



# Cat<sup>®</sup> 730

## Articulated Truck

***The Cat<sup>®</sup> 730 articulated truck delivers demonstrated reliability and durability, high productivity, and class-leading performance. Keep your machine productive all day long with new features including Advanced Automatic Traction Control (AATC), Automatic Retarder Control (ARC), hoist-assist system, transmission-protection features, stability assist machine rollover warning system, a world-class cab and operator environment, and a fuel-saving economy mode.***

### Proven Reliability

- Cat C13 engine delivers high machine performance across a variety of applications.
- Enhanced reliability through commonality and design simplicity with long life to overhaul.
- Minimized impact of emissions systems allows excellent response and ample power.
- Engine compression brake retarder improves response and increases retarding power for controlled descent of grades.
- Aftertreatment technologies reduce emissions, including reducing NOx emissions by 80%.

### Durability

- All structures and components are proven through extensive testing and customer experience.
- Advanced suspension allows for 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

- Advanced Automatic Traction Control (AATC) decreases wheel slippage for maximum traction and productivity. Fully automatic with no operator action.
- Advanced Productivity Electronic Control Strategy (APECS) and Electronic Clutch Pressure Control (ECPC) deliver smooth gear changes with improved acceleration and higher productivity.
- Automatic Retarder Control (ARC) manages the retarder without any operator interaction. Fully automatic, 100% of the time.
- New Assisted Hoisting Control allows automatic tipping and lowering of the dump body at the flick of a switch.
- Combined hoist/transmission lever, unique to Cat articulated trucks, places multiple controls on the transmission lever to provide easy, intuitive control of gears and hoist functions, reducing operator interaction by as much as 50%.

### Boost Fuel Efficiency

- Economy mode reduces fuel use without affecting productivity and can be engaged with a single button.
- Next-generation machine design improves fuel economy with minimized maintenance costs and the same great power and response.
- Innovative air-management systems optimize airflow and enhance power and fuel efficiency.
- Advanced Mechanically-Actuated Electronically Controlled Unit Injection (MEUI)<sup>™</sup>-C injector platforms deliver increased injection pressures and more precise fuel rates.
- The Cat NOx Reduction System (NRS) captures and cools a small quantity of exhaust gas, then routes it back into the combustion chamber where it drives down combustion temperatures and reduces NOx emissions.



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## Easy, Comfortable Operator Environment

- New cab has 20% more interior space and is designed to make all aspects of machine operation as simple as possible for every operator.
- Cab is 4 dB quieter for a more comfortable working environment.
- Increased glass area optimizes operator and trainer visibility.
- Newly styled and updated dash puts controls within easy reach and features LED-illuminated rocker switches.
- Simple, intuitive control and display layouts allow the operator to focus on safe machine operation while maintaining productivity.
- Updated touchscreen display allows for easy monitoring and adjustment of systems.
- Make and receive hands-free calls via the optional Bluetooth® equipped stereo.
- Improved automatic climate control system makes maintaining the desired temperature easier.
- 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 the 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 VisionLink®, increasing awareness of machine history if a rollover has occurred.

## Built-In Safety Features

- Cat Detect with Stability Assist provides audible and visual alerts to the operator if the machine approaches an unstable angle during operation to prevent body or cab rollover.
- Enter the machine safely with machine wakeup and new stairway lighting.
- Grab rail allows for easier and safer machine access.
- Operator-presence detection system applies parking brake if gear is engaged and operator is not seated.
- In-cab tertiary brake switch allows the operator to bring the machine to a safe stop in the unlikely event of both main and secondary brake circuits failing.
- Electro-hydraulic secondary steering activates automatically if low pressure is sensed in primary system.
- Hill Assist reduces potential roll-back on grades.
- Waiting brake applies the service brakes when neutral is selected and button is pressed, allowing quick and easy control of the machine while dumping and loading.

## Reduced Maintenance Costs

- Durable design and easier servicing mean maximized uptime and reduced service costs.
- Universal joints are lubricated for life, eliminating any maintenance.
- 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.

