

Cat® 950 Wheel Loader

The Cat® 950 Wheel Loader brings premium performance with simple-to-use technologies as a standard offering, boosting operator efficiencies and delivering consistent high bucket fill factors resulting in up to 10% increased productivity.* Extended service intervals lower maintenance costs by up to 35%.* Improved performance, reliability, durability, and versatility result in a machine that is better built to meet your needs.

*Compared to previous Cat model

Proven Reliability

- Cat C7.1 engine[†] offers high power density with a combination of proven electronics, fuel, and air systems.
- Features an electric fuel priming pump, fuel-water separator, and secondary filtration system.
- Thorough component design and machine validation processes result in unmatched reliability and uptime.

Work in Comfort in the All New Cab

- Next-generation, easily adjustable seat and suspension for improved operator comfort. It comes in three trim levels and can be equipped with a 4-point harness (kit).
- Increased legroom and adjustable seat controls for increased comfort and efficiency.
- Automatic air conditioning system keeps the cab temperature as desired.
- New in-cab dashboard and high-resolution touch display(s) are easy to use, intuitive, and user friendly.
- Sound suppression, seals, and viscous cab mounts decrease noise and vibration for a quieter work environment.
- HMU steering wheel offers low-effort and precise machine steering. The optional seat-mounted electro-hydraulic joystick steering system provides precision control and dramatically reduces arm fatigue, resulting in excellent comfort and accuracy.
- The next generation of ride control works as a shock absorber, improving ride quality over rough terrain.

Durability

- Heavy-duty transmission and axles designed to handle extreme applications.
- Automatic countershaft powershift (5F/3R) transmission features durable, long-lasting components.
- Full-flow hydraulic filtration system with additional kidney-loop filtration improves hydraulic system reliability and component life.
- Next Generation implement pump increases flow at lower engine speeds and improves hydraulic response.

Smart Machine for Efficient Operation

- Standard Cat technologies to monitor, manage, and enhance your jobsite operations.
 - Cat Payload with Assist provides accurate weighing** of the bucket payloads. Data is displayed in real time to improve productivity and loading accuracy with manual tip-off.
 - Product Link[™] wirelessly connects the machine to the office, giving you access to production and essential health information needed to make timely, fact-based decisions to help you better run your business.
 - New Autodig allows the operator to fully automate bucket loading to improve fill factors and loading time.
 - Auto Set Tires promotes proper loading technique, significantly reducing tire slip and tire wear.
- Optional Cat Advanced Payload with Assist:
 - Tip Off Assist automatizes load adjustment of the final bucket to match hauling unit target.
 - Enhanced lists management, site integration, and extended scale features to help manage and improve productivity and profitability of operations.
- Optional Cat Productivity subscription provides detailed and comprehensive actionable information to help you manage and improve the productivity and profitability of your operations.



^{**}Not legal for trade.

Achieve Greater Fuel Efficiency & Productivity

- New Autodig with Auto Set Tires for consistent high bucket fill factors deliver up to 10% more productivity compared to previous Cat model.
- With 5-speed transmission and lock-up clutch torque converter, power trains deliver smooth shifting, fast acceleration, and speed on grade for greater performance and fuel efficiency.
- Single clutch and lock-to-lock shifting for faster acceleration and speed on grades.
- Z bar* linkage provides high breakout force at ground level.
- Optimized Z bar* linkage offers parallel lift capability for precise work tool control.
- Performance Series Buckets utilize a system-based approach to balance bucket shape against the machine's linkage, resulting in higher fill factors and better material retention when compared with other buckets of the same rated capacity.
- Application Profiles optimize machine settings for different applications at one push of a button.
- Job Aids help operators improve and optimize their operating skills.
- Automatic engine idle shutdown system significantly reduces idle time, overall operating hours, and fuel consumption.
- Deeply integrated engine, power train, and hydraulic systems deliver unmatched productivity and fuel efficiency.
- Optional differential locks are activated on-the-go, which improves traction, resulting in increased productivity while reducing tire scuffing for reduced operating costs.
- Fusion™ Quick Coupler allows for easy tool changes without leaving the cab, letting the machine move quickly from task to task.
 - *Optional configurations and equipment may vary from region to region and require conformance to Caterpillar payload policy. Consult your dealer or Caterpillar representative for details.

