

# 789

## LARGE MINING TRUCK



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<b>Engine:</b>	3516E
<b>Gross Power:</b>	1566 kW / 2,100 hp
<b>Gross Weight:</b>	324 319 kg / 715,000 lb
<b>Nominal Rated Payload:</b>	193 tonnes / 213 tons





CAT® LARGE  
MINING TRUCKS

# DELIVERING A BETTER BOTTOM LINE

With a truck for every site and application—no matter the size class or drive system—and a full lineup of loading tools, Caterpillar delivers a complete loading and hauling solution that delivers a better bottom line.

A lot goes into delivering that value. Like high speed on grade for improved productivity. A class-leading standard payload. Caterpillar proven anytime braking plus front and rear wheel retarding for more confident operators. And total Cat® integration, which results in highly efficient systems and performance.



## THE NEXT GENERATION OF PRODUCTIVE HAULING

The Cat® 789 is designed to be the most efficient and productive truck on the market.

If there was one word to describe the hundreds of improvements we've made in our next generation products, it would be "optimized." We've optimized the operator experience, making the machine safer and more comfortable, and incorporating features that make their jobs easier, more consistent and more predictable. We've optimized electronics and connectivity, providing faster and easier access to data and streamlining technology integration. We've optimized machine health, with improved data analytics and new diagnostic capabilities. We've optimized maintenance, with modular features and consolidated components that make service faster and easier.

And we've done it all for one reason: So you can experience optimization in your hauling operation — and boost your bottom line.



## WHAT WILL IT TAKE TO BOOST YOUR BOTTOM LINE?

A truck with a tradition of proven performance in a wide variety of applications? The efficiency gains that come from a transmission designed to deliver a smoother ride and better speed on grade? The productivity increase that comes when operators are working comfortably in a state-of-the-art cab with ergonomic controls?

With the Cat® 789, you get all of this — and more. The 789 continues the legacy of durability and reliability while meeting emission standards for any location in the world. It uses less fuel, has expanded safety options and reduces maintenance downtime. It offers fast speed on grade and a high production capability thanks to a payload advantage over the competition.

The 789 offers the lowest cost per ton in its size class and high reliability — reducing overall costs and delivering a better bottom line.

# CAT® 789

PROVEN  
PERFORMANCE  
LOW OPERATING  
COSTS  
LONG LIFE



## SETTING THE BAR IN ITS SIZE CLASS

### MOVE MORE WITH LESS FUEL

- + Up to 9% reduction in fuel consumption vs. Tier 2
- + Zero fuel burn while retarding
- + Lower overall fluid and fuel consumption = Lowest TCO

### MORE DURABLE AND ADVANCE POWERTRAIN

- + 12% more engine life
- + Better shifting with APECS transmission
- + Better acceleration and gear selection

### BEST OPERATOR CAB

- + Ergonomic design, with semi-autonomous features
- + Improved comfort, visibility & safety for operator and trainer
- + Integrated touchscreens

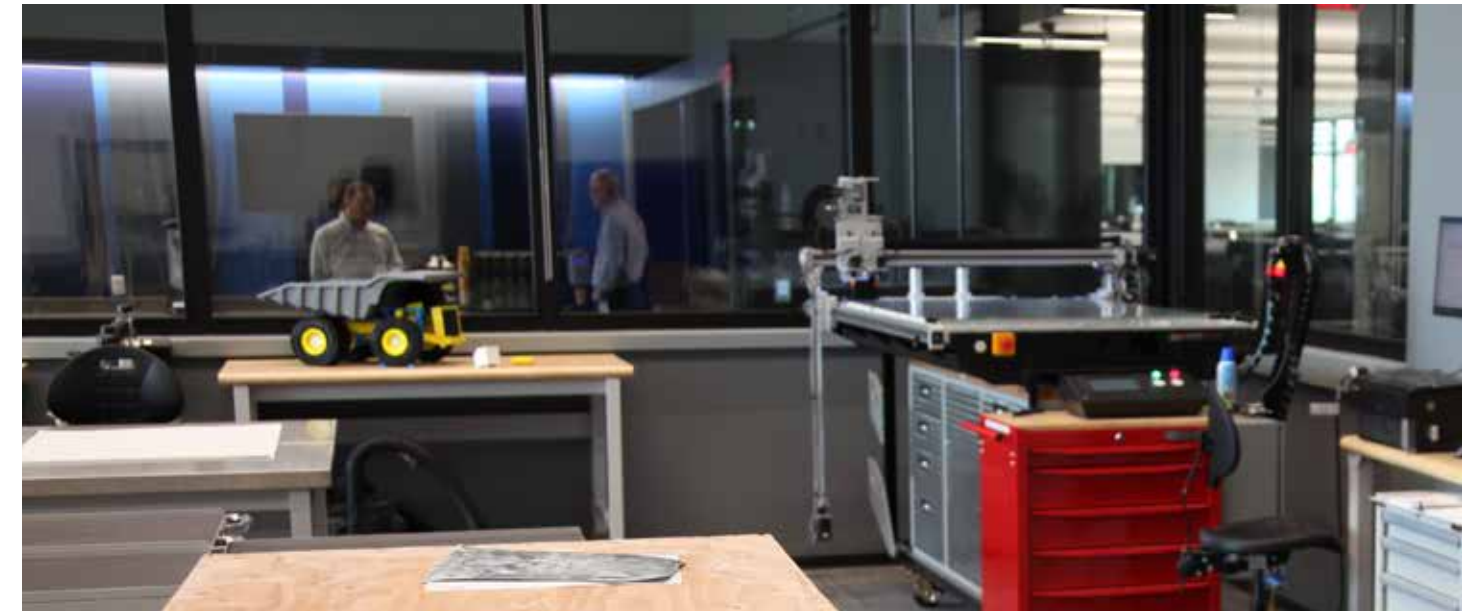
### PROVEN PERFORMER OVER COMPETITION

- + Highest horsepower and best powertrain efficiency in class
- + Best selling truck in its class
- + Over 5% faster on grade
- + 10% more payload
- + Delivering results for decades



# LOWERING COST PER TON

With offerings in both electric and mechanical drive and payloads ranging from 143 to 372 tonnes (157 to 410 tons), Caterpillar can offer a truck for every type of mining application. But one thing all the models have in common is the philosophy we follow in their design. Whatever measurement you use for material movement, our goal is to help you optimize that cycle — lowering cost per ton and delivering a better bottom line to your operation.



