



CAT[®] 793D

MINING TRUCK

FEATURES

- **High Performance Engine** – The proven Cat[®] 3516E engine offers you the perfect balance between power, increased durability and fuel economy.
- **Enhanced Serviceability** – Improved serviceability points and grouped service locations mean your truck spends more time on the haul road than in the shop.
- **Power Shift Transmission** – A smooth shifting six-speed transmission matched with electronic unit injection gives operators a comfortable ride, constant power and improved fuel efficiency.
- **Reliable Mechanical Drive System** – The 793D's power train gives you class-leading fuel efficiency. It also provides excellent speed on grade and more rimpull for poor underfoot and high rolling resistance applications.
- **Robust Braking** – Cat oil-cooled, multiple disc brakes on all four corners offer you exceptional, fade-resistant braking.
- **Comfortable Cab** – The ergonomic cab is designed for operator comfort and ease of operation, and allows the operator to focus on production for optimum efficiency.
- **HP Body** – The High Performance (HP) body provides extra durability combined with efficient design to reduce overall operating weight.
- **3516B HD DGB Conversion Kit** – Uses Cat Dynamic Gas Blending™ (DGB) technology which automatically maximizes the amount of LNG used, allowing you to achieve the lowest possible fuel cost (up to 30% reduction) without sacrificing machine production, durability or reliability.

SPECIFICATIONS

Engine

Engine Model	Cat [®] 3516E	
Gross Power – SAE J1995	1801 kW	2,415 hp
Net Power – SAE J1349	1743 kW	2,337 hp
Rated Speed	1,750 RPM	
Emissions Rating	U.S. EPA Tier 1 Equivalent	
Bore	170 mm	6.7 in
Stroke	215 mm	8.5 in
Displacement	78 L	4,760 in ³

- Net power advertised is the power available at the flywheel when the engine is equipped with air intake system, exhaust system, and alternator.

Weights – Approximate

Rated Gross Machine Weight (RGMW)	383 848 kg	846,240 lb
Chassis Weight (CW)	121 984 kg	268,929 lb
Body Weight (BW)	30 700 kg	67,682 lb
Nominal Rated Payload (NRP)	232 tonnes	256 tons

- Consult your tire manufacturer for maximum tire load.
- Chassis weight with full fuel and fluids, standard & mandatory attachments, hoist, body mounting group, rims, and tires.

Weight Distributions – Approximate

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

- Weight distributions optimized with Cat body.

Final Drives

Double reduction, planetary with full floating axles.	
Differential Ratio	1.8:1
Planetary Ratio	16:1
Total Reduction Ratio	28.8:1

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	29.0 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
Top Speed - Loaded	54.3 km/h	33.7 mph

Tires & Rims

- 40R 57 (standard)
- 46/90R 57 (optional)
- 29" x 57" Rims
- Quick Change Rims (QCR) and Extended Life Wheel Station (XLWS) optional.
- Caterpillar recommends the customer evaluate all job conditions and consult tire manufacturer for proper tire selection and TKPH (TMPH) capabilities.



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Braking System

Service Brakes: Four-Corner, Wet Disc, Oil Cooled, Hydraulically Actuated
 Front Wet Disc Brake Surface Area 89 817 cm² 13,921 in²
 Rear Wet Disc Brake Surface Area 34 500 cm² 20,847 in²
 Standards (Service and Secondary) ISO 3450:1996
 Parking Brake: Four-Corner, Multi-Disk, Spring Applied, Hydraulically Released
 Load Brake: Rear service brakes

Capacity – High Performance (HP) Body – 100% Fill Factor

Struck	112.6-151 m ³	147-197.5 yd ³
Heaped (SAE 2:1)	162-191 m ³	212-250 yd ³

- Consult your local Cat dealer for body recommendations.

Body Hoists

Twin, two-stage hydraulic cylinders with snubbing valve.
 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

Suspension

Self-contained nitrogen/oil cylinders, pin-to-pin mounting, top & bottom double shear clevis attachments.

