

# 789

## MINING TRUCK



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<b>Engine:</b>	3516E
<b>Gross Power:</b>	1566 kW / 2,100 hp
<b>Gross Weight:</b>	324 318 kg / 715,000 lb
<b>Nominal Rated Payload:</b>	193 tonnes / 213 tons
<b>with Larger Tires (40 R57 &amp; 42/90 R57):</b>	190 tonnes / 210 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 resistive braking (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 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.

## MOVE MORE WITH LESS FUEL

The Cat 789 Mining Truck is the most popular 193-tonne (213-ton) truck in the mining industry—and for good reason. Developed specifically for high-production mining applications, the 789 simply does its job, no matter the application or conditions. It continues a 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. More than 30 new features improve performance and keep operators safe, comfortable and in control. The 789 offers the lowest cost per ton in its size class and high reliability—reducing overall owning and operating costs.

# CAT<sup>®</sup> 789

PROVEN  
PERFORMANCE  
LOW OPERATING  
COSTS  
LONG LIFE





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# SETTING THE BAR

IN ITS SIZE CLASS

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## REDUCED FUEL CONSUMPTION

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

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## MORE DURABLE AND ADVANCED POWERTRAIN

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

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## BEST OPERATOR CAB

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

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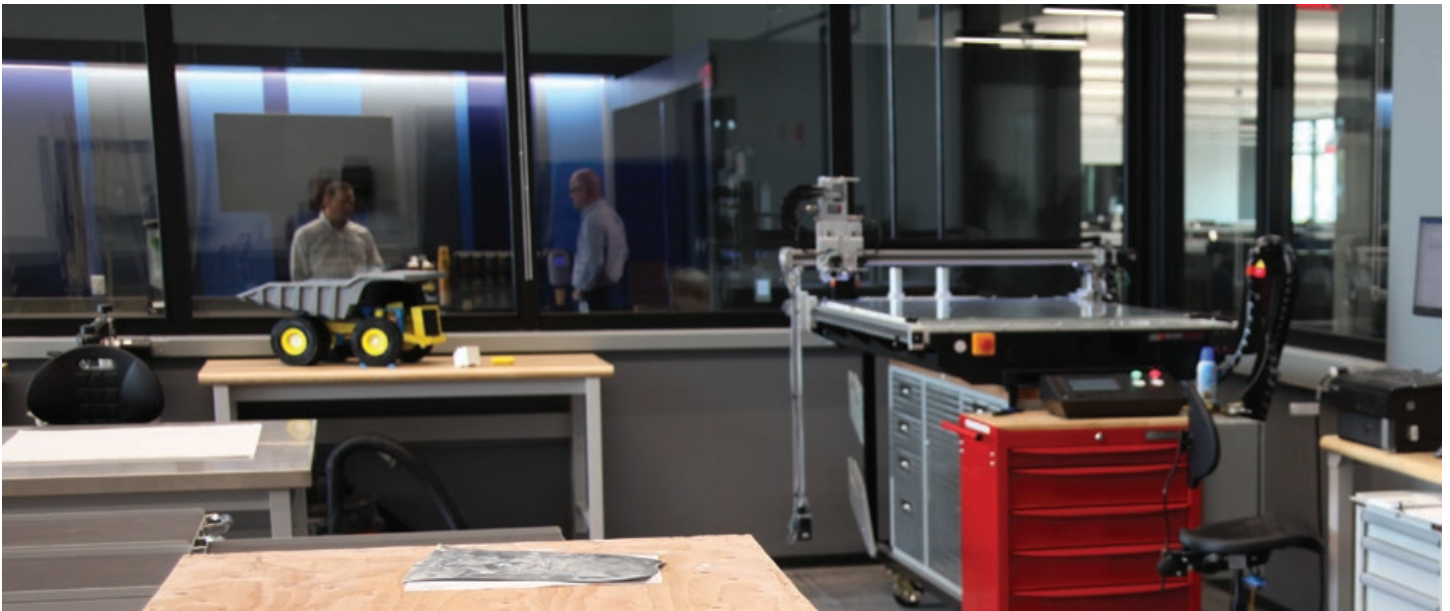
## PROVEN PERFORMER OVER COMPETITION

- + Highest horsepower and best powertrain efficiency in class
- + Best selling truck in its class
- + Over 12% 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 139 to 372 tonnes (153 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 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 strive to ensure that you get what you expect from Caterpillar: low cost per ton, high productivity and more uptime.