## 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 AND 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





# HAUL MORE

EVERY LOAD &  
EVERY CYCLE

## OPTIMIZED PAYLOAD

Contradicting a common belief that bigger is better, the 789 has a weight advantage over larger trucks so you can haul more with every load, delivering a cost per ton advantage over competitive trucks.

## PROVEN PERFORMANCE

The 789 is the mining industry's most popular truck in the 200-ton size class—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 789 simply does its job, no matter the application or conditions.

## HIGH SPEEDS

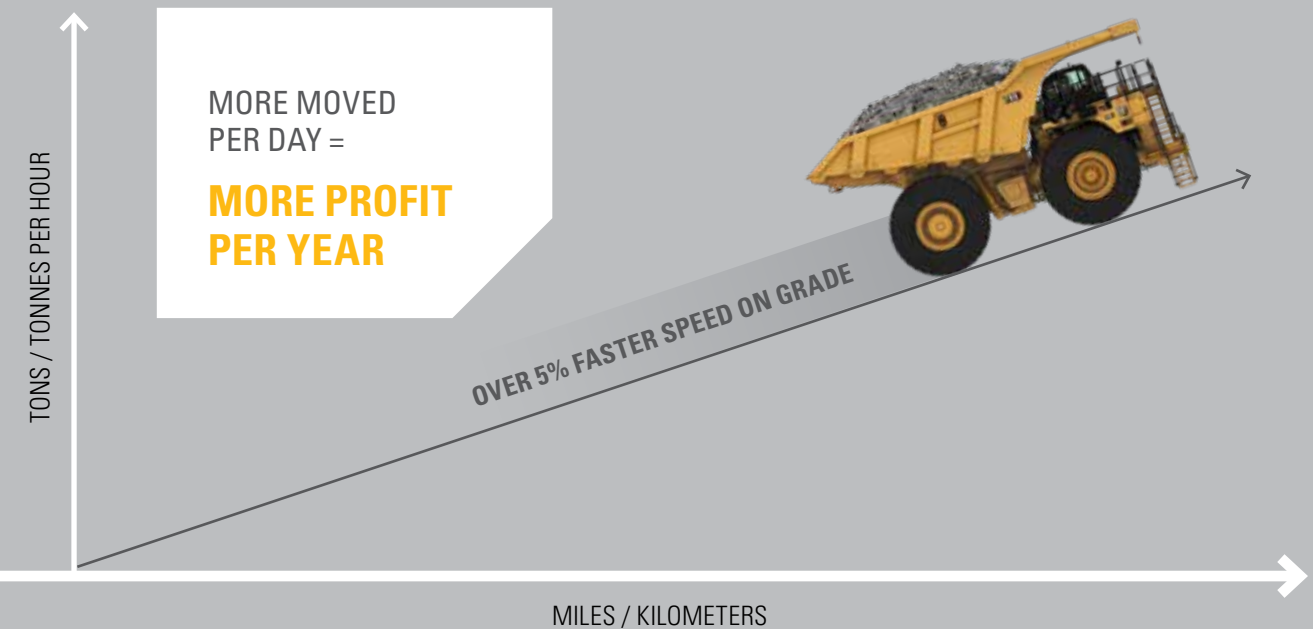
The 789 delivers a faster speed on grade than competitive trucks, reducing cycle times and lowering overall costs. The 3516E engine is a 16-cylinder, four-stroke design that uses long, effective power strokes for more complete fuel combustion and optimum efficiency. The 23% net torque rise provides unequalled 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, high-speed applications.

## FASTER CYCLES

The Advanced Power Electronic Control Strategy (APECS) delivers productivity and efficiency improvements that can reduce cycle times. Benefits of APECS vary by application, but most mining applications will see an improvement to the bottom line through:

- + Faster cycle times. More continuous torque and rimpull delivers more power to the ground and makes it possible to use a higher gear on grade for optimal fuel efficiency.
- + Faster acceleration. Forward momentum and torque are maintained through each shift, with optimum gear selection resulting in faster acceleration.
- + Improved operator comfort. Operators enjoy a more comfortable ride thanks to smoother transitional shifting and reduced shift jerk levels.
- + Reduced haul road maintenance. Smoother shifting results in less spillage and less haul road maintenance required.
- + Improved engine and powertrain life. A reduction in torque spikes and fewer variations in engine speed deliver longer engine and powertrain component life.

## WHAT IF YOU COULD TRAVEL FASTER— EVEN IN TOUGH CONDITIONS?







# DESIGNED BY OPERATORS FOR OPERATORS

The next generation cab is equipped with features that increase comfort and improve efficiency.

## IMPROVED CAB

The 789 cab is larger and more ergonomic, with controls, levers and switches positioned for ease of use. It's also quieter, with 40% less Sound Pressure Level (SPL), and offers automated temperature control and cab filtration for a safer and more comfortable environment. A walk-through cab with fully adjustable center console, easy-to-adjust seat and increased leg room make the cab ideal for operators of all sizes.

