

# 773

## OFF-HIGHWAY TRUCK



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<b>Engine Gross Power</b>	567 kW (760 hp)
<b>Empty Operating Weight</b>	40,192 kg (88,608 lb)

Meets China Nonroad Stage III emission standards. Equivalent to U.S. EPA Tier 2.



# THE CAT<sup>®</sup> 773

Increase uptime, efficiency, and safety on the jobsite with the productive and reliable Cat<sup>®</sup> 773 Off-Highway Truck. Built with the powerful Cat 3412E air-to-air aftercooled engine, featuring Hydraulic Electronic Unit Injector (HEUI<sup>™</sup>) for fuel efficient operation. Delivering unmatched reliability and durability along with high uptime, the 773 is the right choice for your operation.



## THIS TRUCK REDEFINES PERFORMANCE

The Cat 773 Off-Highway Truck combines time proven iron and modern technology focusing on customers greatest need – lowest cost per ton.

- + IMPROVED PERFORMANCE
- + MAXIMIZING EFFICIENCY
- + ENHANCED SAFETY AND COMFORT

The 773 improves your operation by moving more material efficiently and makes life easier for operators.

**MAXIMUM EFFICIENCY**

# LOWER EMISSIONS AND OPERATING COSTS



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## FUEL-SAVING ECO MODE

Economy mode modifies engine maps to take advantage of steady grades and level ground, reducing power and fuel burn. Forced Economy mode configuration can be selected based on application needs.

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## SAVE MORE WITH IDLE SHUTDOWN

Engine idle shutdown identifies when the truck is in park and idles for more than a preset time, initiating engine shutdown to conserve fuel, reduce hour accumulations and reduce engine emissions.

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## SPEED LIMITING REDUCES WASTE

The speed limiting feature automatically and instantaneously selects the most fuel-efficient gear for the terrain based on the truck's laden/unladen weight.

## ECONOMICAL SAVINGS

**THE 773 IS THE  
SENSIBLE CHOICE  
FOR YOUR BUSINESS.**



## LOWER FUEL COSTS

# IMPROVED PERFORMANCE

ACHIEVE GREATER PRODUCTIVITY



Engineered for jobsite performance, the durable truck body is equipped for diverse and rigorous applications while offering agility and comfort for operators, increasing the productivity of the 773 by up to 7%.

## MORE POWER TO THE GROUND

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An increase of 7% more engine power combined with 3% increase in torque helps move more material. Speed control and machine stopping power give the machine operator more control, helping to improve jobsite performance.

## FLEXIBILITY AND VERSATILITY

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Various body options, along with liners and sideboard combinations, offer flexibility to move a wide density of material without compromising on payload.

## TRANSMISSION CONTROLS THAT BOOST EFFICIENCY

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The seven-speed, power shift transmission provides easy clutch engagement, reducing shock loads to get the job done smoothly. Patented rotating clutch pressure seals minimize drag losses and improve reliability. A lock-up torque converter extends transmission life and increases operator comfort.

*\*Compared with 773E (ASK series)*

## INTEGRATED SHIFTER FOR EASIER CONTROL

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The new next generation gearshift lever has integrated parking brake controls for ease of operation.

## BETTER COMFORT

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Outstanding visibility with mirror and LED lighting options, also HVAC is standard for a comfortable operation.

## SMOOTH RIDE

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The Cat comfort seat uses full air suspension to smooth rough rides. A visual and audio warning is provided to the operator when the retractable four-point seat belt with a shoulder harness is not in use. The 773's suspension system is also designed for a superior ride.

## SIMPLIFIED OPERATOR INTERFACE

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An easy-to-use display enables seamless navigation through machine control systems during operation and service of the machine.

## BEST-IN-CLASS LIGHTING

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A new LED lighting package includes head, work, indicator, and backup lights for superior visibility and durability.

