



# 772

## Off-Highway Truck

# Technical Specifications

Configurations and features may vary by region. Please consult your Cat® dealer for availability in your area.

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# 772 Off-Highway Truck Specifications

## Engine – U.S. EPA Tier 4 Final/EU Stage V

Engine Model	Cat® C18	
Rated Engine Speed	1,700 rpm	
Gross Power – SAE J1995:2014	451 kW	605 hp
Net Power – SAE J1349:2011	410 kW	550 hp
Net Power – ISO 9249:2002	410 kW	550 hp
Engine Power – ISO 14396:2002	446 kW	598 hp
Net Torque – SAE J1349:2011	3012 N·m	2,221 lbf-ft
Number of Cylinders	6	
Bore	145 mm	5.7 in
Stroke	183 mm	7.2 in
Displacement	18.1 L	1,105 in <sup>3</sup>

- Power rating applies at 1,700 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).
- Meets U.S. EPA Tier 4 Final and EU Stage V emission standards.

## Engine – U.S. EPA Tier 3/EU Stage IIIA or U.S. EPA Tier 2/EU Stage II

Engine Model	Cat C18	
Rated Engine Speed	1,800 rpm	
Gross Power – SAE J1995:2014	446 kW	598 hp
Net Power – SAE J1349:2011	415 kW	557 hp
Net Power – ISO 9249:2002	421 kW	565 hp
Net Power – 80/1269/EEC	421 kW	565 hp
Engine Power – ISO 14396:2002	435 kW	583 hp
Net Torque – SAE J1349:2011	2551 N·m	1,881 lbf-ft
Number of Cylinders	6	
Bore	145 mm	5.7 in
Stroke	183 mm	7.2 in
Displacement	18.1 L	1,105 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).
- Emits equivalent to U.S. EPA Tier 3 and EU Stage IIIA, or U.S. EPA Tier 2 and EU Stage II.

## Weights – Approximate

Target Gross Machine Weight	82 100 kg	181,000 lb
Chassis Weight	26 863 kg	59,223 lb
Body Weight	8258 kg	18,205 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%)	46.8 tonnes	51.6 tons
Maximum Payload Class (110%)	51.4 tonnes	56.7 tons
Maximum Allowable Payload (120%)	56.1 tonnes	61.9 tons
Body Capacity (SAE 2:1)*	31.2 m <sup>3</sup>	40.8 yd <sup>3</sup>
Top Speed – Loaded	79.1 km/h	49.2 mph

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

## Transmission – U.S. EPA Tier 4 Final

Forward 1	12.8 km/h	8.0 mph
Forward 2	17.5 km/h	10.9 mph
Forward 3	23.7 km/h	14.7 mph
Forward 4	31.9 km/h	19.8 mph
Forward 5	43.3 km/h	26.9 mph
Forward 6	58.4 km/h	36.3 mph
Forward 7	79.1 km/h	49.2 mph
Reverse	16.8 km/h	10.4 mph

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

## Transmission – U.S. EPA Tier 3 and 2 Equivalent

Forward 1	12.8 km/h	7.9 mph
Forward 2	17.4 km/h	10.8 mph
Forward 3	23.7 km/h	14.7 mph
Forward 4	31.8 km/h	19.8 mph
Forward 5	43.1 km/h	26.8 mph
Forward 6	58.2 km/h	36.1 mph
Forward 7	78.9 km/h	49.0 mph
Reverse	16.7 km/h	10.4 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 <sup>2</sup>	216 in <sup>2</sup>
Brake Surface – Rear	50 281 cm <sup>2</sup>	7,794 in <sup>2</sup>
Brake Standards	ISO 3450:2011	

- Target gross machine operating weight is 82 100 kg (181,000 lb).

## Body Hoists

Pump Flow – High Idle (Tier 4)	425 L/min	112 gal/min
Pump Flow – High Idle (Tier 3/2)	413 L/min	109 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	8.0 Seconds	
Body Lower Time – Float	10.0 Seconds	

## Capacity – Dual Slope – 100% Fill Factor

Struck	23.9 m <sup>3</sup>	31.3 yd <sup>3</sup>
Heaped (SAE 2:1)	31.2 m <sup>3</sup>	40.8 yd <sup>3</sup>

## Capacity – Flat Floor – 100% Fill Factor

Struck	23.9 m <sup>3</sup>	31.3 yd <sup>3</sup>
Heaped (SAE 2:1)	31.3 m <sup>3</sup>	40.9 yd <sup>3</sup>

## Capacity – Quarry Body – 100% Fill Factor

Struck	23.7 m <sup>3</sup>	31.0 yd <sup>3</sup>
Heaped (SAE 2:1)	31.0 m <sup>3</sup>	40.6 yd <sup>3</sup>

## 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 to loaded cylinder stroke – Front	234 mm	9.2 in
Empty to loaded cylinder stroke – Rear	149 mm	5.8 in
Rear Axle Oscillation	± 8.9°	

## Sound – Tier 4 Final/Stage V

Operator Sound Level (ISO 6396:2008)	78 dB(A)
Machine Sound Level (ISO 6395:2008)	118 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.

## Sound – Tier 3 and Tier 2 Equivalent

Operator Sound Level (ISO 6396:2008)	81 dB(A)
Machine Sound Level (ISO 6395:2008)	117 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.

## Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 2.2 kg (4.84 lb) of refrigerant which has a CO<sub>2</sub> equivalent of 3.15 metric tonnes (3.467 tons).

## Service Refill Capacities

Fuel Tank	530 L	140.0 gal
Cooling System	125 L	33.0 gal
Crankcase	64 L	17.0 gal
Differentials and Final Drives	180 L	47.0 gal
Steering Tank	55 L	14.5 gal
Steering System (includes tank)	87 L	23.0 gal
Brake/Hoist Hydraulic Tank	145 L	38.0 gal
Brake Hoist System	227 L	60.0 gal
Torque Converter/Transmission System	64 L	17.0 gal
Diesel Exhaust Fluid (DEF) Tanks (Tier 4/Stage IV only)	21 L	6.0 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	21.00R33 (E4)
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- Productive capabilities of the 772 truck are such that, under certain job conditions, tons kilometers per hour (TKPH)/tons miles per hour (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.