Safety Features

- Rear-vision camera enhances visibility behind the machine, helping you work safely and confidently.
- Cab access with wide door, optional remote door opening, and inclined steps add solid stability.
- Floor-to-ceiling windshield, large mirrors with integrated spot mirrors, and rear-vision camera provide industry leading all-around visibility.
- Computerized monitoring system includes several warning indicators.
- Monitored seat belt is standard and can be enhanced with an optional exterior indicator.
- Optional multiview (360°) vision system helps the operator monitor the surroundings of the machine at all times.
- Optional Cat Detect radar technology enhances awareness by monitoring the working environment and alerts operators to hazards.
- Optional access light and under-hood service light system to provide illuminated access to the machine and daily checks even in the dark.

Reduced Maintenance Time and Costs

- Extended fluid and filter change intervals reduce maintenance costs by up to 35%.**
- Convenient access to hydraulic and electrical service centers for easy ground-level servicing.
- Remote Troubleshoot can connect the machine to the dealer service department to help diagnose problems quickly so you can get back to work.
- Remote Flash works around your schedule to ensure your machine's software is up to date for optimal performance.
- The Cat App helps you manage fleet location, hours, and maintenance schedules; it also alerts you for required maintenance and allows you to request service from your local Cat dealer.
- One-piece tilting hood makes engine compartment access fast and easy.
- Optional Integrated Autolube extends component and service life.

Purpose-built Specialty Configurations

- Application-specific arrangements direct from the factory for optimized performance and added durability in the toughest applications, including:
 - Industrial and waste models feature guarding and reinforcement necessary for work in transfer stations, recycling depots, scrap yards, and demolition sites.
 - Forestry model increases lift and tilt capacities for efficient and productive log and chip handling in paper, pellet, and sawmills.
 - Steel mill model is designed for the challenging work environment of steel mills and slag handling applications, incorporating an added level of safety.

^{**}Parts and fluids only

Standard and Optional Equipment

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

	Standard	Optional
OPERATOR ENVIRONMENT		
Cab, pressurized, sound suppression	√	
Door, remote opening system		√
EH implement controls, parking brake	√	
HMU steering wheel	√	
Steering, joystick		√
Entertainment radio		√
CB radio ready		√
Seat, cloth, air suspension	√	
Seat, suede/cloth, air suspension, heated		√
Seat, leather/cloth, air suspension, heated/		
cooled		•
Touchscreen display	✓	
Visibility: mirrors, rear-vision camera	✓	
Multiview (360°) vision system		✓
Cat Detect rear radar system		✓
Dedicated rearview screen		✓
Mirrors, heated		✓
Air conditioner, heater, defroster (auto	✓	
temp, fan) Sun visor, front, retractable		
	v	
Sun visor, rear, retractable		· ·
Window cleaning platform, front		✓
Windows, front, laminated	√	
Windows, front, heavy duty		√
Full cab window guard		✓
ON-BOARD TECHNOLOGIES		
Cat Payload scale	· ·	
Autodig with Auto Set Tires	√	
Operator ID & machine security	√	
Application Profiles	√	
Job Aids	√	
Controls Help and eOMM		√
Cat Advanced Payload		√
Cat Payload Printer		✓
POWER TRAIN		
Cat C7.1 engine	√	
Electric fuel priming pump	√	
Fuel-water separator and secondary fuel filter	✓	
Engine, air precleaner	✓	
Turbine, air precleaner		√
Radiator, high debris		√
Cooling fan, reversible		√
Axles, open/open differentials	√	
Axles, auto differential locks front and rear		√
Axles, manual front locks		√
Axles, ecology drains, AOC ready, extreme		✓
temperature seals Axles, oil cooler		√
Transmission, countershaft, automatic	✓	<u> </u>
powershift	./	
Torque converter with lock-up	✓	

