730 EJ

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 2

- Engine 2
- Weights 2
- Air Conditioning System 2
- Body Capacities 2
- Transmission 2
- Sound Levels 2
- Operating Weights 3
- Body Plate 3
- Blade Eject/Retract 3
- Service Refill Capacities 3
- Standards 3
- Dimensions 4
- Turning Circle 5
- Steering 5
- Optimal Loader/Truck Pass Matching 5
- Gradeability/Speed/Rimpull 6
- Retarding Performance 7

Standard and Optional Equipment 8

730 EJ Environmental Declaration 9

730 EJ Articulated Truck Specifications

Engine

Engine Model	Cat® C13	
Gross Power (SAE J1995:2014)	280 kW	375 hp
Net Power (SAE J1349:2011)	274 kW	367 hp
Engine (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, aftertreatment 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 meets U.S. EPA Tier 4 Final, EU Stage V, Korea Tier 5, and Japan 2014 emission standards.
- Diesel Exhaust Fluid (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 Required 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)	2120 N•m	1,564 lbf-ft
Peak Engine Torque Speed	1200 rpm	

Weights

Rated Payload	27.1 tonnes	30 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_2 equivalent of 1.716 metric tonnes.

Body Capacities

Heaped SAE 2:1	16.9 m^3	22.1 yd^3
Struck	13.5 m^3	17.7 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	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	15 750 kg	34,723 lb
Center Axle – Empty	5540 kg	12,214 lb
Rear Axle – Empty	5310 kg	11,707 lb
Total – Empty	26 600 kg	58,643 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

Blade Eject/Retract

Eject time	12 seconds
Retract time	15 seconds

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

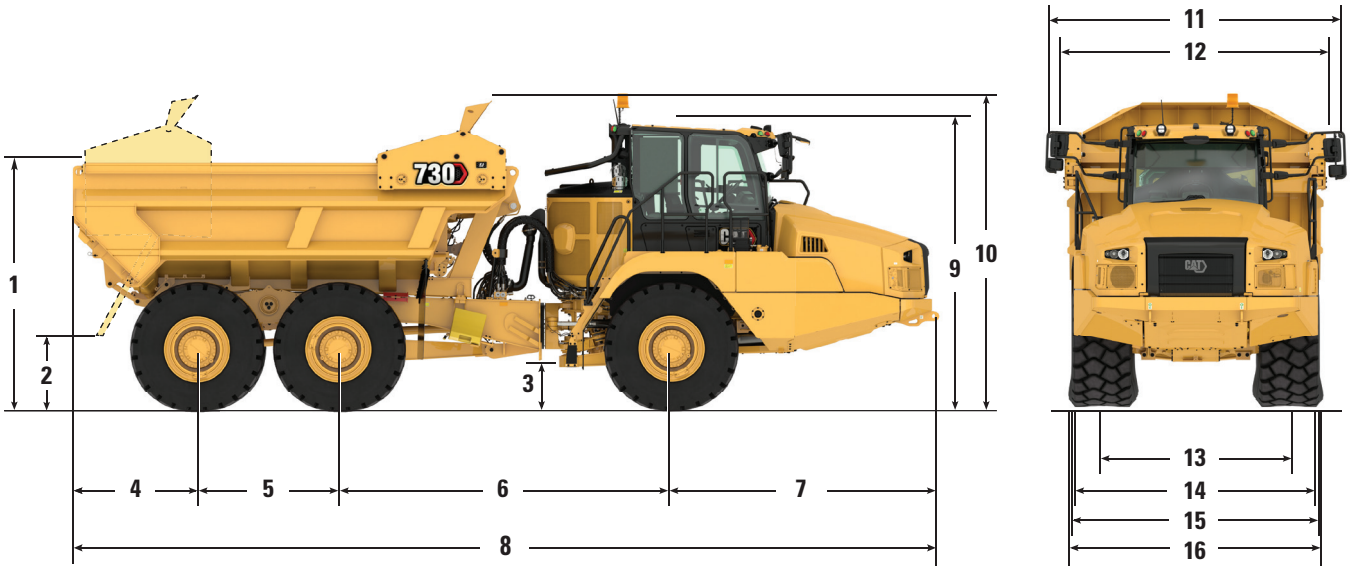
Standards

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

730 EJ Articulated Truck Specifications

Dimensions

All dimensions are approximate.