## 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

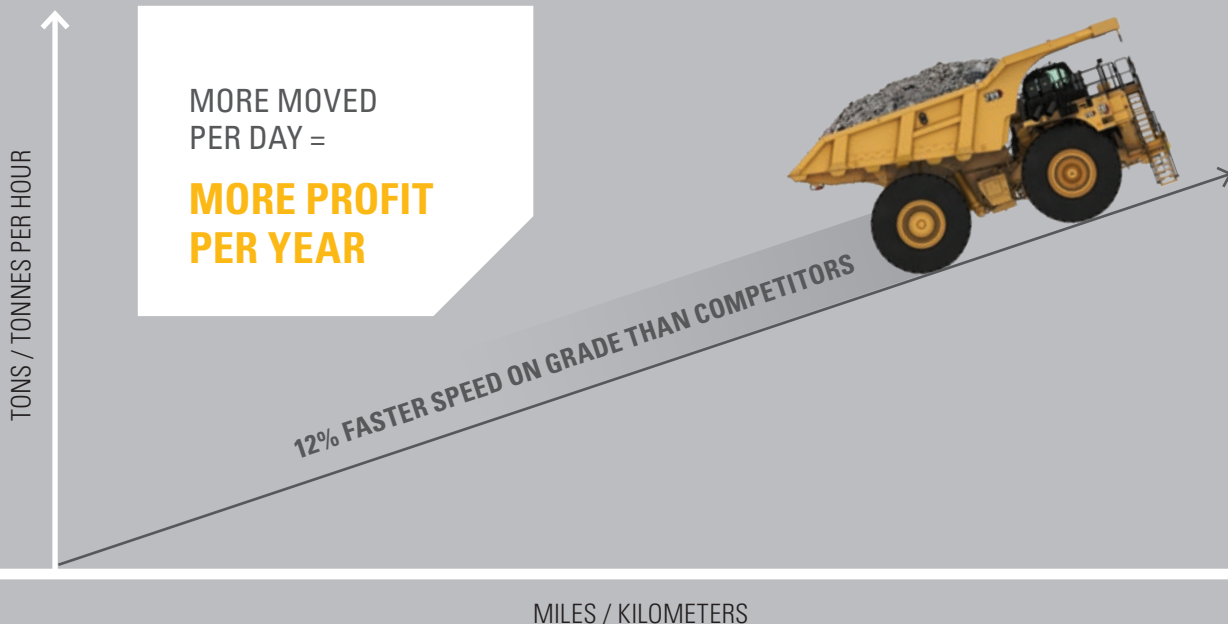
The 789 delivers a faster speed on grade than competitive trucks, reducing cycle times and lowering overall costs. The 3516E engine is a 16-cylinder, four-stroke design that uses long, effective power strokes for more complete fuel combustion and optimum efficiency. The 23% net torque rise provides unequalled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



**+17%**  
CAB  
WIDTH

**+11%**  
LEG  
ROOM

**34%**  
MORE  
OPERATOR  
SPACE

**+19%**  
SHOULDER  
ROOM

*As compared to D-series cabs*

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*

## IMPROVED CAB

The 789 cab is spacious and ergonomic, with controls, levers and switches positioned for ease of use. It's also quieter 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.



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## COMFORT 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.



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## ADVANCED SCREENS

Machine data, controls and guidance information 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.



## BOOSTING OPERATOR PRODUCTIVITY AND BUILDING CONFIDENCE

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. We've also added features that improve machine responsiveness and controllability while improving cycle times.

### 30+ NEW OR IMPROVED TECHNOLOGY FEATURES



#### AUTO HOIST

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.



