

# 257D/277D/287D

Multi Terrain Loaders



<b>Cat® C3.3B DIT (Turbo) Engine</b>	<b>257D</b>		<b>277D</b>		<b>287D</b>	
Gross Power (SAE J1995)	55.4 kW	74.3 hp	55.4 kW	74.3 hp	55.4 kW	74.3 hp
<b>Weights</b>						
Operating Weight	3651 kg	8,048 lb	4215 kg	9,293 lb	4504 kg	9,929 lb
<b>Operating Specifications</b>						
Rated Operating Capacity at 50% Tipping Load	1270 kg	2,800 lb	1492 kg	3,290 lb	1814 kg	4,000 lb

## 257D/277D/287D Features

### Industry Leading Cab

*One piece, modular design provides a premium sealed and pressurized cab for a cleaner and quieter operating environment with excellent all around visibility.*

### Superior Power

*High performance power train provides maximum performance with features such as Electronic Torque Management system, two speed and an industry exclusive hand/foot throttle with decel pedal capability.*

### Powerful Hydraulics

*High flow hydraulic system available for applications that demand maximum hydraulic work tool performance.*

### Suspended Undercarriage

*Standard suspended undercarriage system provides superior traction, flotation, speed and very low ground pressure to work in a wide range of applications and underfoot conditions.*

### Outstanding Performance

*Cat Intelligent Leveling (ILEV) system enables industry leading features such as electronic self level, return-to-dig and work tool positioner.*

### Versatility

*Do more with one machine with the broad range of Cat Work Tools, built to get the most out of your machine.*

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**Experience the difference of a Cat Multi Terrain Loader. Spacious operator station features ergonomic joystick controls, ample leg room and an available high back, heated, air ride seat to keep you comfortable all day long. Built for low ground pressure with outstanding performance, comfort and versatility, the Cat D Series Multi Terrain Loaders help you get more done to improve your bottom line.**

# Operator Station

Spacious working environment for all day comfort.



## Base Display

The standard control monitor provides a single-code security to help prevent theft and unwanted operation.

## Best Seat on the Job Site

High back, heated, air ride seat available in both cloth and vinyl.





## Superior Comfort

The Cat D Series sets a new standard in operator comfort. The wide, spacious interior and uncluttered floor helps you work comfortably and productively all day long. Features include:

- One piece, modular design provides a premium sealed and pressurized cab for cleaner and quieter working environment
- High back, heated, air ride seat with seat-mounted joystick controls for added comfort (option)
- Clear sight lines provide excellent visibility
- Air conditioner and heater for greater comfort in all climates (option)
- Ample leg room
- Selectable Pattern Control which allows the operator to select the control pattern they are most familiar with for greater productivity (option)

## Advanced Display Panel

The optional Advanced Display lets you customize your machine performance to your needs by offering the ultimate in operator control features and functionality. This easy to read 127 mm (5 in) LCD display puts machine information at your fingertips. It provides on screen adjustments to working parameters and preferences such as implement response adjustment, drive response adjustment, creep setting, ride control activation speed, top speed limit setting, language, background color and gauge display style. All parameters can be customized and retained for each individual operator's code. It also provides:

- Security system to prevent unauthorized machine usage
- Capability to program up to 50 operator codes to store and recall each operator's preferences and working parameters, allowing the machine to be tailored to experience level and application
- Integrated rearview camera for additional job site visibility (option)





*Vertical Lift Linkage*



*Radial Lift Linkage*

## Lift Linkages

### Choice of lift designs.

Two types of lifting arrangement are available – vertical lift and radial lift – to meet your specific application needs.

#### **Vertical Lift**

The 257D and 287D feature the vertical lift design which provides extended reach and lift height for material handling or quick and easy truck loading.

#### **Radial Lift**

The 277D features the radial lift design which delivers excellent digging performance and superior mid-lift reach.

# Power Train

## Aggressive performance.

#### **Cat Engine**

The electronically controlled Cat C3.3B engine provides high horsepower and torque. This rugged, reliable engine meets U.S. EPA Tier 4 Final/EU Stage IIIB emission standards.

