

# 740B

## Articulated Truck

The new Cat® 740B with 39.5 tonnes (43.5 tons) rated payload offers proven reliability and durability, high productivity, superior operator comfort and lower operating costs.

The spacious two-person cab with forward facing passenger seat and off road oil/nitrogen front suspension cylinders keep the operator comfortable through out the working day.

The true “on-the-go” Automatic Traction Control (ATC) automatically modulates the correct level of Inter-Axle and Cross-Axle differential lock engagement which will improve cycle times and productivity. No operator interaction.

Strong, durable Cat ACERT™ engines with the Tier 4 Interim/ EU Stage IIIB exhaust emission solution and electronically controlled smooth shifting transmissions deliver high productivity with low fuel consumption. There are significant changes/improvements to the engine/transmission software that result in smoother gear changes.



### New Features

C15 Engine with ACERT™ Technology meeting Tier 4 Interim/ EU Stage IIIB engine emission regulations

Cat “on-the-go” Regeneration System

Controlled Throttle Shift (CTS) Transmission

Automatic Traction Control (ATC)

Passenger grab handles

Floor-mounted accelerator pedal

Park brake switch – guarded by raised dash moldings

Dash dimmer switch

Headliner with radio mounting

Machine width position lamps

Electric hood switch mounted in-cab

External grab rail around cab roof

Improved fuse panel

Color Multi-Purpose Display (CMPD) incorporating the rearview camera screen and cycle counter

Machine Security System Tornado-ready (optional)

External roof-level work lights (optional)

Motorized heated mirrors (optional)



# 740B Articulated Truck Specifications

## Engine

Engine Model	Cat® C15 ACERT™	
Gross Power – SAE J1995	365 kW	489 hp
Net Power – SAE J1349	354 kW	474 hp
Net Power – ISO 14396	361 kW	484 hp
Bore	137 mm	5.4 in
Stroke	171.5 mm	6.75 in
Displacement	15.2 L	926 in <sup>3</sup>

- The power ratings apply at rated speed of 1,700 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 321 kW (435 hp) per the SAE reference conditions.
- The 740B meets EPA Tier 4 Interim/EU Stage IIIB emission specifications for the U.S. and Europe through 2013
- No engine derating required below 2438 m (8,000 ft).
- Peak engine torque gross (SAE J1995) 2510 N-m (1,850 lb-ft)
- Peak engine torque net (SAE J1349) 2466 N-m (1,819 lb-ft)
- Peak engine torque speed (1,200 rpm)

## Weights

Rated Payload	39.5 tonnes	43.5 tons
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## Body Capacities

Heaped SAE 2:1	24 m <sup>3</sup>	31.4 yd <sup>3</sup>
Struck	18.5 m <sup>3</sup>	24.2 yd <sup>3</sup>
Tailgate Heaped SAE 2:1	25.5 m <sup>3</sup>	33.5 yd <sup>3</sup>
Tailgate Struck	19.5 m <sup>3</sup>	25.5 yd <sup>3</sup>

## Transmission

Forward 1	8.9 km/h	5.5 mph
Forward 2	12.1 km/h	7.5 mph
Forward 3	16.4 km/h	10.2 mph
Forward 4	22 km/h	13.7 mph
Forward 5	30 km/h	18.6 mph
Forward 6	40 km/h	25.1 mph
Forward 7	54.7 km/h	34 mph
Reverse 1	8.4 km/h	5.2 mph
Reverse 2	11.6 km/h	7.2 mph

## Sound Levels

Interior Cab	79 dB(A)
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- The operator sound exposure Leq (equivalent sound pressure level) measured according to the work cycle procedures specified in ANSI/SAE J1166 OCT 98 is 79 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.

