

# Product Specifications For 735



## Engine

|                                             |                                                                                                                                                                                                                            |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Engine Model</b>                         | Cat® C13A                                                                                                                                                                                                                  |
| <b>Gross Power (SAE J1995)</b>              | 306 kW                                                                                                                                                                                                                     |
| <b>Net Power (SAE J1349)</b>                | 298 kW                                                                                                                                                                                                                     |
| <b>Engine Power (ISO 14396)</b>             | 301 kW                                                                                                                                                                                                                     |
| <b>Bore</b>                                 | 130 mm                                                                                                                                                                                                                     |
| <b>Stroke</b>                               | 157 mm                                                                                                                                                                                                                     |
| <b>Displacement</b>                         | 12.5 l                                                                                                                                                                                                                     |
| <b>Note (1)</b>                             | Advertised power is tested at 1,800 rpm.                                                                                                                                                                                   |
| <b>Note (2)</b>                             | Advertised power is tested per the specified standard in effect at the time of manufacture.                                                                                                                                |
| <b>Note (3)</b>                             | Net power available at the flywheel when the engine is equipped with alternator, air cleaner, muffler, and fan at minimum speed.                                                                                           |
| <b>Note (4)</b>                             | Net power when the fan is at maximum speed is 298 kW (400 hp) per the SAE reference conditions.                                                                                                                            |
| <b>Note (5)</b>                             | Two engine emission options are available: 1. Meets Brazil MAR-1 emission standards, equivalent to U.S. EPA Tier 3 and EU Stage IIIA. 2. Noncertified configuration that is equivalent to U.S. EPA Tier 2 and EU Stage II. |
| <b>No Engine De-rating Below</b>            | 3810 m                                                                                                                                                                                                                     |
| <b>Peak Engine Torque Gross (SAE J1995)</b> | 2192 N·m                                                                                                                                                                                                                   |

|                                       |          |
|---------------------------------------|----------|
| Peak Engine Torque<br>Net (SAE J1349) | 2155 N·m |
|---------------------------------------|----------|

|                             |            |
|-----------------------------|------------|
| Peak Engine Torque<br>Speed | 1200 r/min |
|-----------------------------|------------|

## Weights

|               |      |
|---------------|------|
| Rated Payload | 32 t |
|---------------|------|

## Body Capacities

|                  |       |
|------------------|-------|
| Heaped (SAE 2:1) | 20 m³ |
|------------------|-------|

|        |       |
|--------|-------|
| Struck | 16 m³ |
|--------|-------|

|                         |         |
|-------------------------|---------|
| Tailgate Heaped SAE 2:1 | 21.7 m³ |
|-------------------------|---------|

|                 |       |
|-----------------|-------|
| Tailgate Struck | 17 m³ |
|-----------------|-------|

## Transmission

|             |        |
|-------------|--------|
| Forward - 1 | 8 km/h |
|-------------|--------|

|             |         |
|-------------|---------|
| Forward - 2 | 15 km/h |
|-------------|---------|

|             |         |
|-------------|---------|
| Forward - 3 | 23 km/h |
|-------------|---------|

|             |         |
|-------------|---------|
| Forward - 4 | 35 km/h |
|-------------|---------|

|             |         |
|-------------|---------|
| Forward - 5 | 48 km/h |
|-------------|---------|

|             |         |
|-------------|---------|
| Forward - 6 | 57 km/h |
|-------------|---------|

|             |        |
|-------------|--------|
| Reverse - 1 | 9 km/h |
|-------------|--------|

