777

OFF-HIGHWAY TRUCK



Target Payload (100%)	97.3 t (107.2 ton (US)
Engine Model	Cat® C32B
Top Speed - Loaded	67.1 km/h (41.7 mile/h)
Top Speed - Loaded (Vietnam)*	59.0 km/h (36.6 mile/h)

**Maximum travel speed limited to 59 km/h for Vietnam arrangement.*

CAT®

THE CAT® 777

The Cat® 777 Off-Highway Truck delivers exceptional performance, increased fuel efficiency, advanced transmission controls, and enhanced cabin comfort. It is engineered for durability and designed to minimize total ownership costs.



ENHANCED OPERATOR COMFORT

Integrated hoist and transmission controls, expanded rear visibility to the work area, and simplified operator interface with touchscreen display.

INCREASED FUEL EFFICIENCY

Partial throttle shifting, adjustable economy mode/adaptive economy mode, and auto neutral idle.

IMPROVED PERFORMANCE AND DURABILITY

Increased torque, hydraulic actuated brakes, and responsive Advanced Productivity Control System (APECS) Transmission controls.

BOOST FUEL EFFICIENCY



FUEL-SAVING **ADAPTIVE MODES**

Adaptive economy mode optimizes engine efficiency on steady grades, level ground, and steady state conditions, reducing power and fuel consumption. Operators can choose automatic adaptive Eco mode or driver-controlled configurable mode. Forced Economy mode configuration is available based on application needs.

SAVE MORE WITH **IDLE CONTROL AND AUTO STALL**

Engine idle shutdown identifies when the truck is in park and idles for more than a preset time, initiating engine shutdown to conserve fuel. The auto neutral idle system reduces torque load when the engine is idling, reducing fuel burn further. Auto stall automatically warms up the system to bring the machine to operating temperature soon, reducing fuel consumption/emissions.

SPEED LIMITING **REDUCES WASTE**

The speed limiting feature automatically and instantaneously selects the most fuel-efficient gear for the terrain based on the truck's laden/unladen weight.

ECONOMICAL **SAVINGS**

THE 777 IS THE SENSIBLE CHOICE FOR YOUR BUSINESS.



LOWER **FUEL COSTS**

ACHIEVE GREATER PRODUCTIVITY



Smart new design features increase the productivity of the 777.

INCREASE IN TORQUE

APECS allows the engine and transmission to communicate on a high level. This allows the machine to better utilize engine power and increased torque. The net result? You move more material.

TRANSMISSION CONTROLS THAT BOOST EFFICIENCY

Second gear start helps to skip first gear engagement, improving cycle time, minimizing the number of shifts, and running the machine at an optimum speed from the starting point. A machine speed limit feature runs the machine at an optimal gear for the selected speed.

BETTER BRAKE ACTUATION FOR SUPERIOR PERFORMANCE

A hydraulically actuated brake system delivers superior braking, improves brake component life, and reduces maintenance costs.

VARIOUS BODY OPTIONS FOR PAYLOAD EFFICIENCY

Different body options with liners and sideboard combinations provides the versatility for moving various types of materials, while maintaining payload efficiency.

INTEGRATED SHIFTER FOR EASIER CONTROL

The new next generation gearshift lever has integrated hoist and parking brake controls for ease of operation.

SIMPLIFIED TOUCHSCREEN

The operator interface has been simplified and now features an improved touchscreen display. This upgraded feature enables smooth navigation through machine control systems during both operation and maintenance tasks.

EXPANDED REAR VISIBILITY

A redesigned interior gives you better visibility, including expanded rear visibility with a new, improved mirror package on both sides of the machine.

SUPERIOR LIGHTING

LED lighting package includes head, work, indicator, and backup lights for superior visibility and durability.

SMOOTH RIDE

The Cat comfort seat uses full air suspension to smooth rough rides. A visual and audio warning is provided to the operator when the retractable four-point seat belt with a shoulder harness is not in use. The 777's suspension system is also designed for a superior ride.