## Operating Weights

Front Axle – Empty	20 664 kg	45,556 lb
Center Axle – Empty	7229 kg	15,937 lb
Rear Axle – Empty	6499 kg	14,328 lb
Total – Empty	34 393 kg	75,824 lb
Front Axle – Rated Load	5211 kg	11,488 lb
Center Axle – Rated Load	17 186 kg	37,889 lb
Rear Axle – Rated Load	17 186 kg	37,889 lb
Total – Rated Load	39 582 kg	87,263 lb
Front Axle – Loaded	25 875 kg	57,045 lb
Center Axle – Loaded	24 415 kg	53,826 lb
Rear Axle – Loaded	23 685 kg	52,216 lb
Total – Loaded	73 975 kg	163,087 lb

## Body Plate Thickness

Front	8 mm	0.31 in
Scow	16 mm	0.63 in
Side	12 mm	0.47 in
Base	16 mm	0.63 in

## Service Refill Capacities

Fuel Tank	565 L	149.3 gal
Cooling System	80 L	21.1 gal
Hydraulic System	328 L	86.6 gal
Engine Crankcase	38 L	9.5 gal
Transmission	72 L	19 gal
Final Drives/Differential	72 L	19 gal
Output Transfer Gear Box	18 L	4.8 gal

## Body Hoist

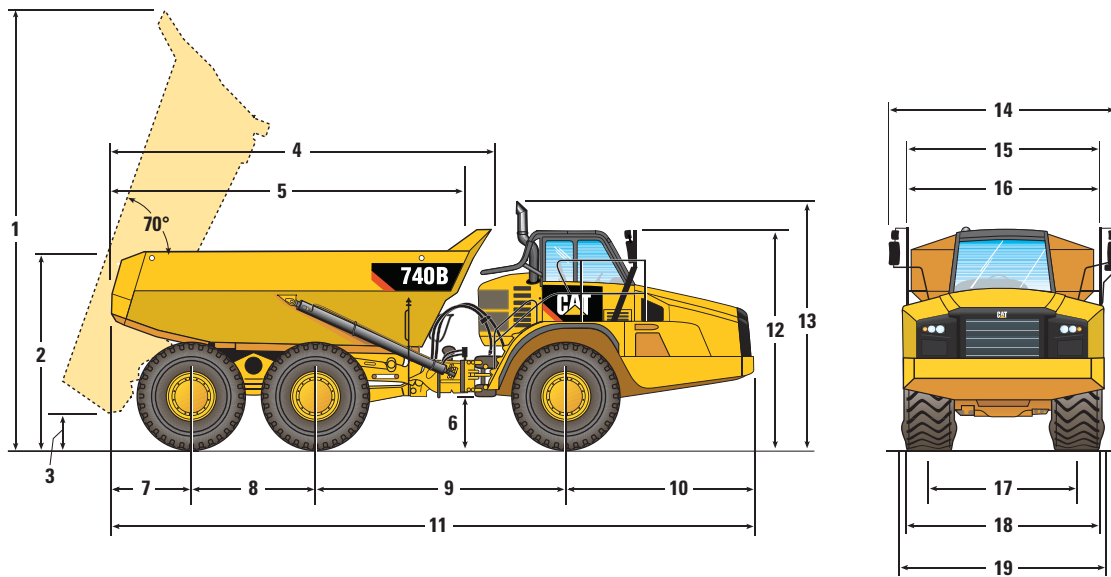
Raise time	12 Seconds
Lower time	7 Seconds

## Standards

Brakes	ISO 3450 – 1996
Cab/FOPS	ISO 3449 Level II – 2005
Cab/ROPS	ISO 3471 – 2008
Steering	ISO 5010 – 2007

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## Dimensions



	mm	ft
<b>1</b>	7092	23.4
<b>2</b>	3239	10.6
<b>3</b>	697	2.3
<b>4</b>	6288	20.6
<b>5*</b>	5734	18.8
<b>6</b>	577	1.8
<b>7</b>	1458	4.7
<b>8</b>	1966	6.4
<b>9</b>	4246	13.9
<b>10</b>	3330	10.9

	mm	ft
<b>11</b>	11 000	36.1
<b>12</b>	3745	12.3
<b>13**</b>	4039	13.3
<b>14</b>	4160	13.6
<b>15***</b>	3770	12.4
<b>16</b>	3418	11.2
<b>17</b>	2687	8.8
<b>18</b>	3430	11.2
<b>19****</b>	3520	11.5

\*Inside of body.

\*\*Exhaust stack can be removed for transportation.

\*\*\*If equipped with a scissor tailgate.

\*\*\*\*Max-unladen over tire bulge.

# 740B Articulated Truck Specifications

## Turning Circle

Dimensions are for machines equipped with 29.5R25 tires.