#### OPERATOR SPEED COACHING

The Operator Speed Coaching function gives operators real-time feedback on factors such as payload, grade and ground conditions to help them choose the right speed for maximum productivity and safety.



#### PAYLOAD MONITORING

The payload monitoring system is twice as accurate as its predecessor, with better monitoring and an improved interface that provides easy access to information.

## ENHANCED VISIBILITY AND AWARENESS

The integrated Cat MineStar™ Detect Object Detection system combines radar and cameras to warn operators about light vehicles or stationary hazards around the machine. In addition, an optional 360 Surround View camera delivers a bird's-eye perspective, increasing visibility and improving awareness. Together, these two systems give operators a complete picture on a single screen.



## DYNAMIC STABILITY CONTROL (DSC)

Helping steer operators in the right direction, DSC monitors steering intention—where the operator intends to go—tracks the motion of the truck, and then automatically modulates the brakes to ensure the machine is tracking.

- + Prevents understeering & oversteering
- + Gives operators better control of their machines
- + Ensures a safer mine for everyone

## MACHINE SPEED LIMITING AND CRUISE CONTROL

This feature allows the operator to quickly and easily set a target speed limit. The truck will limit fuel or apply brakes to ensure the target speed limit is not exceeded. The powertrain will select the appropriate gear and RPM to maximize performance and efficiency.

NOTE: Some optional features shown

## **AUTOMATIC RESISTOR CONTROL (ARC)**

Automatic Resistor Control senses truck conditions like grade, payload, brake oil temperature and more to automatically set an optimum resistive braking speed. This allows trucks to travel 3–6% faster on grade, driving down cycle times with no impact on safety. In addition, zero fuel is consumed during resistive braking.

## **HILL START ASSIST WITH ANTI-ROLLBACK**

Hill Start Assist uses physical grade and payload to determine the rimpull needed to keep the truck stationary and simplifies operation to move the truck in the selected direction.

Anti-Rollback stops the machine with automatic brake application when it is rolling in the opposite direction of the selected gear.

## **ANTI-LOCK BRAKE SYSTEM (ABS)**

This optional system reduces wheel lock and the resulting chance of an uncontrollable skid, making it easier to control the truck in braking situations with reduced traction. ABS allows the operator to steer while in a sliding condition and helps the operator maintain the desired path of travel during braking.

## **ENHANCED TRACTION CONTROL**

The Enhanced Tractional Control feature monitors front and rear wheel speeds, grade and machine acceleration to determine targeted rear wheel speeds, then uses that information to control rear corner brakes and limit engine torque when needed to deliver improved traction for the truck. The feature increases traction control responsiveness and improves machine controllability and reduces tire wear and damage.



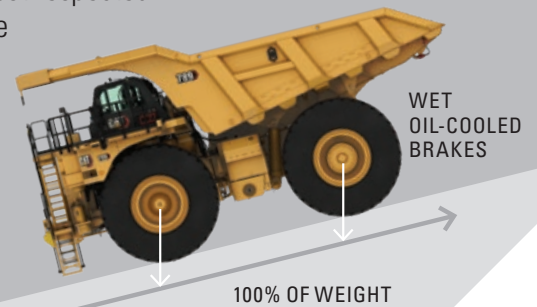
# SAFETY-INFUSED

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 control for increased operator confidence. Caterpillar's patented mining truck brakes are without question the most respected and trusted in the industry. The oil-cooled, multiple disc brakes provide immediate, fade-resistant braking. The 789 has a true four-corner braking system proven in thousands of Cat mining trucks under every conceivable condition. With resistive braking 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 braking force in poor underfoot conditions.







# CUTTING-EDGE CONNECTIVITY

## Next generation connectivity delivers:

- + Faster data transfers
- + Instant access to quality information on any supported device
- + Consistent data communication
- + More insightful and actionable data
- + Improved data analytics
- + New diagnostic capabilities

Improved connectivity has a positive impact on every aspect of a mining operation—from operator performance to equipment maintenance, fleet management to machine life.

