

# 770G

Off-Highway Truck



## Engine

Engine Model	Cat® C15 ACERT™	
Gross Power – SAE J1995	381 kW	511 hp
Net Power – SAE J1349	360 kW	483 hp

## Weights – Approximate

Target Gross Machine Operating Weight	71 214 kg	157,000 lb
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## Operating Specifications

Target Payload	38.6 tonnes	42.6 tons
Maximum Allowable Payload*	42.5 tonnes	46.8 tons

• Target Payload calculated using Dual Slope Body option. Excluded all other attachments.

\* Refer to Caterpillar 10/10/20 Payload Policy for maximum gross machine weight limitations.

## 770G Features

### Safety

*Cat Off-Highway Trucks have industry-leading designs and features to keep your job site productive and your employees comfortable. Cat ergonomic cabs are designed with roll over and falling object protection and they offer excellent visibility to the job site. You can speed limit your Cat truck to manage traffic and slow the trucks with industry leading brake designs and automatic retarding.*

### Productivity

*Caterpillar has a long history of building Off-Highway Trucks. These trucks are built for quarry, earthmoving and mining applications, and with their purpose-built frames, power train and other key components, have helped customers around the world lower their cost per ton.*

### Quality

*Caterpillar uses the latest technology to validate the quality of its designs, metallurgy, welding and manufacturing processes. We also build prototype iron, test for extreme environments and place trucks in the hands of customers for field testing prior to production. The 770G can provide you with industry-leading availability and production.*

### Sustainability

*Cat products are designed to bring value to your business and the environment. The 770G is fuel efficient, productive and is built for long life in your off-road applications.*

### Contents

Performance .....	4
Fuel Saving Strategies .....	6
Brake Performance .....	7
Traction Control System.....	8
Truck Bodies .....	9
Structures.....	10
Operator Experience .....	11
Information and Monitoring .....	12
Simple Service.....	14
Customer Support.....	15
Safety and Sustainability .....	16
Specifications.....	17
Standard Equipment.....	25
Optional Equipment.....	26
Notes.....	27





**Whether your business is a quarry, a mine or involves moving earth, the 770G is ruggedly built and designed to help you haul material safely and efficiently. It can be equipped with body options to match your material and hauling requirements. The 770G is simple to maintain, and with the support of your Cat dealer, will offer you years of productive service.**

# Performance

Hauling quickly, efficiently and reliably



Each power train component is designed and manufactured by Caterpillar to work together as a system in the 770G.

### **Cat C15 Engine**

The Cat C15 ACERT diesel engine has a proven record in both off-road applications and on-highway trucks in North America. The C15 offers:

- 360 kW (483 hp) of Net power at 1,800 rpm.
- Full power altitude capability up to 3000 m (9,842 ft).
- A solid engine block that uses grey iron with ribbing for strength.
- Six single-piece, steel pistons with steel skirts that help control thermal expansion.
- Pendulum absorbers on the single overhead camshaft reduce noise and vibration.
- Compacted graphite and steel cylinder liners offer long life and tight tolerances for combustion quality.
- A waste-gated and water cooled turbo has a titanium compression wheel for long life at high speeds.
- The fuel system is mechanically actuated but electronically controlled (MEUI™). It responds quickly to load changes and injects extremely fine fuel particles for excellent combustion quality and fuel efficiency.
- Cold temperature idle management adjusts engine speed automatically to maintain optimum running temperatures.

### **Transmission**

The Cat planetary powershift transmission is an automatic, 7-speed transmission built for heavy-duty, off road applications. Electronic control strategies called APECS manage clutch pressures, torque and throttle during each shift. The result is a quick and responsive truck that has excellent performance on grades. It also delivers a smooth and comfortable ride for the operator.



# Fuel Saving Strategies

Adjustable to meet your specific needs

## Standard Economy Mode

Standard fuel economy is switch activated by the operator from within the cab. The standard economy mode works by reducing engine power. Customers can change the power output of the truck by 0.5 to 15 percent to save fuel.

## Adaptive Economy Mode

Adaptive economy mode uses on board sensors and electronics to find opportunities to reduce power based on steady state speed. Customers will set a productivity threshold that the truck should stay above. The truck will regulate the power level based on the haul profile and may change the power of the truck several times in one cycle.

## Auto Neutral Idle

Auto Neutral Idle can have a measurable impact on fuel savings. It works by placing the truck in a neutral state if the operator has been idle in a forward gear with the brake or retarder applied. The truck will automatically resume the forward gear when the brake is released or the throttle is applied.

## Engine Idle Shutdown

This feature must be activated by the customer. If engaged, the truck will warn the operator that it is about to shutdown after a prolonged period of idling in "Park." Customers can set the idle time limit. When the time limit is reached, the truck will shut off the engine.

