





WHAT CAN YOU EXPECT FROM YOUR CAT MINING TRUCKS? THE LOWEST POSSIBLE COST PER TON OVER THE LIFE OF THE MACHINE.

A lot goes into delivering that value. Like high speed on grade for improved productivity. A class-leading standard payload. Anytime braking plus front and rear wheel retarding for more confident operators. Total Cat integration, which results in highly efficient systems and performance. And high reliability, so trucks spend more time hauling material than they do sitting in the maintenance shop.

WHAT WILL IT TAKE TO BOOST YOUR BOTTOM LINE?

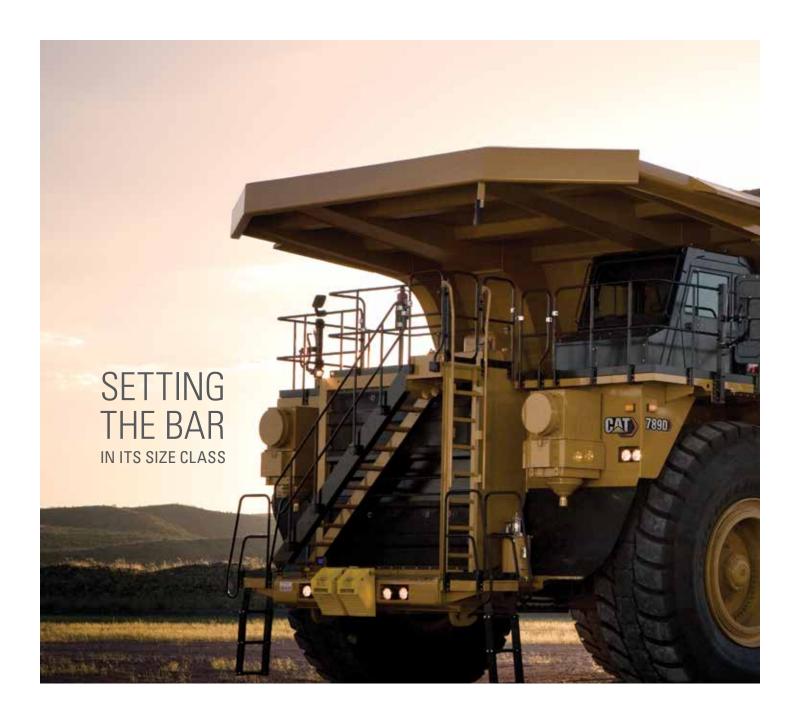
A truck with a tradition of proven performance in a wide variety of applications? A truck with the lowest cost per ton in its size class, for an overall reduction in your operating costs? The reliability and reduced costs that come with long life — from the engine and powertrain to the components, brakes and frame?

With the Cat® 789D, you get all of this — and more. Like faster speed on grade and a high production capability thanks to a payload advantage over the competition. Engine options to meet regulatory requirements or application-specific needs such as extreme temperatures, high altitude or areas that require sound reductions. And safety enhancements like diagonal stairways, wide walkways and optional powered access. The 789D offers the lowest cost per ton in its size class and high reliability — reducing overall costs and delivering a better bottom line to the most important mine in the world: yours.



PROVEN
PERFORMANCE.
LOW
OPERATING
COSTS.
LONG LIFE.





10-15% COST PER TON ADVANTAGE OVER COMPETITION (DEPENDING ON APPLICATION)

VERSATILITY

- + Options: Engines, tires
- + Application-specific capabilities: extreme ambient, high altitude, extra quiet

PROVEN

- + Most popular 191-tonne (210-ton) truck in the mining industry
- +80% of the industry
- + Delivering results for decades
- + Easy to operate and maintain





A PROVEN DESIGN PHILOSOPHY

When it comes to making Cat large mining trucks, we follow a proven design philosophy that focuses around five main areas:

- 1. MAKING A SUSTAINED INVESTMENT IN RESEARCH & DEVELOPMENT
- 2. INTEGRATING EVERY COMPONENT
- 3. DELIVERING IRON THAT PERFORMS
- 4. SUPPORTING PRODUCTS—
 AND PRODUCTIVITY
- 5. LISTENING TO OUR
 CUSTOMERS TO SPUR
 CONTINUOUS IMPROVEMENT

By following this philosophy—for every truck, every time—we ensure that you get what you expect from Caterpillar: the lowest cost per ton of any mining truck in the industry.