REDUCE FATIGUE

The operator station interior is ergonomically designed for total machine control in a comfortable, productive, and safe environment. All controls, levers, switches, and gauges are positioned to maximize productivity and minimize operator fatigue.





BUILT WITH SAFETY IN MIND

SAFETY FEATURES

A CAB BUILT TO PROTECT

The sturdy four-point mounted cabin features laminated safety glass, four-point harness with visual and audio alerts, and emergency egress through the right side door. The cab offers roll over and falling object protection as per the international standards. A trainer seat with a lap belt allows for easy and safe on-the-job training.

SAFE ENTRY AND EGRESS

The integrated access ladder system and all access platforms are equipped with handrails designed for three points of contact at all times. Aggressive tread plate is installed on all step areas with illuminated access for night operation.

GROUND LEVEL LOCKOUTS PROTECT PERSONNEL

The 777 is equipped with ground-level engine and machine lockout controls, helping service technicians perform maintenance work on the machine safely.

TECHNOLOGY ENSURES SAFE OPERATION

Transmission controls impose gear limiting during body up operations. If the primary hydraulic steering fails, a secondary battery-powered system automatically gets activated to ensure safe operation. If the truck is overloaded, an automatic overload limiter reduces the machine speed.

LOWERING OPERATING COSTS

DURABILITY AND LONG LIFE

A PROTECTED AND ENHANCED POWERTRAIN

New C32B engine with integrated fuel lines (IFL) cylinder heads, dual sensor coolant protection (DSCP) system, delayed engine shutdown (DES), and engine low oil level sensor features improve the engine life. The APECS transmission system, with its smoother shifting and advanced controls, and transmission/torque convertor low oil level sensor improve powertrain component life.

TOUGH STRUCTURES

The 777 continues the Caterpillar tradition of durability, with a tough frame designed to deal with twisting loads. The rugged suspension not only reduces stress on the machine's structures, but it's also highly durable itself, with solid steel spindles and other components engineered for long life.

