Diesel Truck Engine
3126B
175-330 hp
420-860 lb-ft @ 1440 rpm Peak Torque

CATERPILLAR® ENGINE SPECIFICATIONS
6-Cylinder, 4-Stroke-Cycle Diesel
Bore — in (mm) ................. 4.33 (110)
Stroke — in (mm) ............... 5.0 (127)
Displacement — cu in (L) ........ 439 (7.2)
Aspiration .................. ATAAC1
Compression Ratio
175-300 hp .............. 16:1
Rotation (from flywheel end). Counterclockwise
Cooling System2 — gal (L) ........ 3.5 (13.2)
Lube Oil System (refill) — gal (L) .... 4.75 (18.0)3
Weight, Net Dry (approx) — lb (kg)
Including Flywheel ........ 1295 (588)

1 Air-to-Air AfterCooling
2 Engine Only. Capacity will vary with radiator size and use of cab heater.
3 Optional 28L (7.5 gal) oil pan also available in some chassis.

STANDARD EQUIPMENT
Air inlet manifold heater
Cooling: belt-driven jacket water pump, oil cooler
Crankcase breather
Electronic Control Module (ECM)
Electronic Data Link, SAE J1922, J1939, ATA J1587
HEUI Fuel System (Hydraulically actuated, Electronically controlled Unit Injector)
Flywheel and SAE No. 1 or SAE No. 2 housing
Fuel: spin-on secondary filter, transfer pump, hand priming pump
Governor: full-range, electronically controlled
Lifting eyes
Lubrication: gear-driven pump, front or rear sump, full flow spin-on filter, left-hand side oil level gauge (dipstick)
Turbocharger
Vibration damper

ACCESSORY EQUIPMENT
Air compressor: gear driven, 0.37 m³/min (13.2 cfm) or 0.46 m³/min (16.5 cfm)
Air conditioner compressor mounting
Air inlet elbow
Auxiliary brake compatible (exhaust)
Ether starting aid/adaptation
Fan drive mounting bracket
Fan drive
Front engine support
Front PTO adapter
Jacket water heater
Rear power take-off
Starting motor: 12 V or 24 V
Turbocharger compressor outlet elbow
Hydraulic pump drive, SAE A

DIMENSIONS
PERFORMANCE DATA

Max hp (kW) ........................................ 175 (131)
Advertised hp (kW) ............................ 175 (131)
Operating Range (rpm) ....................... 1440-2500 (1060)
Maximum Engine rpm .......................... 2640
Governed Speed (rpm) ......................... 2500
Peak Torque — lb-ft (N•m) .............. 420 (569)
Peak Torque rpm ............................... 1440
Torque Rise (%) (Gov. rpm) ......... 25
Altitude Capability — ft (m) .......... 10 000 (3050)

Max hp (kW) ........................................ 207 (154)
Advertised hp (kW) ............................ 190 (142)
Operating Range (rpm) ....................... 1440-2500 (1060)
Maximum Engine rpm .......................... 2640
Governed Speed (rpm) ......................... 2500
Peak Torque — lb-ft (N•m) .............. 520 (705)
Peak Torque rpm ............................... 1440
Torque Rise (%) (Gov. rpm) ......... 27
Altitude Capability — ft (m) .......... 10 000 (3050)

PERFORMANCE CURVES

210 AT* (156 kW) DM4202

PERFORMANCE CURVES

210/210HT hp (156 kW) DM3278/DM3279

* Approved for use with the AT 545 Transmission

PERFORMANCE DATA

Max hp (kW) ........................................ 216 (161)
Advertised hp (kW) ............................ 210 (156)
Operating Range (rpm) ....................... 1440-2500 (1060)
Maximum Engine rpm .......................... 2640
Governed Speed (rpm) ......................... 2500
Peak Torque — lb-ft (N•m) .............. 520 (705)
Peak Torque rpm ............................... 1440
Torque Rise (%) (Gov. rpm) ......... 21
Altitude Capability — ft (m) .......... 10 000 (3050)

Max hp (kW) ........................................ 210 (156)
Advertised hp (kW) ............................ 210 (156)
Operating Range (rpm) ....................... 1440-2500 (1060)
Maximum Engine rpm .......................... 2640
Governed Speed (rpm) ......................... 2500
Peak Torque — lb-ft (N•m) .............. 520 (705)/605 (820)
Peak Torque rpm ............................... 1440
Torque Rise (%) (Gov. rpm) ......... 23/45
Altitude Capability — ft (m) .......... 10 000 (3050)
PERFORMANCE DATA