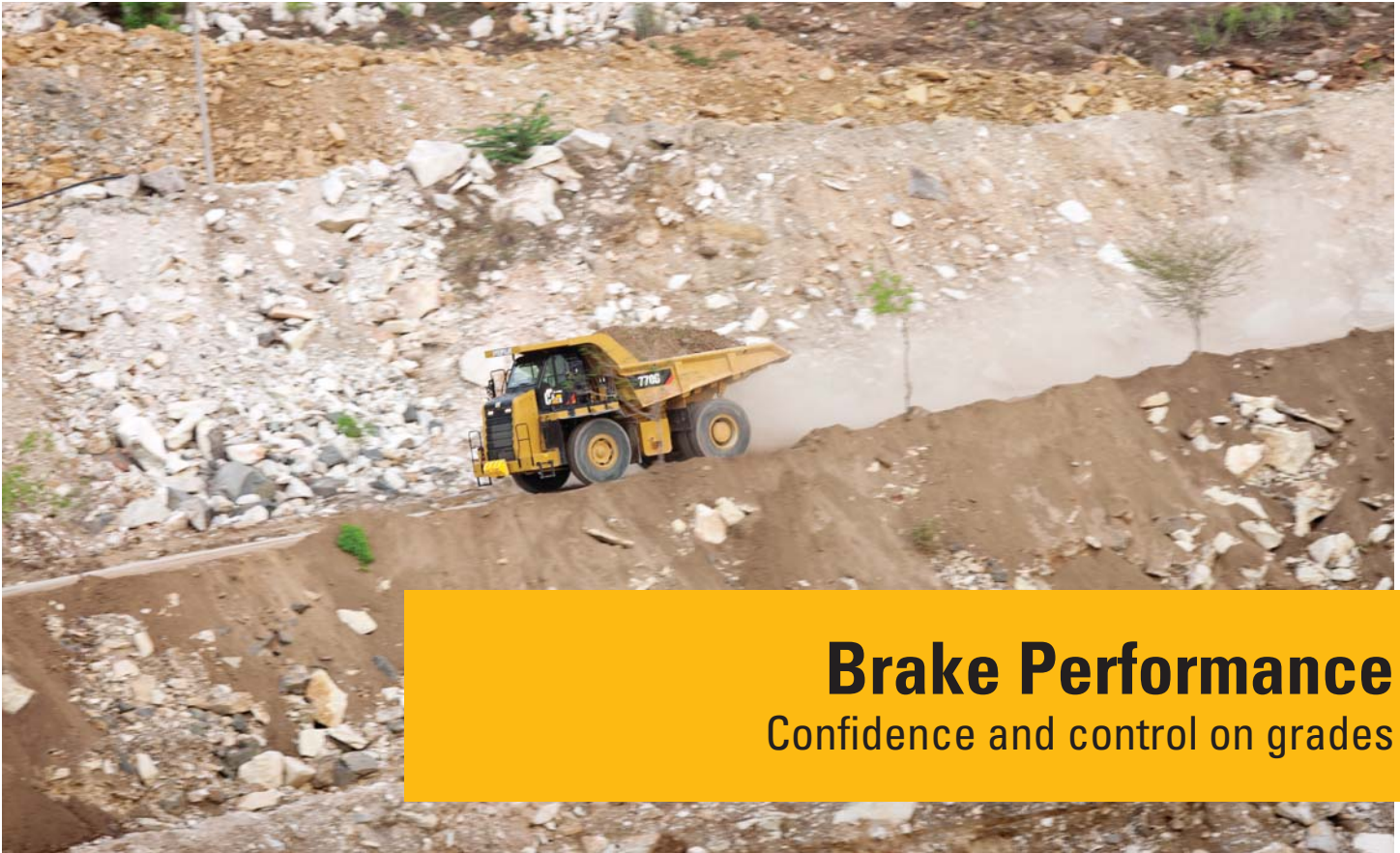
## Speed Limiting

Speed limiting is a new feature for G Series trucks. Speed limiting allows the truck to travel at an efficient engine speed (rpm) and gear selection. Speed limiting works with Automatic Retarding Control and offers fuel efficiency and component life benefits over gear limiting.



## Transmission Control Strategies

G Series trucks deliver excellent torque and throttle through the shifts. These quick yet smooth shifts help maintain momentum on grades and help fuel efficiency.



## **Brake Performance**

Confidence and control on grades

An important feature of Cat trucks is their reliable, heavy-duty brake performance. The design principle is one of long life and excellent performance in quarry, mine and earthmoving applications.

### **Hydraulically Actuated Brakes**

Cat trucks are equipped with hydraulically actuated rear brakes and caliper-disc type front brakes. Each truck has primary service brakes, retarding capability and a parking brake.

Rear axle brakes are oil-cooled with large friction discs that provide fade resistant performance. The front axle has dry disc-type brakes. The parking brake is applied on the rear brakes and is designed to hold the fully loaded truck on grades up to 15%. The service brakes are designed to hold the truck on slopes of 20 percent.

### **Automatic Retarding Control (ARC)**

Automatic retarding control is standard on the 770G. This feature controls truck speed by automatically applying brake force when the engine exceeds a set rpm. Operators can adjust the engine speed between 1950 and 2200 rpm. This feature is important because it does the work of controlling truck speed without constant input from the operator; it's smooth for greater control and has a tendency to provide faster cycle times over manual retarding. As a precautionary feature, ARC will automatically engage to prevent engine over speeding at any time during truck operation.

### **Cat Engine Brake**

Caterpillar offers an optional engine brake. The engine brake works with ARC to control speed on grade. By incorporating engine braking with automatic retarding, customers can reduce brake component wear in addition to achieving faster cycle times.

# Traction Control System

Saving tire life, component wear and cycle times



## Traction Control System (TCS)

For wet or slippery ground conditions, the 770G can be equipped with optional Traction Control. This system engages quickly and effectively returns traction to the spinning wheel.

The system has steering position sensors to differentiate between turning or slipping. With this ability, the truck can engage TCS at slow speeds and much sooner in the slip.

The TCS system uses the hydraulically applied service brakes, this is also a contributor to its responsiveness. By reacting quickly and at slow speeds, tire life and cycle times both benefit.



# Truck Bodies

## Bodies for your applications and material types



Caterpillar has body options to meet most material type and application needs. The underbody is constructed of mild steel for load dissipation and simple weld repair.

### Flat Floor and Dual Slope Bodies

Flat floor and dual slope bodies are lined with 400 Brinell Hardness Number (BNH) steel for hard impact applications.

Two floor types are available, flat and dual slope.

- Flat floor bodies are ideal for delivering product to a crusher; material unloads in a controlled manner.
- Dual slope bodies center the load and keep it stable and retained on steeper grades.

### Steel Liner

Caterpillar offers a 16 mm (0.62 in) steel liner that can be added to the flat floor and dual slope bodies. This steel liner offers protection against high impact and high abrasion materials.

### Quarry Body

Caterpillar offers a purpose-built quarry body for soft limestone. This body has a 25 mm (0.98 in), 400 BNH steel floor and does not require additional liners if kept in limestone.

### Rubber Liner

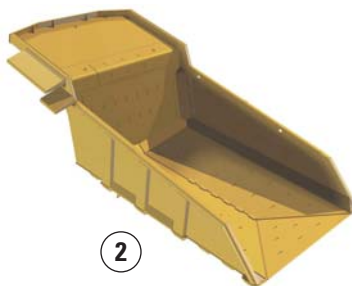
Customers who are loading extremely hard material that has high impact characteristics should consider a factory-installed rubber liner system. This system is intended for hard rock and should not be considered for machines that could be loaded with clay, cohesive material or hot material.

### 10/10/20 Payload Policy

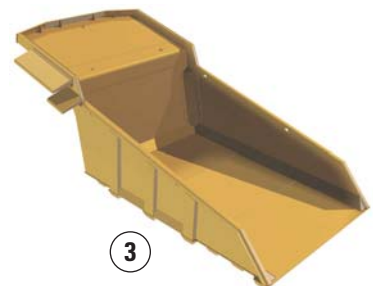
Caterpillar's 10/10/20 Payload Guidelines are in place to help you maximize productivity with optimum component life and availability of your truck. Your Cat dealer can further explain the 10/10/20 policy. For optimum body life, Caterpillar recommends that 110% payloads occur no more than 10% of the time and that the average of all loads equal the nominal payload. Payload should never exceed 120% of nominal.