	Standard	Optiona
POWER TRAIN (Continued)		
Service brakes, hydraulic, fully enclosed wet disc, wear indicators, Integrated Braking System (IBS)	√	
Park brake, caliper on front axles, spring applied–pressure released	✓	
HYDRAULICS		
Implement system, load sensing with variable displacement piston pump	✓	
Steering system, load sensing with dedicated variable displacement piston pump	✓	
Ride control, dual accumulators		✓
3 rd and 4 th auxiliary functions with ride control		✓
Oil sampling valves, Cat XT™ hoses	✓	
Quick coupler control		✓
ELECTRICAL		
Starting and charging system, 24V	√	
Starter, electric, heavy duty Cold start, 120V or 240V	✓	.1
Lights: halogen, 4 work lights, 2 front tower lights, 2 rear-vision lights	✓	•
Lights: roading with turn signals		✓
Lights: LED		✓
Warning beacon		✓
Reversing strobe lights		✓
MONITORING SYSTEM		
Front dash with analog gauges, LCD display, and warning lights	✓	
Primary touchscreen monitor (Cat Payload, quad screens, machine settings & messages)	✓	
LINKAGE		
Parallel Lift, Z-bar*	✓	
Standard lift, Z-bar*		✓
High Lift available with both linkages*		✓
Kickouts: lift and tilt	\checkmark	
ADDITIONAL EQUIPMENT		
Cat Autolube system		✓
Fenders, extensions or roading		✓
Guards: power train, crankcase, cab, cylinders, rear		✓
Biodegradable hydraulic oil		✓
High-speed oil change system		✓
Rear cab access		✓
Toolbox		✓
Wheel chocks		✓
Secondary steering system, electrical**		✓
SPECIAL CONFIGURATIONS		
Auxiliary Counterweight		✓
Steel Mill		✓
Waste and industrial		✓
Forestry		✓
Corrosion resistant		✓

^{*} Not all configurations available in all regions, subject to availability. ** Standard or optional depending on region. Consult your dealer.

Technical Specifications

Engine		
Engine Model	Cat 7	7. 1
Engine Power @ 2,100 rpm -ISO 14396:2002	186 kW	249 hp
ISO 14396:2002 (DIN)	253 mhp (PS)	
Gross Power @ 2,100 rpm – SAE J1995:2014	191 kW	256 hp
SAE J1995:2014 (DIN)	260 mhp (PS)	
Net Power @ 2,100 rpm – ISO 9249:2007, SAE J1349:2011	172 kW	231 hp
ISO 9249:2007 (DIN)	235 mhp (PS)	
Engine Torque @ 1,400 rpm -ISO 14396:2002	1236 N⋅m	912 lbf-ft
Gross Torque @ 1,400 rpm – SAE J1995:2014	1257 N⋅m	927 lbf-ft
Net Torque @ 1,300 rpm – ISO 9249:2007, SAE J1349:2011	1170 N⋅m	863 lbf-ft

- Displacement 7.0 L
- Cat engine meets Brazil MAR-1 and UN ECE R96 Stage IIIA emission standards, equivalent to U.S. EPA Tier 3 and EU Stage IIIA.
- The net power advertised is the power available at the flywheel when the engine is equipped with fan, alternator, air cleaner, and muffler.
- Cat engines are compatible with diesel fuel blended with following lowercarbon intensity fuels up to:
- 100% biodiesel FAME (fatty acid methyl ester)*
- 100% renewable diesel, HVO (hydrogenated 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.

*For use of blends higher than 20% biodiesel, consult your Cat dealer.