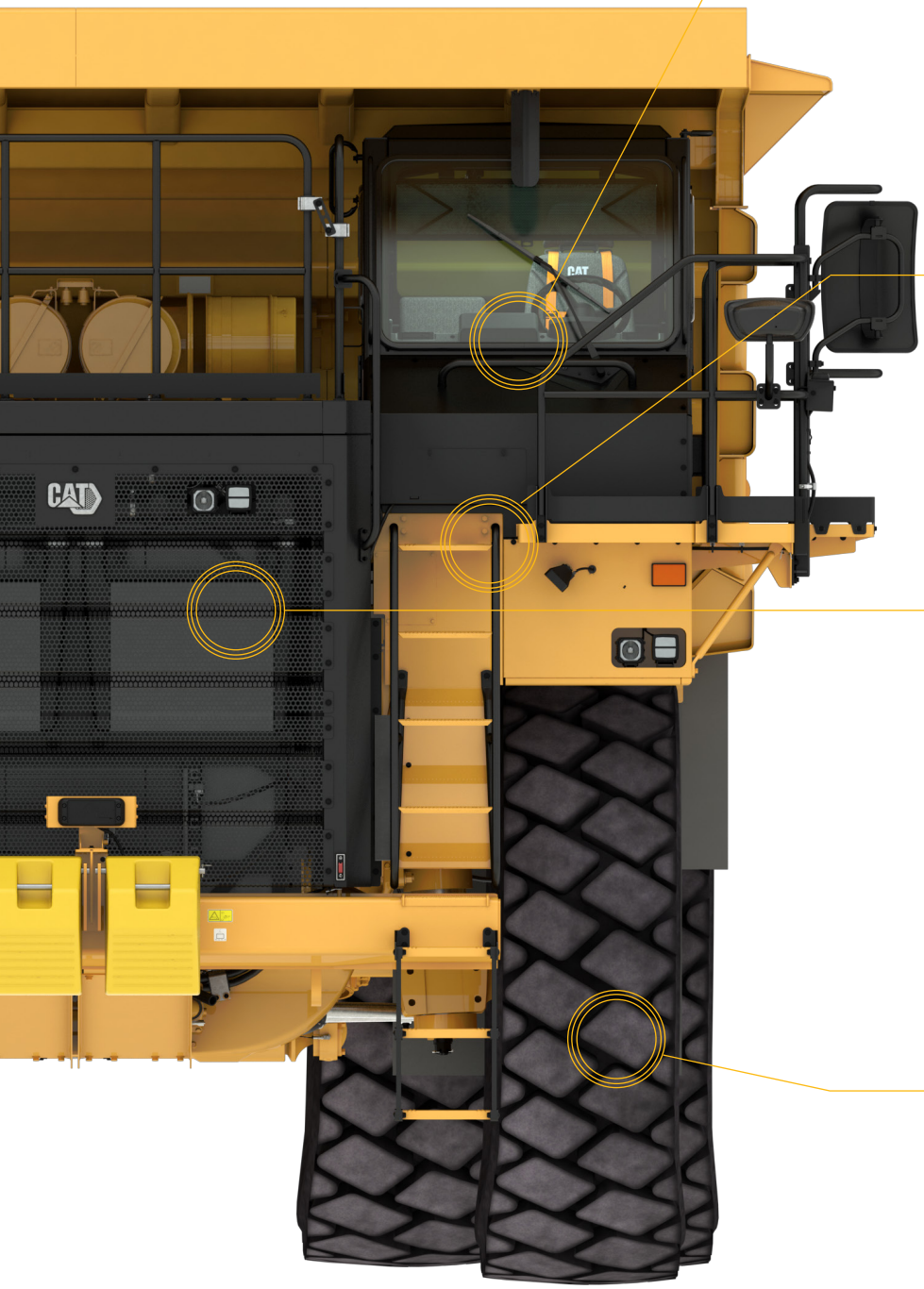
CAT TECHNOLOGIES

Integrated technologies such as Product Link™, Vital Information Management System (VIMS™), and truck payload management system (TPMS) give you all the data you need to make the most of your investment. Easily monitor location, hours, fuel use, cycle times, diagnostic codes, and more.

EASIER SERVICE

Easy access to daily service points, convenient filters, and fluid refill reduce time spent on regular maintenance procedures. Ground-level lockouts and breaker access make pre-service safety procedures quick and easy. The open frame design reduces removal and replacement time for major components.





COMFORT AND CONTROL

Kingpin front suspension absorbs shocks and maintains steering tolerances and tire alignment. Ride is improved with smoother APECS powershift transmission. Front and rear visibility is increased by an improved cab and redesigned mirror package. Air suspension seat adjusts to operator weight. Four-point seat belt has six adjustment points for optimum fit and comfort.

STRONG CONSTRUCTION

Castings and box section frame are designed for off-road integrity and more than one lifecycle. Inverted rear suspension cylinders minimize contamination, and solid steel spindles have longer life.

UPDATED ENGINE

Improved Cat C32B engine delivers 10 hp more power and 7% more torque, which provides better rim-pull and speed on grades. Equipped with ground-level engine shutdown switch and Mechanically Actuated Electronic Unit Injection (MEUI™) for greater fuel efficiency and load response. Emits equivalent to U.S. EPA Tier 2 and saves fuel with dual economy modes. B30 bio-diesel compatible.

HIGH PERFORMANCE

Improved traction control system (TCS) is more responsive and reduces tire wear in wet, sloped conditions. New hydraulic brakes improve braking performance and require less maintenance. Automatic retarder control and speed limiting reduce brake wear and cycle time while increasing fuel efficiency. Tonne kilometer per hour/ton miles per hour (KPH/TMPH) feature calculates tire loading and helps extend tire life (optional equipment).

REAL-TIME INFORMATION WITH INTEGRATED TECHNOLOGIES

TAKES THE GUESSWORK OUT OF MANAGING YOUR EQUIPMENT

The Cat truck production management system (TPMS), Vital Information Management System (VIMS™), Cat Link hardware (Product Link) and vl.cat.com put vital equipment information at your fingertips.*



PRODUCT LINK™/PRODUCT LINK ELITE HARDWARE

Remotely track asset location, hours, fuel usage, diagnostic codes, idle time, and more to improve your productivity and lower your operating costs. Cellular connectivity comes standard. Satellite connectivity is available.



