

# **Cat**<sup>®</sup> **250**

SKID STEER LOADER

#### **F**EATURES:

The Cat® 250 Skid Steer Loader, with its vertical lift design, delivers extended reach and lift height for quick and easy truck loading. Its stability and lifting performance provides excellent material handling. The 250 features the following:

- Redesigned Operator Station delivers a larger operating environment and combined with additional seat travel, the 250 provides more space for operators of any size. The optional one-piece, sealed, and pressurized cab offers a clean and quiet workspace with excellent air distribution through optimally placed vents throughout the cab.
- Available ventilated and heated high-back air ride seat with seatmounted adjustable joystick controls deliver industry-leading operator comfort.
- High performance power train provides maximum performance and production capability through the Electronic Torque Management system, optional two speed travel and an electronic hand/foot throttle with decel pedal capability.
- Three levels of auxiliary hydraulic performance available, Standard Flow, High Flow, and High Flow XPS. Standard flow for attachments that require a base level of auxiliary flow and horsepower, High Flow boosts the auxiliary flow for applications that demand additional hydraulic flow for increased attachment performance, and the High Flow XPS hydraulic system provides maximum auxiliary hydraulic performance by delivering additional flow and additional pressure for the most demanding attachments and applications.

- Electronically controlled Cat C2.8T engine meets U.S. EPA Tier 4 Final and EU Stage V emission standards while delivering maximum horsepower across a wide RPM range and providing high torque for increased working performance, no matter the application.
- Speed sensitive ride control option improves operation on rough terrain, enabling better load retention, increased productivity, and greater operator comfort.
- Maximize machine capability and control with the Advanced Joysticks and Advanced Touchscreen Monitor. The 20.3 cm (8-inch) Advanced Touchscreen monitor offers cutting-edge functionality and control that includes an integrated radio, Bluetooth® connectivity, and multi-camera (side-view) option, and supports 32 different language choices. The Advanced Joysticks provide unmatched control of machine functions and adjustments within the display without the operator having to remove their hands from the controls. This includes on-joystick navigation of the Advanced Touchscreen Monitor, radio volume up/down/mute, creep activation, creep speed increment/decrement, one-button Smart Attachment control activation, and additional auxiliary control buttons that deliver single button control of complex attachment functions.
- Ground-level access to all daily service and routine maintenance points helps reduce machine downtime for greater productivity.
- Broad range of performance matched Cat Attachments make the Cat Skid Steer Loader the most versatile machine on the job site.

# **Specifications**

## **Engine**

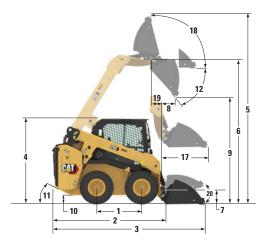
g			
Engine Model	US EPA Tier 4 Final/		
	EU Stage V, Cat C2.8T (turbo)		
Gross Power SAE J1995	55 kW	74 hp	
Net Power SAE 1349	55 kW	73 hp	
Net Power ISO 9249	55 kW	73 hp	
Peak Torque at 1,600 rpm SAE J1995	300 N⋅m	221 lbf-ft	
Displacement	2.8 L	171 in³	
Stroke	110 mm	4.3 in	
Bore	90 mm	3.5 in	

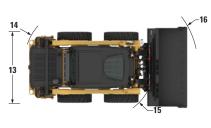
 Advertised power is tested per the specified standard in effect at the time of manufacture. Net power advertised is the power available at the flywheel when the engine is equipped with fan at minimum speed, air intake system, exhaust system, and alternator.

