

730 Articulated Truck

Technical Specifications

Configurations and features may vary by region. Please consult your Cat® dealer for availability in your area.

Table of Contents

Specifications	
Engine	Service Refill Capacities
Weights	Body Hoist
Air Conditioning System	Standards
Body Capacities2	Dimensions
Transmission	Turning Circle5
Sound Levels	Steering5
Operating Weights3	Optimal Loader/Truck Pass Matching5
Body Plate	Gradeability/Speed/Rimpull
Body Plate Thickness	Retarding Performance



Engine		
Engine Model	Cat 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 in ³

- 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 254 kW (341 hp) per the SAE reference conditions.
- Equivalent to U.S. EPA Tier 2/EU Stage II or meets Brazil MAR-1 emission standards, equivalent to U.S. EPA Tier 3/EU Stage IIIA.

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

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, equivalent of 1.716 metric tonnes.

Body Capacities			
Heaped SAE 2:1	17.5 m³	23.0 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		
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	72 AB(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	14 400 kg	31,835 lb
Center Axle – Empty	4640 kg	10,229 lb
Rear Axle – Empty	4420 kg	9,744 lb
Total – Empty	23 500 kg	51,809 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	17 720 kg	39,066 lb
Center Axle – Loaded	17 000 kg	37,479 lb
Rear Axle – Loaded	16 780 kg	36,994 lb
Total – Loaded	51 500 kg	113,538 lb

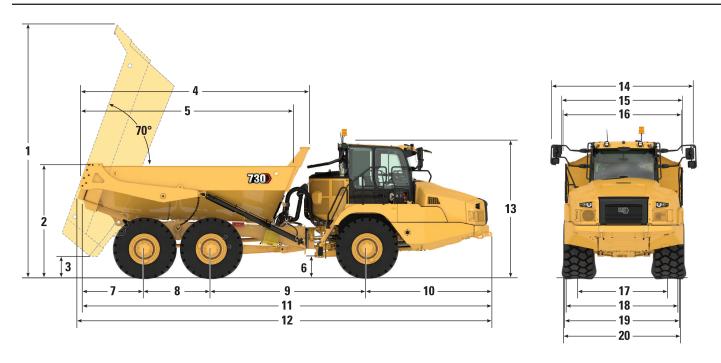
High strength Brinell HB450 wear resistant steel

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	S		
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	10.0 gal	
Transmission	47 L	12.4 gal	
Final Drives/Differential	125 L	33.0 gal	
Output Transfer Gear Box	24 L	6.3 gal	
Body Hoist Raise Time	12 Second	ls	
Lower Time	8 Seconds		
Standards			
Brakes	ISO 3450:	2011	
Cab/FOPS	ISO 3449:	2005 Level II	
Cab/ROPS	ISO 3471:	2008	
Steering	ISO 5010:	ISO 5010:2019	

Dimensions

All dimensions are approximate.



mm	ft/in
6465	21' 2"
2912	9' 5"
560	1' 9"
5783	19' 0"
5411	17' 9"
545	1' 9"
1556	5' 1"
1700	5' 7"
3979	13' 1"
3210	10' 6"
10 445	34' 3"
10 593	34' 8"
3504	11' 6"
3676	12' 1"
2984	9' 1"
2902	9' 10"
2275	7' 6"
2877	9' 5"
2950	9' 8"
2950	9' 8"
	6465 2912 560 5783 5411 545 1556 1700 3979 3210 10 445 10 593 3504 3676 2984 2902 2275 2877 2950

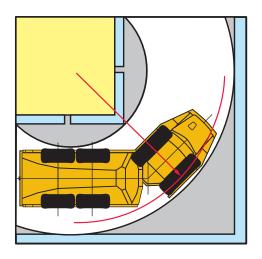
Turning Circle

Dimensions are for machines equipped with 23.5R25 tires.

Turning Dimensions		
Steer Angle – From Center 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 at 60 rpm



Optimal Loader/Truck Pass Matching

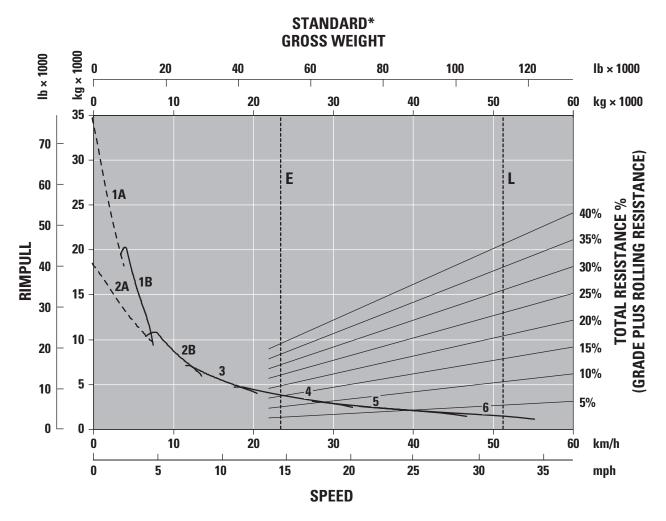
Hydraulic Excavators	349/352	336
Passes	4-5	5-6

Wheel Loaders	972M/972M XE	966M/966M XE	962M	950M
Passes	3-4	4	4-5	5

An optimum system match gives you a major productivity advantage. The 730 is an excellent match for the Cat 349/352 and 336 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.

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.