## NEXT GENERATION SEAT

The next generation seat is four-point-restraint ready and improves operator comfort with features like thigh tilt and extensions, air adjustable side and lumbar bolsters, leather upholstery, heated and cooled cushions and dynamic end dampening suspension.

**34% MORE OPERATOR SPACE**

**+17% CAB WIDTH**

**+11% LEG ROOM**

**+19% SHOULDER ROOM**

Keyless secure push-to-start  
USB charging ports  
12V charger

10-inch digital gauge cluster

Pass-through egress

Next Gen operator seat

Improved storage space with storage bin

Custom accessory mounting



Cup holders

10-inch touchscreen display

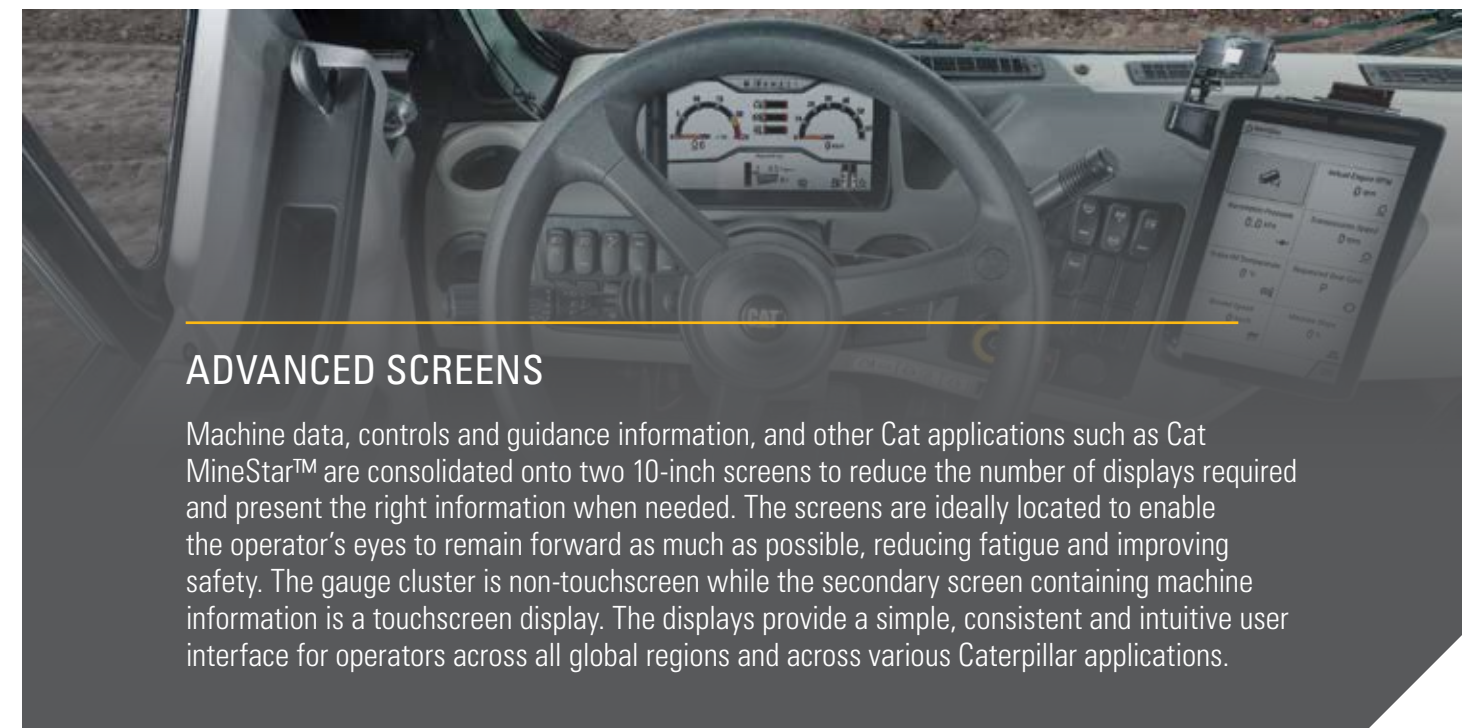
Integrated transmission / hoist control

Rotary dial (for machine speed control)

Fully suspended Next Gen trainer seat

Fully adjustable center console

*Note: Some optional features shown*



## ADVANCED SCREENS

Machine data, controls and guidance information, and other Cat applications such as Cat MineStar™ are consolidated onto two 10-inch screens to reduce the number of displays required and present the right information when needed. The screens are ideally located to enable the operator's eyes to remain forward as much as possible, reducing fatigue and improving safety. The gauge cluster is non-touchscreen while the secondary screen containing machine information is a touchscreen display. The displays provide a simple, consistent and intuitive user interface for operators across all global regions and across various Caterpillar applications.





## A PRODUCTIVITY-ENHANCING OPERATOR ENVIRONMENT

### PRODUCTIVITY-BOOSTING CAB

The next generation of productive hauling starts with the operator, who sits in a state-of-the-art environment designed for efficiency and equipped with features that automate functions. We've made the operator experience easier, safer, more consistent and more predictable. We've increased efficiency through automation, improved access to information and reduced fatigue.

- + The optional Auto Hoist feature automatically raises the body and controls engine speed, simplifying operation and minimizing cycle times and cycle time variations across various operators. This feature is integrated with the transmission control, requiring less hand movement and enabling easier operation.
- + The new speed coaching feature gives operators real-time feedback on how to operate the truck to maximize its productivity.
- + The payload monitoring system comes with more accurate measurements, improved monitoring and an improved interface.
- + Faster data transfers and higher resolution displays improve access to information.

### CONFIDENCE-BUILDING CONTROLS

A confident operator is a productive operator, so we equipped the 789 cab with features that boost safety and confidence.