		mm	ft/in
1	Load over Height	3030	10'0"
2	Ground Clearance to Body Height	886	3'0"
3	Ground Clearance	516	1'8"
4	Rear Axle Center to Body Rear	1487	4'11"
5	Mid Axle to Rear Axle Center	1700	5'7"
6	Mid Axle to Front Axle (Centers)	3979	13'1"
7	Front Axle Center to Machine Front	3210	10'6"
8	Overall Length	10 376	34'0"
9	Ground Height to Top of Cab	3473	11'4"
10	Height Transport Position	3750	12'3"
11	Overall Width	3518	11'6"
12	Body Width	3251	10'8"
13	Track Width	2275	7'6"
14	Width over Fenders	2950	9'8"
15	Width over Free Tire	3013	9'11"
16	Max Laden over Tire Bulge	3082	10'1"

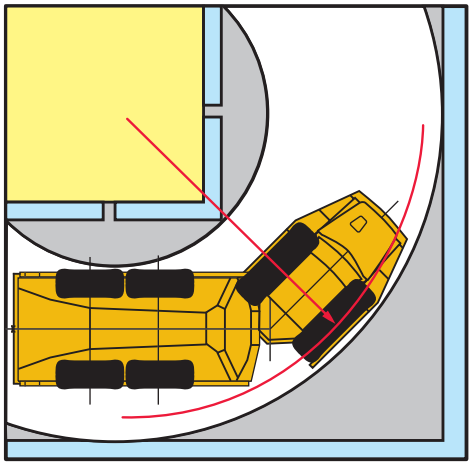
Turning Circle

Dimensions are for machines equipped with 750/65 R25 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	3849 mm	152 in
Aisle Width	5424 mm	214 in

Steering

Lock to Lock	4.75 seconds @ 60 rpm



Optimal Loader/Truck Pass Matching

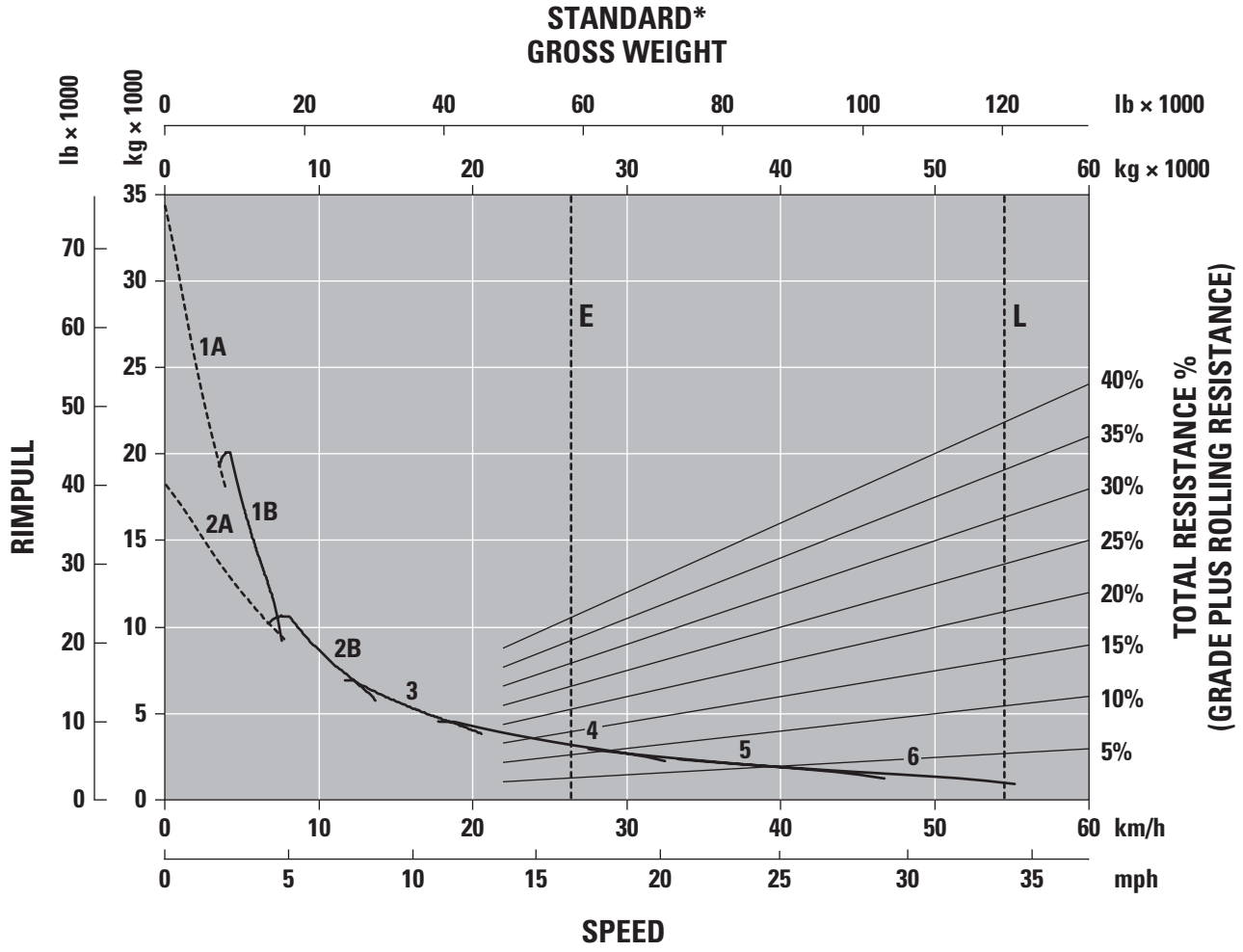
Hydraulic Excavators	349/352	336
Passes	4-5	5-6

