

725C

Articulated Truck



Engine

Engine Model –	Cat® C9.3 ACERT™	
U.S. EPA Tier 2 Final/EU Stage II		
Gross Power – SAE J1995	239 kW	320 hp
Net Power – SAE J1349	234 kW	314 hp
Net Power – ISO 14396	236 kW	316 hp

Weights

Rated Payload	23.6 tonnes	26 tons
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Body Capacities

Heaped SAE 2:1	15 m ³	19.6 yd ³
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725C New Features

Cat C9.3 ACERT engine meeting U.S. Environmental Protection Agency (EPA) Tier 2/EU Stage II engine emission regulations.

Machine ground speed limiting function

Advanced Productivity Electronic Control Strategy (APECS)

Internal cab grab handles

Park brake switch guard

Improved Storage

Color Multi-Purpose Display (CMPD)

External roof level work lights (optional)

Machine width position lamps

Motorized heated mirrors (optional)

Increased body capacity

New front and rear frames

Larger fuel tank

Machine Security System (MSS) ready

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Strong, durable Cat C9.3 ACERT engine platform with U.S. EPA Tier 2/EU Stage II exhaust emission solution.

Advanced Productivity Electronic Control Strategy (APECS) delivers a smooth shifting transmission, improving acceleration with higher productivity.

Engine

Optimized Performance, Proven Reliability





Engine Technology

The Cat C9.3 ACERT engine continues the evolutionary, incremental improvements that provide breakthrough engine technology built on systems and components developed by Caterpillar with proven reliability.

Fuel Delivery

The Cat C9.3 ACERT engine utilizes the common rail, high-pressure, electronic metering system to the injectors.



Transmission

Class Leading Transmission Technology

Electronic Transmission

The Cat TH31 six-speed forward one-speed reverse Electronic Clutch Pressure Controlled (ECPC) transmission featuring Advanced Productivity Electronics Control Strategy (APECS) delivers smooth shifting with strong acceleration and high productivity.

- Features:

- A speed hold/limiting function allows the machine speed to be limited in one km/h or one mph steps to conform to site speed restrictions.
- 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.

Retarder

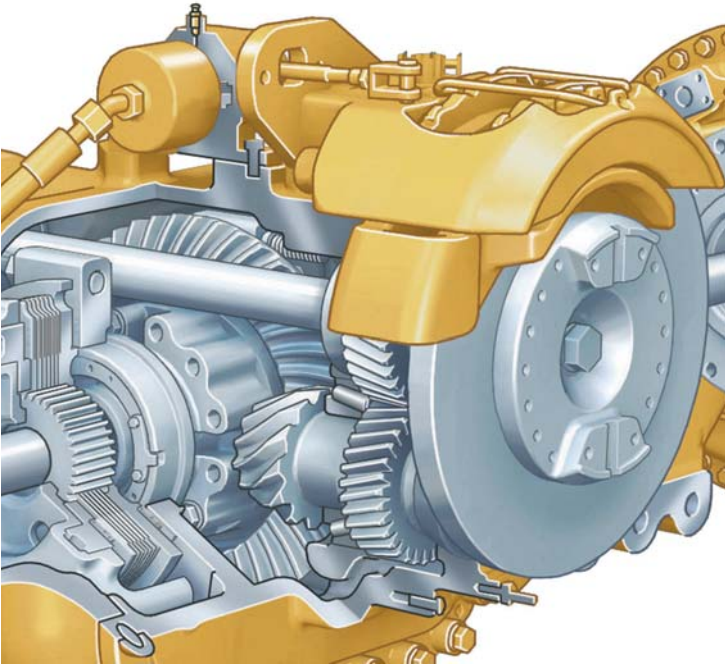
Integral transmission retarder with a high power density design. Due to its compact size, the unit quickly fills with oil, providing more retarding power and fast response times.

Retarding levels are automatically reduced on lesser grades in lower gears.



Traction Control

The Most Advanced Traction Control System



Traction Control

The traction control system is comprised of wet clutched inter-axle and cross-axle differentials, which can be engaged and disengaged “on-the-go.”

Inter-Axle Differential Lock

Locks tractor and trailer drive systems together and modifies torque distribution for excellent traction in poor underfoot conditions and on grades. Operated by a switch located at the footrest.