1

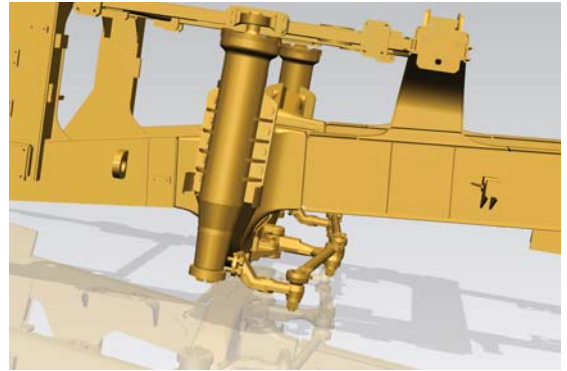
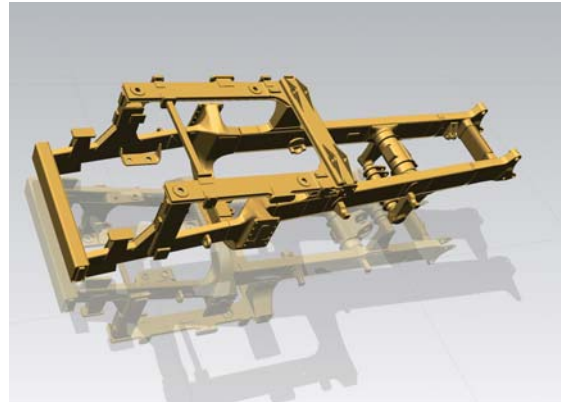


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3

1) Flat Floor 2) Dual Slope 3) Quarry



# Structures

Long life and value

## Frames

Cat trucks are known throughout the industry for reliable, long-life frames. Built for off-road maneuvering and haul road conditions, Caterpillar uses castings in high stress areas and box section construction to manage torsion-loading. The frames are welded on a platform that rotates 360 degrees, allowing consistent, deeply-penetrating welds. Each frame is subject to quality and conformance testing prior to assembly.

## Suspension and Steering

The Cat suspension and steering design offers the following benefits:

- Excellent ride quality – empty or loaded
- Front struts act as a king pin for long life in off-road applications
- Simple yet rugged steering system that maintains proper tire alignment
- Inverted rear cylinders stay cleaner longer; reduce shock loading to the frame

# Operator Experience

Comfort, confidence, control



## Comfort

- Optional automatic temperature control
- Optional power window on left side
- Optional heat and air conditioning
- Low-effort access system
- Optional Cat Comfort Series III seat
- Sound suppression

## Confidence

- Standard Rollover/Falling Object protection in compliance with ISO 3471:2008 ROPS criteria and ISO 3449:2005 Level II FOPS criteria
- Optional camera system for visibility behind the machine
- Excellent mirror coverage and options
- Trainer seat
- Emergency egress through right side window
- Optional cab fluid level monitoring
- An optional Advisor display delivers machine information to the operator on a large, high visibility screen

## Control

- Standard Automatic Retarding Control (ARC)
- Optional traction control system
- Speed limiting on the haul
- Excellent visibility to the loading tool
- Primary service brakes, secondary braking
- Slope holding capability on grades of 15%
- Body up speed limiting during unloading

# Information and Monitoring

Proactively manage your truck fleet



## Cat Gauges and Advisor Screen

The Cat gauge cluster is a standard display found in the cab. It displays real-time machine performance and operating data. An optional Advisor display allows a greater degree of communication with the truck and from the truck.

## VIMSTM

VIMSTM is the Cat Vital Information Management System. This information management system is integrated into the engine, chassis and all other electronic controllers to deliver valuable information on machine health and productivity. This system uses the Advisor Display to communicate data. VIMS reports provide histograms on truck operation, payloads and cycle times. These reports can help you manage your fleet, site and provide production levels.

## Product LinkTM

Cat Product LinkTM allows remote monitoring of equipment to improve overall fleet-management effectiveness. Events and diagnostic codes, as well as hours, fuel, idle time and other detailed information are transmitted to a secure web based application, VisionLink®. VisionLink includes powerful tools to convey information to our customers and their dealers, including mapping, working and idle time, fuel level and more. Product Link is not available in all areas, please check with your local Cat dealer.





### **Truck Production Management System**

The Cat Truck Production Management System (TPMS) is an optional tool to help you manage your operations. Indicator lights on the truck tell the loader operator they have additional loads to put on the truck (solid green light) as well as one last pass (blinking red light) and then when the truck is loaded (solid red light). TPMS will track loads, cycle times and payload data – up to 2,400 cycles – and reports out through the on-board display or VIMS. The system takes two payload measurements; the first after loading and a second as the truck pulls away in 2nd gear. This is done for greater accuracy.

### **TKPH/TMPH**

TKPH/TMPH stands for Ton Kilometer per Hour/Ton Mile per Hour. This optional feature is an on-board tool that takes the manufacturer's tire rating and in real time, compares it with ambient temperature, payload, and truck speed. If the tires are calculated to be approaching their temperature limits, the operator will receive a warning. If the tire temperature condition becomes critical your truck can be set up to automatically reduce (or limit) speed to allow cooling.

# Simple Service

Saving you time and money



Your Cat G Series truck is designed to provide operators and technicians with easy access to common service points like engine lockout, machine system lockout, fluid level sight gauges, grease fittings and access to the engine for regularly scheduled maintenance.

- Most sight gauges are visible from ground level
- Engine oil and filter change interval is 500 hours under normal operating conditions
- Hydraulic filters have a 1,000 hour life under normal operating conditions
- VIMS trend analysis can track machine health and operation
- A brake wear indicator is standard
- Automatic lubrication is available as optional equipment
- Fuses and breakers are easy to access and organized for simple service
- The radiator and cooling cores are aluminum and modular offering easy cleaning or replacement
- Oil sampling ports are provided for quick and clean collection for analysis
- Fuel system features electric priming
- Fast fill fuel is optional



# Customer Support

Cat dealers have what it takes  
to keep trucks productive



## Commitment Makes the Difference

Cat dealers offer a wide range of solutions, services and products that help you lower costs, enhance productivity and manage your operation more efficiently. Support goes far beyond parts and service. From the time you select a piece of Cat equipment until the day you rebuild, trade or sell it, your Cat dealer will stand behind your business with solutions that range from operator training to job site solutions. For more information on how Caterpillar and its dealers can support you, please visit the following web sites:

[www.cat.com/safety](http://www.cat.com/safety)

[www.Mining.cat.com](http://www.Mining.cat.com)

[www.Caterpillar.com](http://www.Caterpillar.com)

[www.Cat.com](http://www.Cat.com)

# Safety and Sustainability

Priorities that support our people and communities



## Safety

At Caterpillar, safety is our number one priority. Strong emphasis is given to the safety of those who build, operate, service and work around the 770G.

- Cat cabs meet ISO 3471:2008 ROPS and ISO 3449:2005 Level II FOPS rollover and falling object protection.
- Low effort access with hand rails for three points of contact and non skid step surfaces.
- Optional fluid level monitoring from the cab.
- The cab offers excellent visibility with mirror choices and an optional camera system.
- Truck brakes designed for long life without fading, and a brake wear indicator.
- Speed limiting regulates haul speeds.
- Optional Traction Control works to return traction on slippery ground.
- Customers can lock out machine steering, and secure the body in the up position during service.
- Body up speed limiting for safety.
- Ground level access to most service areas.

## Sustainability

By producing materials for new roads, bridges and energy, we bring about progress. Cat trucks are designed to do this work with less impact on the environment, by reducing machine noise, using less fuel, controlling emissions and incorporating solid, long-life designs.

Caterpillar believes that long-term successful companies will be those who integrate sustainability as a core competency. At Caterpillar, we are committed to this path, and we are ready to help our customers do the same. For more information on sustainability and Caterpillar's on-going development of this strength, please visit [www.Caterpillar.com](http://www.Caterpillar.com).



