

# Product Specifications For 793



## Weights - Approximate

|                                   |                                                                                                                       |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>Nominal Rated Payload</b>      | 240 t                                                                                                                 |
| <b>Rated Gross Machine Weight</b> | 404000 kg                                                                                                             |
| <b>Chassis Weight</b>             | 132007 kg                                                                                                             |
| <b>Body Weight</b>                | 32072 kg                                                                                                              |
| <b>Note (1)</b>                   | Consult your tire manufacturer for maximum tire load                                                                  |
| <b>Note (2)</b>                   | Chassis weight with full fuel and fluids standard and mandatory attachments hoist body mounting group rims and tires. |

## Engine

|                                     |                                                                                                                                               |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gross Power - SAE J1995:2014</b> | 1976 kW                                                                                                                                       |
| <b>Engine Model</b>                 | Cat® C175-16                                                                                                                                  |
| <b>Net Power - SAE J1349:2011</b>   | 1886 kW                                                                                                                                       |
| <b>Rated Speed</b>                  | 1750 r/min                                                                                                                                    |
| <b>Emissions Rating</b>             | Fuel Optimized                                                                                                                                |
| <b>Bore</b>                         | 175 mm                                                                                                                                        |
| <b>Stroke</b>                       | 220 mm                                                                                                                                        |
| <b>Displacement</b>                 | 85 l                                                                                                                                          |
| <b>Note (1)</b>                     | Net Power advertised is the power available at the flywheel when the engine is equipped with air intake system exhaust system and alternator. |

**Note (3)**

U.S. EPA Tier 4 Final / EU Stage V available for applicable markets.

## Weight Distributions - Approximate

|                    |     |
|--------------------|-----|
| Front Axle - Empty | 51% |
|--------------------|-----|

|                   |     |
|-------------------|-----|
| Rear Axle - Empty | 49% |
|-------------------|-----|

|                     |     |
|---------------------|-----|
| Front Axle - Loaded | 33% |
|---------------------|-----|

|                    |     |
|--------------------|-----|
| Rear Axle - Loaded | 67% |
|--------------------|-----|

## Final Drives

|      |                                                      |
|------|------------------------------------------------------|
| Note | Double reduction planetary with full floating axles. |
|------|------------------------------------------------------|

|                    |       |
|--------------------|-------|
| Differential Ratio | 1.8:1 |
|--------------------|-------|

|                 |   |
|-----------------|---|
| Planetary Ratio | 1 |
|-----------------|---|

|                       |    |
|-----------------------|----|
| Total Reduction Ratio | 29 |
|-----------------------|----|

## Transmission

|             |         |
|-------------|---------|
| Forward - 1 | 12 km/h |
|-------------|---------|

|             |         |
|-------------|---------|
| Forward - 2 | 16 km/h |
|-------------|---------|

|             |         |
|-------------|---------|
| Forward - 3 | 22 km/h |
|-------------|---------|

|             |         |
|-------------|---------|
| Forward - 4 | 30 km/h |
|-------------|---------|

|             |         |
|-------------|---------|
| Forward - 5 | 41 km/h |
|-------------|---------|

|             |         |
|-------------|---------|
| Forward - 6 | 60 km/h |
|-------------|---------|

|         |         |
|---------|---------|
| Reverse | 11 km/h |
|---------|---------|

|                    |         |
|--------------------|---------|
| Top Speed - Loaded | 60 km/h |
|--------------------|---------|

## Tires

|                       |                                                                                                                                                       |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Standard Tires</b> | 737 mm (29 in)                                                                                                                                        |
| <b>Optional Tires</b> | 813 mm (32 in)                                                                                                                                        |
| <b>Tires</b>          | 40.00 R57 46/90 R57 50/80 R57                                                                                                                         |
| <b>Note (1)</b>       | Quick Change Rims optional                                                                                                                            |
| <b>Note</b>           | Extended life wheel stations optional.                                                                                                                |
| <b>Note (2)</b>       | Caterpillar recommends the customer evaluate all job conditions and consult tire manufacturer for proper tire selection and TKPH (TMPH) capabilities. |

## Braking System

|                                           |                                                              |
|-------------------------------------------|--------------------------------------------------------------|
| <b>Service Brakes</b>                     | Four-Corner Wet Disc Oil Cooled Hydraulically Actuated       |
| <b>Front Wet Disc Brake Surface Area</b>  | 89727 cm <sup>2</sup>                                        |
| <b>Rear - Wet Disc Brake Surface Area</b> | 134590 cm <sup>2</sup>                                       |
| <b>Standards</b>                          | (Service and Secondary) ISO 3450:2011                        |
| <b>Parking Brake</b>                      | Four-corner Multi-disc Spring applied Hydraulically Released |

