

772G

Off-Highway Truck

The Cat® 772 Off-Highway Truck has been in production since 1971 and has been handling the work of mines and quarries for over 40 years. Like all Cat trucks, it is specifically designed for off-road applications with reliable and durable designs.

Cat G Series trucks will help you manage your costs with fuel economy options, tire monitoring and convenient service center options. It can also be equipped to provide you with production, machine health and operation information using Cat VIMS™. With three body options designed to last the life of the truck, the 772G can meet your individual hauling needs productively, safely, reliably.

Safety

Cat® Off-Highway Trucks are designed to keep your employees safe with integrated roll over and falling object protection and excellent visibility to the job site. Speed limiting helps to manage haul road speeds and industry-leading brake designs stop the truck and hold it on slopes of 15-20%.

Productivity

With its Cat diesel engine, drive train and features like traction control and automatic retarding control, the 772G is built for long life productivity and quick haul cycles.



Quality

Caterpillar applies the latest in technology to its designs, metallurgy, welding and manufacturing processes. We also build prototype iron, test for extreme environments and finally place our trucks in the hands of customers for extensive field testing prior to production.

Sustainability

Your G Series truck is designed to be fuel efficient and control emissions. It can help keep your job site clean and shorten service time with grouped service locations. Your Cat dealer can support your sustainability efforts with remanufactured parts and recommended service practices.



772G Off-Highway Truck Specifications

Engine

Engine Model	Cat® C18 ACERT™	
Rated Engine Speed	1,800 rpm	
Gross Power – SAE J1995	446 kW	598 hp
Net Power – SAE J1349	415 kW	557 hp
Net Power – ISO 9249	421 kW	565 hp
Net Power – 80/1269/EEC	421 kW	565 hp
Engine Power – ISO 14396	435 kW	583 hp
Net Torque – SAE J1349	2584 N·m	1,906 lb-ft
Number of Cylinders	6	
Bore	145 mm	5.7 in
Stroke	183 mm	7.2 in
Displacement	18.1 L	1,105 in ³

- 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.
- Compliant with U.S. Environmental Protection Agency Tier 3 and European Union Stage IIIA emission standards.
- Compliant with U.S. EPA Tier 2/Stage II emission standards.

Weights – Approximate

Target Gross Machine Weight	82 100 kg	181,000 lb
Chassis Weight	26 863 kg	59,223 lb
Body Weight	8030 kg	17,703 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

Nominal Payload Class (100%)	47.2 tonnes	52.0 tons
Maximum Payload Class (110%)	51.9 tonnes	57.2 tons
Not to Exceed Payload (120%)*	56.6 tonnes	62.3 tons
Body Capacity (SAE 2:1)	31.2 m ³	40.8 yd ³
Top Speed – Loaded	71.7 km/h	44.6 mph

* Refer to the Caterpillar 10/10/20 Overload Policy for maximum gross machine weight limitations.

- Capacity with dual slope body with no liner.

Transmission

Forward 1	12.9 km/h	8.0 mph
Forward 2	17.7 km/h	11.0 mph
Forward 3	24.0 km/h	14.9 mph
Forward 4	32.2 km/h	20.0 mph
Forward 5	43.6 km/h	27.1 mph
Forward 6	58.7 km/h	36.5 mph
Forward 7	79.7 km/h	49.5 mph
Reverse	16.9 km/h	10.5 mph

- Maximum travel speeds with standard 21.00R33 (E4) tires.