# 770G Off-Highway Truck Specifications

## Engine

Engine Model	Cat C15 ACERT	
Rated Engine Speed	1,800 rpm	
Gross Power – SAE J1995	381 kW	511 hp
Net Power – SAE J1349	360 kW	483 hp
Net Power – ISO 9249	365 kW	476 hp
Net Power – 80/1269/EEC	365 kW	489 hp
Engine Power – ISO 14396	377 kW	506 hp
Net Torque – SAE J1349	2280 N·m	1,682 lb-ft
Number of Cylinders	6	
Bore	137 mm	5.4 in
Stroke	171 mm	6.7 in
Displacement	15.2 L	927.6 in <sup>3</sup>

- Power rating applies at 1,800 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 3000 m (9,843 ft) altitude.
- Meets China Nonroad Stage III emission standards equivalent to U.S. EPA Tier 3 or U.S. EPA Tier 2.

## Weights – Approximate

Target Gross Machine Operating Weight	71 214 kg	157,000 lb
Chassis Weight	24 900 kg	54,895 lb
Body Weight	7665 kg	16,898 lb

- Chassis weight with 100% fuel, hoist, body mounting group, rims and tires.
- Body weight is the standard dual slope body with no liner and will vary depending on configuration.

## Operating Specifications

Target Payload	38.6 tonnes	42.6 tons
Body Capacity (SAE 2:1)	25.2 m <sup>3</sup>	33.0 yd <sup>3</sup>
Top Speed – Loaded*	73.5 km/h	45.7 mph

- Refer to the Caterpillar 10/10/20 Overload Policy for maximum gross machine weight limitations.
  - Capacity with dual slope body with no liner.
- \*ISO 6483:1980

## Transmission

Forward 1	11.9 km/h	7.4 mph
Forward 2	16.3 km/h	10.1 mph
Forward 3	22.1 km/h	13.7 mph
Forward 4	29.6 km/h	18.4 mph
Forward 5	40.2 km/h	25.0 mph
Forward 6	54.2 km/h	33.7 mph
Forward 7	73.5 km/h	45.7 mph
Reverse	15.6 km/h	9.7 mph

- Maximum travel speeds with standard 18.00R33 (E4) tires.

## Final Drives

Differential Ratio	2.12:1
Planetary Ratio	4.80:1
Total Reduction Ratio	10.18:1

## Brakes

Brake Surface – Front	1395 cm <sup>2</sup>	216 in <sup>2</sup>
Brake Surface – Rear	40 225 cm <sup>2</sup>	6,235 in <sup>2</sup>
Brake Standards	ISO 3450:2011	

## Body Hoists

Pump Flow – High Idle	448 L/min	118 gal/min
Relief Valve Setting – Raise	18 950 kPa	2,750 psi
Relief Valve Setting – Lower	3450 kPa	500 psi
Body Raise Time – High Idle	7.5 seconds (approx.)	
Body Lower Time – Float	10.0 seconds (approx.)	
Body Power Down – High Idle	10.0 seconds (approx.)	

## Capacity – Dual Slope – 100% Fill Factor

Struck	17.6 m <sup>3</sup>	23.01 yd <sup>3</sup>
Heaped 2:1 (SAE)*	25.2 m <sup>3</sup>	32.9 yd <sup>3</sup>

\*ISO 6483:1980

## Capacity – Flat Floor – 100% Fill Factor

Struck	17.6 m <sup>3</sup>	23.01 yd <sup>3</sup>
Heaped 2:1 (SAE)*	25.2 m <sup>3</sup>	32.9 yd <sup>3</sup>

\*ISO 6483:1980

## Weight Distributions – Approximate

Front Axle – Empty	51.9%
Front Axle – Loaded	34.5%
Rear Axle – Empty	48.1%
Rear Axle – Loaded	65.5%

# 770G Off-Highway Truck Specifications

## Suspension

Empty Loaded Cylinder Stroke Front	234 mm	9.2 in
Empty Loaded Cylinder Stroke Rear	149 mm	5.9 in
Rear Axle Oscillation	8.9°	

## Service Refill Capacities

Fuel Tank	530 L	140 gal
Cooling System	125 L	33 gal
Crankcase	38 L	10 gal
Differentials and Final Drives	180 L	47 gal
Steering Tank	55 L	14.5 gal
Steering System (includes tank)	87 L	23 gal
Brake/Hoist Hydraulic Tank	145 L	38 gal
Brake Hoist System	227 L	60 gal
Torque Converter/ Transmission System	64 L	17 gal

## Steering

Steering Standards	ISO 5010:2007	
Steer Angle	40.5°	
Turning Diameter – Front	17.6 m	57.7 ft
Turning Circle Clearance Diameter	20.3 m	66.6 ft

## Tires

Standard Tire 18.00R33 (E4)

- Productive capabilities of the 770G 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 evaluates all job conditions and consults the tire manufacturer for proper tire selection.

## ROPS

ROPS/FOPS Standards

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

## Sound

Sound Standards

- The dynamic operator sound pressure level is 79 dB(A) when “ISO R396:2008” is used to measure the value for an enclosed cab. The cab was properly installed and maintained. The test was conducted with the cab doors and the cab windows closed.
- 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.

# 770G Off-Highway Truck Specifications

## Weight/Payload Calculation

		Dual Slope				Flat Floor				Quarry Body	
		Without Liner		With Liner		Without Liner		With Liner		Without Liner	
Base – Floor/Sidewall/Frontwall	mm	16/10/12		16/10/12		16/10/12		16/10/12		25/14/16	
	(in)	(0.62/0.39/0.47)		(0.62/0.39/0.47)		(0.62/0.39/0.47)		(0.62/0.39/0.47)		(0.98/0.55/0.62)	
Liner – Floor/Sidewall/Frontwall	mm	NA		16/8/8		NA		16/8/8		NA	
	(in)	(NA)		(0.62/0.31/0.31)		(NA)		(0.62/0.31/0.31)		(NA)	
Body Capacity	m <sup>3</sup> (yd <sup>3</sup> )	25.2	(33.0)	24.8	(32.4)	25.2	(33.0)	24.9	(32.6)	25.2	(33.0)
Target Gross Machine Weight	kg (lb)	71 214	(157,001)	71 214	(157,001)	71 214	(157,001)	71 214	(157,001)	71 214	(157,001)
Empty Chassis Weight	kg (lb)	24 455	(53,914)	24 455	(53,914)	24 455	(53,914)	24 455	(53,914)	24 455	(53,914)
Body System Weight	kg (lb)	7665	(16,898)	10 560	(23,281)	7850	(17,306)	10 790	(23,788)	10 095	(22,256)
Empty Machine Weight	kg (lb)	32 120	(70,813)	35 015	(77,195)	32 305	(71,221)	35 245	(77,702)	34 550	(76,170)
<b>Attachments</b>											
Fuel Tank Size	L (gal)	529	(140)	529	(140)	529	(140)	529	(140)	529	(140)
Fuel Tank – 100% Fill	kg (lb)	445	(983)	445	(983)	445	(983)	445	(983)	445	(983)
Empty Operating Weight	kg (lb)	32 565	(71,796)	35 460	(78,178)	32 750	(72,204)	35 690	(78,685)	34 995	(77,153)
Target Payload (100%)	kg (lb)	38 649	(85,205)	35 754	(78,822)	38 464	(84,797)	35 524	(78,315)	36 219	(79,848)
	tonne (ton)	38.6	(42.6)	35.8	(39.4)	38.5	(42.4)	35.5	(39.2)	36.2	(39.9)
Maximum Working Payload (110%)*	kg (lb)	42 514	(93,725)	39 329	(86,705)	42 310	(93,277)	39 076	(86,147)	39 841	(87,832)
	tonne (ton)	42.5	(46.9)	39.3	(43.4)	42.3	(46.6)	39.1	(43.1)	39.8	(43.9)
Maximum Allowable Payload (MAP) (120%)*	kg (lb)	46 379	(102,246)	42 905	(94,587)	46 157	(101,756)	42 629	(93,978)	43 463	(95,817)
	tonne (ton)	46.4	(51.1)	42.9	(47.3)	46.2	(50.9)	42.6	(47.0)	43.5	(47.9)