We've developed a future-proof platform that makes it easier to integrate technologies that provide data and analytics, keep operators and sites informed, and boost the overall performance of your entire operation. Improved access to quality data and real-time information gives you the ability to make better decisions, faster. These decisions can help you predict and prevent machine failures and achieve the high uptime you need to keep production moving.

Connectivity is supported by ethernet communication across the machine controllers, sensors that are optimized for data analytics, and robust controls. Advanced connectivity on the new 789 truck is enabled by standard cellular 4G/LTE, optional dual mode 4G/LTE and Satellite Product Link™, or locally installed Wi-Fi.

Every new 789 leaves the factory equipped with Product Link Elite as a standard offering. This solution sends machine location and performance data to your office or to your chosen cloud-hosted application for analysis and review, helping you get more out of your machines.



# 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.

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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 capabilities include 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.



## MORE TIME HAULING, LESS TIME SERVICING

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

### 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.

Remote Troubleshooting capabilities reduce downtime and optimize machine performance by making it possible to troubleshoot the machine remotely.



### 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
- + Ground-level filters with extended service intervals for faster, safer planned maintenance



## A TRUCK YOU CAN DEPEND ON

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, which operates when the engine is running. 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.

It's essential that the body is integrated with the whole machine. Only Caterpillar can provide comprehensive virtual validation of how the body and chassis interact.

Caterpillar offers the widest variety of OEM designed, application-specific truck body solutions in the industry. Cat bodies consistently meet target payload and outperform competitive bodies in scale studies. They are designed and analyzed as an integral part of the entire vehicle system, helping to ensure you achieve maximum chassis life. From the design to the materials, manufacturing to shipping, the entire process meets Cat standards of quality and control.



## HIGH PERFORMANCE (HP) 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 that helps retain load on grade and improves berm clearance. Thicker, harder steel baseplates are used throughout the body to provide extra durability, reducing the need for a liner in light to medium duty applications.

## ADDITIONAL FEATURES

- + Application-specific side wall and tail extensions
- + Body exhaust heat
- + Bodies compatible to all previous generation trucks
- + Customizable body liner packages
- + Rock ejectors



# MINING — FOR A — BETTER WORLD

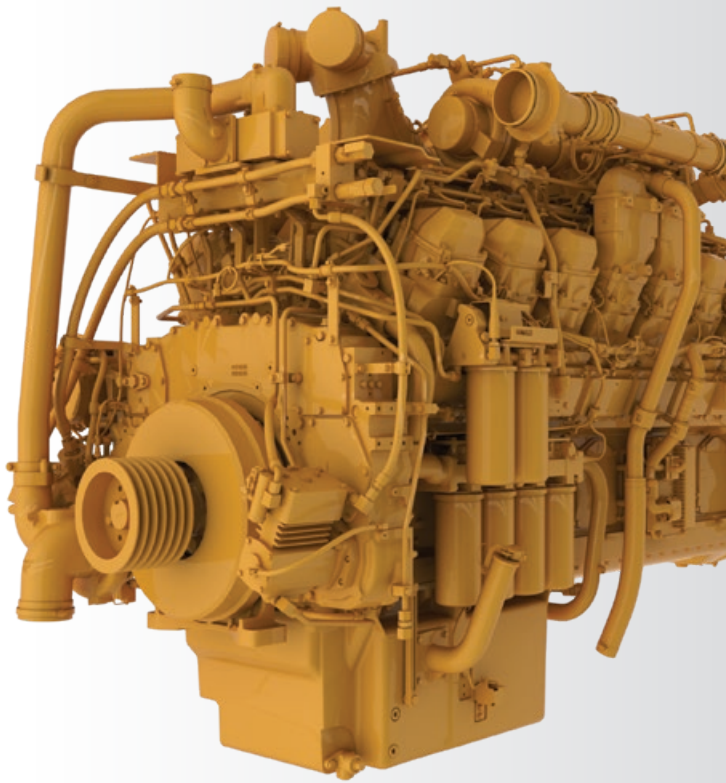
When it comes to your hauling operation, Caterpillar and Cat dealers are here to help you achieve your climate-related objectives. With many solutions available today — and many more on the horizon — we're committed to working together to find new ways to mine more responsibly and build a better, more sustainable world.