## 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 six-speed forward and single-speed reverse transmission                       | ✓        |          |
| Combined gear selection and hoist control lever                                                                                                                         | ✓        |          | Cat C13 engine                                                                           | ✓        |          |
| Liquid Crystal Display (LCD)                                                                                                                                            | ✓        |          | CX31 transmission                                                                        | ✓        |          |
| Mirrors, extensive arrangement for improved visibility                                                                                                                  | ✓        |          | Cat Clean Emission Module (CEM) and exhaust aftertreatment package                       | ✓        |          |
| Mirrors, heated motorized                                                                                                                                               |          | ✓        | Differentials: standard with automatic clutched inter- and cross-axle differential locks | ✓        |          |
| Machine operation monitoring system                                                                                                                                     | ✓        |          | Dual circuit oil immersed, enclosed brakes – all wheels                                  | ✓        |          |
| Radio, Bluetooth stereo system                                                                                                                                          |          | ✓        | Retarder: engine compression brake                                                       | ✓        |          |
| Seats: operator – fully adjustable, air suspension, retractable lap belt; trainer – padded with retractable lap belt                                                    | ✓        |          | Three axle, six-wheel drive                                                              | ✓        |          |
| Seat, heated/cooled                                                                                                                                                     |          | ✓        | <b>SAFETY</b>                                                                            |          |          |
| Operator seat belt, four-point                                                                                                                                          |          | ✓        | Reverse alarm                                                                            | ✓        |          |
| Secondary steering, electro hydraulic                                                                                                                                   | ✓        |          | Rearview camera                                                                          | ✓        |          |
| Sun visor                                                                                                                                                               | ✓        |          | ROPS/FOPS cab                                                                            | ✓        |          |
| Tilt and telescopic steering wheel                                                                                                                                      | ✓        |          | <b>GUARDS</b>                                                                            |          |          |
| Touchscreen display incorporating the rearview camera video feed                                                                                                        | ✓        |          | Axle                                                                                     | ✓        |          |
| Windshield wiper and washer, two speed, intermittent (front)                                                                                                            | ✓        |          | Crankcase                                                                                | ✓        |          |
| <b>TECHNOLOGY</b>                                                                                                                                                       |          |          | Radiator                                                                                 | ✓        |          |
| Cat Detect with Stability Assist                                                                                                                                        | ✓        |          | Rear window                                                                              | ✓        |          |
| Cat Production Measurement payload monitoring system                                                                                                                    |          | ✓        | <b>OTHER</b>                                                                             |          |          |
| Machine Security System (MSS)                                                                                                                                           |          | ✓        | Auto lube installation for automatic greasing of bearings                                |          | ✓        |
| Product Link Elite: PLE641 (cellular)                                                                                                                                   | ✓        |          | Bare chassis (no body) standard wheel base                                               |          | ✓        |
| Product Link Elite: PLE631 (satellite)                                                                                                                                  |          | ✓        | Bare chassis (no body) long wheel base                                                   |          | ✓        |
| <b>ELECTRICAL AND LIGHTING</b>                                                                                                                                          |          |          | Body liners                                                                              |          | ✓        |
| Batteries (x2) maintenance free                                                                                                                                         | ✓        |          | Cold weather coolant -51°C (-60°F)                                                       |          | ✓        |
| Cold weather start attachment                                                                                                                                           |          | ✓        | Exhaust heated body                                                                      |          | ✓        |
| Engine block heater                                                                                                                                                     |          | ✓        | Fast fuel fill                                                                           |          | ✓        |
| Ether start                                                                                                                                                             |          | ✓        | Fuel additive – anti-waxing                                                              |          | ✓        |
| Electrical system: 24-volt, 10A 24- to 12-volt converter                                                                                                                | ✓        |          | Mud flaps: wheel arch and body mounted with transportation tiebacks                      | ✓        |          |
| Flashing LED beacon                                                                                                                                                     |          | ✓        | Scissor tailgate                                                                         |          | ✓        |
| 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 | ✓        |          | S-O-S <sup>SM</sup> sampling valves                                                      | ✓        |          |
| Main disconnect switch                                                                                                                                                  | ✓        |          | Sound suppression (optional outside EFTA)*                                               |          | ✓        |
| Roof-mounted High Intensity Discharge (HID) work lights                                                                                                                 |          | ✓        | Tires, six 23.5R25, radial                                                               | ✓        |          |
|                                                                                                                                                                         |          |          | Tires, six 750/65R25, radial                                                             |          | ✓        |
|                                                                                                                                                                         |          |          | Vandalism protection: lockable caps                                                      | ✓        |          |
|                                                                                                                                                                         |          |          | Wheel chocks                                                                             |          | ✓        |

\* EFTA countries are EU countries plus Iceland, Norway, Lichtenstein, and Switzerland.