A PROVEN APPROACH TO R&D



A WORLD-CLASS TEAM OF ENGINEERS AND EXPERTS



A DISCIPLINED APPROACH TO DEVELOPMENT



MINING INDUSTRY FEEDBACK



TESTING AND VALIDATION OF EVERY MACHINE



PROVEN PERFORMANCE

The 789D is the most popular 191-tonne (210-ton) truck in the mining industry—and for good reason. The 789 is a tried and true performer that has been delivering results on mine sites around the world for decades. Developed specifically for high production mining applications, the 789D simply does its job, no matter the application or conditions.

FAST SPEEDS

The 789D delivers a faster speed on grade than competitive trucks, reducing cycle times and lowering overall costs. The 3500 series engines are 16-cylinder, four-stroke designs that use long, effective power strokes for more complete fuel combustion and optimum efficiency. The 23% net torque rise provides unequaled lugging force during acceleration, on steep grades and in rough underfoot conditions. Torque rise effectively matches transmission shift points for maximum efficiency and fast cycle times. And expanded tire options allow mines to take advantage of higher speeds, particularly in flat long-haul highspeed applications.

WHAT IF YOU COULD TRAVEL FASTER—EVEN IN TOUGH CONDITIONS? MORE MOVED PER DAY = MORE PROFIT PER YEAR OVER 89% FASTER SPEED ON GRADE

MILES / KILOMETERS



SUPERIOR BRAKING

The 789D features Caterpillar's patented oil-cooled, multiple disc brakes — the most respected and trusted in the industry. They provide immediate, fade-resistant braking and retarding, for increased operator confidence. The 789D has a true four-corner braking and retarding system proven in thousands of Cat mining trucks under every conceivable condition. With retarding power applied to all four corners, the full weight of the truck can be applied for traction, resulting in maximum productivity even in poor underfoot conditions.





DESIGNED FOR COMFORT

With three cab options, you can equip your 789D with the features you desire. All options offer an ergonomic layout, excellent all-around visibility, and controls, levers, switches and gauges that are positioned for ease of use. The cab includes dozens of features designed to enhance comfort and reduce fatigue, such as an air suspension seat, reduced vibration, automatic climate control and sound suppression.

SAFETY-INFUSED

From slip-resistant surfaces and hand rails to state-of-the-art collision avoidance technologies, the Cat 789D is infused with features to help operators feel safe and confident on the job.



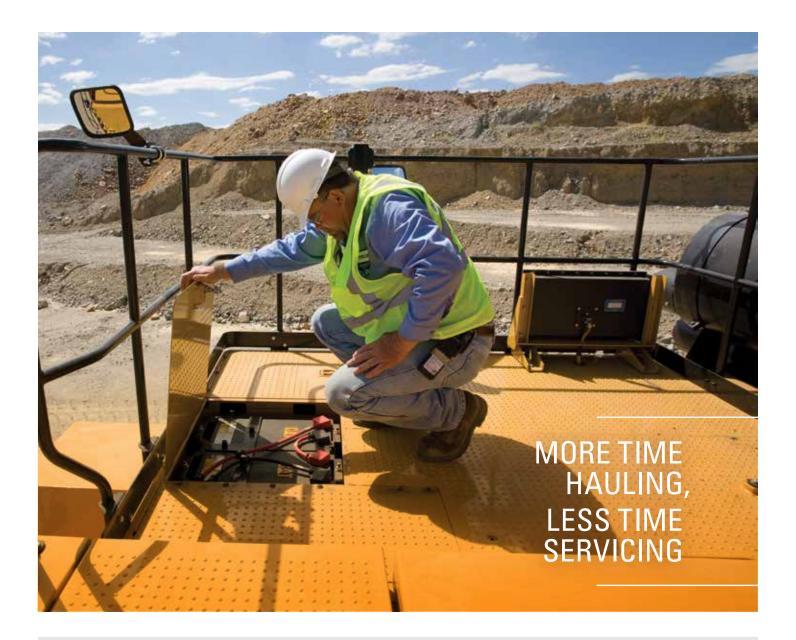
A TRUCK FOR YOUR APPLICATION

The 789D is one of the most versatile and reliable trucks in its size class. It performs well in every condition and works on mines of every size and type thanks to multiple engine configurations,

The 789D is powered by the Cat 3500 series engine, which has proven its ability to deliver high power and reliability in the most demanding mining applications. Two engine options help you meet regulatory requirements or application-specific needs. The mechanical drive powertrain and power shift transmission provide unmatched efficiency and control on steep grades, in poor underfoot conditions and on haul roads with high rolling resistance.

