

770G Off-Highway Truck

Weight/Payload Calculation

770G – Flat Floor		362-8600 Body	362-8601 Body + Steel Liner	362-8602 Body + Rubber Liner	362-8602* Rubber Liner with 150 mm (5.9 in) Side Boards	362-8650 Quarry Body Steel
Floor/Sidewall/Frontwall		16/10/12 mm (0.62/0.39/0.47 in)	16/10/12 + 16/8/8 mm (0.62/0.39/0.47 + 0.62/0.31/0.31 in)	16/10/12 + 102/8/8 mm (0.62/0.39/0.47 + 4.01/0.31/0.31 in)		25/14/16 mm (0.98/0.55/0.62 in)
Payload Capacity		25.2 m³ (33.0 yd³)	24.9 m³ (32.6 yd³)	23.6 m³ (30.9 yd³)	26.1 m³ (34.1 yd³)	24.9 m³ (32.6 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)	71 214 (157,000)	71 214 (157,000)	71 214 (157,000)	71 214 (157,000)	71 214 (157,000)
Empty Chassis Weight	kg (lb)	24 455 (53,913)	24 455 (53,913)	24 455 (53,913)	24 455 (53,913)	24 455 (53,913)
Body System Weight	kg (lb)	7850 (17,306)	10 790 (23,788)	11 405 (25,143)	11 770 (25,948)	10 095 (22,255)
Empty Machine Weight	kg (lb)	32 305 (71,220)	35 245 (77,701)	35 860 (79,057)	36 255 (79,862)	34 550 (76,169)
Attachments						
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)	32 750 (72,202)	35 690 (78,682)	36 305 (80,038)	36 670 (80,842)	34 995 (77,152)
Target Payload*	kg (lb)	38 464 (84,798)	35 524 (78,318)	34 909 (76,961)	34 544 (76,156)	36 219 (79,848)
Target Payload*	tonnes (tons)	38.5 (42.4)	35.5 (39.2)	34.9 (38.5)	34.5 (38.1)	36.2 (39.9)
10/10/20 Policy*						
Nominal Payload – 100%	kg (lb)	38 464 (84,798)	35 524 (78,316)	34 909 (76,961)	34 544 (76,156)	36 219 (79,848)
Maximum Working Payload – 110%	kg (lb)	42 311 (93,278)	39 077 (86,148)	38 400 (84,657)	37 999 (83,772)	39 841 (87,834)
Not to Exceed Payload – 120%	kg (lb)	46 147 (101,758)	42 629 (93,980)	41 891 (92,353)	41 453 (91,387)	43 463 (95,818)
Maximum Gross Machine Weight*	kg (lb)	78 907 (173,958)	78 319 (172,662)	78 196 (172,391)	78 123 (172,230)	78 458 (172,968)

770G – Dual Slope		362-8610 Body	362-8611 Body + Steel Liner	362-8612 Tail Liner – Rear
Floor/Sidewall/Frontwall		16/10/12 mm (0.62/0.39/0.47 in)	16/10/12 + 16/8/8 mm (0.62/0.39/0.47 + 0.62/0.31/0.31 in)	16/10/12 + 16/8/0 mm (0.62/0.39/0.47 + 0.62/0.31/0 in)
Payload Capacity		25.2 m³ (33.0 yd³)	24.8 m³ (32.4 yd³)	25.1 m³ (32.8 yd³)
Floor Thickness		16 mm (0.630 in)	32 mm (1.26 in)	32 mm (1.26 in)
Target Gross Machine Weight	kg (lb)	71 214 (157,000)	71 214 (157,000)	71 214 (157,000)
Empty Chassis Weight	kg (lb)	24 455 (53,913)	24 455 (53,913)	24 455 (53,913)
Body System Weight	kg (lb)	7665 (16,898)	10 560 (23,281)	8634 (19,034)
Empty Machine Weight	kg (lb)	32 120 (70,812)	35 015 (77,194)	33 089 (72,948)
Attachments				
Fuel Tank Size	L (gal)	529 (140)	529 (140)	529 (140)
Fuel Tank – 100% Fill	kg (lb)	445 (983)	445 (983)	445 (983)
Empty Operating Weight**	kg (lb)	32 565 (71,793)	35 460 (78,175)	33 534 (73,929)
Target Payload*	kg (lb)	38 649 (85,207)	35 754 (78,824)	37 680 (83,071)
Target Payload*	tonnes (tons)	38.6 (42.6)	35.7 (39.4)	37.7 (41.5)
10/10/20 Policy*				
Nominal Payload – 100%	kg (lb)	38 649 (85,206)	35 754 (78,824)	37 680 (83,070)
Maximum Working Payload – 110%	kg (lb)	42 514 (93,726)	39 330 (86,706)	41 448 (91,377)
Not to Exceed Payload – 120%	kg (lb)	46 379 (102,247)	42 905 (94,588)	45 216 (99,683)
Maximum Gross Machine Weight*	kg (lb)	78 944 (174,040)	78 365 (172,763)	78 750 (173,612)