## Weights\*

Operating Weight	3551 kg	7,829 lb
Power Train		
Travel Speed (Forward or Reverse):		
One Speed	12.9 km/h	8.0 mph
Two Speed Option	16.9 km/h	10.5 mph







# **Dimensions\***

1	Wheelbase	1094 mm	43.1 in
2	Length without Bucket	2800 mm	110.2 in
3	Length with Bucket on Ground	3430 mm	135.0 in
4	Height to Top of Cab	2080 mm	81.9 in
5	Maximum Overall Height	3957 mm	155.8 in
6	Bucket Pin Height at Maximum Lift	3150 mm	124.0 in
7	Bucket Pin Height at Carry Position	200 mm	7.9 in
8	Reach at Maximum Lift and Dump	448 mm	17.6 in
9	Clearance at Maximum Lift and Dump	2443 mm	96.2 in
10	Ground Clearance	195 mm	7.7 in

11 Departure Angle	23°	
12 Maximum Dump Angle	46°	·
13 Vehicle Width over Tires	1677 mm	66 in
14 Turning Radius from Center – Machine Rear	1649 mm	64.9 in
15 Turning Radius from Center – Coupler	1296 mm	51.0 in
<b>16</b> Turning Radius from Center – Bucket	2024 mm	79.7 in
17 Maximum Reach with Arms Parallel to Ground	833 mm	32.8 in
18 Rack Back Angle at Maximum Height	97°	
19 Bucket Pin Reach at Maximum Lift	75 mm	3.0 in
20 Bucket rollback angle (Ground Level)	28°	

<sup>\*</sup>Operating Weight, Operating Specifications and Dimensions all based on 75 kg (165 lb) operator, all fluids, one speed, OROPS (Open Roll Over Protection System), 1730 mm (68 in) low profile bucket, Cat 12 × 16.5 tires, standard flow hydraulics, mechanical suspension seat, no optional counterweights and manual quick coupler (unless otherwise noted).

# **Operating Specifications\***

Open Canopy:		
Operating Weight	3551 kg	7,829 lb
Tipping Load	2440 kg	5,378 lb
Rated Operating Capacity (35%)	854 kg	1,882 lb
Rated Operating Capacity (50%)	1220 kg	2,689 lb
Rated Operating Capacity with Optional Counterweights (@50%)	1325 kg	2,916 lb
Breakout Force, Tilt Cylinder	3077 kg	6,784 lb
Breakout Force, Lift Cylinder	2698 kg	5,948 lb

# **Hydraulic System**

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 Flow – High Flow XPS:		
Maximum Loader Hydraulic Pressure	28 000 kPa	4,061 psi
Maximum Loader Hydraulic Flow	113 L/min	30 gpm
Hydraulic Power (calculated)	53 kW	71 hp

## Cab

Rollover Protective Structure (ROPS)	ISO 3471:2008
Falling Object Protective Structure (FOPS)	ISO 3449:2005 Level I
FOPS Level II	ISO 3449:2005 Level II (Optional)

# **Service Refill Capacities**

Chain Box, each side	8.3 L	2.2 gal
Cooling System	11.5 L	3.0 gal
Engine Crankcase	8.0 L	2.1 gal
Fuel Tank	94.4 L	24.9 gal
Hydraulic System	36.8 L	9.7 gal
Hydraulic Tank	26 L	6.9 gal

# **250 Environmental Declaration**

The following information applies to the machine at the time of final manufacture as configured for sale in the regions covered in this document. The content of this declaration is valid as of the date issued; however, content related to machine features and specifications are subject to change without notice. For additional information, please see the machine's Operation and Maintenance Manual.

For more information on sustainability in action and our progress, please visit <a href="https://www.caterpillar.com/en/company/sustainability">https://www.caterpillar.com/en/company/sustainability</a>.

# **Engine**

- The Cat® C2.8T (turbo) engine meets U.S. EPA Tier 4 Final and EU Stage V emission standards.
- Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels up to:
  - ✓ 20% biodiesel FAME (fatty acid methyl ester)
  - ✓ 100% renewable diesel, HVO (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels

Refer to guidelines for successful application. Please consult your Cat dealer or "Caterpillar Machine Fluids Recommendations" (SEBU6250) for details.