Application-specific capabilities are available for extreme ambient conditions and high-altitude applications. In addition, larger tire options have been designed into the 789D. Applicable hauling conditions will benefit from increased tire life or significant reduction in tire costs.



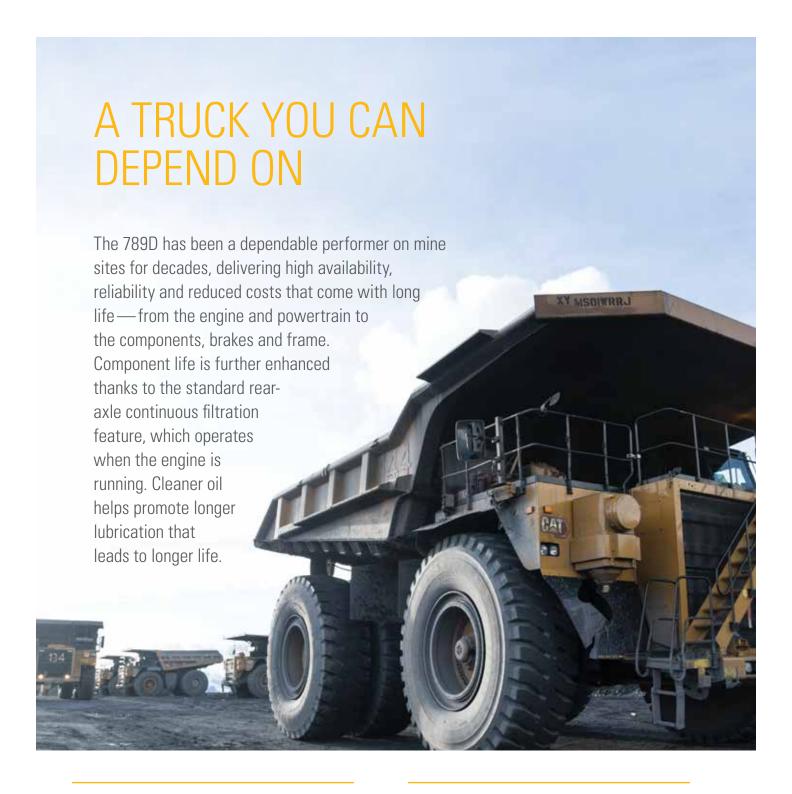


The 789D was designed to reduce the time you spend on regular maintenance procedures. Enhanced serviceability and long service intervals help increase machine availability and productivity.

Features include:

- + 500-hour service intervals
- + Ground-level access to tanks, filters, drains and engine shutdown
- + Easier access to daily service points as well as major components
- + Maintenance platform with access to engine, steering hydraulic tank and battery compartment
- + Autolube automatic lubrication system

- + VIMS onboard diagnostic systems, which continuously monitor all critical machine functions and components to help locate faults quickly for faster repair
- + Optional fast fill service center, which enables high-speed fuel and oil exchange
- Disconnect valves that are conveniently located throughout the hydraulic systems for easy pressure testing
- + Sealed electrical connectors to lock out dust and moisture
- Individual cylinder heads that are interchangeable for easy removal and visual inspection



STRONG BACKBONE

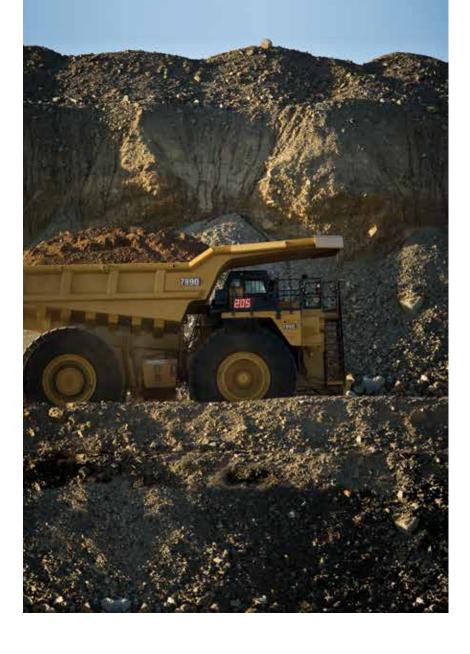
The 789D frame uses a box-section design, incorporating two forgings and 21 castings in high stress areas with deep penetrating and continuous wrap-around welds to resist damage from twisting loads without adding extra weight. The mild steel frame provides flexibility, durability, and resistance to impact loads. The integral 4-post ROPS cab provides increased strength for operator protection.