We've improved machine responsiveness and controllability while improving cycle times and reducing operator fatigue with features such as:

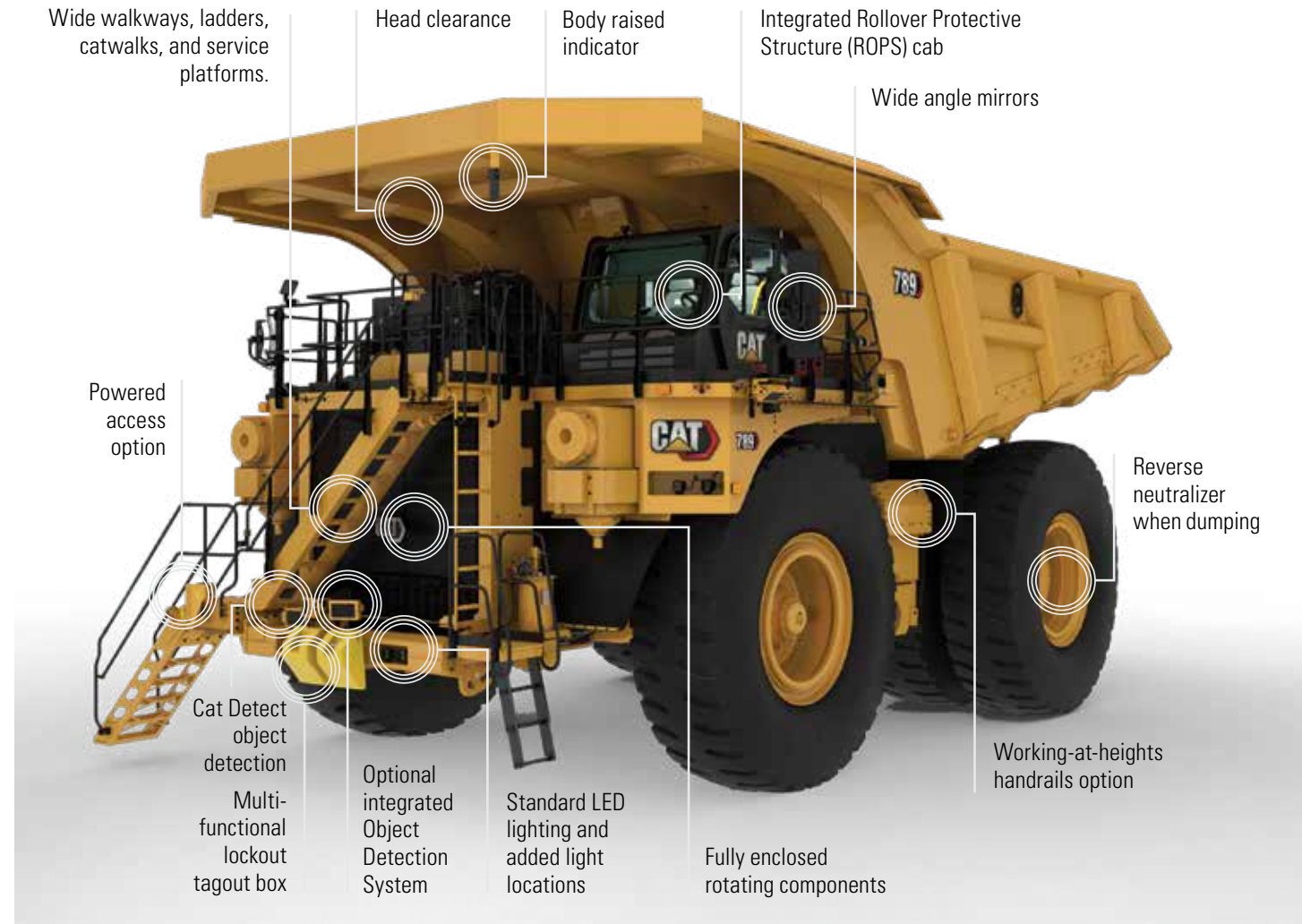
- + Hill Start Assist with Anti-Rollback
- + Enhanced Traction Control
- + Dynamic Stability Control (DSC)
- + Anti-lock Brake System (ABS)
- + Machine Speed Limiting and Cruise Control
- + Electronic transmission controls (APECS) deliver a smoother ride
- + Larger trainer space and full-size trainer seat
- + Improved head clearance on platform
- + More usable storage
- + Park brake automatically activated in parking gear

A 360° Surround View camera increases visibility to make it easier to operate the machine safely. And the object detection system combines radar and camera systems to warn operators about light vehicles or stationary hazards within the immediate vicinity of their machines.

*Note: Some optional features shown*

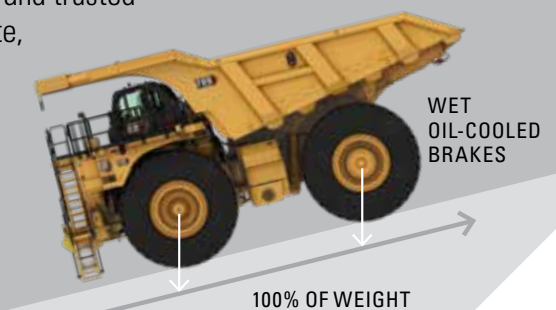
## SAFETY-INFUSED

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



## SUPERIOR BRAKING

The 789 offers superior braking and retarding control for increased operator confidence. Caterpillar's patented mining truck brakes are respected and trusted in the industry. The oil-cooled, multiple disc brakes provide immediate, fade-resistant braking and retarding. The 789 has 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 the ability to hold a higher retarding force in poor underfoot conditions.





# A TRUCK FOR YOUR APPLICATION

The 789 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, application-specific capabilities and tire options.

