



# Cat<sup>®</sup> 775G

## Off-Highway Truck

*The Cat<sup>®</sup> 775G has been designed and manufactured using the latest quality control technologies—both virtually and hands on—to ensure your off-highway truck is ready for work. Built with a Cat C27 diesel engine, the 775G has improved fuel efficiency and delivers an additional 5% horsepower. By having this Cat G Series truck in your haul fleet, you will be more productive, spend less time on maintenance, and support the environment with new levels of eco performance.*

### Achieve Greater Productivity

- Haul your materials faster with a 5% accelerated travel speed.
- Put more power to the ground with a 15% increase in torque.
- Enjoy greater productivity while using a more responsive Traction Control System (TCS).
- Reduce tire wear with maximum traction by engaging TCS early in the slip.
- Strong, predictable performance helps operators achieve the lowest cost per ton.

### Boost Fuel Efficiency

- Up to 13% less fuel consumption.
- 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.
- Automatically optimize fuel consumption with the G Series feature—Adaptive Economy mode reduces fuel use without affecting productivity and can be engaged with a single button.
- Find improvements in fuel efficiency with auto neutral idle.
- Haul your G Series truck at a more fuel-efficient engine speed and gear selection with speed limiting.
- Conserve fuel with integrated Engine Idle Shutdown by the engine automatically initiating when the truck is in park and idle for a preset amount of time.

### Designed for Safety

- Improvements in accessibility with safe ground-level access to fuel fill and daily maintenance points.
- Ensure three points of contact when entering and exiting the machine with strategically placed walkways and grab rails.
- Ground-level refueling requires no climbing on the machine to fill the fuel tank.
- The ground-level engine shut-off switch stops all fuel to the engine when activated and shuts down the machine safely.

### Work in Comfort

- Completely redesigned cab for a whole new standard in visibility, comfort, and productivity.
- The new operator seat placement provides easier operation and comfort to the operator.
- Improvements in visibility gain enlarged views of the work area and its surroundings.
- Access connectivity and decrease clutter with more storage areas with the new designed cab.
- Enjoy the easy automotive-quality shifting with the new transmission controls.
- Automatic cab temperature controls.



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## Technology That Gets Work Done

- Integrated systems give you the ability to make timely, fact-based decisions to maximize efficiency, improve productivity, and lower costs.
- Gain valuable insight into how your machine is performing by continuously monitoring and collecting vital machine data via the advisor display with the software Vital Information Management System (VIMS™).
- Truck Production Management System (TPMS) provides accurate weighing of the materials, stores 2,400 payload cycles, and reports on weights, haul cycle times, and distances with date and time stamps.
- External payload indicator lights alert the loader when to stop, reducing the risk of machine overloading.
- Product Link™ system connects to each machine wirelessly, allowing you to monitor location, hours, fuel use, productivity, idle time, and diagnostic codes.
- VisionLink® wirelessly connects you to your equipment, giving you access to essential information you need to know to run your business.
- The Cat 775G is MineStar™ ready and includes Cat Product Link Elite and VIMS to help optimize equipment management, remote monitoring capabilities, machine availability, and component life while reducing both repair costs and the risk of catastrophic failure.

## Reduced Maintenance Costs and Other Costs

- Grouped service points.
- Control particulate matter with two engine-mounted diesel oxidation catalyst canisters.
- NRS technology replaces a portion of intake air with exhaust gas to control combustion temperatures and NOx production.
- Parts commonality with other Cat equipment.
- Resolve problems before failure accrues with VIMS notifications.
- Autostall enables quick operating temperatures for best performance life.

## Application Versatility

- Get the right body option—Dual Slope, Flat Floor, or Quarry—for your material and jobsite needs.
- For haul profiles including steep slopes, an optional Dual Slope body is available—offering excellent material retention.
- The X body's flat floor is perfect for metering material, especially when feeding the crusher.
- Protect your truck's body life in high-impact, hard rock applications with the optional rubber liner—available for Dual Slope and X bodies.