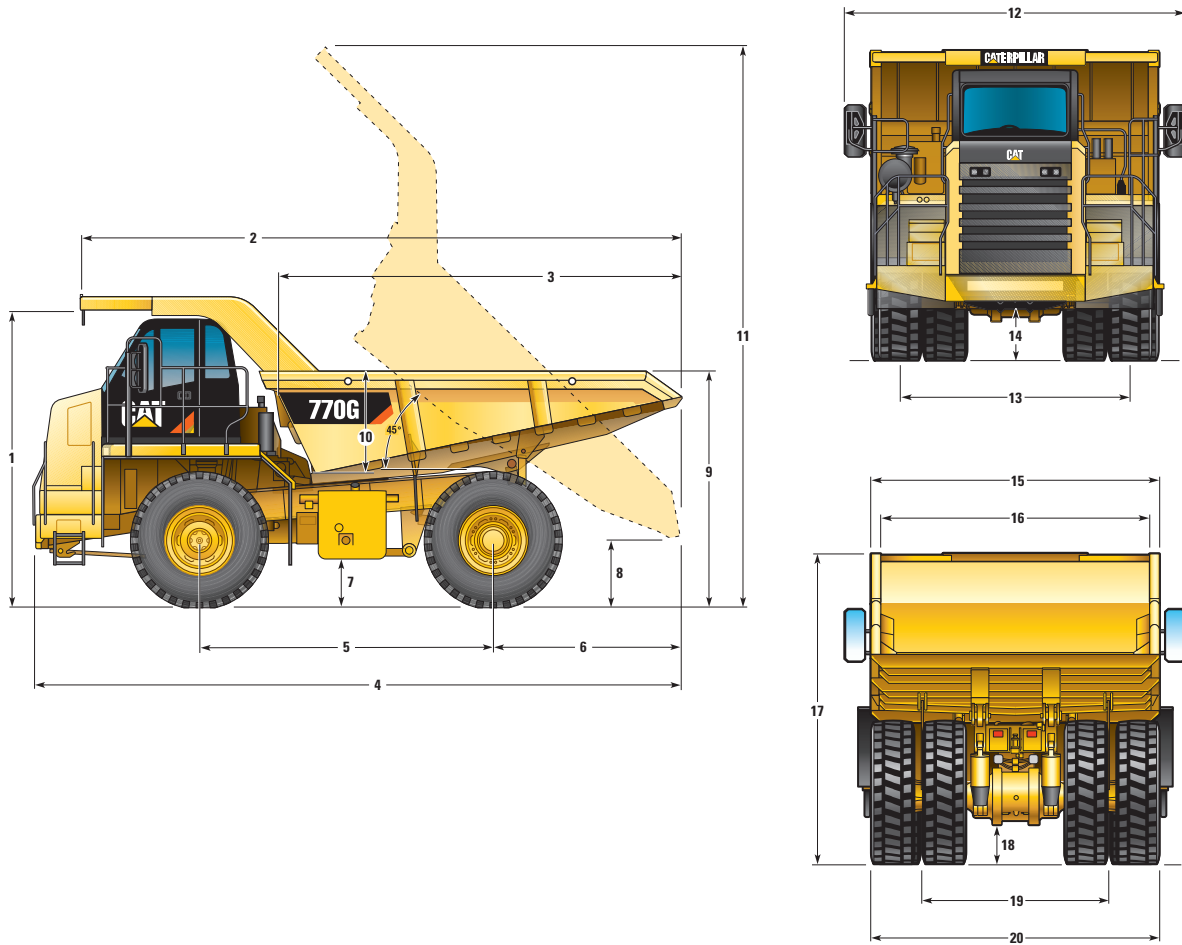
*Refer to Caterpillar 10/10/20 overload policy.

