

730C2

Articulated Truck



Engine

Engine Model – U.S. EPA Tier 2/EU Stage II equivalent	Cat® C13 ACERT™	
Gross Power – SAE J1995	280 kW	375 hp
Net Power – SAE J1349	274 kW	367 hp
Net Power – ISO 14396	276 kW	370 hp

Weights

Rated Payload	28 tonnes	31 tons
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Body Capacities

Heaped SAE 2:1	17.5 m ³	23 yd ³
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730C2 Features

Cat C13 ACERT engine, Tier 2/Stage II equivalent engine emission standards.

Advanced Productivity Electronic Control Strategy (APECS)

Automatic Traction Control (ATC)

Color Multi-Purpose Display (CMPD)

Integrated Technologies – Cat Production Measurement, Product Link™/VisionLink®

All axle wet brakes

Wide tire option

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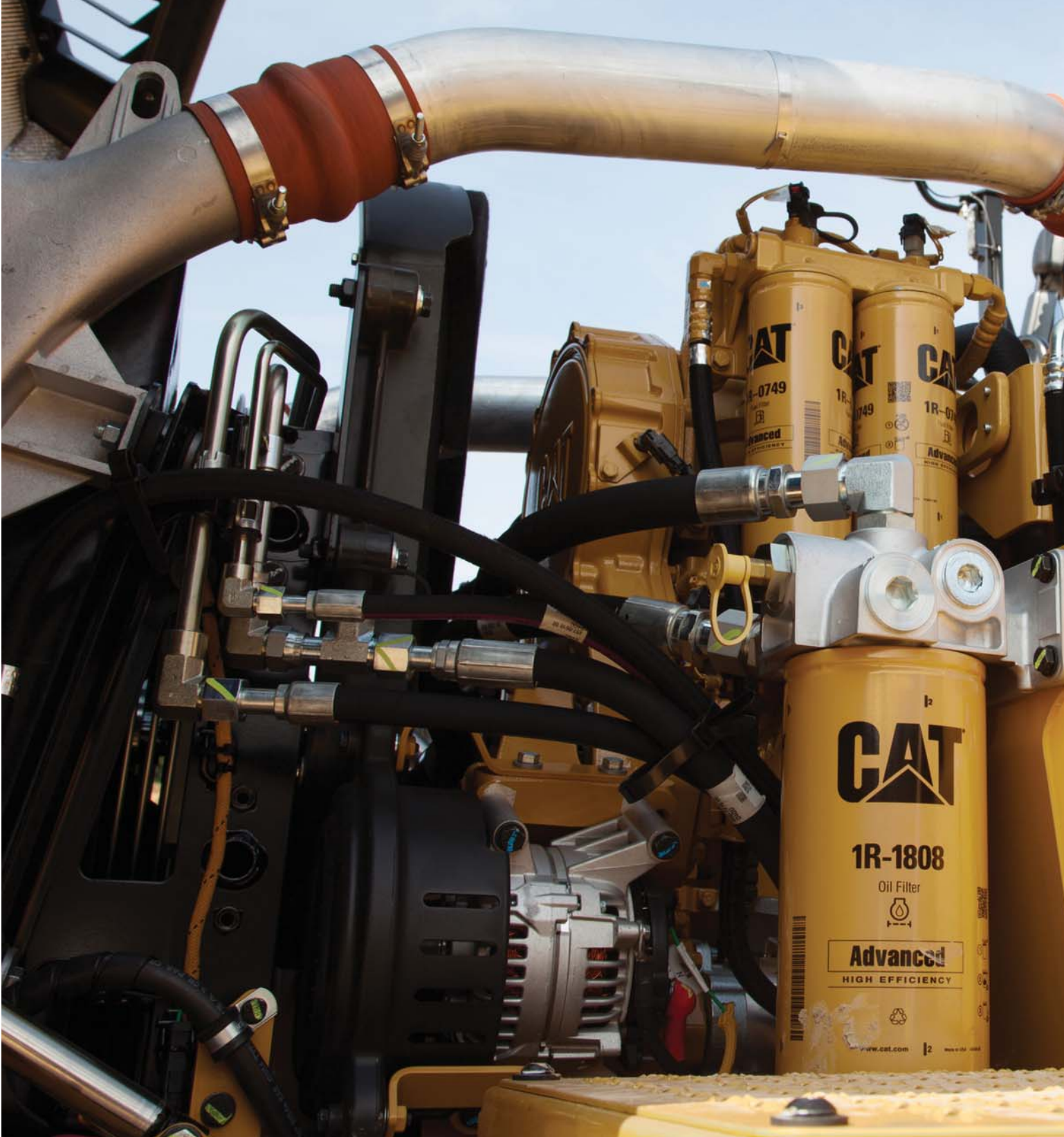


The Cat 730C2, with a 17 m³ (23 yd³) 28 tonnes (31 tons) capacity, offers demonstrated reliability and durability, high performance and productivity, superior operator comfort and lower operating costs.