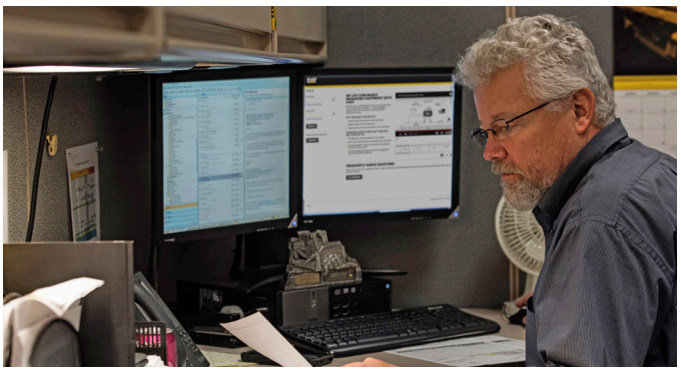
VITAL INFORMATION MANAGEMENT SYSTEM (VIMS™)

Proactively manage machine health and production. This user-friendly interface monitor is available in the cabin and allows operators to monitor real-time machine performance and operating data. Access diagnostics, prognostic trends, and production information such as payload, haul cycle times, segment times, and fuel usage.

TRUCK PRODUCTION MANAGEMENT SYSTEM (TPMS)

Using onboard sensors, the TPMS clearly indicates overloading/underloading to the operator. Carry out a detailed analysis on payload carried, cycle segment times, and fuel burned to improve overall efficiency.

In addition, the tonne kilometer per hour/ton miles per hour (TKPH/TMPH) monitoring system monitors payload, speed, and ambient temperature to calculate the best operating conditions for the truck's tires and warns the operator when those parameters are exceeded.



VL.CAT.COM

You can also access Caterpillar and Cat dealer information at vl.cat.com. Just a single login at vl.cat.com gives you access to planned maintenance (PM) schedules, parts and service records, warranty coverage, and more. Plus, you can link directly to your VisionLink™ account.

**Technology features are optional equipment. Refer to the standard/optional features segment or consult your Cat dealer for details.*

TECHNICAL SPECIFICATIONS

See cat.com for complete specifications.

ENGINE		
Engine Model	Cat® C32B	
Gross Power – SAE J1995	765 kW	1,025 hp
Net Power – SAE J1349	711 kW	953 hp
Peak Torque @ 1,200 rpm	5130 N·m	3,784 lbf-ft
Net Torque Rise	36%	
Number of Cylinders	12	
Bore	145 mm	5.7 in
Stroke	162 mm	6.4 in
Displacement	32.1 L	1,959 in^3
Emissions Option 1	Noncertified configuration that is equivalent to U.S. EPA Tier 2.	
Emissions Option 2	Meets China Nonroad Stage III emission standards.	

- Advertised power is tested per the specified standard in effect at the time of manufacture.
- Net power available at the flywheel when the engine is equipped with fan, air cleaner, muffler, and alternator with engine speed at 1,800 rpm.
- Power rating applies at 1,800 rpm when tested under the specified condition for the specified standard in effect at the time of manufacture.
- Ratings based on SAE J1349:2011 standard air conditions of 25°C (77°F) and 100 kPa (29.61 Hg) barometer. Power based on fuel having API gravity of 35 at 16°C (60°F) and an LHV of 42 780 kJ/kg (18,390 BTU/lb) when engine used at 30°C (86°F).
- No engine derating required up to 3048 m (10,000 ft) altitude.
- Meets China Nonroad Stage III emission standards equivalent to U.S. EPA Tier 2.

OPERATING SPECIFICATIONS		
Target Payload (100%)	97.3 t	107.2 ton (US)
Top Speed - Loaded	67.1 km/h	41.7 mile/h
Maximum Working Payload (110%)	107 005 kg	235,905 lbs
Not to Exceed Payload (120%)	116 732 kg	257,351 lbs

- Empty operating weights may vary based on the machine configuration.
- Capacity with dual slope body without liner.
- Refer to Caterpillar 10/10/20 Payload Policy for maximum gross vehicle weight limitations.

