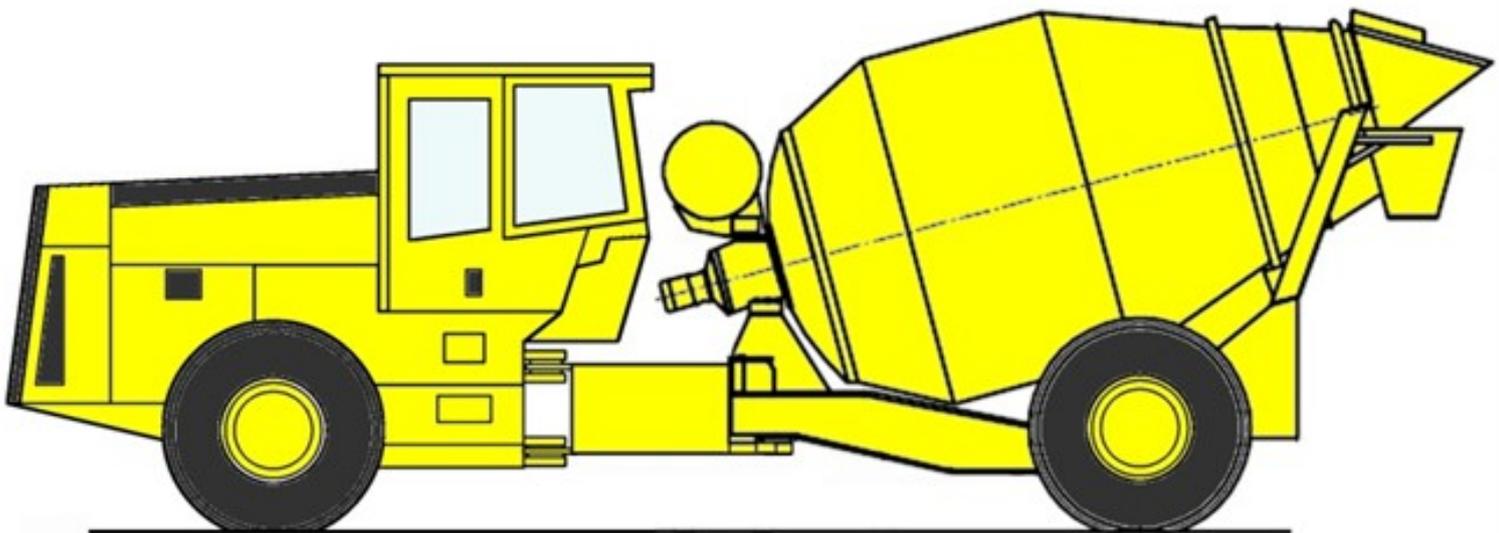




**WR206
Underground
Agitator Truck**

SPECIALISED VEHICLE SOLUTIONS



Engine

Engine Model Cat C7 ACERT™

| | | |
|-----------------------|-------|--------|
| Gross Power SAE J1995 | 146kW | 196 hp |
| Net Power SAE J1349 | 136kW | 182hp |

Engine

The Cat engine delivers power, performance and durability



Cat C7 Engine. The Cat C7 uses Caterpillar's breakthrough ACERT™ Technology to meet exhaust emission reduction standards. It features efficient fuel delivery, air management and electronic control for high productivity and exceptional service life.

Engine Design. The four-stroke engine provides efficient fuel combustion. Precise engineering and thorough testing assure durability, reliability and power. Built-in serviceability and excellent fuel economy lower operating costs.

ACERT™ Technology. Caterpillar optimizes engine performance while meeting EPA Tier 3 regulations. ACERT™ Technology reduces emissions during the combustion process by using advanced technology in the air and fuel systems, in conjunction with integrated electronics. The Caterpillar engine meets emission regulations at the combustion source rather than recycling exhaust gases.

ADEM A4 Control Module. This module controls the fuel injector solenoids to monitor fuel injection. This system provides automatic altitude compensation, and it will not allow the engine to fire until it has oil pressure, acting as cold start protection and a form of pre-lube.

