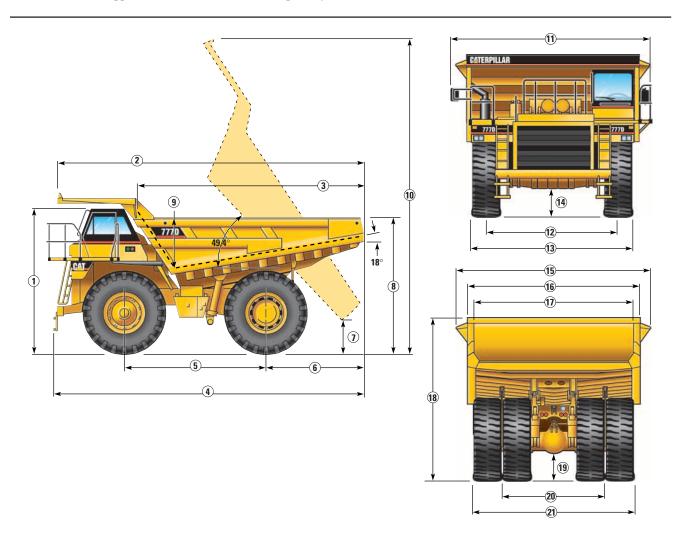
# 777D Off-Highway Truck

## **Dimensions**

All dimensions are approximate. (Shown with dual slope body)



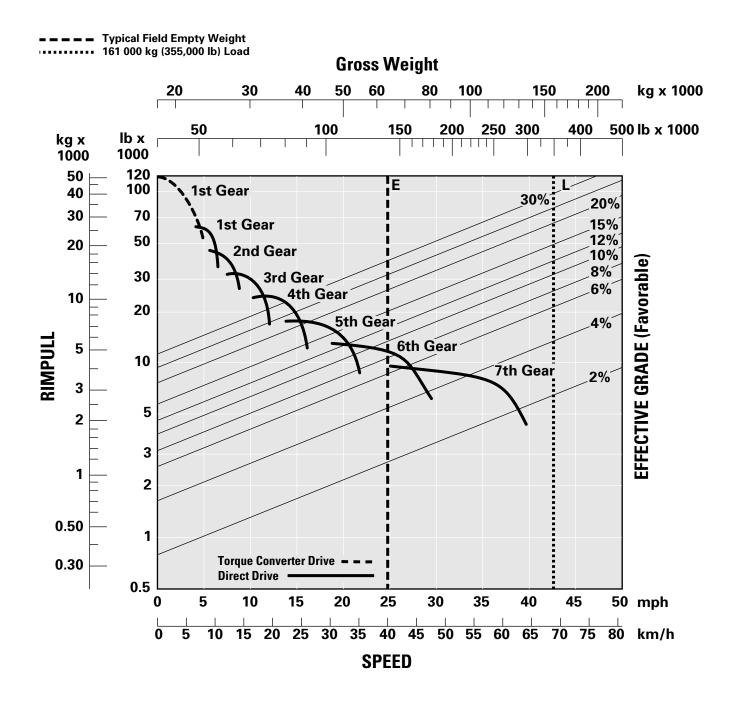
		Dual S	lope	Flat Floor		
1	Height to Top of ROPS - Full	4472 mm	14 ft 8 in	4472 mm	14 ft 8 in	
1	Height to Top of ROPS - Empty	4567 mm	15 ft	4567 mm	15 ft	
2	Overall Body Length	9525 mm	31 ft 3 in	9581 mm	31 ft 5 in	
3	Inside Body Length	7234 mm	23 ft 9 in	6797 mm	22 ft 3 in	
4	Overall Length	9780 mm	32 ft 1 in	9780 mm	32 ft 1 in	
5	Wheelbase	4570 mm	15 ft	4570 mm	15 ft	
6	Rear Axle to Tail	3020 mm	9 ft 11 in	2968 mm	9 ft 9 in	
7	Dump Clearance - Empty	1164 mm	3 ft 10 in	1128 mm	3 ft 8 in	
7	Dump Clearance - Loaded	1062 mm	3 ft 6 in	1026 mm	3 ft 4 in	
8	Loading Height - Empty	4380 mm	14 ft 4 in	4571 mm	15 ft	
9	Inside Body Depth - Max	1898 mm	6 ft 3 in	1959 mm	6 ft 5 in	
10	Overall Height - Body Raised	10 059 mm	33 ft	10 094 mm	33 ft 1 in	