Effective Cylinder Stroke – Front	130.5 mm	5.1 in
Effective Cylinder Stroke – Rear	105.5 mm	4.2 in
Rear Axle Oscillation	±4.9 degrees	

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
Front Wheels, Each	22 L	6 gal
Final Drives, Each	114 L	30 gal
Differentials	832 L	220 gal
Steering Tank	227 L	60 gal
Steering System (Includes Tank)	341 L	90 gal
Brake/Hoist 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

Cab

Air Conditioning (HFC - 134A refrigerant)	35,100 Btu/hr
Heater / Defroster	43,930 Btu/hr

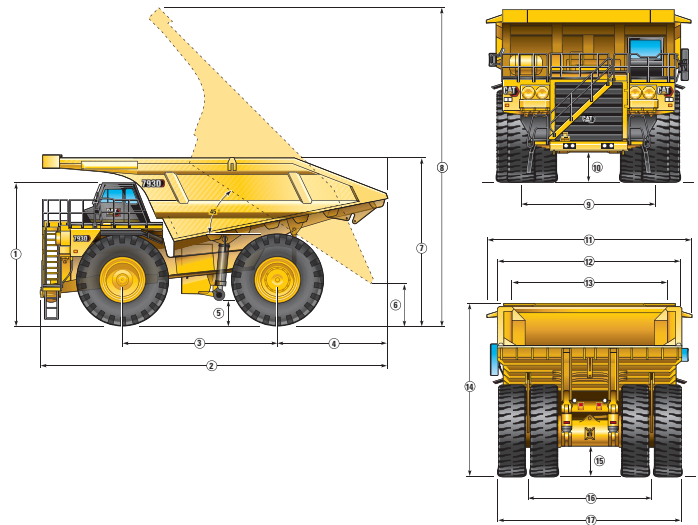
- Ambient capabilities down to -30°C (-22°F) for heater/defroster and up to 50°C (122°F) for air conditioning.
- The operator sound pressure level, 78 dB(A), is measured according to ISO 6396:2008 in addition to work cycle procedures specified in ANSI/SAE J1166 MAY90.
- ROPS (Rollover Protective Structure) meets ISO 3471:2008.
- FOPS (Falling Objects Protective Structure) meets ISO 3449:2005 Level II FOPS criteria.

Steering

Steer Angle	36 degrees
Turning Diameter	28.42 m 93.24 ft
Steering Standards	ISO 5010:2007

Dimensions

MSD II body pictured (dimensions based on HP body)



1	Height to Top of ROPS	5584 mm	18 ft 4 in
2	Overall Length	13 589 mm	44 ft 7 in
3	Wheelbase	5905 mm	19 ft 5 in
4	Rear Axle to Tail	3997 mm	13 ft 11 in
5	Ground Clearance	1005 mm	3 ft 3 in
6	Dump Clearance	1631 mm	5 ft 4 in
7	Loading Height – Empty	6189 mm	20 ft 4 in
8	Overall Height – Body Raised	13 714 mm	45 ft 0 in
9	Centerline Front Tire Width	5610 mm	18 ft 6 in
10	Engine Guard Clearance	1294 mm	4 ft 0 in
11	Overall Canopy Width	8592 mm	28 ft 2 in
12	Outside Body Width	8007 mm	26 ft 3 in
13	Inside Body Width	7300 mm	23 ft 11 in
14	Front Canopy Height	7375 mm	24 ft 2 in
15	Rear Axle Clearance	1128 mm	3 ft 4 in
16	Centerline Rear Dual Tire Width	4963 mm	16 ft 3 in
17	Overall Tire Width	7605 mm	24 ft 11 in

