



# Cat<sup>®</sup> 740 GC

## Articulated Truck

***The Cat<sup>®</sup> 740 GC Articulated Truck helps you move material in less time. Automated, assisted, and intuitive controls help reduce operator workload and training, while increasing uptime and production.***

### Proven Reliability

- Cat C15 engine delivers high performance across a variety of applications.
- Class-leading transmission technology with Advanced Productivity Electronic Control Strategy (APECS) and Electronic Clutch Pressure Control (ECPC).
- Enhanced reliability through commonality and design simplicity, with long life to overhaul.
- Minimized impact of emission systems allows excellent response and power.
- Engine compression brake improves retarding response and increases retarding power for controlled descent of grades.

### Durability

- All structures and components are proven through extensive testing and customer experience.
- Suspension allows greater speed over rough terrain, while softening impact loads.
- Front suspension oscillates  $\pm 6$  degrees for a smooth ride.
- Frames are designed to handle torque loads, decrease hitch area stress, and optimize suspension geometry.
- Frames are robot-welded for maximum durability.

### Achieve Greater Productivity

- High Density Power Shift (HDPS) transmission is designed specifically for articulated trucks with 9 forward/2 reverse speeds and improved acceleration.
- APECS and ECPC deliver smooth gear changes with improved acceleration and higher productivity.
- Variable gearshift points are based on the operating conditions, reducing the use of torque converter drive and helping maintain ground speed during gear changes on grades.
- Advanced Automatic Traction Control (AATC) decreases wheel slippage, delivering maximum traction and increased productivity. Fully automatic with no operator action.
- Truck body dimensions and other specifications are an excellent match to Cat loaders and other loading equipment, resulting in fewer passes, increased production, and lower system costs.

### Boost Fuel Efficiency

- Next-generation machine design improves fuel economy with minimized maintenance costs and the same great power and response.
- Advanced Mechanical Electronic Unit Injector (MEUI)<sup>™</sup> system delivers increased injection pressures and more precise fuel rates. These durable injectors enhance responsiveness while controlling soot.
- Economy mode reduces fuel use without affecting productivity and can be engaged with a single button.
- Innovative air-management systems optimize airflow and enhance power and fuel efficiency.
- Fully automatic retarder control helps prevent engine overspeed, preserves the machine without any operator intervention.



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## Easy, Comfortable Operator Environment

- Simple, intuitive control and display layouts allow operator to focus on safe machine operation, while maintaining productivity.
- New assisted hoisting control allows automatic tipping; full manual control can be selected.
- Combined hoist/transmission lever, exclusive to Caterpillar, places multiple controls on the transmission lever, incorporates park brake, and reduces operator interaction by as much as 50%.
- Reduced vibrations from air suspension seat.
- Spacious cab with seats positioned for optimal operator and trainer visibility.
- Improved automatic climate control system makes maintaining the correct temperature easier.
- Updated touchscreen display allows easy monitoring and adjustment of systems.
- Increased and improved storage prevents cabin clutter.

## Technology That Gets Work Done

- Integrated systems give you the ability to make timely, fact-based decisions to maximize efficiency, improve productivity, and lower costs.
- Product Link™ system connects to each machine wirelessly, allowing you to monitor location, hours, fuel use, productivity, idle time, and diagnostic codes.
- Payload technology allows operators to view real-time load weights on the integrated display.
- External payload indicator lights alert the loader when to stop, reducing the risk of machine overloading.
- Stability assist software reports information via online VisionLink®, increasing awareness of machine history if a rollover has occurred.
- Advanced Productivity gives you the ability to view trends to help improve bidding accuracy and profitability.

## Built-In Safety Features

- Operator-presence detection system applies parking brake if gear is engaged and operator is not seated.
- Additional mirror increases visibility at front of machine; touchscreen displays feed from back-up camera (standard).
- Secondary steering activates automatically if low pressure is sensed in primary system.
- Cab has integral roll-over protection system and falling object protection system.
- Stability assist software monitors angles of tractor, trailer, and grade independently, increasing operator awareness of stability during operation.
- Visual and audible alarms warn operator if an unstable angle is being approached; hoisting stops automatically.
- Hill assist system reduces potential for rollback by automatically holding brakes on when stopped on a grade.

