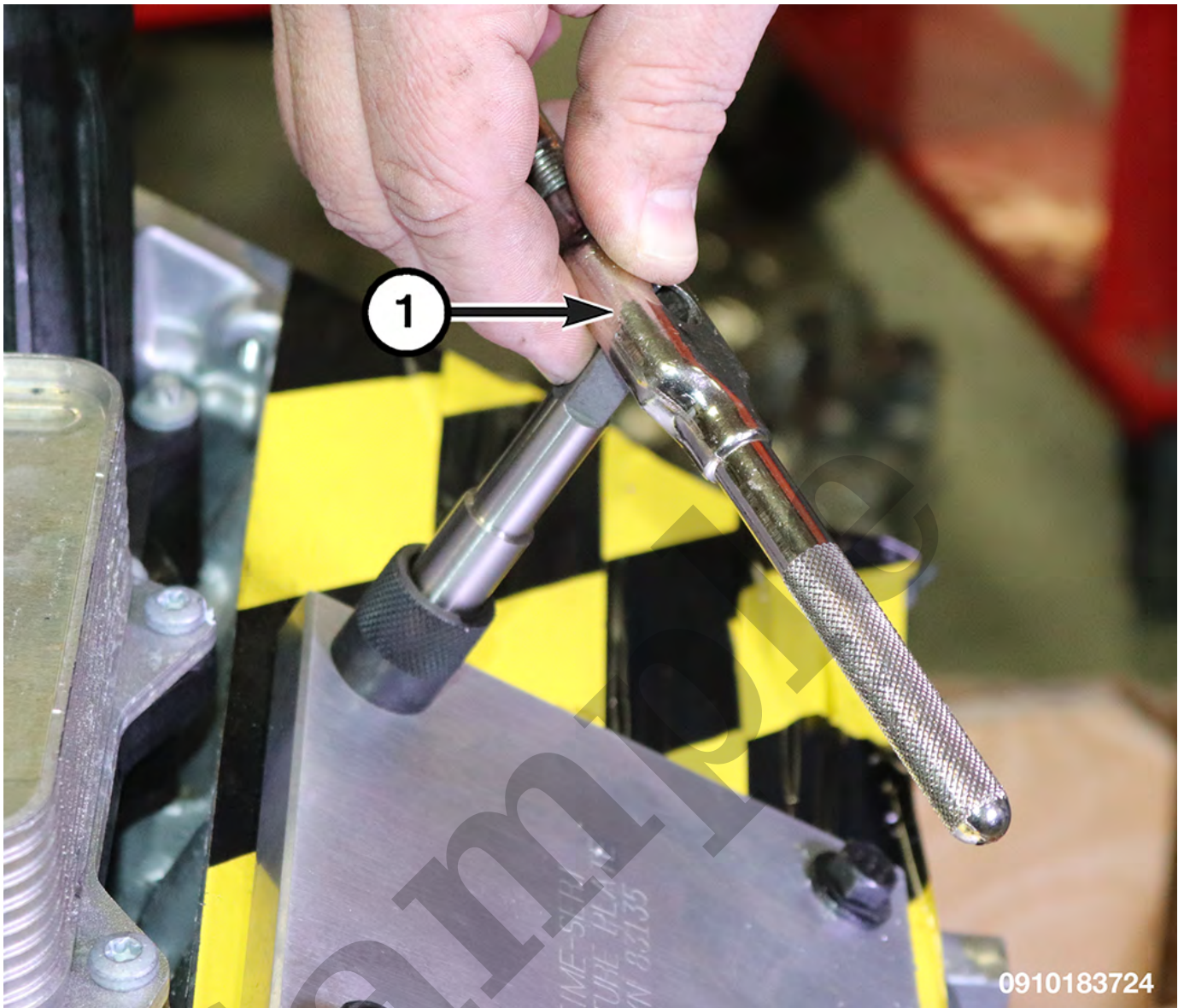


Your Ultimate Source for OEM Repair Manuals

FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

2011 Jeep COMPASS PATRIOT Service Manual

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1 - Tap

10. Tap through the drill bushing until the tap bottoms out. This will require removing the tap and bushing several times to clear metal chips. Clean all of the metal chips and debris using a brake or contact cleaner that will not leave an oily residue.
11. Use a flashlight to inspect the hole for chips and cleanliness. The hole must be clean and dry.