Turbocharger. The C7 engine features a waste gate turbocharger that provides high boost over a wider range, improving engine response and peak torque, as well as providing low-end performance.



Improved HEUI Fuel Injectors. The Cat C7 has a proven high-pressure, direct injection fuel system. This system electronically monitors operator demands and sensors optimize engine performance.

Maintenance. The C7 engine reduces costs and downtime with a 500-hour oil change interval. Extended service intervals can save thousands of dollars over the life of a machine. This machine is equipped with Caterpillar high efficiency oil filters, whose design doubles efficiency without increasing the change interval. They provide clean oil to the engine, reducing wear on all lubricated surfaces.

Water Pump. A dual thermostat control improves coolant flow and heat dissipation, resulting in better durability.

Electronic Transfer Pump. The electric fuel transfer pump is self-priming and this eliminates the need for a manual priming pump.

Reliability Features. The C7 offers maximum reliability and response due to the following features:

- Improved fuel injectors and pump
- Leak-free design
- Higher cylinder pressures
- Reinforced cylinder block

Leak-Free Design. Improved joints throughout the engine reduce the chance of leaks. The oil pan seal, timing cover and block to flywheel housing incorporate a leak-free design.

Commonality. The Caterpillar C7 engine is used in Cat products such as the 950H medium wheel loader, 324D and 325D excavators and the 525C Skidder. This engine commonality ensures the highest level of reliability and durability as well as superior parts availability worldwide.

Power Train

The integrated cat power train delivers performance and reliability in tough conditions.



Five-Speed Transmission. The field proven Cat power shift countershaft transmission easily matches engine power to the load size and ground conditions. Electronic control makes fingertip controls possible, reducing operator fatigue and improving comfort.

Gear Application. Gear ratios are designed to maximize productivity in specific cycle segments.

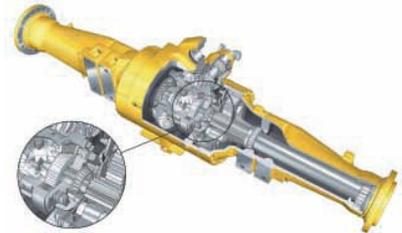
- Gear 1 provides highest rimpull capability for heavy load applications.
- Gears 2, 3 for normal loads and higher speed operations.
- Gears 4, 5 provide excellent empty return and roading speeds.

Torque Converter. The large, heavy-duty torque converter maximizes the productivity of the entire drive train. The torque converter is matched to the Cat C7 engine for excellent rimpull and performance. This lock-up torque converter has proven its durability over thousands of hours in the Caterpillar 525C Log Skidder in arduous applications.

Lock-up Clutch. The integral lock-up clutch allows the machine to operate in converter drive for greater rimpull, or direct drive for high efficiency hauling and faster travel speeds. Direct drive capability allows up to 15% higher travel speeds when the lock-up clutch is engaged.

Auto Lock-up. The lock-up clutch automatically engages according to ground speed and engine speed conditions. This feature is handled electronically and allows for increased travel speeds in the same gear.

Reduced Shifting. Torque multiplication capability of the torque converter reduces the need for the operator to continually shift the transmission. This reduces operator effort and improves machine productivity.



Front Axle. The front axle features a oscillating pinion-mounted design to ensure four wheel ground contact for maximum traction and stability. The axle housing is a durable ductile iron for the centre housing and leg housings.

Service Brake Components. Brake components are housed inside the axles, protecting them from dirt, dust and wet ground conditions. Inboard brakes allow for splash lubrication and cooling. They are virtually maintenance free, and provide reliable brake performance.

Parking Brake. The parking brake is a spring applied oil released "fail to safe" enclosed wet disc wheel end brake.

Oil Sump. Full axle-length oil sump delivers excellent lubrication and heat rejection for long component life.

Splash Lubricated. All axle components are splash lubricated. The outboard bearings are maintenance free.