\*Refer to Caterpillar 10/10/20 overload policy.

## Payload Calculation: Definitions

**Target Payload** = Target Gross Machine Weight less Empty Machine Weight

**Empty Machine Weight** = Empty Chassis Weight + Body System Weight

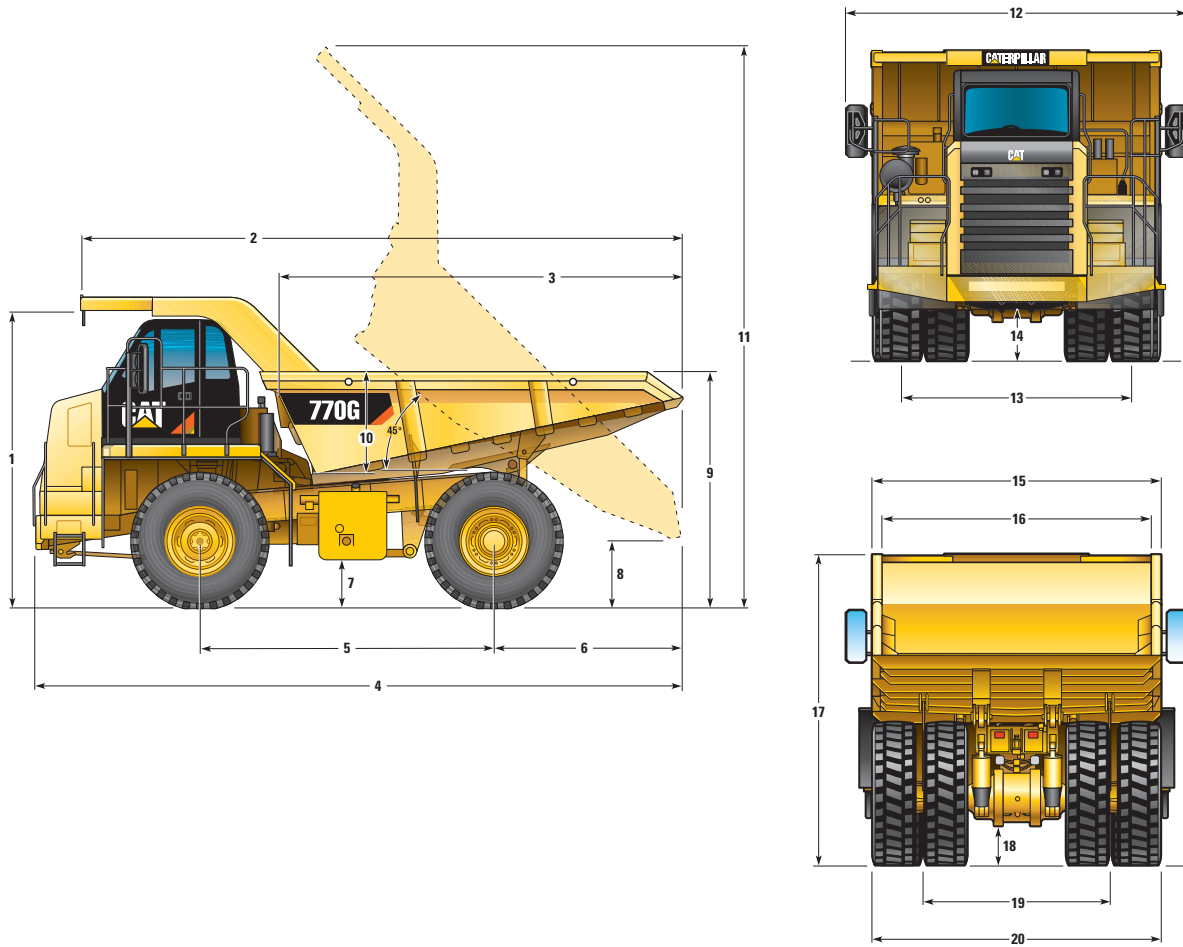
**Maximum Payload** = Target Payload × 1.10 (110%)

**Maximum Gross Machine Weight** = Target Payload × 1.2 (120%) + Empty Machine Weight

# 770G Off-Highway Truck Specifications

## Dimensions

All dimensions are approximate.