STANDARD EQUIPMENT

- Air Line Dryer (2)
- Air Starter, Vane-type
- Alarm, Back-up
- Alternator (105-amp)
- Automatic Lubrication System (Lincoln)
- Automatic Retarder Control
- Batteries, 93-amp-hour, Low-maintenance, 12-volt (2)
- Body Mounting Group
- Brake Release Motor for Towing
- Brake System
 - Oil-cooled, Multiple-disc, Front and Rear
 - Parking
 - Secondary, Emergency
- Cab, ROPS
 - Air Cleaner Service Indicator
 - Air Conditioner
 - Ashtray
 - Cigarette Lighter
 - Coat Hook
 - Diagnostic Connector
 - Electric Engine Control Fault Indicator
 - Electric Window (Operator Only)
 - Entertainment Radio Ready
 - Glass, Tinted
 - Horn
 - Insulated and Sound Suppressed
 - Dome Courtesy Light
 - Mirrors, Right and Left
 - Quad-Gauge Panel
 - Air Pressure
 - Brake Oil Temperature
 - Coolant Temperature
 - Fuel Level
- Seat, Air Suspension with 3-piece compartment
- Seat, Passenger, Non-suspension
- Seat Belts, 75 mm (3 in) wide retractable
- Speedometer
- Steering, Automatic Supplemental
- Steering Wheel, Tilt, Padded, Telescopic
- Storage Compartment
- Sun Visor
- Tachometer
- Transmission Gear Indicator
- VIMS™ Keypad
- VIMS Message Center with Universal Gauge
- Windshield Wiper and Washer
- Driveline Guard
- Dumping, Auxiliary Quick Connect for “Buddy Dumping”
- Electrical System, 12-volt to 24-volt
- Engine – Cat 3516E Engine
 - Air Cleaner with Precleaner (2)
 - Elevated Low Idle Control
 - Ether Starting Aid, Automatic
 - Multi-Point Oil Pressure Sensing
 - Turbocharger (4)/Aftercooler
- Fast-fill Fuel System, Wiggins
- Ground Level
 - Battery Disconnect
 - Engine Shutdown
 - VIMS Dataports (2)
- Lighting System
 - Back-up Lights, Halogen
 - Direction Signals and Hazard Warning (Rear Halogen)
 - Headlights, Halogen, With Dimmer
 - LH Ladder Light and Service Deck Lights
 - Stop and Tail Lights (LED)
 - Under-hood Light
- Oil Change System, Quick Service
- Reservoirs (Separate)
 - Brake/Hoist
 - Steering/Fan
 - Transmission/Converter
- Rims, Center Mounted for 40.00-R57 Tires
- Rock Ejectors
- Steering, Auxiliary Quick Connect for Towing
- Tie Down Eyes
- Tow Hooks, Front
- Tow Pin, Rear
- Traction Control System
- Transmission
 - 6-speed, Automatic Power Shift
 - Body-up Shift Inhibitor
 - Controlled Throttle Shifting
 - Directional Shift Management
 - Electronic Control and Downshift Inhibitor
 - Lock-up Torque Converter
 - Neutral Coast Inhibitor
 - Neutral Start Switch, Reverse Shift Inhibitor
 - Programmable Top Gear
 - Reverse Neutralizer during Dumping
- Vandalism Protection Locks
- VIMS Monitoring System with Max Payload Speed Manager

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OPTIONAL EQUIPMENT

With approximate changes in operating weights. Optional equipment may vary. Consult your Cat Dealer for specifics.

- Air suspension companion seat
- Catwalk and handrail assemblies rear of cab
- External payload display
- Fuel tank (4921 L/1,300 gal)
- Heated mirrors
- Heater, engine coolant and oil
 - 240-volt external power
- Heater, fuel recirculation type, non-electric
- HID lights
- Hub odometer (km or miles)
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- Oil Renewal System (ORS)
- Prelubrication system
- Rear axle filtration cooler
- Retractable visor
- Road Analysis Control (RAC)
- Starting systems:
 - Air (IR turbine)
 - Air (TDI turbine)
 - Electric Start
- Transmission lockout – ground level switch
- Wheel chocks

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