## REDUCE FATIGUE

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The operator station interior is ergonomically designed for total machine control in a comfortable, productive, and safe environment. All controls, levers, switches, and gauges are positioned to maximize productivity and minimize operator fatigue.



# ENHANCED COMFORT

## SIMPLIFIED, MORE EFFICIENT OPERATION

## BUILT WITH SAFETY IN MIND

# SAFETY FEATURES



### A CAB BUILT TO PROTECT

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The sturdy four-point mounted cabin features laminated safety glass, four-point harness with visual and audio alerts, and emergency egress through the right side door. Rollover and falling object protection is an extension of the truck frame. A trainer seat with a lap belt allows for easy and safe on-the-job training.

### GROUND LEVEL LOCKOUTS PROTECT PERSONNEL

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The 773 is equipped with ground-level machine lockout controls, helping service technicians perform maintenance work on the machine safely.

### SAFE ENTRY AND EGRESS

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The integrated access ladder system and all access platforms are equipped with handrails designed for three points of contact at all times. Aggressive tread plate is installed on all step areas with illuminated access for night operation.

### TECHNOLOGY ENSURES SAFE OPERATION

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Transmission controls impose gear limiting during body up operations. If the primary hydraulic steering fails, a secondary battery-powered system automatically gets activated to ensure safe operation. If the truck is overloaded, an automatic overspeed limiter reduces the machine speed.

LOWERING OPERATING COSTS

# PROTECTED POWERTRAIN

## POWER TRAIN

Cat 3412E Diesel Engine uses long power strokes for complete fuel combustion and optimum efficiency. High displacement/low speed rating extends engine life. Cat seven-speed, power shift transmission regulates clutch pressure to ease clutch engagement, reducing shock loads. Final drive and differential torque multiplication of 17.48:1 further reduces stress on the drive train. Full floating axles are shot-peened to relieve internal stresses and increase durability. Rolled splines also provide increased service life. Cast rear wheels and center-mount rims are mounted using studs and nuts for maximum reliability.

## TOUGH STRUCTURES

The 773 continues the Caterpillar tradition of durability, with a tough frame designed to deal with twisting loads. The rugged suspension not only reduces stress on the machine's structures, but it's also highly durable itself, with solid steel spindles and other components engineered for long life.

## TRUCK BODY

Rugged body options for varying applications which is designed to handle a variety of material densities with available sideboards and liner options. Maximum payload in 3-5 passes with matched Cat loader or shovels.

## EASIER SERVICE

Easy access to daily service points, convenient filters, and fluid refill reduce time spent on regular maintenance procedures. Ground-level lockouts and breaker access make pre-service safety procedures quick and easy. The open frame design reduces removal and replacement time for major components.





## COMFORT AND CONTROL

Mirror and lighting options and a left side power window increase front and rear viewing and enable improved visibility to the haul road. Air suspension seat adjusts to operator weight. Four-point seat belt has six adjustment points for optimum fit and comfort. Tilt-telescoping steering wheel and hand-operated retarder reduce operator fatigue.



## STRONG CONSTRUCTION

Castings and box section frame are designed for off-road integrity and more than one lifecycle. Rear suspension cylinders and solid steel spindles have longer life.



## TURBOCHARGED ENGINE

The Cat C3412E air-to-air aftercooled diesel engine delivers 760 hp and 3% more torque, which provides better rim-pull and speed on grades. Equipped with a ground-level machine shutdown switch and a HEUI fuel system for greater fuel efficiency. Emits equivalent to U.S. EPA Tier 2 and conserves fuel with economy mode, speed limiting, and engine idle shutdown after a preset time.



## HIGH PERFORMANCE

Traction control system (TCS) reduces tire wear in wet, sloped conditions. Automatic retarder control (ARC) and speed limiting reduce brake wear and cycle time while increasing fuel efficiency.