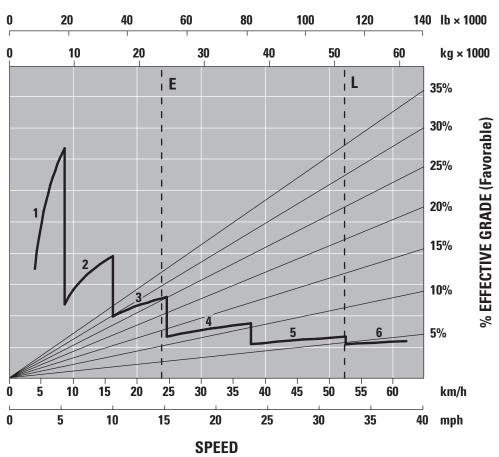
- 1A 1st Gear (Converter Drive)
- 1B 1st Gear (Direct Drive)
- 2A 2nd Gear (Converter Drive)
- 2B 2nd Gear (Direct Drive)
- 3 3rd Gear
- 4 4th Gear
- 5 5th Gear
- 6 6th Gear

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

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)

7

730 Articulated Truck Standard & Optional Equipment

Standard and Optional Equipment

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

	Standard	Optional
OPERATOR ENVIRONMENT		
Air conditioning with R134a refrigerant	✓	
Adjustable air vents	✓	
Combined gear selection and hoist control lever	✓	
Glass windows: front, laminated and tinted; sides and rear, toughened and tinted	✓	
Heater and defroster with four-speed fan	✓	
Infrared glass, high ambient cab		√
Liquid Crystal Display (LCD): alert indicator, selected gear and direction, speed or auto shift, review Operation and Maintenance Manual (OMM), primary steering failure warning, seat belt warning, secondary steering failure warning, secondary steering energy source engaged, hour meter, retarder active	√	
Mirrors, extensive arrangement for improved visibility	✓	
Mirrors, heated motorized		✓
Machine operation monitoring system: action lamp, engine oil pressure, primary steering system, left and right turn signal, high beam, coolant temperature, tachometer, parking brake, fuel level, transmission oil temperature, brake system, transmission hold, hoist control, hydraulic system, charging system, retarder, transmission fault, traction control system, check engine lamp	√	
Radio, Bluetooth stereo system		√
Seats: operator – fully adjustable, air suspension, retractable lap belt; trainer – padded with retractable lap belt	✓	
Seat, heated/cooled		✓
Operator seat belt, four-point		✓
Secondary steering, electro hydraulic	✓	
Storage: cup holder, flask receptacle, under seat storage, door pocket, behind operator seat storage, coat hook	✓	
Sun visor	✓	
Tilt and telescopic steering wheel	✓	
Touchscreen display incorporating the rearview camera video feed	✓	
Window blinds		✓
Windows (tinted) opening both sides	✓	
Windshield wiper and washer, two speed, intermittent (front)	✓	
Window wiper and washer, two speed (rear)		\checkmark

	Standard	Optional
TECHNOLOGY		
Cat Detect with Stability Assist	✓	
Cat Production Measurement payload		
monitoring system		
Machine Security System (MSS)		✓
Product Link™ Elite: PLE641 (cellular)	✓	
Product Link Elite: PLE631 (satellite)		√
ELECTRICAL AND LIGHTING		
Batteries (two) maintenance free	✓	
Cold weather start attachment		✓
Engine block heater		✓
Ether start		✓
Electrical system: 24-volt, 10A 24- to 12-volt	✓	
converter		
Flashing LED beacon		√
Horn	✓	
Lighting systems: cab interior, two head	\checkmark	
lamps, two width marker, two reversing,		
work light, two stop/tail lights, front and rear direction indicators		
Main disconnect switch		
Remote starting receptacle (cables not included)	•	
Roof mounted High Intensity Discharge		V
(HID) work lights		
POWER TRAIN		
Auto shift six-speed forward and single	\checkmark	
speed reverse transmission		
Cat C13 engine	√	
CX31 transmission	✓	
Differentials: standard with automatic	✓	
clutched inter- and cross-axle differential locks		
Dual circuit oil immersed, enclosed	\checkmark	
brakes – all wheels		
Retarder: engine compression brake	√	
Three axle, six-wheel drive	√	
SAFETY		
Reverse alarm	✓	
Rearview camera	✓	
ROPS/FOPS cab	✓	
GUARDS		
Axle	✓	
Crankcase	✓	
Front dump body spill guard, integral part of fabricated body	√	
Radiator		
Rear window		
Near William	▼	

730 Articulated Truck Standard & Optional Equipment

Standard and Optional Equipment

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

	Standard	Optional
OTHER STANDARD AND OPTIONAL EQUIPMENT		
Auto lube installation for automatic greasing of bearings		✓
Bare chassis (no body) standard wheel base		✓
Bare chassis (no body) long wheel base		✓
Body liners		✓
Cold weather coolant -51° C (-60° F)		✓
Exhaust heated body		✓
Fast fuel fill		✓
Fuel additive, anti-waxing		✓

	Standard	Optional
OTHER STANDARD AND OPTIONAL EQUIPMENT (CONTINUED)		
Mud flaps: wheel arch and body mounted with transportation tiebacks	✓	
Scissor tailgate		✓
S·O·S SM sampling valves	✓	
Sound suppression		✓
Tires, six 23.5R25, radial	✓	
Tires, six 750/65R25, radial		✓
Vandalism protection: lockable caps	✓	
Wheel chocks		✓



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

Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

© 2021 Caterpillar. All Rights Reserved. CAT, CATERPILLAR, LET'S DO THE WORK, their respective logos, Product Link, S•0•S, "Caterpillar Corporate Yellow", the "Power Edge" and Cat "Modern Hex" trade dress as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

AEXQ2715-01 (7-2021) Build Number: 04A (Afr-ME, Aus-NZ, CIS, Indonesia, Pacific Islands, S Am)

