

# Cat<sup>®</sup> 730 EJ Articulated Truck

The Cat<sup>®</sup> 730 EJ features a world-class cab, re-engineered using global operator feedback to advance comfort and ease of operation. Enhancements include class-leading levels of performance and new features, such as Advanced Automatic Traction Control (AATC), Assisted Ejecting Control, Automatic Retarder Control (ARC), and a fuel-saving economy mode.

#### **Proven Reliability**

- Cat C13 engine delivers proven reliability across a variety of applications.
- Terrain-based throttle control smooths throttle input over rough terrain to improve ride quality.
- Enhanced reliability through commonality and design simplicity with long life to overhaul.
- Minimized impact of emission control system allows excellent response and ample power.
- Engine compression brake improves response and increases retarding power for controlled descent of grades.

#### Versatility

- The truck can eject and spread the material while moving, reducing additional spreading and dozing equipment. "On-the-go" ejecting results in faster cycle times.
- Ejecting the load without raising the body maintains machine stability, allowing load dispersal on inclines, side slopes, and in very soft underfoot conditions, especially on landfill sites.
- The truck can eject in areas with reduced overhead clearance, such as around overhead lines or in tunneling and underground operations.
- The body design virtually eliminates material sticking to the body, which increases productivity, improves fuel efficiency, and lowers cost per ton.
- The ejector blade is made from high-strength steel and uses technology similar to that proven in Cat wheel tractor-scrapers.
- A three-stage, high-speed, double-acting cylinder is specifically designed for horizontal mounting and smooth load ejection.

#### 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 ±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, delivering maximum traction and productivity. Fully automatic, no operator action.
- Advanced Productivity Electronic Control Strategy (APECS) and Electronic Clutch Pressure Control (ECPC) deliver smooth gear changes with improved acceleration and increased productivity.
- Automatic Retarder Control (ARC) manages the retarder without any operator interaction. Fully automatic, 100% of the time.
- New Assisted Ejecting Control allows automatic ejecting of the load.
- Combined eject/transmission lever, exclusive to Caterpillar, places multiple controls on the transmission lever, incorporates park brake, and reduces 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.
- Advanced Mechanically-Actuated Electronically Controlled Unit Injection (MEUI)<sup>™</sup>-C injector platforms deliver increased injection pressures and more precise fuel rates.

#### Easy, Comfortable Operator Environment

- 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.
- Spacious cab with seats positioned for optimal operator and trainer visibility.
- Touchscreen allows easy monitoring and adjustment of systems.
- Make and receive hands-free calls via the optional Bluetooth<sup>®</sup> equipped stereo.
- Improved automatic climate control system makes maintaining the correct temperature easier. In-cab noise has been reduced by 4 dB.
- Increased and improved storage prevents cabin clutter and is heated or cooled by the HVAC system.

## **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<sup>™</sup> system connects to each machine wirelessly, allowing you to monitor location, hours, fuel use, productivity, idle time, and diagnostic codes.
- Operator can view real-time load weights on the touchscreen 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<sup>®</sup>, 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 is approaching an unstable angle during operation.
- Operator-presence detection system applies parking brake if gear is engaged and operator is not seated.
- Emergency brake switch (tertiary) allows operator to bring the machine to a safe stop in the unlikely event of both main and secondary brake circuits failing.
- 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 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 data connector.

## **Standard and Optional Equipment**

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

	Standard	Ontional
OPERATOR ENVIRONMENT	otanuaru	optional
Air conditioning with R134a refrigerant	√	
Combined gear selection and eject control lever	✓	
Liquid Crystal Display (LCD)	✓	
Mirrors: extensive arrangement for improved	√	
visibility		
Mirrors, heated motorized		$\checkmark$
Machine operation monitoring system	$\checkmark$	
Operator seat belt, four-point		$\checkmark$
Radio, Bluetooth stereo system		~
Seats: operator – fully adjustable, air suspension, retractable lap belt; trainer – padded with retractable lap belt	$\checkmark$	
Seat, heated/cooled		$\checkmark$
Secondary steering – electro-hydraulic	$\checkmark$	
Sun visor	$\checkmark$	
Tilt and telescopic steering wheel	$\checkmark$	
Touchscreen display incorporating the rearview camera video feed	$\checkmark$	
Windshield wiper and washer, two-speed, intermittent (front)	$\checkmark$	
TECHNOLOGY		
Cat Detect with Stability Assist	$\checkmark$	
Cat Production Measurement payload monitoring system		$\checkmark$
Product Link: PL631E or PL641E dependent on	$\checkmark$	
location and licensing agreement		
Product Link Elite: PLE631E (satellite), PLE641E		$\checkmark$
(cellular)		
ELECTRICAL AND LIGHTING		
Batteries (x2) maintenance free	$\checkmark$	
Cold weather start attachment		$\checkmark$
Electrical system: 24-volt, 10A 24- to 12-volt	$\checkmark$	
converter		
Engine block heater		✓
Ether start		$\checkmark$
Flashing LED beacon		✓
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	$\checkmark$	
Main disconnect switch	$\checkmark$	
Roof-mounted High Intensity Discharge (HID) work lights		√