YOUR CURRENT VEHICLE

Engine Specifications

ENGINE SPECIFICATIONS

GENERAL SPECIFICATIONS

Description	Specification
Engine Type	60° DOHC V-6 24-Valve
Compression Ratio	10.2:1
Lead Cylinder	#1 Right Bank
Firing Order	1-2-3-4-5-6

Description	Metric	Standard
Displacement	3.6 Liters	220 Cubic Inches
Bore and Stroke	96.0 x 83.0 mm	3.779 in. x 3.268 in.

OIL PRESSURE – UPGRADE ENGINE

Description	Specification	
	Metric	Standard
NOTE: Values in the table are valid for coolant temperature between 89 - 100°C.		
Pressure @ Curb Idle Speed (650 RPM)*	103.4 - 234.4 kPa	15 - 34 psi
Pressure @ 1000 - 3000 RPM	193 - 241.3 kPa	28 - 35 psi

Description	Specification	
	Metric	Standard
Oil Control Ring (Steel Rails)	1.930 - 2.083 mm	0.076 - 0.082 in.

CONNECTING RODS

Description	Specification	
	Metric	Standard
Bearing Clearance (With Crush)	0.023 - 0.064 mm	0.0009 - 0.0025 in.
Side Clearance	0.070 - 0.370 mm	0.0028 - 0.0146 in.
Side Clearance (Max.)	0.370 mm	0.0146 in.
Piston Pin Bore Diameter	22.016 ± 0.005 mm	0.8668 ± 0.0002 in.
Bearing Bore Out of Round (Max.)	0.008 mm	0.0003 in.
Total Weight (Less Bearing)	546.7 ± 8 grams	19.28 ± 0.28 oz.

CRANKSHAFT MAIN BEARING JOURNALS

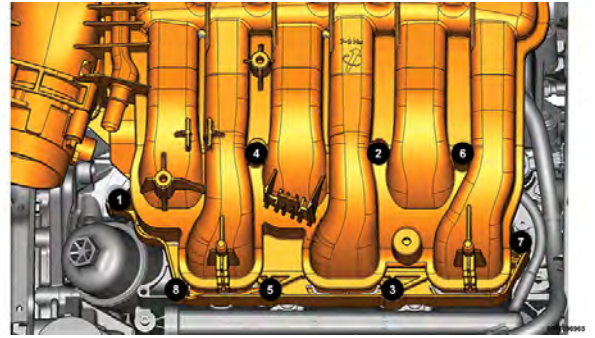
Description	Specification	
	Metric	Standard
Diameter	71.996 ± 0.009 mm	2.8345 ± 0.0035 in.
Bearing Clearance	0.024 - 0.050 mm	0.0009 - 0.0020 in.
Bearing Clearance (Max.)	0.050 mm	0.0020 in.
Out of Round (Max.)	0.005 mm	0.0002 in.
Taper (Max.)	0.005 mm	0.0002 in.

Description	Specification	
	Metric	Standard
Stem Diameter - Intake	5.968 ± 0.009 mm	0.2350 ± 0.0004 in.
Stem Diameter - Exhaust	5.961± 0.009 mm	0.2347 ± 0.0004 in.
Stem-to-Guide Clearance - Intake (New)	0.023 - 0.061 mm	0.0009 - 0.0024 in.
Stem-to-Guide Clearance - Exhaust (New)	0.030 - 0.068 mm	0.0012 - 0.0027 in.
Stem-to-Guide Clearance-Intake (Max., Rocking Method)	0.29 mm	0.011 in.
Stem-to-Guide Clearance - Exhaust (Max., Rocking Method)	0.37 mm	0.015 in.
Valve Stem Tip Height* - Intake	52.4 - 53.5 mm	2.063 - 2.106 in.
Valve Stem Tip Height* - Exhaust	51.8 - 52.9 mm	2.039 - 2.083 in.

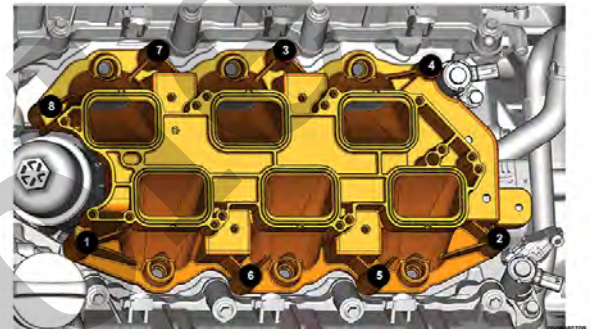
*Valve tip to aluminum spring seat boss

VALVE SPRING

Description	Specification	
	Metric	Standard
Free Length - Intake AND Exhaust (Approx.)	52.5 mm	2.067 in.
Spring Force - Intake AND Exhaust (Valve Closed)	295 ± 13 N @ 40.0 mm	66 ± 3 lbs. @ 1.57 in.
Spring Force - Intake (Valve Open)	688 ± 31 N @ 10.3 mm	155 ± 7 lbs. @ 0.4055 in.
Spring Force - Exhaust (Valve Open)	676 ± 30 N @ 10.0 mm	152 ± 6 lbs. @ 0.3937 in.

