

AD30

UNDERGROUND TRUCK



Nominal Payload Capacity: 30 000 kg / 66,139 lb
Gross Machine Mass: 60 000 kg / 132,300 lb
Engine Model: Cat® C15
Engine Power: 299 kW / 401 hp



**UNDERGROUND
CHALLENGES.**

**INNOVATIVE
SOLUTIONS.**

Underground hard rock mining presents special challenges when it comes to safe, efficient, productive operation — from environmental concerns and rising costs to communications and connectivity challenges. Even simple logistical issues become harder to manage as you dig deeper underground in search of new reserves.

But you want to do more than address these challenges. You want to work harder and turn those challenges into opportunities to improve.



At Caterpillar, we feel the same way. We're committed to listening to your challenges and collaborating with you to find new ways to improve the way you mine. From increasing productivity and reducing emissions to lowering operating costs and reducing maintenance and more, Cat® hard rock underground trucks and loaders are designed to help you meet your challenges head-on.

But we never stop looking for opportunities to innovate and optimize. We continually improve our products and seek out new ways of mining, new ways to reduce impact, and new ways to get more out of game-changers like technology and automation.

No matter what you mine—or how far underground you mine it—you need an equipment provider that understands the unique problems you face, and that has years of experience in solving them. You need a partner like Caterpillar.



CAT[®] AD30

UNDERGROUND TRUCK



CONSISTENT PERFORMER IN A LIMITED ENVELOPE

Ideally suited to entry sizes of 4 × 4 meters (13 x 13 feet), the Cat[®] AD30 is a medium to smaller mine hauler that is perfectly matched to the R1600H LHD. Engineered for performance, the Cat C15 engine provides unequaled lugging force while traversing steep grades. Torque rise effectively matches transmission shift points for maximum efficiency and fast cycle times. The cab is ergonomically designed for all-day comfort, control and productivity. Rugged construction and easy maintenance guarantee long life with low operating costs.

SUPERIOR BRAKE PERFORMANCE

- » Integrated braking system
- » Four-wheel, multiple disc brakes
- » Automatic Retarder Control

BUILT FOR OPERATORS

- » Integrated and isolation mounted protective structures
- » Monitoring system for easy access to data
- » Optional enclosed cab with sound suppression

DURABLE DESIGN

- » Sturdy frame and structures
- » Longer-life components



HAUL MORE EVERY LOAD AND EVERY CYCLE

The AD30 is powered by a Cat C15 engine, which provides unequalled lugging force during digging, tramping and traversing steep grades. The fuel system electronically monitors operator demands and sensor inputs for optimized engine performance, while air-to-air aftercooling provides improved fuel economy. Oil-cooled pistons increase heat dissipation for longer piston life, and a forged and induction-hardened crankshaft provides long life.

With the optional Ventilation Reduction (VR) Package, the C15 engine offers significant ventilation rate reductions while consuming the same amount of fuel and offering the same performance. The VR Package incorporates selective engine hardware and software to reduce diesel particulate matter in engine exhaust, and can be used with a Cat Diesel Particulate Filter to further reduce particulate matter in the exhaust.

An optional engine with emissions equivalent to U.S. EPA Tier 3 / EU Stage IIIA is also available.



MORE POWER TO THE GROUND

The AD30's mechanical powertrain and power shift transmission offer unmatched operating efficiency and control on steep grades and poor underfoot conditions. The transmission is built tough for long life in rugged conditions, with a lock-up torque convertor and clutch that deliver superior efficiency and a smoother, more comfortable ride.

Intelligent electronics protect the machine by regulating speed and engine RPM, reducing fuel consumption and simplifying troubleshooting.



A TRUCK — YOU CAN — DEPEND ON

The AD30 was designed to give customers the long life and enhanced durability they expect from larger Cat machines. Its frame is constructed using box sections, which allow the frame to better manage torque loads and impact stresses.

An articulating and oscillating hitch helps the truck maintain all-wheel ground contact even in rough terrain, providing better control and reducing stress on the hitch. Hardened steel pins, taper roller bearings and oscillating stops allow the front and rear frames to move independently.





A COMFORTABLE OPERATOR IS A PRODUCTIVE OPERATOR

The AD30's operator station is ergonomically designed for greater control in a comfortable, productive, safe environment. Controls, levers, switches and gauges are positioned to maximize productivity and minimize operator fatigue. An ergonomic, fully adjustable suspension seat offers superior comfort for long shifts.

