

# DETROIT DD16 TECHNICAL SPECIFICATIONS

# WHEN YOUR RIG NEEDS BIG. THE DETROIT™ DD16° ENGINE DELIVERS STRENGTH AND EFFICIENCY ON THE ROAD OR ON THE JOB SITE.

Detroit offers a big-bore workhorse with up to 600 horsepower and 2050 lb-ft of torque, delivering more efficient and dependable power and performance. Beyond performance, Detroit engineers have been able to meet GHG17 requirements while improving fuel economy.

#### **PERFORMANCE**

- The 2nd generation ACRS<sup>™</sup> fuel system, with higher injector pressure, improves performance and fuel economy
- Precise fuel delivery for extremely quiet, smooth combustion and to meet stringent emissions-control requirements
- Variable injection patterns for optimal fuel economy across all modes of engine operation
- Final high-pressure amplification is isolated in the injector, not in the rail or fuel lines, which results in less stress on components
- Exceptional torque response leads to superior launch feel and acceleration
- Outstanding gradeability
  - Flattens steep grades and mountain roads with greater speeds and pulling power
- Turbo-compounding system recovers normally wasted exhaust gases and turns them into usable power without sacrificing fuel economy
- Integrated Jacobs® Engine Brake
  - Offers three levels of quieter engine braking for enhanced downhill control
  - Reduces wear on service brakes, tires, and other components

#### **POWER**

- 15.6 L displacement is the largest engine built by Detroit
- 600 HP/2050 lb-ft rating available to pull the most extreme loads
- Wide, flat torque curve pulls strong all the way down below 1000 RPM

#### **SERVICEABILITY**

- Above the frame rail, cartridge-style filters for easier, faster, and cleaner filter changes
- Unmatched parts availability and expert service at Detroit's best-performing service network
- Big-bore durability and reliability with a 1.2-million-mile B50 life

## COMPLIANCE

 The DD16 is compliant with 2017 Greenhouse Gas (GHG17) requirements

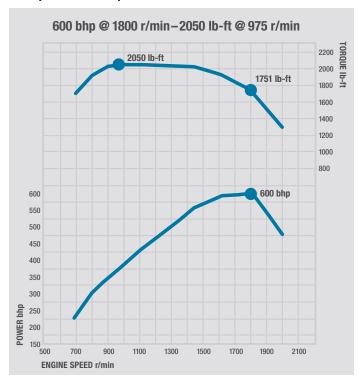
#### **DD16 SPECIFICATIONS**

Configuration	. Inline 6 Cylinder
Displacement	. 952 cu. in. (15.6 L)
Compression Ratio	. 17:1
Bore	. 5.47 in. (139 mm)
Stroke	. 6.73 in. (171 mm)
Weight (Dry)	. 2837 lb. (1287 kg)
Electronics	. DDEC®
Service Fill (Oil & Filter Change).	. 45 qt. (43 L)
Horsepower Range	. 500-600
Torque Range	. 1850-2050 lb-ft





## **Horsepower and Torque Curve**



# **Power Ratings**

DD16 Engine Power Ratings			
500 HP @ 1800 RPM	1850 lb-ft @ 975 RPM		
530 HP @ 1800 RPM	1850 lb-ft @ 975 RPM		
560 HP @ 1800 RPM	1850 lb-ft @ 975 RPM		
560 HP @ 1800 RPM	2050 lb-ft @ 975 RPM		
600 HP @ 1800 RPM	1850 lb-ft @ 975 RPM		
600 HP @ 1800 RPM	2050 lb-ft @ 975 RPM		

# **Standard Warranty**

Item	Warranty Limits (Whichever Occurs First)		Repair Charge (Paid by Owner)			
	Months	Miles / Kilometers	Parts	Labor		
Engine	0-24	Unlimited	No charge	No charge		
Injectors	0-24	200,000 mi 320,000 km	No charge	No charge		
Upon expiration of the 24-month warranty coverage, but within 500,000 mi / 800,000 km of use, the warranty continues to apply as follows:						
Major Components	25-60	500,000 mi 800,000 km	No charge	Not covered		



# **Maintenance Intervals\***

Item	Mi/km/Hr†	Severe Duty	Short-Haul	Long-Haul	
Engine Oil and Filter Change**	Miles	35,000	40,000	55,000	
	Kilometers	56,000	64,000	89,000	
	Hours	750	1000	_	
Fuel Filter Change	Miles	35,000	40,000	55,000	
	Kilometers	56,000	64,000	89,000	
	Hours	750	1000	_	
Valve Lash Adjustment	Miles	Adjust at 100,000, at 500,000, and then every 500,000 thereafter.			
	Kilometers	Adjust at 160,000, at 800,000, and then every 800,000 thereafter.			
Disease	A check engine light will illuminate when ash requires removal.  Normal DPF ash clean interval is:				
Diesel Particulate Filter	Miles	500,000 to 550,000			
	Kilometers	800,000 to 880,000			
	Hours	11,000 to 11,500			
DEF Pump Filter	Replace filter every 3 years or 500,000 (800,000 km) miles, whichever comes first.				

- \* Maintenance intervals using Detroit Fluids Specification 93K222 (CK-4) or 93K223 (FA-4) Approved Oils.

  \*\* Recommended based on using Detroit's lube oil and oil analysis program.

  Severe duty is up to 30,000 annual miles (48,000 kilometers) and a vehicle that averages less than 5 miles per gallon (mpg).

  Short-haul is between 30,000 and 60,000 annual miles (48,000-6,000 kilometers) and a vehicle that averages between 5.1 and 5.9 mpg.

  Long-haul is over 60,000 annual miles (96,000 kilometers) and a vehicle that averages between 6.0 and 6.9 mpg. Fuel economy represents overall fuel economy (including idle time).

  † Miles/Kilometers or Hours, whichever occurs first.

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