## Sound Levels

|              |          |
|--------------|----------|
| Interior Cab | 72 dB(A) |
|--------------|----------|

|                 |                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Note (1)</b> | 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. |
| <b>Note (2)</b> | 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

|                                 |          |
|---------------------------------|----------|
| <b>Front Axle - Empty</b>       | 14580 kg |
| <b>Center Axle - Empty</b>      | 5110 kg  |
| <b>Rear Axle - Empty</b>        | 4890 kg  |
| <b>Total - Empty</b>            | 24580 kg |
| <b>Front Axle - Rated Load</b>  | 4054 kg  |
| <b>Center Axle - Rated Load</b> | 13973 kg |
| <b>Rear Axle - Rated Load</b>   | 13973 kg |
| <b>Total - Rated Load</b>       | 32000 kg |
| <b>Front Axle - Loaded</b>      | 18634 kg |
| <b>Center Axle - Loaded</b>     | 19083 kg |
| <b>Rear Axle - Loaded</b>       | 18863 kg |
| <b>Total - Loaded</b>           | 56580 kg |

## Body Plate

|             |                                                  |
|-------------|--------------------------------------------------|
| <b>Type</b> | High strength Brinell HB450 wear resistant steel |
|-------------|--------------------------------------------------|

## Body Plate Thickness

|                    |       |
|--------------------|-------|
| <b>Front Plate</b> | 7 mm  |
| <b>Base Plate</b>  | 13 mm |
| <b>Side Plates</b> | 11 mm |

## Service Refill Capacities

|                                  |       |
|----------------------------------|-------|
| <b>Fuel Tank</b>                 | 400 l |
| <b>Cooling System</b>            | 83 l  |
| <b>Hydraulic System</b>          | 110 l |
| <b>Engine Crankcase</b>          | 38 l  |
| <b>Transmission</b>              | 56 l  |
| <b>Final Drives/Differential</b> | 125 l |
| <b>Output Transfer Gear Box</b>  | 25 l  |

## Body Hoist

|                   |      |
|-------------------|------|
| <b>Raise Time</b> | 12 s |
| <b>Lower Time</b> | 11 s |

## Standards

|                   |                          |
|-------------------|--------------------------|
| <b>Brakes</b>     | ISO 3450 – 2011          |
| <b>Cab - FOPS</b> | ISO 3449 Level II – 2005 |
| <b>Cab - ROPS</b> | ISO 3471 – 2008          |
| <b>Steering</b>   | ISO 5010 – 2019          |

## Turning Circle

|                                               |     |
|-----------------------------------------------|-----|
| Turning Dimensions - Steer Angle - Left/Right | 45° |
|-----------------------------------------------|-----|

|                                         |         |
|-----------------------------------------|---------|
| Turning Dimensions - SAE Turning Radius | 7470 mm |
|-----------------------------------------|---------|

|                                       |         |
|---------------------------------------|---------|
| Turning Dimensions - Clearance Radius | 8075 mm |
|---------------------------------------|---------|

|                                    |         |
|------------------------------------|---------|
| Turning Dimensions - Inside Radius | 3793 mm |
|------------------------------------|---------|

|                                  |         |
|----------------------------------|---------|
| Turning Dimensions - Aisle Width | 5393 mm |
|----------------------------------|---------|

|      |                                                             |
|------|-------------------------------------------------------------|
| Note | Dimensions are for machines equipped with 750/65 R25 tires. |
|------|-------------------------------------------------------------|

## Steering

|              |                       |
|--------------|-----------------------|
| Lock to Lock | 4.75 seconds @ 60 rpm |
|--------------|-----------------------|

## Optimal Loader/Truck Pass Matching

|                                              |     |
|----------------------------------------------|-----|
| Hydraulic<br>Excavators: 350/352<br>- Passes | 4-5 |
|----------------------------------------------|-----|

|                                          |     |
|------------------------------------------|-----|
| Hydraulic<br>Excavators: 336 -<br>Passes | 5-6 |
|------------------------------------------|-----|

|                                       |     |
|---------------------------------------|-----|
| Wheel Loaders:<br>972/972 XE - Passes | 3-4 |
|---------------------------------------|-----|

|                                       |   |
|---------------------------------------|---|
| Wheel Loaders:<br>966/966 XE - Passes | 4 |
|---------------------------------------|---|

|                               |     |
|-------------------------------|-----|
| Wheel Loader: 962 -<br>Passes | 4-5 |
|-------------------------------|-----|

|                               |   |
|-------------------------------|---|
| Wheel Loader: 950 -<br>Passes | 5 |
|-------------------------------|---|