We offer both enclosed and open cabs to meet your needs. The open cab is isolation mounted for reduced vibration, while the enclosed cab is fully sealed and offers:

- + Sound and vibration suppression
- + Filtered air
- + HVAC for operator comfort



BUILT FOR CONTROL

The integrated Cat braking system delivers reliable performance and control in even the most extreme underground mining conditions. It combines the service, secondary, parking brake and retarding functions in the same robust system for optimum braking efficiency. Automatic brake modification offers a smoother ride and better control for improved operator comfort and concentration.

Oil-Cooled Multiple Disc Brakes

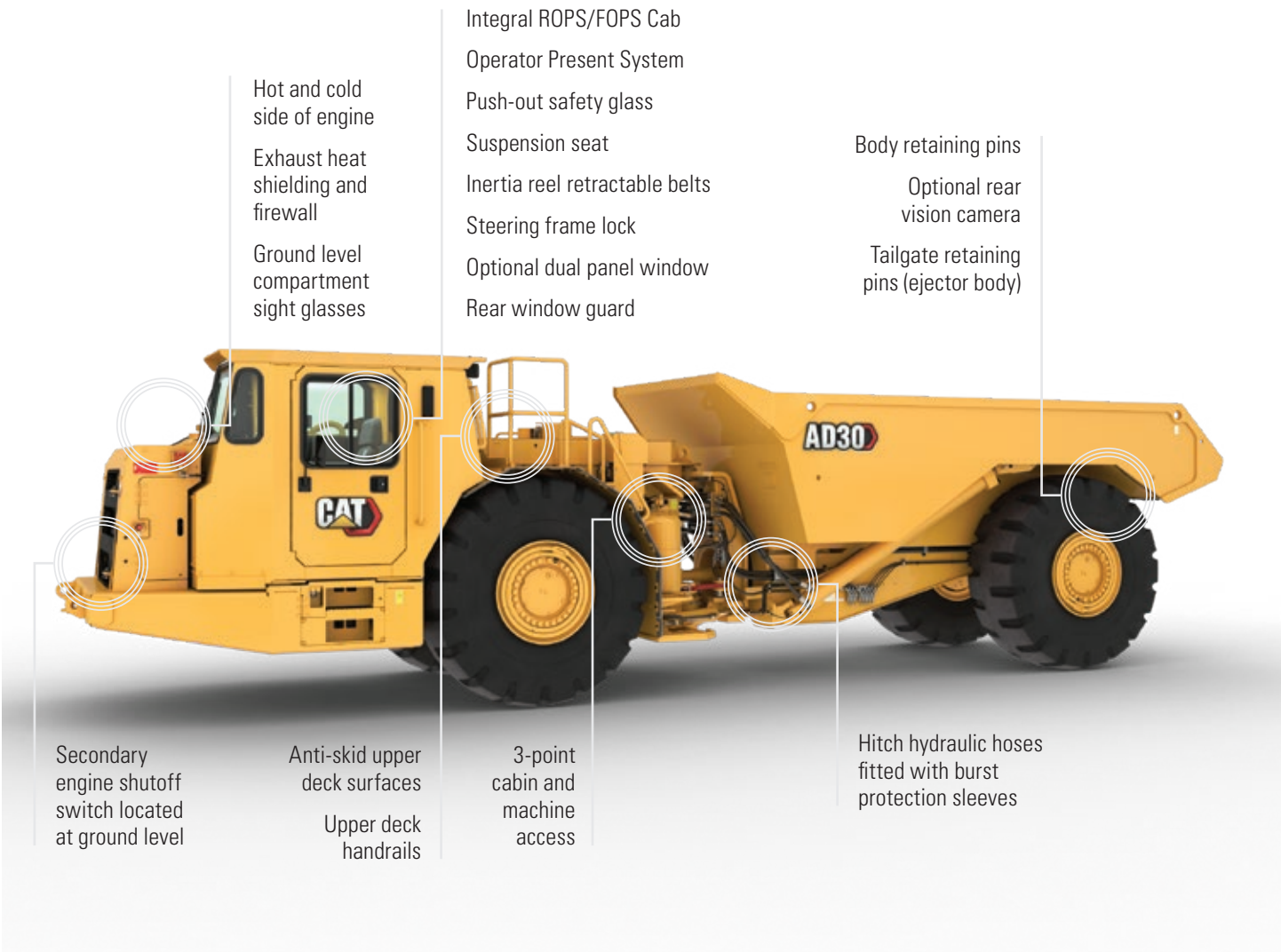
Four-wheel, forced oil-cooled multiple disc service brakes are continuously cooled by water-to-oil heat exchangers for non-fade braking and retarding performance. They are also completely enclosed to prevent contamination and reduce maintenance.

