



Cat[®] 277D

MULTI TERRAIN LOADER

FEATURES:

The Cat[®] 277D Multi Terrain Loader, with its radial lift design, delivers impressive mid-lift reach and excellent digging performance with outstanding drawbar power. Its standard, suspended undercarriage system provides superior traction, flotation, speed and ride quality with very low ground pressure and minimal ground disturbance across a wide range of underfoot conditions. The 277D features the following:

- **Industry leading sealed and pressurized cab option** provides a cleaner and quieter operating environment with excellent work tool visibility.
- **Available high-back, heated, air ride seat with seat mounted adjustable joystick controls** makes the D Series the industry leader in operator comfort.
- **High performance power train** provides maximum performance and production capability through the Electronic Torque Management system, standard two speed travel and an electronic hand/foot throttle with decel pedal capability.
- **High Flow XPS hydraulic system** is available for applications that demand maximum hydraulic work tool performance.
- **Electronically controlled Cat C3.3B engine** provides high horsepower and torque while meeting U.S. EPA Tier 4 Final (EU Stage IIIB) emission standards.
- **Cat "Intelligent Leveling" system (ILEV)** provides industry leading technology, integration and optional features such as dual direction self level, work tool return to dig and work tool positioner.
- **Standard dual level suspension undercarriage** combined with the optional Speed Sensitive Ride Control system provides better load retention, improved operator comfort and one of the smoothest rides in the industry. The dual suspension undercarriage features oscillating roller wheel assemblies that independently pivot to provide maximum track on the ground.
- **Maximize machine capability and control** with optional Advanced Display providing on-screen adjustments for response, hystat response and creep control. Also features multi-language functionality with customizable layouts, security system and rearview camera.
- **Ground level access** to all daily service and routine maintenance points helps reduce machine downtime for greater productivity.
- **Broad range of performance matched Cat Work Tools** make the Cat Multi Terrain Loader the most versatile machine on the job site.

Specifications

Engine

| | | |
|------------------------------------|-----------------------|---------------------|
| Engine Model | Cat C3.3B DIT (turbo) | |
| Gross Power SAE J1995 | 55.4 kW | 74.3 hp |
| Net Power SAE 1349 | 54.4 kW | 72.9 hp |
| Net Power ISO 9249 | 54.9 kW | 73.7 hp |
| Peak Torque at 1,500 rpm SAE J1995 | 265 N·m | 195 lbf·ft |
| Displacement | 3.3 L | 203 in ³ |
| Stroke | 120 mm | 4.7 in |
| Bore | 94 mm | 3.7 in |

Weights*

| | | |
|------------------|---------|----------|
| Operating Weight | 4215 kg | 9,293 lb |
|------------------|---------|----------|

Power Train

| | | |
|------------------------------------|-----------|---------|
| Travel Speed (Forward or Reverse): | | |
| One Speed | 8.3 km/h | 5.2 mph |
| Two Speed | 12.9 km/h | 8.0 mph |

*Operating Weight, Operating Specifications and Dimensions all based on 75 kg (165 lb) operator, all fluids, two speed, OROPS, 1981 mm (78 in) dirt bucket, standard flow hydraulics, mechanical suspension seat, no optional counterweights and manual quick coupler (unless otherwise noted).

Hydraulic System

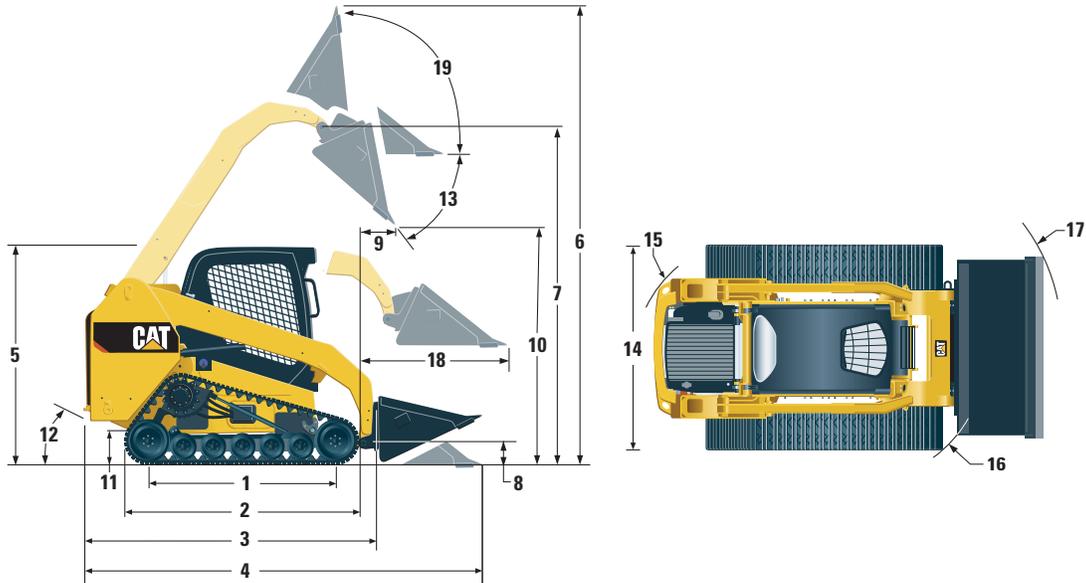
| | | | |
|-----------------------------------|------------|------------|--|
| Hydraulic Flow – Standard: | | | |
| Loader Hydraulic Pressure | 23 000 kPa | 3,335 psi | |
| Loader Hydraulic Flow | 86 L/min | 23 gal/min | |
| Hydraulic Power (calculated) | 33 kW | 44 hp | |
| Hydraulic Flow – High Flow XPS: | | | |
| Maximum Loader Hydraulic Pressure | 28 000 kPa | 4,061 psi | |
| Maximum Loader Hydraulic Flow | 121 L/min | 32 gal/min | |
| Hydraulic Power (calculated) | 57 kW | 76 hp | |