## ROPS/FOPS

### 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.

# 772 Off-Highway Truck Specifications

## Weight/Payload Calculation – U.S. EPA Tier 4 Final/EU Stage V

FLAT FLOOR						
Machine Weights Based on Configuration	Body	Body + Steel Liner	Body + Rubber Liner	Rubber Liner with 150 mm (5.9 in) Sideboards	Quarry Body Steel	
Floor/Sidewall/Frontwall	mm (in) 16/10/14 (0.62/0.39/0.55)	16/10/14 + 16/8/8 (0.62/0.39/0.55 + 0.62/0.31/0.31)	16/10/14 + 102/8/8 (0.62/0.39/0.55 + 4.01/0.31/0.31)			25/14/16 (0.98/0.55/0.62)
Payload Capacity	m3 (yd3)	31.3 (41.0)	31.0 (40.5)	29.7 (38.9)	32.2 (42.1)	31.1 (40.6)
Floor Thickness	mm (in)	16.0 (0.63)	32.0 (1.26)	102.0 (4.0)	102.0 (4.0)	25.0 (1.0)
Target Gross Machine Weight	kg (lb)	82 100 (180,999)	82 100 (180,999)	82 100 (180,999)	82 100 (180,999)	82 100 (180,999)
Empty Chassis Weight	kg (lb)	26 852 (59,199)	26 852 (59,199)	26 852 (59,199)	26 852 (59,199)	26 852 (59,199)
Body System Weight	kg (lb)	8215 (18,111)	11 450 (25,243)	12 065 (26,599)	12 420 (27,381)	10 555 (23,270)
Empty Machine Weight	kg (lb)	35 067 (77,309)	38 302 (84,441)	38 917 (85,797)	39 272 (86,580)	37 407 (82,468)
Fuel Tank Size	L (gal)	530 (140)	530 (140)	530 (140)	530 (140)	530 (140)
Fuel Tank – 100% Fill	kg (lb)	445 (981)	445 (981)	445 (981)	445 (981)	445 (981)
Empty Operating Weight**	kg (lb)	35 512 (78,291)	38 747 (85,422)	39 362 (86,778)	39 717 (87,561)	37 852 (83,449)
<b>Target Payload*</b>	tonnes (tons)	46.5 (51.4)	43.4 (47.8)	42.7 (47.1)	42.4 (46.7)	44.2 (48.8)
<b>10/10/20 Policy*</b>						
<b>Target Payload (100%)*</b>	kg (lb)	46 588 (102,709)	43 353 (95,577)	42 738 (94,221)	42 383 (93,438)	44 248 (97,550)
	tonnes (tons)	46.5 (51.4)	43.4 (47.8)	42.7 (47.0)	42.3 (46.6)	44.2 (48.7)
<b>Maximum Payload (110% of Target)*</b>	kg (lb)	51 247 (112,980)	43 353 (95,577)	42 738 (94,221)	42 383 (93,438)	44 248 (97,550)
	tonnes (tons)	51.2 (56.4)	47.7 (52.6)	47.0 (51.8)	46.6 (51.4)	48.7 (53.7)
<b>Not to Exceed Payload (120% of Target)*</b>	kg (lb)	55 906 (123,251)	52 024 (114,692)	51 286 (113,065)	50 860 (112,126)	53 098 (117,060)
	tonnes (tons)	55.9 (61.6)	52.0 (57.3)	51.3 (56.5)	50.9 (56.1)	53.0 (58.4)

\*Refer to Caterpillar 10/10/20 Payload Policy.

\*\*Includes weight of all attachments.

Empty chassis weight is figured without fuel.

## Sideboards (Optional)

Height	Volume Add	Weight	Maximum (110%) Material Density**
155 mm 6.0 in	2.5 m <sup>3</sup> 3.4 yd <sup>3</sup>	366 kg 806 lb	1610 kg 2,710 lb

\*Refer to Caterpillar 10/10/20 Payload Policy.

\*\*Based on Quarry body at 90% Body Volume Fill.

**Note:** Empty Chassis Weight is figured without fuel.

### Payload Calculation: Definitions

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

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

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

# 772 Off-Highway Truck Specifications

## Weight/Payload Calculation – U.S. EPA Tier 4 Final/EU Stage V

		DUAL SLOPE	
Machine Weights Based on Configuration		Body	Body + Steel Liner
Floor/Sidewall/Frontwall	mm (in)	16/10/14 (0.62/0.39/0.55)	16/10/14 + 16/8/8 (0.62/0.39/0.55 + 0.62/0.31/0.31)
Payload Capacity	m <sup>3</sup> (yd <sup>3</sup> )	31.2 (40.8)	30.9 (40.4)
Floor Thickness	mm (in)	16.0 (0.63)	32.0 (1.26)
Target Gross Machine Weight	kg (lb)	82 100 (180,999)	82 100 (180,999)
Empty Chassis Weight	kg (lb)	26 852 (59,199)	26 852 (59,199)
Body System Weight	kg (lb)	8030 (17,703)	11 025 (24,306)
Empty Machine Weight	kg (lb)	34 882 (76,902)	37 877 (83,504)
Fuel Tank Size	L (gal)	530 (140)	530 (140)
Fuel Tank – 100% Fill	kg (lb)	445 (981)	445 (981)
Empty Operating Weight**	kg (lb)	35 327 (77,883)	38 322 (84,486)
<b>Target Payload*</b>	tonnes (tons)	46.8 (51.6)	43.8 (48.3)
<b>10/10/20 Policy*</b>			
<b>Target Payload (100%)</b>	kg (lb)	46 773 (103,117)	43 778 (96,514)
	tonnes (tons)	46.8 (51.6)	43.8 (48.3)
<b>Maximum Payload (100% of Target)*</b>	kg (lb)	51 450 (113,428)	48 156 (106,165)
	tonnes (tons)	51.5 (56.8)	48.2 (53.1)
<b>Not to Exceed Payload (120% of Target)*</b>	kg (lb)	56 128 (123,740)	52 534 (115,817)
	tonnes (tons)	56.1 (61.8)	52.5 (57.9)

\*Refer to Caterpillar 10/10/20 Payload Policy.

\*\*Includes weight of all attachments.

Empty chassis weight is figured without fuel.

## Sideboards (Optional)

Height		Volume Add		Weight		Maximum (110%) Material Density**	
155 mm	6.0 in	2.5 m <sup>3</sup>	3.4 yd <sup>3</sup>	366 kg	806 lb	1610 kg	2,710 lb

\*Refer to Caterpillar 10/10/20 Payload Policy.

\*\*Based on Quarry body at 90% Body Volume Fill.

**Note:** Empty Chassis Weight is figured without fuel.

### Payload Calculation: Definitions

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

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

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

# 772 Off-Highway Truck Specifications

## Weight/Payload Calculation – U.S. EPA Tier 3/EU Stage IIIA or U.S. EPA Tier 2/EU Stage II

FLAT FLOOR					
Machine Weights Based on Configuration		Without Liner		Rubber Liner with 155 mm (6 in) Sideboards	Quarry Body
Base: Floor/Sidewall/Frontwall	mm (in)	16/10/14 (0.62/0.39/0.55)	16/10/14 (0.62/0.39/0.55)	16/10/14 (0.62/0.39/0.55)	25/14/16 (0.98/0.55/0.62)
Liner: Floor/Sidewall/Frontwall	mm (in)		16/8/8 (0.62/0.31/0.31)	102/0/0 (4.0/0/0)	
Body Volume	m <sup>3</sup> (yd <sup>3</sup> )	31.3 (41)	31.3 (41)	32.2 (42.1)	31.1 (40.6)
Target Gross Machine Weight	kg (lb)	82 100 (181,000)	82 100 (181,000)	82 100 (181,000)	82 100 (181,000)
Empty Chassis Weight	kg (lb)	26 852 (59,199)	26 852 (59,199)	26 852 (59,199)	26 852 (59,199)
Body System Weight	kg (lb)	8 215 (18,111)	11 450 (25,243)	12 420 (27,382)	10 555 (23,270)
Empty Machine Weight	kg (lb)	35 067 (77,310)	38 302 (84,442)	39 272 (86,580)	37 407 (82,469)
Fuel Tank Size	L (gal)	530 (140)	530 (140)	530 (140)	530 (140)
Fuel Tank – 100% Fill	kg (lb)	445 (981)	445 (981)	445 (981)	445 (981)
Empty Operating Weight	kg (lb)	35 512 (78,291)	38 747 (85,423)	39 717 (97,561)	37 852 (83,450)
<b>Target Payload (100%)*</b>	kg (lb)	46 588 (102,709)	43 353 (95,577)	42 383 (93,439)	44 248 (97,551)
	tonnes (tons)	46.6 (51.4)	43.4 (47.8)	42.4 (46.7)	44.2 (48.8)
<b>Maximum Payload (100% of Target)*</b>	kg (lb)	51 247 (112,980)	47 688 (105,135)	46 621 (102,783)	48 673 (107,306)
	tonnes (tons)	51.2 (56.5)	47.7 (52.6)	46.6 (51.4)	48.7 (53.7)
<b>Not to Exceed Payload (120% of Target)*</b>	kg (lb)	55 906 (123,251)	52 024 (114,693)	50 860 (112,127)	53 098 (117,061)
	tonnes (tons)	55.9 (61.6)	52.0 (57.3)	50.9 (56.1)	53.1 (58.5)

## Sideboards (Optional)

Height	Volume Add	Weight	Maximum (110%) Material Density**
155 mm 6.0 in	2.5 m <sup>3</sup> 3.4 yd <sup>3</sup>	366 kg 806 lb	1610 kg 2,710 lb

\*Refer to Caterpillar 10/10/20 Payload Policy.