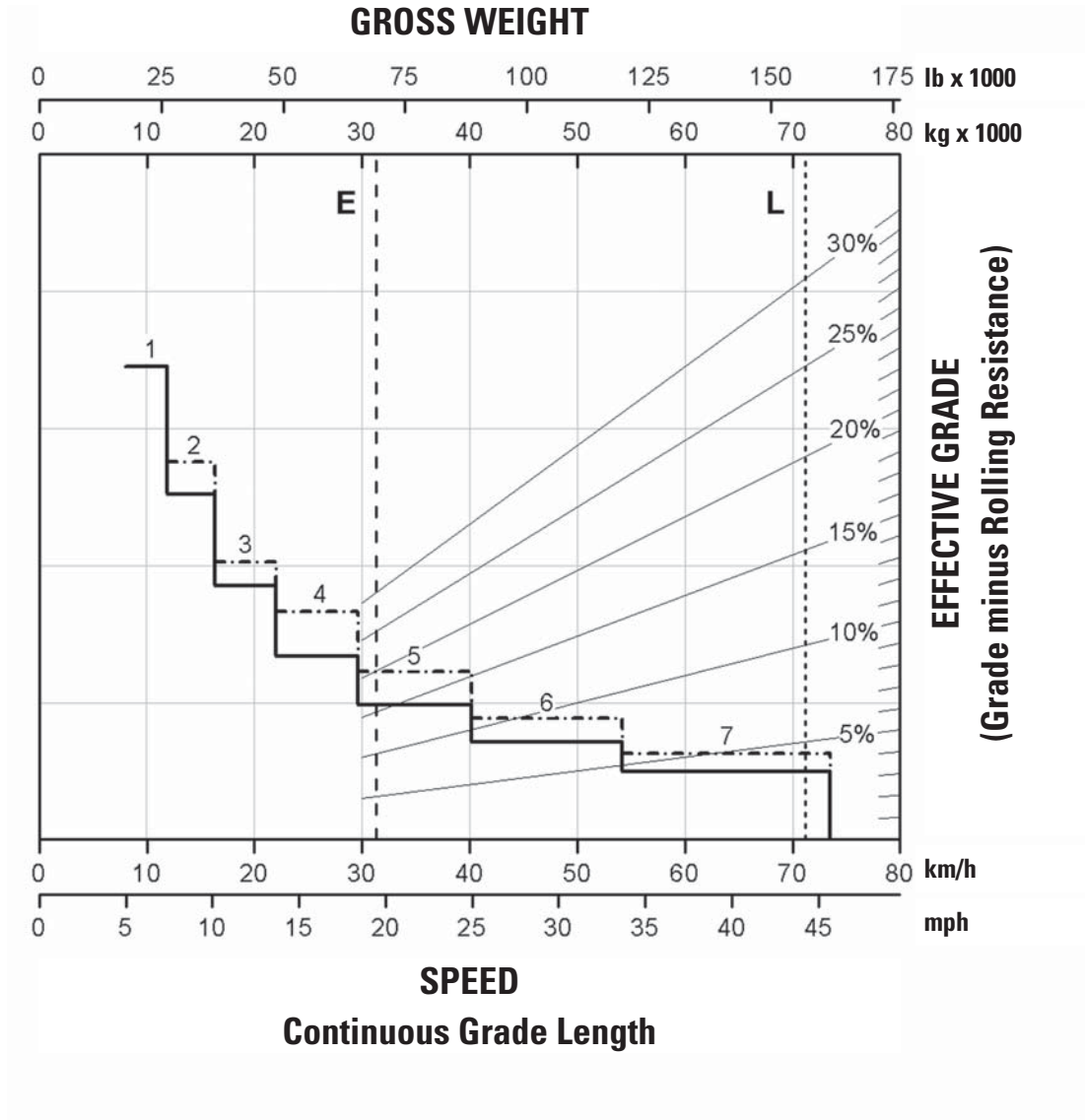
<b>1</b>	Height to Top of ROPS	3958 mm	12.9 ft
<b>2</b>	Overall Body Length	8165 mm	26.7 ft
<b>3</b>	Inside Body Length	5635 mm	18.4 ft
<b>4</b>	Overall Length	8796 mm	28.8 ft
<b>5</b>	Wheelbase	3960 mm	12.9 ft
<b>6</b>	Rear Axle to Tail	2586 mm	8.4 ft
<b>7</b>	Ground Clearance	641 mm	2.1 ft
<b>8</b>	Dump Clearance	535 mm	1.7 ft
<b>9</b>	Loading Height – Empty	3230 mm	10.6 ft
<b>10</b>	Inside Body Depth – Maximum	1390 mm	4.5 ft
<b>11</b>	Overall Height – Body Raised	8280 mm	27.1 ft
<b>12</b>	Operating Width	4780 mm	15.6 ft
<b>13</b>	Centerline Front Tire Width	3110 mm	10.2 ft
<b>14</b>	Engine Guard Clearance	645 mm	2.1 ft
<b>15</b>	Outside Body Width	3931 mm	12.9 ft
<b>16</b>	Inside Body Width	3642 mm	11.9 ft
<b>17</b>	Front Canopy Height	4211 mm	13.8 ft
<b>18</b>	Rear Axle Clearance	525 mm	1.7 ft
<b>19</b>	Centerline Rear Dual Tire Width	2536 mm	8.3 ft
<b>20</b>	Overall Tire Width	3693 mm	12.1 ft

# 770G Off-Highway Truck Specifications

## Retarding Performance

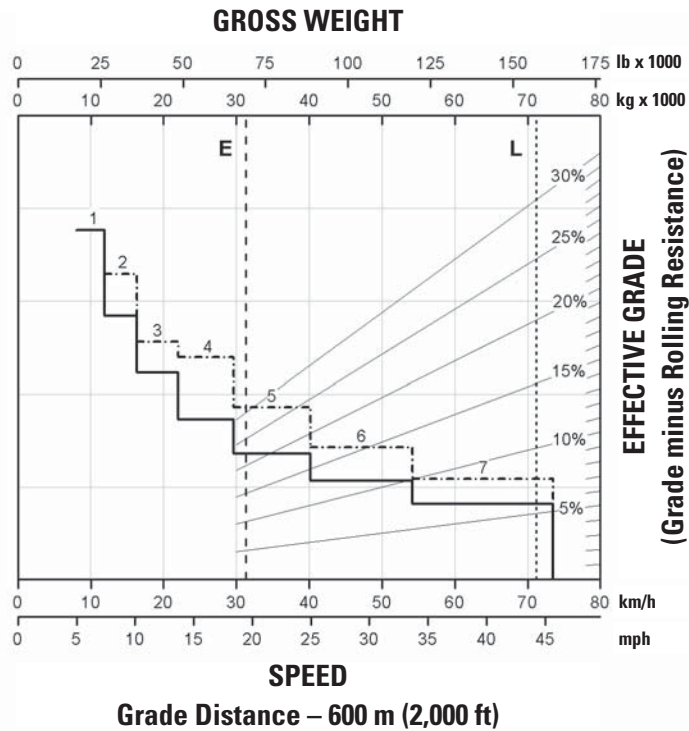
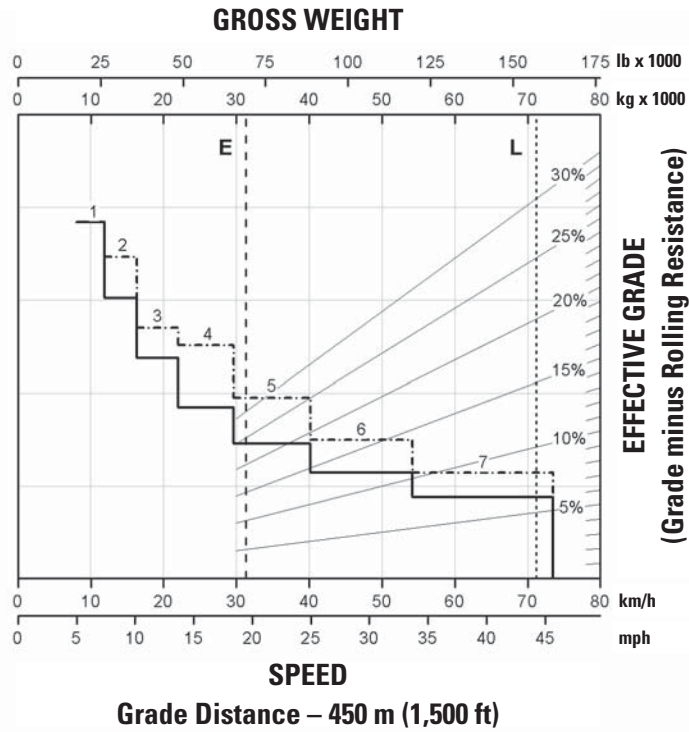
To determine retarding performance: Add lengths of all downhill segments and, using this total, refer to proper retarding chart. Read from gross weight down to the percent effective grade. Effective grade equals actual % grade minus 1% for each 10 kg/t (20 lb/ton) of rolling resistance. From this weight-effective grade point, read horizontally to the curve with the highest obtainable gear, then down to maximum descent speed brakes can properly handle without exceeding cooling capacity. The following charts are based on these conditions: 32° C (90° F) ambient temperature, at sea level, with 18.00R33 tires.

