



Cat[®] 657

Wheel Tractor-Scraper

First introduced into the Cat[®] Wheel Tractor-Scraper lineup in 1962, the 657 continues to uphold its legacy as one of our signature machines. Its twin power gives it the ability to boost productivity and utilize push-pull loading. Combine this ability with improvements in productivity, enhancements in operator comfort, and new safety features – Powered Access System and effective wet disc brakes – and you have a machine offering high returns on profit and time.

Be More Productive

- The Advanced Productivity Electronic Control System (APECS) enables communication between the engine and transmission to effectively optimize power and torque output. This integration results in enhanced efficiency with a net result of 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.
- 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

- Steer with less effort with the newly designed High-Pressure Steering system.
- Reduce up to 14 individual operator commands per cycle with Sequence Assist.
- Enjoy interior improvements and a more ergonomic work environment with a 21% larger cab than the 657 G-Series cabs.
- Intuitive, ergonomic controls with multifunction display keep operators focused on their work.
- Maintain desired cab temperature with Automatic Temperature Control.

Designed for Safety

- Get in and out of the cab easier with the new powered access ladder system.
- Enhance an operator's awareness of site surroundings with the Work Area Vision System (WAVS).
- Convenient ground-level access to fuel fill and multiple maintenance points, ensuring safer and more efficient service.
- Seat belt indicator provides visual and audible alerts when the seat belt is not in use.
- The fuel fill, fuel filter, engine oil filter, engine oil change, and water drain are easily accessible at ground level.

Easy to Operate

- Cat Advance Ride Management (ARM) seat suspension reduces end stroke 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 speed by canceling the throttle command and engaging the engine compression brake.
- The spacious cab features easy, intuitive controls and excellent visibility. The cab provides a comfortable working environment for all-day operation.



Cat® 657 Wheel Tractor-Scraper

Integrated Cat Technologies

- 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.
- Product Link™ collects machine data that can be viewed online through web and mobile applications (optional attachment).
- 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.
- Monitor, manage, and enhance jobsite operations.

Execute Efficiency

- The Cat C18 tractor and C15 scraper engines meet U.S. EPA Tier 4 Final and EU Stage V emission standards, contributing to lower fuel consumption.
- The tractor hydraulic on-demand fan helps assist in lower fuel consumption.
- Cat Grade (optional attachment) intelligently ensures the machine does not cut below grade in a cut area or overfill in the fill area.

Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
POWERTRAIN – TRACTOR			ELECTRICAL – TRACTOR AND SCRAPER		
C18 (Meets U.S. EPA Tier 4 Final and EU Stage V emission standards)	✓		Alarm, backup	✓	
Cat® engine brake	✓		Alternator, 115 amp tractor, 65 amp scraper	✓	
Differential lock	✓		Batteries (4), 12V, 1,000 CCA, maintenance free	✓	
Fan, hydraulic	✓		Electrical system, 24V	✓	
Guard, crankcase	✓		Electric Engine Start, 24V	✓	
Starting aid, ether	✓		Ground-level engine shutdown	✓	
Braking system: primary and secondary, wet disc, hydraulic; parking, hydraulic-released, spring-applied	✓		Lighting system: LED headlights low beam and high beam, LED flood work lights, LED brake lights, LED turn indicators with hazard function	✓	
Transmission: 8-speed planetary powershift, Electronic Clutch Pressure Control (ECPC), Advanced Productivity Electronic Control Strategy (APECS) software, programmable top gear selection, transmission hold, guard- powertrain, ground speed control, machine speed limit	✓		Starting/charging receptacle	✓	
POWERTRAIN – SCRAPER					
Cat C15 (Meets U.S. EPA Tier 4 Final and EU Stage V emission standards)	✓				
Cat engine brake	✓				
Fan, mechanical drive	✓				
Starting aid, ether	✓				
Braking system: primary and secondary, wet disc, and hydraulic	✓				
Transmission: 8-speed planetary powershift, Electronic Clutch Pressure Control (ECPC), Advanced Productivity Electronic Control Strategy (APECS) software, programmable top gear selection, transmission hold, guard -powertrain, ground speed control, machine speed limit	✓				

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Standard and Optional Equipment (continued)