Final Drives

Differential Ratio	2.74:1
Planetary Ratio	4.80:1
Total Reduction Ratio	13.14:1

Brakes

Brake Surface – Front	1395 cm ²	216 in ²
Brake Surface – Rear	50 281 cm ²	7,794 in ²
Brake Standards	ISO 3450:1996	

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	
Body Lower Time – Float	10.0 seconds	
Body Power Down – High Idle	10.0 seconds	

Capacity – Dual Slope – 100% Fill Factor

Struck	23.9 m ³	31.2 yd ³
Heaped 2:1 (SAE)	31.2 m ³	40.8 yd ³

Capacity – Flat Floor – 100% Fill Factor

Struck	23.9 m ³	31.2 yd ³
Heaped 2:1 (SAE)	31.3 m ³	40.9 yd ³

772G Off-Highway Truck Specifications

Weight Distributions – Approximate

Front Axle – Empty	51.4%
Front Axle – Loaded	34.2%
Rear Axle – Empty	48.6%
Rear Axle – Loaded	65.8%

Suspension

Empty Loaded Cylinder Stroke Front	234 mm	9.2 in
Empty Loaded Cylinder Stroke Rear	149 mm	5.8 in
Rear Axle Oscillation	8.9°	

Service Refill Capacities

Fuel Tank	530 L	140 gal
Cooling System	125 L	33 gal
Crankcase	64 L	17 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	SAE J1511 FEB94 ISO 5010:1992	
Steer Angle	31°	
Turning Diameter – Front	17.6 m	57.7 ft
Turning Circle Clearance Diameter	20.1 m	65.9 ft

Tires

Standard Tire	21.00R33 (E4)
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- Productive capabilities of the 772G 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.