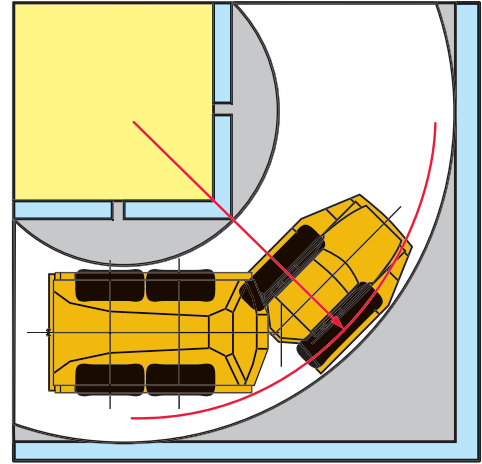
### Turning dimensions

Steer angle – left/right	45°	
SAE turning radius	8138 mm	320.4 in
Clearance radius	8595 mm	338.4 in
Inside radius	4101 mm	161.5 in
Aisle width	5694 mm	224.2 in

## Steering

Lock to Lock

4.6 seconds @ 60 rpm



## Optimal Loader/Truck Pass Matching

Hydraulic Excavators	390D	374D	349D/E
Loader Capacity (Tonnes) – 50 min hr	954-1193	750-1100	665-805
Loader Capacity (Tons) – 50 min hr	1049-1314	825-1210	735-885
Passes	4	5	6

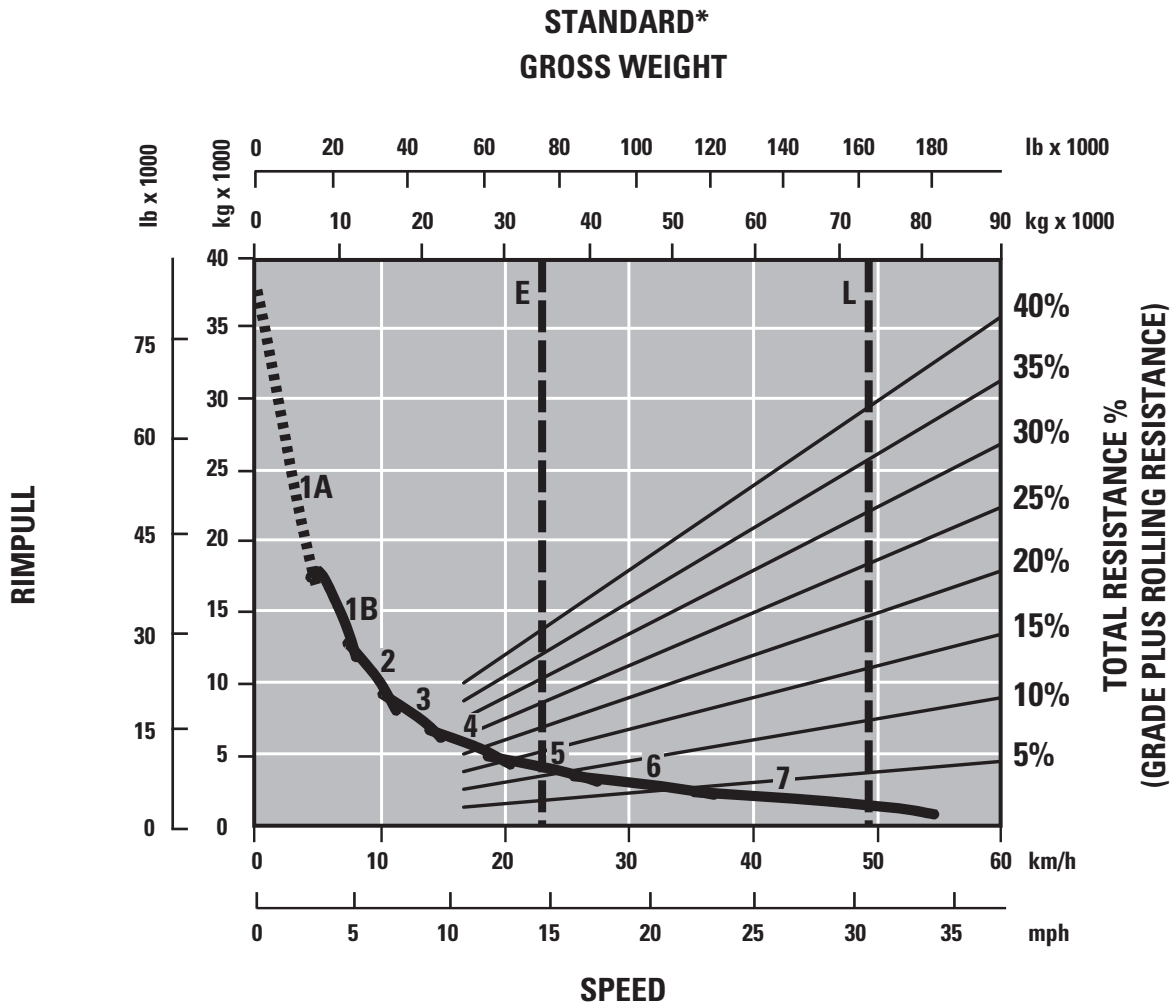
Wheel Loaders	988H	980H/K	972H/K	966H/K
Loader Capacity (Tonnes) – 50 min hr	565-790	590-650	490-565	400-535
Loader Capacity (Tons) – 50 min hr	625-870	650-717	540-625	440-590
Passes	4	5	5-6	6

