Cat® 637

Coal Bowl

The Cat® 637 Large Capacity Wheel Tractor-Scraper Coal Bowl is longer and higher than standard scraper bowls and engineered to conquer challenges of low-density loose coal. With its size, strength, and durability, it works effectively compacting coal, which reduces the risk of spontaneous combustion of coal stockpiles by eliminating the air spaces. Built with twin engines, the 637 has high rolling resistance and additional power for loading, traveling up grades, and over fill areas – ultimately creating faster cycle times.

Purpose-Built Coal Bowl

- Large capacity coal bowl scrapers are longer and higher than standard open bowl scrapers.
- Purpose-built coal bowl dual engine scrapers deliver faster cycle times with maximum payloads.
- High ground speed provides the ability to manage stockpiles.
- Machine is designed for loading, hauling, and compaction for complete functionality.
- Work effectively in poor underfoot conditions and climb slippery piles and loose coal with all-wheel drive (AWD).
- Coal bowl scrapers provide effective coal compaction, which reduces the risk of spontaneous combustion in coal stockpiles by eliminating the air spaces.
- Specialty coal bowl scrapers are optimized for maximum machine productivity and efficiency.

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.

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).
- Get in and out of the cab easier with the new powered access ladder system (optional attachment).
- 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.
- The fuel fill, fuel filter, engine oil filter, engine oil change, and water drain are easily accessible at ground level.

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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.
- 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.

Execute Efficiency

- The new tractor hydraulic on-demand fan helps assist in lower fuel consumption.

Standard Equipment and Optional Attachments

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

	Standard	Optional
POWERTRAIN – TRACTOR		
Cat C18 engine with Mechanically Actuated Electronic Unit Injection (MEUI™)	✓	
Cat engine brake	✓	
Electric start, 24V	✓	
Differential lock	✓	
Fan, hydraulic	✓	
Ground level engine shutdown	✓	
Guard, crankcase	✓	
Starting aid, ether	✓	
Braking system: primary and secondary, wet disc, hydraulic; parking, hydraulic-released, spring-applied	✓	
Transmission: 8-speed planetary powershift, Electronic Clutch Pressure Control (ECPC), Advanced Productivity Electronic Control Strategy (APECS) software, programmable top gear selection, transmission hold, transmission guard, ground speed control, machine speed limit	✓	
POWERTRAIN – SCRAPER		
Cat C9.3 engine with high pressure common rail fuel	✓	
Cat engine brake	✓	
Electric start, 24V	✓	
Fan, driveline	✓	
Ground level engine shutdown	✓	
Muffler (U.S. EPA Tier 2 or U.S. EPA Tier 3 only)	✓	
Starting aid, ether	✓	
Braking system: primary and secondary, dry disc, hydraulic	✓	
Transmission: 4-speed (torque converter drive), transmission planetary powershift	✓	
ELECTRICAL – TRACTOR		
Alternator, 115 amp	✓	
Batteries (4), 12V, 1,000 CCA, maintenance free	✓	
Electrical system, 24V	✓	
Lighting system: LED low beam, high beam, and work lights	✓	
Starting/charging receptacle	✓	
ELECTRICAL – SCRAPER		
Alarm, backup	✓	
Lighting system: brake lights – LED, turn signals with hazard function – LED	✓	
OPERATOR ENVIRONMENT – TRACTOR		
HVAC powered air precleaner	✓	
HVAC system, heat, AC, defrost	✓	
Thermostat control of HVAC system	✓	
Coat hook	✓	
Lunchbox platform with holding strap	✓	
Diagnostic connection	✓	
12V power ports (2)	✓	
Dome courtesy light	✓	
Horn, electric	✓	
T-handle implement control	✓	
Radio ready	✓	

	Standard	Optional
OPERATOR ENVIRONMENT – TRACTOR *(continued)*		
Rollover protective structure (ROPS)/falling objects protective structure (FOPS) cab, pressurized	✓	
Keypad switches: throttle lock, wipers/washers, hazard lights, retarding level select, work lights on/off, information mode on touchscreen display with machine-specific keypay and optional tool automation keypad, and parking brake	✓	
Powered access ladder		✓
Safety tab rocker switches	✓	
Work Area Vision (3) Camera System	✓	
Seat – Cat Advanced Ride Management (ARM), Cat Comfort Series III, rotates 30 degrees	✓	
Steering wheel, tilt, telescoping, padded	✓	
Windows, right side emergency egress	✓	
254 mm (10 in) touchscreen information display	✓	
FLUIDS		
Extended life coolant to -37° C (-34° F)	✓	
OTHER STANDARD EQUIPMENT – TRACTOR		
Advanced cushion hitch	✓	
Accumulators (cushion hitch and brake) with Canadian registration number (CRN)	✓	
Fast oil change (engine)	✓	
Fenders, non-metallic	✓	
Heater, engine coolant 120V	✓	
Tow pin, front	✓	
OTHER STANDARD EQUIPMENT – SCRAPER		
Coal Bowl: 31.3 m^3 (41.0 yd^3) – struck, 37.8 m^3 (49.4 yd^3) – heaped	✓	
Hydraulic position sensing cylinders (bowl lift and apron)	✓	
Fast-fill fuel tank	✓	
Fender, scraper	✓	
STEERING ARRANGEMENTS		
Secondary steering (ground driven)	✓	
INTEGRATED TECHNOLOGIES		
Product Link™		✓
Sequence Assist	✓	
OTHER ATTACHMENTS		
Steering lock – external	✓	
Cab beacon with air horn		✓
SERVICE INSTRUCTIONS		
Film arrangement – U.S. (ANSI)		✓
Film arrangement – International (ISO)		✓