OPERATING WEIGHTS		
Target Gross Machine Weight	163 360 kg	360,147 lbs
Body Weight, Dual Slope	16 047 kg	35,378 lbs
Body Weight, Flat Floor	16 067 kg	35,422 lbs
Empty Operating Weight, Dual Slope	66 083 kg	145,688 lbs
Empty Operating Weight, Flat Floor	66 103 kg	145,732 lbs
Target Payload, Dual Slope	97 277 kg	214,459 lbs
Target Payload, Flat Floor	97 257 kg	214,415 lbs

*Empty operating weights may vary based on the machine configuration.

BODY CAPACITIES		
Struck (Dual Slope)	41.9 m^3	54.8 yd^3
Heaped Volume (Dual Slope), SAE 2:1	60.1 m^3	78.6 yd^3
Struck (Flat Floor)	43.1 m^3	56.4 yd^3
Heaped Volume (Flat Floor), SAE 2:1	64.1 m^3	83.8 yd^3

*Contact your local Cat dealer for body options

TRANSMISSION					
Forward 1	10.9 km/h	6.8 mph	Forward 5	36.8 km/h	22.9 mph
Forward 2	14.8 km/h	9.2 mph	Forward 6	49.4 km/h	30.7 mph
Forward 3	20.1 km/h	12.5 mph	Forward 7	67.1 km/h	41.7 mph
			Forward 7 (Vietnam)*	59.0 km/h	36.6 mph
Forward 4	27.1 km/h	16.9 mph	Reverse	12.1 km/h	7.5 mph

- Maximum travel speeds with standard 27.00R49 (E4) tires.

*Maximum travel speed limited to 59 km/h for Vietnam arrangement.

WEIGHT DISTRIBUTION – APPROXIMATE	
Dual Slope	
Front Axle, Empty/Loaded	46%/30%
Rear Axle, Empty/Loaded	54%/70%
Flat Floor	
Front Axle, Empty/Loaded	45%/28%
Rear Axle, Empty/Loaded	55%/72%

FINAL DRIVE	
Differential Ratio	2.74:1
Planetary Ratio	7.00:1
Total Reduction Ratio	19.16:1

BRAKES		
Brake Surface – Front dry	2787 cm^2	432 in^2
Brake Surface – Rear	102 116 cm^2	15,828 in^2
Brake Surface – Front wet (optional)	40 225 cm^2	6,235 in^2
Brake Standard	ISO 3450:2011	

BODY HOISTS	
Body Raise Time – High Idle	15 seconds
Body Lower Time – Float	13 seconds
Body Lower Time – High Idle	13 seconds

SOUND

- The operator sound pressure level for the standard machine (ISO 6396:2008) 80 dB(A)
- The machine sound pressure level for the standard machine (ISO 6395:2008) 120 dB(A)
- The operator sound pressure level is measured according to the test procedures and conditions specified in ISO 6396:2008 for the standard machine configuration.
- The measurement was conducted at 70% of the maximum engine cooling fan speed.
- Hearing protection may be needed when the machine is operated with a cab that is not properly maintained or when the doors or windows are open for extended periods or in a noisy environment.
- The machine sound power level is measured according to the test procedures and conditions specified in ISO 6395:2008 for the standard machine configuration. The measurement was conducted at 70% of the maximum engine cooling fan speed.

CAB	
Rollover Protective Structure (ROPS)/Falling Objects Protective Structure (FOPS)	ROPS meets ISO 3471:2008 for operator and ISO 13459:2012 for trainer. FOPS meets ISO 3449:2005 Level II for operator and ISO 13459:2012 Level II for trainer.

TECHNICAL SPECIFICATIONS *(CONTINUED)*

See cat.com for complete specifications.