Updating the successful 730C to include all axle enclosed wet brakes makes the 730C2 a more attractive proposition for our customers. Class leading levels of performance and operator comfort make for a productive machine all day long.

Engine

Optimized Performance, Proven Reliability





Every Tier 2/Stage II equivalent Cat engine with ACERT Technology is equipped with a combination of proven electronic, fuel, air and aftertreatment components. The right technologies fine-tuned for the right applications result in:

- High machine performance across a variety of applications.
- Enhanced reliability through commonality and simplicity of design.
- Maximized uptime and reduced cost with world-class support from the Cat dealer network.
- Durable designs with long life to overhaul.
- Delivering better fuel economy with minimized maintenance costs while providing the same great power and response.

Advanced MEUI™-C Injector

Advanced MEUI-C injector platforms deliver increased injection pressures and more precise fuel rates. These durable injectors enhance responsiveness while controlling soot.

Innovative Air Management

All Cat engines feature innovative air-management systems that optimize airflow and enhance power, efficiency and reliability.



Transmission

Class Leading Transmission Technology

The Cat CX31 six-speed forward, single speed reverse transmission features Advanced Productivity Electronic Control Strategy (APECS) and Electronic Clutch Pressure Control (ECPC) which deliver smooth gear changes with improved acceleration and higher productivity.

- Speed hold/limiting function allows the machine speed to be limited in 1 km/h or 1 mph steps to conform to site speed restrictions.
- Gearshifts have been significantly improved to maintain direct drive lock-up, and eliminate dropping into converter drive. Reducing the use of torque converter drive helps maintain ground speed and gradeability.
- Variable shift points used based on the operating conditions, which also aid in maintaining ground speed during gear changes on grades.
- Critical gearshifts maintain direct drive lock-up, and eliminate dropping into converter drive. This maintains ground speed during shifts on grades.
- The transmission automatically modifies shift points to best suit operating conditions and performance.
- Retarding levels are automatically reduced on lesser grades in lower gears.



Torque Converter

Large capacity torque converter, configured for off-highway applications, allows the higher engine power to be transmitted more efficiently to the lower power train.

Engine Compression Brake

Improves retarding response and increases retarding power.



Automatic Features

Ease of Use, Improved Performance

Automatic Traction Control (ATC)

Application of the inter and cross-axle differential locks is 'on-the-go' and fully automatic. The operator does not have to think about when and where to engage either the inter or cross-axle differential lock. Sensors monitor the machine and wheel speeds, enabling instant response in low traction conditions. Operation is seamless and smooth, eliminating wheel slip for maximum traction and productivity.

Clutches are also automatically disengaged when not required, eliminating any impact on machine maneuverability, such as making a tight turn at the top of a grade.

The ATC system helps reduce tire and driveline abuse, eliminating lost efficiency caused by improper manual operation of the differential clutches, and reducing the cost of premature tire replacement.



Suspension and Braking

Performance with Comfort

All three axles have oscillating a-frames with lateral tie rods, controlling sideways movement of the axle and providing stability. In conjunction with suspension system, it allows the operator to travel at speed over rough terrain and softens impact loads on structures and components.



Front Suspension

Large bore, low-pressure cylinders are purpose designed for off-road applications and offer a soft, smooth ride for the operator. The front suspension oscillates $\pm 6^\circ$ to assist in providing a smooth ride. Suspension mounting points are integrated into the axle housing, increasing reliability.

Rear Suspension

Comprising of a walking beam and Caterpillar designed long life rear suspension mounts; the rear suspension system provides a reliable and stable ride for excellent travel over rough terrain and aids load retention.

All Axle Enclosed Wet Brakes

Introduced for the first time on this model, the oil-immersed system is a multi-disc, multi-plate design. Enclosing the brakes prevents the ingress of contaminants. This protects the system, extends life, and reduces replacement costs while improving machine uptime.



Operator Environment

Improve Productivity with a Comfortable and Confident Operator

Ride Comfort

The three-point front suspension with its oscillating axle and low-pressure ride struts, combined with the center-mounted cab, offer unrivaled levels of ride comfort for the operator in all driving conditions. The operator remains comfortable and productive throughout the day.

Spacious Two-Person Cab

The large two-person cab, offers a comfortable working space for both the operator and a passenger. The passenger seat is fully padded with a backrest and a wide, retractable seat belt for a secure and comfortable ride. It is also positioned adjacent to the operator, giving both the operator and passenger a clear view of the instrument panel, controls and the road. The storage space behind the operator seat has been increased, and access improved the design and layout is common across all C Series Articulated Trucks.

Air Suspension Seat

The air suspension seat provides improved operator comfort with a cushioned upper high back, adjustable damping with three settings, ride zone indicator and adjustable lumbar settings. It is fully adjustable to provide the optimal driving position.

Cab Atmosphere

The air conditioning system keeps the in-cab temperature however the operator likes it, whatever environment they are operating in.