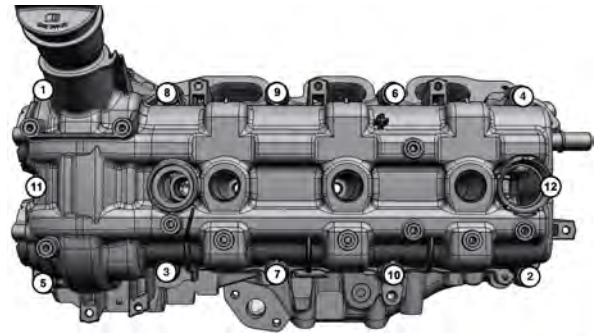


Tightening Sequence

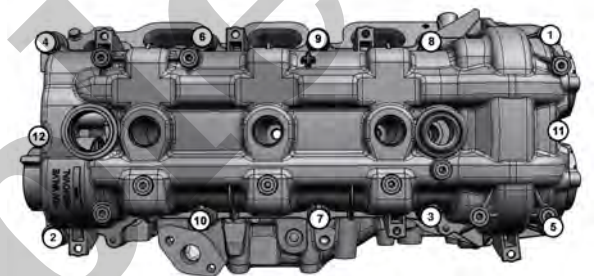


4	Intake Manifold (Lower) M6 Bolts	9 N·m (80 In. Lbs.)	
5	Throttle Body Support Bracket Bolt	12 N·m (9 Ft. Lbs.)	–
6	Throttle Body Support Bracket Stud	Not Serviced	–
7	Throttle Body Support Bracket Nut	8 N·m (71 In. Lbs.)	–
–	Intake Manifold Support Bracket Lower Bolt	26 N·m (19 Ft. Lbs.)	–

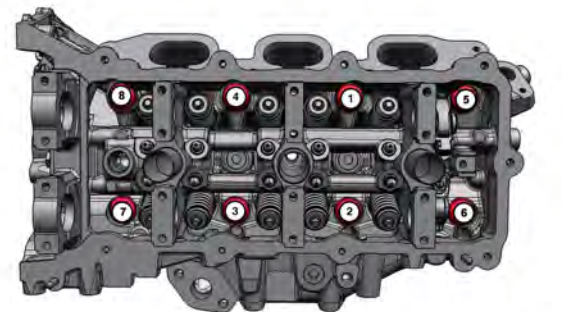
TORQUE SPECIFICATIONS - COOLING SYSTEM



Tightening Sequence - Right



Tightening Sequence - Left



Tightening Sequence - Right

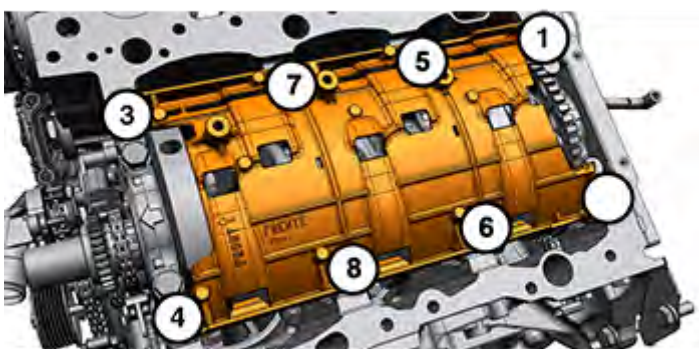
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Cylinder Head
Bolts

Torque Procedure

For engine builds using a new block follow steps 1-9. For engine re-builds (reuse block) follow step 6-9.

1. 30 N·m (22 ft. lbs.)
2. 45 N·m (33 ft. lbs.)
3. Re-tighten all to 45 N·m (33 ft. lbs.)
4. All + 125° Turn. Do not use a torque wrench for this step.
5. Loosen all fasteners in reverse of sequence shown



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Crankshaft Target
Wheel to
Counterweight
Bolts