The 789 is powered by the Cat 3516E engine, which has proven its ability to deliver high power and reliability in the most demanding mining applications. 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.

The 789 lets you select the tire offering that best matches your application, with a larger tire for flat, long, high-speed applications. The frame is designed to maintain the same turning diameter while accommodating larger tires. In addition, turning radius performance is balanced to minimize tire scuffing. The more responsive traction control system reduces tire wear and improves machine performance.

The 789 is available in two options to meet the emissions regulations where you operate. The optional Tier 4 Final engine meets the strictest regulations while the LRC engine is available in those countries that are less regulated. Both of these engines also have selectable power ratings of 1900 or 2100 hp.



## REDUCE YOUR DOWNTIME. REDUCE YOUR COSTS.

We've reduced key contributors to downtime with features like the new modular HVAC (heating, ventilation and air conditioning) system, which improves reliability and consolidates components so the entire system can be removed and replaced quickly. A modular radiator reduces engine removal and installation time and enables rebuilds to be completed off the truck for reduced downtime.

New remote flash and remote troubleshooting capabilities reduce downtime and optimize machine performance by providing immediate access to the latest software updates and making it possible to troubleshoot the machine remotely or schedule updates when it's most convenient to the operation.



The next generation of productive hauling delivers significant improvements in serviceability and reliability.

- + Extended-interval filters with ground-level access
- + Fluid-level sight glasses
- + Grouped service points
- + New centralized service center option
- + Extended coolant life (12,000 hours)
- + Extended hydraulic and TC/transmission filter life (500 to 1,000 hours)
- + Modular HVAC and modular radiator
- + Cleaner hydraulic and electrical routings
- + 100% airless electric start option, which eliminates air system maintenance from the machine and improves uptime
- + SOS and pressure ports for faster, safer oil sampling and troubleshooting
- + Brake wear indicator allows planned maintenance





## MORE TIME HAULING, LESS TIME SERVICING

The 789 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:

- + Extended 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



The 789 has been a dependable performer on mine sites for decades, delivering high availability, reliability and reduced costs that come with long life—from the engine and powertrain to the components, brakes and frame. Component life is further enhanced thanks to the standard rear-axle continuous filtration feature. Cleaner oil helps promote longer lubrication that leads to longer life.

### STRONG BACKBONE

The 789 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. Resiliently mounted to the main frame to reduce vibration and sound, the integral ROPS is designed as an extension of the truck frame. The ROPS/FOPS structure provides “five-sided protection” for the operator and instructor.

### 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 789 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 lower cost per ton.



## GET THE RIGHT BODY FOR THE JOB

Matching the truck body to the application is a critical part of achieving the best value from your 789. Caterpillar offers a variety of application-specific body options that yield a payload ranging from 177 to 191 tonnes (195 to 211 tons). The Caterpillar exclusive 10/10/20 payload guidelines help achieve a balance of excellent payload and safe operation.





## HIGH PERFORMANCE BODY

When you equip your 789 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 new design provides optimal weight distribution when loaded, as well as increased dump clearance at full tilt. The HP body features curved transitions to reduce carryback as well as a kick-up in the rear floor which helps retain load on grade and improves berm clearance. Thicker, harder steel baseplates are used throughout the body to provide extra durability, thus reducing the need for a liner in light to medium duty applications.



## 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. The MSD II body is available in lined and unlined, with a site-specific body designed to maximize performance. The MSD II body is among the best lightweight bodies ever built for mining applications and achieves excellent payload performance.

### COMBINATION BODY

Combines features of high volume and optional liners to haul both ore and overburden.

### 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. The Dual Slope body is intended for tough applications including greenfield sites and contracting mines.

### X BODY

An upgrade of the Dual Slope body, the X Body incorporates the latest structural designs and offers more volume at a lower weight. It uses the Cat Mine Specific Design to create a body that is properly sized to meet the specific requirements of heavy-duty applications. The X body design is available in lined and unlined configurations, and is designed for new mines or contract miners.

## MINING — FOR A — BETTER WORLD

Governments and regulatory agencies mandate that you establish and follow environmentally sound policies and practices as you meet the demand for mined materials. We're focused on doing our part to make sure our trucks help you meet those regulations.



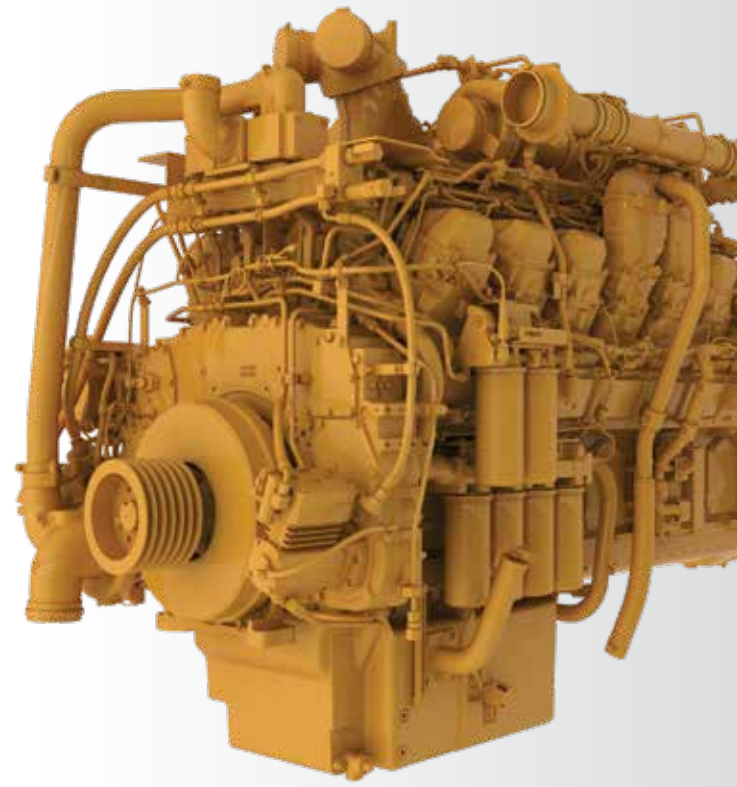
We've designed the 789 with fuel optimization and a number of enhancements that lessen its impact on the environment. Features like oil renewal systems, continuous rear axle filtration, extended life filters and longer maintenance intervals decrease the amount of waste contributed to the environment.