# **Air Conditioning System**

 The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430).
 The system contains 0.85 kg of refrigerant which has a CO<sub>2</sub> equivalent of 1.216 metric tonnes.

## **Paint**

- Based on best available knowledge, the maximum allowable concentration, measured in parts per million (PPM), of the following heavy metals in paint are:
- Barium < 0.01%
- Cadmium < 0.01%
- Chromium < 0.01%
- Lead < 0.01%

# **Sound Performance**

Operator Sound Pressure Level\* 83 dB(A) (ISO 6396:2008) Exterior Sound Power Level\*\* 101 dB(A) (ISO 6395:2008)

- Cab and ROPS are standard in North America and Europe.
  \*The declared dynamic operator sound pressure levels per ISO 6395:2008. 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/UKCA marked configurations when measured according to the test procedure and conditions specified in European Union Directive "2000/14/EC" as amended by "2005/88/EC" and UK Noise Regulation 2001 No. 1701.

# **Oils and Fluids**

- Caterpillar factory fills with ethylene glycol coolants. Cat Diesel Engine Antifreeze/Coolant (DEAC) and Cat Extended Life Coolant (ELC) can be recycled. Consult your Cat dealer for more information.
- Additional fluids are likely to be present, please consult the Operations and Maintenance Manual or the Application and Installation guide for complete fluid recommendations and maintenance intervals.

# **Features and Technology**

- The following features and technology may contribute to fuel savings and/or carbon reduction. Features may vary. Consult your Cat dealer for details.
- Extended life coolant and long life hydraulic fluid extend maintenance intervals to reduce fluid consumption
- Boost productivity with Cat technologies like work tool positioner, return to dig and Cat Smart Attachments
- Save fuel with efficiency features such as foot throttle pedal and cooling system demand fan
- Remote machine monitoring through onboard Product Link telematics

# Recycling

 The materials included in machines are categorized as below with approximate weight percentage. Because of variations of product configurations, the following values in the table may vary.

Material Type	Weight Percentage	
Steel	72.40%	
Iron	9.34%	
Rubber Tires	4.36%	
Other	2.47%	
Fluid	2.35%	
Nonferrous Metal	2.18%	
Plastic	2.08%	
Mixed-Metal and Nonmetal	1.55%	
Mixed Metal	1.38%	
Uncategorized	1.31%	
Lead (Batteries)	0.34%	
Rubber	0.24%	
Mixed Nonmetallic	0.00%	
Total	100%	

A machine with higher recyclability rate will ensure more efficient usage of valuable natural resources and enhance End-of-Life value of the product. According to ISO 16714:2008 (Earth-moving machinery – Recyclability and recoverability – Terminology and calculation method), recyclability rate is defined as percentage by mass (mass fraction in percent) of the new machine potentially able to be recycled, reused or both.

All parts in the bill of material are first evaluated by component type based on a list of components defined by the ISO 16714:2008 and Japan CEMA (Construction Equipment Manufacturers Association) standards. Remaining parts are further evaluated for recyclability based on material type.

Because of variations of product configurations, the following values in the table may vary.

Recyclability – 94%

The data provided above was based on the product configuration as provided by the individual product group.

# **ATTACHMENTS**

Get more from your machine with Cat attachments. Choose from a wide variety of options and tailor your machine to different tasks and conditions.