Optional Four-Point Seat Belt

Offering greater restraint and potentially better safety for operators, the four-point operator seat belt is now available as an option. The seat belt is part of an entire new seating arrangement, not solely an addition to the existing seat.



Ease of Operation

Designed Around the Operator

Control Layout

The cab is designed to make all aspects of machine operation as simple as possible. The controls and gauges are easy to read and straightforward to operate, allowing the operator to focus on safe machine operation while maintaining productivity.





Dashboard

The integrated wrap-around dash puts all controls within easy reach of the operator. Featuring LED illuminated rocker switches for the dash dimmer, rear wash wiper, hazard warning, work lamp, secondary steer, A/C and cigar lighter. Delivers an automotive feel with the industrial strength you would expect from Caterpillar.

Color Multi Purpose Display (CMPD)

The dash mounted display unit shows the operator various levels of performance and condition pages as well as machine warning categories. These include performance data, configuration settings, operator and machine totals, service information, various machine status parameters, machine payload information (when fitted), and the video feed from the rearview camera.

Bluetooth™ Stereo Connectivity

Make and receive calls in cab via the optional, Bluetooth equipped, radio entertainment system.



Durability and Reliability

Proven Structures and Components



Front Frame

The front frame design features a large box section and wide, stiff frame beams to handle torque loads. The divergent frame design decreases stress in the hitch area and optimizes suspension geometry. The frame design makes maximum use of robotic welding for increased durability.

Rear Frame

Twin-box construction minimizes stress concentrations and provides low weight with long service life.

Suspension

The three-point oscillating axle front suspension provides unparalleled ride quality. It also protects the truck from adverse road conditions by absorbing shock loads that would reach the frame.

Articulating/Oscillating Hitch

The articulating hitch provides the truck with steering articulation, and the oscillation ensures all-wheel ground contact in rough terrain.

Hitch Construction

Field proven two-piece construction features a durable cast steel head bolted to a hard wearing forged steel tube.

Dump Body Design

All C Series machines have a large target area to provide consistently high load-carrying capacity. Its diverging flow design gives clean material discharge, which maximizes production and avoids the waste of carry-back.

Output Transfer Gear

Distributes drive to the tractor and trailer and includes a wet clutch differential lock for optimum traction in poor underfoot conditions.

Service Brakes

Dual-circuit, all wheel braking system. The full power hydraulic system actuates enclosed, oil immersed, multi disc, multi plate brakes with independent front and rear circuits and accumulators.

Parking Brake

Located on the center axle in an elevated position, it is spring applied and hydraulically released.

Cat CONNECT Technology

Monitor, Manage, and Enhance Job Site Operations



Cat CONNECT makes smart use of technology and services to improve your job site efficiency. Using the data from technology-equipped machines, you'll get more information and insight into your equipment and operations than ever before.



Cat LINK

Cat LINK technologies, like Product Link wirelessly connect you to your equipment, giving you valuable insight into how your machine or fleet is performing. The system tracks location, hours, fuel usage, productivity, idle time, and diagnostic codes through the online VisionLink user interface so you can make timely, fact-based decisions to maximize efficiency, improve productivity, and lower costs.

Cat PAYLOAD

Cat PAYLOAD technologies like Cat Production Measurement bring payload weighing to the cab to help optimize job site efficiency and productivity. Operators can view real-time load weights on the integrated display and know precisely when target is achieved, while cab-mounted external payload lights signal the loader operator when to stop loading to reduce overloading. Operators can track daily productivity from the cab, with quick access to truck payload weights, loads and cycle counts, and daily totals; or remotely via LINK technologies.



Serviceability

Maximize Uptime and Reduce Costs

Long Service Intervals

Changes to oil change intervals, volumes and the type of oil required will help lower maintenance costs and machine downtime.

Lubrication Points

Lubrication points are grouped in the hitch area for ease of servicing. Universal joints are lubed for life, eliminating any maintenance. An Autolube system is also optional, and now includes alerts via Product Link for low grease levels and faults.

Radiator

The radiator package is located behind the cab, which provides protection from frontal impacts and offers easy access to the inlet and outlet sides of the radiator.

Extended Life Coolant

Extends the change interval and improves component life by reducing aluminum corrosion.