The Tier 4 Final engine reduces NOx and particulate matter. And because it's more efficient, the 789 burns less fuel, and there is zero fuel burn during retarding.

We also continue to research alternative energy sources such as biofuels and liquefied natural gas. And we preserve raw materials, conserve energy and reduce emissions through the Cat Reman program, which returns end-of-life components to like-new condition.







## MORE POWER, LOWER COSTS

The 789 is equipped with a Cat 3516E engine. The E series engine provides commonality with other engines in the field, in addition to an improved design which delivers 12% more durability than the previous 3516C. The camshaft and piston design were modified to create optimum fuel efficiency, while the cylinder head and crankshaft were improved structurally to allow for longer life and reliability.

The electronically controlled MEUI-A unit injection fuel system is the most robust fuel system in the industry, and operates by sensing conditions and regular fuel delivery for optimum fuel efficiency. The proven high-pressure fuel system provides improved response times and more efficient fuel burn, and has been proven to be reliable in the harshest conditions. The MEUI-A fuel system delivers class-leading fuel efficiency and robustness to lower quality fuels and also delivers lower repair costs compared to competitive engines.

The 3516E engine gives you the ability to select the power rating:

- + 1 417 kW (1,900 hp) to match your current fleet performance
- + 1 566 kW (2,100 hp) for faster cycle times

## EMISSION CHOICES FOR ALL REGULATIONS

### The Cat 3516E provides emission choices:

- Fuel optimized engine for less regulated countries or
- Optional engine compliant to U.S. EPA Tier 4 Final / EU Stage V emissions standards
- Both engines have selectable power ratings of 1 417 kW (1,900) or 1 566 kW (2,100 hp)

Through over 360,000 hours of successful operation on Cat large mining trucks, the system has proven its ability to deliver with no impact on machine performance. Designed for easy serviceability with readily accessible components, the modular aftertreatment system reduces overall fluid and fuel consumption and is aligned with truck preventive maintenance intervals to maintain high availability.

**OVER**  
**360,000**  
**HOURS**  
OF SUCCESSFUL  
OPERATION

## GAIN AN EDGE

### WITH CAT® MINESTAR SOLUTIONS



Whether you want to address a single challenge or make step changes in the overall safety, efficiency and productivity of your operation, Cat MineStar has a solution for you. Fleet management, guidance technologies and machine health applications allow significant improvements in your operations and maintenance organizations.

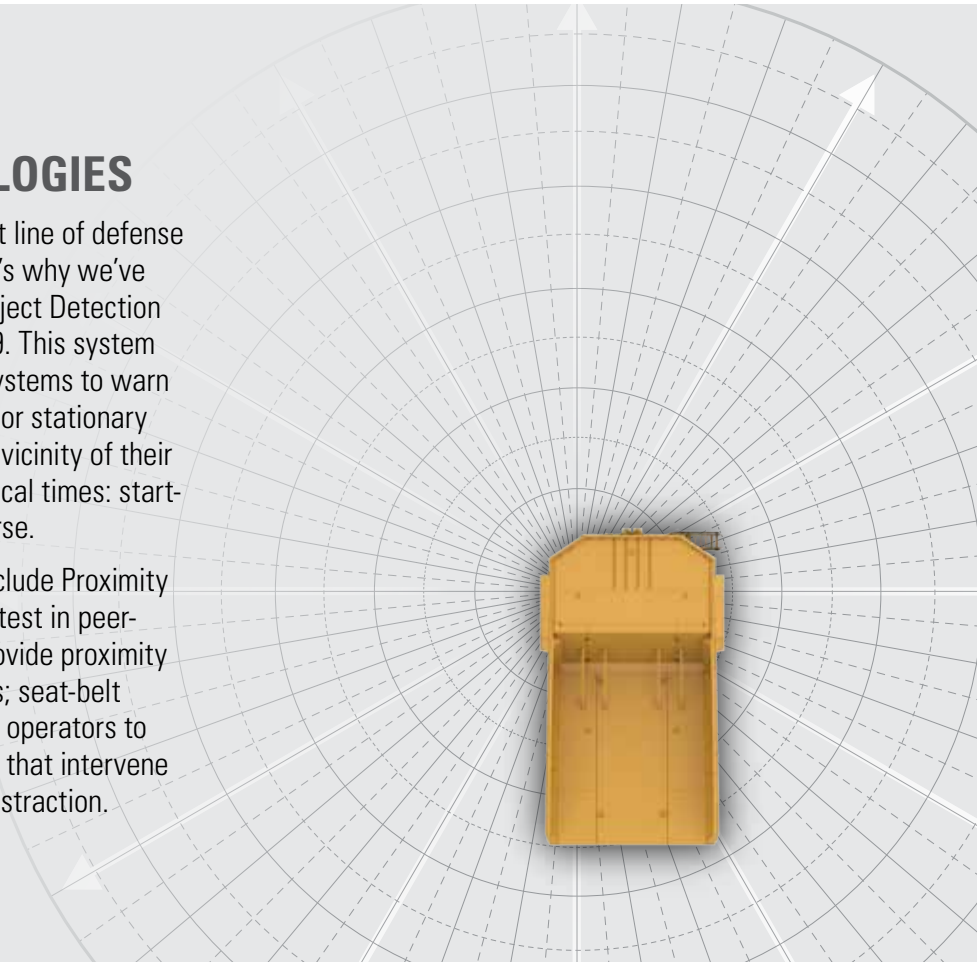
You also have the ability to further optimize your operation with Cat MineStar safety technologies and automation technologies, including fully autonomous hauling—a safety and productivity game-changer.