Augers

Backhoes

Bale Grabs

**Bale Spears** 

Blades, Grader, Box, Angle and Dozer

Brooms, Angle, Pickup and Utility

Brushcutters

**Buckets** 

**Cold Planers** 

Compactors

Fork Tines and Carriages

Hammers

Material Handling Arm

Mulchers

**Nursery Forks** 

Rakes, Grapple, Landscape

and Power Box

Shears

**Snow Blowers** 

**Snow Plows** 

**Snow Pushes** 

**Snow Wings** 

Stump Grinders

Tillers

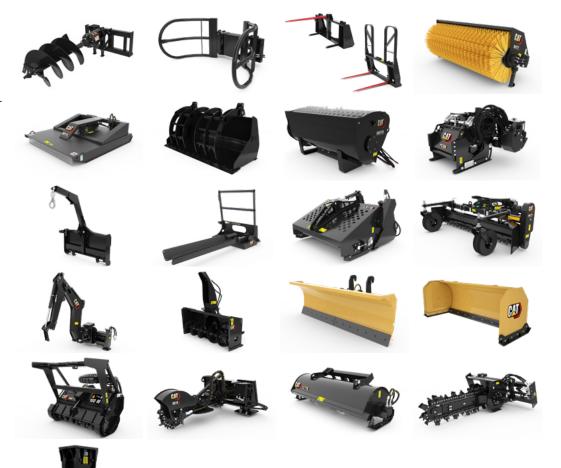
Trenchers

Wheel Saws

Smart Backhoe

Smart Dozer Blade with Assist

Smart Grader Blade with Assist



## **MANDATORY EQUIPMENT**

- Auxiliary Hydraulics: Standard or High Flow XPS
- Quick Coupler: Mechanical or Hydraulic
- High Visibility Seat Belt: 50 mm (2 in), 75 mm (3 in), or 3-point lap/shoulder
- Tires: 10 x 16.5 or 12 x 16.5
- Axles: Standard or Special Application

#### **PERFORMANCE PACKAGES**

- Performance Package HP1: Standard Flow Hydraulics
- Performance Package HP3: High Flow XPS Hydraulics

## **COMFORT PACKAGES**

- Open canopy: Cup Holder, Cell Phone Pocket, choice of vinyl seat (Mechanical Suspension, High Back/Heated/Air Ride Seat
- Enclosed Cab with heat and air conditioning: Side Windows, Cup Holder, Cell Phone Pocket, choice of Seat (Mechanical Suspension, High Back/Heated Air Ride Seat, High Back/Ventilated and Heated Air Ride Seat) and Door choice (Glass or Polycarbonate)

#### **TECHNOLOGY PACKAGES**

- T2 T1 + Rear-view camera.
- T4 Advanced Touchscreen Monitor, Advanced Joysticks, Push start, X-mount cell phone holder, and a Rear-view camera.
- T5 T4 + 2 additional side view cameras.

#### **RADIO**

- Radio, none for open canopy machines and countries not certified for Bluetooth® technology
- Integrated AM/FM radio with Bluetooth technology. Includes USB port, 3.5 mm Auxiliary (AUX) input, and Bluetooth microphone. Only for use with enclosed cab. Availability varies by country.
- Integrated DAB+/AM/FM radio with Bluetooth technology. Includes USB port, 3.5 mm AUX input, and Bluetooth microphone. Only for use with enclosed cab. Availability varies by country.

#### PRODUCT LINK™

- Product Link Basic series PL243
- Product Link Elite series PLE643

#### **COOLING FAN**

- On-demand, variable speed hydraulic cooling fan
- On-demand, variable speed hydraulic cooling fan, with automatic and manual purge reversing operation

## **GUARDING AND SEALING PACKAGES**

- HD0 base guarding and sealing (engine air inlet rain cap, front cab-toframe sealing, and hydraulic fill access door)
- HD1- intermediate guarding and sealing (HD0 + cab-to-frame side sealing, lockable fuel fill access door, tilt cylinder guarding, and drive line bottom guarding. Some equipment varies by region)
- HD2 most comprehensive guarding and sealing (HD1 + turbo guard, exhaust stack wrap, Diesel Particulate Filter (DPF) wrap, quick disconnect guarding, fully enclosed drive line guarding, under step hydraulic lines guard cover, engine air inlet pre-cleaner. Some equipment varies by region)

