



# 793D Extra Quiet XQ Mining Truck



Machine configuration for use in areas of the world that require restricted sound levels

## SPECIFICATIONS

### Engine

Engine Model	Cat® 3516B HD EUI	
Rated Power	1,750 rpm	
Gross Power – SAE J1995	1801 kW	2,415 hp
Net Power – SAE J1349	1743 kW	2,337 hp
Net Power – ISO 9249	1743 kW	2,337 hp
Net Power – 80/1269/EEC	1743 kW	2,337 hp
Torque Rise	23%	
Bore	170 mm	6.7 in
Stroke	215 mm	8.5 in
Displacement	78 L	4,760 in <sup>3</sup>

- Power ratings apply at 1,750 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 99 kPa (29.61 Hg) dry 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 2750 m (9,000 ft) altitude.
- **NOT** compliant with U.S. Environmental Protection Agency Tier I emissions standards.

### Weights – Approximate

Gross Machine Operating Weight	383 749 kg	846,000 lb
Chassis Weight	115 502 kg	254,638 lb
Body Weight Range	21 795 – 54 431 kg / 48,050 – 120,000 lb	

- Chassis weight with 100% fuel, hoist, body mounting group, rims and tires.
- Body weight varies depending on how body is equipped.

### Operating Specifications

Nominal Payload Capacity	218 tonnes	240 tons
Body Capacity (SAE 2:1)	129 m <sup>3</sup>	169 yd <sup>3</sup>
Maximum Capacity Custom		
Top Speed – Loaded	54.3 km/h	33.7 mph
Steer Angle	36°	
Turning Radius – Front	28.42 m	93 ft 3 in
Turning Circle Clearance Diameter	32.66 m	107 ft 2 in

- Body Capacity (SAE 2:1) with Dual Slope Body.
- Refer to the Caterpillar® Mining Truck 10/10/20 Overload Policy for maximum gross machine weight limitations.

### Transmission

Forward 1	11.8 km/h	7.3 mph
Forward 2	15.9 km/h	9.9 mph
Forward 3	21.5 km/h	13.4 mph
Forward 4	29 km/h	18.1 mph
Forward 5	39.4 km/h	24.5 mph
Forward 6	54.3 km/h	33.7 mph
Reverse	10.9 km/h	6.8 mph

- Maximum travel speeds with standard 40.00-R57 tires.

### Final Drives

Differential Ratio	1:8:1
Planetary Ratio	16:1
Total Reduction Ratio	28.8:1

- Planetary, full-floating.

### Suspension

Effective Cylinder Stroke – Front	130.5 mm	5.2 in
Effective Cylinder Stroke – Rear	105.5 mm	4.2 in
Rear Axle Oscillation	±4.9°	

### Brakes

Outside Diameter	874.5 mm	34.5 in
Brake Surface – Front	89 817 cm <sup>2</sup>	13,921 in <sup>2</sup>
Brake Surface – Rear 1	34 500 cm <sup>2</sup>	20,847 in <sup>2</sup>
Standards	J-ISO 3450 JAN88, ISO 3450:1996	

- Gross Machine Operating Weight is 383 749 kg (846,000 lb).

### Body Hoists

Pump Flow – High Idle	846 L/min	224 gal/min
Relief Valve Setting – Raise	20 370 kPa	2,955 psi
Body Raise Time – High Idle	20.25 Seconds	
Body Lower Time – Float	19.26 Seconds	
Body Power Down – High Idle	17.51 Seconds	

- Twin, two-stage hydraulic cylinders mounted inside main frame; double-acting cylinders in second stage.
- Power raise in both stages; power down in second stage.
- Automatic body-lower modulation reduces impact on frame.

## Weight Distributions – Approximate

Front Axle – Empty	46%
Rear Axle – Empty	54%
Front Axle – Loaded	33%
Rear Axle – Loaded	67%

## Capacity – Dual Slope – 100% Fill Factor

Struck	96 m <sup>3</sup>	126 yd <sup>3</sup>
Heaped (SAE 2:1)	129 m <sup>3</sup>	169 yd <sup>3</sup>

## Service Refill Capacities

Fuel Tank	4354 L	1,150 gal
Fuel Tank (optional)	4922 L	1,300 gal
Cooling System	973 L	257 gal
Crankcase	265 L	70 gal
Rear Axle Housing	1022 L	270 gal
Steering Tank	227 L	60 gal
Steering System (Includes Tank)	341 L	90 gal
Brake/Hoist Hydraulic Tank	769 L	203 gal
Brake/Hoist System (Includes Tank)	1375 L	363 gal
Torque Converter/Transmission Sump	102 L	27 gal
Torque Converter/Transmission System (Includes Sump)	189 L	50 gal

## ROPS

### ROPS Standards

- ROPS (Rollover Protective Structure) for cab offered by Caterpillar meets ISO 3471:1994 ROPS criteria.
- FOPS (Falling Objects Protective Structure) meets ISO 3449:1992 Level II FOPS criteria.