\*\*Based on Quarry body at 90% Body Volume Fill.

**Note:** Empty Chassis Weight is figured without fuel.

### Payload Calculation: Definitions

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

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

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

# 772 Off-Highway Truck Specifications

## Weight/Payload Calculation – U.S. EPA Tier 3/EU Stage IIIA or U.S. EPA Tier 2/EU Stage II

DUAL SLOPE			
Machine Weights Based on Configuration		Without Liner	Liner
Base: Floor/Sidewall/Frontwall	mm (in)	16/10/14 (0.62/0.39/0.55)	16/10/14 (0.62/0.39/0.55)
Liner: Floor/Sidewall/Frontwall	mm (in)		16/8/8 (0.62/0.31/0.31)
Body Volume	m <sup>3</sup> (yd <sup>3</sup> )	31.2 (40.8)	30.9 (40.4)
Target Gross Machine Weight	kg (lb)	82 100 (181,000)	82 100 (181,000)
Empty Chassis Weight	kg (lb)	26 852 (59,199)	26 852 (59,199)
Body System Weight	kg (lb)	8030 (17,703)	11 025 (24,306)
Empty Machine Weight	kg (lb)	34 882 (76,902)	37 877 (83,505)
Fuel Tank Size	L (gal)	530 (140)	530 (140)
Fuel Tank – 100% Fill	kg (lb)	445 (981)	445 (981)
Empty Operating Weight	kg (lb)	35 327 (77,883)	38 322 (84,486)
<b>Target Payload (100%)*</b>	kg (lb)	46 773 (103,117)	43 778 (96,514)
	tonnes (tons)	46.8 (51.6)	43.8 (48.3)
<b>Maximum Payload (100% of Target)*</b>	kg (lb)	51 450 (113,429)	48 156 (106,166)
	tonnes (tons)	51.5 (56.7)	48.2 (53.1)
<b>Not to Exceed Payload (120% of Target)*</b>	kg (lb)	56 128 (123,741)	52 534 (115,817)
	tonnes (tons)	56.1 (61.9)	52.5 (57.9)

## Sideboards (Optional)

Height		Volume Add		Weight		Maximum (110%) Material Density**	
155 mm	6.0 in	2.5 m <sup>3</sup>	3.4 yd <sup>3</sup>	366 kg	806 lb	1610 kg	2,710 lb

\*Refer to Caterpillar 10/10/20 Payload Policy.

\*\*Based on Quarry body at 90% Body Volume Fill.

**Note:** Empty Chassis Weight is figured without fuel.

### Payload Calculation: Definitions

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

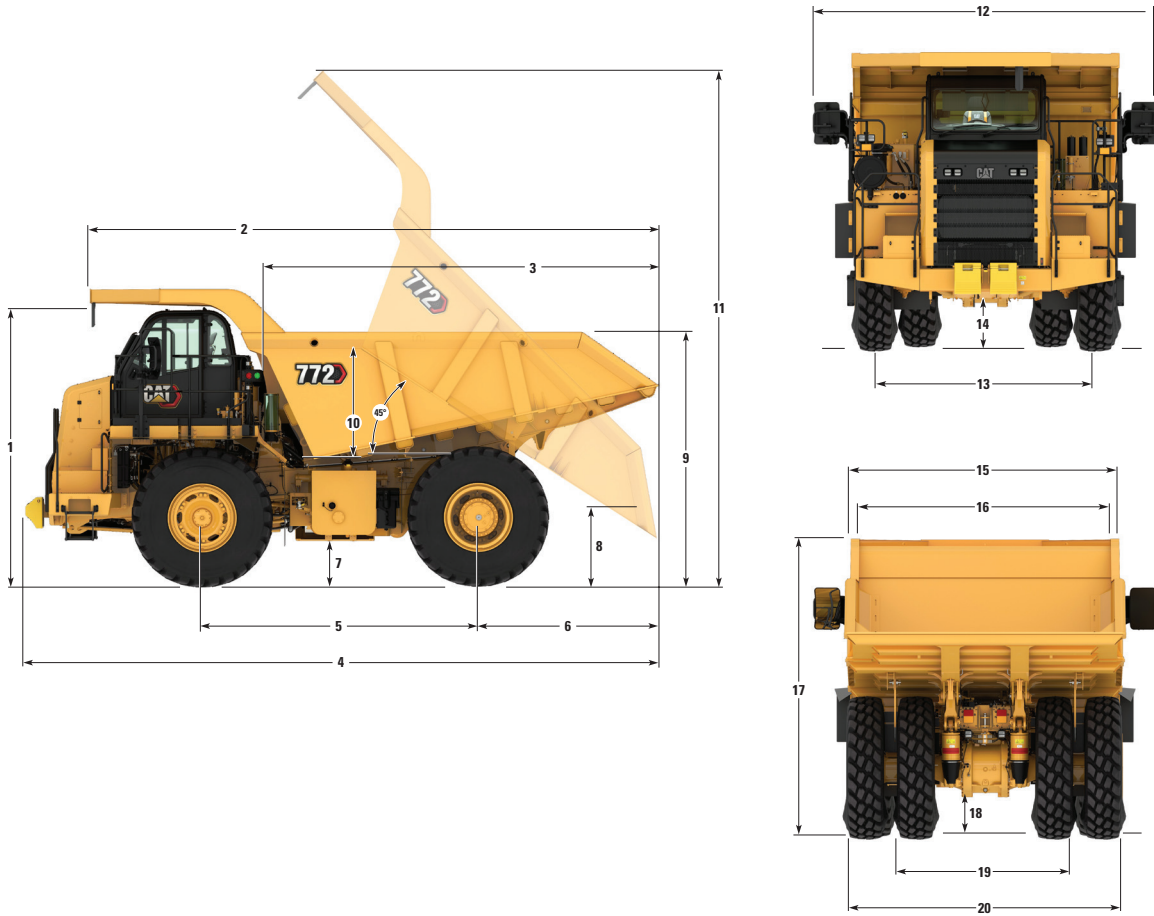
**Target Payload** = Target Gross Machine Weight less Empty Machine Operating Weight

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

# 772 Off-Highway Truck Specifications

## Dimensions

All dimensions are approximate with Dual Slope body.