BUILT TO BE REBUILT

Cat trucks are designed to last over 100,000 hours, and many are going well beyond that. The frame, powertrain, engine and components are built to be rebuilt—using new, remanufactured or rebuilt parts and components—so you can take advantage of multiple lives of like-new performance at a fraction-of-new price.

BUMPER-TO-BUMPER CATERPILLAR

The individual components, software, systems and engine that go inside a Cat 789D have different purposes, but they have one very important thing in common: They are all manufactured by Caterpillar and supported by the Cat dealer network. This integration ensures that the entire truck, from tires to transmissions, engines to electronics, can be fully optimized to deliver the lowest cost per ton.



ENGINE/POWERTRAIN INTEGRATION

This integration electronically combines critical power train components to work more intelligently and to optimize overall truck performance.

- + Cat Data Link electronically integrates machine computer systems to optimize overall powertrain performance, increase reliability and component life, and reduce operating costs.
- + Electronic Technician service tool provides service technicians with easy access to stored diagnostic data through the Cat Data Link to simplify problem diagnosis and increase machine availability.
- + Integrated braking control integrates Hydraulic Automatic Retarder Control and Traction Control into one system for optimum performance and efficiency.
- + Body-up Reverse Neutralizer automatically shifts the transmission to neutral if the hoist lever is activated while transmission is shifted in reverse.
- + Controlled throttle shifting regulates engine rpm during shifting to reduce powertrain stress and clutch wear by controlling engine speed, torque converter lock-up and transmission clutch engagement for smoother shifts and longer component life.



HIGH PERFORMANCE BODY

When you equip your 789D with a Cat High Performance (HP) body, you'll experience the benefits of a higher payload thanks to a weight reduction of 2.0-5.0 tonnes (2.2-5.5 tons) or more. The HP body features a lightweight, simplified and durable design that provides complete front

machine coverage and extended overhead protection.

The HP body features robust top rail geometry with internal stiffeners and a high-visibility load placement indicator. Floating bolsters and spring plates improve overall durability by avoiding welds in high stress areas. In addition, the body requires only minimal liner coverage due to thicker and harder base plates. Curved front/side transitions minimize carryback.



BODY STYLE OFFERINGS

HIGH PERFORMANCE BODY

A new lightweight design that provides durability along with a higher payload.

MINE SPECIFIC BODY (MSD II)

For mature mines with good operational and maintenance practices, the lighter weight MSD II body is available in several sizes. It is a customer/site specific body that is designed to maximize performance.

COMBINATION BODY

This is a multi-purpose, high volume body for light density, well fragmented material. Based on the dual slope design for applications that require a flexible body to haul light ore (such as coal) and light, well fragmented overburden.

GATELESS COAL BODY

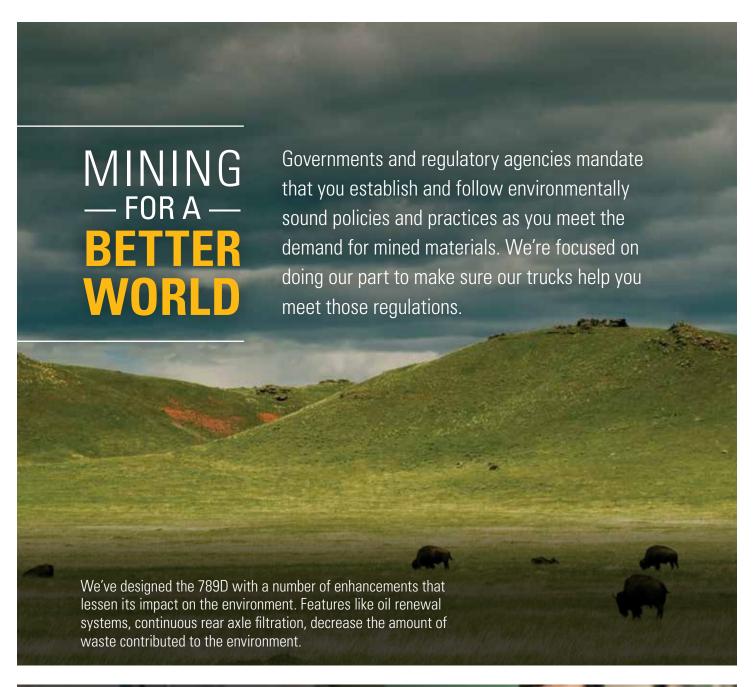
This specialized high-volume body, available in several sizes, is targeted at dedicated coal haulage applications with minimal impact.