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 EJ 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.



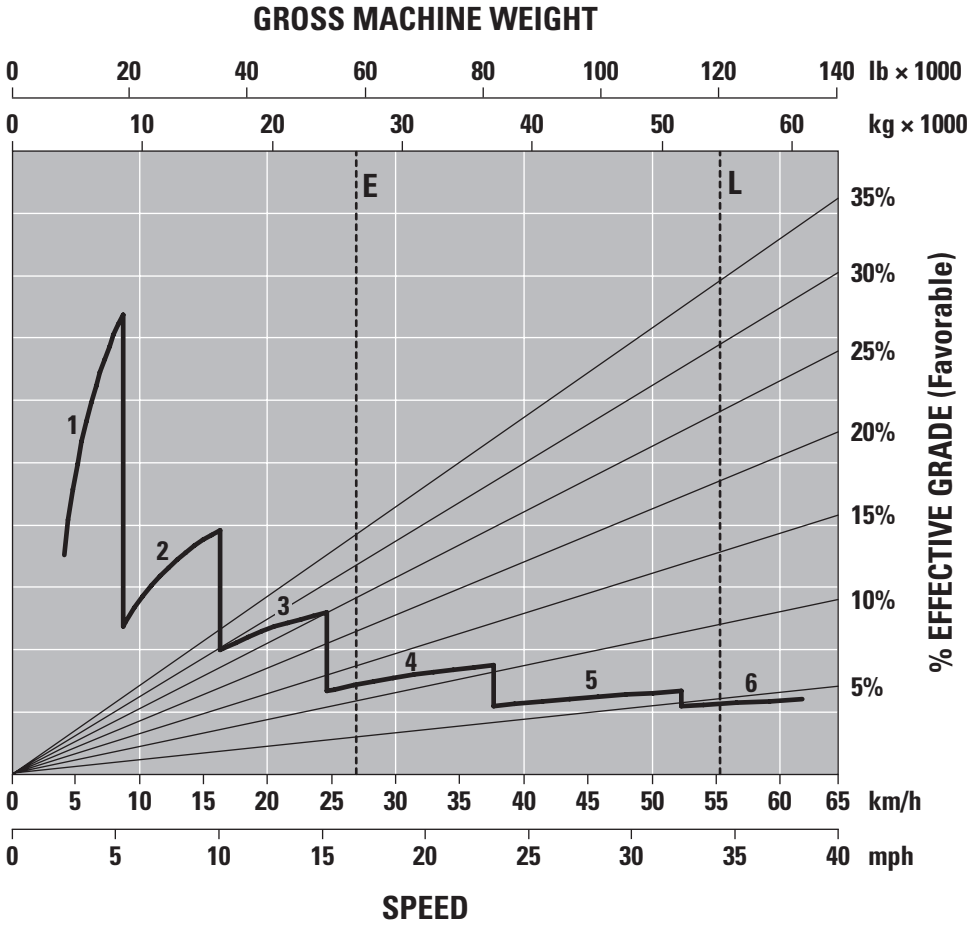
1A – 1st Gear (Converter Drive)
1B – 1st Gear (Direct Drive)
2A – 2nd Gear (Converter Drive)
2B – 2nd Gear (Direct Drive)
3 – 3rd Gear
4 – 4th Gear
5 – 5th Gear
6 – 6th Gear

E – Empty 26 395 kg (58,190 lb)
L – Loaded 54 515 kg (120,186 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 26 395 kg (58,190 lb)
L – Loaded 54 515 kg (120,186 lb)

