



Cat[®] 621

Wheel Tractor-Scraper

Our wheel tractor-scrapers have long been considered the basic method of moving volumes of material, and the Cat[®] 621 Wheel Tractor-Scraper is no exception. Known for its ability to be push-loaded and high travel speeds, it's always an earthmover's first tool of choice when working in challenging load areas. With an open bowl and a single engine, this machine is designed to handle a wide range of material types ranging from sand to ripped rock 609.6 mm (24") or less in size.

Be More Productive

- Smart mode helps reduce fuel consumption by automatically matching the correct gear and hydraulic power to digging conditions.
- Advanced Productivity Electronic Control System (APECS) allows the engine and transmission to communicate on a high level. This communication allows the machine to better utilize 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 replaces top gear selection.
- Auto-stall assists in quickly bringing the transmission to an operating temperature at startup when the machine is working in a cold climate region.
- Boost productivity with the Cat Payload feature (optional attachment). Cat Payload is an automatic feature when ordered 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 (optional attachment).
- 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 seat belt is not in use.
- Advanced cushion hitch allows the cushion hitch to prevent end stroke by predicting end stroke 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 operation.
- Cat Advanced 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'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 Cat Grade Control and Load Assist (optional attachment).

Execute Efficiency

- The new tractor hydraulic on-demand fan helps assist in lower fuel consumption.
- The Cat C13 tractor engine meets U.S. EPA Tier 4 Final/EU Stage V 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 Control (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™)	✓		Safety tab rocker switches	✓	
Cat engine brake	✓		Seat – Cat Advanced Ride Management (ARM), Cat Comfort Series III, rotates 30 degrees	✓	
Electric start, 24V	✓		Steering wheel, tilt, telescoping, padded	✓	
Fan, hydraulic	✓		Windows, right side emergency egress	✓	
Ground level engine shutdown	✓		Camera arrangement – Work Area Vision System (WAVS)	✓	
Guard, crankcase	✓		FLUIDS		
Starting aid, ether	✓		Extended life coolant to -37° C (-34° F)	✓	
Braking system: primary and secondary, wet disc, hydraulic; parking, hydraulic-released, spring-applied	✓		OTHER STANDARD EQUIPMENT – TRACTOR		
Transmission: 8-speed planetary powershift, Electronic Clutch Pressure Control (ECPC), Advanced Productivity Electronic Control Strategy (APECS) software, programmable top gear selection, transmission hold, differential lock, transmission guard, ground speed control, machine speed limit	✓		Advanced cushion hitch	✓	
POWERTRAIN – SCRAPER			Accumulators (cushion hitch and brake) with Canadian registration number (CRN)	✓	
Braking system: primary and secondary, wet disc, hydraulic	✓		Fast oil change (engine)	✓	
ELECTRICAL – TRACTOR			Fenders, non-metallic	✓	
Alternator, 115 amp	✓		Heater, engine coolant 120V	✓	
Batteries (4), 12V, 1,000 CCA, maintenance free	✓		Tow pin, front	✓	
Electrical system, 24V	✓		OTHER STANDARD EQUIPMENT – SCRAPER		
Lighting system: LED	✓		Bowl: 18.4 m³ (24 yd³) – heaped, 14.1 m³ (18.4 yd³) – struck	✓	
Starting/charging receptacle	✓		Hydraulic position sensing cylinders (bowl lift and apron)	✓	
ELECTRICAL – SCRAPER			Fast-fill fuel tank	✓	
Alarm, backup	✓		Fender, scraper	✓	
Lighting system: LED low beam, high beam, and work lights	✓		Bowl overflow guard	✓	
OPERATOR ENVIRONMENT – TRACTOR			STEERING ARRANGEMENTS		
HVAC powered air precleaner		✓	Secondary steering (electrically powered)		✓
HVAC system, heat, AC, defrost	✓		INTEGRATED TECHNOLOGIES		
Thermostat control of HVAC system	✓		Product Link™		✓
Coat hook	✓		Sequence Assist – Cat Payload	✓	
Lunchbox platform with holding strap	✓		Cat Grade Control, Cat Payload, Sequence Assist, and Load Assist		✓
Diagnostic connection (2)	✓		OTHER ATTACHMENTS		
Differential lock (1)	✓		Push-pull		✓
Dome courtesy light	✓		Cold start engine flywheel clutch		✓
Horn, electric	✓		Steering lock – external	✓	
T-handle implement control	✓		Cab beacon with air horn		✓
Radio ready	✓		Year of manufacture plate		✓
Rollover protective structure (ROPS)/falling objects protective structure (FOPS) cab, pressurized	✓		SERVICE INSTRUCTIONS		
Keypad switches: throttle lock, wipers/washers, hazard lights, retarding level select, work lights on/off, information mode on messenger display	✓		Film arrangement – U.S. (ANSI)		✓
			Film arrangement – International (ISO)		✓

Cat® 621 Wheel Tractor-Scraper

Technical Specifications

Engine

Engine Model: Tractor	Cat® C13	
Rated Engine Speed: Tractor	1,700 rpm	
Engine Power (ISO 14396:2002)	304 kW	407 hp

- Meets U.S. EPA Tier 4 Final/EU Stage V emission standards, or equivalent to U.S. EPA Tier 2, or equivalent to U.S. EPA Tier 3/EU Stage IIIA.
- Net power available at the flywheel when the engine is equipped with fan, air cleaner, aftertreatment, and alternator with engine speed at 1,700 rpm.

General Data

Overall Width	3.57 m	11'8"
Overall Shipping Height	4.03 m	13'2"
Scraper Capacity:		
Struck	13 m ³	17.1 yd ³
Heaped	18.4 m ³	24.0 yd ³
Rated Load	26 127 kg 26.19 tonnes	57,610 lb 28.81 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)	36 185 kg	79,687 lb
Overall Length	14.02 m	45'10"

Push-Pull

Operating Weight (Empty)	36 567 kg	80,630 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

Differential	158.0 L	41.7 gal
Final Drive (Each)	19.0 L	5.0 gal
Rear Wheels (Each)	4.0 L	1.0 gal
Brake Cooling (Scraper)	33.0 L	8.7 gal
Crankcase	37.0 L	9.7 gal
Transmission System	97.0 L	25.5 gal
Cooling System	42.0 L	11.0 gal
Fuel Tank	818.0 L	216.1 gal
Hydraulic System	83.0 L	21.9 gal

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 pressure level for the standard machine (ISO 6395:2008) is 115 dB(A).
- The interior sound pressure level for the standard machine (ISO 6396:2008) is 75 dB(A).

Air Conditioning

- The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.9 kg (4.2 lbs) of refrigerant which has a CO₂ equivalent of 2.71 metric tonnes (2.674 tons).

AEXQ3445-01 (11-2024)
Replaces AEXQ3445-00
Build Number: 11A
(Global, excluding Japan)