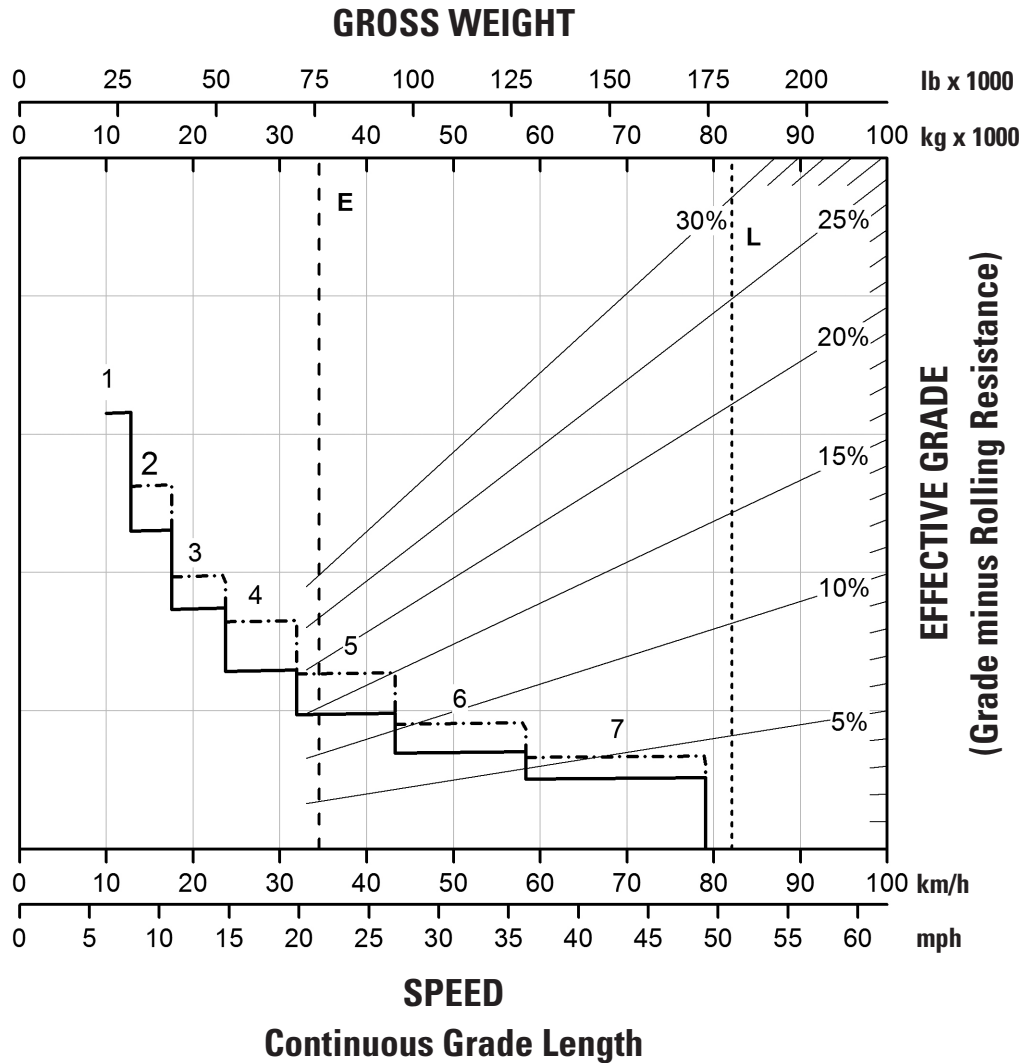
1	Height to Top of ROPS	3907 mm	12.8 ft
2	Overall Body Length	8164 mm	26.8 ft
3	Inside Body Length	5781 mm	19.0 ft
4	Overall Length	8808 mm	28.9 ft
5	Wheelbase	3960 mm	13.0 ft
6	Rear Axle to Tail	2598 mm	8.5 ft
7	Ground Clearance	618 mm	2.0 ft
8	Dump Clearance	562 mm	1.8 ft
9	Loading Height – Empty	3570 mm	11.7 ft
10	Inside Body Depth – Maximum	1747 mm	5.7 ft
11	Overall Height – Body Raised	8257 mm	27.1 ft
12	Operating Width	4780 mm	15.7 ft
13	Centerline Front Tire Width	3165 mm	10.4 ft
14	Engine Guard Clearance	618 mm	2.0 ft
15	Outside Body Width	3931 mm	12.9 ft
16	Inside Body Width	3642 mm	11.9 ft
17	Front Canopy Height	4159 mm	13.6 ft
18	Rear Axle Clearance	572 mm	1.9 ft
19	Centerline Rear Dual Tire Width	2652 mm	8.7 ft
20	Overall Tire Width	3927 mm	12.9 ft



## Retarding Performance – U.S. EPA Tier 4 Final/EU Stage V

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.



**KEY**

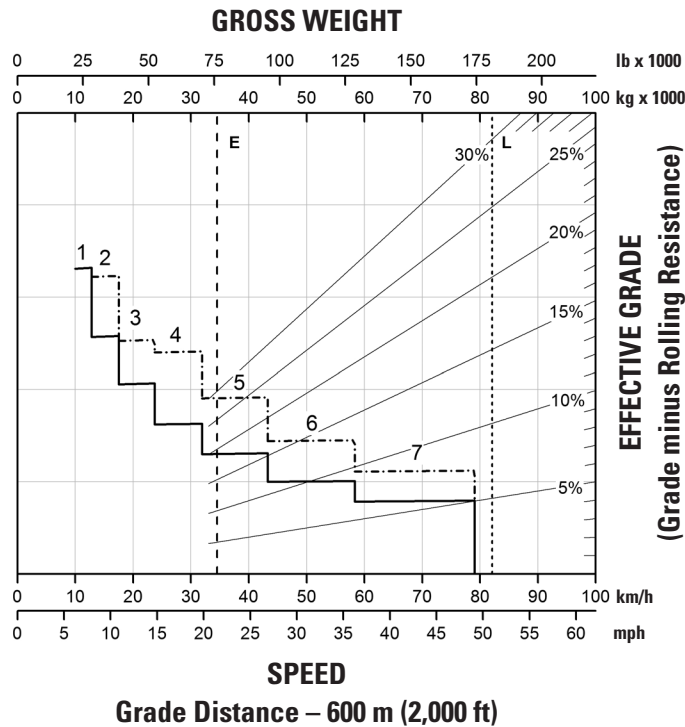
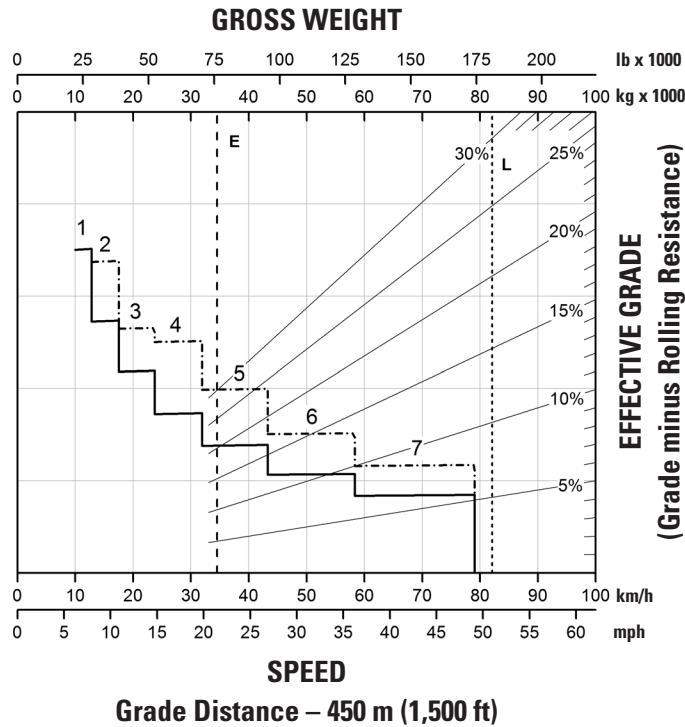
- 1 — 1st Gear
- 2 — 2nd Gear
- 3 — 3rd Gear
- 4 — 4th Gear
- 5 — 5th Gear
- 6 — 6th Gear
- 7 — 7th Gear

**KEY**

- with ARC only
- - - - - ARC and Engine Brake
- E – Typical Field Empty Weight
- L – Target Gross Machine Operating Weight 82 100 kg (181,000 lb)

