

WESTERN STAR TRUCKS

DETROIT DD13^{GEN5}

TECHNICAL SPECIFICATIONS

BUILT FROM A FAMILY OF POWERFUL HEAVY-DUTY ENGINES, THE DD13 GEN 5 TOUTS UNMATCHED VERSATILITY AND STRENGTH. FROM CUTTING-EDGE DIESEL ENGINE TECHNOLOGY TO EXPERT ENGINEERING AND MORE, THE DD13 GEN 5 IS AN ENGINE YOU CAN COUNT ON – NO MATTER WHAT THE JOB.

KEY OPERATIONAL BENEFITS INCLUDE:

IMPROVED FUEL ECONOMY.

Complete with a swirl piston design, ultrahigh compression ratios and a new, 10-pin injector, the DD13 Gen 5 creates better combustion, reduces ash production and improves fuel economy up to 4%. In addition, the DD13 Gen 5 meets Greenhouse Gas Emission Standards for 2021.

POWER TO MOVE PAYLOADS QUICKLY.

New turbochargers allow for rapid torque performance. This helps move payloads quickly, without compromising efficiency.

LESS MAINTENANCE. MORE UPTIME.

With a single, large diesel particulate filter (DPF) and asymmetric cell technology, the new Detroit aftertreatment system extends service intervals.

FEWER REGENS.

Improved thermal management systems such as asymmetric injection and auto-elevate ensure optimal temperatures during periods of idling and low load PTO operation for fewer regens.

MAXIMUM VERSATILITY.

Thanks to new power ratings, specifically tailored for the Australian and New Zealand markets, the DD13 Gen 5 is suited for a wider variety of jobs than ever before.

PROVEN RELIABILITY.

With expertly engineered improvements such as cooling system optimization and block and oil system enhancements, the DD13 Gen 5 is more reliable than ever before.

TRUSTED SERVICE TO TAKE YOU FURTHER.

Paired with the Detroit Connect Virtual Technician® remote diagnostic system, the Detroit service network helps to maximise uptime.

DD13 GEN 5 SPECIFICATIONS

Configuration	Inline 6 Cylinder
Displacement.....	782 CU IN (12.8 L)
Compression Ratio	20.3:1
Bore.....	5.20 in (132 mm)
Stroke.....	6.15 in (156 mm)
Weight (Dry).....	2,447 lb (1,110kg)
Electronics.....	DDEC®
Service Fill (Oil & Filter Change).....	40 qt (38 L)
Horsepower Range.....	450-525 hp
Torque Range.....	1,550-1,850 lb-ft



DETROIT. NO COMPROMISE.

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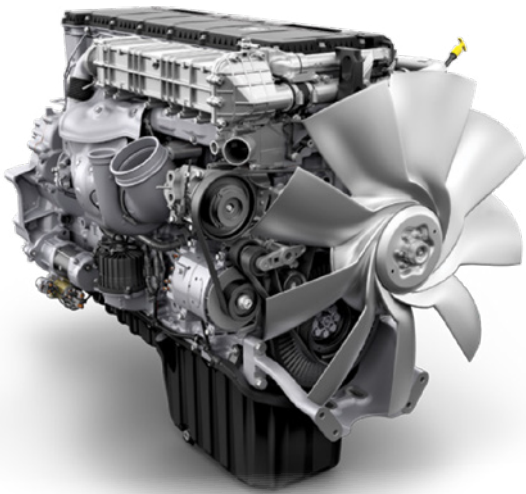
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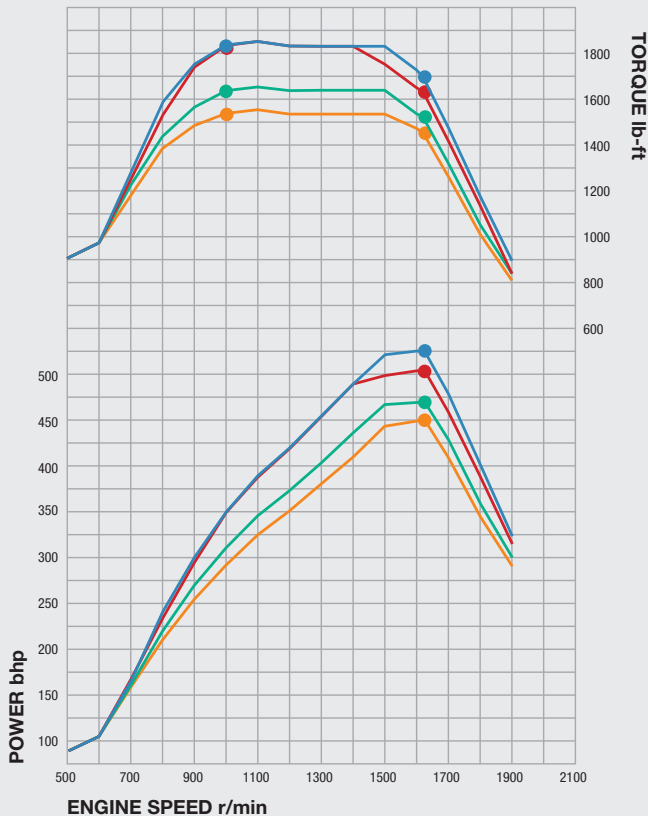
DD13