An optimum system match gives you a major productivity advantage. The 740B is an excellent match for the Cat 349D/E, 374D and 390D Hydraulic Excavators; and 966H/K, 972H/K, 980H/K and 988H Wheel Loaders. This results in increased production and lower system costs per unit of volume moved.

# 740B 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.



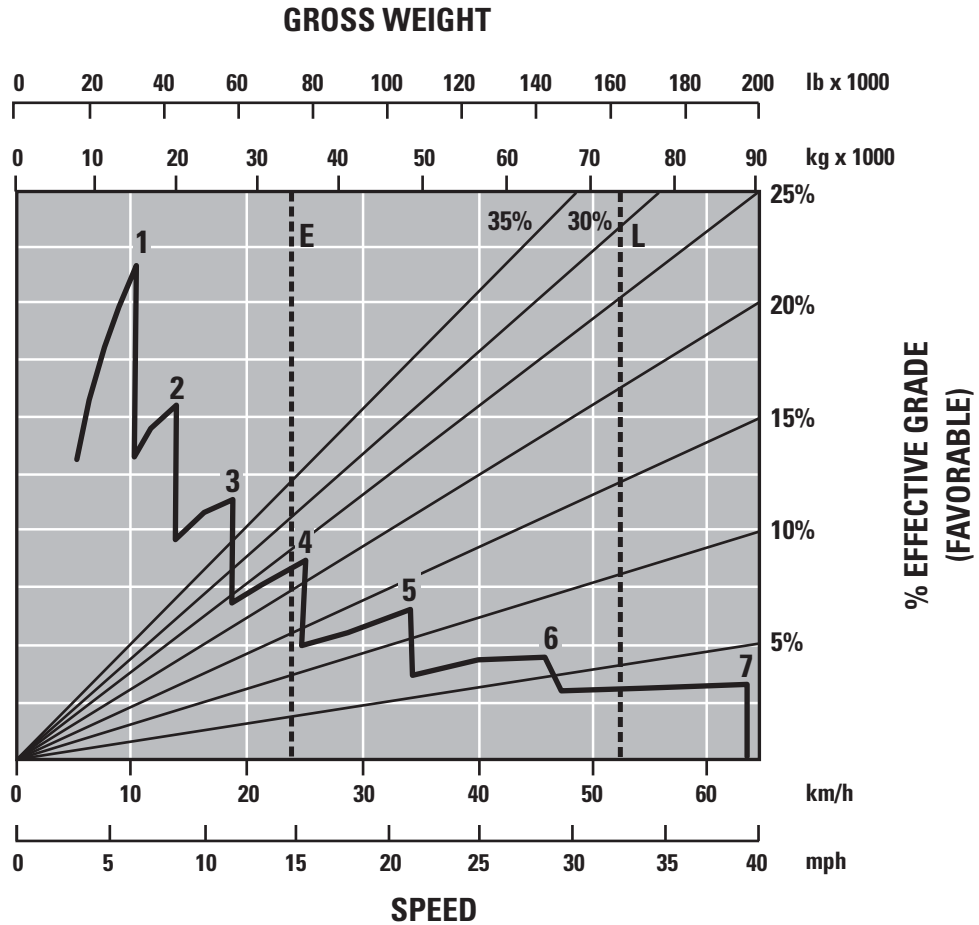
- 1A – 1st Gear (Converter Drive)
- 1B – 1st Gear (Direct Drive)
- 2 – 2nd Gear
- 3 – 3rd Gear
- 4 – 4th Gear
- 5 – 5th Gear
- 6 – 6th Gear
- 7 – 7th Gear