Weight		
Operating Weight	18 076 kg	39,851 lb

Weight based on a machine configuration with Bridgestone 23.5R25VJT L3
radial tires, full fluids, operator, standard counterweight, ride control, cold
start, roading fenders, Product Link, front manual differential/open rear
axles, power train guard, secondary steering, sound suppression, and a
3.1 m³ (4.1 yd³) general purpose bucket with BOCE.

Transmission					
Speed	km/h	mph	Speed	km/h	mph
Forward 1	6.9	4.3	Reverse 1	6.9	4.3
Forward 2	12.0	7.5	Reverse 2	12.0	7.5
Forward 3	19.3	12.0	Reverse 3	25.7	16.0
Forward 4	25.7	16.0			
Forward 5	39.5	24.5			

 Maximum travel speed in standard vehicle with empty bucket and standard L3 tires with 787 mm (31 in) roll radius.

Sound	
Operator Sound Pressure Level (ISO 6396:2008)	72 dB(A)
Exterior Sound Power Level (ISO 6395:2008)	107 dB(A)
Operator Sound Pressure Level (ISO 6396:2008)*	69 dB(A)
Exterior Sound Power Level (ISO 6395:2008)**	104 dB(A)

- *Including countries that adopt the EU and UK Directives.
- **European Union Directive 2000/14/EC and UK Noise Regulation 2001 No. 1701

Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.6 kg (3.5 lb) of refrigerant which has a ${\rm CO}_2$ equivalent 2.288 metric tonnes (2.522 tons).

Bucket Capacities

Bucket Range 2.5-9.2 m³ 3.3-12.0 yd³

Operating Specifications

Static Tipping Load – Full 40° Turn:		
With Tire Deflection	10 936 kg	24,110 lb
No Tire Deflection	11 631 kg	25,642 lb
Breakout Force	152 kN	34,171 lbf

- For a machine configuration as defined under "Weight."
- Full compliance to ISO 14397-1:2007 Sections 1 thru 6, which requires 2% verification between calculations and testing.

Service Refill Capacities				
Fuel Tank	259.5 L	68.6 gal		
Cooling System	54 L	14.3 gal		
Crankcase	21 L	5.5 gal		
Transmission	43 L	11.4 gal		
Differentials and Final Drives – Front	43 L	11.4 gal		
Differentials and Final Drives – Rear	43 L	11.4 gal		
Hydraulic Tank	97 I	25 6 gal		

Hydraulic System

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Imp	lement	System:

Maximum Pump Output (2,340 rpm)	322 L/min	85 gal/min
Maximum Operating Pressure	27 900 kPa	4,047 psi
Hydraulic Cycle Time – Total	9.8 se	conds

Dimensions					
	Standard Lift		High Lift		
Height to Top of Hood	2695 mm	8'10"	2695 mm	8'10"	
Height to Top of ROPS	3456 mm	11'4"	3456 mm	11'4"	
Ground Clearance	354 mm	1'1"	354 mm	1'1"	
Wheelbase	3350 mm	11'0"	3350 mm	11'0"	
Overall Length (without bucket)	6797 mm	22'3"	7462 mm	24'6"	
Hinge-Pin Height at Carry Height	624 mm	2'0"	745 mm	2'5"	
Hinge-Pin Height at Maximum Lift	3981 mm	13'0"	4476 mm	14'8"	
Lift Arm Clearance at Maximum Lift	3393 mm	11'1"	3776 mm	12'4"	
Rack Back at Maximum Lift	m Lift 60 degrees 65		65 degr	ees	
Rack Back at Carry Height	49 degrees		54 degr	ees	
Width over Tires (loaded)	2824 mm	9'4"	2824 mm	9'4"	
Tread Width	2140 mm	7'0"	2140 mm	7'0"	
• All dimensions are approximate and based on machine aguinned with 2.1 m ³					

 All dimensions are approximate and based on machine equipped with 3.1 m³ (4.1 yd³) general purpose bucket with BOCE and Bridgestone 23.5R25 VJT L3 radial tires.



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