772G Off-Highway Truck Specifications

Weight/Payload Calculation

772G – Flat Floor		363-1500 Body	363-1501 Body + Steel Liner	363-1502 Body + Rubber Liner	362-8602* Rubber Liner with 150 mm (5.9 in) Side Boards	363-1550 Quarry Body Steel
Floor/Sidewall/Frontwall		16/10/14 mm (0.62/0.39/0.55 in)	16/10/14 + 16/8/8 mm (0.62/0.39/0.55 + 0.62/0.31/0.31 in)	16/10/14 + 102/8/8 mm (0.62/0.39/0.55 + 4.01/0.31/0.31 in)		25/14/16 mm (0.98/0.55/0.62 in)
Payload Capacity		31.3 m³ (41.0 yd³)	31.0 m³ (40.5 yd³)	29.7 m³ (38.9 yd³)	32.2 m³ (42.1 yd³)	31.1 m³ (40.6 yd³)
Floor Thickness		16 mm (0.630 in)	32 mm (1.26 in)	102 mm (4.0 in)	102 mm (4.0 in)	25 mm (1.0 in)
Target Gross Machine Weight	kg (lb)	82 100 (181,000)	82 100 (181,000)	82 100 (181,000)	82 100 (181,000)	82 100 (181,000)
Empty Chassis Weight	kg (lb)	26 417 (58,239)	26 417 (58,239)	26 417 (58,239)	26 417 (58,239)	26 417 (58,239)
Body System Weight	kg (lb)	8215 (18,110)	11 450 (25,243)	12 065 (26,599)	12 420 (27,051)	10 555 (23,270)
Empty Machine Weight	kg (lb)	34 632 (76,350)	37 867 (83,482)	38 482 (84,837)	38 837 (85,620)	36 972 (81,508)
Attachments						
Fuel Tank Size	L (gal)	530 (140)	530 (140)	530 (140)	530 (140)	530 (140)
Fuel Tank – 100% Fill	kg (lb)	446 (983)	446 (983)	446 (983)	446 (983)	446 (983)
Empty Operating Weight**	kg (lb)	35 078 (77,332)	38 313 (84,464)	38 928 (85,820)	39 283 (86,603)	37 418 (82,491)
Target Payload*	kg (lb)	47 022 (103,665)	43 787 (96,533)	43 172 (95,178)	42 817 (94,395)	44 682 (98,507)
Target Payload*	tonnes (tons)	47.0 (51.8)	43.8 (48.3)	43.1 (47.6)	42.8 (47.2)	44.7 (49.3)
10/10/20 Policy*						
Nominal Payload – 100%	kg (lb)	47 022 (103,665)	43 787 (96,533)	43 172 (95,178)	42 817 (94,395)	44 682 (98,507)
Maximum Working Payload – 110%	kg (lb)	51 724 (114,032)	48 166 (106,187)	47 489 (104,695)	47 099 (103,834)	49 150 (108,357)
Not to Exceed Payload – 120%	kg (lb)	56 427 (124,398)	52 545 (115,840)	51 807 (114,213)	51 381 (113,274)	53 619 (118,208)
Maximum Gross Machine Weight*	kg (lb)	91 504 (201,731)	90 857 (200,304)	90 734 (200,033)	90 663 (199,877)	91 036 (200,699)
772G – Dual Slope						
		363-1510 Body	363-1511 Body + Steel Liner	363-1512 Tail Liner – Rear		
Floor/Sidewall/Frontwall		16/10/14 mm (0.62/0.39/0.55 in)	16/10/14 + 16/8/8 mm (0.62/0.39/0.55 + 0.62/0.31/0.31 in)	16/10/14 + 16/8/0 mm (0.62/0.39/0.55 + 0.62/0.31/0 in)		
Payload Capacity		31.2 m³ (40.8 yd³)	30.9 m³ (40.4 yd³)	31.2 m³ (40.8 yd³)		
Floor Thickness		16 mm (0.630 in)	32 mm (1.26 in)	32 mm (1.26 in)		
Target Gross Machine Weight	kg (lb)	82 100 (181,000)	82 100 (181,000)	82 100 (181,000)		
Empty Chassis Weight	kg (lb)	26 417 (58,239)	26 417 (58,239)	26 417 (58,239)		
Body System Weight	kg (lb)	8030 (17,703)	11 025 (24,306)	8999 (19,839)		
Empty Machine Weight	kg (lb)	34 447 (75,942)	37 442 (82,545)	35 416 (78,078)		
Attachments						
Fuel Tank Size	L (gal)	530 (140)	530 (140)	530 (140)		
Fuel Tank – 100% Fill	kg (lb)	446 (983)	446 (983)	446 (983)		
Empty Operating Weight**	kg (lb)	34 893 (76,925)	37 888 (83,527)	35 862 (79,061)		
Target Payload*	kg (lb)	47 207 (104,073)	44 212 (97,470)	46 238 (101,937)		
Target Payload*	tonnes (tons)	47.2 (52.0)	44.2 (48.7)	46.2 (51.0)		
10/10/20 Policy*						
Nominal Payload – 100%	kg (lb)	47 207 (104,073)	44 212 (97,470)	46 238 (101,937)		
Maximum Working Payload – 110%	kg (lb)	51 928 (114,480)	48 633 (107,217)	50 862 (112,131)		
Not to Exceed Payload – 120%	kg (lb)	56 649 (124,888)	53 055 (116,964)	55 486 (122,324)		
Maximum Gross Machine Weight*	kg (lb)	91 541 (201,812)	90 942 (200,492)	91 348 (201,385)		