Cross-Axle Differential Locks

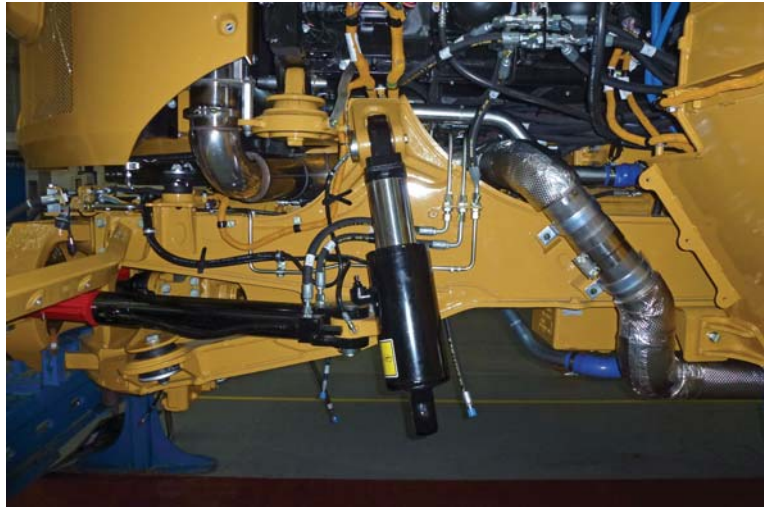
Locks axle differentials, acting in unison with the inter-axle differential lock when the foot switch is actuated and the dash-mounted switch is selected.

Suspension and Brakes

Performance and Comfort

Front Suspension

The three-point front suspension oscillates $\pm 6^\circ$ to provide a smooth ride, allowing the operator to travel at speed over rough terrain. It softens impact loads on structures and components using an oscillating A-frame with a lateral tie rod to control axle sideways movement. Large bore, low-pressure cylinders are purpose designed for tough applications and offer a soft, smooth ride.



Rear Suspension

The rear suspension features a walking beam geometry with Caterpillar designed, long life, rear suspension mounts, which provide a reliable and stable ride for excellent load retention.



Mounting Points

Suspension mounting points are integrated into the axle housing, increasing reliability.

Service Brakes

Dual-circuit, all wheel braking system. Full power hydraulic system actuates self-cleaning caliper disc brakes with independent front and rear circuits and accumulators.

Parking Brake

Fitted to the center axle in an elevated position, spring applied and hydraulically released.





Operator Comfort

Improved Productivity from a 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 725C features a large two-person cab, offering comfortable working space for both the operator and passenger with large storage compartments. The 730C, 730C EJ, 735B, 740B and 740B EJ articulated trucks use the same spacious cab design.

Air Suspension Seat

The air suspension seat enhances 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.

Passenger Seat

Full-size passenger seat features a fully padded seat with a backrest and a wide, retractable seat belt for a secure and comfortable ride. The passenger seat is positioned next to the operator seat, giving both the operator and passenger a clear view of the instrument panel, controls and the road.

Steering Column

A comfortable driving position is provided by a telescopic and tilt adjustable steering column.

Ease of Operation

Designed around the Operator



Ergonomic Layout

The controls and layout of the cab are designed to make it as easy to operate as your car. Quick, easy to read and simple to operate, the controls and gauges on the 725C allow the operator to concentrate on production.



Dash

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, head lamp, work lamp, heated mirrors (optional), diff-lock, secondary steer, heated seat (optional), machine security system (optional), A/C and cigar lighter. The Color Multi-Purpose Display (CMPD) unit incorporates the messenger and rearview display. The cab provides an automotive feel with the industrial strength you would expect from Caterpillar.

Color Multi Purpose Display (CMPD)

The cab features a multi-screen display unit showing various levels of machine warning categories, performance and condition pages, including: Performance, Settings, Totals, Service, Machine Status, Operator, and Rearview Camera.

Warning Categories

The monitoring system provides four warning categories.

- The first warning category requires only operator awareness.
- The second warning category requires a change in machine operation or maintenance to the system.
- The third warning category requires an immediate change of the machine operation.
- The fourth category requires the operator to immediately stop the machine.

The fourth category also requires the operator to immediately shut down the engine.