Automatic Retarder Control (ARC)

ARC electronically controls retarding on grade to maintain optimum engine RPM and oil cooling. Additional braking may be applied using the manual retarder or the brake pedal. ARC also allows the operator to maintain optimum engine speeds for faster downhill hauls and greater productivity. The ARC automatically activates when engine speed exceeds factory preset levels.

SAFETY-INFUSED

We continue to be proactive in developing new features that help you ensure the safety of everyone working in, on or around the machine. The AD30 is designed with safety in mind—from excellent visibility to improved access and egress, industry-leading braking and retarding to a secondary engine shutoff switch.



OPERATOR PRESENT SYSTEM

The Operator Present System helps protect the machine and operator from uncontrolled movements. The system automatically engages the parking brake, neutralizes the steering implement and transmission control and shuts down the engine in the event the operator fails to apply the park brake prior to exiting the cab. The engine shutdown configuration can be changed by your Cat dealer using the Cat ET service tool.



THE RIGHT BODY FOR THE JOB

Choosing the right body to meet your needs is critical to achieving optimal performance from your machine. The AD30 features two specific body styles, a traditional dump body and an ejector body, so you can choose the most efficient solution for your operation. In addition, the ejector body can be easily removed and replaced with a dump body for a more versatile machine. Your Cat dealer can help you select the right body for your specific application.

BODY DESIGN

Drawing on years of experience, Cat truck bodies are designed for long service life and low cost per ton. Cat truck bodies deliver optimal strength, capacity and durability.

BODY/CHASSIS INTEGRATION

Cat truck bodies are designed and matched with the integrated chassis system for optimum structural reliability, durability and long life.

FAST HOIST CYCLE TIMES

Two-stage hoist cylinders provide fast dump cycle times of 13 seconds for raise and 24 seconds for lower with snubbing function enabled to protect frame and components at the end of the lowering cycle.

MINING SMARTER THROUGH TECHNOLOGY

The AD30 incorporates technology enhancements that help you get more out of your investment—improving efficiency, boosting productivity and lowering costs.





TRUCK PAYLOAD MANAGEMENT SYSTEM

TPMS allows a mining operation to manage payloads and ensure that trucks are not under- or overloaded. A simple display in the cab gives operators accurate payload information, allowing them to help make sure their trucks are getting the correct amount of material every time.



CAT MINESTAR™ SOLUTIONS

It's no secret that underground mining presents special challenges when it comes to safe, efficient operation. That's why we tailor MineStar Solutions to the unique needs of your environment. Individual technology offerings can be deployed individually or integrated to create a comprehensive technology system that is scalable and configurable to the needs of your operation.

Fleet for underground provides real-time visibility to cycle time, payload and other key operational parameters and automatically records and tracks data up and down the value chain.

Detect for underground uses a high-precision peer-to-peer proximity detection system coupled with a revolutionary communications and tracking network to prevent incidents and track people and machines — wherever they are underground — in real time and with no reliance on mine infrastructure.

MineStar Health products and services enable you to collect and transmit equipment machine health data that enables proactive maintenance services and predictive equipment analysis.



MORE TIME HAULING, LESS TIME SERVICING

The AD30 is designed for ease of maintenance, driving down costs and maintenance times so you can keep working.



SERVICE ACCESS

Easy access to daily service points simplifies servicing and reduces time spent on regular maintenance procedures.

GROUND-LEVEL ACCESS

This feature allows convenient servicing to all tanks, filters, lubrication points and compartment drains. Electric fuel priming and remote mounted fuel filters allow for easier serviceability.

AIR FILTERS

Radial seal air filters are easy to change, reducing time required for air filter maintenance. The radiator surround has been upsized to improve access to pre-cleaner and filters. Air inlet filters are now forward-mounted on the radiator surround.

SIGHT GAUGES

Fluid level checks are made easier with sight gauges visible from ground level.

DIAGNOSTICS

Cat ET enables quick electronic diagnosis of machine performance and key diagnostic data for effective maintenance and repairs.

SEALED ELECTRICAL CONNECTORS

Electrical connectors are sealed to lock out dust and moisture. Harnesses are covered for protection. Wires are color- and number-coded for easy diagnosis and repair.

SCHEDULED OIL SAMPLING

S-O-SSM helps detect faults early, keeping minor repairs from becoming major ones. Sample point adapters are fitted standard to the machine.

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 machines help you meet those regulations. Every piece of Cat equipment is designed to be better and do better. Because the better we mine, the better the world can be.

At Caterpillar, we continue to research alternative energy sources such as biofuels and liquefied natural gas and power options like electrification to find new ways to reduce emissions. Underground mining continues to be an early adopter of sustainable mobile equipment solutions, based on the need for a clean and safe working environment.