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

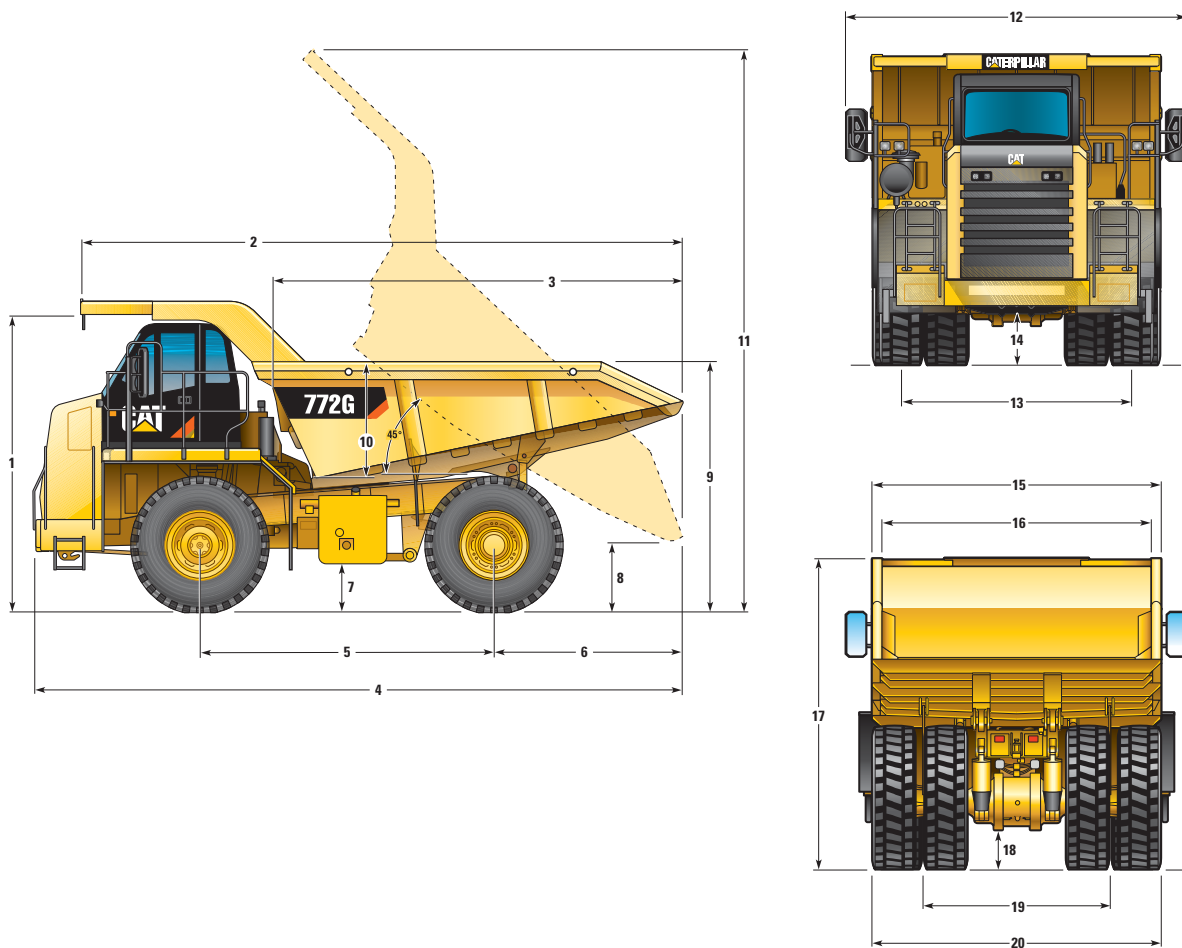
**Includes weight of all attachments.

Empty chassis weight is figured without fuel.

772G Off-Highway Truck Specifications

Dimensions

All dimensions are approximate with dual slope body.



