RELIABILITY AND PERFORMANCE IN TOUGH CONDITIONS.

Machine Safety
With safety as a priority, the WR810 is engineered with onboard machine diagnostics for rapid fault identification, increasing the availability and productivity of the machine. The certified ROPS/FOPS air-conditioned operator cabin seats three persons comfortably. The ergonomic controls, excellent visibility, and LED lighting increase safety and reduce operator fatigue. The oscillating hitch, front suspension (optional) and air-ride seats provide unrivalled comfort for the operator. The electro-magnetic braking retarder, adjustable from the operator’s seat, provides superior and reliable braking capability.

Maintenance and Serviceability
A forward-tilting cabin, swing-out radiator grill, hinged engine bonnet cover, and hinged exhaust module, provide safe access for maintenance. Ground level access to service points reduce risk and time spent checking the machine status.

Machine Application
The WR810 chassis is a multipurpose platform designed for various underground mining applications. Machine productivity is directly related to speed, capacity and reliability, all features considered by Elphinstone in the design of the Agitator. The Caterpillar powertrain provides haulage speeds on grade equivalent to production equipment resulting in maximum productivity across the mining fleet. The bowl has a maximum capacity of 6m³ and allows mixing of wet or dry product with variable speed control.

Contents

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DELIVERING POWER AND CONTROL AT FULL CAPACITY.

Machine application
- Bulk transport of concrete to back fill voids.
- Transport of shotcrete to a shotcrete machine in a new development.
- Excellent top speed at full capacity improves the cycle time and allows the machine to travel at the same speed as the production fleet resulting in increased production.

Wet or dry product loading
The 6m³ (7.8yd³) capacity agitator bowl can handle wet or dry product due to the machines ability to program mix and transit speeds which results in greater mixing versatility.

Dual loading access available
Loading of the agitator bowl can be achieved vertically via the chute or horizontally via conveyor (optional).

Water tank
Optional stainless steel water tank with flowmeter. On-board water storage to enable alterations to the batch or for wash down purposes.

Chemical agent tanks
Optional stainless steel chemical dosing tanks equipped with flowmeter. On-board chemical tanks to enable addition of agent in-situ at the work site.

Mixer
- Electro/Hydraulically controlled for mixing and unloading.
- Manual bowl controls at ground level.
- Quick disconnect hydraulic fittings on bowl motor.
- Slump meter.
- Bolt on external bowl access covers.
- Emergency stop switch at ground level.

Optional features include:
- High mounted chute camera.
- Chute extensions.
- Ground level bowl guards.
- High volume, low pressure water pump and hose reel.
- Low volume high pressure water pump and hose reel for machine washdown.
STRENGTH AND SUPERIOR BRAKING PERFORMANCE.

Heavy duty front frame
The robust, heavy-duty, and purpose design front frame utilises a high tensile steel construction with an average plate thickness of 20mm (0.80in). The frame design is common to both front and centre-mounted operator cabin options, both engine options and the option of front suspension or rigid axle.

The front suspension mounting points and fuel tank are incorporated into the common frame. The frame includes an access cover for cleaning and inspecting the fuel tank if required.

Rear frame
The rear frame uses high tensile steel box section construction with an average thickness of 12mm (0.47in). The agitator bowl can be positioned lower due to the increased width of the frame, reducing the overall height and centre of gravity.

Oscillating hitch
The oscillating hitch provides superior operator comfort, 4-wheel ground contact and reduced wear on the hitch and steering components. Includes a heavy duty 600mm (1ft 11in) deep frame section through oscillating hitch area with +/- 42.5° steering articulation and +/- 10° oscillation.

Electro-magnetic retarder
Fitted to the rear frame, the electronically controlled retarder provides superior braking performance on grade, featuring diagnostic capabilities with alarm and fault conditions reported back to the operator display. The integrated Retarder Control System (iRCS) combines both the control and power functions into a single unit. The innovative electronic design significantly reduces the retarder’s energy consumption, preserving electric circuits. The retarder is controlled via an integrated multi-function joystick controller located on the operator’s right-side armrest.

Agitator bowl transmission
The WR810 agitator bowl features a transmission commonly used world wide in other cement mixing applications and has proven to be reliable and easily serviced.

Major advantages of the transmission include:
- Low noise: up to 10dB less noise than other transmissions.
- Increased efficiency: up to 0.5L (0.13gal) fuel saving per operating hour.
- Tougher more robust design leading to increased bearing life.
- Sealed for life servicing: reduced maintenance.
- Vibration isolation via elastomer pad results in improved driving comfort.
- Quick connect fittings on bowl motor for easy change over to auxiliary hydraulic power supply.
- Variable speed output ranging from 0-19 rpm.
COMFORTABLE AND EASY TO OPERATE.

Two cabin configurations available
Fitted with a standard 3-seat open cabin, the WR810 is also available with an optional air-conditioned, 3-seat enclosed cabin (pictured above). The enclosed cabin features ergonomics for operator comfort, user-friendly intuitive controls, and excellent 360-degree visibility.

The cabin includes the following features:

- ROPS/FOPS certified design.
- 300mm (12in) touch screen operator display.
- Fingertip controls mounted to operators seat.
- 3 full size seats. Air-ride suspension seat standard for driver, non-suspended seats for occupants. Optional Air-ride suspension seats for all persons.
- Air conditioning and optional cab pressurisation.
- Seat belts with occupant detection systems (operator seat).
- Forward tilting cab for ease of maintenance.
- Emergency stop inside cab.

