



Cat[®] 627

Wheel Tractor-Scraper

The principal choice for moving material on an earthmoving site is the Cat[®] 627 Wheel Tractor-Scraper. Twin-powered for high rolling resistance and steep grades, this machine is engineered to work effectively in a wide range of conditions and material types. Whether traveling through sand, clay, or shot rock, it's specifically designed to fit an earthmover's needs for today's and tomorrow's work.

Be More Productive

- Advanced Productivity Electronic Control System (APECS) allows the engine and transmission to communicate on a high level. This communication allows the machine to utilize better the power and torque the engine is producing. The net result is moving more material.
- Use Ground Speed Control to set the desired top speed and the machine will find the gear that works best for the engine and the transmission, providing a lower fuel burn.
- The machine speed limit feature allows the machine to maintain a set top speed instead of relying on top gear selector.
- Auto-Stall assists in quickly bringing the transmission to an operating temperature at start-up when the machine is working in a cold climate region.
- Enhance productivity through the usage of Cat Payload with Sequence Assist.
- Cat Payload for scrapers is an earthmoving solution for optimal payload and jobsite efficiency. Cat Payload achieves on-the-go weighing by using bowl lift cylinder pressure during the loaded haul segment. Cat Payload is optimized to be used with Sequence Assist, which provides increased productivity with less operator effort.

Work in Comfort

- Reduce up to 14 individual operator commands per cycle with Sequence Assist.
- Steer with less effort using the newly designed high-pressure steering system.
- Enjoy interior improvements and a more ergonomic work environment with a 21% larger cab than the G Series cab.
- Intuitive, ergonomic controls keep operators focused on their work.
- Maintain desired cab temperature with automatic temperature control.

Designed for Safety

- Enhance an operator's awareness of site surroundings with the Work Area Vision System (WAVS).
- Seat belt indicator provides visual and audible alerts when the seatbelt is not in use.
- Advanced Cushion Hitch allows the cushion hitch to prevent endstroke by predicting endstroke events and managing the rate of dampening, resulting in reduced hitch maintenance and improved operator ride in rough conditions.



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Easy to Operate

- The spacious cab features easy, intuitive controls and excellent visibility. The cab provides a comfortable working environment for all-day operations.
- Cat Advanced Ride Management (ARM) seat suspension reduces endstroke movement of the load cylinder for a smoother ride.
- Engine overspeed protection will automatically engage with no operator input when the machine is in eighth gear. The machine will assist in slowing the machine's speed by canceling the throttle command and engaging the engine compression brake.

Integrated Cat Technologies

- Monitor, manage, and enhance jobsite operations.
- Hit target grade faster and more accurately with Cat Grade technologies. Finish jobs in fewer passes and with less operator effort, saving you time and helping to increase profit.
- Product Link™ collects machine data that can be viewed online through web and mobile applications (optional attachment).
- Access information anytime, anywhere with VisionLink® – use it to make informed decisions that boost productivity, lower costs, simplify maintenance, and improve safety and security on your jobsite.
- Shorten the learning curve for inexperienced operators with Sequence Assist and Load Assist (included with Cat Grade attachment).

Execute Efficiency

- The new tractor hydraulic on-demand fan helps assist in lower fuel consumption.
- The Cat C13 tractor engine and C9.3 scraper engine meet U.S. EPA Tier 4 Final and EU Stage V emission standards, or U.S. EPA Tier 2/ equivalent to U.S. EPA Tier 3 and EU Stage IIIA emission standards, contributing to lower fuel consumption.
- Using draft-arm overflow guards diverts material away from the bowl, preventing material from getting caught between the draft arms and the bowl sides.
- Cat Grade (optional attachment) intelligently ensures the machine does not cut below grade in a cut area or overfill in the fill area.