## Reduced Maintenance Costs

- Durable design and easier servicing mean maximized uptime and reduced service costs.
- Enclosed wet brake design keeps out contaminants, extending brake life (and increasing machine uptime), while reducing replacement cost.
- Universal joints are lubricated for life, eliminating any greasing during the product lifetime.
- Coolant formula improves component life by reducing corrosion.
- Entire machine is designed for greater ease of maintenance with side-tilting cab, electrically raised hood, access panels, and Cat Data Link connector.
- Radiator is mounted behind cab for protection and ease of access.
- AATC monitors and controls differential lock and wheel speeds. This reduces machine inefficiencies as well as driveline and tire wear.

## Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
<b>OPERATOR ENVIRONMENT</b>			<b>POWER TRAIN</b>		
Air conditioning with R134a refrigerant	✓		Auto shift nine-speed forward and two-speed reverse transmission	✓	
Combined gear selection and hoist control lever	✓		Cat C15 engine	✓	
Liquid Crystal Display (LCD)	✓		CX38 transmission	✓	
Mirrors: extensive arrangement for improved visibility	✓		Differentials: standard with automatic clutched inter- and cross-axle differential locks	✓	
Mirrors, heated motorized		✓	Dual circuit oil immersed, enclosed brakes – all wheels	✓	
Machine operation monitoring system	✓		Retarder: engine compression brake	✓	
Radio, Bluetooth stereo system		✓	Three axle, six-wheel drive	✓	
Seats: operator – fully adjustable, air suspension, retractable lap belt; trainer – padded with retractable lap belt	✓		<b>SAFETY</b>		
Seat, heated/cooled		✓	Reverse alarm	✓	
Operator seat belt, four-point		✓	Rearview camera	✓	
Secondary steering – electro hydraulic	✓		ROPS/FOPS cab	✓	
Sun visor	✓		<b>GUARDS</b>		
Tilt and telescopic steering wheel	✓		Axle	✓	
Touchscreen display incorporating the rearview camera video feed	✓		Crankcase	✓	
Windshield wiper and washer, two speed, intermittent (front)	✓		Radiator	✓	
<b>TECHNOLOGY</b>			Rear window	✓	
Cat Detect with Stability Assist	✓		<b>OTHER</b>		
Cat Production Measurement payload monitoring system		✓	Auto lube installation for automatic greasing of bearings		✓
Machine Security System (MSS)		✓	Bare chassis (no body) standard wheel base		✓
Product Link: PL631E or PL641E dependent on location and licensing agreement	✓		Bare chassis (no body) long wheel base		✓
Product Link Elite: PLE631E (satellite), PLE641E (cellular)		✓	Body liners		✓
<b>ELECTRICAL AND LIGHTING</b>			Cold weather coolant -51°C (-60°F)		✓
Batteries (two) maintenance free	✓		Exhaust heated body		✓
Cold weather start attachment		✓	Fast fuel fill		✓
Engine block heater		✓	Fuel additive – anti-waxing		✓
Ether start		✓	Mud flaps: wheel arch and body mounted with transportation tiebacks	✓	
Electrical system: 24-volt, 10A 24- to 12-volt converter	✓		Scissor tailgate		✓
Flashing LED beacon		✓	S-O-S <sup>SM</sup> sampling valves	✓	
Lighting systems: cab interior, two head lamps, two width marker, two reversing, work light/cab access light, two stop/tail lights, front and rear direction indicators	✓		Sound suppression		✓
Main disconnect switch	✓		Tires, six 29.5 R25	✓	
Roof-mounted High Intensity Discharge (HID) work lights		✓	Vandalism protection: lockable caps	✓	
			Wheel chocks		✓