Electrical Service Center

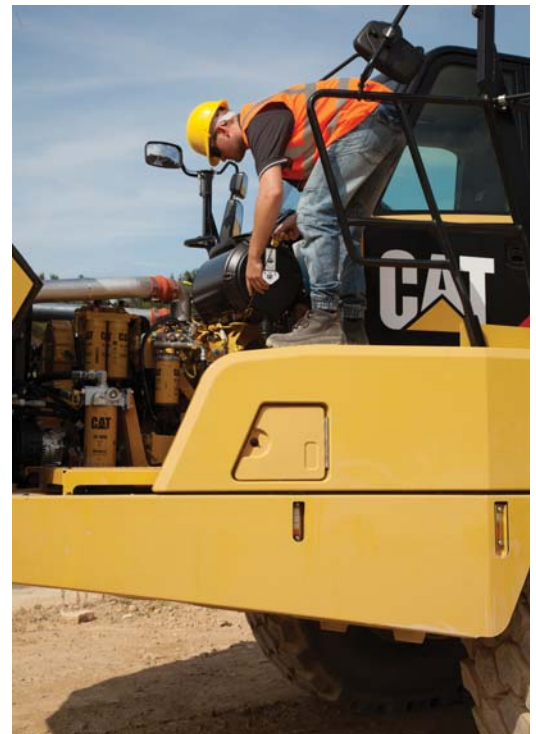
Located inside the cab, this service center provides a power port, diagnostic connector and Cat Data Link connector.

Cat Data Link Connector

The Cat Data Link connector provides a plug-in using a laptop with Electronic Technician (ET) software.

Service Access

The cab tilts to the side to provide easy access underneath, which simplifies access to the transmission, drive shafts and hydraulic pumps. Machine electrical and hydraulic interfaces are located on the right side of the cab, behind a removable body panel for easy access.



Service Points

Mounted on the left side of the engine under the electrically raised hood:

- Engine dipstick and fill cap
- Transmission dipstick and fill cap
- Air, fuel water separator and fuel filters
- Electrically operated fuel-priming pump
- Coolant level indicator and fill cap are outside the cab



Complete Customer Support

A Commitment to your Success

Selection

Make comparisons of the machines you are considering before you buy. Your Cat dealer can help.

Purchase

Consider the resale value; compare productivity and day-to-day operating costs and fuel consumption.

Operation

For the best operating techniques to increase productivity and your profit, turn to your Cat dealer for the latest training literature and trained staff.

Maintenance

Repair option programs guarantee the cost of repairs up front. Diagnostic programs such as S-O-SSM and Technical Analysis help you avoid unscheduled repairs.

Replacement

Repair or rebuild? Your Cat dealer can help you evaluate the costs so you can make the right choice.

Product Support

Your local Cat dealership will be with you every step of the way with its unsurpassed worldwide parts support, trained technicians and customer support agreements.

cat.com

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

Sustainability

Making Sustainable Progress Possible



All Cat Articulated Trucks are designed to maximize efficiency and productivity while conserving natural resources.

Recycle Waste

The Caterpillar Design, Manufacturing, Assembly and Test facility at Peterlee in England recycles 98% of all waste produced with zero waste to landfill.

Second Life

Rebuild and reman are designed and built into all Cat C Series Articulated Trucks. This gives machines a longer life while reducing waste and replacement costs.

Safety

Designed and Built into Every Machine

Product Safety

Caterpillar has been and continues to be proactive in developing machines that meet or exceed safety standards. Safety is an integral part of all machines and system designs.



Safety Features

- Cab integral ROPS (Roll Over Protection System) and FOPS (Falling Object Protection System)
- Rearview camera system incorporated into the CMPD, can provide a continuous panoramic rear view or when reverse gear is selected
- The secondary and parking brake functions are spring applied and hydraulic released
- Electro-hydraulic secondary steering system automatically activates in forward/reverse or when stationary if low pressure is sensed. Can be manually selected for machine recovery purposes.
- Ground level external engine fuel cut off switch provides easy access outside of the machine
- External electrical system disconnect switch for easy access outside of the machine
- Slip resistant walkways – punched steel plate
- 75 mm (3 in) wide seat belts for operator/trainer and passenger
- Wide angled mirrors for excellent rear visibility
- Sweeping hood design for panoramic forward visibility
- Extensive handrails
- Body raised alarm
- Heated mirrors (optional)
- LED-flashing beacon (optional)
- Additional mirrors
- Maximum speed limiter
- Internal and external grab handles
- Four-point seat belt (optional)
- Fire extinguisher in-cab mounting point
- Fully raised body locking pin
- Reversing indicator
- Park brake switch safety lock

730C2 Articulated Truck Specifications

Engine

Engine Model	Cat C13 ACERT	
Gross Power – SAE J1995	280 kW	375 hp
Net Power – SAE J1349	274 kW	367 hp
Net Power – ISO 14396	276 kW	370 hp
Bore	130 mm	5.1 in
Stroke	157 mm	6.2 in
Displacement	12.5 L	762.8 in ³

- The power ratings apply at rated speed of 1,800 rpm when tested under the conditions for the specified standard.
- 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 254 kW (341 hp) per the SAE reference conditions.
- The 730C2 meets Tier 2/Stage II equivalent emission standards.