## Sound

### Sound Standards

- The operator sound pressure level measured according to work cycle procedures specified in ANSI/SAE J1166 MAY90 is 76 dB(A) for cab offered by Caterpillar, when properly installed and maintained and tested with doors and windows closed.
- The exterior sound pressure level for the standard machine measured at a distance of 15 m (49 ft) according to the test procedures specified in SAE J88 APR95, mid-gear moving operation is 89 dB(A).
- 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.
- The exterior sound power level for the standard XQ configuration is 113 dB(A) using the prevailing Australian Hunter Valley/Caterpillar sound testing procedure.
  - Tested on a dynamic 10% slope uphill loaded

## Steering

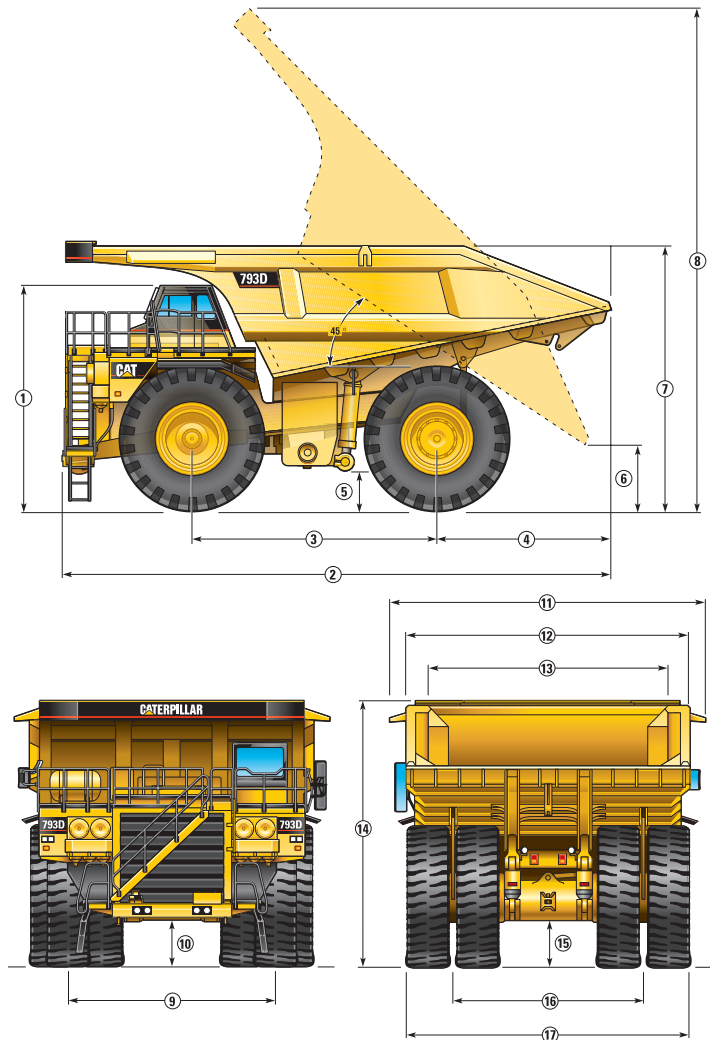
Steering Standards	SAE J15111 OCT90, ISO 5010:1992
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- Gross Machine Operating Weight is 383 749 kg (846,000 lb).

## Tires

### Standard Tire 40.00R57

- Productive capabilities of the 793D 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 evaluate all job conditions and consult the tire manufacturer for proper tire selection.



## Dimensions

All dimensions are approximate. Shown with MSD II Body.  
Dimensions are with Dual Slope Body.

1	Height to Top of ROPS	5584 mm	18 ft 4 in
2	Overall Length	13 205 mm	43 ft 4 in
3	Wheelbase	5905 mm	19 ft 5 in
4	Rear Axle to Tail	3772 mm	12 ft 5 in
5	Ground Clearance	1005 mm	3 ft 4 in
6	Dump Clearance	1364 mm	4 ft 6 in
7	Loading Height – Empty	5871 mm	19 ft 4 in
8	Overall Height – Body Raised	13 113 mm	43 ft 1 in
9	Centerline Front Tire Width	5610 mm	18 ft 5 in
10	Engine Guard Clearance	1189 mm	3 ft 11 in
11	Overall Canopy Width	7680 mm	25 ft 3 in
12	Outside Body Width	6940 mm	22 ft 10 in
13	Inside Body Width	6500 mm	21 ft 4 in
14	Front Canopy Height	6494 mm	21 ft 4 in
15	Rear Axle Clearance	1128 mm	3 ft 8 in
16	Centerline Rear Dual Tire Width	4963 mm	16 ft 3 in
17	Overall Tire Width	7605 mm	24 ft 12 in