#### **Cat Intelligent Leveling (ILEV) System**

The exclusive Cat Intelligent Leveling System takes machine performance to a new level and provides industry leading features such as:

- Electronic snubbing that automatically cushions the descent of the lift arms, slowing the downward motion just before the arms reach their stops
- Return-to-dig which allows the operator to pre-set the digging angle of the bucket and then automatically lowers the lift arms and recalls the bucket angle
- Work Tool Positioner which allows the angle of the work tool (bucket, box rake, cold planer, forks, trencher, etc.) to be pre-set and then automatically recalled if the machine is repositioned, increasing productivity

#### **Electronic Throttle**

New electronic dial-type throttle lets you set precise RPM setting. When the dial is in the high-idle position, the foot throttle functions as a decelerator pedal. This gives you greater control, allowing you to quickly adjust the travel speed during precise maneuvers or to regulate engine speed when using hydro-mechanical work tools. A new throttle-smoothing feature monitors the accelerator pedal's movement under the operator's foot when traveling over rough terrain and adjusts to provide a steadier, more even travel speed.



# Rubber Track Undercarriage

Unique undercarriage delivers low ground pressure, superior suspension.

Cat Multi Terrain Loaders feature a rugged, durable rubber track that is lightweight and pliable, yet reinforced with high tensile strength cords. The undercarriage provides low ground pressure and minimal ground disturbance allowing the machine to operate over sensitive surfaces and in soft underfoot conditions. Elevated, internal positive track drive keep drive components away from ground debris. Heavy duty torsion axles suspend the MTL undercarriage and can move independently relative to the machine and each other. These axles absorb most of the shock to the undercarriage, machine and operator, especially over rough terrain. This means smooth travel, even at high speeds, as well as better load retention and greater productivity. Components are replaceable as individual wear items, reducing owning and operating costs.

## Dual Level Suspension Undercarriage (277D/287D Only)

In addition to the torsion axle suspension system, the standard dual level suspension undercarriage provides oscillating roller wheel assemblies. These wheel assemblies independently pivot to provide maximum track on the ground, better load retention, improved operator comfort and one of the smoothest rides in the industry.



## Performance

Solutions for a wide range of applications.

### High Performance Hydraulic System

Maximum power and reliability are built into the Cat hydraulic system to help you get the job done faster. The hydraulic system features outstanding lift and breakout forces. The available continuous demand fan provides improved fuel efficiency and increased horsepower.

### High Flow Hydraulic Systems

High Flow (257D) and High Flow XPS (277D/287D) hydraulic systems are available for applications that demand maximum work tool performance.

### Two Speed

Increase your productivity with Two Speed (standard on the 277D/287D; optional on the 257D).

### Ride Control

The optional Speed Sensitive Ride Control system delivers a smoother ride on uneven terrain for superior comfort, higher speed operation and better material retention.



# Attachments

Do more jobs with one machine using Cat Work Tools.

## The Right Tool for the Job

Designed and built for optimum performance and durability, Cat Work Tools deliver high productivity in a variety of applications to maximize versatility:

- Augers
- Backhoes
- Blades (angle, dozer)
- Buckets (general purpose, high capacity, dirt, utility, light material, multi purpose, industrial grapple, utility grapple)
- Brooms (angle, pickup, utility)
- Brushcutters
- Cold Planers
- Forks (pallet, industrial grapple, utility grapple, utility)
- Hydraulic Hammers
- Landscape Tillers
- Landscape Rakes
- Material Handling Arm
- Mulchers
- Power Box Rakes
- Sectional Snow Push
- Shear
- Snow Blowers
- Stump Grinders
- Trenchers
- Vibratory Compactors
- Wheel Saws

## Quick Couplers

Work tools can be changed quickly and easily with the Cat Multi Terrain Loader's quick coupler system. The standard quick coupler features manual engagement and disengagement of work tools using two high leverage handles. The optional electric quick coupler allows the operator to quickly change tools without leaving the cab.