Standard Equipment and Optional Attachments

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

	Standard	Optional		Standard	Optional
POWERTRAIN – TRACTOR			OPERATOR ENVIRONMENT – TRACTOR (CONTINUED)		
Cat® C13 engine with Mechanically Actuated Electronic Unit Injection (MEUI™)	✓		T-handle implement control	✓	
Cat engine brake	✓		Radio ready	✓	
Differential lock	✓		Rollover protective structure (ROPS)/falling objects protective structure (FOPS) cab, pressurized	✓	
Electric start, 24V	✓		Keypad switches: throttle lock, wipers/washers, hazard lights, retarding level select, work lights on/off, information mode on touchscreen display	✓	
Fan, hydraulic	✓		Seat belt, static two-piece	✓	
Ground level engine shutdown	✓		Safety tab rocker switches	✓	
Guard, crankcase	✓		Seat – Cat Advanced Ride Management (ARM), Cat Comfort Series III, rotates 30 degrees	✓	
Starting aid, ether	✓		Steering wheel, tilt, telescoping, padded	✓	
Braking system: primary and secondary, wet disc, hydraulic; parking, hydraulic-released, spring-applied	✓		Windows, right side emergency egress	✓	
Transmission: 8-speed planetary powershift, Electronic Clutch Pressure Control (ECP), Advanced Productivity Electronic Control Strategy (APECS) software, programmable top gear selection, transmission hold, transmission guard, ground speed control, machine speed limit	✓		Work Area Vision (3) Camera System	✓	
POWERTRAIN – SCRAPER			254 mm (10 in) touchscreen information display	✓	
Cat C9.3 engine with high pressure common rail fuel	✓		FLUIDS		
Braking system: primary and secondary, wet disc, hydraulic	✓		Extended life coolant to -37° C (-34° F)	✓	
Cat engine brake	✓		OTHER STANDARD EQUIPMENT – TRACTOR		
Electric start, 24V	✓		Advanced cushion hitch	✓	
Fan, driveline	✓		Accumulators (cushion hitch and brake) with Canadian registration number (CRN)	✓	
Ground level engine shutdown	✓		Fast oil change (engine)	✓	
Muffler (U.S. EPA Tier 2 or U.S. EPA Tier 3 only)	✓		Fenders, non-metallic	✓	
Starting aid, ether	✓		Heater, engine coolant 120V	✓	
4-speed (torque converter drive), transmission planetary powershift	✓		Tow pin, front	✓	
ELECTRICAL – TRACTOR			OTHER STANDARD EQUIPMENT – SCRAPER		
Alternator, 115 amp	✓		Bowl: 18.4 m³ (24 yd³) – heaped, 13.0 m³ (17.1 yd³) – struck	✓	
Batteries (4), 12V, 1,000 CCA, maintenance free	✓		Hydraulic position sensing cylinders (bowl lift and apron)	✓	
Electrical system, 24V	✓		Fast-fill fuel tank	✓	
Lighting system: LED low beam, high beam, and work lights	✓		Fender, scraper	✓	
Starting/charging receptacle	✓		Bowl overflow guard	✓	
ELECTRICAL – SCRAPER			STEERING ARRANGEMENTS		
Alarm, backup	✓		Secondary steering (electrically powered)		✓
Lighting system: LED brake/turn indicators	✓		INTEGRATED TECHNOLOGIES		
OPERATOR ENVIRONMENT – TRACTOR			Product Link™		✓
HVAC powered air precleaner	✓		Sequence Assist – Cat Payload	✓	
HVAC system, heat, AC, defrost	✓		Cat Grade, Cat Payload, Sequence Assist, and Load Assist		✓
Thermostat control of HVAC system	✓		OTHER ATTACHMENTS		
Coat hook	✓		Push-pull		✓
Lunchbox platform with holding strap	✓		Cold start engine flywheel clutch		✓
Diagnostic connection	✓		Steering lock – external	✓	
Dome courtesy light	✓		SERVICE INSTRUCTIONS		
Horn, electric	✓		Film arrangement – U.S. (ANSI)		✓
			Film arrangement – International (ISO)		✓

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Technical Specifications

Engine		
Engine Model:	Tractor Cat® C13	Scraper Cat C9.3
Rated Engine Speed:	Tractor 2,000 rpm	Scraper 2,150 rpm
Engine Power (ISO 14396:2002):	Tractor 304 kW (407 hp) Scraper 216 kW (290 hp)	
• Meets U.S. EPA Tier 4 Final or EU Stage V emission standard and meets Brazil MAR-1 emission standards, equivalent to U.S. EPA Tier 3 and EU Stage IIIA.		