# 772 Off-Highway Truck Specifications

## Retarding Performance – U.S. EPA Tier 4 Final/EU Stage V



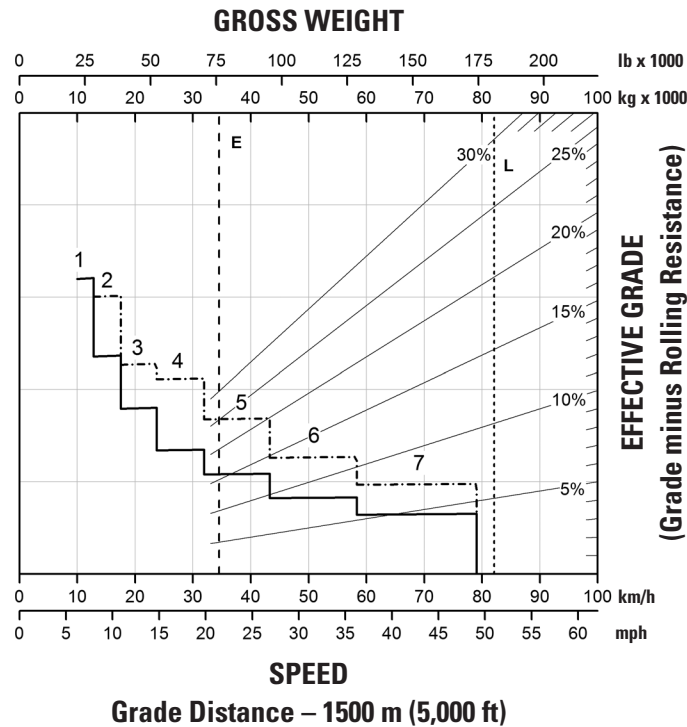
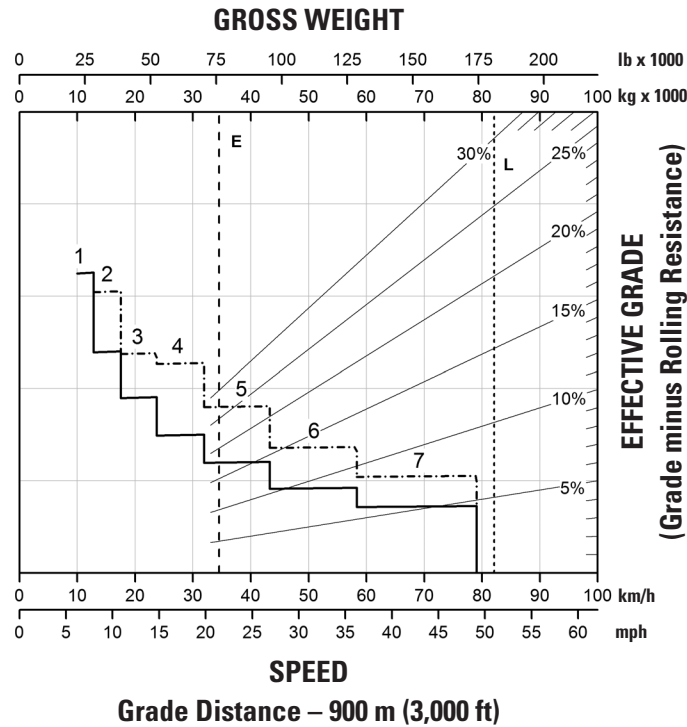
**KEY**

- 1 — 1st Gear
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## Retarding Performance – U.S. EPA Tier 4 Final/EU Stage V



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**KEY**

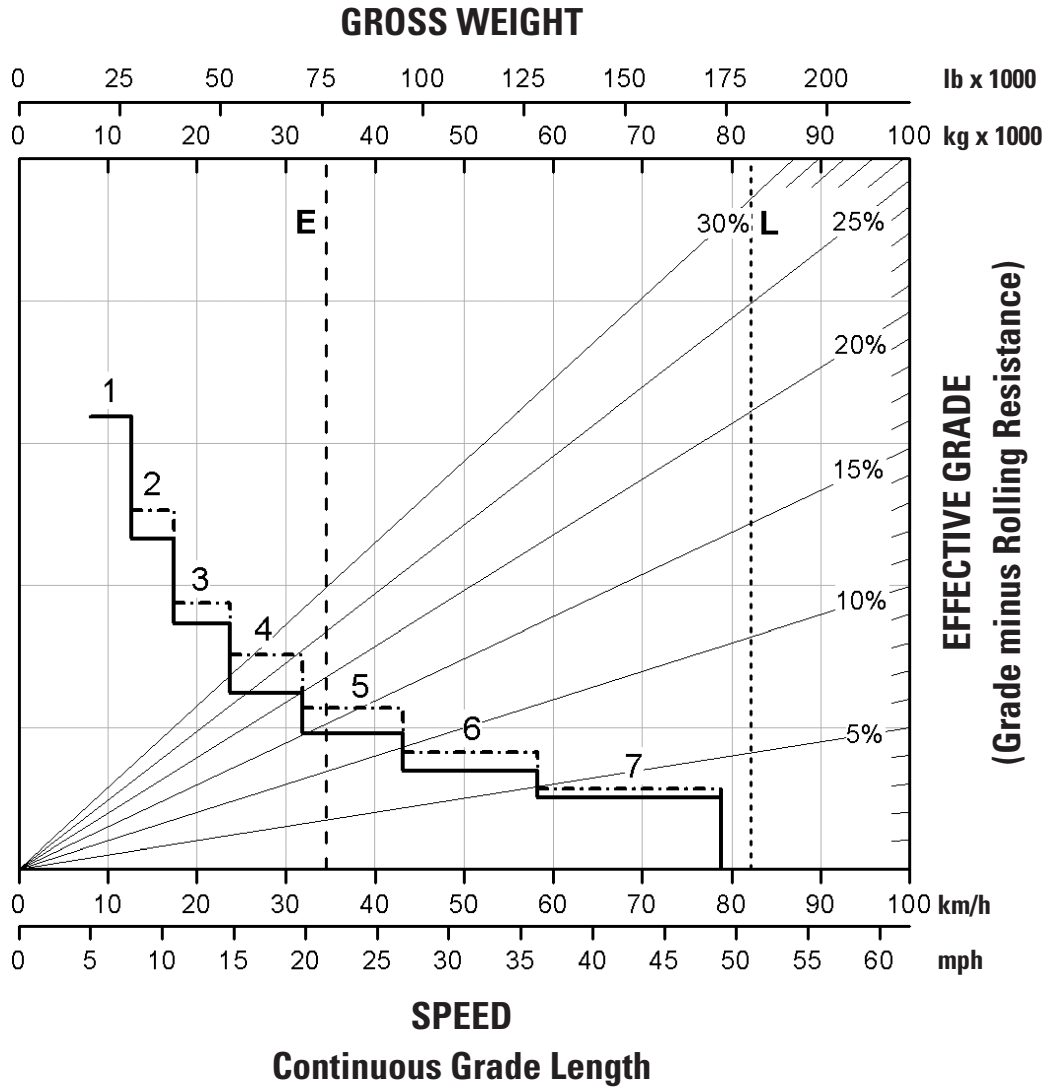
- with ARC only
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- E – Typical Field Empty Weight
- L – Target Gross Machine Operating Weight 82 100 kg (181,000 lb)