**NOTE:** Select the proper gear to maintain engine rpm at the highest possible level, without overspeeding the engine. If cooling oil overheats, reduce ground speed to allow transmission to shift to the next lower speed range.



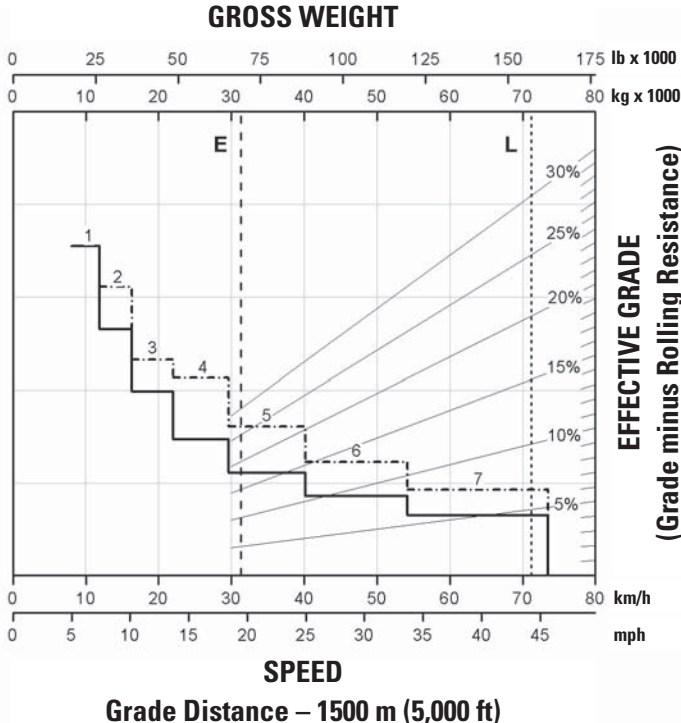
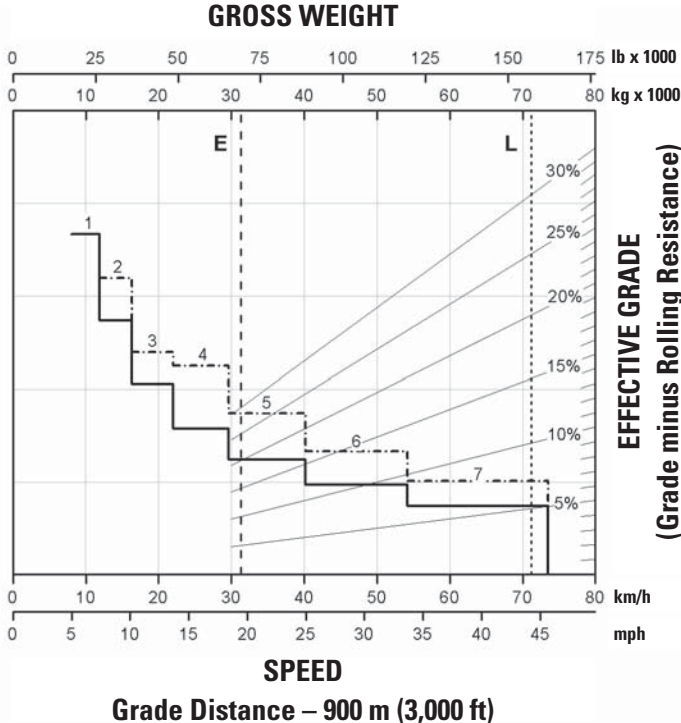
# 770G Off-Highway Truck Specifications