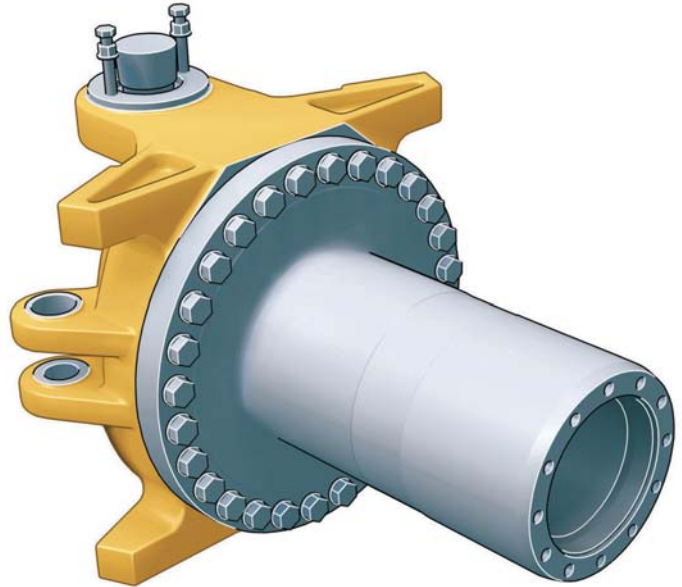
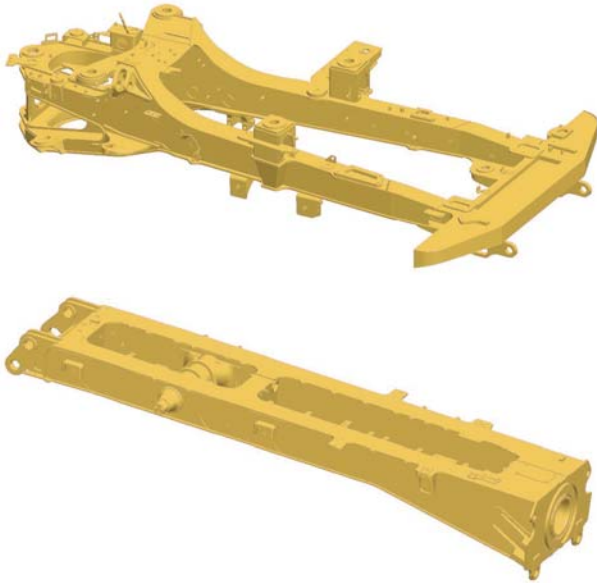
Viewing Area

The low sloping hood and placement of the cooling package behind the cab give the operator excellent all-around visibility. The large glass area and central operator position also provide excellent visibility.

Transmission and Hoist Levers

The transmission lever offers excellent comfort and control for transmission selection, hold and neutral lock.

The hoist lever provides easy, comfortable operation.



Structures

Proven Durability and Reliability

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

The four plate box constructed rear frame minimizes stress concentrations and provides low weight with long service life.

Dump Body

Extensive use of 450 Brinell hardened steel provides excellent impact and wear resistance. Body top rail design reduces material spillage at the loading area.

Diverging flow construction gives clean load ejection which maximizes production and avoids the waste of material carry back.

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

The two-piece construction of the hitch features a durable cast steel head bolted to a hard wearing forged steel tube.

Product Link

User Friendly Secure Application



Cat Product Link*

Cat Product Link allows remote monitoring of the Articulated Truck to improve overall fleet-management effectiveness. Product Link is deeply integrated into machine systems. Events and diagnostic codes, as well as hours, fuel, idle time and other detailed information are transmitted to a secure web based application, VisionLink®. VisionLink includes powerful tools to convey information to users and dealers, including mapping, working/idle time, fuel level and more.

**Product Link licensing not available in all areas.
Please consult your Cat dealer for availability.*

Key Points

- See your entire fleet at a glance
- Monitor fuel usage
- Set up site boundaries and security alerts
- Click through to your Cat dealer for service and parts
- Customize the alerts and displays that matter to you
- Compare working time versus idle time
- Reduce owning and operating costs
- Get the right information to the right people at the right time
- Vital Information Maintenance System (VIMS™) upgrades available
- Robust new hardware
- Remarkably intuitive web-based interface
- Satellite and cellular coverage
- Open-system design for mixed-fleet use



Serviceability

Maximum Uptime and Reduced Costs

Long Service Intervals

Long engine oil change and hydraulic oil change intervals lower maintenance costs and downtime. Wheel-bearing adjustment is completely eliminated.

Lube Points

Lube points are grouped at the rear of the front frame and the front of the rear frame. Universal joints are lubed for life, eliminating servicing. Autolube is optional.