No Engine De-rating Below	3990 m	13,100 ft
Peak Engine Torque Gross (SAE J1995)	1830 N·m	1,350 lbf-ft
Peak Engine Torque Net (SAE J1349)	1810 N·m	1,335 lbf-ft
Peak Engine Torque Speed	1,200 rpm	

Weights

Rated Payload	28 tonnes	31 tons
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Body Capacities

Heaped SAE 2:1	17.5 m ³	23 yd ³
Struck	13.3 m ³	17.4 yd ³
Tailgate Heaped SAE 2:1	18.8 m ³	24.6 yd ³
Tailgate Struck	13.9 m ³	18.2 yd ³

Transmission

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

Sound Levels

- | | |
|--------------|----------|
| Interior Cab | 76 dB(A) |
|--------------|----------|
- The operator sound exposure Leq (equivalent sound pressure level) measured according to the work cycle procedures specified in ANSI/SAE J1166 OCT98 is 76 dB(A), for the cab offered by Caterpillar, when properly installed and maintained and tested with the doors and windows closed.
 - 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 noisy environments.

730C2 Articulated Truck Specifications

Operating Weights

Front Axle – Empty	14 325 kg	31,581 lb
Center Axle – Empty	4615 kg	10,174 lb
Rear Axle – Empty	4365 kg	9,623 lb
Total – Empty	23 305 kg	51,378 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	17 605 kg	38,812 lb
Center Axle – Loaded	16 975 kg	37,423 lb
Rear Axle – Loaded	16 725 kg	36,872 lb
Total – Loaded	51 305 kg	113,107 lb

Body Plate

High strength Brinell HB450 wear resistant steel

Body Plate Thickness

Front	7 mm	0.28 in
Chute	13 mm	0.51 in
Side	11 mm	0.43 in
Base	13 mm	0.51 in

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

Body Hoist

Raise Time	12 Seconds
Lower Time	8 Seconds

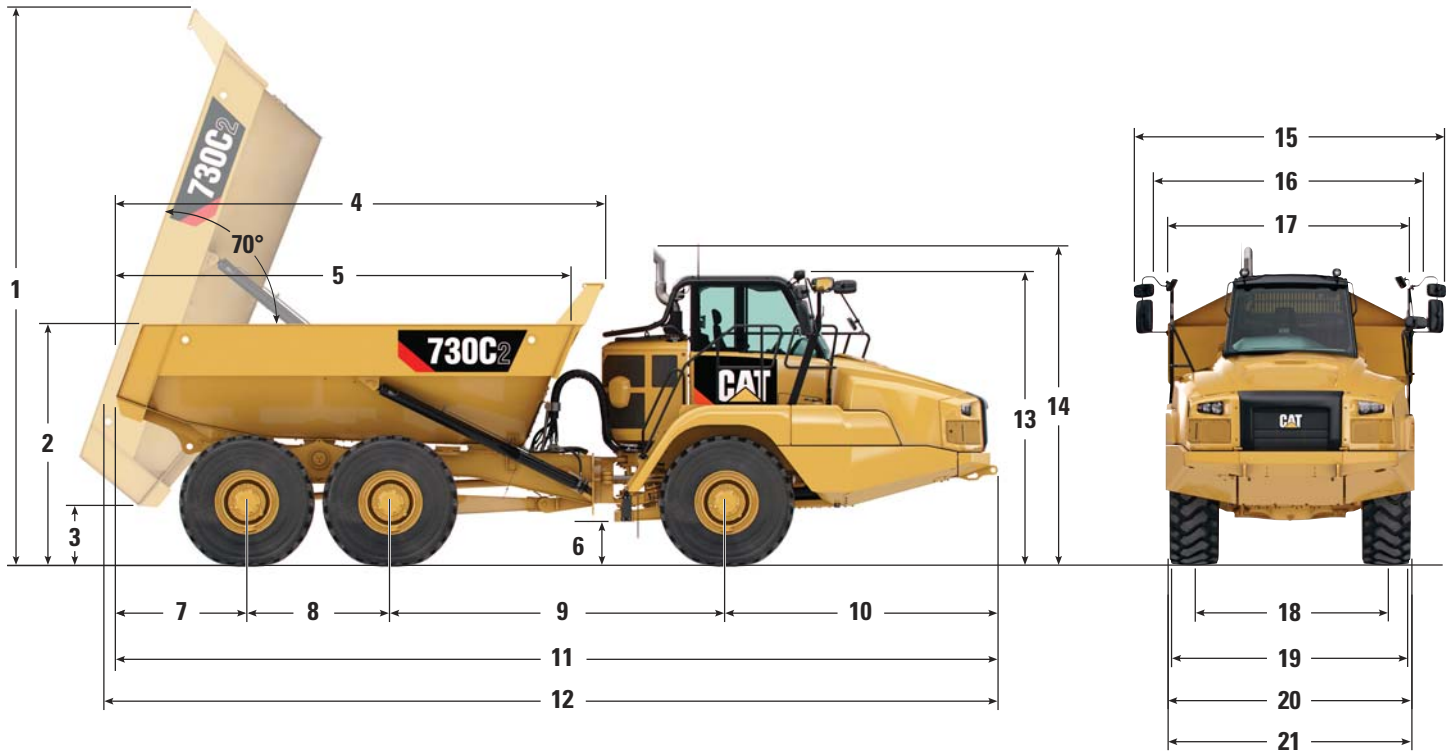
Standards

Brakes	ISO 3450 – 2011
Cab/FOPS	ISO 3449 Level II – 2005
Cab/ROPS	ISO 3471 – 2008
Steering	ISO 5010 – 2007