General Data		
Overall Width	3.57 m	11' 7"
Overall Shipping Height	3.77 m	12' 3"
Scraper Capacity:		
Struck	13.0 m³	17.1 yd³
Heaped	18.4 m³	24.0 yd³
Rated Load	26 127 kg	57,600 lb
	26.1 tonnes	28.8 tons
Width of Cut	3.14 m	10' 4"
Maximum Depth of Cut	315 mm	12.4"
Maximum Depth of Spread	540 mm	21.3"
Top Speed (Loaded)	53.9 km/h	33.5 mph
180° Curb-to-Curb Turning Width	11.8 m	38' 7"
Tires:		
Tractor Drive	33.25R29**E3	
Scraper	33.25R29**E3	

Non Push-Pull		
Operating Weight (Empty)	40 982 kg	90,350 lb
Overall Length	14.02 m	45' 10"

Push-Pull		
Operating Weight (Empty)	42 328 kg	93,317 lb
Overall Length (With Bail Down)	15.58 m	51' 1"

Transmission					
Speed	km/h	mph	Speed	km/h	mph
Forward 1	5.0	3.1	Forward 6	29.6	18.4
Forward 2	8.9	5.5	Forward 7	39.9	24.8
Forward 3	12.1	7.5	Forward 8	53.9	33.5
Forward 4	16.3	10.1	Reverse 1	9.2	5.7
Forward 5	21.9	13.6			

Service Refill Capacities						
	Tractor	L	gal	Scraper	L	gal
Crankcase		37.0	9.7		24.5	6.5
Transmission System		97.0	25.5		49.0	12.9
Cooling System		42.0	11.1		41.0	10.8
Brake Cooling					33.0	8.7
Final Drive		19.0	5.0		19.0	5.0
Differential		158.0	41.7		34.0	8.98
Diesel Exhaust Fluid*		30.5	8.1		22.0	5.8
Fuel Tank		1272.0 L		336.0 gal		
Hydraulic System		83.0 L		21.9 gal		

*When equipped

Safety Criteria Compliance Standards

Rollover Protective Structure (ROPS)	ISO 3471:2008 for up to 17 084 kg (37,664 lb)
Falling Objects Protective Structure (FOPS)	ISO 3449:2005 Level II
Brakes	ISO 3450:2011
Steering System	ISO 5010:2019*
Seat Belt	ISO 6683:2005, SAE J386
Reverse Alarm	ISO 9533:2010

*If equipped with optional secondary steering

Implement Cycle Times

Bowl Raise	3.0 Seconds	Bowl Lower	3.5 Seconds
Apron Raise	3.0 Seconds	Apron Lower	3.8 Seconds
Ejector Extend	5.2 Seconds	Ejector Retract	6.7 Seconds
Bail Raise	1.8 Seconds	Bail Lower	3.2 Seconds

Sound

- The exterior sound power level for the standard machine (ISO 6395:2008) is 119 dB(A).
- The interior sound pressure level for the standard machine (ISO 6396:2008) is 78 dB(A).

Air Conditioning

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a or R1234yf. Refer to the machine labeling for identification of the gas.

- If equipped with R134a (Global Warming Potential = 1430), the system contains 1.9 kg (4.2 lb) of refrigerant which has a CO₂ equivalent of 2.71 metric tonnes (2.674 tons).
- If equipped with R1234yf (Global Warming Potential = 0.501), the system contains 1.85 kg (4.1 lb) of refrigerant which has a CO₂ equivalent of 0.001 metric tonnes (0.001 tons).

AEXQ2710-02 (08-2025)
Replaces AEXQ2710-01
Build Number: 11A
(Global, excluding Japan)