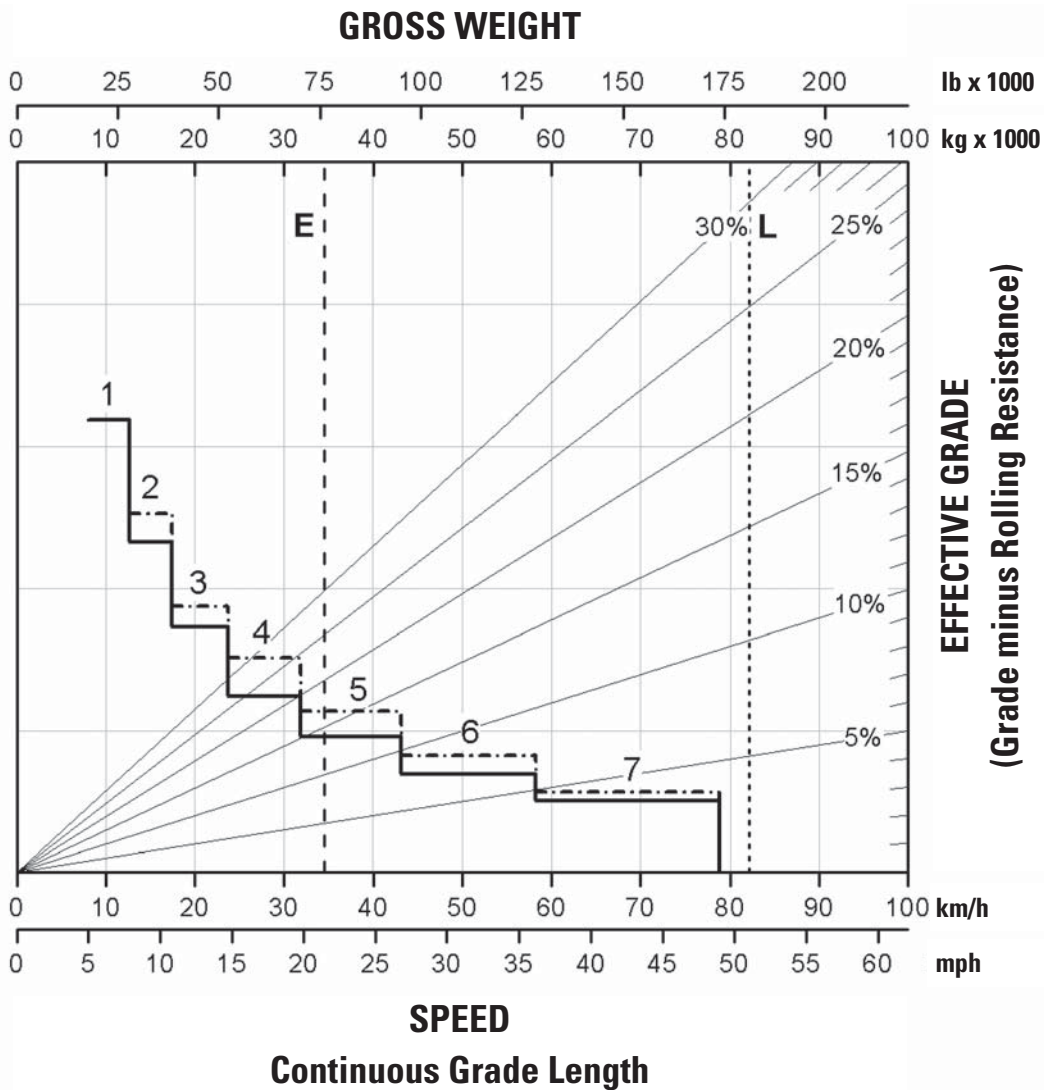
1	Height to Top of ROPS	3958 mm	13.0 ft
2	Overall Body Length	8177 mm	26.8 ft
3	Inside Body Length	5635 mm	18.5 ft
4	Overall Length	8796 mm	28.9 ft
5	Wheelbase	3960 mm	13.0 ft
6	Rear Axle to Tail	2586 mm	8.5 ft
7	Ground Clearance	641 mm	2.1 ft
8	Dump Clearance	485 mm	1.8 ft
9	Loading Height – Empty	3230 mm	10.6 ft
10	Inside Body Depth – Maximum	1404 mm	4.6 ft
11	Overall Height – Body Raised	8280 mm	27.2 ft
12	Operating Width	4780 mm	15.7 ft
13	Centerline Front Tire Width	3110 mm	10.2 ft
14	Engine Guard Clearance	645 mm	2.1 ft
15	Outside Body Width	3931 mm	12.9 ft
16	Inside Body Width	3642 mm	12.0 ft
17	Front Canopy Height	4211 mm	13.8 ft
18	Rear Axle Clearance	525 mm	1.7 ft
19	Centerline Rear Dual Tire Width	2536 mm	8.3 ft
20	Overall Tire Width	3693 mm	12.1 ft