## Standard Equipment

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

	Standard	Optional		Standard	Optional
<b>POWER TRAIN</b>			<b>OPERATOR ENVIRONMENT (CONTINUED)</b>		
C27 U.S. EPA Tier 4 Final/EU Stage V compliant diesel engine: air cleaner with precleaner (2), air-to-air aftercooler (ATAAC), electric start, engine idle shutdown, ether starting aid, exhaust muffler, NGMR radiator	✓		Gauges/indicators: brake oil temperature gauge, coolant temperature gauge, engine overspeed indicator, fuel level, hour meter, speedometer with odometer, tachometer, transmission gear indicator	✓	
Braking system: extended life brakes, automatic retarder control (ARC), manual retarder (utilizes rear oil-cooled, multiple disc brakes), brake release motor (towing), dry disc brakes (front), front brake disconnect switch (front), oil-cooled multiple disc brakes (rear), brake wear indicator (rear), parking brake, secondary brake, service brake	✓		Lights: HID		✓
Cat engine brake		✓	Mirrors: convex, heated		✓
Aftertreatment system – NO <sub>x</sub> Reduction System (NRS), Diesel Oxidation Catalyst (DOC); demand fan; MEUI™-C fuel system	✓		Mirrors, non-heated	✓	
Transmission: 7-speed automatic powershift with – Electronic Clutch Pressure Control (ECPC), Advanced Productivity Electronic Control Strategy (APECS); automatic neutral idle, autostall, second gear start	✓		Power port, 24V and 12V (2)	✓	
<b>ELECTRICAL</b>			Rollover Protection (ROPS)/ Falling Object Protection (FOPS)	✓	
Alarm, backup	✓		Seat, Cat Comfort Series III: full air suspension, retractable 3-point seat belt with shoulder harness	✓	
Batteries, maintenance-free, 12V (2), 1,400 CCA combined	✓		Steering wheel, padded, tilt and telescopic	✓	
Lighting system: backup light (halogen), directional signals/hazard warning (front and rear LED), engine compartment light, headlights (halogen) with dimmer, operator access courtesy lights, side profile lights, stop/tail lights (LED)	✓		Throttle lock	✓	
Service center containing: battery jump start, breakers with spare fuses, lockout switch, ports – ET and VIMS™, service lockout switch (power without engine start)	✓		Visibility package (meets ISO 5006 requirements)		✓
<b>OPERATOR ENVIRONMENT</b>			Window, hinged, right side (emergency exit)	✓	
Advisor display: air cleaner service indicator, fluid level monitoring, fuel level monitoring, display languages (market based)	✓		Window, powered, left side	✓	
Air conditioning/heat	✓		Windshield wiper, intermittent, and washer	✓	
Automatic temperature control	✓		Work Area Vision System (WAVS)		✓
Cab precleaner		✓	<b>TECHNOLOGY PRODUCTS</b>		
Cup holders (4)	✓		Economy modes, standard and adaptive	✓	
Diagnostic connection port, 24V	✓		Product Link™, cellular or satellite		✓
Entertainment radio ready: 5 amp converter, speakers, antenna, wiring harness	✓		Traction Control System (TCS)		✓
			Truck Production Management System		✓
			Vital Information Management System (VIMS)		✓
			<b>OTHER</b>		
			Body: heat, liner, sideboards		✓
			Body down indicator	✓	
			Body safety pin (secures body in up position)	✓	
			Clustered grease fittings		✓
			Cold weather packages		✓
			Extended life coolant to -34°C (-30°F)	✓	
			Fluid fill service center		✓
			Fuel tank, 795 L (210 gal)	✓	
			Ground-level battery disconnect	✓	
			Ground-level engine shutdown	✓	
			Operator Maintenance Manual (OMM)	✓	
			Rock ejectors	✓	
			Secondary steering (electric)	✓	
			Suspension, front and rear (EU compliant)	✓	
			Tow hooks, front/tow pin, rear	✓	
			Wheel chocks		✓

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## Technical Specifications

### Engine

Engine Model	C27	
Rated Engine Speed	1,800 rpm	
Gross Power – SAE J1995	615 kW	825 hp
Net Power – SAE J1349	572 kW	768 hp
Net Power – ISO 9249	578 kW	775 hp
Net Power – 80/1269/EEC	578 kW	775 hp
Engine Power – ISO 14396	605.2 kW	812 hp
Peak Torque Speed	1,200 rpm	
Net Torque	4269 N·m	3,148 lb·ft
Bore	137 mm	5.4 in
Stroke	152 mm	6.0 in
Displacement	27 L	1,648 in <sup>3</sup>

- Power rating applies at 2,000 rpm when tested under the specified condition for the specified standard.
- Ratings based on SAE J1995 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).
- Meets Tier 4 Final and Stage V emission standards.