## SAFETY TECHNOLOGIES

Increasing visibility is your first line of defense when it comes to safety. That's why we've made the MineStar Detect Object Detection a standard offering on the 789. This system combines radar and camera systems to warn operators about light vehicles or stationary hazards within the immediate vicinity of their machines during the most critical times: start-up, initial movement and reverse.

Additional Detect offerings include Proximity Awareness, which uses the latest in peer-to-peer communications to provide proximity warnings and avoidance zones; seat-belt monitoring, which encourages operators to buckle up; and in-cab systems that intervene when they detect fatigue or distraction.



## OPTIMIZE YOUR ENTIRE OPERATION

Next Generation Product Link™ Elite (standard)

Terrain for Loading

Driver Safety System

Proximity Awareness

Health and Condition Monitoring



# PARTNERS

## IN YOUR PERFORMANCE

Our commitment to your success doesn't end when your Cat 789 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.





## 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 fulfillment, 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.



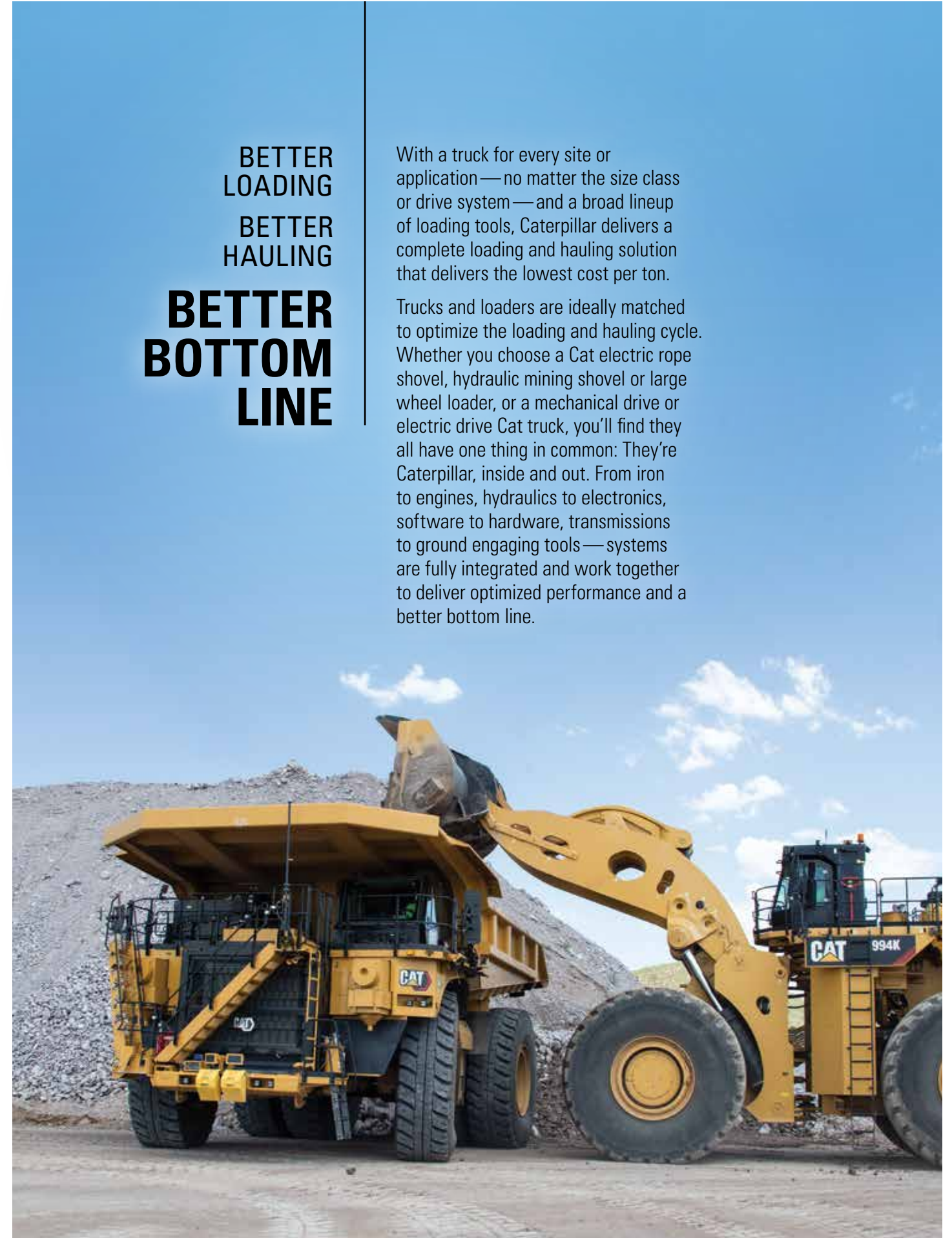
Caterpillar and Cat dealer personnel will partner with you on site to improve the performance not only of your trucks but of your overall loading and hauling operation. You'll have access to parts and service, and technicians who are focused on helping you optimize repairs to keep machines in the field 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.

## BETTER LOADING BETTER HAULING BETTER BOTTOM LINE

With a truck for every site or application — no matter the size class or drive system — and a broad lineup of loading tools, Caterpillar delivers a complete loading and hauling solution that delivers the lowest cost per ton.