Heat Rejection. Oil capacity provides excellent heat rejection, ensuring proper lubrication of all axle components.

Retarder. Electromagnetic unit mounted in driveline

Operator Station

Easy to operate controls result in less fatigue



Comfortable Work Station. An enclosed operators station is standard. It combines safety, comfort and ease of machine tramming. It includes the following features:

- ROPS/FOPS
- Sealed and Air Conditioned
- Air Suspension seat
- Safety belt
- Sound suppressed and resiliently mounted
- Laminated windows
- Open Operator Station available as an option

Air Suspension Seat. Standard air suspension seat swivels 30° to the right for maximum comfort, while allowing the operator to observe operations to the rear.

Machine Controls. The comfortable operator environment uses ergonomically designed and placed machine controls to reduce fatigue and increase productivity.

Steering Column. Tilts and telescopes to fit any size operator. Transmission direction and range selection controls are built into the steering wheel for convenience and productivity.

Steering Articulation. Full steering articulation, stop-to-stop, with about one-quarter wheel rotation, provides excellent maneuverability and productivity.

Transmission Controls. Transmission controls for forward, reverse and gear range are located on the steering wheel for easy fingertip control. The operator can control machine functions with minimal effort, allowing greater concentration on vehicle operation and reduced operator fatigue.

Lock-up Torque Converter Drive.

Lock-up torque converter drive selection switch helps match transmission speed ranges. An indicator light informs the operator when the torque converter is in the locked mode.

Monitoring Controls.

Conveniently located and easy-to-see gauges and displays make monitoring machine systems as simple as possible.

Gauges. Four gauges indicate engine coolant temperature, hydraulic oil temperature, torque converter oil temperature, engine rpm and fuel level.

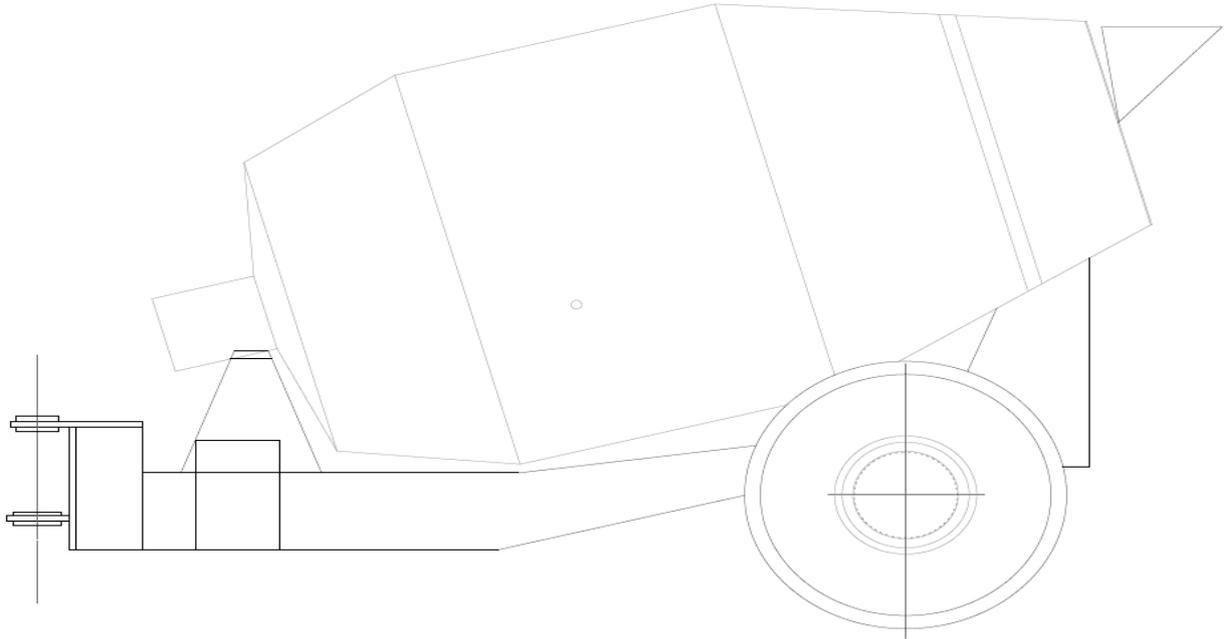
Caterpillar Monitoring System.