		Dual S	lope	Flat Floor			
11	Operating Width	6105 mm	20 ft	6105 mm	20 ft		
12	Centerline Front Tire Width	4173 mm	13 ft 8 in	4173 mm	13 ft 8 in		
13	Overall Front Tire Width	4961 mm	16 ft 3 in	4961 mm	16 ft 3 in		
14	Engine Guard Clearance - Empty	700 mm	2 ft 4 in	700 mm	2 ft 4 in		
15	Overall Canopy Width	6048 mm	19 ft 10 in	6099 mm	20 ft		
16	Outside Body Width	5524 mm	18 ft 2 in	5524 mm	18 ft 2 in		
17	Inside Body Width	5200 mm	17 ft 1 in	5200 mm	17 ft 1 in		
18	Front Canopy Height - Empty	5147 mm	16 ft 10 in	5185 mm	17 ft		
18	Front Canopy Height - Loaded	5045 mm	5045 mm 16 ft 6 in 5083 m		16 ft 8 in		
19	Rear Axle Clearance - Empty	750 mm	2 ft 6 in	750 mm	2 ft 6 in		
20	Centerline Rear Dual Tire Width	3576 mm	11 ft 9 in	3576 mm	11 ft 9 in		
21	Overall Rear Dual Tire Width	5262 mm	17 ft 3 in	5262 mm	17 ft 3 in		

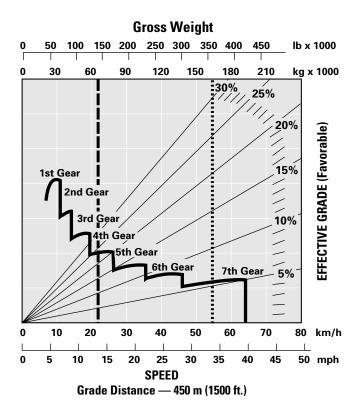
### **Gradeability/Speed/Rimpull**

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.

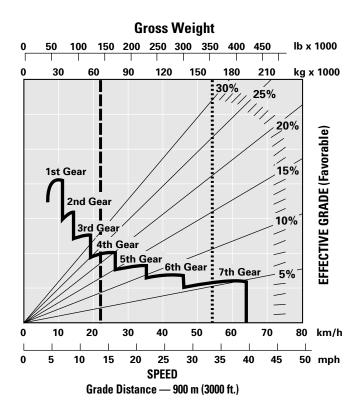


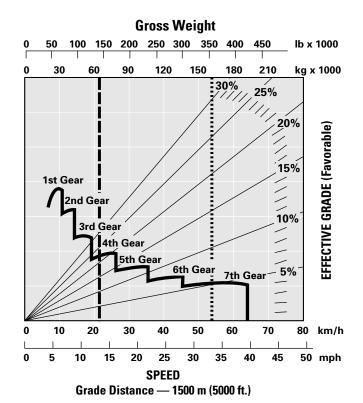
### **Retarding Performance**



**Gross Weight** 50 100 150 200 250 300 350 400 450 lb x 1000 30 60 90 120 150 180 210 kg x 1000 30% 25% 20% EFFECTIVE GRADE (Favorable) . 15% 1st Gear 2nd Gear 10% 3rd Gear 4th Gear 5th Gear 6th Gear 7th Gear 5% 10 20 30 40 50 60 70 80 km/h 0 5 10 15 20 25 30 35 40 50 mph 45 **SPEED** Grade Distance — 600 m (2000 ft.)