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.

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 computer 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 cab body panel for easy access.





Customer Support

Complete Peace of Mind

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 on the Web at www.cat.com.

Safety

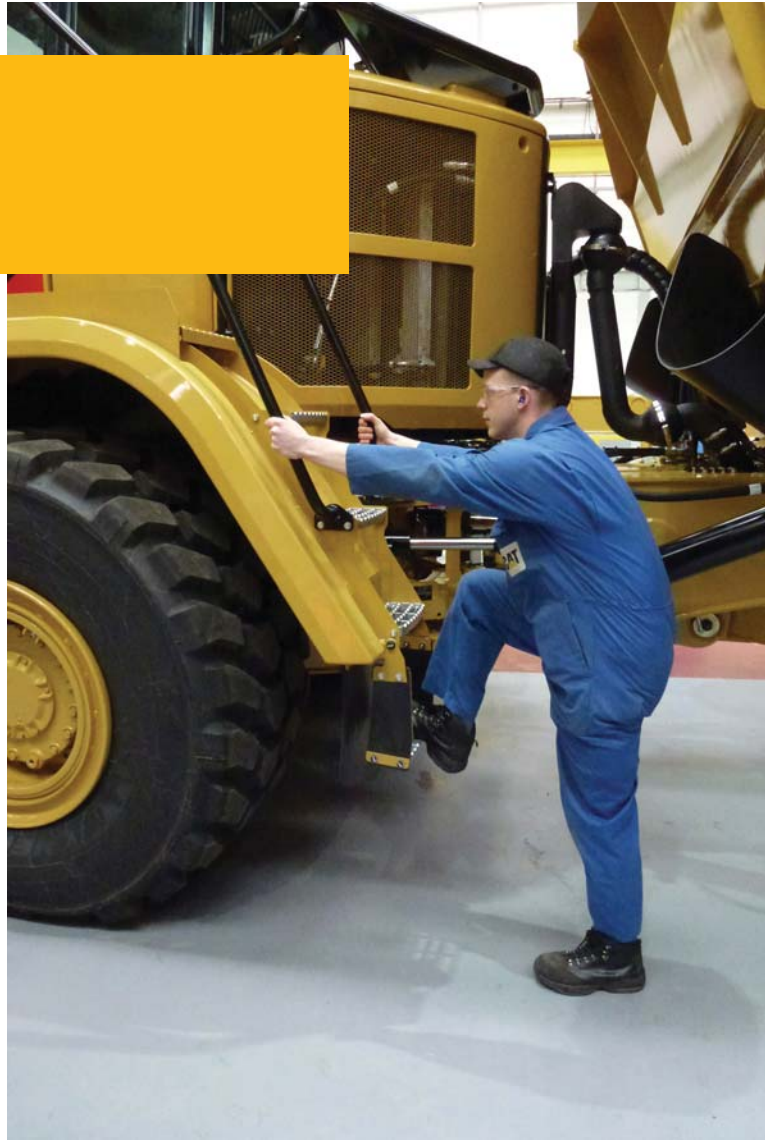
Safety at the Forefront of Design

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 provides a continuous panoramic rearview 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
- External engine fuel cut off switch for easy access from outside of the machine
- External electrical system disconnect switch for easy access from outside of the machine
- Slip resistant surfaces – 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)
- LED width position marker lights for easier night time working
- Operator selectable machine speed limiting function





Sustainability

Making Sustainable Progress Possible

The 725C is designed to maximize efficiency and productivity while conserving natural resources.

Air Quality

The Cat C9.3 ACERT engine incorporating U.S. EPA Tier 2 Final/EU Stage II emission requirements.

Recycle Waste

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

The 725C is manufactured to be rebuilt and remanufactured to reduce waste and replacement costs.

The 725C is an efficient, productive machine that is designed to conserve our natural resources for generations ahead.

725C Articulated Truck Specifications

Engine

Engine Model	Cat C9.3 ACERT	
Gross Power – SAE J1995	239 kW	320 hp
Net Power – SAE J1349	234 kW	314 hp
Net Power – ISO 14396	236 kW	316 hp
Bore	115 mm	4.53 in
Stroke	149 mm	5.87 in
Displacement	9.3 L	567 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 214 kW (287 hp) per the SAE reference conditions.
- The 725C meets U.S. EPA Tier 2/EU Stage II emission specification.