## STANDARD EQUIPMENT

#### **ELECTRICAL**

- Work Tool Electrical Harness
- Heavy duty battery
- 12-volt Electrical System
- 85 Ampere Alternator
- LED Work Lights
- Auto Reverse Lights
- Switch Backlighting
- Interior LED Dome Light
- Backup Alarm
- Electrical Outlet, Beacon
- Exterior Courtesy Lighting
- Automatic Work light notification flash when parking brake is released

#### **OPERATOR ENVIRONMENT**

- Full color LCD monitor: Creep speed control, Drive response adjustment, Implement response adjustment, Drive Power Priority adjustment, Language selection (×32), Multi-operator Anti-theft Security System and Monitoring, Maintenance schedule and reminders, Event and Diagnostic Code monitoring, Date /Time/Units/Brightness settings, and Smart Technology for use with Smart Attachments.
- 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 Supply Filter Restriction, Hydraulic Oil Temperature, Park Brake Engaged, Engine Emission System (where applicable)
- Gauges: Fuel Level, Hour Meter, Hydraulic Temperature, Hour Meter, Battery Voltage, Tachometer
- 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, Tilt Up
- FOPS, Level I
- Top and Rear Windows
- Floor Mat
- Headliner
- Interior Rearview Mirror
- Horn
- Hand (Dial) Throttle, Electronic
- Seat Mounted Joystick Controls
- Cell Phone Storage Pocket
- Cup Holder
- 12-volt power port
- Foot Throttle

#### **HYDRAULICS**

- Selectable control pattern ISO or H
- Electro/hydraulic implement control
- Electro/hydraulic hydrostatic transmission control
- Speed sensor guarding
- Heavy duty flat faced quick disconnects with integrated pressure release lever
- Hydraulic oil level sight gauge

#### **POWER TRAIN**

- Cat C2.8T turbocharged diesel engine, Meeting U.S. EPA Tier 4 Final and EU Stage V emission standards
- Glow plugs starting aid
- Liquid cooled, direct injection
- Extended life antifreeze (-37°C, -34°F)
- Air cleaner, dual element, radial seal
- Scheduled Oil Sampling (S·O·S<sup>SM</sup>) Valve, Hydraulic Oil
- Ecology drain coolant
- Radiator coolant level sight gauge
- Radiator expansion bottle
- Filter, hydraulic supply, cartridge type
- Filter, hydraulic return, cartridge type
- Filter, canister type, engine oil
- Spring applied, hydraulically released, parking brakes
- Hydrostatic transmission
- Lockable fuel cap
- Hydraulic demand cooling fan
- Auto engine idle

#### **UNDERCARRIAGE**

- Torsion Suspension (4 independent torsion axles)
- Two speed travel
- Integrated tie downs on track frame (4)

#### **FRAME**

- Machine tie down points (9)
- Removable panels for machine frame cleanout
- Support, lift arm
- Steel rear and front bumpers, welded
- Fuel fill, machine right hand side

#### **OTHER**

- Auxiliary Hydraulics, Continuous Flow
- Telematics, Product Link, Cellular
- Steel engine door with replaceable louvers
- Engine door lockable
- Work tool attachment coupler
- Cat ToughGuard<sup>™</sup> hose

# **OPTIONAL EQUIPMENT**

- External Counterweights
- Beacon, LED
- Engine Block Heater 120V
- Oil, Hydraulic, Cold Operation
- 4-point machine lifting eyes

- Paint, Custom
- Speed Sensitive Ride Control
- Bluetooth Key Security
- Attachment Hose Guide
- Corrosion Inhibitor Coating



For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at **www.cat.com** 

© 2024 Caterpillar All rights reserved

Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

CAT, CATERPILLAR, LET'S DO THE WORK, their respective logos, "Caterpillar Yellow," the "Power Edge" and Cat "Modern Hex" trade dress as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

AEH08479-00 (11-2024) (N Am, EU, Chile, Turkey, Colombia, S Korea)