730C2 Articulated Truck Specifications

Dimensions

All dimensions are approximate.



	mm	ft/in
1	6464	21'3"
2	2911	9'7"
3	559	1'10"
4	5783	19'0"
5*	5411	17'9"
6	543	1'9"
7	1556	5'1"
8	1700	5'7"
9	3979	13'1"
10	3210	10'6"

	mm	ft/in
11	10 445	34'3"
12**	10 555	34'8"
13	3487	11'5"
14	3773	12'5"
15	3704	12'2"
16***	2984	9'9"
17	2902	9'6"
18	2275	7'6"
19****	2877	9'5"
20*****	2950	9'8"
21*****	2950	9'8"

- * Inside of Body
- ** With Tailgate
- *** With Tailgate
- **** Over Free Width of Tire
- ***** Over Fender
- ***** Max Unladen Over Tire Bulge

730C2 Articulated Truck Specifications

Turning Circle

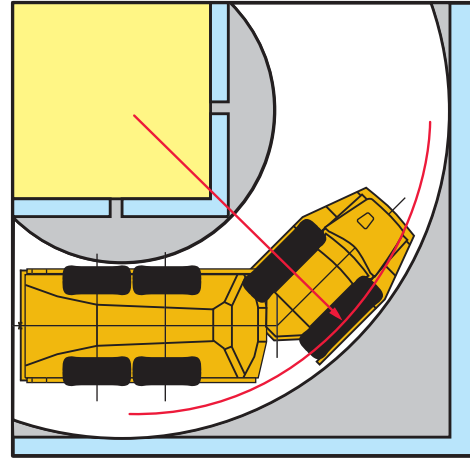
Dimensions are for machines equipped with 23.5R25 tires.

Turning Dimensions

Steer Angle – Left/Right	45°	
SAE Turning Radius	7470 mm	294 in
Clearance Radius	8075 mm	318 in
Inside Radius	3879 mm	153 in
Aisle Width	5332 mm	210 in

Steering

Lock to Lock 4.75 seconds @ 60 rpm



Optimal Loader/Truck Pass Matching

Hydraulic Excavators

Passes

349F/349F XE

4-5

336F/336F XE

5-6

Wheel Loaders

Passes

972M/972M XE

3-4

966M/966M XE

4

962M

4-5

950M

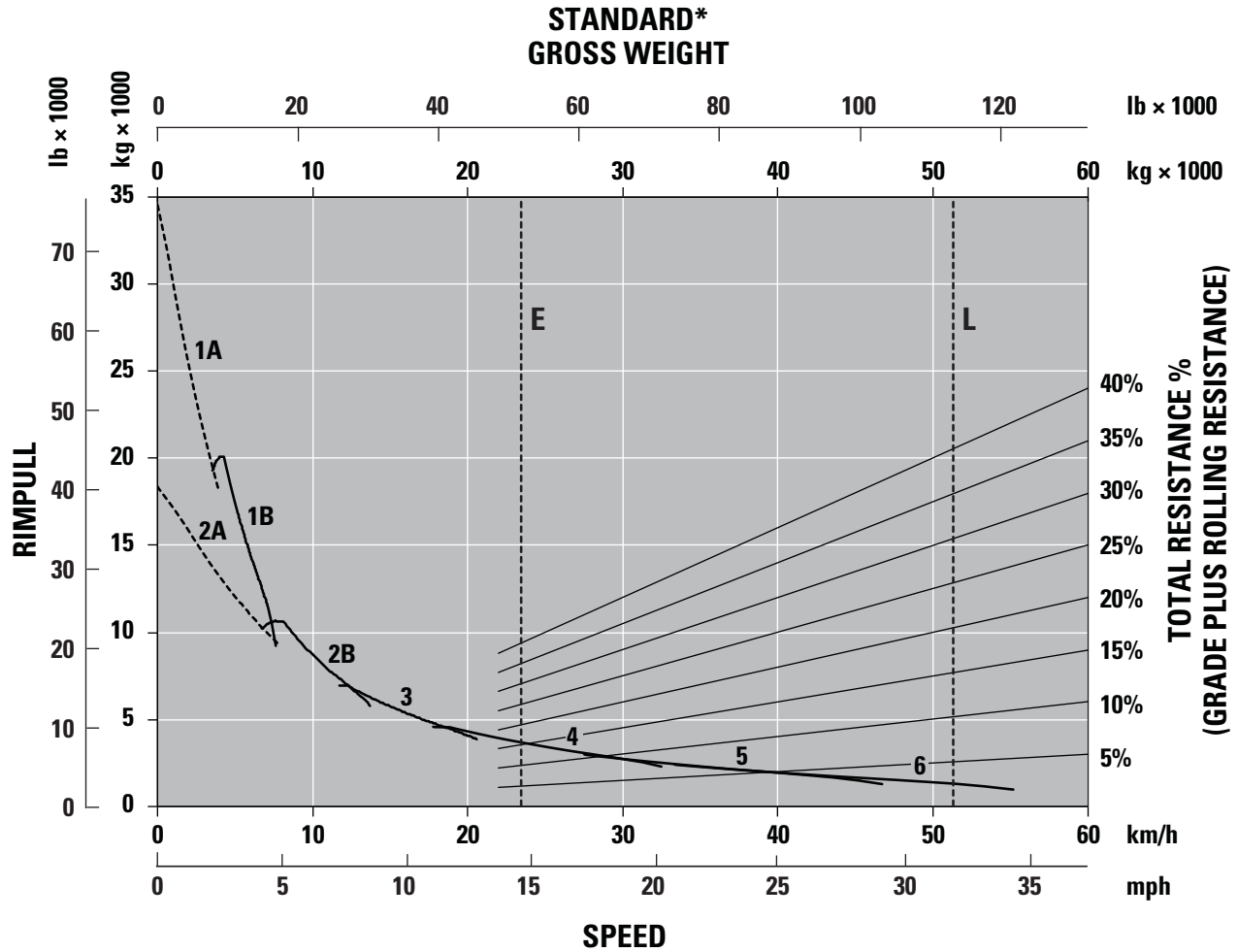
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An optimum system match gives you a major productivity advantage. The 730C2 is an excellent match for the Cat 349F and 336F Hydraulic Excavators; and Cat 972M, 966M, 962M and 950M Wheel Loaders. Having matched loading and hauling tools results in increased production and lower system costs per unit of volume moved.