Operating Specifications*

| | | | |
|--|---------------------|-----------------------|--|
| Rated Operating Capacity: | | | |
| 35% Tipping Load | 1045 kg | 2,303 lb | |
| 50% Tipping Load | 1492 kg | 3,290 lb | |
| Rated Operating Capacity with Optional Counterweight | | | |
| | 1606 kg | 3,540 lb | |
| Tipping Load | 2985 kg | 6,580 lb | |
| Breakout Force, Tilt Cylinder | 3304 kg | 7,285 lb | |
| Ground Contact Area | 1.65 m ² | 2,561 in ² | |
| Ground Pressure | 25.0 kPa | 3.6 psi | |



277D Multi Terrain Loader



Dimensions*

| | | | | | |
|---------------------------------------|---------|----------|---|---------|---------|
| 1 Length of Track on Ground | 1807 mm | 71.1 in | 11 Ground Clearance | 226 mm | 8.9 in |
| 2 Overall Length of Track | 2285 mm | 90.0 in | 12 Departure Angle | | 38° |
| 3 Length without Bucket | 2995 mm | 117.9 in | 13 Maximum Dump Angle | | 39° |
| 4 Length with Bucket on Ground | 3714 mm | 146.2 in | 14 Vehicle Width | 1981 mm | 78.0 in |
| 5 Height to Top of Cab | 2113 mm | 83.2 in | 15 Turning Radius from Center – Machine Rear | 1713 mm | 67.4 in |
| 6 Maximum Overall Height | 4052 mm | 159.5 in | 16 Turning Radius from Center – Coupler | 1493 mm | 58.8 in |
| 7 Bucket Pin Height at Maximum Lift | 3174 mm | 125.0 in | 17 Turning Radius from Center – Bucket | 2336 mm | 92.0 in |
| 8 Bucket Pin Height at Carry Position | 202 mm | 8.0 in | 18 Maximum Reach with Arms Parallel to Ground | 1395 mm | 54.9 in |
| 9 Reach at Maximum Lift and Dump | 598 mm | 23.5 in | 19 Rack Back Angle at Maximum Height | | 94° |
| 10 Clearance at Maximum Lift and Dump | 2488 mm | 97.9 in | | | |

Cab

| | |
|---------------|------------------------|
| ROPS | ISO 3471:2008 |
| FOPS | ISO 3449:2005 Level I |
| FOPS Level II | ISO 3449:2005 Level II |

Service Refill Capacities

| | | |
|------------------|------|----------|
| Cooling System | 14 L | 3.7 gal |
| Engine Crankcase | 11 L | 3.0 gal |
| Fuel Tank | 94 L | 24.8 gal |
| Hydraulic System | 52 L | 13.7 gal |
| Hydraulic Tank | 39 L | 10.3 gal |

Noise Level

| | |
|----------------|-----------|
| Inside Cab** | 81 dB(A) |
| Outside Cab*** | 103 dB(A) |

- Cab and Rollover Protective Structures (ROPS) are standard in North America and Europe.

**The declared dynamic operator sound pressure levels per ISO 6396:2008. The measurements were conducted with the cab doors and windows closed and at 70% of the maximum engine cooling fan speed. The sound level may vary at different engine cooling fan speeds.

***The labeled sound power level for the CE marked configurations when measured according to the test procedure and conditions specified in 2000/14/EC.

Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.0 kg of refrigerant which has a CO₂ equivalent of 1.430 metric tonnes.