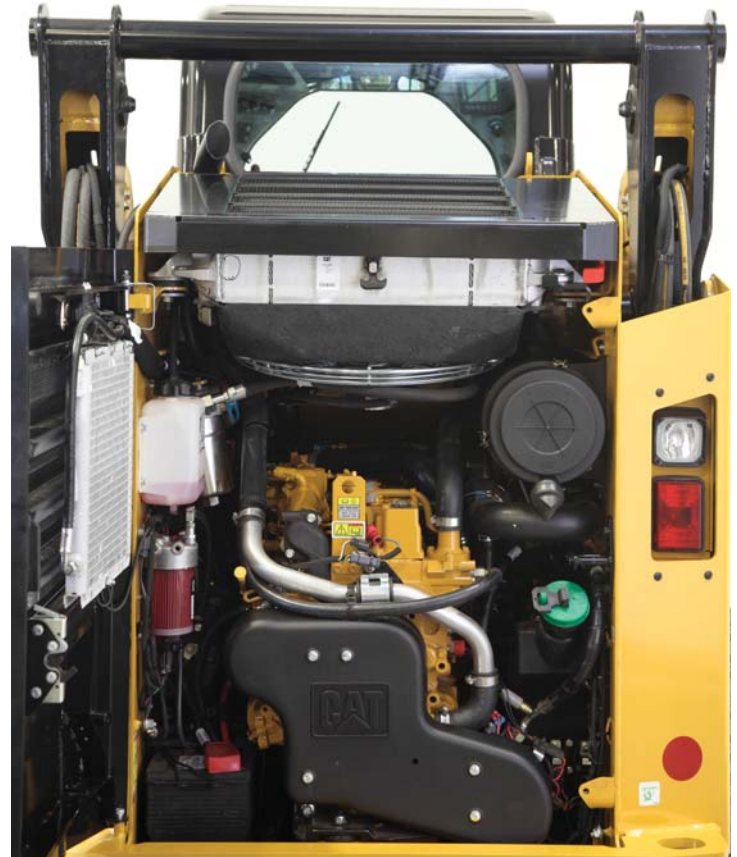
# Serviceability

Easy maintenance helps keep your machine working.

## Minimize Your Downtime

Convenient service features make maintenance easy, reducing your downtime:

- Unmatched ground level access to all routine service points
- Wide opening rear door for easy access to both sides of the engine
- Electric priming pump with automatic air bleed for the fuel system eliminates the need to pre-fill filters with fuel, reducing the risk of contaminants
- Cat Product Link™ system provides remote reporting of machine location and operating system parameters (optional)



## Customer Support

Unmatched support makes the difference.



## Renowned Dealer Support

From helping you choose the right machine to knowledgeable ongoing support, Cat dealers provide the best in sales and service.

- Preventive maintenance programs and guaranteed maintenance contracts
- Best-in-class parts availability
- Operator training to help boost your profits
- Genuine Cat Remanufactured parts

# 257D/277D/287D Multi Terrain Loaders Specifications

## Engine

Engine Model	Cat C3.3B DIT (turbo)	
Gross Power (SAE J1995)		
257D	55.4 kW	74.3 hp
277D/287D	55.4 kW	74.3 hp
Net Power (SAE 1349)		
257D	54.6 kW	73.2 hp
277D/287D	54.4 kW	72.9 hp
Net Power (ISO 9249)		
257D	55.1 kW	73.9 hp
277D/287D	54.9 kW	73.7 hp
Displacement	3.3 L	203 in <sup>3</sup>
Stroke	120 mm	4.7 in
Bore	94 mm	3.7 in

## Weights\*

Operating Weight		
257D	3651 kg	8,048 lb
277D	4215 kg	9,293 lb
287D	4504 kg	9,929 lb

## Power Train

Travel Speed (Forward or Reverse)		
One Speed		
257D	10.1 km/h	6.3 mph
277D/287D	8.3 km/h	5.2 mph
Two Speed		
257D (optional)	16.0 km/h	9.9 mph
277D/287D (standard)	12.9 km/h	8.0 mph

## Operating Specifications\*

Rated Operating Capacity at 35% Tipping Load		
257D	889 kg	1,960 lb
277D	1045 kg	2,303 lb
287D	1270 kg	2,800 lb
Rated Operating Capacity at 50% Tipping Load		
257D	1270 kg	2,800 lb
277D	1492 kg	3,290 lb
287D	1814 kg	4,000 lb
Rated Operating Capacity with Optional Counterweight		
257D	1361 kg	3,000 lb
277D	1505 kg	3,540 lb
287D	1927 kg	4,250 lb
Tipping Load		
257D	2540 kg	5,600 lb
277D	2985 kg	6,580 lb
287D	3629 kg	8,000 lb
Breakout Force, Tilt Cylinder		
257D	2284 kg	5,035 lb
277D	3304 kg	7,285 lb
287D	3307 kg	7,291 lb
Ground Contact Area		
257D	1.14 m <sup>2</sup>	1,770 in <sup>2</sup>
277D	1.65 m <sup>2</sup>	2,561 in <sup>2</sup>
287D	1.65 m <sup>2</sup>	2,561 in <sup>2</sup>
Ground Pressure		
257D	31.3 kPa	4.5 psi
277D	25.0 kPa	3.6 psi
287D	26.7 kPa	3.9 psi