## Capacity - HP Body - 100% Fill Factor

|                          |                                                        |
|--------------------------|--------------------------------------------------------|
| <b>Struck</b>            | 112.6-151 m3 (147-197.5 yd3)                           |
| <b>Heaped (SAE 2:1)*</b> | 162-190 m3 (212-249 yd3)                               |
| <b>Note (1)</b>          | Consult your local Cat dealer for body recommendations |

## Body Hoists

|                              |                                                         |
|------------------------------|---------------------------------------------------------|
| <b>Type</b>                  | Twin two-stage hydraulic cylinders with snubbing valve. |
| <b>Pump Flow - High Idle</b> | 819 L/min                                               |

|                                     |           |
|-------------------------------------|-----------|
| <b>Relief Valve Setting - Raise</b> | 20370 kPa |
| <b>Body Raise Time - High Idle</b>  | 22 s      |
| <b>Body Lower Time - Float</b>      | 23 s      |
| <b>Body Power Down - High Idle</b>  | 21 s      |

## Suspension

|                                          |                                                                                                          |
|------------------------------------------|----------------------------------------------------------------------------------------------------------|
| <b>Type</b>                              | Self-contained nitrogen/oil cylinders pin-to-pin mounting top and bottom double shear clevis attachments |
| <b>Effective Cylinder Stroke - Front</b> | 317 mm                                                                                                   |
| <b>Effective Cylinder Stroke - Rear</b>  | 165 mm                                                                                                   |
| <b>Rear axle - Oscillation</b>           | 4.9 degrees                                                                                              |

## Service Refill Capacities

|                                        |        |
|----------------------------------------|--------|
| <b>Fuel Tank - Optional</b>            | 4922 l |
| <b>Fuel Tank</b>                       | 2839 l |
| <b>Diesel Exhaust Fluid Tank</b>       | 235 l  |
| <b>Cooling System</b>                  | 1074 l |
| <b>Crankcase</b>                       | 312 l  |
| <b>Front Wheels - Each</b>             | 30 l   |
| <b>Differential - Final Drives</b>     | 984 l  |
| <b>Steering System - Includes Tank</b> | 290 l  |

**Brake Hoist System - Includes Tank**

1315 l

**Torque Converter/Transmission System - Including Sump**

209 l

**Torque Converter Sump**

102 l

## Cab

**Air Conditioning** (HFC - 134A refrigerant) 9.3 kW 31733 BTU/hr

**Heater / Defroster** 11 kW

**ROPS Standards (2)** ROPS (Rollover Protective Structure) meets ISO 3471:2008 for Operator and ISO 13459:2012 for Trainer

**FOPS Standards** FOPS (Falling Objects Protective Structure) meets ISO 3449:2005 Level II for Operator and ISO 13459:2012 Level II for Trainer

**Note** Ambient capabilities down to -30C (-22F) for heater/defroster and up to 50C (122F) for air conditioning.

## Sound

**Sound Standards (1)** The operator sound pressure level 74 dB(A) complies with ISO 6394 and ISO 6396.

## Steering

**Steer Angle** 36 °

**Turning Diameter - Front** 28 m

**Steering Standards** ISO 5010:2019

## 793 Standard Equipment

### ELECTRICAL

Alarm, Back-up

Brushless Alternator, 260 ampere

Batteries, 210-amp hour, low maintenance, 12-volt (4)

Converter, 12-volt electrical

Electrical System, 24-volt

Lighting System LED

- Back-up and Hazard Lights
- Directional Signals (front and rear LED)
- Front Stair Access/Service Deck
- Stop/Tail Lights
- Engine Compartment
- VIMS, Blue Light
- Headlights, and fog lights
- Brake and Retarder Light Status Ready

Emergency Engine Shutdown at front bumper and in-cab

Emergency Engine Shutdown at front bumper and in-cab

## **OPERATOR ENVIRONMENT**

Modular hydraulic powered HVAC with automatic temperature control

Accessory mounting provisions

Coat Hook

Cup Holder

Diagnostic Connection and Service Port

Dome Courtesy Light and Map Lights

Entertainment Radio Ready

Radio mounting provisions and 12V power supply and Wiring Harness, Speakers

Fire Suppression Ready

Gauge/Indicators

- Gauge Panel: Transmission Fluid Temperature, Brake Oil Temperature, Critical oil and Coolant Temperature, Fuel Level (and DEF, if applicable), Operator selectable max. machine speed by rotary dial
- Engine system, brake and transmission fault Indicator
- Electric Hour Meter
- Speedometer
- Tachometer
- Interactive touchscreen vehicle information display: ♦ Day/night mode, ♦ Action alarm, ♦ Quad gauge display

Heater/Defroster

Heated Mirrors, Right and Left

Hoist, Body Control (electric)

