

# Cat<sup>®</sup> 270 XE

SKID STEER LOADER

#### **FEATURES:**

The Cat® 270 XE 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 270 XE features the following:

- Redesigned Operator Station delivers a larger operating environment and combined with additional seat travel, the 270 XE 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 standard two-speed travel, combined with the optional Speed Sensitive Ride Control system for operation on rough terrain, enabling better load retention, increased productivity, and greater operator comfort.
- XE Hydraulic System provides the highest flow and highest pressure in the Cat Compact Track Loader line-up to deliver industry leading hydraulic horsepower to efficiently run even the most power hungry attachments.
- Electronically controlled Cat C3.6TA (turbocharged, after-cooled)
  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

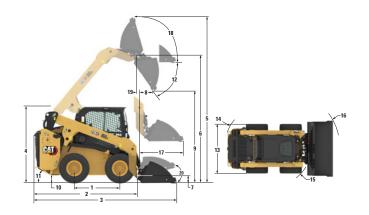
-ngo		
Engine Model	Cat C3.6TA (turbocharged, after-cooled)	
Maximum Gross Power		
ISO 14396:2002 (at 2,200 RPM) –		
with High Flow Attachment connected	100 kW	134 hp
Gross Power SAE J1995:2014	91 kW	121 hp
Net Power SAE 1349:2011	90 kW	121 hp
Net Power ISO 9249:2007	89 kW	120 hp
Peak Torque at 1,500 rpm SAE J1995:2014	551 N⋅m	406 lbf-ft
Displacement	3.6 L	221 in <sup>3</sup>
Stroke	120 mm	4.7 in
Bore	98 mm	3.9 in

 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	4920 kg	10,847 lb
Operating Specifications*		
Rated Operating Capacity (ROC):		
50% Tipping Load	1821 kg	4,015 lb
Rated Operating Capacity with		
Optional Counterweights (@50%)	1983 kg	4,372 lb
Tipping Load	3642 kg	8,029 lb
Breakout Force, Tilt Cylinder	3750 kg	8,267 lb
Breakout Force, Lift Cylinder	2880 kg	6,349 lb





# **Dimensions\***

1	Wheelbase	1386 mm	54.6 in
2	Length without Bucket	3270 mm	128.7 in
3	Length with Bucket on Ground	3908 mm	153.9 in
4	Height to Top of Cab	2222 mm	87.5 in
5	Maximum Overall Height	4214 mm	165.9 in
6	Bucket Pin Height at Maximum Lift	3440 mm	135.4 in
7	Bucket Pin Height at Carry Position	235 mm	9.3 in
8	Reach at Maximum Lift and Dump	749 mm	29.5 in
9	Clearance at Maximum Lift and Dump	2716 mm	106.9 in
10	Ground Clearance	238 mm	9.4 in
11	Departure Angle	24.4°	
12	Maximum Dump Angle	43.5	i°

Vehicle Width over Tires (12" Tire Aspect Ratio [AR])	1830 mm	72 in
Tread Width (gauge) (12" Tire AR)	419 mm	16.5 in
Vehicle Width over tires (14" Tire AR)	1950 mm	76.8 in
Tread Width (gauge) (14" Tire AR)	444 mm	17.5 in
Turning Radius from Center – Machine Rear	1897 mm	74.7 in
Turning Radius from Center – Coupler	1471 mm	57.9 in
Turning Radius from Center – Bucket	2262 mm	89.1 in
Maximum Reach with Arms Parallel to Ground	1182 mm	46.5 in
Rack Back Angle at Maximum Height	88°	
Bucket Pin Reach at Maximum Lift	283 mm	11.1 in
Bucket rollback angle (Ground Level)	28°	
	(12" Tire Aspect Ratio [AR]) Tread Width (gauge) (12" Tire AR) Vehicle Width over tires (14" Tire AR) Tread Width (gauge) (14" Tire AR) Turning Radius from Center – Machine Rear Turning Radius from Center – Coupler Turning Radius from Center – Bucket Maximum Reach with Arms Parallel to Ground Rack Back Angle at Maximum Height Bucket Pin Reach at Maximum Lift	Tread Width (gauge) (12" Tire AR)  Vehicle Width over tires (14" Tire AR)  Tread Width (gauge) (14" Tire AR)  1950 mm  Tread Width (gauge) (14" Tire AR)  444 mm  Turning Radius from Center – Machine Rear  Turning Radius from Center – Coupler  1471 mm  Turning Radius from Center – Bucket  2262 mm  Maximum Reach with Arms Parallel to Ground  Rack Back Angle at Maximum Height  88°  Bucket Pin Reach at Maximum Lift  283 mm