No Engine De-rating Required Below	2290 m	7,500 ft
Peak Engine Torque Gross (SAE J1995)	1590 N·m	1,173 lbf-ft
Peak Engine Torque net (ISO 14396)	1573 N·m	1,160 lbf-ft
Peak Engine Torque Speed	1,200 rpm	

Weights

Rated Payload	23.6 tonnes	26 tons
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Body Capacities

Heaped SAE 2:1	15 m ³	19.6 yd ³
Struck	11 m ³	14.4 yd ³
Tailgate Heaped SAE 2:1	15.6 m ³	20.4 yd ³
Tailgate Struck	11.1 m ³	14.5 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	48 km/h	30 mph
Forward 6	56 km/h	35 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 OCT 98 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.

725C Articulated Truck Specifications

Operating Weights

Front Axle – Empty	14 050 kg	30,975 lb
Center Axle – Empty	4610 kg	10,163 lb
Rear Axle – Empty	4290 kg	9,458 lb
Total – Empty	22 950 kg	50,596 lb
Front Axle – Rated Load	2460 kg	5,423 lb
Center Axle – Rated Load	10 570 kg	23,303 lb
Rear Axle – Rated Load	10 570 kg	23,303 lb
Total – Rated Load	23 600 kg	52,029 lb
Front Axle – Loaded	16 510 kg	36,398 lb
Center Axle – Loaded	15 180 kg	33,466 lb
Rear Axle – Loaded	14 860 kg	32,761 lb
Total – Loaded	46 550 kg	102,625 lb

Body Plate

High Strength Brinell HB450 Wear Resistant Steel

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	135 L	35.7 gal
Output Transfer Gear Box	24 L	6.3 gal