# 257D/277D/287D Multi Terrain Loaders Specifications

## Hydraulic System – 257D

### Hydraulic Flow – Standard

Loader Hydraulic Pressure	23 000 kPa	3,335 psi
Loader Hydraulic Flow	76 L/min	20 gal/min
Hydraulic Power (calculated)	29 kW	39 hp

### Hydraulic Flow – High Flow

Maximum Loader Hydraulic Pressure	23 000 kPa	3,335 psi
Maximum Loader Hydraulic Flow	112 L/min	30 gal/min
Hydraulic Power (calculated)	43 kW	58 hp

## Hydraulic System – 277D and 287D

### 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

## Cab

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

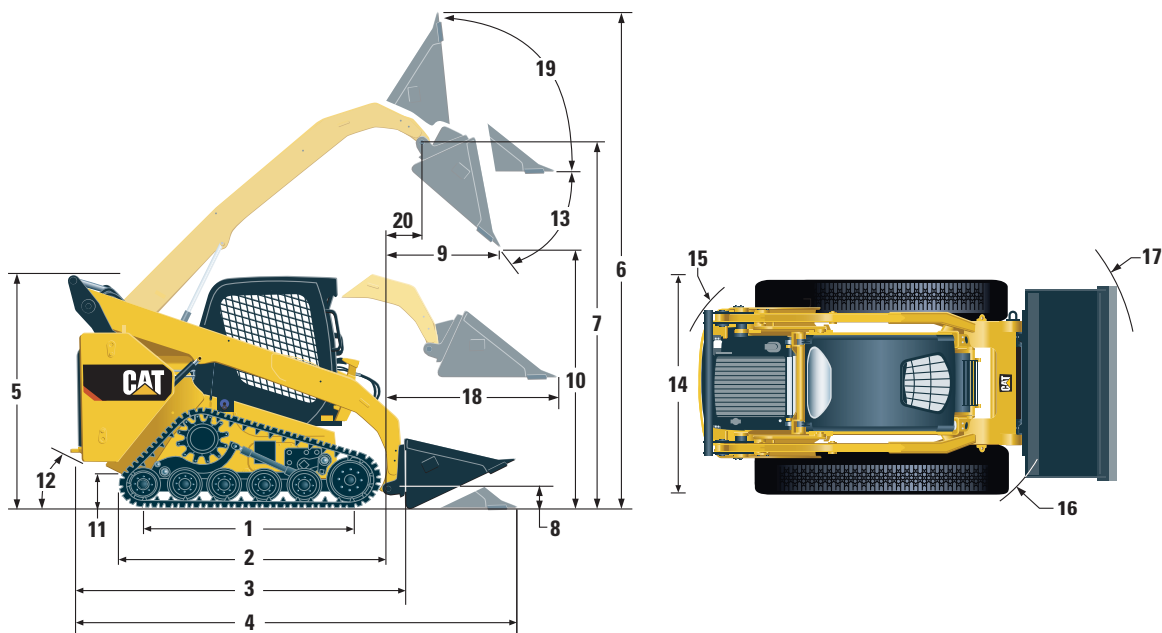
## Service Refill Capacities

Cooling System	14 L	3.7 gal
Engine Crankcase	11 L	3.0 gal
Fuel Tank		
257D	105 L	27.7 gal
277D/287D	94 L	24.8 gal
Hydraulic System		
257D	50 L	13.2 gal
277D/287D	52 L	13.7 gal
Hydraulic Tank	39 L	10.3 gal

# 257D/287D Multi Terrain Loaders Specifications

## Dimensions\*

All dimensions are approximate.