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Technical Specifications

Engine – Tractor		
Engine Model	Cat® C18	
Rated Engine Speed	1,900 rpm	
Engine Power (ISO 14396:2002)	425 kW	570 hp

Engine – Scraper		
Engine Model	Cat C9.3	
Rated Engine Speed	2,150 rpm	
Engine Power (ISO 14396:2002) – U.S. EPA Tier 4 Final/EU Stage V	200 kW	269 hp
Engine Power (ISO 14396:2002) – U.S. EPA Tier 3/EU Stage IIIA	215 kW	289 hp

- Meets U.S. EPA Tier 4 Final/EU Stage V emission standards, or noncertified and equivalent to U.S. EPA Tier 2, or noncertified and equivalent to U.S. EPA Tier 3/EU Stage IIIA.

General Data		
Overall Width	3.94 m	12'11"
Overall Shipping Height	4.15 m	13'7"
Scraper Capacity:		
Struck	31.3 m^3	41.0 yd^3
Heaped	37.8 m^3	49.4 yd^3
Rated Load	34 473 kg 34.2 tonnes	76,000 lb 38.0 tons
Width of Cut	3.51 m	11'6"
Maximum Depth of Cut	450 mm	17'7"
Maximum Depth of Spread	535 mm	21'1"
Top Speed (Loaded)	55.8 km/h	42.7 mph
180° Curb-to-Curb Turning Width	12.98 m	40'2"
Tires:		
Tractor Drive	37.25R35**E3	
Scraper	37.25R35**E3	
Operating Weight (Empty)	53,130 kg	117,132 lb
Overall Length	15.48 m	50'8"

Transmission

Speed	km/h	mph	Speed	km/h	mph
Forward 1	5.5	3.4	Forward 6	30.6	19.0
Forward 2	10.0	6.2	Forward 7	41.4	25.7
Forward 3	12.4	7.7	Forward 8	55.8	34.7
Forward 4	16.9	10.5	Reverse 1	9.9	6.2
Forward 5	22.7	14.1			

Service Refill Capacities

	Tractor		Scraper	
Crankcase	52.0 L	13.7 gal	24.5 L	6.47 gal
Cooling System	71.0 L	18.75 gal	41.0 L	10.08 gal
Transmission System	110.0 L	29.0 gal	110.0 L	29.0 gal
Final Drive (Each)	33.0 L	8.71 gal	18.0 L	4.8 gal
Rear Wheels (Each)	9.0 L	2.37 gal	9.0 L	2.37 gal
Differential		153.0 L	40.41 gal	
Fuel Tank		874.0 L	231.0 gal	
Hydraulic System		142.0 L	37.5 gal	
Diesel Exhaust Fluid (DEF)*	30.5 L	8.0 gal	22.0 L	5.8 gal
Windshield Washer Fluid		5.0 L	1.3 gal	

*When equipped

Safety Criteria Compliance Standards

Rollover Protective Structure (ROPS)	ISO 3471:2008 for up to 21 282 kg (46,919 lb)
Falling Objects Protective Structure (FOPS)	ISO 3449:2005 Level II
Brakes	ISO 3450:2011
Steering System	ISO 5010:2007
Seat Belt	ISO 6683:2005, SAE J386
Reverse Alarm	ISO 9533:2010

Implement Cycle Times

Bowl Raise	3.5 seconds
Bowl Lower	3.5 seconds
Apron Raise	4.0 seconds
Apron Lower	3.8 seconds
Ejector Extend	8.5 seconds
Ejector Retract	8.5 seconds
Bail Raise	1.5 seconds
Bail Lower	2.1 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 77 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 CO_2 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 CO_2 equivalent of 0.001 metric tonnes (0.001 tons).

AEXQ3575-02 (08-2025)
Replaces AEXQ3575-01
Build Number: 11A
(Global, excluding Japan)