Body Hoist

Raise Time	10 Seconds
Lower Time	8 Seconds

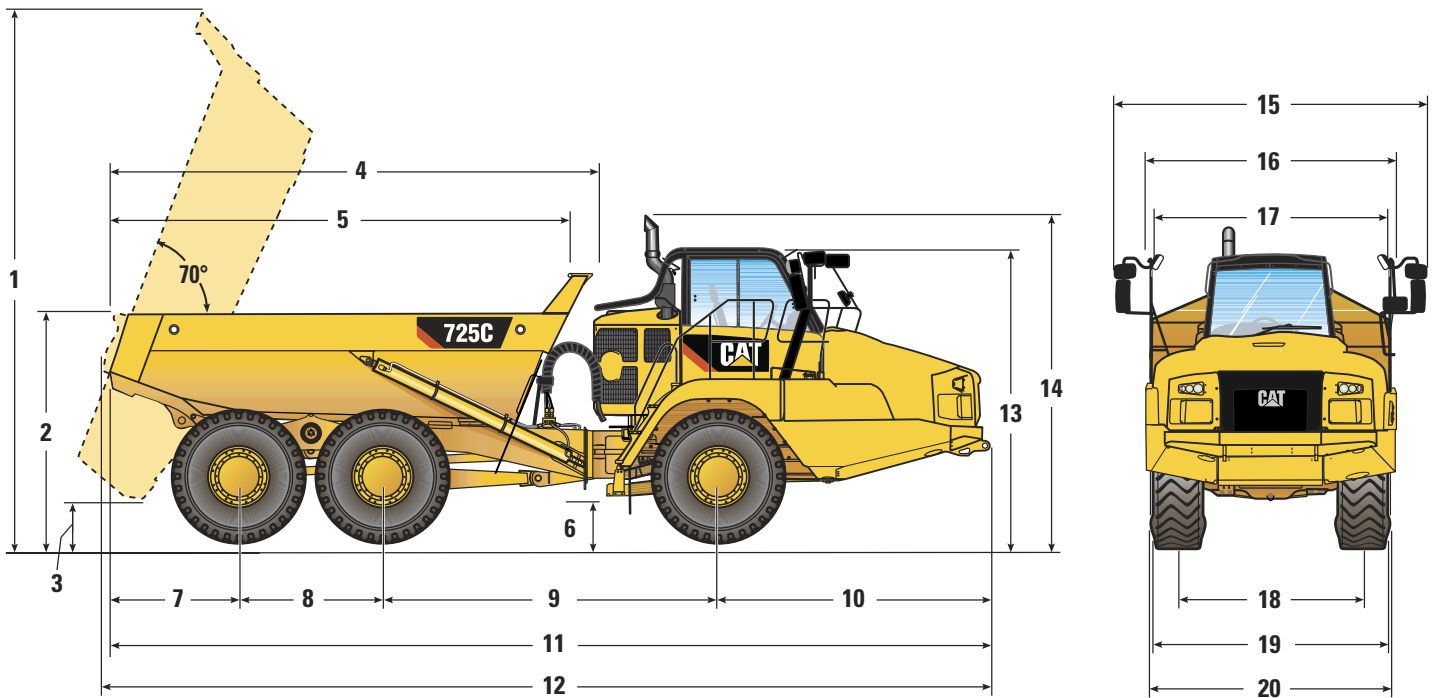
Standards

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

725C Articulated Truck Specifications

Dimensions

All dimensions are approximate.



	mm	ft/in
1	6306	20'8"
2	2725	8'11"
3	558	1'10"
4	5696	18'8"
5*	5335	17'6"
6	539	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**	10 547	34'7"
13	3482	11'5"
14	3779	12'5"
15	3704	12'2"
16**	2999	9'10"
17	2772	9'1"
18	2275	7'6"
19***	2877	9'5"
20****	2950	9'8"

*Inside of body
 **With tailgate
 ***Over free width of tire
 ****Over fender

725C Articulated Truck Specifications

Turning Circle

Dimensions are for machines equipped with 23.5R25 tires.

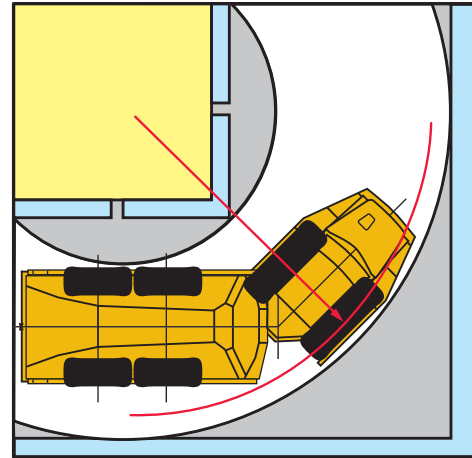
Turning Dimensions

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	349E	336E		
Passes	4-5	5-6		

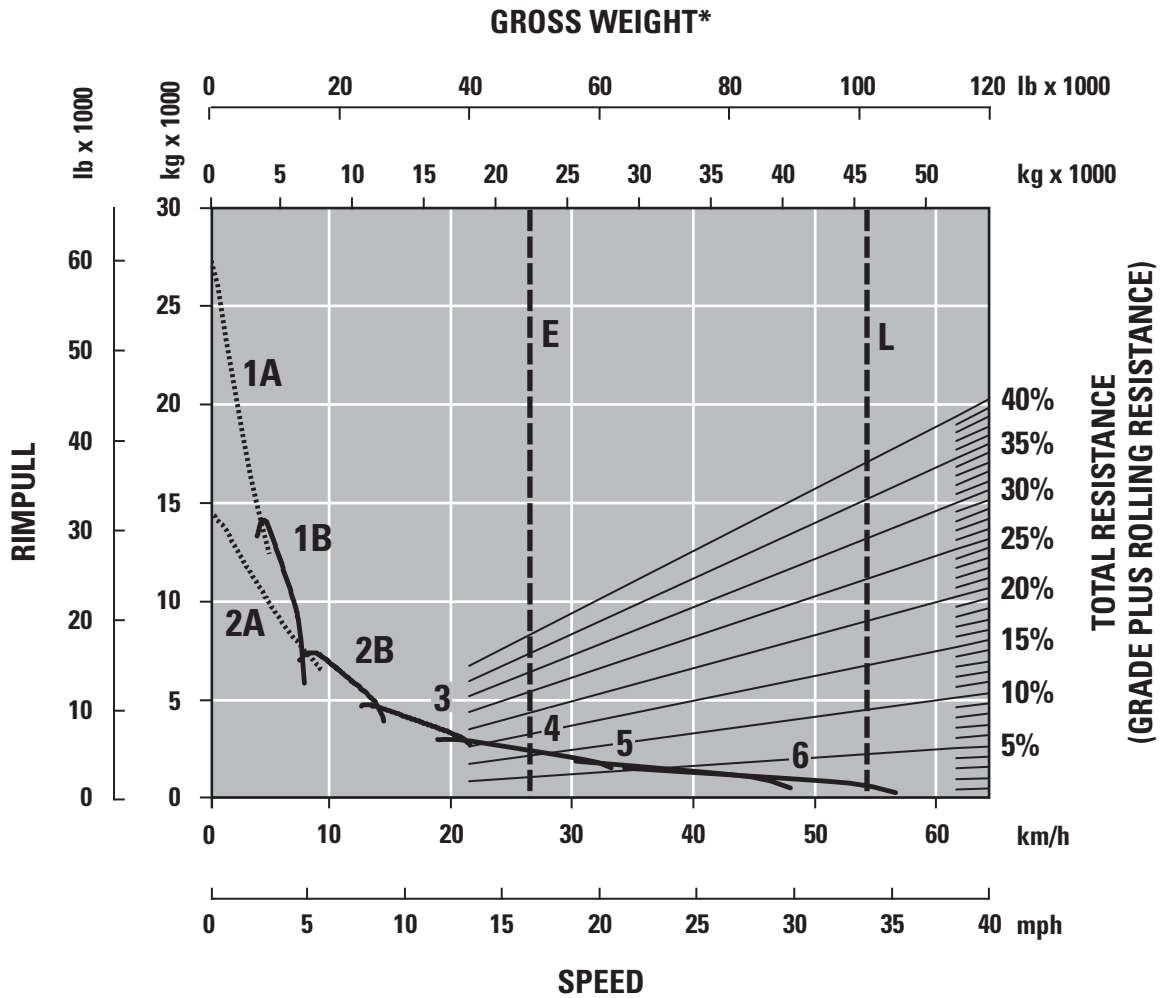
Wheel Loaders	972K	966K XE	962K	950H/K
Passes	3-4	4	4-5	5