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## Technical Specifications

### Engine

Engine		
Engine Model	C15	
Gross Power (SAE J1995:2014)	335 kW	449 hp
Net Power (SAE J1349:2011)	324 kW	434 hp
Engine Power (ISO 14396:2002)	330 kW	443 hp
Bore	137 mm	5.4 in
Stroke	171.5 mm	6.75 in
Displacement	15.2 L	926 in <sup>3</sup>
<ul style="list-style-type: none"> <li>• Advertised power is tested at 1,700 rpm.</li> <li>• The net power advertised is the power available at the flywheel when the engine is equipped with alternator, air cleaner, muffler, and fan at minimum speed.</li> <li>• Net power when the fan is at maximum speed is 327 kW (439 hp) per the SAE reference conditions.</li> <li>• The C15 emits equivalent to U.S. EPA Tier 2 and EU Stage II or U.S. EPA Tier 3 and EU Stage IIIA.</li> </ul>		
No Engine Derating Below	3050 m	10,000 ft
Peak Engine Torque Gross (SAE J1995:2014)	2320 N·m	1,711 lbf-ft
Peak Engine Torque Net (SAE J1349:2011)	2264 N·m	1,670 lbf-ft
Peak Engine Torque Speed	1,200 rpm	

### Weights

Rated Payload	36.3 tonnes	40 tons
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### Body Capacities

Heaped SAE 2:1	22.7 m <sup>3</sup>	29.7 yd <sup>3</sup>
Struck	17.0 m <sup>3</sup>	22.2 yd <sup>3</sup>
Tailgate Heaped SAE 2:1	24.4 m <sup>3</sup>	31.9 yd <sup>3</sup>
Tailgate Struck	17.9 m <sup>3</sup>	23.4 yd <sup>3</sup>

### Transmission

Speed	km/h	mph
Forward 1	6.4	4.0
Forward 2	8.5	5.3
Forward 3	11.5	7.3
Forward 4	14.8	9.2
Forward 5	19.7	12.2
Forward 6	24.0	14.9
Forward 7	33.1	20.6
Forward 8	39.8	24.7
Forward 9	57.5	35.7
Reverse 1	6.8	4.2
Reverse 2	15.7	9.8

### Standards

Brakes	ISO 3450:2011
Cab/FOPS	ISO 3449:2005 Level II
Cab/ROPS	ISO 3471:2008
Steering	ISO 5010:2019

### Air Conditioning System

- The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.1 kg of refrigerant which has a CO<sub>2</sub> equivalent of 1.716 metric tonnes.

### Sound Levels

- |              |          |
|--------------|----------|
| Interior Cab | 72 dB(A) |
|--------------|----------|
- The declared dynamic operator sound pressure level is 72 dB(A) when ISO 6396:2008 is used to measure the value for an enclosed cab. The measurement was conducted at 70% of the cooling fan's maximum speed. The sound level may vary at different cooling fan speeds. The measurement was conducted with the cab doors and the cab windows closed. The cab was properly installed and maintained.
  - Hearing protection may be needed when operating with an open operator station and cab or when not properly maintained or with doors/windows open for extended periods or in noisy environments.

### Operating Weights

Front Axle – Empty	18 761 kg	41,361 lb
Center Axle – Empty	6709 kg	14,791 lb
Rear Axle – Empty	6486 kg	14,299 lb
Total – Empty	31 956 kg	70,451 lb
Front Axle – Rated Load	3233 kg	7,128 lb
Center Axle – Rated Load	16 534 kg	36,451 lb
Rear Axle – Rated Load	16 534 kg	36,451 lb
Total – Rated Load	36 301 kg	80,030 lb
Front Axle – Loaded	21 994 kg	48,488 lb
Center Axle – Loaded	23 243 kg	51,242 lb
Rear Axle – Loaded	23 020 kg	50,750 lb
Total – Loaded	68 257 kg	150,480 lb

### Body Plate Thickness

Front Plate	7 mm	0.28 in
Base Plate	13 mm	0.51 in
Side Plates	11 mm	0.43 in

### Service Refill Capacities

Fuel Tank	550 L	145.3 gal
Cooling System	90 L	23.7 gal
Brake Cooling Tank	67 L	17.7 gal
Steering/Hoist Hydraulic System	140 L	36.9 gal
Engine Crankcase	52 L	13.7 gal
Transmission/Output Transfer Gear	75 L	19.8 gal
Final Drives (each)	5 L	1.3 gal
Axles (each)	60 L	15.8 gal

### Body Hoist

Raise Time	12 seconds
Lower Time	12 seconds

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 Build Number: 04A  
 (Afr-ME, Aus-NZ, CIS, Indonesia,  
 Pacific Islands, S Am)