772G Off-Highway Truck Specifications

Retarding Performance

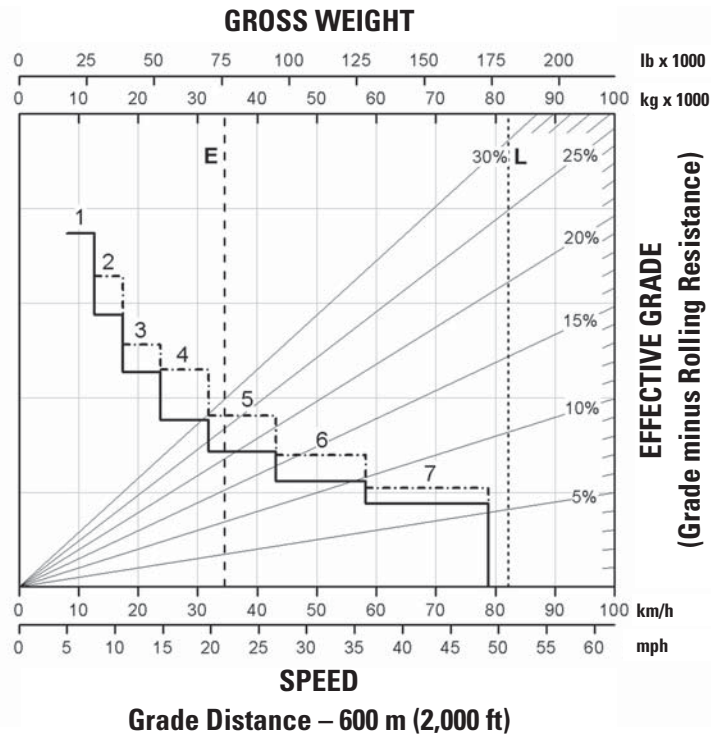
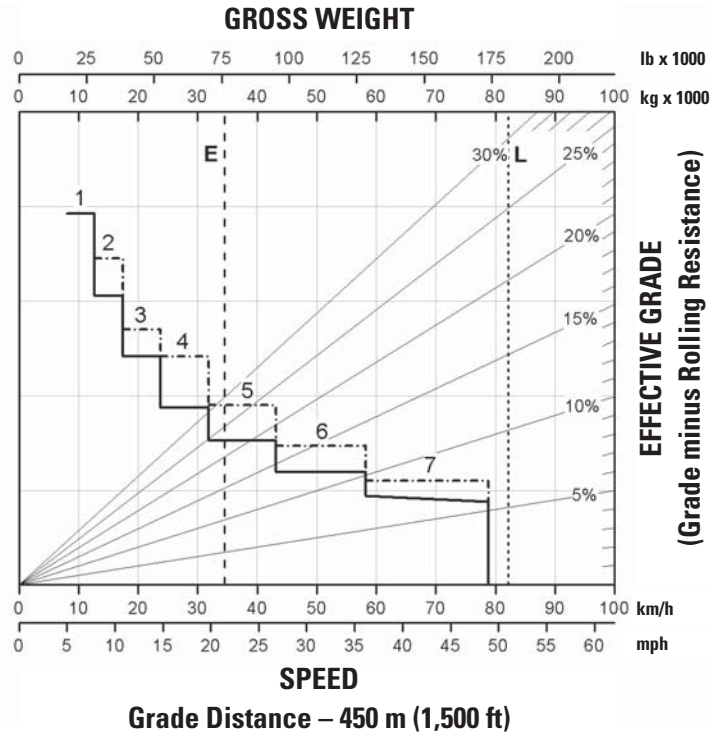
To determine retarding performance: Add lengths of all downhill segments and, using this total, refer to proper retarding chart. Read from gross weight down to the percent effective grade. Effective grade equals actual % grade minus 1% for each 10 kg/t (20 lb/ton) of rolling resistance. From this weight-effective 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 21.00R33 (E4) 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.