DUAL SLOPE BODY

The original standard body, the Dual Slope body provides excellent load retention, maintains a low center of gravity with optimum load distribution, reduces shock loading and is available in lined and unlined configurations.

CUSTOM BODY OPTIONS

A variety of options including tail extensions, sideboards, tumble bars, rock boxes and rock shedders are available to maintain rated payload, reduce spillage and improve hauling efficiencies.

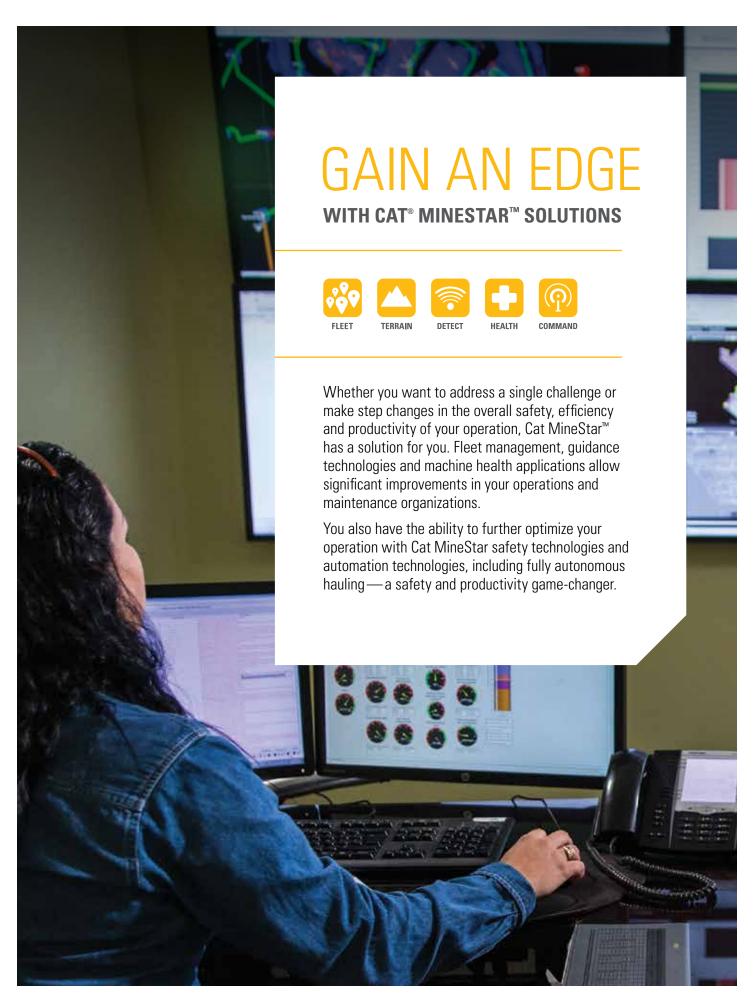


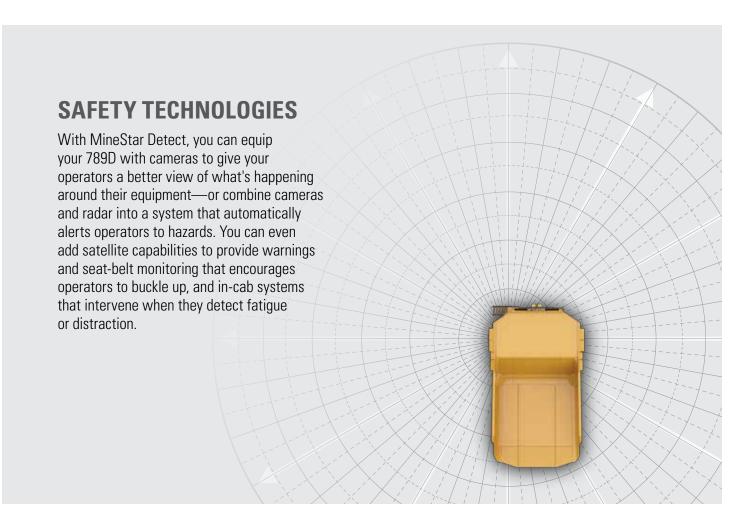


MORE POWER, LOWER COSTS

The 789D comes with two engine options: the Cat 3516B and 3516C EUI. Both of these quad turbocharged diesel engines deliver high power and reliability in the world's most demanding mining applications. The engines are 16-cylinder, four-stroke designs that use long, effective power strokes for more complete fuel combustion and optimum efficiency. High displacement, low rpm rating, and conservative horsepower ratings mean more time on the haul roads and less time in the shop.











IN YOUR PERFORMANCE

Our commitment to your success doesn't end when your Cat 789D begins hauling ore. We immediately start looking for ways to make that truck work more efficiently, safely and productively. From addressing performance issues, to training operators and technicians, to calibrating onboard technologies — our support of your truck productivity is ongoing.

SITE-LEVEL SOLUTIONS

We're committed to supporting more than your equipment. We work together to find ways to help you optimize your entire operation. We'll work alongside you to help you improve site productivity and machine availability while lowering cost per ton. We have teams of people with decades of experience working in the industry. They have hands-on knowledge of mining machines and applications, site operations and equipment maintenance and repair, mining technologies, safety solutions, fleet management — and more

Mining Performance Solutions — Customizable, consultative engagements

to help your mine drive predictability, improve productivity, manage costs and make data actionable to unlock sustainable gains.

Job Site Solutions Fleet Management Services — Fleet management solutions that make costs manageable, increase uptime and improve productivity