730C2 Articulated Truck Specifications

Gradeability/Speed/Rimpull

To determine performance, read from Gross Weight down to % Total Resistance. Total Resistance equals actual % grade plus 1% for each 10 kg/metric ton (20 lb/ton) of Rolling Resistance. From this point, read horizontally to the curve with the highest attainable speed range. Then, go down to Maximum Speed. Usable Rimpull depends on traction available.



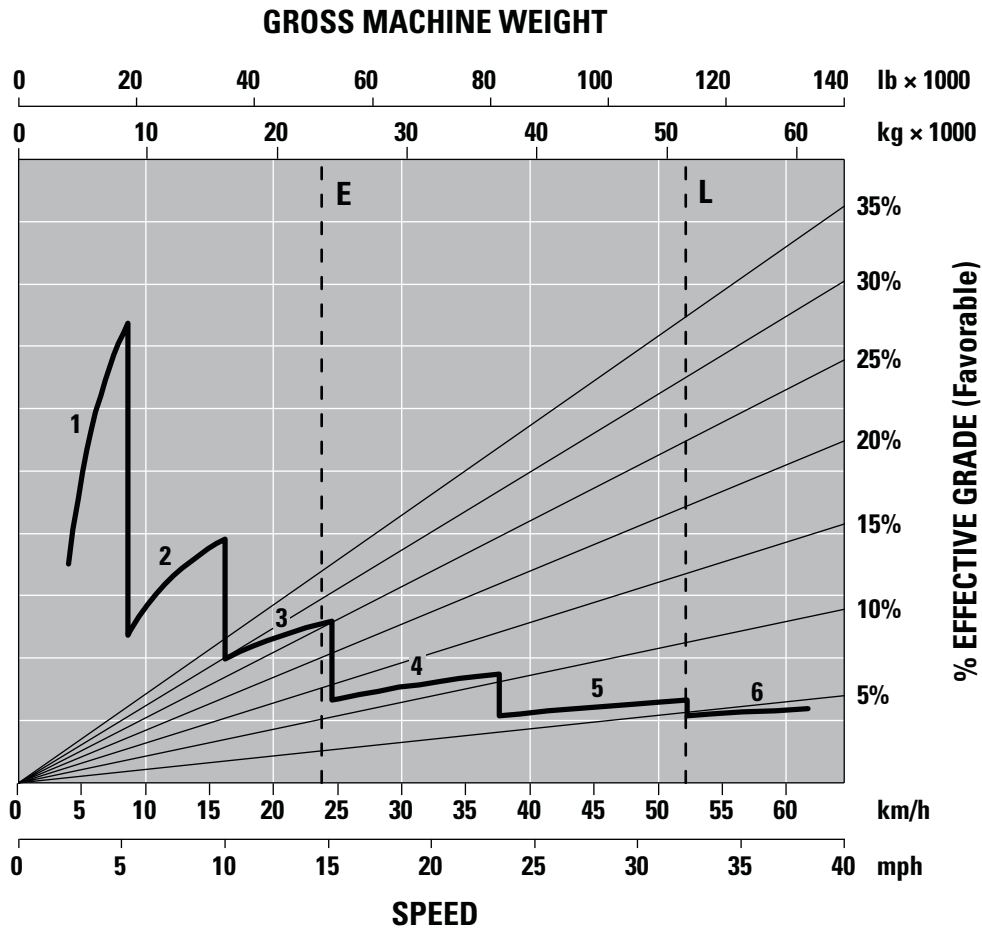
- 1A – 1st Gear (Converter Drive)
- 1B – 1st Gear (Direct Drive)
- 2A – 2nd Gear (Converter Drive)
- 2B – 2nd Gear (Direct Drive)
- 3 – 3rd Gear
- 4 – 4th Gear
- 5 – 5th Gear
- 6 – 6th Gear