## SOLUTIONS FOR YOUR JOURNEY TO A REDUCED-EMISSIONS FUTURE

There are a variety of features, solutions and offerings that can help you reduce emissions today as you build a path to a reduced-emissions future.

- + Today's 789 has been designed to use less fuel and reduces corresponding greenhouse gas emissions. Zero fuel burn during mechanical resistive braking, combined with high mechanical drive powertrain efficiencies, can decrease fuel consumption.
- + The optional U.S. EPA Tier 4 Final engine can reduce NOx and particulate matter.
- + Caterpillar scale studies utilize truck scales and bed scanners to help optimize empty machine weight, reduce carryback and ensure maximum payload. Reduction in weight or payload results in lower CO2 per ton.
- + Caterpillar Production Studies optimize operations and maximize productivity and utilization at the fleet, site and enterprise levels. These studies can be conducted on site or remotely.
- + Site assessments that evaluate haul road design, maintenance and traffic patterns provide opportunities to improve cycle times, increase productivity, lower fuel burn per cycle and reduce maintenance costs.
- + The 789 engine is compatible with diesel fuel blended with lower-carbon intensity fuels such as biofuels and renewable fuels. These fuels reduce lifecycle greenhouse gas (GHG) emissions in the fuel value chain; GHG emissions at the tailpipe are essentially the same as traditional fuels. Drop-in replacements for diesel include biodiesel fuels, Hydrotreated Vegetable Oil (HVO) and Gas-to-Liquid (GTL) fuels.
- + Features like the Enhanced Engine Oil Filtration System, continuous rear axle filtration, extended life filters and longer maintenance intervals decrease the amount of waste contributed to the environment.
- + We preserve raw materials, conserve energy and reduce emissions through the Cat Reman program, which returns end-of-life components to like-new condition. Reman has been shown to contribute 65-87% less GHG process emissions. It uses 80-90% less new materials (by weight) and 65-87% less process energy.\*
- + Machine rebuilds also consume less energy and reduce emissions compared to manufacturing new trucks.

*\*Represents U.S. environmental impacts comparing gate-to-gate remanufacturing and manufacturing processes for engines and components. Based on 2018 external study of Cat engines, alternators and turbochargers. Does not include impacts elsewhere in our value chain.*



## 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

## PROVEN EMISSIONS SYSTEM

The Cat 789's The 3516E is compliant with U.S. EPA Tier 4 Final and EU Stage V emissions standards. 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