# 772 Off-Highway Truck Specifications

## Retarding Performance – U.S. EPA Tier 3/EU Stage IIIA or U.S. EPA Tier 2/EU Stage II

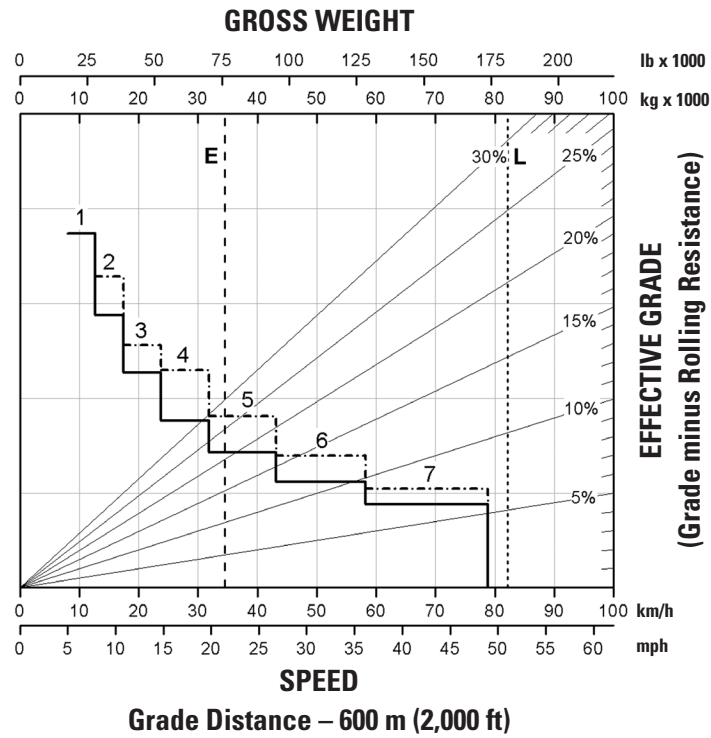
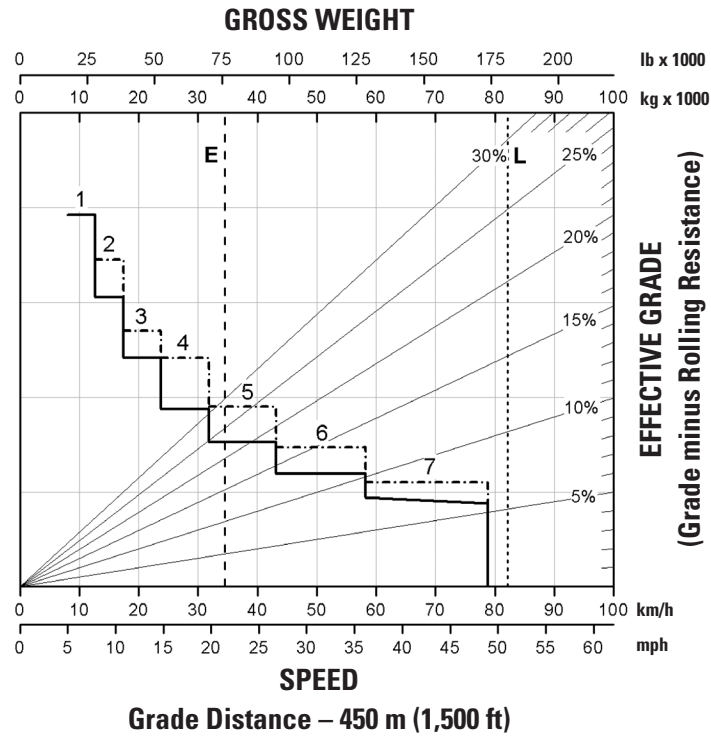
To determine retarding performance: Add lengths of all downhill segments and, using this total, refer to proper retarding chart. Read from gross weight down to the percent effective grade. Effective grade equals actual % grade minus 1% for each 10 kg/t (20 lb/ton) of rolling resistance. From this weight-effective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



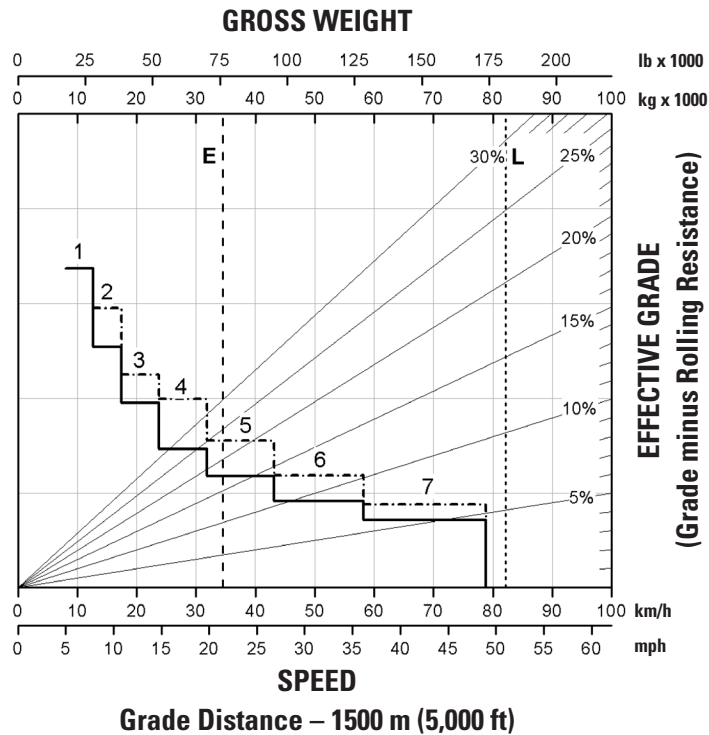
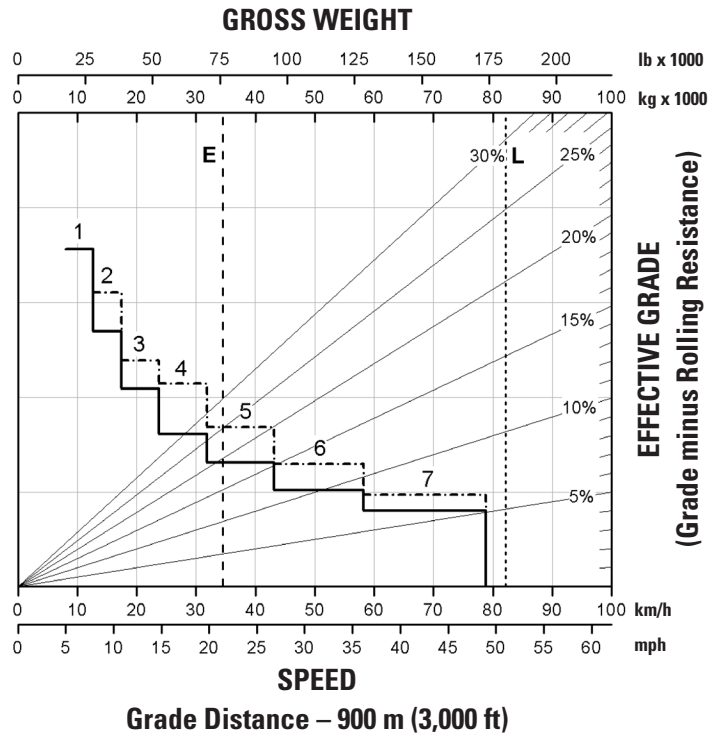
# 772 Off-Highway Truck Specifications

Retarding Performance – U.S. EPA Tier 3/EU Stage IIIA or U.S. EPA Tier 2/EU Stage II