TIRES

Standard Tire 27.00R49 (E4)

- Productive capabilities of the 777 truck are such that, under certain job conditions, tons miles/kilometers per hour (TMPH/TKPH) capabilities of standard or optional tires could be exceeded and, therefore, limit production.
- Caterpillar recommends the customer evaluate all job conditions and consult the tire manufacturer for proper tire selection.

STEERING

Steering Standards	ISO 5010:2019	
Steer Angle	30.5°	
Turning Diameter – Front	25.3 m	83 ft
Turning Circle Clearance Diameter	28.4 m	93 ft

SUSPENSION

Effective Cylinder Stroke – Front	318 mm	12.5 in
Effective Cylinder Stroke – Rear	165 mm	6.5 in
Rear Axle Oscillation	± 5.4°	

SERVICE REFILL CAPACITIES

Fuel Tank	1140 L	300 gal
Cooling System	212 L	56 gal
Crankcase	115 L	30 gal
Differentials	222 L	59 gal
Final Drives (each)	42 L	11 gal
Steering System	60 L	16 gal
Brake/Hoist System	420 L	110 gal
Torque Converter/Transmission System	125 L	33 gal
Front wheel (each)	7.5 L	2 gal

DIMENSIONS (APPROXIMATE) - DUAL SLOPE

Overall Front Tire Width	4961 mm	16.28 ft
Engine Guard Clearance	864 mm	2.83 ft
Inside Body Width	5197 mm	17.05 ft
Centerline Front Tire Width	4163 mm	13.66 ft
Inside Body Length	6920 mm	21.54 ft
Outside Body Width	5524 mm	18.12 ft
Height - Top of ROPS - Loaded	4730 mm	15.51 ft
Rear Axle - Clearance	902 mm	2.95 ft
Centerline of Rear Dual Tire Width	3576 mm	11.73 ft
Inside Body Depth - Maximum	1895 mm	6.21 ft
Overall Canopy Width	6200 mm	19.87 ft
Overall Height - Body Raised	9953 mm	33 ft
Overall Body Length	9555 mm	31.35 ft
Front Canopy Height - Loaded	5177 mm	17 ft
Operating Width	6545 mm	21.47 ft
Ground Clearance	896 mm	2.93 ft
Operating Width - Extended Catwalk	6545 mm	21.47 ft
Loading Height - Empty	4380 mm	14.37 ft
Rear Axle - Tail	3045 mm	10 ft
Overall Tire Width	5262 mm	17.26 ft
Dump Clearance	890 mm	2.91 ft
Overall Length	10 004 mm	32.82 ft
Wheel Base	4570 mm	14.99 ft

DIMENSIONS (APPROXIMATE) - FLAT FLOOR

Overall Front Tire Width	4730 mm	15.52 ft
Engine Guard Clearance	864 mm	2.83 ft
Inside Body Width	5450 mm	17.88 ft
Centerline Front Tire Width	4163 mm	13.66 ft
Inside Body Length	1777 mm	5.83 ft
Outside Body Width	5689 mm	18.66 ft
Height - Top of ROPS - Loaded	4730 mm	15.52 ft
Rear Axle - Clearance	902 mm	2.96 ft
Centerline of Rear Dual Tire Width	3576 mm	11.73 ft
Inside Body Depth - Maximum	1777 mm	5.83 ft
Overall Canopy Width	6200 mm	20.34 ft
Overall Height - Body Raised	10 071 mm	33.04 ft
Overall Body Length	10 070 mm	33.04 ft
Front Canopy Height - Loaded	5370 mm	17.62 ft
Operating Width	6545 mm	21.47 ft
Ground Clearance	896 mm	2.94 ft
Operating Width - Extended Catwalk	6545 mm	21.47 ft
Loading Height - Empty	4429 mm	14.53 ft
Rear Axle - Tail	3265 mm	10.71 ft
Overall Tire Width	5262 mm	17.26 ft
Dump Clearance	818 mm	2.68 ft
Overall Length	10 227 mm	33.55 ft
Wheel Base	4570 mm	14.99 ft

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 CO_2 equivalent of 2.71 metric tonnes (2.99 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)