- E – Empty 34 393 kg (75,824 lb)
- L – Loaded 73 975 kg (163,087 lb)
- \* at sea level

# 740B 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
- 7 – 7th Gear

- E – Empty 34 393 kg (75,824 lb)
- L – Loaded 73 975 kg (163,087 lb)

## Standard Equipment

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

Air conditioning with R134A refrigerant  
Air vents, adjustable  
Automatic Traction Control (ATC)  
Auto shift seven-speed forward and two-speed reverse transmission  
Back up alarm  
Body, adapted for exhaust heat  
Cat® C15 engine with ACERT™ Technology  
Cat Clean Emission Module (CEM) an exhaust aftertreatment package  
Color Multi-Purpose Display (CMPD) incorporating the Cycle Counter and rearview Camera Screen  
CD/Radio, heavy duty ready  
Differentials, standard with automatic clutched cross-axle and inter-axle differential locks for all axles  
Electrical system: 24 volt, 5A 24- to 12-volt converter  
Electro hydraulic hoist control  
Ether starting aid  
Glass windows, laminated and tinted, front  
Glass windows, toughened and tinted, sides and rear  
Guards: rear window, radiator, crankcase and axle  
Headlights, four  
Heater and defroster with four-speed fan  
Horn, electric  
Lights: cab interior, front, side, rear, two reversing/working lights, two stop/tail lights, side width marker, front and rear direction indicators  
Mirrors, main and auxiliary, left and right  
Mud flaps, wheel arch and body mounted, with transportation tie backs  
Oil-cooled brakes, enclosed  
Operator and passenger grab hand rails  
Product Link where applicable  
Retarder, Engine compression brake

ROPS/FOPS cab, with full instrumentation, including:

- Instrument cluster display module
- Indicator lamps: left turn, secondary steering, primary steering loss, front and center axle brake temp (735B/740B and 740B Ejector only), brake oil pressure, action lamp, transmission fault, park brake, charging system status, differential lock fault, body not in float, right turn, high beam, transmission hold, machine filter warning, retarder, retarder up shift warning
- Gauges: engine oil pressure, engine coolant temperature, torque converter oil temperature, fuel level, fuel tank level gauge
- LCD warnings/indicators: Gear, Alert, Speed, Soot, DPF Regeneration, Engine hours, Primary Steer, 2nd Steer, Machine Security (MSS), Retarder
- Meters: service hour meter, speedometer, tachometer

Seat, fully adjustable, air suspension  
Seat, padded passenger  
Secondary steering – electronic  
S·O·S<sup>SM</sup> sampling valves  
Spill guard, front, integral part of fabricated body  
Starting receptacle, electric, remote  
Storage – two cup holders, 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, 29.5R25, radial  
Towing eyes, front and rear tow pin  
Two seat belts, retractable  
Vandalism protection: lockable caps for fuel tank and hydraulic oil tank  
Windows opening side, tinted  
Windshield wiper and washer, two speed, intermittent (front)  
Windshield wiper and washer, two speed, (rear)

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## Optional Equipment

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

Autolube installation for automatic greasing of bearings  
Body liners  
CD/Radio, heavy duty with auxiliary input  
Cold Weather Coolant (-51° C/-59.8° F)  
Cold weather start attachment  
Engine Block Heater  
Exhaust heated body  
Extensions, fender  
Fast fuel fill  
Flashing LED Beacon

Fuel Additive – Anti-Waxing  
Heated rearview motorized mirrors  
Heated seats  
Product Link PL 321, PL 522 and PL 523 (where available)  
Roof mounted work lights  
Long wheel base rear chassis (OEM)  
Machine Security System (MSS)  
Tailgate:  
– Scissor-type

Materials and specifications are subject to change without notice.

Featured machines in photos may include additional equipment.

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at [www.cat.com](http://www.cat.com).

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