# 772 Off-Highway Truck Specifications

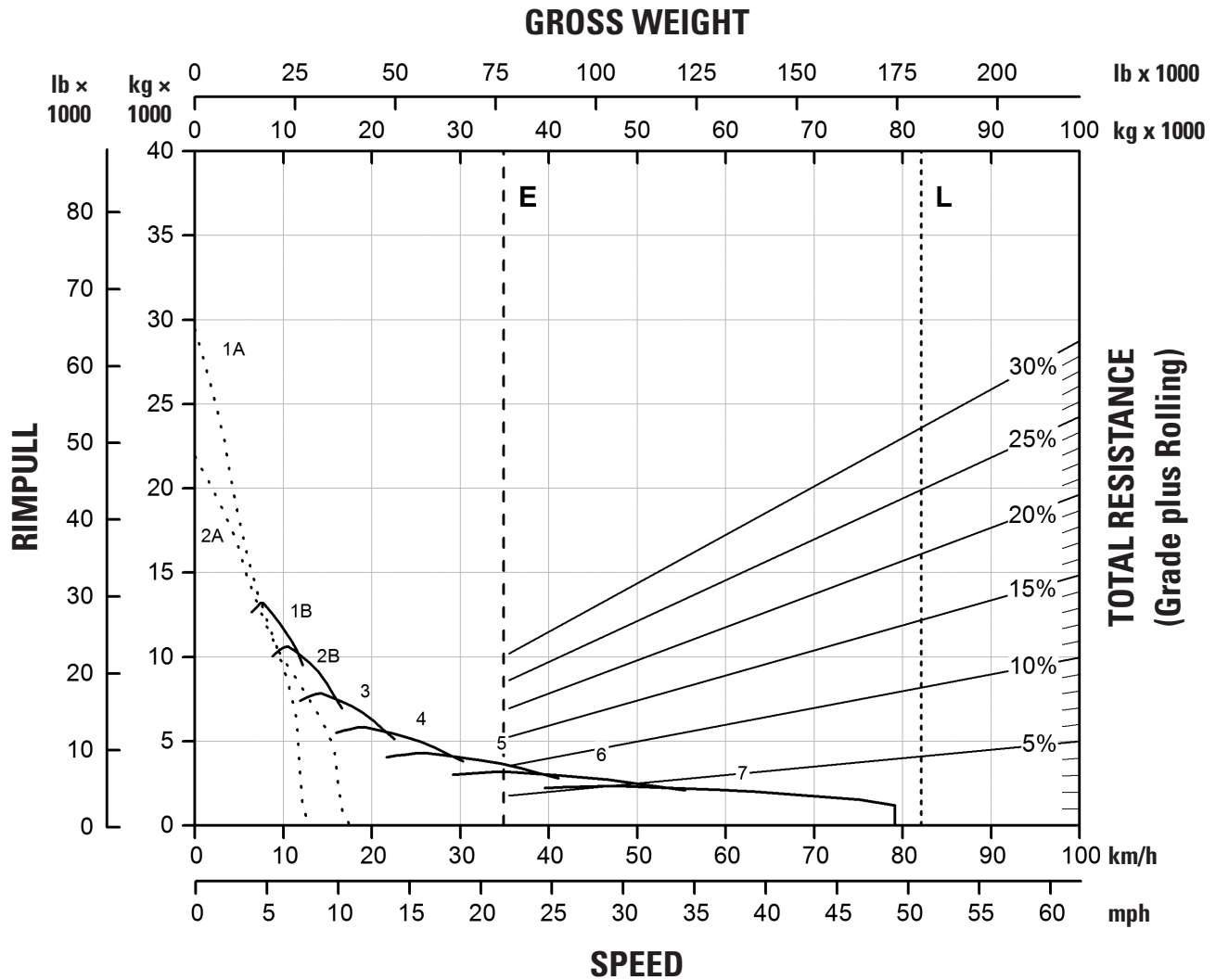
Retarding Performance – U.S. EPA Tier 3/EU Stage IIIA or U.S. EPA Tier 2/EU Stage II



# 772 Off-Highway Truck Specifications

## Gradeability/Speed/Rimpull – U.S. EPA Tier 4 Final/EU Stage V

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.



**KEY**

- 1A — 1st Gear (Torque Converter)
- 1B — 1st Gear
- 2A — 2nd Gear (Torque Converter)
- 2B — 2nd Gear
- 3 — 3rd Gear
- 4 — 4th Gear
- 5 — 5th Gear
- 6 — 6th Gear
- 7 — 7th Gear

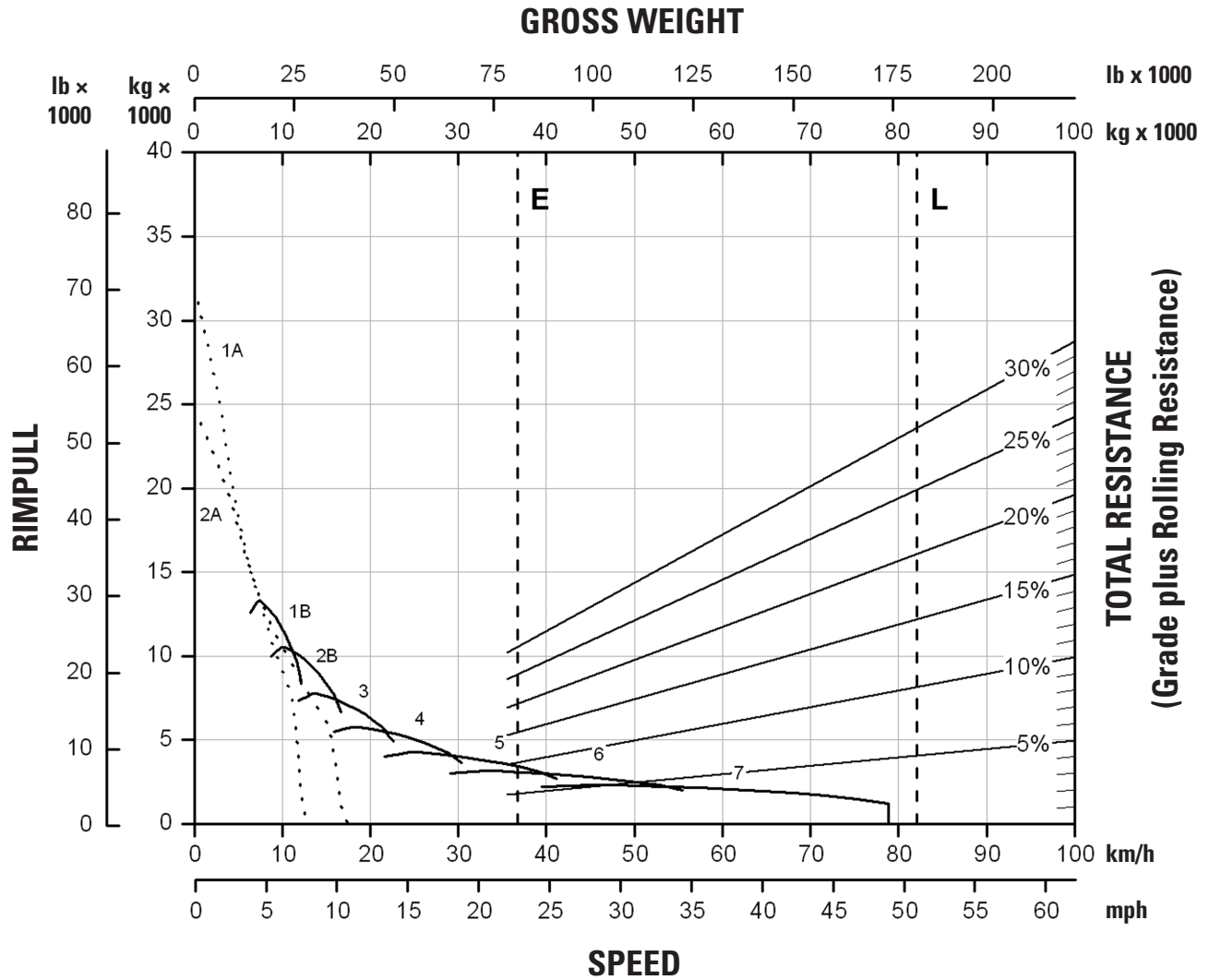
**KEY**

- with ARC only
- - - - - ARC and Engine Brake
- E – Typical Field Empty Weight
- L – Target Gross Machine Operating Weight 82 100 kg (181,000 lb)

# 772 Off-Highway Truck Specifications

## Gradeability/Speed/Rimpull – U.S. EPA Tier 3/EU Stage IIIA or U.S. EPA Tier 2/EU Stage II

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.