Caterpillar Safety Services — Guiding you along your safety journey by providing industry best practices, continuous improvement processes and the latest technologies to see, mitigate and manage risks.



Caterpillar and Cat dealer personnel will partner with you on site to improve the performance not only of your trucks but of your overall loading and hauling operation. You'll have access to parts and service, and technicians who are focused on helping you optimize repairs to keep machines in the field rather than the maintenance shop. And we help with training to ensure your operators have the skills and knowledge they need to work as efficiently and productively as possible.

We also work alongside you to ensure you achieve maximum value throughout the life of your equipment. Together with our Cat dealer network, we customize service offerings to provide a maintenance solution that fits your operation—whether you want to perform the majority of service yourself, or you're looking for an onsite partner to manage your maintenance organization. We're also consultants who can help you make smart decisions about buying, operating, maintaining, repairing, rebuilding and replacing equipment.

YOUR PARTNER FOR THE COMPLETE EQUIPMENT LIFECYCLE

No one knows more about how to get the most from a piece of Cat equipment than your local Cat dealer. This one-of-a-kind, on-the-ground support network delivers expert service, integrated solutions, after-sales support, fast and efficient parts fulfilment, world-class rebuild and remanufacturing capabilities, and more.

Cat dealers operate as nearly 200 local businesses — each one fully embedded in and committed to the geographic area it serves. That means you work with people you know, who know your business and who respond on your timeframe.

CAT CUSTOMER VALUE AGREEMENTS (CVAS)

Cat Customer Value Agreements (CVAs) for mining help you maximize equipment health, keep your fleet moving and get the most from your investment. With built-in cost controls and a range of guarantees, your dealer can tailor these plans to suit your mine site's needs and bring top results to your business. Your Cat dealer can offer you options for planned maintenance, components and powertrain — all with the flexibility to be shaped for your operation.

Hassle-Free Ownership. CVAs bring together dealer advice, easy parts acquisition, plus options for flexible payment terms.