An optimum system match gives you a major productivity advantage. The 725C is an excellent match for the Cat 349E and 336E Hydraulic Excavators; and Cat 972K, 966K XE, 962K and 950H/K Wheel Loaders. This results in increased production and lower system costs per unit of volume moved.

725C 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.



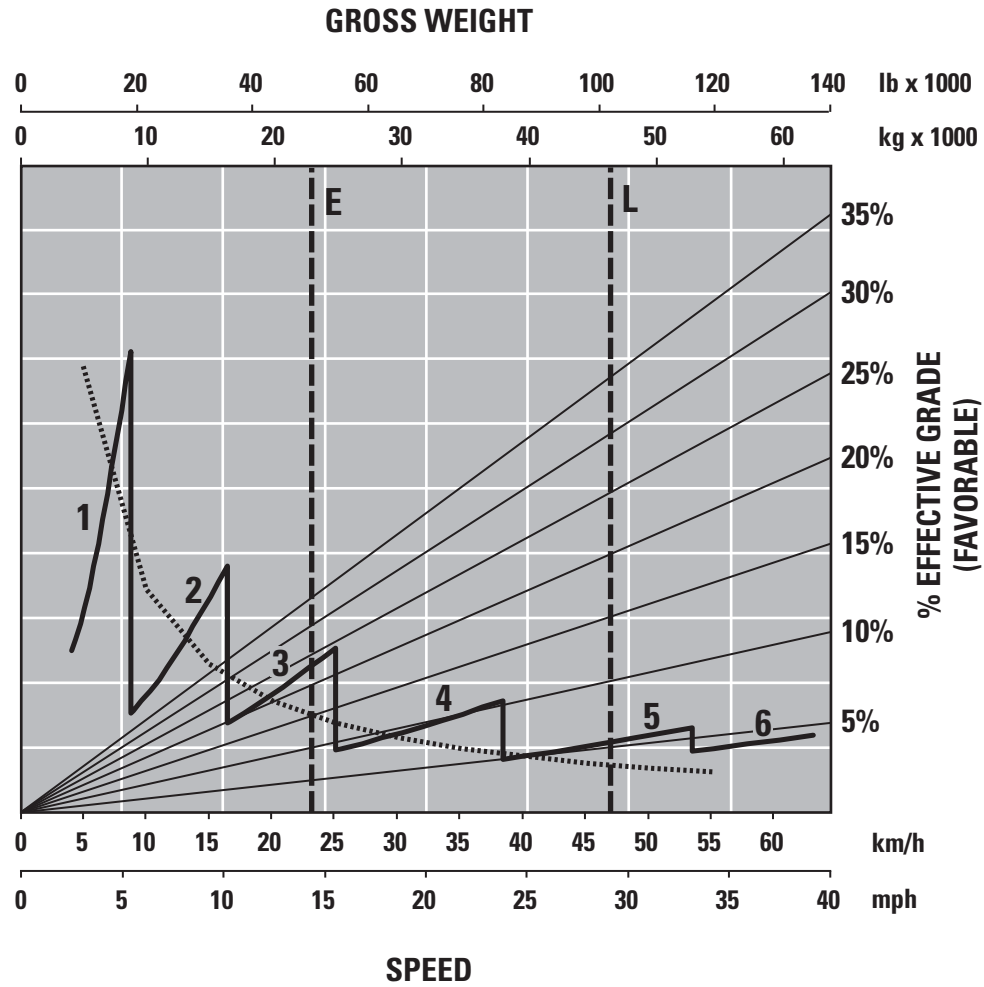
- 1A – 1st Gear (Converter Drive)
- 1B – 1st Gear (Direct Drive)
- 2A – 2nd Gear (Converter Drive)
- 2B – 2nd Gear (Direct Drive)
- 3 – 3rd Gear
- 4 – 4th Gear
- 5 – 5th Gear
- 6 – 6th Gear