MANDATORY EQUIPMENT

- Hydraulics, Standard or High Flow XPS
- Quick Coupler, Mechanical or Powered
- Seat Belt, 50 mm (2 in) or 75 mm (3 in)

PERFORMANCE PACKAGES

- Performance Package H1: *Standard Flow Hydraulics (No Self Level)*
- Performance Package H2: *Standard Flow Hydraulics, Dual Direction Electronic Self Level (Raise and Lower), Electronic Snubbing (Raise and Lower)*
- Performance Package H3: *High Flow XPS, Dual Direction Electronic Self Level (Raise and Lower), Electronic Snubbing (Raise and Lower)*

STANDARD EQUIPMENT

ELECTRICAL

- 12 volt Electrical System
- 80 ampere Alternator
- Ignition Key Start/Stop Switch
- Lights: *Gauge Backlighting, Two Rear Tail Lights, Two Rear Halogen Working Lights, Two Adjustable Front Halogen Lights, Dome Light*
- Backup Alarm
- Heavy Duty Battery, 880 CCA

OPERATOR ENVIRONMENT

- Gauges: *Fuel Level, Hour Meter*
- Operator Warning System Indicators: *Air Filter Restriction, Alternator Output, Armrest Raised/Operator Out of Seat, Engine Coolant Temperature, Engine Oil Pressure, Glow Plug Activation, Hydraulic Filter Restriction, Hydraulic Oil Temperature, Park Brake Engaged, Engine Emission System*
- Adjustable Vinyl Seat
- Fold in Ergonomic Contoured Armrest
- Control Interlock System, when operator leaves seat or armrest raised: *Hydraulic System Disables, Hydrostatic Transmission Disables, Parking Brake Engages*
- ROPS Cab, Open, Tilt Up
- FOPS, Level I
- Top and Rear Windows
- Floor Mat
- Interior Rearview Mirror
- 12 volt Electric Socket
- Horn
- Hand (Dial) Throttle, Electronic
- Adjustable Joystick Controls
- Anti-theft Security System with 6-button Keypad
- Storage Compartment with Netting

OPTIONAL EQUIPMENT

- Hand-Foot Style Controls
- External Counterweights
- Beacon, Rotating
- Engine Block Heater – 120V
- Oil, Hydraulic, Cold Operation
- Paint, Custom
- Heavy Duty Battery, 1,000 CCA
- Product Link PL641, Cellular

COMFORT PACKAGES

- Open ROPS (C0): *Static Seat (No Foot Throttle, Headliner, Heater or Door)*
- Open ROPS (C1): *Foot Throttle, Headliner, Cup Holder, and choice of Seat (Mechanical Suspension or High Back, Heated, Air Ride Seat) (No Heater or Door)*
- Enclosed ROPS with Heater (C2): *Foot Throttle, Headliner, Heater and Defroster, Side Windows, Cup Holder, Radio Ready, choice of Seat (Mechanical Suspension or High Back, Heated, Air Ride Seat) and Door (Glass or Polycarbonate)*
- Enclosed ROPS with A/C (C3): *C2 + Air Conditioner*

POWER TRAIN

- Cat C3.3B, Turbo Diesel Engine, Meeting U.S. EPA Tier 4 Final (EU Stage IIIB) Emission Standards
- Air Cleaner, Dual Element, Radial Seal
- S-O-SSM Sampling Valve, Hydraulic Oil
- Filters, Cartridge-type, Hydraulic
- Filters, Cartridge-type, Fuel and Water Separator
- Radiator/Hydraulic Oil Cooler (side-by-side)
- Spring Applied, Hydraulically Released, Wet Multi Disc Parking Brakes
- Hydrostatic Transmission, Two Speed Travel
- Suspension – Independent Torsion Axles (4) and Oscillating Bogie Wheels
- Rubber Track 457 mm (18 in)

OTHER

- Engine Enclosure, Lockable
- Extended Life Antifreeze, –37° C (–34° F)
- Machine Tie Down Points (6)
- Support, Lift Arm
- Hydraulic Oil Level Sight Gauge
- Radiator Coolant Level Sight Gauge
- Radiator, Expansion Bottle
- Cat ToughGuard™ Hose
- Auxiliary, Hydraulics, Continuous Flow
- Heavy Duty, Flat Faced Quick Disconnects with Integrated Pressure Release
- Split D-Ring to Route Work Tool Hoses Along Side of Left Lift Arm
- Electrical Outlet, Beacon
- Belly Pan Cleanout
- Variable Speed Demand Fan
- Product Link™ PL240, Cellular

- Speed Sensitive Ride Control
- Advanced Display: Full Color, 5 in LCD screen, Advanced Multi-operator Security System, On-screen Adjustments for Implement Response, Hystat Response, and Creep Control; Rearview Camera Ready
- Advanced Display: Rearview Camera Included
- Work Tool Return to Dig and Work Tool Positioner
- Bluetooth Radio with Microphone (AM/FM/Weather Band Receiver with USB and Auxiliary Input Jack)

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