STANDARD AND OPTIONAL EQUIPMENT

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

POWERTRAIN	STANDARD	OPTIONAL
Auto electric fuel priming pump	●	
Biodiesel compatibility, B30	●	
Brake release motor (towing)	●	
Braking system: Oil cooled multiple disc (rear) and caliper disc (front), hydraulically applied and spring released	●	
Cat® C32B engine	●	
Cat transmission: 7F/1R speed planetary powershift, ECPC control, APECS software, programmable top, gear/speed selection, body upshift inhibitor, directional shift management, neutral start switch, neutral coast inhibitor, reverse shift inhibitor, reverse neutralizer during dump, 2nd gear movement	●	
Economy mode/Adaptive Economy mode	●	
Emergency/parking brake, spring applied and hydraulically released	●	
Engine overspeed protection	●	
Retarder control – manual	●	
Water/fuel separator	●	
Front oil cooled disc brake		●
Retarder control – automatic		●
Traction control system		●

OPERATOR ENVIRONMENT	STANDARD	OPTIONAL
Advisor, touchscreen display	●	
Ash tray	●	
Coat hook	●	
Combined gearshift/hoist/park break lever	●	
Cup/bottle holder	●	
Diagnostic connection port	●	
Horn electric	●	
HVAC	●	
Liquid crystal display (LCD), cluster gauge: Brake oil temperature, transmission oil temperature, engine coolant temperature, hour meter, tachometer, fuel level gauge, speedometer	●	
Left-side power window	●	
Mirrors, left and right	●	
Radio ready	●	
Right-side access door	●	
ROPS/FOPS cabin	●	
Seat, trainer with lap belt	●	
Seats: operator – fully adjustable, air suspension, 4-point seat belt with reminder	●	
Storage compartment	●	
Sun visor	●	
Switches: Throttle lock, wipers/washers, hazard lights, headlights, secondary steering, back light adjust, AC on/off, spare, Economy mode, egress lamp, Product Link disconnect	●	
Tilt and telescopic steering wheel	●	
Heated mirror		●

ELECTRICAL SYSTEM	STANDARD	OPTIONAL
Access system lights, LED	●	
Alternator, 150 A	●	
Auxiliary jump start receptacle	●	
Backup alarm	●	
Backup light, LED	●	
Directional Signal/hazard warning lights, Front and rear, LED	●	
Electrical system, 10 A, 24V to 12V converter	●	
Four batteries, 12V, 190 amp-hour	●	
Ground-level battery disconnect switch	●	
Ground-level engine shutdown switch	●	
Headlights with dimmer, LED	●	
Operator courtesy lights, LED	●	
Stop/taillights, LED	●	
Product Link™	●	
Switch, engine lockout	●	
Switch, machine lockout	●	
Two starter motors	●	
Audio visual backup alarm		●
Camera system		●
Cat Detect system		●
Fog lamp		●
Truck payload management system (TPMS)		●
Vital Information Management System (VIMS™)		●

OTHER	STANDARD	OPTIONAL
Body down indicator	●	
Body mounting group	●	
Body safety pin	●	
Driveline guard	●	
Engine crankcase guard	●	
Exhaust body heat system	●	
Extended life coolant to -35°C (-30°F)	●	
Ground-level grease fittings		●
Hydropneumatic suspension	●	
Load counter	●	
Rock ejectors	●	
Tie down eyes/tow down hooks	●	
Vandalism protection lock	●	
Automatic lubrication system (27 kg/40 kg)		●
Body liner		●
Body sideboards		●
Cluster/grouped lubrication system	●	
Cold weather package		●
Exhaust muffler		●
Fast fluid fill system		●
Fast fuel fill system		●
Fire extinguisher		●
High speed engine oil change system		●
Hydraulic power port		●
Wheel chocks		●

For more complete information on Cat products, dealer services and industry solutions, visit us on the web at www.cat.com.

Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

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AEXQ3081-05 (10-2025)
Replaces AEXQ3081-04
Build Number: 05
(Afr-ME, Eurasia, Pacific Islands, SE Asia, S Am)