
1AZ Transmission mount to transmission	R50 / R52	M10x45 - 8.8		38 N.m.
	R53	M12x45 - 8.8		66 N.m.
2AZ Transmission support bracket to body	R50 / R52 / R53	M12		68 N.m.
3AZ Transmission support bracket to transmission mount	R50 / R52 / R53,	M12x1.5x125 - 8.8		68 N.m.