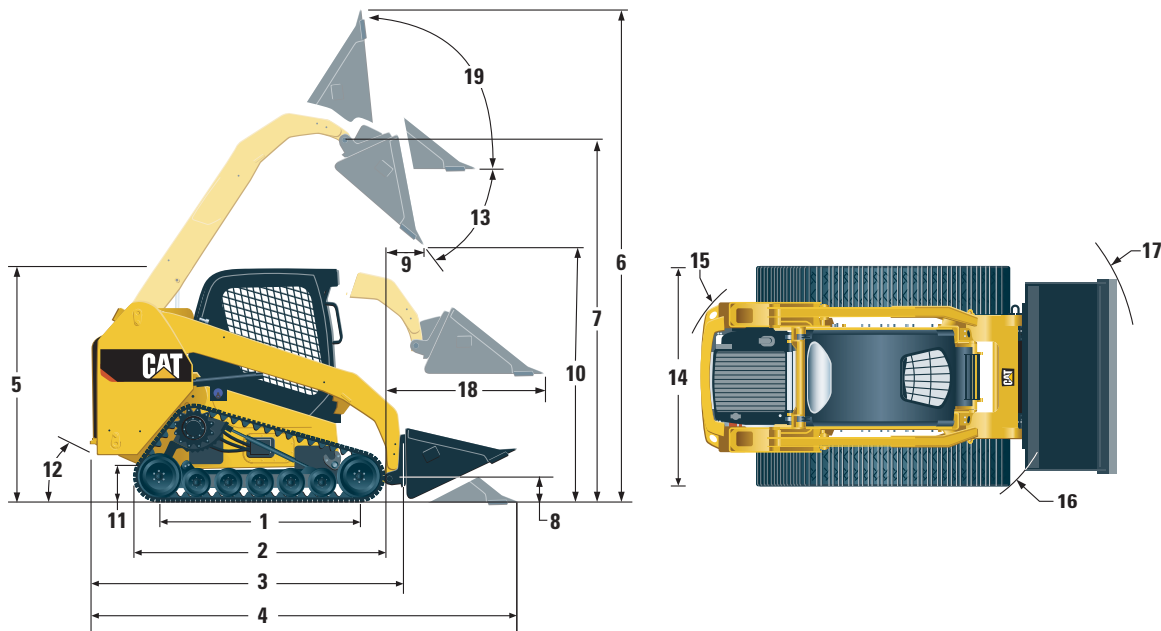
	257D		287D	
1 Length of Track on Ground	1499 mm	59.0 in	1807 mm	71.1 in
2 Overall Length of Track	1898 mm	74.7 in	2285 mm	90.0 in
3 Length without Bucket	2767 mm	108.9 in	2995 mm	117.9 in
4 Length with Bucket on Ground	3486 mm	137.3 in	3714 mm	146.2 in
5 Height to Top of Cab	2129 mm	83.8 in	2113 mm	83.2 in
6 Maximum Overall Height	3932 mm	154.8 in	4015 mm	158.1 in
7 Bucket Pin Height at Maximum Lift	3091 mm	121.7 in	3178 mm	125.1 in
8 Bucket Pin Height at Carry Position	215 mm	8.5 in	190 mm	7.5 in
9 Reach at Maximum Lift and Dump	637 mm	25.1 in	783 mm	30.8 in
10 Clearance at Maximum Lift and Dump	2300 mm	90.5 in	2387 mm	94.0 in
11 Ground Clearance	242 mm	9.5 in	226 mm	8.9 in
12 Departure Angle	35°		38°	
13 Maximum Dump Angle	52°		51°	
14 Vehicle Width	1676 mm	66.0 in	1981 mm	78.0 in
15 Turning Radius from Center – Machine Rear	1555 mm	61.2 in	1712 mm	67.4 in
16 Turning Radius from Center – Coupler	1399 mm	55.1 in	1494 mm	58.8 in
17 Turning Radius from Center – Bucket	2191 mm	86.3 in	2337 mm	92.0 in
18 Maximum Reach with Arms Parallel to Ground	1334 mm	52.5 in	1292 mm	50.9 in
19 Rack Back Angle at Maximum Height	87°		84°	
20 Bucket Pin Reach at Maximum Lift	367 mm	14.5 in	391 mm	15.4 in

\*Operating Weight, Operating Specifications and Dimensions for the 257D and 287D all based on 75 kg (165 lb) operator, all fluids, one speed (257D)/two speed (287D), OROPS, 1676 mm (66 in) dirt bucket, standard flow hydraulics, mechanical suspension seat, no optional counterweights and manual quick coupler (unless otherwise noted).