# REAL-TIME INFORMATION WITH INTEGRATED TECHNOLOGIES

## TAKES THE GUESSWORK OUT OF MANAGING YOUR EQUIPMENT

The Cat truck payload management system (TPMS), VIMS, Cat Link hardware (Product Link) and my.cat.com put vital equipment information at your fingertips.\*



### **PRODUCT LINK™/PRODUCT LINK ELITE HARDWARE**

Remotely track asset location, hours, fuel usage, diagnostic codes, idle time, and more to improve your productivity and lower your operating costs. Cellular connectivity comes standard. Satellite connectivity is available.

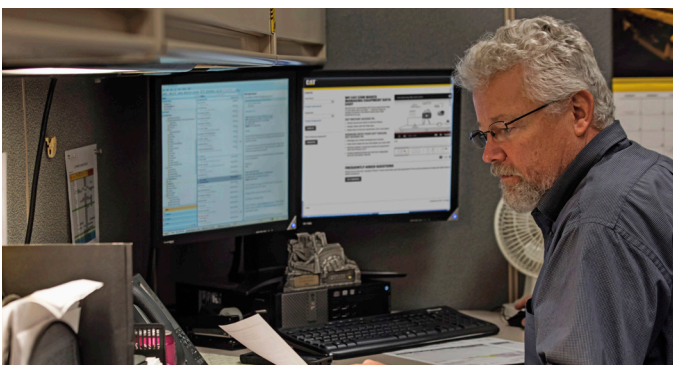


### **VIMS**

Proactively manage machine health and production. This user-friendly interface monitor is available in the cabin and allows operators to monitor real-time machine performance and operating data. Access diagnostics, prognostic trends, and production information such as payload, haul cycle times, segment times, and fuel usage.

### **TPMS**

Using onboard sensors, the TPMS clearly indicates overloading/underloading to the operator. Carry out a detailed analysis on payload carried, cycle segment times, and fuel burned to improve overall efficiency.



### **MY.CAT.COM**

You can also access Caterpillar and Cat dealer information at my.cat.com. My.cat.com gives you access to planned maintenance (PM) schedules, parts and service records, warranty coverage, and more – with a single login. Plus, you can link directly to your VisionLink® account.

\*Technology features are optional equipment. Refer to the standard/optional features segment or consult your Cat dealer for details.

# TECHNICAL SPECIFICATIONS

See [cat.com](http://cat.com) for complete specifications.

ENGINE		
Engine Model	3412E	
Rated Engine Speed	2,000 rpm	
Gross Power – SAE J1995	567 kW	760 hp
Net Power – SAE J1349	537 kW	720 hp
Net Torque @ 1300 rpm	3436 N·m	2,534 lbf·ft
Torque Rise	33%	
Cylinders	12	
Bore	137 mm	5.4 in
Stroke	152 mm	6.0 in
Replacement	27 L	1,649 in <sup>3</sup>

- These engine ratings apply at 2,000 rpm when tested under the specified condition for the specified standard in effect at the time of manufacture.
- Power rating conditions based on standard conditions of 25° C (77° F) and 99 kPa (29.32 in Hg) dry barometer, using 35° C (95° F) API gravity fuel having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 30° C (86° F) [reference a fuel density of 838.9 g/L (7.001 lb/gal)].
- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler, and alternator.
- No engine derating required up to 3048 m (10,000 ft).
- Meets China Nonroad Stage III emission standards equivalent to Tier 2.

CAPACITY – DUAL SLOPE – 100% FILL FACTOR		
Struck	26.6 m <sup>3</sup>	34.8 yd <sup>3</sup>
Heaped (SAE 2:1)*	35.2 m <sup>3</sup>	46.0 yd <sup>3</sup>

- Contact your local Cat dealer for body recommendation.
- \* ISO 6483:1980.

TRANSMISSION					
Forward 1	10.8 km/h	6.7 mph	Forward 5	37.0 km/h	23.0 mph
Forward 3	20.4 km/h	12.7 mph	Forward 7	67.8 km/h	42.1 mph

- Maximum travel speeds with standard 24.00R35 (E4) tires.