FLEET



TERRAIN



DETECT



HEALTH

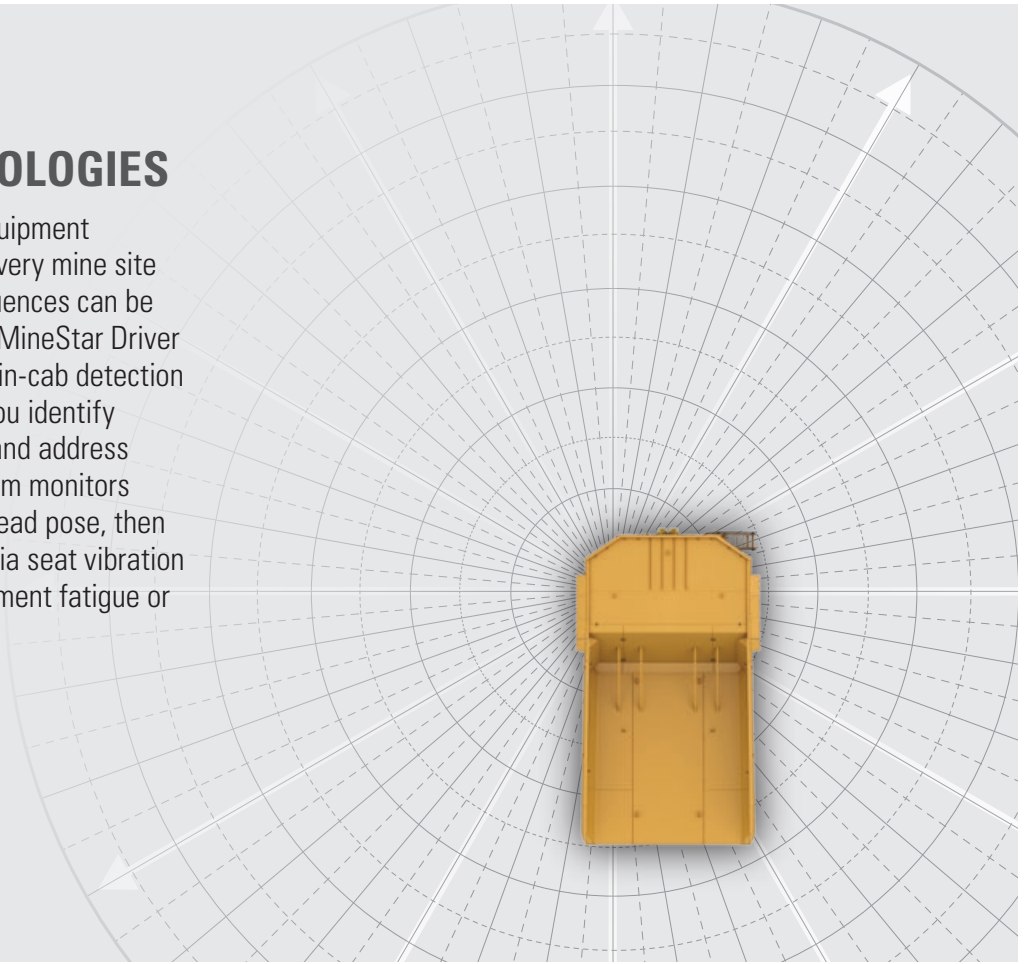
Cat® MineStar™ Solutions help you optimize your loading and hauling operation, keeping your shovels busy and your trucks on the move. MineStar fleet management tools will help you identify opportunities to improve truck efficiencies in ways that maximize payload, reduce cycle times, lower costs and boost profitability. And they'll guide your operators to the right material, optimize every truck load, track what material goes where and ensure you're moving the right amount of material with every load.

MineStar Solutions for loading and hauling include a range of capabilities that meet the needs of your fleet, your budget and your site. Every solution puts more value to your bottom line.



## SAFETY TECHNOLOGIES

Fatigued and distracted equipment operators are present on every mine site every day, and the consequences can be costly, even fatal. The Cat MineStar Driver Safety System (DSS) is an in-cab detection technology that can help you identify fatigue and distraction—and address it—in real time. The system monitors eye-closure duration and head pose, then instantly alerts operators via seat vibration and/or audio alarm the moment fatigue or distraction is identified.



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## MACHINE HEALTH

Machine health and condition monitoring solutions enable a proactive approach to maintenance.

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## FLEET MANAGEMENT

MineStar Fleet is a fleet monitoring system that can be used to measure, manage and maximize the overall hauling operation.





# SUPPORTING PRODUCTS

## —AND PRODUCTIVITY

Our commitment to your success doesn't end when your Cat 789 begins hauling overburden or 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.

Caterpillar and Cat dealer personnel will work with you to help 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.

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 on-site expert 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.

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## 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

- + Cat Job Site Solutions—Combining the products, services and expertise of the global Cat dealer network and Caterpillar providers into customized solutions that help you optimize your equipment, your people and your overall operation.
- + 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.

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## 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.

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## SUPPORT 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 150 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.