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## Technical Specifications

### Engine

|                               |        |           |
|-------------------------------|--------|-----------|
| Engine Model                  | C13    |           |
| Gross Power (SAE J1995:2014)  | 280 kW | 375 hp    |
| Net Power (SAE J1349:2011)    | 274 kW | 367 hp    |
| Engine Power (ISO 14396:2002) | 276 kW | 370 hp    |
| Bore                          | 130 mm | 5.1 in    |
| Stroke                        | 157 mm | 6.2 in    |
| Displacement                  | 12.5 L | 762.8 in³ |

- Advertised power is tested at 1,800 rpm.
- The net power advertised is the power available at the flywheel when the engine is equipped with alternator, air cleaner, aftertreatment, and fan at minimum speed.
- Net power when the fan is at maximum speed is 254 kW (341 hp) per the SAE reference conditions.
- The C13 meets U.S. EPA Tier 4 Final, EU Stage V, Korea Tier 4 Final, and Japan 2014 emission standards.
- DEF used in Cat SCR systems must meet the requirements outlined in ISO 22241-1. ISO 22241-1 requirements are met by many brands of DEF, including those that carry the AdBlue or API certifications.

|                                           |           |              |
|-------------------------------------------|-----------|--------------|
| No Engine Derating Below                  | 3810 m    | 12,500 ft    |
| Peak Engine Torque Gross (SAE J1995:2014) | 2141 N·m  | 1,579 lbf·ft |
| Peak Engine Torque Net (SAE J1349:2011)   | 2107 N·m  | 1,554 lbf·ft |
| Peak Engine Torque Speed                  | 1,200 rpm |              |

### Weights

|               |           |         |
|---------------|-----------|---------|
| Rated Payload | 28 tonnes | 31 tons |
|---------------|-----------|---------|

### Body Capacities

|                         |         |          |
|-------------------------|---------|----------|
| Heaped SAE 2:1          | 17.5 m³ | 23 yd³   |
| Struck                  | 13.3 m³ | 17.4 yd³ |
| Tailgate Heaped SAE 2:1 | 18.8 m³ | 24.6 yd³ |
| Tailgate Struck         | 13.9 m³ | 18.2 yd³ |

### Transmission

| Speed     | km/h | mph |
|-----------|------|-----|
| Forward 1 | 8    | 5   |
| Forward 2 | 15   | 9   |
| Forward 3 | 22   | 14  |
| Forward 4 | 34   | 21  |
| Forward 5 | 47   | 29  |
| Forward 6 | 55   | 34  |
| Reverse 1 | 9    | 6   |

### 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       | 15 000 kg | 33,069 lb  |
| Center Axle – Empty      | 4560 kg   | 10,053 lb  |
| Rear Axle – Empty        | 4340 kg   | 9,568 lb   |
| Total – Empty            | 23 900 kg | 52,690 lb  |
| Front Axle – Rated Load  | 3280 kg   | 7,231 lb   |
| Center Axle – Rated Load | 12 360 kg | 27,249 lb  |
| Rear Axle – Rated Load   | 12 360 kg | 27,249 lb  |
| Total – Rated Load       | 28 000 kg | 61,729 lb  |
| Front Axle – Loaded      | 18 280 kg | 40,300 lb  |
| Center Axle – Loaded     | 16 920 kg | 37,302 lb  |
| Rear Axle – Loaded       | 16 700 kg | 36,817 lb  |
| Total – Loaded           | 51 900 kg | 114,420 lb |

### Body Plate

High strength Brinell HB450 wear resistant steel

### 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                 | 412 L | 108.8 gal |
| DEF Tank                  | 20 L  | 5.3 gal   |
| Cooling System            | 83 L  | 21.9 gal  |
| Hydraulic System          | 110 L | 29.1 gal  |
| Engine Crankcase          | 38 L  | 10 gal    |
| Transmission              | 47 L  | 12.4 gal  |
| Final Drives/Differential | 125 L | 33 gal    |
| Output Transfer Gear Box  | 24 L  | 6.3 gal   |

### Body Hoist

|            |            |
|------------|------------|
| Raise Time | 12 seconds |
| Lower Time | 8 seconds  |

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(Aus-NZ, Europe, Japan, N Am)