**11 N·m (8 Ft.
Lbs.)**

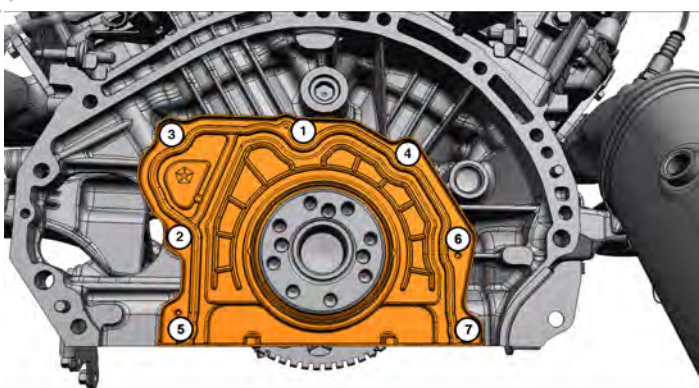
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Tightening Sequence

-

Rear Crankshaft
Oil Seal Retainer
Bolts

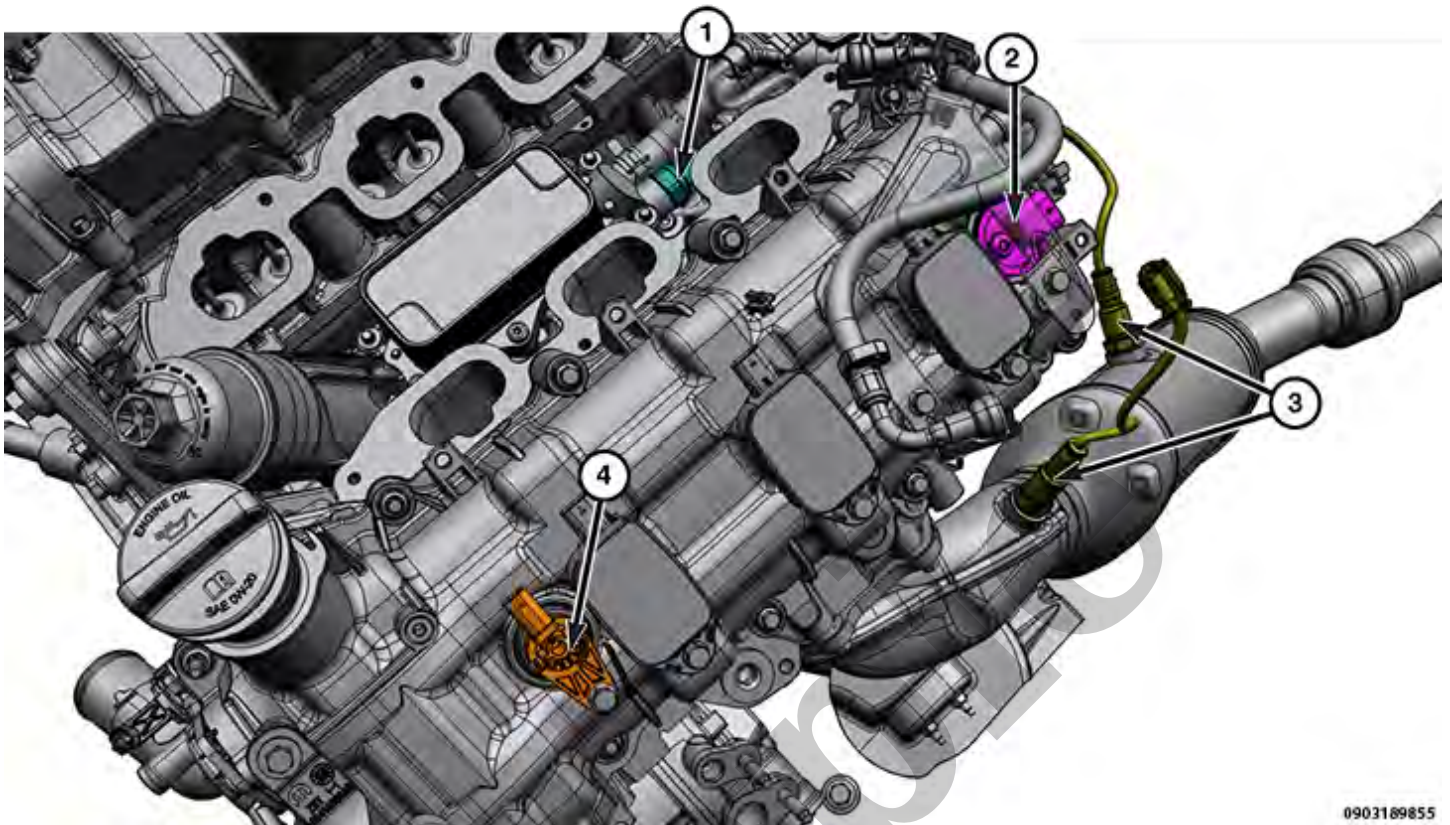
**12 N·m (9 Ft.
Lbs.)**



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TORQUE SPECIFICATIONS - ENGINE MOUNTING