**Note**

An optimum system match gives you a major productivity advantage. The 735 is an excellent match for the Cat 350/352 and 336 Hydraulic Excavators; and Cat 972, 966, 962 and 950 Wheel Loaders. Having matched loading and hauling tools results in increased production and lower system costs per unit of volume moved.

## 735 Standard Equipment

### NOTE

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

### OPERATOR ENVIRONMENT

Retractable belt: Operator seat and second seat

Glass windows:

- Front, laminated and tinted
- Sides and rear, toughened and tinted

Windshield wiper and washer, two speed, intermittent (front)

Air conditioning

Tilt and telescopic steering wheel

Machine operation monitoring system includes:

- 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

Mirrors: exterior

Sun visor

Touchscreen display incorporating the rearview camera video feed

#### Storage:

- Cup holder
- Flask receptacle
- Under seat storage
- Door pocket
- Behind operator seat storage
- Coat hook

Heater and defroster with four-speed fan

#### Seats:

- Operator: fully adjustable, air suspension
- Trainer: padded with lap belt

Secondary steering - electro hydraulic

Combined gear selection and hoist control lever

#### 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
- Diesel Particulate Filter (DPF) regeneration filter
- Secondary steering energy source engaged
- Hour meter
- Retarder active

Adjustable air vents

Windows opening side, tinted

## **TECHNOLOGY**

Product Link™ Cellular PLE643

Cat® Detect with Stability Assist

## **ELECTRICAL AND LIGHTING**

Remote starting receptacle (cables not included)

Main disconnect switch

Horn

Batteries (x2) maintenance free

Electrical system: 24-volt, 10A 24- to 12-volt converter

#### 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

## POWERTRAIN

Auto shift six-speed forward and single-speed reverse transmission

Retarder: engine compression brake and hydraulic

Three axle, six-wheel drive

Cat C13A engine

Dual circuit oil immersed, enclosed brakes – all wheels

Differentials: standard with automatic clutched inter- and cross-axle differential locks

## SAFETY

Rearview camera

Reverse alarm

Rollover protective structure/Falling objects protective structure (ROPS/FOPS) cab

## GUARDS

Rear window

Radiator

Crankcase

Front dump body spill guard, integral part of fabricated body

## OTHER STANDARD EQUIPMENT

Tires, six 750/65 R25

Vandalism protection: lockable caps

Mud flaps: wheel arch and body mounted with transportation tiebacks

Scheduled Oil Sampling (S·O·S) sampling valves

Sound suppression (standard in some countries\*)

\*Countries are EU countries plus Iceland, Norway, Lichtenstein, Switzerland, Türkiye and UK.

## 735 Optional Equipment

## NOTE

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

## OPERATOR ENVIRONMENT

Window blinds

Mirrors, heated motorized

Operator seat belt, four-point

Seat, heated/cooled

Windshield wiper and washer, two speed (rear)

Infrared glass – high ambient cab

Radio, Bluetooth® stereo system

## TECHNOLOGY

Operator Coaching

Product Link Dual PLE683

Cat® Payload monitoring system

## **ELECTRICAL AND LIGHTING**

Cold weather start attachment (2 additional batteries)

Engine block heater

Roof mounted LED work lights

Ether start

Flashing LED beacon

## **OPTIONAL EQUIPMENT**

Cold weather coolant -51° C (-60° F)

Fast fuel fill

Scissor tailgate

Body liners

Exhaust heated body

Bare chassis (no body) long wheel base

Bare chassis (no body) standard wheel base

Fuel additive – anti-waxing

Auto lube installation for automatic greasing of bearings

Wheel chocks