



# Cat<sup>®</sup> 793F AC

Off-Highway Trucks

Preliminary

## Specifications

### Engine

Engine Model	Cat <sup>®</sup> C175-16	
Gross Power – SAE J1995	2051 kW	2,750 hp
Bore	175 mm	6.9 in
Stroke	220 mm	8.7 in
Displacement	85 L	5,187 in <sup>3</sup>

- Power ratings apply 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 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 3048 m (10,000 ft) altitude.
- Compliant with U.S. Environmental Protection Agency Tier 2 emissions standards.

### Weights – Approximate

Gross Machine Operating Weight (GMW)	390 089 kg	860,000 lb
Chassis Weight	132 558 kg	292,240 lb
Body Weight Range	26 862–47 627 kg	59,220–105,000 lb

- GMW depends on tire selection. Consult your tire manufacturer for maximum loaded top speed.
- 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
Top Speed – Loaded	64 km/h	40 mph
Steer Angle	36 degrees	
Turning Diameter – Front	28 m	93 ft
Turning Circle Clearance Diameter	33 m	107 ft

- Refer to the Caterpillar<sup>®</sup> Mining Truck 10/10/20 Overload Policy (AEXQ0250-02) for maximum gross machine weight limitations.

### Final Drives

Total Reduction Ratio	35:1
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### AC Drive System

Alternator	Brushless, remote mounted, dual bearing	
Controls	IGBT Inverter Technology, air cooled, pressurized cabinet with filtration	
Wheel Motor	Rear axle mounted Caterpillar AC induction	
Cooling System	Variable speed hydraulic cooling system	

### 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°	

### 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 Seconds	
Body Lower Time – Float	19 Seconds	
Body Power Down – High Idle	17 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.

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## Braking System

Oil Cooled Brakes		
Outside Diameter	939.8 mm	37 in
Brake Surface – Front	134 665.2 cm <sup>2</sup>	20,873.14 in <sup>2</sup>
Brake Surface – Rear	155 382.9 cm <sup>2</sup>	24,084.4 in <sup>2</sup>
Standards	J-ISO 3450 JAN88, ISO 3 450:1996	
Electric Retarding		
Radial Grid Design		
Brushless AC Motor		
Dynamic Retarding Power	3550 kW	4,760 hp
Blended Four Corner Retarding		

## Weight Distributions – Approximate

Front Axle – Empty	48%
Rear Axle – Empty	52%
Front Axle – Loaded	33%
Rear Axle – Loaded	67%

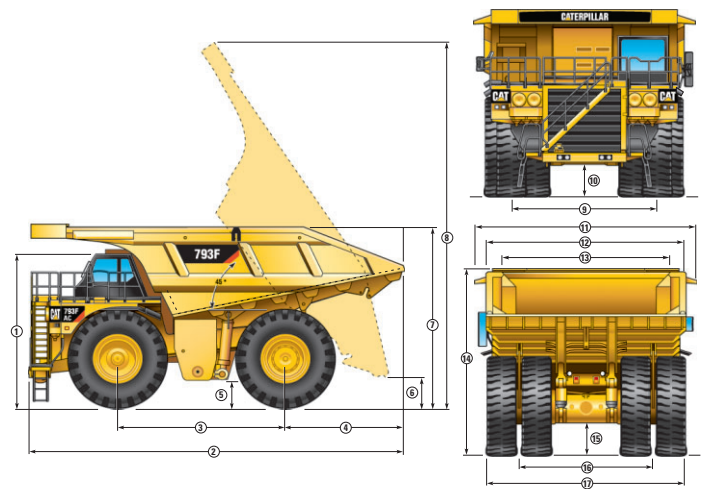
## Capacity – MSD II – 100% fill factor

Struck	112 m <sup>3</sup> –142 m <sup>3</sup>
	146 yd <sup>3</sup> –186 yd <sup>3</sup>
Heaped (SAE 2:1)	159 m <sup>3</sup> –191 m <sup>3</sup>
	208 yd <sup>3</sup> –250 yd <sup>3</sup>

• Contact your local Caterpillar dealer for body recommendation.

## Service Refill Capacities

Fuel Tank	2839 L	750 gal
Fuel Tank (optional)	4922 L	1,300 gal
Cooling System	1074 L	284 gal
Crankcase	312 L	82 gal
Final Drives, each	260 L	68 gal
Steering Tank	200 L	53 gal
Steering System (Includes Tank)	300 L	79 gal
Brake/Hoist Hydraulic Tank	470 L	124 gal
Brake/Hoist System (Includes Tank)	1370 L	362 gal



## Dimensions

All dimensions are approximate.  
Shown with 176 m<sup>3</sup> (230 yd<sup>3</sup>) MSD II Body.

1	Height to Top of ROPS	5731 mm	18 ft 10 in
2	Overall Length	13 768 mm	45 ft 2 in
3	Wheelbase	5905 mm	19 ft 5 in
4	Rear Axle to Tail	4257 mm	13 ft 11 in
5	Ground Clearance	1084 mm	3 ft 6 in
6	Dump Clearance	1263 mm	4 ft 2 in
7	Loading Height – Empty	6559 mm	21 ft 7 in
8	Overall Height – Body Raised	13 628 mm	44 ft 8 in
9	Centerline Front Tire Width	5630 mm	18 ft 6 in
10	Engine Guard Clearance	1354 mm	4 ft 5 in
11	Overall Canopy Width	8297 mm	27 ft 2 in
12	Outside Body Width	7778 mm	25 ft 6 in
13	Inside Body Width	6946 mm	22 ft 9 in
14	Front Canopy Height	6620 mm	21 ft 8 in
15	Rear Axle Clearance	1099 mm	3 ft 7 in
16	Centerline Rear Dual Tire Width	4963 mm	16 ft 3 in
17	Overall Tire Width	7605 mm	24 ft 11 in

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)

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