	Standard	Optional
POWER TRAIN		
Auto shift six-speed forward and single-speed reverse transmission	~	
Cat C13 engine	$\checkmark$	
CX31 transmission	$\checkmark$	
Differentials: standard with automatic clutched inter- and cross-axle differential locks	$\checkmark$	
Dual circuit oil immersed, enclosed brakes – all wheels	~	
Retarder: engine compression brake	$\checkmark$	
Three axle, six-wheel drive	$\checkmark$	
SAFETY		
Reverse alarm	$\checkmark$	
Rearview camera	$\checkmark$	
ROPS/FOPS cab	$\checkmark$	
GUARDS		
Axle	$\checkmark$	
Crankcase	$\checkmark$	
Radiator	$\checkmark$	
Rear window	$\checkmark$	
OTHER		
Auto lube installation for automatic greasing of bearings		$\checkmark$
Cold weather coolant -51°C (-60°F)		$\checkmark$
Exhaust heated body		$\checkmark$
Fast fuel fill		$\checkmark$
Fuel additive – anti-waxing		✓
Mud flaps: wheel arch and body mounted with transportation tiebacks	$\checkmark$	
Hydraulic tailgate	$\checkmark$	
S·O·S <sup>™</sup> sampling valves	$\checkmark$	
Sound suppression (optional outside EFTA*)		$\checkmark$
Tires, six 750/65 R25 radial	$\checkmark$	
Vandalism protection: lockable caps	$\checkmark$	
Wheel chocks		$\checkmark$

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

#### **Technical Specifications**

Eng	ine	
Engine Model	C1	3
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	763 in <sup>3</sup>

• 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, muffler, and fan at minimum speed.

Net power when the fan is at maximum speed is 274 kW (367 hp) per the SAE reference conditions.

The C13 emits equivalent to either U.S. EPA Tier 2/EU Stage II or U.S. EPA Tier 3/ EU Stage IIIA.

No Engine Derating Below	3990 m	13,100 ft
Peak Engine Torque Gross (SAE J1995:2014)	1830 N⋅m	1,350 lbf-ft
Peak Engine Torque Net (SAE J1349:2011)	1810 N⋅m	1,335 lbf-ft
Peak Engine Torque Speed	1,200 rpm	

Weights		
Rated Payload	27.1 tonnes	30 tons
Body Capacities		
Heaped SAE 2:1	16.9 m <sup>3</sup>	22.1 yd <sup>3</sup>
Struck	13.5 m <sup>3</sup>	17.7 yd <sup>3</sup>

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			
Drokee		10	0.2450-2011

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**

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 doors/windows open for extended periods or in noisy environments.

Operating Weights		
Front Axle – Empty	15 230 kg	33,576 lb
Center Axle – Empty	5600 kg	12,346 lb
Rear Axle – Empty	5380 kg	11,861 lb
Total – Empty	26 210 kg	57,783 lb
Front Axle – Rated Load	650 kg	1,433 lb
Center Axle – Rated Load	13 225 kg	29,156 lb
Rear Axle – Rated Load	13 225 kg	29,156 lb
Total – Rated Load	27 100 kg	59,745 lb
Front Axle – Loaded	15 880 kg	35,009 lb
Center Axle – Loaded	18 825 kg	41,502 lb
Rear Axle – Loaded	18 605 kg	41,017 lb
Total – Loaded	53 310 kg	117,528 lb

#### **Body Plate**

High strength Brinell HB450 wear resistant steel

Interior Cab

Service Refill Capacities		
Fuel Tank	412 L	108.8 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

Blade Eject/Retract		
Eject Time	12 seconds	
Retract Time	15 seconds	

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