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	Standard	Optional		Standard	Optional
OPERATOR ENVIRONMENT – TRACTOR			FLUIDS		
HVAC powered air precleaner	✓		Extended life coolant to –37° C (–34° F)	✓	
HVAC system, heat, AC, defrost	✓		OTHER STANDARD EQUIPMENT		
Thermostat control of HVAC system	✓		Accumulators (brake and cushion hitch) with Canadian Registration Number (CRN)	✓	
Coat hook	✓		Fast oil change (Engine)	✓	
Lunch box platform with holding strap	✓		Vandalism locks	✓	
Diagnostic connection	✓		Steering locks	✓	
12V power ports (2)	✓		Heater, engine coolant 120V	✓	
Dome courtesy light	✓		Bowl 24.5 m³ (32 yd³) – struck, 33.6 m³ (44 yd³) – heaped	✓	
Horn, electric	✓		Fast oil change (Engine)	✓	
T-Handle implement control	✓		Bowl overflow guard	✓	
Radio ready	✓		Hydraulic position sensing cylinders (bowl lift and apron)	✓	
Rollover protective structure/falling objects protective structure (ROPS/FOPS) cab, pressurized	✓		Push-Pull	✓	
Keypad switches: throttle lock, wipers/washers, hazard lights, retarding level select, work lights on/off, information mode on the touchscreen display	✓		Fast-fill fuel tank	✓	
Seat belt, static two-piece	✓		Fenders, metallic	✓	
Windows, right side emergency egress	✓		Secondary steering (ground driven)	✓	
Windows, laminated, zipped in	✓		OTHER ATTACHMENTS		
Work Area Vision (3) Camera System	✓		Cab beacon with air horn		✓
254 mm (10 in) touchscreen information display	✓		SERVICE INSTRUCTIONS		
Powered access ladder	✓		Film arrangement – U.S. (ANSI)		✓
Safety tab rocker switches	✓		Film arrangement – International (ISO)		✓
Seat – Cat Advanced Ride Management (ARM), Cat Comfort Series III, rotates 30 degrees	✓		INTEGRATED TECHNOLOGIES		
			Sequence Assist and Cat Payload	✓	
			Cat Grade		✓
			Product Link™		✓

Cat® 657 Wheel Tractor-Scraper

Technical Specifications

Engine			
	Tractor		Scraper
Engine Model	Cat C18		Cat C15
Rated Engine RPM	2,000 rpm		2,100 rpm
Advertised-Net (ISO 14396)	469 kW	629 hp	353 kW 473 hp
• Meets U.S. EPA Tier 4 Final and EU Stage V emission standards.			

General Data		
Scraper Capacity		
Struck	24.5 m³	32.0 yd³
Heaped	33.6 m³	44.0 yd³
Rated Load	47 174 kg	104,000 lb
	46.4 mt	52.0 ton
Width of Cut	3.8 m	12.5 ft
Maximum Depth of Cut (Cushion Hitch Locked)	440 mm	17.3 in
Maximum Depth of Spread	660 mm	26.0 in
Top Speed (Loaded)	56.1 km/h	34.9 mph
180° Curb-to-Curb Turning Width (Right)	13.6 m	44.6 ft
Tire Size	40.5/75 R39 ★★ E-3	
Operating Weight		
Unloaded	74 850 kg	165,000 lb
With Rated Load	122 050 kg	269,075 lb
Overall Length	17.97 m	58.96 ft

Transmission		
First	5.7 kph	3.5 mph
Second	10.5 kph	6.5 mph
Third	12.5 kph	7.8 mph
Fourth	17.0 kph	10.6 mph
Fifth	22.8 kph	14.2 mph
Sixth	30.9 kph	19.2 mph
Seventh	41.4 kph	25.7 mph
Eighth	56.1 kph	34.9 mph
Reverse	10.8 kph	6.7 mph

Sound

- The exterior sound power level for the standard machine (ISO 6395:2008) is 116 dB(A).
- The interior sound pressure level for the standard machine (ISO 6396:2008) is 75 dB(A).

Safety Criteria Compliance Standards

Rollover Protective Structure (ROPS)	ISO 3471:2008 for up to 26 600 kg (58,643 lb)
Falling Object Protective Structure (FOPS)	ISO 3449:2005 Level II
Brakes	ISO 3450:2011
Steering System	ISO 5010:2019
Seat Belt	ISO 6683:2005, SAE J386
Forward Horn and Reverse Alarm	ISO 9533:2010

Service Refill Capacities

	Tractor		Scraper	
Crankcase	52.0 L	13.7 gal	34 L	9.0 gal
Transmission System	136 L	35.9 gal	121 L	32.0 gal
Cooling System	88.6 L	23.4 gal	63.2 L	16.7 gal
Fuel Tank	1628.0 L		430.1 gal	
Hydraulic System	150 L		39.6 gal	
Diesel Exhaust Fluid	30.5 L	8.1 gal	22 L	5.8 gal

Air Conditioning System

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).

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Replaces AEXQ2531-01
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(Global excluding Japan)