OPERATING WEIGHTS		
Target Gross Machine Weight (TGMW)	99 300 kg	218,920 lbs
Empty Operating Weight, Dual Slope*	40 192 kg	88,608 lbs
Target Payload, Dual Slope	59 108 kg	130,311 lbs

- \* Does not include Liner.
- Empty operating weight may vary based on the machine configuration. Refer to Off-Highway Truck Payload Policy.

WEIGHT DISTRIBUTION – APPROXIMATE	
Front Axle, Empty/Loaded	46.6%/33.8%
Rear Axle, Empty/Loaded	53.4%/66.2%

AIR CONDITIONING SYSTEM
The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 2.4 kg (5.29 lbs) of refrigerant, which has a CO <sub>2</sub> equivalent of 3.43 metric tonnes (3.78 tons).

ROPS/FOPS
• Rollover Protective Structure (ROPS) for cab offered by Caterpillar meets ISO 3471:2008 for operator and ISO 13459:2012 for trainer.
• Falling Objects Protective Structure (FOPS) meets ISO 3449:2005 Level II FOPS criteria for operator and ISO 13459:2012 Level II criteria for trainer.

BRAKES		
Brake Surface – Front	1395 cm <sup>2</sup>	216 in <sup>2</sup>
Brake Surface – Rear	61 269 cm <sup>2</sup>	9,496 in <sup>2</sup>
Brake Standard	ISO 3450:2011	

BODY HOISTS		
Pump Flow – High Idle	562 L/min	148 gal/min
Relief Valve Setting – Raise	17 225 kPa	2,500 psi
Relief Valve Setting – Lower	3445 kPa	500 psi
Body Raise Time – High Idle	9.5 seconds	
Body Lower Time – Float	12.5 seconds	

- Twin, two-stage hydraulic cylinders mounted outside the main frame; double acting cylinders in second stage.
- Power raise in both stages and power down in second stage.

SOUND	
Sound Standards	SAE J1166:2008
<ul style="list-style-type: none"> <li>• For cab offered by Caterpillar, the operator sound exposure Leq (Equivalent Sound Pressure Level) is 80 dB(A) when measured according to work cycle procedures specified in SAE J1166:2008. This occurs when the cab is properly installed and maintained. The test was conducted with doors and windows closed.</li> <li>• Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in a noisy environment.</li> </ul>	

TIRES	
Standard Tire 24.00R35 (E4)	
<ul style="list-style-type: none"> <li>• Productive capabilities of the 773 truck are such that, under certain job conditions, TKPH (TMPH) capabilities of standard or optional tires could be exceeded and, therefore, limit production.</li> <li>• Caterpillar recommends the customer evaluate all job conditions and consult the tire manufacturer for proper tire selection.</li> </ul>	

STEERING		
Steering Standards	ISO 5010:2007	
Steer Angle	31°	
Turning Diameter – Front	22.0 m	72'2"
Turning Circle Clearance Diameter	25.0 m	82'0"

SUSPENSION		
Effective Cylinder Stroke – Front	234 mm	5.2 in
Effective Cylinder Stroke – Rear	149 mm	5.9 in
Rear Axle Oscillation	± 8.1°	

SERVICE REFILL CAPACITIES		
Fuel Tank	700 L	185 gal
Cooling System	122 L	32 gal
Crankcase	68 L	18 gal
Differentials and Final Drives	155 L	41 gal
Steering Tank	34 L	9 gal
Steering System (includes tank)	60 L	16 gal
Brake/Hoist Hydraulic Tank	133 L	35 gal
Brake/Hoist System (includes tank)	307 L	81 gal
Torque Converter/Transmission System	53 L	14 gal
Torque Converter/Transmission System (includes sump)	72 L	19 gal