In addition, we rebuild and remanufacture parts, components and complete machines to increase the lifespan of equipment — reusing instead of discarding, conserving energy, reducing waste, keeping nonrenewable resources in circulation for multiple lifetimes and minimizing the need for new raw materials. We're also listening to our customers and investigating ways we can help them in their efforts to recycle end-of-life machines and components.

Retrofits and upgrades enhance and improve older machines to incorporate efficiency improvements and emission reductions, and to keep them in production longer to conserve energy, lower emissions and minimize the need for raw materials.



SUPPORTING YOU UNDERGROUND: A TEAM THAT LISTENS, CUSTOMIZES & COLLABORATES

YOUR PARTNER FOR THE COMPLETE EQUIPMENT LIFECYCLE

No one knows more about how to get the most from a piece of Cat equipment than Caterpillar and your local Cat dealer. Our partnership starts with validation and testing of the machine and continues through its complete lifecycle.

The one-of-a-kind Cat dealer 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 equipment, but of your overall loading and hauling operation.

You'll have access to parts and service, as well as technicians who are focused on helping you optimize repairs to keep machines productive. 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.

MAXIMIZE THE VALUE OF YOUR EQUIPMENT



Your journey with a piece of Cat equipment begins when you decide to make the purchase. But that's just the first of many decisions you'll need to make throughout its lifecycle. Caterpillar and Cat dealers offer dozens of equipment management services that help you take care of your machine after it goes to work — from individual offerings that augment your own capabilities to comprehensive solutions that allow you to outsource the management of your fleet.

Together with Cat dealers, we go beyond supporting individual products to focus on complete operations:

- + Providing services that ensure you have machines available when you need them.
- + Helping you better understand how to optimize equipment performance and maximize its life.
- + Leveraging equipment health data and sophisticated analytics to enable a preventive approach to maintenance.
- + Helping you make smart decisions about buying, operating, maintaining, repairing, rebuilding and replacing equipment.
- + Helping you choose the right repair option at the right time in the equipment lifecycle to keep machines on the job.



TECHNICAL SPECIFICATIONS

See cat.com for complete specifications.

ENGINE		
Engine Model	Cat® C15	
Engine Power – VR Engine – ISO 14396:2002	299 kW	401 hp
Engine Power – U.S. EPA Tier 3 Engine – ISO 14396:2002	299 kW	401 hp
Bore	137 mm	5.4 in
Stroke	172 mm	6.8 in
Displacement	15.2 L	928 in ³

TRANSMISSION		
Forward – 1st	6.3 km/h	3.9 mph
Forward – 2nd	11.3 km/h	7.0 mph
Forward – 3rd	20.8 km/h	12.9 mph
Forward – 4th	36.7 km/h	22.8 mph
Reverse – 1st	7.1 km/h	4.4 mph
+ Maximum travel speeds with standard 26.5 × R25 tires.		

OPERATING SPECIFICATIONS		
Nominal Payload Capacity	30 000 kg	66,139 lb
Gross Machine Mass	60 000 kg	132,300 lb

WEIGHT DISTRIBUTION		
Empty		
Front Axle	67.5%	
Rear Axle	32.5%	
Loaded		
Front Axle	44.2%	
Rear Axle	55.8%	

BODY CAPACITIES		
Dump Body – 1	11.30 m ³	14.8 yd ³
Dump Body – 2 (Standard)	14.40 m ³	18.8 yd ³
Dump Body – 3	17.50 m ³	22.9 yd ³
Wide Body	16.80 m ³	21.9 yd ³
Ejector Body -1	15.20 m ³	19.9 yd ³
Ejector Body -2	16.80 m ³	21.9 yd ³
+ Heaped SAE 2:1.		

BODY HOIST (STAGE V ENGINE MODEL)	
Raise Time	10.5 seconds
Dump Time	11.2 seconds
Total Cycle Time	21.7 seconds

TURNING DIMENSIONS		
Outside Clearance Radius	8571 mm	337.4 in
Inside Turning Radius	5030 m ³	198 yd ³
Frame Oscillation	10°	
Articulation Angle	42.5°	