RIGHT ENGINE MOUNT

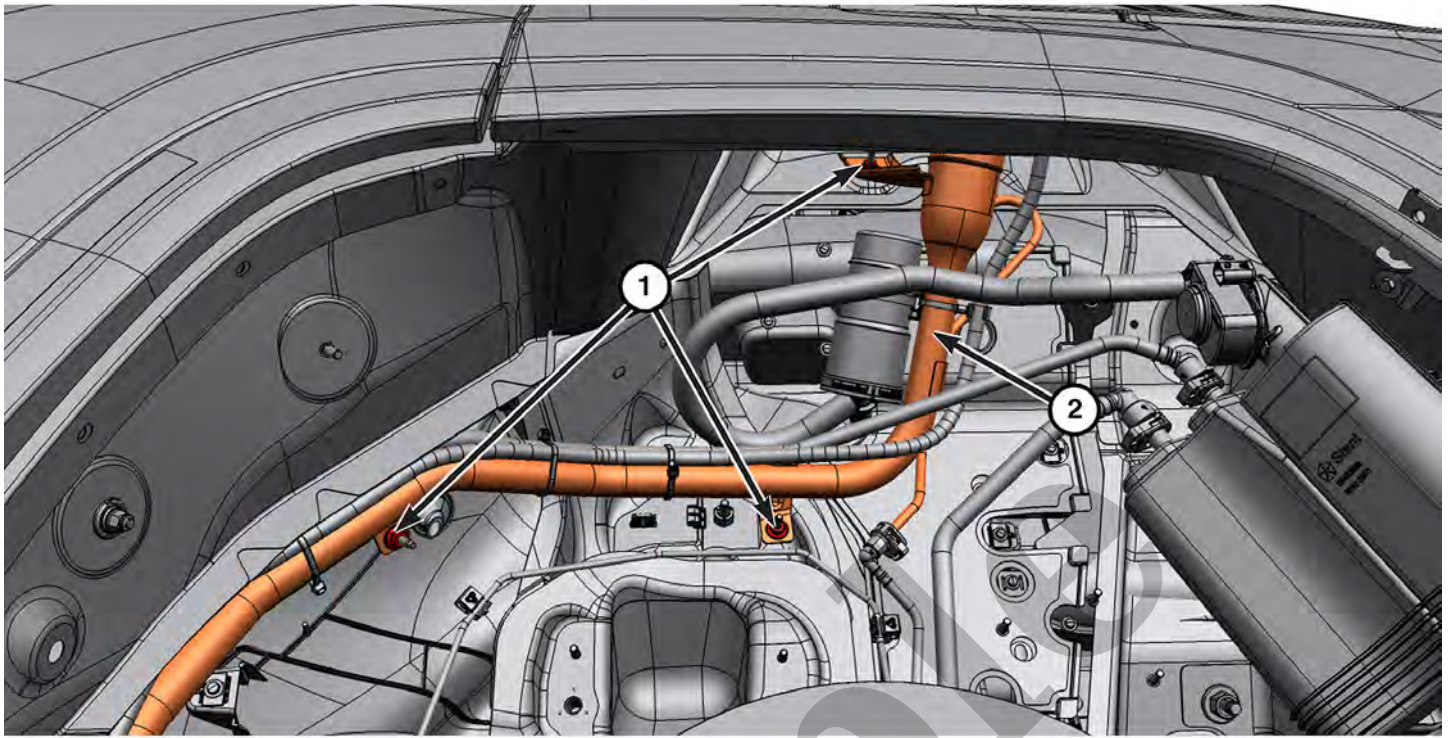


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CALLOUT	DESCRIPTION	SPECIFICATION	COMMENTS
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1	Engine Oil Pressure (EOP) Sensor	20 N·m (15 Ft. Lbs.)	–
2	Camshaft Position (CMP) Sensor to Cylinder Head	9 N·m (80 In. Lbs.)	–
3	Oxygen (O2) Sensor	50 N·m (37 Ft. Lbs.)	–
4	Oil Control Valve	8 N·m (71 In. Lbs.)	–
–	Oil Temperature Sensor to Cylinder Head	11 N·m (8 Ft. Lbs.)	–

TORQUE SPECIFICATIONS - FRONT ENGINE



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CALLOUT	DESCRIPTION	SPECIFICATION	COMMENTS
1	Fuel Filler Tube to Body Nut(s)	8 N·m (71 In. Lbs.)	-