# 772 Off-Highway Truck Standard and Optional Equipment

## Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
<b>POWERTRAIN</b>			<b>OPERATOR ENVIRONMENT</b>		
Air cleaner with precleaner (1)	✓		Advisor display	✓	
Air-to-Air Aftercooler (ATAAC)	✓		Air conditioning	✓	
Automatic cold mode idle control	✓		Ashtray and cigarette lighter	✓	
Auto neutral idle	✓		Coat hook	✓	
Auto stall	✓		Cup holders (4)	✓	
Braking system, hydraulic actuated: Automatic Retarder Control (ARC) (utilizes rear oil-cooled, multiple disc brakes), brake release motor (towing), caliper-disc (front), extended life brakes, oil-cooled – multiple disc (rear), parking, secondary, service	✓		Diagnostic connection port, 24V	✓	
Brake wear indicator (Tier 4 only)	✓		Economy modes, standard and adaptive	✓	
Brake wear indicator (Tier 3/2 only)		✓	Entertainment radio ready: 5 amp converter, speakers, antenna, wiring harness	✓	
Cat® C18 Diesel Engine	✓		Fluid level monitoring (Tier 4 only)	✓	
Cat engine brake		✓	Fluid level monitoring (Tier 3/2 only)		✓
Electric start	✓		Gauges/indicators: air filter service indicator – electronic, brake oil temperature gauge, coolant temperature gauge, hour meter, tachometer, engine overspeed indicator, fuel level, speedometer with odometer, transmission gear indicator	✓	
Engine idle shutdown	✓		Heater/defroster (11 070 kCal/43,930 BTU)	✓	
Global off-highway aluminum radiator start	✓		Hoist lever	✓	
Second gear start	✓		Horn, electric	✓	
Transmission: 7-Speed automatic powershift with electronic clutch pressure control with APECS (Advanced productivity electronic control strategy), 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	✓		Lights: courtesy, dome	✓	
Turbocharger	✓		Lights, Halogen		✓
<b>ELECTRICAL</b>			Mirrors	✓	
Alarm, backup	✓		Mirrors, heated		✓
Alternator, 115 ampere	✓		Power port, 12V	✓	
Auxiliary jump start receptacle	✓		Visibility package (WAVS)		✓
Batteries, maintenance-free, 12V (2), 190 amp-hour	✓		ROPS cab, insulated/sound suppressed	✓	
Electrical system, 24V	✓		Seat, Full air suspension, 4 point seat belt with shoulder harness	✓	
Lighting system: backup light, directional signals/hazard warning (front and rear LED), LED headlights with dimmer, operator access courtesy lights	✓		Steering wheel – padded, tilt, and telescopic	✓	
			Storage compartment	✓	
			Sun visor, tinted glass	✓	
			Throttle lock	✓	
			Windshield wiper (intermittent) and washer	✓	
			<b>TECHNOLOGY PRODUCTS</b>		
			Product Link™		✓
			Product Link ready	✓	
			Traction Control System (TCS)		✓

# 772 Off-Highway Truck Standard and Optional Equipment

## Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
<b>OTHER</b>			<b>OTHER (CONTINUED)</b>		
Auto lube		✓	Guard, mud		✓
Backup alarm		✓	Ground level battery disconnect		✓
Body: Flat Floor, Quarry, Dual Slope		✓	Ground level engine shutdown		✓
Body heat/diverter box		✓	Ground level grease fittings		✓
Body down indicator	✓		Rear Vision Camera (WAVS)		✓
Body safety pin (secures body in up position)	✓		Reservoirs (separate): brake/converter/hoist, steering, transmission/torque converter		✓
Body sideboards/liner		✓	Rims 15 x 33		✓
Clustered/auto lube		✓	Rock ejectors		✓
Coolant heater		✓	Service platform, left and right side		✓
Ether aid		✓	Supplemental steering (automatic)		✓
Extended life coolant to -35° C (-30° F)	✓		Suspension, front and rear		✓
Fan, hydraulic demand	✓		Spare rims		✓
Four (4) batteries (Tier 3 and Tier 2 only)		✓	Tie down eyes		✓
Fuel heater		✓	Tow hooks, front/tow pin, rear		✓
Fuel tank (530 L/140 gal)	✓		Wheel chocks		✓
Guard, driveline		✓	Vandalism protection locks		✓
Guard, engine compartment		✓			
Guard, engine crankcase		✓			

The following information applies to the machine at the time of final manufacture as configured for sale in the regions covered in this document. The content of this declaration is valid as of the date issued; however, content related to machine features and specifications are subject to change without notice. For additional information, please see the machine's Operation and Maintenance Manual.

For more information on sustainability in action and our progress, please visit <https://www.caterpillar.com/en/company/sustainability>.

## Engine

- The Cat® C18 engine is available in configurations that meet U.S. EPA Tier 4 Final and EU Stage V emission standards or equivalent to U.S. EPA Tier 2.
- Cat U.S. EPA Tier 4 Final and EU Stage V diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels up to:
  - ✓ 20% biodiesel FAME (fatty acid methyl ester)\*
  - ✓ 100% renewable diesel, HVO (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels
- Cat engines equivalent to U.S. EPA Tier 3 and Tier 2 are compatible with diesel fuel blended with the following lower-carbon intensity fuels up to:
  - ✓ 100% biodiesel FAME (fatty acid methyl ester)\*\*
  - ✓ 100% renewable diesel, HVO (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels

Refer to guidelines for successful application. Please consult your Cat dealer or "Caterpillar Machine Fluids Recommendations" (SEBU6250) for details.

\*Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel.

\*\*For use of blends higher than 20% biodiesel, consult your Cat dealer.

## Air Conditioning System

- The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 2.2 kg (4.84 lb) of refrigerant which has a CO<sub>2</sub> equivalent of 3.15 metric tonnes (3.467 tons).

## Paint

- Based on best available knowledge, the maximum allowable concentration, measured in parts per million (PPM), of the following heavy metals in paint are:
  - Barium < 0.01%      – Chromium < 0.01%
  - Cadmium < 0.01%    – Lead < 0.01%

## Sound Performance – Tier 4 Final/Stage V

Operator Sound Level (ISO 6396:2008)	78 dB(A)
Machine Sound Level (ISO 6395:2008)	118 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 percent 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 percent of the maximum engine cooling fan speed.

## Sound Performance – Tier 2 Equivalent

Operator Sound Level (ISO 6396:2008)	81 dB(A)
Machine Sound Level (ISO 6395:2008)	117 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 percent 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 percent of the maximum engine cooling fan speed.

## Oils and Fluids

- Caterpillar factory fills with ethylene glycol coolants. Cat Diesel Engine Antifreeze/Coolant (DEAC) and Cat Extended Life Coolant (ELC) can be recycled. Consult your Cat dealer for more information.
- Cat Bio HYDO Advanced is an EU Ecolabel approved biodegradable hydraulic oil.
- Additional fluids are likely to be present, please consult the Operations and Maintenance Manual or the Application and Installation guide for complete fluid recommendations and maintenance intervals.

## Features and Technology

- The following features and technology may contribute to fuel savings and/or carbon reduction. Features may vary. Consult your Cat dealer for details.
  - Automatically optimize fuel consumption with two fuel economy modes: standard and adaptive
  - Adjustable engine idle shutdown conserves fuel when the truck is in park and idle for a preset amount of time
  - Haul at a more fuel-efficient engine speed and gear selection with speed limiting
  - Traction control system modulates power and braking between the two wheel groups, allowing a more appropriate response to ground conditions
  - Longer service life for hydraulic oil filter provides longer life with a 1,000-hour replacement interval

## Recycling

- The materials included in machines are categorized as below with approximate weight percentage. Because of variations of product configurations, the following values in the table may vary.

Material Type	Weight Percentage
Steel	77.75%
Iron	11.30%
Nonferrous Metal	2.08%
Mixed Metal	2.09%
Mixed Metal and Nonmetal	3.10%
Plastic	0.79%
Rubber	0.90%
Mixed Nonmetallic	0.03%
Fluid	0.63%
Other	0.70%
Uncategorized	0.63%
Total	100%

- A machine with higher recyclability rate will ensure more efficient usage of valuable natural resources and enhance end-of-life value of the product. According to ISO 16714 (Earthmoving machinery – Recyclability and recoverability – Terminology and calculation method), recyclability rate is defined as percentage by mass (mass fraction in percent) of the new machine potentially able to be recycled, reused, or both.

All parts in the bill of material are first evaluated by component type based on a list of components defined by the ISO 16714 and Japan CEMA (Construction Equipment Manufacturers Association) standards. Remaining parts are further evaluated for recyclability based on material type.

Because of variations of product configurations, the following value in the table may vary.

Recyclability – 96%



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).

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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Build number: 7B  
(Global)