Monitors fuel, temperatures, vital electrical systems, gear speed and direction. A three-level warning system alerts the operator of potential problems.

Engine Protection System. A engine protection system is fitted that will shut down the engine if low engine oil pressure, or coolant over temperature conditions are experienced.

Additional. The right hand console has a standard 12V outlet for powering auxiliary equipment. The cab is pre-wired and fitted for an entertainment radio, and a 2-way radio.

Work Tools



Load Sensing Hydraulics. A load sensing variable displacement pump and pressure compensating system continually monitor hydraulic power requirements, then provides power based on demand.

Steering. Fully hydraulic control. Meets the following standards: SAE J1511 OCT90, ISO 5010-1992.

Water Tank. 300 Litre water tank equipped with flowmeter

Chemical Dosing Tanks. Two 10 Litre tanks equipped with flowmeter.

Mixer. Hydraulically controlled mixing and unloading:

- Drum Volume (100% fill) 8.8 m³.
- Carrying capacity 6.0 m³.
- Manual bowl controls including remote engine throttle.
- Quick disconnect hydraulic fittings.
- Slump meter

Safety

Mining machines that are designed with safety as the first priority

Product Safety.

The Agitator Truck is designed with safety as an integral part of all machine and systems design.

Engine Disconnect Switch.

Additional lockable engine disconnect switches are located at ground level near the basket controls and in the service basket.

Protective Structure.

The operator station has integrated into its construction a FOPS (Falling Object Protective Structure AS2294.3) and ROPS (Roll-Over Protective Structure AS2294.2) that offers protection to the operator. The modular ROPS/FOPS cab is resiliently mounted to the engine end frame, reducing vibration for greater comfort and a quieter ride.

Ground Level Access.

Most filters and lube points are accessible from the ground without special tools. Remote lubrication points make daily attention to hard-to-reach joints easy.

Handrails. Handrails are fitted standard in accordance with AS1657 and AS3868.

Additional Safety Features.

- Anti-skid deck surfaces
- Lower cab light
- 3 point access to cab and machine
- Two doors either side of machine to access operator station
- Suspension seat
- Inertia reel retractable seat belt
- Steering frame lock
- Hinged belly guards
- Shielded exhaust
- Triple insulated battery cables
- Double insulated wiring
- Electrical wiring run independent of all hosing
- Fuel water separators made of non-flammable material
- Firewall

Serviceability

Increased productivity through ease of service



Engine Enclosures. Large, hinged engine enclosure doors make regular maintenance as easy and fast as possible. Easy access to daily service points increases the likelihood that maintenance will be done, and increases machine service life. In addition, less maintenance time means more working time and greater productivity.

Frame Access. Steps and grab handles are standard on the engine end and non engine end frame and cab for easy access to the service and operation areas.

Bolt-on Guards. Bolt-on guards offer protection to critical components, and are easily removable for servicing. Removable floor plates and side plate allow access to components under the cab.

Radial Seal Air Filters. Hand access makes them easy to change, reducing air filter maintenance times.

Extended Oil Service Intervals. A 500-hour oil change interval reduces downtime for service and lowers maintenance costs.

S'O'Ssm Fluid Sampling Valves.

Provides a fast, convenient way to gather uncontaminated fluid samples, which improves analysis reliability.

Pressure Taps. Conveniently located for easy access to hydraulic system pressure measurements.

Spin-on Oil Filters. Spin-on fuel and engine oil filters shorten downtime.

Electronic Transfer Pump.

Eliminates the need to manually prime the fuel system.

Ecology Drains. All major fluid compartments (hydraulic tank, engine oil pan, radiator, axles and transmission) incorporate ecology drains to make regular maintenance easier, and protect the environment from accidental oil spills.