MACHINE DIMENSIONS		
Dump Body (STD)	14.4 m ³	18.8 yd ³
Height – Top of Empty Body	2547 mm	100.3 in
Height – Top of ROPS	2600 mm	102.4 in
Height – Body Loading	2385 mm	93.9 in
Height – Dump Clearance	558 mm	22.0 in
Height – Top of Raised Body	5602 mm	220.6 in
Height – Ground Clearance	400 mm	15.7 in
Height – Top of Load (SAE 2:1)	3051 mm	120.1 in
Length – Maximum Body Raised	10743 mm	423.0 in
Length – Overall Body Down	10153 mm	399.7 in
Length – Front Axle to Front Bumper	3345 mm	131.7 in
Length – Front Axle to Hitch	1800 mm	70.9 in
Length – Wheel Base	5200 mm	204.7 in
Length – Rear Axle to Tail	1608 mm	63.3 in
Length – Rear Wheel to Raised Body	1061 mm	41.8 in
Width – Overall Tire	2650 mm	104.3 in
Width – Machine with Body	2690 mm	105.9 in
Width – Machine without Body	2690 mm	105.9 in
Recommended Clearance Width*	4000 mm	157.5 in
Recommended Clearance Height*	4000 mm	157.5 in
* Clearance dimensions are for reference only.		

STANDARD AND OPTIONAL EQUIPMENT

Standard and optional equipment may vary. Consult your Cat dealer for details.

POWER TRAIN		
	Standard	Optional
Brake retarder control, automatic	x	
Brakes: All wheel disc, Oil cooled, multiple-disc (SAFR)	x	
Parking brakes, four wheels	x	
Control throttle shifting	x	
Cat C15 six cylinder diesel engine, Air-to-air aftercooler (ATAAC)	x	
Engine options, choose from		x
– Engine, Ventilation Reduction (VR)		
– Engine, Ventilation Reduction (VR), Flow Thru Ready		
– Engine, Tier 3		
After-treatment options (for use with VR engine only) Diesel Particulate Filter - (DPF) (flow through) filter		x
Fast Fill System		x
Four wheel drive	x	
Fuel priming aid	x	
Gear blockout with tray up, programmable	x	
Ground speed limiting, programmable	x	
Park Brake Switch Engagement – Push to Apply/Pull to Apply		x
Precleaner, engine air intake	x	
Secondary steering		x
Transmission, automatic planetary power shift (4F/1R)	x	
Torque converter with automatic lockup	x	

ELECTRICAL		
	Standard	Optional
Alarm, reversing	x	
Alternator, 95 amp	x	
Disconnect switch, 2 post, ground level	x	
Electric starting, 24V	x	
Lighting, Halogen	x	
Lighting, LED		x
Battery Shutdown		
Ground Level Isolation, In Cab Isolation Switch		x
Ground Level Isolation, Engine Shutdown Switch		x
Ground Level Isolation, In Cab Isolation, Engine Shutdown Switch		x
Receptacle Group, auxiliary start	x	
Shutdown switch, ground level	x	

TECHNOLOGY		
	Standard	Optional
Truck Payload Measurement System (TPMS)		x

TIRES, RIMS, AND WHEELS		
	Standard	Optional
Tires (choose from):	x	
– Tire, 26.5 X 25, VSNT, Bridgestone		
– Tire, 26.5 X 25, VSDL Bridgestone		
Rims (set of 4)	x	

OPERATOR ENVIRONMENT		
	Standard	Optional
Cab, ROPS/FOPS certified		
Open	x	
Enclosed		x
Caterpillar Electronic Monitoring System (CEMS), dash instrument panels	x	
Operator Presence System	x	
Automatic Brake Application (ABA)	x	
Brake Pressure Gauges		x
Mirrors, rear view	x	
Seat, suspension operator seat with retractable seat belt	x	
Seat, trainer/passenger with seat belt	x	
Steering wheel, tilt/telescopic	x	
Turning signal indicator	x	

OTHER EQUIPMENT		
	Standard	Optional
Adapters, oil sample	x	
Alarm, tray up	x	
Ansul Fire Suppression, Wet		x
Belly guards	x	
Cap, radiator, manual release	x	
Camera, color, rear facing		x
Catalytic exhaust purifier/muffler	x	
Covers, exhaust	x	
Firewall	x	
Handholds and Handrails	x	
Handrail extension		x
Hitch, articulated and oscillated	x	
Dump body (14.4 m ³ /18.8 yd ³)	x	
Dump body (11.3 m ³ /14.8 yd ³ ; 17.5 m ³ /22.9 yd ³ ; 16.8 m ³ /21.9 yd ³)		x
Ejector Body (15.2 m ³ /19.9 yd ³ ; 16.8 m ³ /21.9 yd ³)		x
Body Liners		x
Cover, Anti Vandalism for Shipping		x
Lifting lugs, frame	x	
Lubrication System		
Automatic, dump or ejector body		x
Centralized, ejector body		x
Minetransfer		x
Spill guard, front, for body	x	
Tow pin, front and rear	x	



AD30 TRUCK

For more complete information on Cat products, dealer services and industry solutions, visit us at www.cat.com

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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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