## Retarding Performance



# 770G Off-Highway Truck Specifications

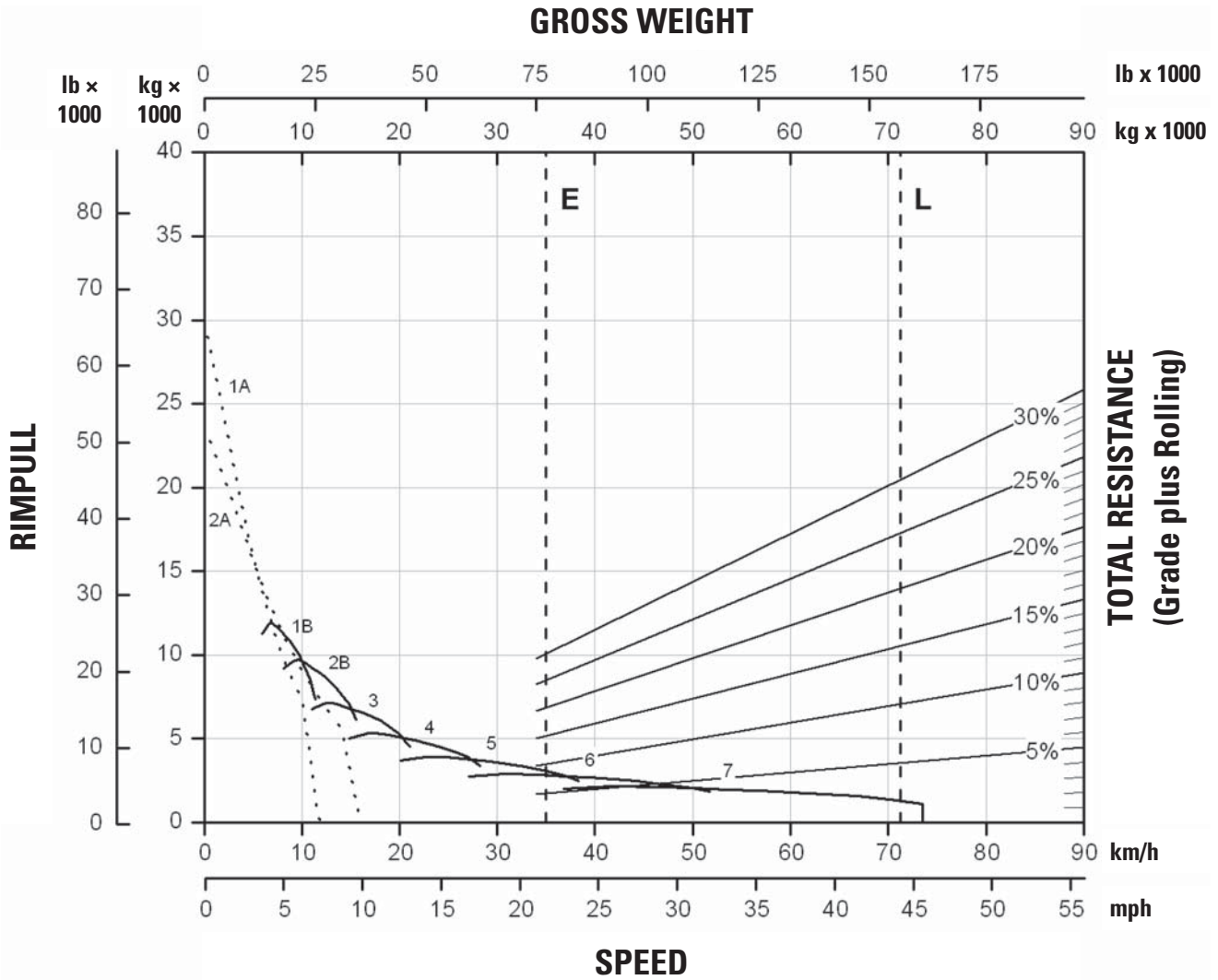
## Retarding Performance



# 770G Off-Highway Truck Specifications

## Gradeability/Speed/Rimpull

To determine gradeability performance: Read from gross weight down to the percent of total resistance. Total resistance equals actual percent grade plus 1% for each 10 kg/t (20 lb/ton) of rolling resistance. From this weight-resistance point, read horizontally to the curve with the highest obtainable gear, then down to maximum speed. Usable rimpull will depend upon traction available and weight on drive wheels.





## Standard Equipment

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

### ELECTRICAL

- Alarm, backup
- Alternator, 115 ampere
- Auxiliary jump start receptacle
- Batteries, maintenance-free, 12V (2), 190 amp-hour
- Electrical system, 24V
- Lighting system:
  - Backup light (halogen)
  - Directional signals/hazard warning (front and rear LED)
  - Headlights (halogen), with dimmer
  - Operator access courtesy lights (Developing Market Only)

### PRODUCT LINK COMMUNICATIONS

- Product Link Ready

### GUARDS

- Engine crankcase

### OPERATOR ENVIRONMENT

- Air conditioning (Developing Market Only)
- Ashtray and cigarette lighter
- Coat hook
- Cup holders (4)
- Diagnostic connection port, 24V
- Entertainment Radio Ready
  - 5 amp converter
  - Speakers
  - Antenna
  - Wiring harness
- Gauges/indicators:
  - Air cleaner service indicator – electronic
  - Brake oil temperature gauge
  - Coolant temperature gauge
  - Hour meter
  - Tachometer
  - Engine overspeed indicator
  - Fuel level
  - Speedometer with odometer
  - Transmission gear indicator
- Heater/defroster (Developing Market Only) (11 070 kCal/43,930 BTU)
- Hoist lever

- Horn, electric
- Light – dome
- Light – courtesy
- Messenger, display unit
- Mirrors
- Power port, 12V
- ROPS cab, insulated/sound suppressed
- Seat, Cat Comfort
  - full air suspension
  - retractable 3 point seat belt with shoulder harness
- Seat, training with lap belt
- Steering wheel, padded, tilt and telescopic
- Storage compartment
- Sun visor, tinted glass
- Throttle lock
- Windshield wiper (intermittent) and washer

### POWER TRAIN

- Air-To-Air Aftercooler (ATAAC)
- Air cleaner with precleaner (1)
- Automatic cold mode idle control
- Electric start
- Turbocharger
- Braking system, hydraulic actuated:
  - Automatic Retarder Control (ARC) (utilizes rear oil-cooled, multiple disc brakes)
  - Brake release motor (towing)
  - Caliper-disc (front)
  - Oil-cooled, multiple disc (rear)
  - Parking
  - Secondary
  - Service
- Transmission:
  - 7 speed automatic powershift
  - Body up shift inhibitor
  - Controlled throttle shifting
  - Directional shift management
  - Downshift inhibitor
  - Neutral start switch
  - Neutral coast inhibitor
  - Reverse shift inhibitor
  - Reverse neutralizer during dumping
  - Programmable top gear selection

### SUSPENSION SYSTEMS

- Suspension, front and rear

### OTHER STANDARD EQUIPMENT

- Body safety pin (secures body in up position)
- Body down indicator
- CD ROM parts book
- Fan, hydraulic demand
- Fuel tank (530 L/140 gal)
- Guard, engine compartment
- Guard, mud
- Ground level battery disconnect
- Ground level engine shutdown
- Ground level grease fittings
- Reservoirs (separate):
  - Brake/converter/hoist
  - Steering
  - Transmission/torque converter
- Rims 13 × 33
- Rock ejectors
- Service platform, left and right side
- Supplemental steering (automatic)
- Tie down eyes
- Tow hooks (front)/Tow pin (rear)
- Vandalism protection locks

### ANTIFREEZE

- Extended Life Coolant to –35° C (–30° F)

# 770G Optional Equipment

## Optional Equipment

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

### WEATHER PACKAGES

- **PKG, WEATHER STANDARD**
  - Includes the standard weather package with no heated mirrors
- **PKG COLD WEATHER PLUS**
  - Includes heated mirrors and fuel heater
- **PKG, WEATHER PREMIUM**
  - Includes fuel heater, ether aid and heated mirrors
- **PKG COLD WEATHER MAX**
  - 240V package, coolant heater, ether aid, heated mirrors

### SERVICE PACKAGES

- **SERVICEABILITY STANDARD**
- **SERVICEABILITY PLUS**
  - Centralized grease fittings
- **SERVICEABILITY SUPERIOR**
  - Auto lube option

### PERFORMANCE PACKAGES

- **PERFORMANCE PACKAGE – STANDARD**
  - Standard brakes front dry brakes and rear oil-cooled, multiple disc brakes.
  - Includes front brake disconnect switch. Utilizes rear-oil cooled, multiple disc brakes.
- **PERFORMANCE PACKAGE – PLUS**
  - Standard Performance Package + Traction Control System
- **PERFORMANCE PACKAGE – SUPERIOR**
  - Standard Performance Package + Traction Control System + Extended life brakes

### ENGINE ARRANGEMENTS

- Tier 2 Equivalent C15 ACERT diesel engine
- Tier 3 Equivalent C15 ACERT diesel engine
- Cat Engine Brake

### EXHAUST PACKAGES

- Muffler
- Body heat/diverter

### BODY OPTIONS

- Flat floor
- Quarry body
- Dual slope
- Steel liner option (not available on Quarry body)
- Rubber liner option
- Sideboards

### BATTERY OPTIONS

- Two batteries
- Four batteries

### LIGHTING PACKAGES

- HID option
- Tires

### DISPLAYS

- Messenger display
- Languages for messenger display
- TPMS System

### OPERATOR ENVIRONMENT

- Heat
- Air conditioning

### FILTERS

- Precleaner

### PRODUCT LINK

- Product Link GSM
- Product Link GPS
- No Product Link
- WAVS cameras
- Spare rims
- Wheel chocks
- Sound Suppression Package
- Fast fill fuel



For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at [www.cat.com](http://www.cat.com)

AEHQ6361-01 (03-2019)  
Replaces AEHQ6361

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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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