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	✓	
Combined gear selection and eject control lever	✓	
Liquid Crystal Display (LCD)	✓	
Mirrors: extensive arrangement for improved visibility	✓	
Mirrors, heated motorized		✓
Machine operation monitoring system	✓	
Operator seat belt, four-point		✓
Radio, Bluetooth® stereo system		✓
Seats: operator – fully adjustable, air suspension, retractable lap belt; trainer – padded with retractable lap belt	✓	
Seat, heated/cooled		✓
Secondary steering – electro-hydraulic	✓	
Sun visor	✓	
Tilt and telescopic steering wheel	✓	
Touchscreen display incorporating the rearview camera video feed	✓	
Windshield wiper and washer, two-speed, intermittent (front)	✓	
TECHNOLOGY		
Cat® Detect with Stability Assist	✓	
Cat Production Measurement payload monitoring system		✓
Product Link™: PL631E or PL641E dependent on location and licensing agreement	✓	
Product Link Elite: PLE631E (satellite), PLE641E (cellular)		✓
ELECTRICAL AND LIGHTING		
Batteries (x2) maintenance free	✓	
Cold weather start attachment		✓
Electrical system: 24-volt, 10A 24- to 12-volt converter	✓	
Engine block heater		✓
Ether start		✓
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	✓	
Main disconnect switch	✓	
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	✓	
CX31 transmission	✓	
Cat Clean Emission Module (CEM) and exhaust aftertreatment package	✓	
Differentials: standard with automatic clutched inter- and cross-axle differential locks	✓	
Dual circuit oil immersed, enclosed 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	✓	
OTHER		
Auto lube installation for automatic greasing of bearings		✓
Cold weather coolant -51°C (-60°F)		✓
Exhaust heated body		✓
Fast fuel fill		✓
Fuel additive – anti-waxing		✓
Mud flaps: wheel arch and body mounted with transportation tiebacks	✓	
Hydraulic tailgate	✓	
S·O·S℠ sampling valves	✓	
Sound suppression (optional outside EFTA*)		✓
Tires, six 750/65 R25 radial	✓	
Vandalism protection: lockable caps	✓	
Wheel chocks		✓

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

730 EJ Environmental Declaration

The following information applies to the machine at the time of final manufacture as configured for sale in the regions covered in this document. The content of this declaration is valid as of the date issued; however, content related to machine features and specifications are subject to change without notice. For additional information, please see the machine's Operation and Maintenance Manual.

For more information on sustainability in action and our progress, please visit https://www.caterpillar.com/en/company/sustainability.

Engine

- The Cat® C13 engine meets U.S. EPA Tier 4 Final, EU Stage V, Korea Tier 5, and Japan 2014 emission standards.
- Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels up to:
  - ✓ 20% biodiesel FAME (fatty acid methyl ester)*
  - ✓ 100% renewable diesel, HVO (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels

  Refer to guidelines for successful application. Please consult your Cat dealer or "Caterpillar Machine Fluids Recommendations" (SEBU6250) for details.

  **Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel.*

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 (2.4 lb) of refrigerant which has a CO2 equivalent of 1.716 metric tonnes (1.891 tons).

Paint

- Based on best available knowledge, the maximum allowable concentration, measured in parts per million (PPM), of the following heavy metals in paint are:
  - Barium < 0.01%
  - Cadmium < 0.01%
  - Chromium < 0.01%
  - Lead < 0.01%

Sound Performance

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 maximum cooling fan's 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.

Oils and Fluids

- Caterpillar factory fills with ethylene glycol coolants. Cat Diesel Engine Antifreeze/Coolant (DEAC) and Cat Extended Life Coolant (ELC) can be recycled. Consult your Cat dealer for more information.
- Cat Bio HYDO™ Advanced is an EU Ecolabel approved biodegradable hydraulic oil.
- Additional fluids are likely to be present, please consult the Operations and Maintenance Manual or the Application and Installation guide for complete fluid recommendations and maintenance intervals.

Features and Technology

- The following features and technology may contribute to fuel savings and/or carbon reduction. Features may vary. Consult your Cat dealer for details.
  - Economy mode minimizes fuel consumption without impacting productivity
  - Optimize airflow and enhance power and fuel efficiency with innovative air-management systems
  - Maximize uptime and reduce cost with world-class support from the Cat dealer network
  - Uniquely combined hoist and transmission level allows for easy, intuitive control and cuts operator interaction by as much as 50%
  - Cat® Production Measurement provides real-time payload weighing which helps you maximize productivity, reduce fuel burn and greenhouse gas emissions, all while improving job site efficiency and lowering costs

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.

© 2022 Caterpillar. All Rights Reserved. CAT, CATERPILLAR, LET'S DO THE WORK, their respective logos, Product Link, S•O•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.

AEXQ3062-02 (10-2022)
Build Number: 04A
(Aus-NZ, Europe, Japan, N Am)