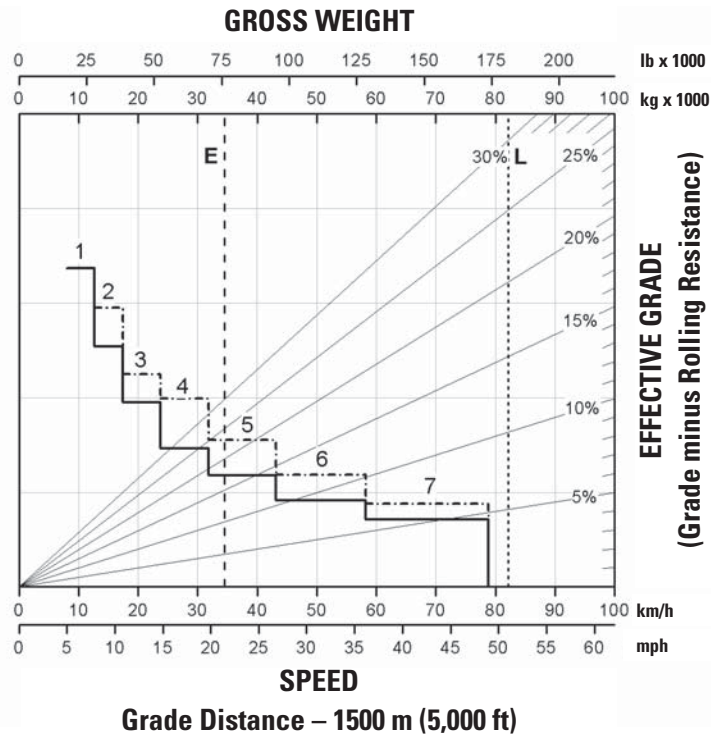
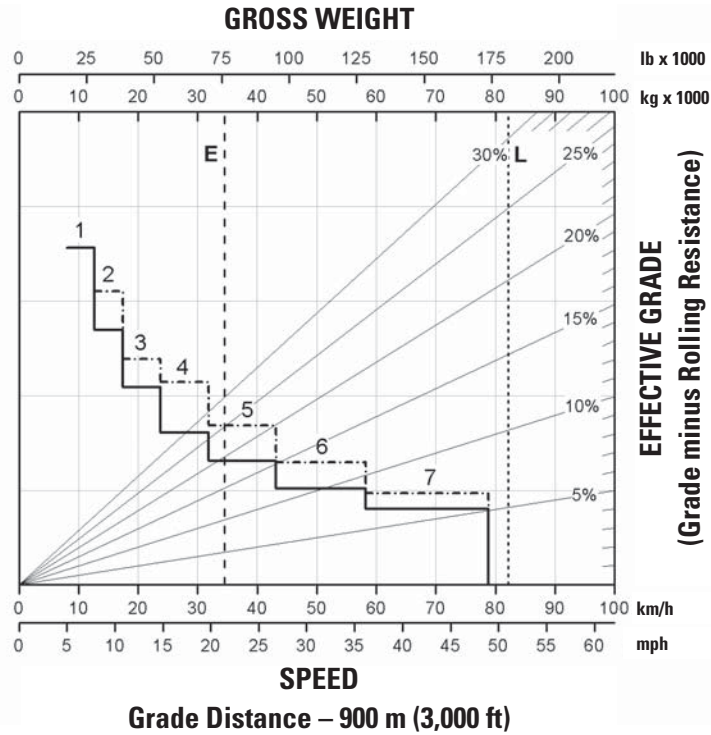
772G Off-Highway Truck Specifications