Centralised Service Center. A centralised service center that includes fast fill and evacuation points, fluid sampling points and a battery isolation point is available as an option.



Hitch Hoses. The pilot hoses, pressure line and load sense lines have all been routed above the hitch, and been bulk-headed for easy hose replacement and fast service.

Electrical System.

The 24V electrical system delivers dependable electrical power for engine cranking, additional lighting, and engine diagnostics. Wiring circuits are color coded, numbered and protected by circuit breakers. Wiring is double insulated with sealed electrical connectors to prevent moisture and dirt access. Battery cables are triple insulated for extra protection against rubbing.

On-Board Diagnostic Systems.

The Caterpillar Monitoring System continuously checks all critical machine functions and components, and helps locate faults quickly for faster repair. Extremes are recorded, including fluid temperatures, engine speed and electrical system events.

Radiator. Cleanout access doors located on both sides of the radiator help make radiator cleanout faster. The radiator features an all aluminum construction with 8 fins per inch for easy cleanout.

Matched Set Hitch Bearings.

Matched set bearings come pre-assembled with the correct pre-load from the supplier to streamline the assembly process and ensure a quality hitch joint every time. No rolling torque measurement is required, so the assembly process is simplified. Matched set bearings also reduce service time in the field.

Specifications

Engine

| | | |
|--------------------------|-------------------|---------------------|
| Engine Model | Cat C7 ACERT™ | |
| Net Flywheel Power | 136 kW | 182 hp |
| Net Power ISO9249 | 136 kW | 182 hp |
| Net Power SAE J1349 | 136 kW | 182 hp |
| Gross Power SAE J1995 | 146 kW | 196 hp |
| Displacement | 7.2 L | 439 in ³ |
| Bore | 110 mm | 4.33 in |
| Stroke | 127 mm | 5 in |
| Number of Cylinders | 6 | |
| Max Torque @ Rated Speed | 896 Nm @ 1400 rpm | |
| Derating Altitude | 3000 m | 9843 ft |
| | | |
| Alternator | 100 amp | |
| Electrical System | 24v | |
| Battery-Quantity | 2 | |
| Battery- Volts | 12v | |
| Battery-Capacity | 950CCA | |
| Starting System | Direct Electric | |
| | | |
| Fan speed | 1620 rpm | |
| Fan Type | Blower | |

- These ratings apply at 1,800 rpm when tested under the specified standard conditions.
- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator. No Derating required up to 3,000 m (9,843 ft) altitude.
- Based on standard air conditions of 25° C (77° F) and 99 kPa (29.32 in Hg) dry barometer. Used 35° API gravity fuel having an LHV of 42,780 kJ/kg (18,390 BTU/lb) when used at 30° C (86° F) [ref. A fuel density of 838.9 g/L (7.001 lb/gal)].