BETTER  
LOADING  
BETTER  
HAULING  
**BETTER  
BOTTOM  
LINE**

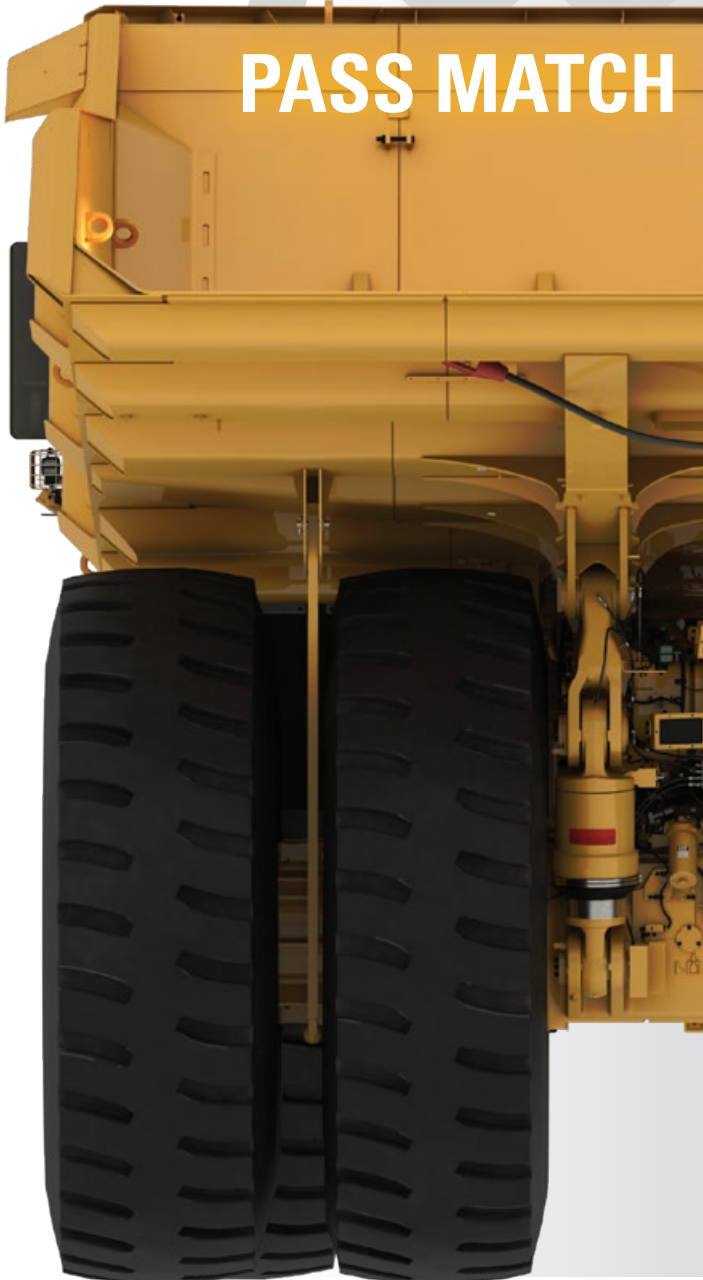
With a truck for every site or application — no matter the size class or drive system — and a broad lineup of loading tools, Caterpillar delivers a complete loading and hauling solution that delivers the lowest cost per ton.

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



LWL 993



7

995



4

HMS 6030



6

6040



5

6050



4

6060



3-4

ERS 7295



3

7395 HR



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>
+ Net Power advertised is the power available at the flywheel when the engine is equipped with air intake system, exhaust system, and alternator.		
+ Optional 1417 kW / 1,900 hp engine rating.		
+ U.S. EPA Tier 4 Final / EU Stage V optional engine available for applicable markets.		

WEIGHTS – APPROXIMATE		
Rated Gross Machine Weight (RGMW)	324 319 kg	715,001 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
+ 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	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 (optional)	
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>2</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	2082 L	550 gal
Fuel Tank Large	3785 L	1000 gal
Fuel Tank for Tier4/StageV Truck	2082 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
Sound level:	
Operator sound pressure level with direct drive tested to ISO 6396:2008	77 dB(A)
Operator sound pressure level with optional clutch tested to ISO 6396:2008	75 dB(A)
Rollover Protective Structure:	
ROPS for Operator	ISO 3471:2008
ROPS for Trainer	ISO 13459:2012
Falling Objects Protective Structure:	
FOPS for Operator	ISO 3449:2005 Level II
FOPS for Trainer	ISO 13459:2012 Level II

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



# 789 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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