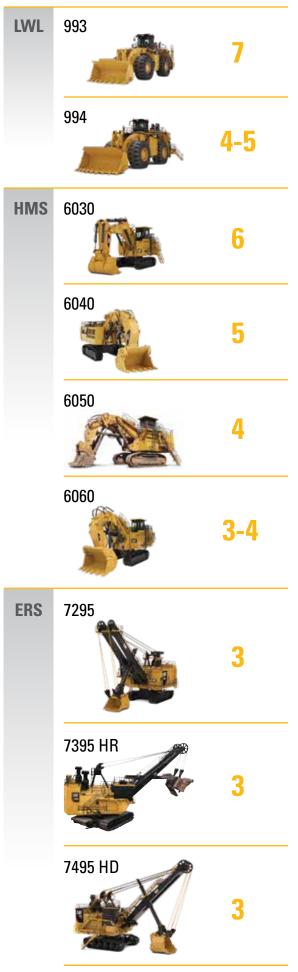
Hassle-Free Maintenance. Getting the right Genuine Cat Parts delivered to the right place at the right time makes it easier for maintenance to get done. Service options are flexible to meet your needs.

Security of Expert Dealer Support. Cat CVAs are customized plans that offer troubleshooting, diagnostics and repairs with Genuine Cat Parts. If you need trained technician assistance, there are options for that, too.

Peace of Mind from Equipment Health Management. You get easy access to monitoring tools with a Cat CVA. Digital tools give you the ability to access important operating parameters for your business anywhere you have an internet connection.







TECHNICAL SPECIFICATIONS

See cat.com for complete specifications.

	ENGINE	
Engine Model	Cat® 3516C – HD	
Gross Power - SAEJ1995	1566 kW	2,100 hp
Net Power - (ISO 9249)	1468 kW	1,969 hp
Rated Speed	1,750 rpm	
Emissions Rating	Fuel Optimized or EPA Tier 2 equiva	
Bore	170 mm	6.7 in
Stroke	215 mm	8.5 in
Displacement	78.1 L	4,766 in ³

OP*	TIONAL ENGINE	
Engine Model	Cat® 3516B – EUI	
Gross Power - SAEJ1995	1417 kW	1,900 hp
Net Power - (ISO 9249)	1320 kW	1,770 hp
Rated Speed	1,750 rpm	
Emissions Rating	Fuel Optimized	
Bore	170 mm	6.7 in
Stroke	190 mm	7.5 in
Displacement	69 L	4,211 in ³

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

- + Power ratings apply at 1,750 rpm when tested under the specific conditions for the specified standard.
- + Ratings based on SAE J1995 standard air conditions of 25° C (77° F) and 99 kPa (29.32 Hg) 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).
- + 3516B engine, no derate required up to 2300 m (7,500 ft) altitude.
- + 3516C engine, (US EPA Tier 2 equivalent) no engine derate required up to 2743 m (9,000 ft).
- + 3516C engine, (Fuel Optimized) no engine derate required up to 3658 m (12,000 ft).

WEIGHTS – APPROXIMATE		
Rated Gross Machine Weight (RGMW)		
Tire size 37R57	324 319 kg	715,000 lb
Tire size 40R57	324 319 kg	715,000 lb
Chassis Weight (CW)		
Tire Size 37R57	102 821 kg	226,681 lb
Tire Size 40R57	106 010 kg	233,713 lb
Body Weight (BW)		
Dual Slope (108 m³ capacity)	27 365 kg	60,331 lb
X Body (123 m³ capacity)	30 107 kg	66,376 lb
MSD II (130 m³ capacity)	24 113 kg	53,161 lb
HP Body (144 m³ capacity)	27 137 kg	59,828 lb

(Weights - Approximate continued)

Nominal Payload (NRP)		
Tire size 37R57	194 tonnes	214 tons
Tire size 40R57	191 tonnes	211 tons
+ Consult your tire manufacturer for max	kimum tire load	

- + Chassis weight with full fuel and fluids, standard and mandatory attachments, hoist, body mounting group, rims, and tires.

WEIGHT DISTRIBUTIONS – APPROXIMATE		
Front Axle - Empty	50%	
Rear Axle - Empty	50%	
Front Axle - Loaded	33%	
Rear Axle - Loaded	67%	
+ Weight distributions optimized with Cat body.		