- E – Empty 23 305 kg (51,378 lb)
- L – Loaded 51 305 kg (113,107 lb)
- * at sea level

730C2 Articulated Truck Specifications

Retarding Performance

To determine performance, read from Gross Weight down to % Effective Grade. Effective Grade equals actual % favorable grade plus 1% for each 10 kg/metric ton (20 lb/ton) of Rolling Resistance. From this point, read horizontally to the curve with the highest attainable speed range. Then, go down to Maximum Speed. Retarding effect on these curves represents full application of the retarder.



- 1 – 1st Gear
- 2 – 2nd Gear
- 3 – 3rd Gear
- 4 – 4th Gear
- 5 – 5th Gear
- 6 – 6th Gear

- E – Empty 23 305 kg (51,378 lb)
- L – Loaded 51 305 kg (113,107 lb)

Standard Equipment

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

- Air conditioning with R134A refrigerant
- Adjustable air vents
- Auto shift six-speed forward and single speed reverse transmission
- Cat C13 ACERT engine
- Cat rearview camera
- Color Multi-Purpose Display (CMPD) incorporating the rearview camera feed
- Dashboard Liquid Crystal Display (LCD)
 - Alert indicator, selected gear and direction, speed or auto shift, review Operation and Maintenance Manual (OMM), primary steering failure, seat belt warning, secondary steering failure, Machine Security System (MSS), secondary steering energy source engaged, hour meter and retarder active
- Differentials: automatic clutched inter and cross-axle differential locks
- Dual circuit oil immersed, enclosed brakes – all wheels
- Electrical system: 24 volt, 5A 24- to 12-volt converter
- Electro hydraulic hoist control
- Glass windows: laminated front, toughened rear and toughened opening side
- Guards: rear window, radiator, crankcase and axle
- Heater and defroster with four-speed fan
- Horn: electric
- Lights: cab interior, front, width marker, side, rear, two reversing/work lights, two stop/tail lights, front and rear direction indicators
- Machine Operation Monitoring System includes
 - Action lamp, engine oil pressure, primary steering system, left turn signal, high beam, coolant temperature, tachometer, parking brake, fuel level, right turn signal, transmission oil temperature, brake system, transmission hold, hoist control, hydraulic system, charging system, retarder, transmission fault, traction control system, check engine lamp
- Mirrors: extensive arrangement for improved visibility
- Mud flaps: wheel arch and body mounted with transportation tiebacks
- Product Link PL 321 or PL 522 dependent on location and licensing agreement
- Retarder: engine compression brake
- Reverse/backup alarm
- ROPS/FOPS cab
- Seat, fully adjustable, air suspension
- Seat, padded companion/trainer
- Secondary steering – electro hydraulic
- S·O·S sampling valves
- Spill guard: front, integral part of fabricated body
- Starting receptacle, electric, remote
- Storage: cup holder, under seat, door pocket, behind seat, coat hook
- Sun visor
- Three axle, six-wheel drive
- Tilt and telescopic steering wheel
- Tires, six 23.5R25, radial
- Two retractable seat belts
- Vandalism protection: lockable caps for fuel tank and hydraulic oil tank
- Windshield wiper and washer, two speed, intermittent (front)

Optional Equipment

Optional equipment may vary. Consult your Cat dealer for details.

- Auto lube installation for automatic greasing of bearings
- Bare Chassis (no body) standard wheel base
- Bare Chassis (no body) long wheel base
- Body liners
- Bluetooth radio stereo system
- Caterpillar Production Measurement (CMP) payload monitoring system
- Cold weather coolant -51°C (-60°F)
- Cold weather start attachment
- Engine block heater
- Ether start
- Exhaust heated body
- Fast fuel fill
- Four-point safety harness
- Flashing LED beacon
- Fuel additive-anti-waxing
- Heated seat
- Heated rearview motorized mirrors
- Machine Security System (MSS)
- Product Link PL 321, PL 522, VIMS™ Cellular, VIMS Satellite (where available)
- Roof mounted High Intensity Discharge (HID) work lights
- Scissor tailgate
- Windshield wiper and washer, two speed (rear)
- 750/65 wide tires

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

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Replaces AEHQ7760-01

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