# STANDARD & OPTIONAL EQUIPMENT

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

POWER TRAIN	STANDARD	OPTIONAL
Cat® 3412E HEUI™ engine: 12-cylinder diesel, air-to-air aftercooler (ATAAC), hydraulic electronic unit injection, air filter with precleaner (2), automatic cold mode idle control, turbocharger (2)	•	
Extended life coolant to -35° C (-30° F)	•	
Braking system: oil-cooled – multiple disc (rear), parking/secondary, caliper disc (front), manual retarder (utilizes rear oil-cooled, multiple disc brakes), brake release motor (towing)	•	
Auto retarder control (ARC)		•
Traction Control System (TCS)		•
IBC (ARC & TCS)		•
Transmission: 7-speed automatic power shift with ICM control, auto neutral idle, body upshift inhibitor, controlled throttle shifting, directional shift management, downshift inhibitor, neutral coast inhibitor, neutral start switch, programmable top gear/speed selection, reverse neutralizer during dumping, reverse shift inhibitor	•	
ELECTRICAL	STANDARD	OPTIONAL
Alarm, backup	•	
Alternator, 115 ampere	•	
Auxiliary jump start receptacle	•	
Batteries, maintenance-free, 12V (2), 190 amp-hour	•	
Electrical system, 24V	•	
Lighting system: backup light (halogen), directional signals/hazard warning (front and rear LED), headlights – (LED) with dimmer, hazard lights (LED), stop/tail lights (LED)	•	
TECHNOLOGY PRODUCTS	STANDARD	OPTIONAL
Product Link™	•	
Vital Information Management System (VIMS™)		•
Truck Payload Management System (TPMS)		•
OPERATOR ENVIRONMENT	STANDARD	OPTIONAL
Air filter service indicator	•	
Air system pressure gauge	•	
Ashtray and cigarette lighter	•	
Audiovisual seat belt reminder	•	
Brake oil temperature gauge	•	
Camera System		•
Coat hook, cup holder	•	
Coolant temperature gauge	•	
Diagnostic connection port	•	
Engine overspeed indicator	•	
Entertainment radio ready: speakers, antenna, wiring harness	•	
Fog lamp		•

OPERATOR ENVIRONMENT (CONTINUED)	STANDARD	OPTIONAL
Heated mirrors		•
Hoist lever	•	
Hour meter	•	
HVAC	•	
Left side power window	•	
Load counter, automatic: Advisor display	•	
Mirrors, left and right	•	
Right side access door	•	
ROPS cab, insulated/sound suppressed	•	
Seat, Cat Comfort, full air suspension and retractable four-point seat belt with shoulder harness	•	
Seat, trainer with lap belt	•	
Tachometer	•	
Throttle lock	•	
Tinted, laminated glass	•	
Transmission gear indicator	•	
Transmission oil temperature gauge	•	
OTHER	STANDARD	OPTIONAL
Airline dryer	•	
Automatic lubrication system		•
Body down indicator	•	
Body liner		•
Body mounting group	•	
Body safety pin (secures body in up position)	•	
Body sideboards		•
Center-mounted rims	•	
Cluster/grouped lubrication system		•
Cold weather package		•
Driveline guards, operator safety vandalism protection lock	•	
Engine crankcase guards	•	
Exhaust Muffler		•
Fast fluid fill system		•
Fire extinguisher		•
Fuel system, Fast fill		•
Ground level battery disconnect	•	
Ground level grease fittings	•	
Guard, Turbocharger		•
Hydro pneumatic suspension at front and rear	•	
Oil change system – high speed		•
Parts manual - digital (QR)	•	
Reservoirs: transmission, steering, brake – converter, hoist	•	
Rock ejectors	•	
Spare rim		•
Supplemental steering, automatic	•	
Wheel Chocks		•

For more complete information on Cat products, dealer services and industry solutions, visit us on the web at [www.cat.com](http://www.cat.com).

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