

DODGE AND CUMMINS

30+ year partnership brings their latest high horsepower 6.7L Turbo Diesel

BY DAVE HAGEN

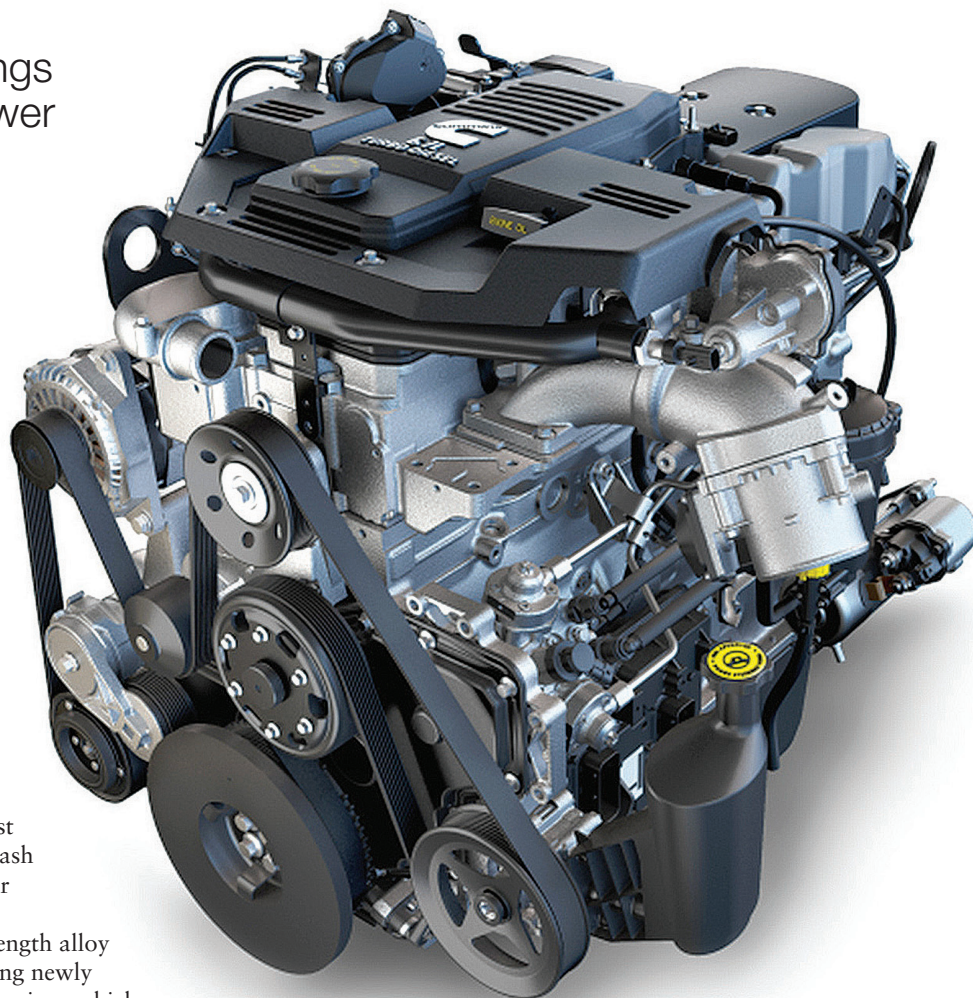
In 2019, Dodge/Cummins celebrated a 30-year partnership with each other in the RAM truck that started with the Cummins 5.9L Turbo Diesel in model year 1989 and evolved to their latest high horsepower 6.7L Turbo Diesel.

The latest 6.7L Cummins Turbo Diesel brings to the table more horsepower and torque, improved NVH (noise, vibration and harshness) and reduced overall weight along with other new features listed below.

- A Compacted Graphite Iron (CGI) material for the block allows us to increase the cylinder pressure capability while reducing the overall weight by almost 60 pounds.
- A new cast-iron cylinder head containing high-temperature capable exhaust valves actuated by all-new roller hydraulic lash adjusters in the block eliminates the need for valvetrain adjustment service intervals.
- The heart of the engine is a higher-strength alloy crankshaft with a 10-bolt crank flange driving newly designed forged connecting rods and new bearings which transfer power from the low-friction ring-wrapped pistons.
- A new larger Cummins Holset variable-geometry turbocharger optimized with heavy duty bearings, and a new compressor-side housing is a key ingredient in the new ratings, pumping 33 pounds per square inch (psi) of fresh air into the engine.
- The new fuel-delivery system includes a new 29,000 psi (2,000 bar) fuel pump and fuel rail with Cummins Filtration “filter in filter” NanoNet® technology.
- New Enlarged Intercooler.
- New Exhaust Manifold (pictured below).



(continued)



6.7L Cummins Turbo Diesel

	High Output (HO) with Aisin	Standard Output (SO) with 68RFE Auto
Horsepower	400	370
Torque	1000	850
Displacement	6.7L	6.7L
Number Of Cylinders	6	6
Bore	107 mm (4.21 in)	107 mm (4.21 in)
Stroke	124 mm (4.88 in)	124 mm (4.88 in)
Compression Ratio	16.2 :1	19 :1
Engine Wet Weight	1060 lbs (62 lbs reduction from 2018)	1060 lbs (62 lbs reduction from 2018)
Aspiration	Turbocharged and Charge Air Cooled	Turbocharged and Charge Air Cooled
Fuel System	Bosch HPCR	Bosch HPCR

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HD pickup buyers can get an impressive 1000 lb-ft of torque. This high-output (HO) rating is offered exclusively in the RAM 3500 equipped with the Aisin transmission option. The new high-output engine boasts 400 hp and 1000 lb-ft of best-in-class torque.

For RAM 2500 and 3500 (equipped with a 68RFE Auto) HP and torque have increased to 370 hp and 850 lb-ft to provide the right power for these models.

In addition to moving to a higher capability high pressure pump, several critical features were implemented with model year 2019 to maintain the proven reliability and durability our customers have come to expect. ■



AERA Technical Specialist Dave Hagen has over 44 years of experience in our industry. As an ASE-certified Master Machinist, Dave specialized in cylinder head work and complete engine assembly for the first 17 years of his career. For more information, email: dave@aera.org.



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