# 277D Multi Terrain Loaders Specifications

## Dimensions\*

All dimensions are approximate.



	<b>277D</b>	
<b>1</b> Length of Track on Ground	1807 mm	71.1 in
<b>2</b> Overall Length of Track	2285 mm	90.0 in
<b>3</b> Length without Bucket	2995 mm	117.9 in
<b>4</b> Length with Bucket on Ground	3714 mm	146.2 in
<b>5</b> Height to Top of Cab	2113 mm	83.2 in
<b>6</b> Maximum Overall Height	4052 mm	159.5 in
<b>7</b> Bucket Pin Height at Maximum Lift	3174 mm	125.0 in
<b>8</b> Bucket Pin Height at Carry Position	202 mm	8.0 in
<b>9</b> Reach at Maximum Lift and Dump	598 mm	23.5 in
<b>10</b> Clearance at Maximum Lift and Dump	2488 mm	97.9 in
<b>11</b> Ground Clearance	226 mm	8.9 in
<b>12</b> Departure Angle		38°
<b>13</b> Maximum Dump Angle		39°
<b>14</b> Vehicle Width	1981 mm	78.3 in
<b>15</b> Turning Radius from Center – Machine Rear	1713 mm	67.4 in
<b>16</b> Turning Radius from Center – Coupler	1493 mm	58.8 in
<b>17</b> Turning Radius from Center – Bucket	2336 mm	92.0 in
<b>18</b> Maximum Reach with Arms Parallel to Ground	1395 mm	54.9 in
<b>19</b> Rack Back Angle at Maximum Height		94°

\*Operating Weight, Operating Specifications and Dimensions for the 277D all based on 75 kg (165 lb) operator, all fluids, two speed, OROPS, 1676 mm (66 in) dirt bucket, standard flow hydraulics, mechanical suspension seat, no optional counterweights and manual quick coupler (unless otherwise noted).

# 257D/277D/287D Standard Equipment

## Standard Equipment

Standard equipment may vary. Consult your Cat dealer for details.

### 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 six-button Keypad
- Storage Compartment with Netting

### 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-S<sup>SM</sup> 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 Parking Brakes
- Hydrostatic Transmission

### OTHER

- Engine Enclosure, Lockable
- Extended Life Antifreeze, -36° C (-33° 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 (standard on 277D/287D; optional on 257D. Included with EU preparation package)

# 257D/277D/287D Mandatory Equipment

## Mandatory Equipment

Mandatory equipment may vary. Consult your Cat dealer for details.

- Hydraulics, Standard Flow or High Flow (257D)/High Flow XPS (277D/287D)
- Quick Coupler, Manual or Electric
- Seat Belt, 50 mm (2 in) or 75 mm (3 in)
- Steel Imbed Rubber Track:
  - 257D: 320 mm (12.6 in) or 400 mm (15.7 in)
  - 277D/287D: 400 mm (15.7 in) or 450 mm (17.7 in)
- Dual Flange Front Idler/Single Flange Rear Idler or Triple Flange Front/Rear Idlers

### 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

### PERFORMANCE PACKAGES FOR THE 257D

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

### PERFORMANCE PACKAGES FOR THE 277D

- Performance Package H1: Standard Flow Hydraulics (No Self Level)
- Performance Package H3: High Flow XPS, Dual Direction Electronic Self Level (Raise and Lower), Electronic Snubbing (Raise and Lower)
- Performance Package H4: Standard Flow Hydraulics (No Self Level), Return to Dig/Work Tool Positioner, Electronic Snubbing (Raise and Lower)

### PERFORMANCE PACKAGES FOR THE 287D

- Performance Package H1: Standard Flow Hydraulics (No Self Level)
- Performance Package H2: Standard Flow, 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)

# 257D/277D/287D Optional Equipment

## Optional Equipment

Optional equipment may vary. Consult your Cat dealer for details.

- Hand-Foot Style Controls
- External Counterweights
- Variable Speed Demand Fan (257D)
- Beacon, Rotating
- Engine Block Heater – 120V
- Oil, Hydraulic, Cold Operation
- Paint, Custom
- Heavy Duty Battery, 1,000 CCA (277D/287D only)
- Product Link, Cellular
- Ride Control
- Advanced Display: Full Color, 127 mm (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)

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at [www.cat.com](http://www.cat.com)

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Replaces AEHQ7229

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