### **Retarding Performance**





#### 777D Off-Highway Truck

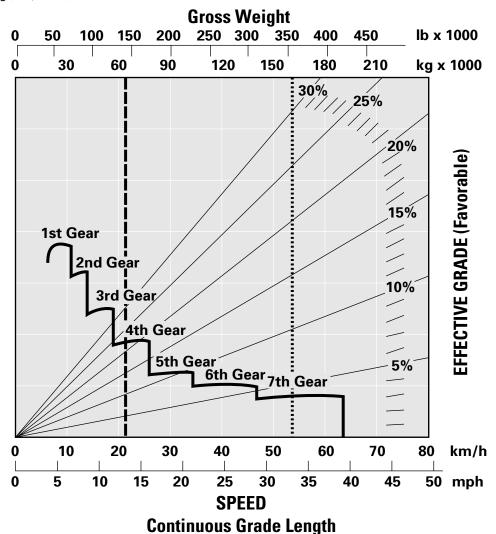
#### **Retarding Performance**

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 27.00-R49 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.

Typical Field Empty Weight
Gross Machine Operating Weight
161 000 kg (355,000 lb)



### 777D Off-Highway Truck

### **Optional Equipment**

With approximate changes in operating weights.

Optional equipment may vary. Consult your Caterpillar Dealer for specifics.

	kg	lb	
Air Conditioning 90			
Automatic Retarder Control (ARC), dry/wet	5.9	13	
Body Liners <sup>1</sup>			
Dual Slope	5493	12,110	
Flat Floor	5584	12,231	
Engine Prelubrication	44	98	
Integrated Braking Control <sup>2</sup> (IBC), dry/wet	56	123	

	kg	lb
Muffler	175	385
Muffler/Exhaust Diverter	188	415
Oil Change System, high speed, Wiggins	2.3	5
Starting System <sup>3</sup> , low temperature	170	375
Starting Aid, heater, engine coolant, 120V/240V	2.3	5
Traction Control System (TCS)	50	110
Truck Production Management System	45	100

<sup>&</sup>lt;sup>1</sup> Minimum yield strength 9207 bar/900 mPa (13,000 psi). 16 mm (0.63 in) floor, 8 mm (0.31 in) front and sidewalls.

## Weight/Payload Calculation\*

(Example)

	Dual	Slope	<b>Dual Slo</b>	pe w/Liner	Flat	Floor	Flat Floo	or w/Liner
CHASSIS	kg	lb	kg	lb	kg	lb	kg	lb
Empty Chassis Weight + 10% fuel	48 518	106,964	48 518	106,964	48 518	106,964	48 518	106,964
Fuel Correction								
$(90\% \times 300 \times 7.1 \text{ lb/gal})$	870	1,917	870	1,917	870	1,917	870	1,917
Optional Attachments Weight Debris Allowance								
(4% of chassis weight)	+1941	+4,279	+1941	+4,279	+1941	+4,279	+1941	+4,279
Total Chassis Weight	51 329	113,160	51 329	113,160	51 329	113,160	51 329	113,160
BODY								
Body Weight	15 778	34,785	15 785	34,800	16 220	35,759	16 220	35,759
Body Attachment Weights			5461	12,040			5548	12,231
Total Body Weight	+15 778	+34,785	+21 246	+46,840	+16 220	+35,759	+21 768	+47,990
Total Empty Operating Weight	67 107	147,945	72 575	160,000	67 549	148,919	73 079	161,150
Target Payload	+96 186	+212,055	+90 718	+200,000	+95 744	+211,081	+90 196	<u>+198,850</u>
Gross Machine Operating Weight	163 293	360,000	163 293	360,000	163 293	360,000	163 293	360,000

<sup>\*</sup> Refer to Caterpillar's 10/10/20 Payload Policy for Quarry and Construction Trucks.

<sup>&</sup>lt;sup>2</sup> Combines Traction Control System (TCS) and Automatic Retarder Control (ARC) into one system.

<sup>&</sup>lt;sup>3</sup> Includes two additional batteries and extra starting motor.