Power Train

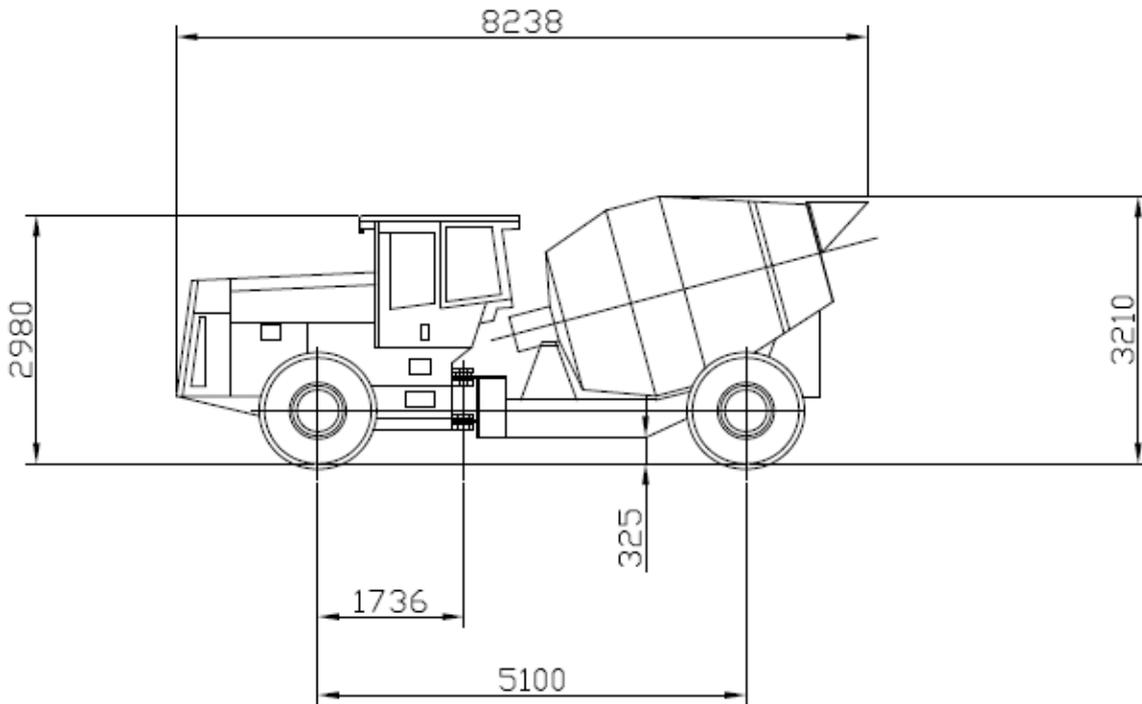
| | | |
|-------------------------------|---------------------------------------|----------|
| Travel Speed - Fwd. 1st | 4.8 km/h | 3 mph |
| Travel Speed - Fwd. 2nd | 6.8 km/h | 4.2 mph |
| Travel Speed - Fwd. 3rd | 8.2 km/h | 5.1 mph |
| Travel Speed - Fwd. 4th | 11.5 km/h | 7.2 mph |
| Travel Speed - Fwd. 5th | 20.7 km/h | 12.9 mph |
| Travel Speed - Rev. 1st | 4.7 km/h | 2.9 mph |
| Travel Speed - Rev. 2nd | 7.9 km/h | 4.9 mph |
| Travel Speed - Rev. 3rd | 14 km/h | 8.7 mph |
| Torque Converter Type | Lock-up Clutch | |
| Transmission | 5 fwd / 3 rev countershaft powershift | |
| Transmission Cooler Type | Plate | |
| Steering , frame articulation | +/- 45 degrees | |
| Brakes - Service Type | single WET disc enclosed | |
| Brakes - Parking Type | Spring applied wheel ends | |

Travel speed on 1:7 grade calculated 8.5 km/h 5.8mph

Hydraulic System

| | | |
|----------------------------|-----------------------------|------------|
| Circuit Type | Closed centre variable flow | |
| Pump type | Axial piston | |
| Pump Output | 174 L/min | 46 gal/min |
| Relief Valve Setting | 21,000 kPa | 3045 psi |
| Steering valve | Direct link, non follow | |
| Steering Cylinder- Bore | 88.9 mm | 3.5 in |
| Steering Cylinder- Stroke | 437.5 mm | 17.22 in |
| Steering Cylinder- Rod Dia | 50.8 mm | 2 in |