Max hp (kW) ................................... 230 (172)                Max hp (kW) ................................... 250 (186)
Advertised hp (kW) .......................... 230 (172)                Advertised hp (kW) .......................... 250 (186)
Operating Range (rpm) ..................... 1440-2400 (960)            Operating Range (rpm) ..................... 1440-2400 (960)
Maximum Engine rpm ...................... 2640                        Maximum Engine rpm ...................... 2640
Governed Speed rpm ...................... 2400                        Governed Speed rpm ...................... 2400
Peak Torque — lb-ft (N•m) .......... 660 (895)                        Peak Torque — lb-ft (N•m) .......... 660 (895)/800 (1085)
Peak Torque rpm .......................... 1440                        Peak Torque rpm .......................... 1440
Torque Rise (%) (Gov. rpm) .......... 37/52                           Torque Rise (%) (Gov. rpm) .......... 26/52
Altitude Capability — ft (m) ......... 10 000 (3050)                Altitude Capability — ft (m) ......... 10 000 (3050)

PERFORMANCE DATA

Max hp (kW) ................................... 275 (205)                Max hp (kW) ................................... 300 (224)
Advertised hp (kW) .......................... 275 (205)                Advertised hp (kW) .......................... 300 (224)
Operating Range (rpm) ..................... 1440-2400 (960)            Operating Range (rpm) ..................... 1440-2400 (960)
Maximum Engine rpm ...................... 2640                        Maximum Enginerpm ...................... 2640
Governed Speed rpm ...................... 2400                        Governed Speed rpm ...................... 2400
Peak Torque — lb-ft (N•m) ........ 800 (1085)/860 (1166)            Peak Torque — lb-ft (N•m) ........ 800 (1085)/860 (1166)
Peak Torque rpm .......................... 1440                        Peak Torque rpm .......................... 1440
Torque Rise (%) (Gov. rpm) .......... 39/49                           Torque Rise (%) (Gov. rpm) .......... 27/37
Altitude Capability — ft (m) ......... 10 000 (3050)                Altitude Capability — ft (m) ......... 10 000 (3050)
Exhaust Brake Performance

Three operational modes can be programmed:
Coast, Latch, or Manual
**ELECTRONIC FEATURES**

Electronic self-diagnostics
Compatible with Caterpillar electronic technician (ET), electronic control analyzer programmer (ECAP), and MPSI Pro-Link service tools
Cold weather startup strategy and electronic idle control functions
ECM storage of operational, maintenance, and diagnostic data
J1939 compatible — ABS, Allison WT
Customer selectable, re-programmable operational parameters:
  - Engine Monitoring System — off, warning, derate, or shutdown
  - Cruise control with exclusive SoftCruise
  - Vehicle speed [mph (km/h)] limiting and protection
  - Idle shutdown timer & override
  - 2-speed fast idle
  - Maintenance monitor [miles (km) or hours]
  - Cooling fan control
  - Customer password protection
  - Exhaust brake operational modes
  - Theft deterrent
  - Adjustable low idle rpm
  - OEM parameter lockout
Programmable Power Take-Off (PTO) functions:
  - Adjustable speed control [mph (km/h)] of vehicle while in PTO mode
  - Adjustable maximum engine rpm speed
  - Adjustable minimum engine rpm speed
  - Limit engine torque to driven equipment
  - Adjustable ramp rate up or down between PTO set speed(s)
  - Adjustable rpm “bump” intervals
  - Selectable PTO configuration for “in cab” or station of remote operation

**GEARING CONSIDERATIONS**

The 3126B is designed and built to take full advantage of a “gear fast, run slow” strategy. Unlike mechanically governed engines of the past, the fully electronic 3126B need not be gear-bound to limit maximum vehicle speed — this should be done using Vehicle Speed Limiting (VSL) and Protection.

For the best balance of performance and fuel economy, spec axle ratios and tire sizes to obtain: 2000 rpm @ 60 mph (97 km/h) subject to the following: Maximum cruise speed of 65 mph (105 km/h) or below.

Maximum recommended engine speed at cruise — 2400 rpm. Minimum recommended engine speed at a cruise speed of 55 mph (89 km/hr) — 1800 rpm

Depending on the application, the absolute minimum startability in first gear should be 6 percent, preferably in excess of 10 percent. On/off highway severe service applications will require considerably greater startability. Minimum gradeability should be 1.5 percent (1.8 percent recommended) at peak torque in top gear, and 0.5 percent at cruise rpm.

To further optimize the matching of your truck to the performance characteristics of the engine, a computerized spec’ing tool called Caterpillar Truck Engine Pro (TEP) is offered by your Caterpillar dealer. It calculates the effects of various driveline variables on engine operation such as transmissions, axles, and tires. This lets you see the results before you finalize your truck specs.
RATING DEFINITIONS AND CONDITIONS

**Performance** is based on SAE J1349 standard conditions of 29.61 in. Hg (100 kPa) and 77° F (25° C).

The curves shown are for a standard engine without fan, but equipped with air compressor and fuel, lubricating oil, and jacket water pumps.