TECHNICAL SPECIFICATIONS



DD13 GEN 5 PERFORMANCE CURVE

— 525 bhp / 1850 lb-ft — 470 bhp / 1650 lb-ft
— 505 bhp / 1850 lb-ft — 450 bhp / 1550 lb-ft



POWER RATINGS

DD13 Engine Power Ratings	
450 HP @ 1625 RPM	1550 lb-ft @ 975 RPM
470 HP @ 1625 RPM	1650 lb-ft @ 975 RPM
505 HP @ 1625 RPM	1850 lb-ft @ 975 RPM
525 HP @ 1625 RPM	1850 lb-ft @ 975 RPM

MAINTENANCE INTERVALS* †

Component	Severe, Short-Haul and Dusty Conditions	B-Double or Single Trailer	Multi-Trailer
Engine Oil and Engine Oil Filter	30,000 km or 480 hrs	80,000 km or 1,280 hrs	60,000 km or 960 hrs
Engine Fuel Filter	60,000 km or 960 hrs	160,000 km or 2,560 hrs	120,000 km or 1,920 hrs
Frame Mounted Fuel / Water Filter	30,000 km or 480 hrs	80,000 km or 1,280 hrs	60,000 km or 960 hrs
Valve Lash Adjustment	Initial valve lash set at 320,000 km and then every 320,000 km thereafter		
Coolant Change – ELC	450,000 km	960,000 km	900,000 km
Diesel Particulate Filter*	A check engine light will illuminate when ash requires removal. Normal DPF ash clean interval is approximately 600,000 km or 8,250 hours		
DEF Filter	225,000 km	480,000 km	450,000 km

* Maintenance intervals using Using DFS 93K222(CK-4) or DFS93K223 (FA-4) Approved Oils Using Ultra Low Sulfur Diesel (ULSD) Fuel.

Severe, Short-Haul and Dusty Conditions: Vehicles that operate under normal conditions and travel less than 100,000 km annually in metropolitan areas with infrequent freeway travel, or stop-and-go travel.

B-Double or Single Trailer: With one or more trailers to be pulled on sealed roads 100% of its operation and annually travels more than 100,000 km up to 62.5t GCM.

Multi-Trailer: Applies to multi-trailer general freight operation vehicles that operate 100% on sealed roads and annually travel more than 100,000 km from > 62.5t up to < 90t GCM.

† Kilometres or Hours, whichever occurs first.

STANDARD WARRANTY

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

* Refer to standard warranty parchment.

EXTENDED COVERAGE

Agreement Limitation		Adjustment Charge	
Years	Kilometres	Parts	Labour
4	800,000 km*	No Charge	No Charge

*Fuel Burn and Engine Hours limits apply. The engine must be maintained in accordance with Detroit operator's guide. For complete details and customer obligations please refer to EW4 Agreement.

All data is correct at the time of printing.