Retarding Performance



772G Off-Highway Truck Specifications

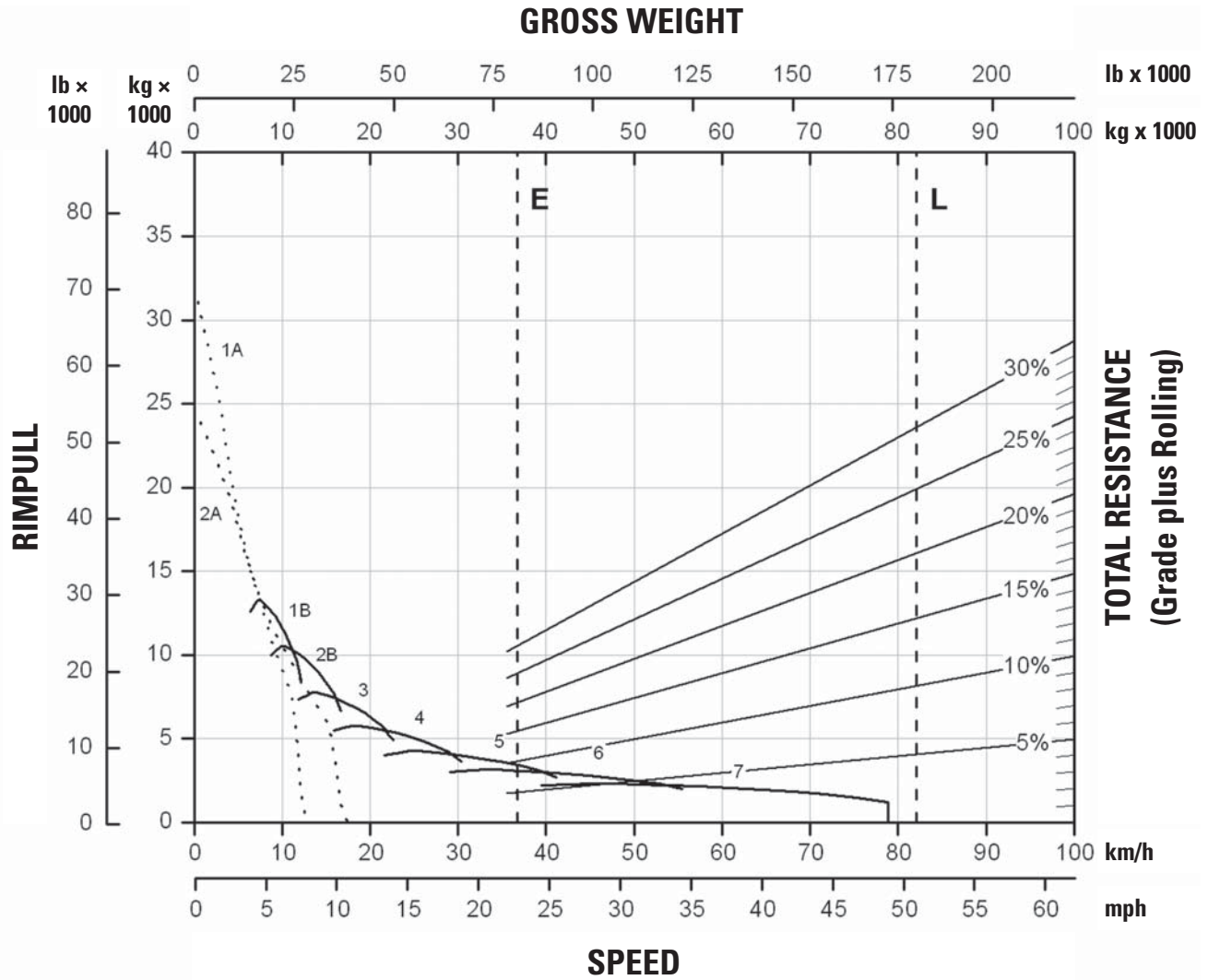
Retarding Performance



772G 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.



772G Off-Highway Truck Standard Equipment

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

- Driveline
- 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 (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 15 × 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)

772G Off-Highway Truck Optional Equipment

Optional Equipment

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

Traction Control System

Extended Life Brakes

Cat Engine Brake

Cat C18 ACERT diesel engine Tier 2

Cat C18 ACERT diesel engine Tier 3

Body heat

Diverter box

4 batteries

HID lights

Truck Production Management System

Cab heat

Cab air conditioning

Product Link

Backup alarm

Heated mirrors

Fuel heater

Ether aid

Coolant heater

Auto lube

Rear vision camera (WAVS)

Spare rims

Wheel chocks

Body sideboards

772G Off-Highway Truck

Materials and specifications are subject to change without notice.

Featured machines in photos may include additional equipment.

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

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