- E – Empty 22 950 kg (50,596 lb)
- L – Loaded 46 550 kg (102,625 lb)
- * at sea level

725C 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 22 950 kg (50,596 lb)
- L – Loaded 46 550 kg (102,625 lb)

Standard Equipment

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

- Air conditioning with R134A refrigerant
- Air vents, adjustable
- Auto shift six-speed forward and one reverse, transmission
- Back up alarm
- Body, adapted for exhaust heat
- Cat C9.3 ACERT engine with Advanced Combustion Emissions Reduction Technology
- Cat rearview camera
- Color Multi-Purpose Display (CMPD) incorporating the cycle counter and rearview camera screen
- CD/Radio, heavy duty, ready
- Differentials, standard with clutched cross-axle differential locks, front and rear axles
- Dual circuit caliper disc brakes – all wheels
- Electrical system, 24-volt, 5A 24- to 12-volt converter
- Electro hydraulic hoist control
- Glass windows:
 - laminated and tinted-front
 - toughened and tinted-sides and rear
- Ground Speed Limiting Function
- Guards: rear window, radiator, crankcase and axle
- Headlights
- Heater and defroster with four-speed fan
- Horn, electric
- Lights: cab interior, front, width marker, side, rear, two reversing/work light, two stop/tail lights, front and rear direction indicators
- Mirrors, main and auxiliary, left and right
- Mud flaps, wheel arch and body mounted with transportation tiebacks
- Product Link PL 522 (U.S./Canada/ Europe/Turkey/Australia/New Zealand)
- Retarder: retarder/hydraulic
- ROPS/FOPS cab, 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
- Liquid Crystal Display (LCD)
 - Alert indicator, selected gear and direction, speed or auto shift, review Operation and Maintenance Manual (OMM), primary steering failure, secondary steering failure, Machine Security System (MSS), secondary steering energy source engaged, hour meter and retarder active
- Seat, fully adjustable, air suspension
- Seat, padded companion/trainer
- Secondary steering – electronic
- S·O·S sampling valves
- Spill guard, front, integral part of fabricated body
- Starting receptacle, electric, remote
- Storage: cup holder, flask receptacle, under seat storage, door pocket, behind seat storage, coat hook
- Sun visor
- Three axle, six-wheel drive
- Tilt and telescopic steering wheel
- Tires, six 23.5R25, radial
- Tow pin, rear
- Two seat belts, operator's retractable
- Vandalism protection: lockable caps for fuel tank and hydraulic oil tank
- Windows opening side, tinted
- 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
- Body liners
- CD/Radio, heavy duty with auxiliary input
- Cold weather coolant –51° C (–60° F)
- Cold weather start attachment
- Engine block heater
- Ether Start
- Exhaust heated body
- Fast fuel fill
- Flashing LED beacon
- Fuel additive – anti-waxing
- Heated rearview motorized mirrors
- Heated seat
- Machine Security System (MSS)
- Product Link PL 321, PL 523 (where available)
- Roof mounted, HID, work lights
- Tailgate:
 - Scissor-type
- Tires, six 750/65
- Windshield wiper and washer, two speed (rear)

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 AEHQ6911-02

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