**Includes weight of all attachments.

770G Off-Highway Truck

Dimensions

All dimensions are approximate.



1	Height to Top of ROPS	3958 mm	12.9 ft
2	Overall Body Length	8165 mm	26.7 ft
3	Inside Body Length	5635 mm	18.4 ft
4	Overall Length	8796 mm	28.8 ft
5	Wheelbase	3960 mm	12.9 ft
6	Rear Axle to Tail	2586 mm	8.4 ft
7	Ground Clearance	641 mm	2.1 ft
8	Dump Clearance	535 mm	1.7 ft
9	Loading Height – Empty	3230 mm	10.6 ft
10	Inside Body Depth – Maximum	1390 mm	4.5 ft
11	Overall Height – Body Raised	8280 mm	27.1 ft
12	Operating Width	4780 mm	15.6 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	11.9 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

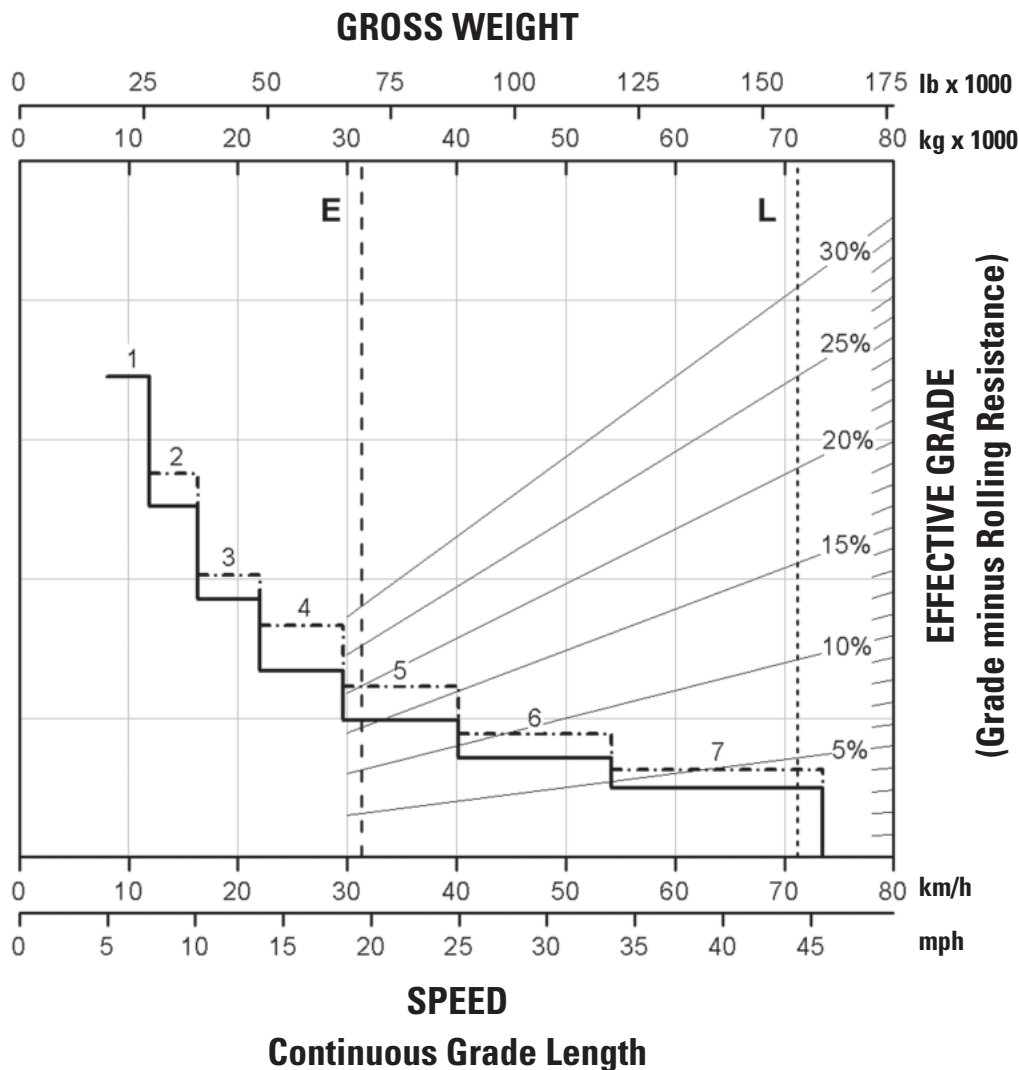
770G Off-Highway Truck

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.

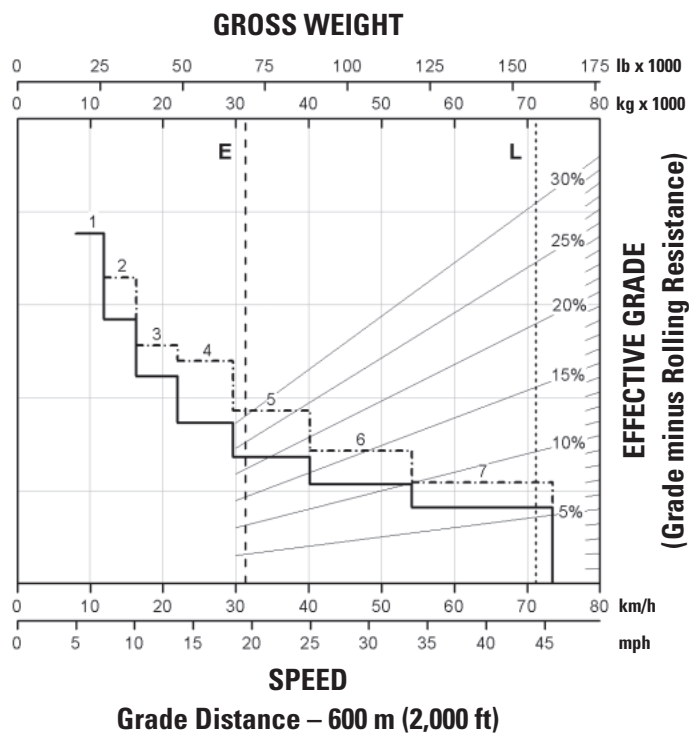
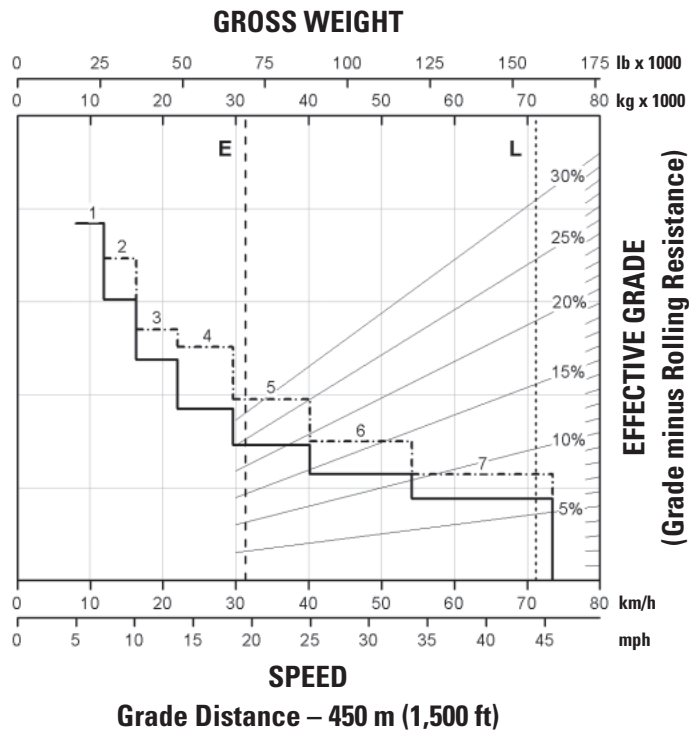
NOTE: Select the proper gear to maintain engine rpm at the highest possible level, without overspeeding the engine.