Horn

Self-filling to windshield washer fluid from AC condensate

12V auxiliary power connection 5V USB charging port

Cruise Control

Floor mat, multi-piece and replaceable

Delayed engine shutdown

ROPS Cab, Insulated/Sound Suppressed

Seat, Operator, Air Suspension

Seatbelt, Operator, Three Points, Retractable

Seatbelt, Trainer, Two Points, Retractable

Stairway and Walkway Access, 600 mm (24 in)

Steering Wheel, Tilt, Padded, Telescopic

Storage locations for operator gear

Tinted Glass  
Transmission Gear Indicator  
VIMS Message Center with Advisor  
Window, Operator, Electric Powered  
Windshield Wiper, Intermittent Control and Washer

## **POWER TRAIN**

Cat C175-16 Engine

- Air Cleaner with Precleaner (4)
- Air-to-Air Aftercooler (ATAAC)
- Automatic Starter Protection
- Multi-Point Oil Pressure Sensing
- Self cleaning oil filter
- Turbocharging (4)/Aftercooled
- Centrifugal oil filter

Braking System

- Automatic Retarder Control, Adjustable
- Brake Release Motor (towing)
- Engine Overspeed Protection
- Extended Life Brake Disc Material
- Oil-cooled, Multi-disc (front and rear)
- Service, Retarding, Parking, Secondary: Park Brake Integrated with Gear Selector, Secondary, Emergency spring applied with pressure release

## **TRANSMISSION**

- 6-speed, Automatic Powershift with APECS controls
- Body-up Reverse Neutralizer
- Body-up Shift Inhibitor
- Controlled Throttle Shifting Directional Shift Management
- Downshift/Reverse Shift Inhibitor
- Lock-up Torque Converter
- Neutral Coast Inhibitor
- Neutral Start Switch
- Programmable Top Speed
- Pre-lubrication/Engine
- Rear Axle Continuous Lubrication/Filtration

## **OTHER STANDARD EQUIPMENT**

Auto Lubrication System, Auto Shutoff  
Aux "Buddy" Dumping Quick Connect  
Aux Steering Quick Connect (towing)  
Driveline Guard  
Fast Fill Fuel System  
Fuel Filter with Water Separator  
Ground Level Battery Lockout  
Ground Level Engine Shut-down  
Ground Level Engine Start Lockout

Ground Level lockouts for transmission, battery, and engine  
Ground Level VIMS Data Port  
Hi-speed Crankcase Oil Change  
Hydraulic Filters, 1,000 hour  
Battery box, rubber lined  
Primary Access Anti-slip High Visibility Demarcations  
Reservoirs (3 separate)  
– Brake/Hoist, Steering/Fan, Transmission/Converter  
Electric Starting System  
Rock Ejectors  
Engine Delay Shutdown Timer  
Service Points, Ground Level  
Sight Level Gauges for Hydraulic/Engine Oil/ Torque Converter / Differential  
SL-V Grease Injectors  
S•O•S<sup>SM</sup> sample ports  
Supplemental Steering (automatic)  
Tie Down Eyes  
Tow Hooks (front)/Tow Pin (rear)  
Traction Control System  
Vandalism Protection Locks

## **ANTIFREEZE**

Mesabi flexible core radiator  
Extended Life Coolant to –35° C (–30° F)

## **793 Optional Equipment**

### **TRANSMISSION**

Additional Retarding for Downhill Hauls  
High altitude torque converter

### **COOLING**

Antifreeze/coolant protects to –50° C (–58° F)

### **OPERATOR ENVIRONMENT**

Brake Wear Indicator Gauge  
Cabin Filtration System  
Electric Powered Window, Right Side  
Tank Mud Guards  
Cat Next Gen Air Suspension Trainer Seat  
Cat Next Gen Heated Operator Seat  
Cruise Control  
Camera, 360 Surround View  
Operator Coaching  
AutoHoist  
Driver Safety System Mounting

Interface, Third Party  
Horn for use in workshop  
Mirrors Deluxe  
Mirrors, Heated, Wide Body  
Retractable Front Sun Visor  
Tire shield, air deflector

## **OTHER EQUIPMENT**

Body Heat  
Center Tow Bumper Attachment  
Air Starting System  
Engine Coolant and Oil Heater for Cold Weather Starts  
Extended Life Wheel Stations  
External Digital Payload Display  
Fast Fill Service Center  
Fuel Tank (4920 L/1,300 gal)  
Hub Odometer (km and miles)  
Portable Fire Extinguisher  
Rim Guard  
Rims (813 mm/32 in)  
Reflectors  
Walkway and Handrail for Rear Cab Access  
Wheel Chocks  
Payload digital display

## **POWER TRAIN**

Braking system:  
–Anti-lock Braking System (ABS) and Dynamic Stability Control (DSC)

## **ELECTRICAL**

Additional Lighting  
Jump start Receptacle

## **CAT TECHNOLOGY PRODUCTS**

Command-Ready Option