Specifications



| | | |
|--------------------------|------------|-----------|
| Operating Weight (EST) | 26,800 kg | 59,100 lb |
| Tramming Length | 8238 mm | 324.3 in |
| Tramming Width | 2500 mm | 98.4 in |
| Tramming Height | 3210 mm | 126.4 in |
| Wheel Base | 5100 mm | 200.8 in |
| Axle Centre to Hitch (F) | 1736 mm | 68.3 in |
| Axle Centre to Hitch (R) | 3364 mm | 132.4 in |
| Ground Clearance | 325 mm | 12.8 in |
| Outer Turning Radius | 7782 mm | 306.4 in |
| Inner Turning Radius | 4569 mm | 179.9 in |
| Tyres | 17.5 x R25 | |

| | | |
|--------------------------------|--------|----------|
| Fuel Tank | 315 L | 83.2 gal |
| Cooling System | 56.7 L | 15 gal |
| Differential, Final Drive - F | 52 L | 13.7 gal |
| Differential, Final Drive - R | 52 L | 13.7 gal |
| Engine Oil | 27 L | 7.1 gal |
| Transmission, Torque Converter | 54 L | 14.3 gal |
| Hydraulic Tank | 84 L | 22.2 gal |

Machine Equipment

Standard Equipment

Electrical

- 24V electrical system
- Alarm, back-up
- Alternator, 100 amp
- Batteries, maintenance free (2- 1 000CCA)
- Lighting system, exterior lights
- Battery Isolation lockable disconnect switch
- Emergency stop switches (ground level & basket)
- Starter, electric, heavy duty
- Starting and charging system
- Diagnostic connector
- Horn, warning
- Sealed electrical connectors

Operator Environment

- 12V accessory power port
- Seat, air suspension
 - 30° swivel, 3 position locking
 - Seat belt
- Beverage holder
- Cab, ROPS/FOPS certified
- Computerized Monitoring System
 - Instrumentation, Gauges:
 - Engine coolant temperature
 - Fuel level
 - Hydraulic oil temperature
 - Tachometer
 - Torque converter oil temperature
 - Instrumentation, Warning Indicators:
 - Brake oil pressure
 - Engine
 - Engine oil pressure
 - Lockup clutch
 - Parking brake
 - Primary steer pressure
 - Secondary steer pressure (if equipped)
 - System voltage
 - Transmission filter bypass
 - Work lights
 - Stabilizer legs
 - Instrumentation, Digital Data:
 - Computerized diagnostics and monitoring
 - Engine rpm
 - Gear and direction
 - Odometer
 - Service hour meter
- Headliner, Floormat, and Domelight
- Mirrors, rear view (2 in cab)
- Steering wheel, tilt and telescoping
- Electronic transmission mounted controls
- Pilot implement controls

Power Train

- Air cleaner, 2-stage with precleaner
- Brakes
 - Parking, drive line spring applied enclosed disc
 - Service, four-wheel enclosed disc
 - Retarder, drive line Electromagnetic
- Driveline slipjoint, lubed for life
- Engine, Cat C7, ACERT Technology, ATAAC
- Fan, blower
- Filters, fuel/engine air, primary/secondary
- Final drives, inboard planetary
- Fuel transfer pump (electric)
- Fuel tank, high capacity
- Lock-up torque converter
- Muffler/catalytic converter
- Radiator with clean-out doors
- Steering, variable flow-modulated 1/4 turn
- Transmission, countershaft powershift (5F/3R)
- Universal joints, lubed for life

Hydraulics

- Closed center-load sensing system
- Line filter, full flow return
- Hydraulic oil cooler, Spin-on filters
- Variable displacement piston pump, 174.1 L/min (46 gal/min)

Other standard equipment

- Articulation lock link
- Tie down points
- Ecology drains (engine, hyd tank, axles, transmission)
- Engine enclosures, hinged
- Guards, hinged - belly and radiator
- Swing out Grill
- SOSsm sampling ports
- Semi centralized greasing
- Mudguards
- Tyres and rims
- Manual pressure release radiator cap

Machine Equipment

Optional Equipment

Open operator station, ROPS/FOPS certified

Reversing camera

Secondary steering

Low transmission oil pressure monitoring

Engine shutdown system to idle/stop

Hydraulic tank level alarm

Auxiliary start receptacle

Centralised service center

Wiggins fast fill

Auto Lube

Particulate filter

Fire suppression system

HID lighting



SPECIALISED VEHICLE SOLUTIONS

Materials and specifications are subject to change without notice.

SVSB0206-00 (09/10)

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