FINAL DRIVES	S		
Double-reduction, planetary with full floating axles			
Differential Ratio 2.35:1			
Planetary Ratio 10.83:1			
Total Reduction Ratio	25.46:1		

	TRANSMISSION	
Forward 1	12.6 km	n/h 7.8 mph
Forward 2	17.1 km	n/h 10.6 mph
Forward 3	23.1 km	n/h 14.4 mph
Forward 4	31.2 km	n/h 19.4 mph
Forward 5	42.3 km	n/h 26.3 mph
Forward 6	57.2 km	n/h 35.5 mph
Reverse	11.8 km	n/h 7.3 mph
Top Speed - Loaded	57.2 km	n/h 35.5 mph

TIRES & RIMS

Standard Tires 37R57

Optional Tires 40R57

- + Quick Change Rims optional.
- + Caterpillar recommends the customer evaluate all job conditions and consult the tire manufacturer for proper tire selection and TKPH (TMPH) capabilities.

BRAKING SYSTEM		
Service Brakes: Four-Corner, Wet Disc, Oil Cooled, Hydraulically Actuated		
Front Brake Surface Area	81 693 cm ²	12,662 in ²
Rear Brake Surface Area	134 590 cm ²	20,862 in ²
Standards SAE J1473 OCT90	ISO 3450:2011	
Parking Brake: Four-corner, Multi-disk, Spring applied, Hydraulically Released		

BODIES		
HP Body (SAE 2:1)	144 m³	188 yd³
Standard MSD Body (SAE 2:1)	130 m ³	170 yd ³
Standard X Body (SAE 2:1)	123 m ³	161 yd ³
Standard Dual Slope Body (SAE 2:1)	108 m ³	141 yd³
Standard Combi Body (SAE 2:1)	153 m³	200 yd ³
Standard Gateless Coal Body (SAE 2:1)	191 m³	250 yd ³
+ Refer to the Cat Mining Truck 10-10-20 payload policy for maximum gross machine weight limitations.		

BODY HOISTS		
Twin, two-stage hydraulic cylinders with snubbing valve		
Pump Flow – High Idle	731 L/min	193 gal/min
Relief Valve Setting – Raise	17 238 kPa	2,500 psi
Body Raise Time – High Idle	18.9 Second	ls
Body Raise Time — High Idle Body	17.3 Second	s
Body Lower Time – Float	15.6 Second	ls

SUSPENSION	I	
Self-contained nitrogen/oil cylinders, pin-to-pin mounting, top & bottom double shear clevis attachments		
Effective Cylinder Stroke - Front	105 mm	4.0 in
Effective Cylinder Stroke - Rear	93 mm	3.5 in
Rear Axle Oscillation	+/- 5.6 degre	es

SERVICE REFILL CAPACITIES		
Fuel Tank	2082 L	550 gal
Fuel Tank (Optional)	3785 L	1,000 gal
Cooling System	725 L	192 gal
Crankcase	291 L	77 gal
Differential & Final Drives	583 L	154 gal
Steering System (Includes Tank)	189 L	50 gal
Brake/Hoist System (Includes Tank)	909 L	241 gal
Transmission Tank	76 L	20 gal

	CAB		
Air Conditioning		6.9 kW	(23,543 BTU/hr)
Heater / Defroster		10.1 kW	(34,462 BTU/hr)

- + The operator sound pressure level 78 dB(A) tested to ISO 6396:2008
- \pm The exterior sound power level for the standard machine is tested using ISO 6393:2008 and ISO 6395:2008 procedures is 121 dB(A).
- + ROPS (Rollover Protective Structure) for cab offered by Caterpillar meets ISO 3471:2008 ROPS criteria.
- + FOPS (Falling Objects Protective Structure) meets ISO 3449:2005
- + Level II FOPS criteria.

SOUND

Sound Standards

- + The operator sound pressure levels are measured according to work cycle procedures specified in ISO 6394:2008 and ISO 6396:2008 is 78 dB(A)
- + The exterior sound power level for the standard machine is tested using ISO 6393:2008 and ISO 6395:2008 procedures is 121 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.

STEERING				
Steer Angle	36.07 degrees			
Turning Diameter (ISO 7457:1997)	27.53 m	90.32 ft		
Steering Standards SAE J1511 OCT90		ISO 5010:2019		



LARGE MINING TRUCK

PEDJ0461-01

For more complete information on Cat products, dealer services and industry solutions, visit us at www.cat.com Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

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