### Transmission

Speed	km/h	mph	Speed	km/h	mph
Forward 1	10.6	6.6	Forward 5	36.7	22.8
Forward 2	15.0	9.3	Forward 6	49.4	30.7
Forward 3	20.3	12.6	Forward 7	66.9	41.6
Forward 4	27.0	16.8	Reverse	14.0	8.7

- Maximum travel speeds with standard 24.00R35 (E4) tires.

### Final Drives

Differential Ratio	3.64:1
Planetary Ratio	4.80:1
Total Reduction Ratio	17.49:1

### Brakes

Brake Surface – Front	655 cm <sup>2</sup>	257 in <sup>2</sup>
Brake Surface – Rear	61 269 cm <sup>2</sup>	9,497 in <sup>2</sup>
Brake Standards	ISO 3450:2011	

### Body Hoists

Pump Flow – High Idle	448 L/min	118 gal/min
Relief Valve Setting – Lower	3450 kPa	500 psi
Body Raise Time – High Idle	10.0 Seconds	
Body Lower Time – Float	14.0 Seconds	
Body Power Down – High Idle	14.0 Seconds	

### Weight Distributions – Approximate

Front Axle	Loaded 34%	Empty 50%
Rear Axle	Loaded 66%	Empty 50%

### Capacity – Dual Slope – 100% Fill Factor

Struck	32.6 m <sup>3</sup>	42.7 yd <sup>3</sup>
Heaped (SAE 2:1)*	42.2 m <sup>3</sup>	55.5 yd <sup>3</sup>

- Contact your local Cat dealer for body recommendation.
- \* ISO 6483:1980.

### Capacity – Flat Floor – 100% Fill Factor

Struck	32.3 m <sup>3</sup>	42.2 yd <sup>3</sup>
Heaped (SAE 2:1)*	42.2 m <sup>3</sup>	55.2 yd <sup>3</sup>

- Contact your local Cat dealer for body recommendation.
- \* ISO 6483:1980.

### Suspension

Empty Loaded Cylinder Stroke Front	234 mm	9.2 in
Empty Loaded Cylinder Stroke Rear	149 mm	5.8 in

### Sound

#### Sound Standards

- The operator Equivalent Sound Pressure Level (Leq) is 76 dB(A) when SAE J1166 FEB2008 is used to measure the value for an enclosed cab. This is a work cycle sound exposure level. The cab was properly installed and maintained. The test was conducted with the cab doors and the cab windows closed.
- The exterior sound pressure level for the standard machine measured at a distance of 15 m (49 ft) according to the test procedures specified in SAE J88:2008, mid-gear moving operation is 86 dB(A).
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in a noisy environment.

### Steering

Steering Standards	ISO 5010:2007	
Turning Diameter – Front	23.5 m	77 ft 1 in
Turning Circle Clearance Diameter	26.1 m	85 ft 8 in

### ROPS

#### ROPS/FOPS Standards

- Rollover Protective Structure (ROPS) for cab offered by Caterpillar meets ISO 3471:2008 ROPS criteria.
- Falling Objects Protective Structure (FOPS) meets ISO 3449:2005 Level II FOPS criteria.

### Tires

Standard Tire	24.00R35 (E4)	
• Productive capabilities of the 775G truck are such that, under certain job conditions, TKPH (TMPH) 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.		

### Service Refill Capacities

Fuel Tank	795 L	210.0 gal
Cooling System	171 L	45.0 gal
Crankcase	90 L	24.0 gal
Differentials and Final Drives	145 L	38.0 gal
Steering Tank	36 L	9.5 gal
Steering System (includes tank)	54 L	14.0 gal
Brake/Hoist Hydraulic Tank	176 L	46.5 gal
Brake Hoist System	322 L	85.0 gal
Torque Converter/Transmission System	70 L	18.0 gal



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