If cooling oil overheats, reduce ground speed to allow transmission to shift to the next lower speed range.



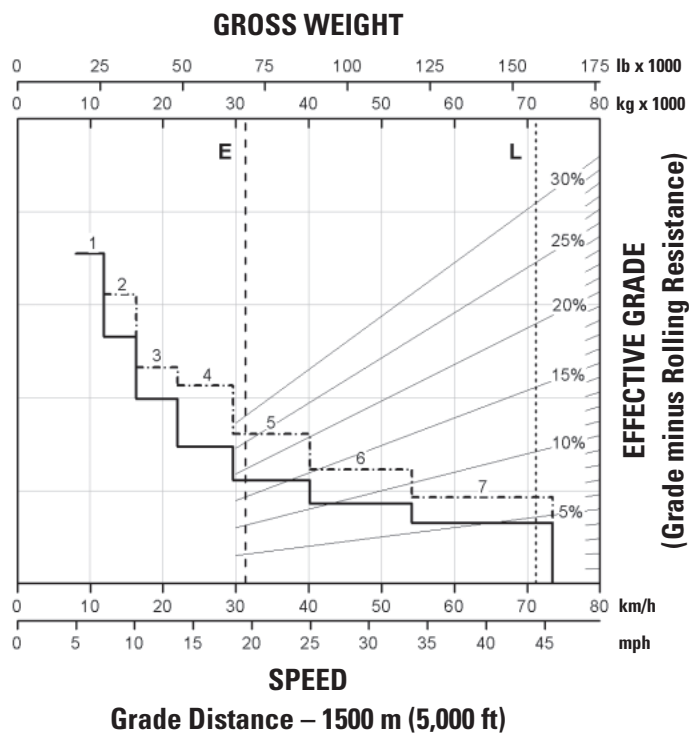
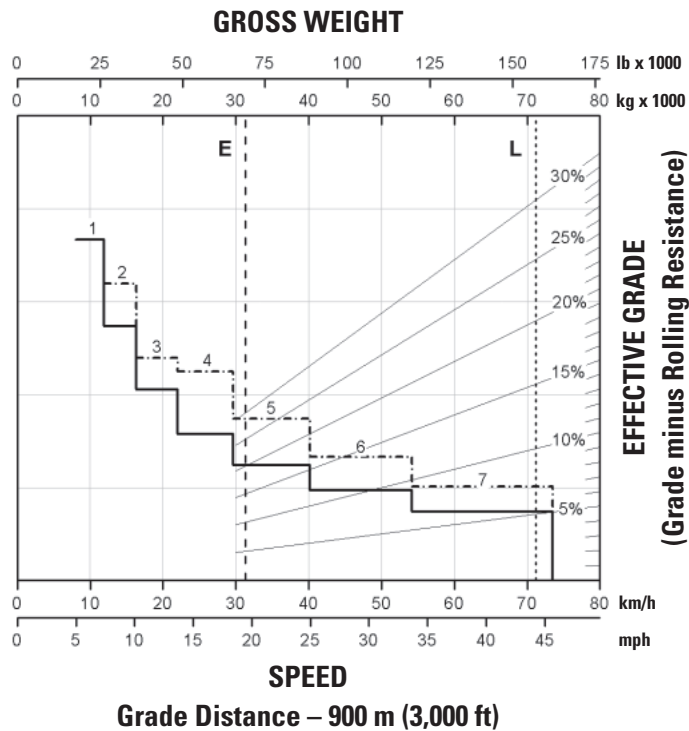
770G Off-Highway Truck

Retarding Performance



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770G Off-Highway Truck

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.