Trucks and loaders are ideally matched to optimize the loading and hauling cycle. Whether you choose a Cat electric rope shovel, hydraulic mining shovel or large wheel loader, or a mechanical drive or electric drive Cat truck, you'll find they all have one thing in common: They're Caterpillar, inside and out. From iron to engines, hydraulics to electronics, software to hardware, transmissions to ground engaging tools — systems are fully integrated and work together to deliver optimized performance and a better bottom line.





# 789

## PASS MATCH

993



7

994



4-5

6030



6

6040



5

6050



4

6060



3-4

7295



3

7395



3

7495 HD



3

## TECHNICAL SPECIFICATIONS

See cat.com for complete specifications.

ENGINE		
Engine Model	Cat® 3516E	
Gross Power – SAE J1995:2014	1566 kW	2,100 hp
Net Power – SAE J1349:2011	1473 kW	1,975 hp
Rated Speed	1,650 rpm	
Emissions Rating	Fuel Optimized	
Bore	170 mm	6.7 in
Stroke	215 mm	8.5 in
Displacement	78.1 L	4,766 in <sup>3</sup>
<ul style="list-style-type: none"> <li>• Net Power advertised is the power available at the flywheel when the engine is equipped with air intake system, exhaust system, and alternator.</li> <li>• Optional 1417 kW / 1,900 hp engine rating.</li> <li>• U.S. EPA Tier 4 Final / EU Stage V optional engine available for applicable markets.</li> </ul>		

WEIGHTS – APPROXIMATE		
Rated Gross Machine Weight (RGMW)	324 319 kg	715,000 lb
Chassis Weight (CW)		
37 R57 Tires	103,657 kg	228,525 lb
40 R57 & 42/90 R57 Tires	106,847 kg	235,557 lb
Body Weight (BW)	27,400 kg	60,406 lb
Nominal Rated Payload (NRP)		
37 R57 Tires	193 tonnes	213 ton
40 R57 & 42/90 R57 Tires	190 tonnes	210 ton
<ul style="list-style-type: none"> <li>+ Consult your tire manufacturer for maximum tire load</li> <li>+ Chassis weight with full fuel and fluids, standard &amp; mandatory attachments, hoist, body mounting group, rims, and tires.</li> </ul>		

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		
Differential Ratio	2.35:1	
Planetary Ratio	10.83:1	
Total Reduction Ratio	25.46:1	
+ Double reduction, planetary with full floating axles.		

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

TIRES & RIMS		
37 R51 (standard)		
40 R51 (optional)		
42/90 R57 (optional)		
29" x 57" Rims		
+ Quick Change Rims optional.		
+ Caterpillar recommends the customer evaluate all job conditions and consult tire manufacturer for proper tire selection and TKPH (TMPH) capabilities.		

BRAKING SYSTEM		
Service Brakes	Four-Corner, Wet Disc, Oil Cooled, Hydraulically Actuated	
Front Wet Disc Brake Surface Area	81 693 cm <sup>2</sup>	12,662 in <sup>2</sup>
Rear Wet Disc Brake Surface Area	134 590 cm <sup>2</sup>	20,861 in <sup>2</sup>
Standards (Service and Secondary)	ISO 3450:2011	
Parking Brake	Four-corner, Multi-disc, Spring applied, Hydraulically Released	



CAPACITY – DUAL SLOPE BODY – 100% FILL FACTOR		
Struck	77 m <sup>3</sup>	101 yd <sup>3</sup>
Heaped (SAE 2:1)	108 m <sup>3</sup>	141 yd <sup>3</sup>
+ Consult your local Cat dealer for body recommendations.		

BODY HOISTS		
Twin, two-stage hydraulic cylinders with snubbing valve.		
Pump Flow – High Idle	403 L/min	106.5 gal/min
Relief Valve Setting – Raise	18 950 kPa	2,749 psi
Body Raise Time – High Idle	14 sec	
Body Lower Time – Float	16 sec	

SUSPENSION		
Self-contained nitrogen/oil cylinders, pin-to-pin mounting, top & bottom double shear clevis attachments		
Effective Cylinder Stroke – Front	104.65 mm	4.12 in
Effective Cylinder Stroke – Rear	93.22 mm	3.67 in
Rear Axle Oscillation	+/- 5 degrees	

SERVICE REFILL CAPACITIES		
Fuel Tank Standard	2500 L	550 gal
Fuel Tank Large	4546 L	1000 gal
Fuel Tank for Tier4/StageV Truck	2500 L	550 gal
Diesel Exhaust Fluid (DEF) Tank	233 L	62 gal
Cooling System	679 L	180 gal
Crankcase	291 L	77 gal
Front Wheels, Each	22 L	5.8 gal
Differentials & Final Drives	610 L	161 gal
Steering Tank	160 L	42 gal
Steering System (Includes Tank)	175 L	46 gal
Brake/Hoist Tank	640 L	169 gal
Brake/Hoist System (Includes Tank)	1315 L	347 gal
Torque Converter/Transmission System (Includes Sump)	209 L	55 gal

CAB	
Air Conditioning (HFC – 134A refrigerant)	24,500 Btu/hr
Heater / Defroster	33,300 Btu/hr
+ The operator sound pressure level, 77 dB(A) with direct drive and 75 dB9A) with optional clutch, tested to ISO 6396:2008.	
+ ROPS (Rollover Protective Structure) meets ISO 3471:2008 for Operator and ISO 13459:2012 for Trainer.	
+ FOPS (Falling Objects Protective Structure) meets ISO 3449:2005 Level II for Operator and ISO 13459:2012 Level II for Trainer.	

STEERING		
Steer Angle	36.07 degrees	
Turning Diameter (ISO 7457:2009)	27.53 m	90.3 ft
Steering Standards	ISO 5010:2007	



# 789 LARGE MINING TRUCK

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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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