<sup>\*</sup>Operating Weight, Operating Specifications and Dimensions all based on 75 kg (165 lb) operator, all fluids, two speed, 2036 mm (80 in) low profile bucket, 14 × 17.5 tires, HP5 XE hydraulics, enclosed cab with glass door and air conditioning, cloth air ride seat, advanced display, rear view camera, self level, 1000 CCA battery, front counterweight, no optional counterweights and manual quick coupler (unless otherwise noted).

## **Power Train**

FOPS Level II

Travel Speed (Forward or Reverse):		
One Speed	11.7 km/h	7.3 mph
Two Speed Option	17.0 km/h	10.6 mph
Hydraulic System		
Hydraulic Flow – Standard:		
Loader Hydraulic Pressure	24 130 kPa	3,500 psi
Loader Hydraulic Flow	86 L/min	23 gal/min
Hydraulic Power (calculated)	34.6 kW	46.4 hp
Hydraulic Flow – High Flow XPS:		
Loader Hydraulic Pressure	28 000 kPa	4,061 psi
Loader Hydraulic Flow	129 L/min	34 gal/min
Hydraulic Power (calculated)	60.2 kW	80.7 hp
Hydraulic Flow – XE:		
Loader Hydraulic Pressure	31 000 kPa	4,496 psi
Loader Hydraulic Flow	150 L/min	40 gal/min
Hydraulic Power (calculated)	77.5 kW	103.9 hp
Cab		
Rollover Protective Structure (ROPS)	ISO 3471:2008	
Falling Object Protective Structure (FOPS)	ISO 3449:2005 Level I	

## **Service Refill Capacities**

Cooling System	17.5 L	4.6 gal
Engine Crankcase	9.0 L	2.4 gal
Fuel Tank	130.7 L	34.5 gal
Hydraulic System	41.0 L	10.8 gal
Hydraulic Tank	26.0 L	6.9 gal
Diesel Exhaust Fluid (DEF) Tank	11.0 L	2.9 gal

# **Weight Changes with Additional Components**

Operating Weight (Enclosed ROPS)		
Operating Weight	4920 kg	10,847 lb
Tip Load	3642 kg	8,029 lb
ROC (50%)	1821 kg	4,015 lb
Counterweight Adds:		
Operating Weight	+194 kg	+428 lb
Tip Load	+324 kg	+714 lb
ROC (50%)	+162 kg	+357 lb

ISO 3449:2005 Level II

(Optional)

# **270 XE 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® C3.6TA (turbocharged, after-cooled) 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.

- \*Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel (for use of blends higher than 20% biodiesel, consult your Cat dealer).
- \*\*Tailpipe greenhouse gas emissions from lower-carbon intensity fuels are essentially the same as traditional fuels.

## **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\* 81 dB(A) (ISO 6396:2008)

Exterior Sound Power Level\*\* 103 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.
- Cat Bio HYDO™ Advanced is an EU Ecolabel approved biodegradable hydraulic oil.
- 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<sup>TM</sup> telematics

# **270 XE Attachments**

# **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**

- Quick Coupler: Mechanical or Hydraulic
- High Visibility Seat Belt: 50 mm (2 in), 75 mm (3 in), or 3-point lap/shoulder
- Tires: 12 × 16.5 or 14 × 17.5

#### PERFORMANCE PACKAGES

■ Performance Package HP5: XE Hydraulics

#### **COMFORT PACKAGES**

■ 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**

- 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 (.14 in) 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 (.14 in) 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
- Battery disconnect with lockout feature
- 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 C3.6TA turbocharged diesel engine, meeting Tier 4 Final and 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
- Filter, canister type, fuel and water separator
- Radiator/hydraulic oil cooler (side-by-side)
- Spring applied, hydraulically released, parking brakes
- Hydrostatic transmission
- Lockable fuel cap
- Hydraulic demand cooling fan
- Auto engine idle

#### **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** 

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