Integrated multi-function joystick controller
The operator’s right arm rest features an integrated multi-function joystick controller providing finite control in transit for agitator speed and machine braking performance.

Transmission controls
The keypad transmission control is conveniently located near the operator’s right hand, with forward and reverse gears changed effortlessly with finger touch accuracy reducing driver fatigue.

Seating arrangements
The standard seating arrangement includes a centre driving position with two additional trainer/work-crew seats. The driver’s seat is a ‘T’ seat with air suspension, and the crew seats are a standard ‘T’ seat or optional ‘T’ seat with air suspension. A storage compartment is optional if trainer/work-crew seating is not required. Retractable seat belts are standard with an occupancy indicator alarm system available as an option. The alarm is activated if the seat belt is not fastened as the machine brakes are released.

Steering column
The steering column can be adjusted to an ergonomic position for maximum operator comfort by tilting or extending the column.

Tilted cab mounting
The cabin is resiliently mounted to the machine chassis, reducing vibration for greater operator comfort and a quieter ride. The cabin tilts and locks into position with supports for safe and easy maintenance.

Touch screen operator display
The 300mm (12in) touch screen displays vital machine status information. Data collected includes engine coolant and transmission oil temperature, pitch and roll indicators, engine oil pressure, engine speed, an integrated camera system (up to 4x), and vehicle speed and fuel level.

Machine health monitoring system
The monitoring system and alarm strategy provides a 3-tier warning and shutdown functionality alerting the operator of any abnormalities and automatically limits the machine’s functions.
SAFETY FEATURES

OPERATOR SAFETY IS OUR PRIORITY.

Product safety
The WR810 Agitator is designed with safety as a priority.

Machine isolation
All engine and machine isolation functions are conveniently located on one panel accessible from ground level. Switches have been designed to incorporates the requirement for the site tag in/out machine isolation process.
- Battery isolation switch.
- Starter isolation switch.
- Jump start receptacle.
- Fire system activation (optional).

Cabin protective structure
The operator cabin has an integrated Rollover Protective Structure (ROPS) certified to ISO 3471:2008 and Falling Object Protective Structure (FOPS) certified to ISO 3449:2005.

Handrails
Handrails are fitted standard in accordance with ISO 2867:2011. All handrails are painted green and designed for 3-point access to cab and machine.

Steering
Full hydraulic controlled steering via opposed cylinders at the oscillating hitch. Secondary emergency steering is also provided as standard.

Braking
Service brakes are hydraulic applied wet disc brakes. Emergency brakes are spring applied hydraulic release at the wheel ends. Braking systems meet ISO 3450:2011.

Additional safety features
- Anti-skid step surfaces.
- Inertia reel retractable seat belt.
- Steering frame lock.
- Electrical wiring segregation from all hydraulic hosing.
- Fire resistant wiring.
- Firewall / heatshields.
- Machine interlocks (Battery and Starter) for additional protection.
- Integrated fire suppression systems (optional).
- Hydraulic hosing covered with burst protection sleeves.
- Door ajar warning (Operator Presence) systems.
- Door lighting for better step visibility.
- Window egress cord for ease of cab window removal.
- Rear view camera.
- Park brake interlocking.
- Bowl lifting points and bowl rotation.

Ground level servicing access
Allows convenient servicing to tanks, filters, lubrication points and compartment drains.
EC7.1 engine

The Cat C7.1 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.

The C7.1 ACERT Tier 3 engine arrangement rated at 168 kW (225 hp) is standard for regions that may not have Ultra Low Sulphur Fuel or more stringent emission regulations. An optional diesel particulate filter can be fitted.

The C7.1 ACERT Tier 4 Final engine arrangement is available as an option, adhering to EU Stage V exhaust emission standards. This arrangement is offered in a dual horsepower configuration and can be set at 151kW (202hp) for the higher performance rating or the lower reduced ventilation rating at 129kW (173hp) through a simple software change performed by your Caterpillar Dealer.

ADEM A4 engine control module

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

Maintenance

The C7.1 engine reduces costs and downtime with 500-hour oil change intervals. The WR810 is equipped with Caterpillar high efficiency oil filters, a design which doubles efficiency without increasing the change interval.

Engine protection system

An engine protection system is fitted that will shut down the engine if low engine oil pressure, low coolant level, or coolant over temperature conditions are experienced.

Commonality

The Caterpillar C7.1 engine is found in several Caterpillar products and applications such as Medium Wheel Loaders, Excavators, Motor Graders, Marine and Industrial services. This means the WR810 shares component commonality across many applications, providing the highest level of reliability and durability, as well as superior parts availability worldwide through the Caterpillar Dealer Network.
PERFORMANCE AND RELIABILITY IN TOUGH CONDITIONS.

Caterpillar five-speed transmission
The field proven Cat power shift countershaft transmission easily matches engine power to the load size and ground conditions. Gear changes are simplified with ergonomically positioned electronic fingertip controls, reducing operator fatigue.

Electro-magnetic retarder
Fitted to the rear frame, the electronically controlled retarder provides superior braking performance on grade, featuring diagnostic capabilities with alarm and fault conditions reported back to the operator display. The integrated Retarder Control System (iRCS) combines both the control and power functions into a single unit. The innovative electronic design significantly reduces the retarder’s energy consumption, preserving electric circuits. The retarder is controlled via an integrated multi-function joystick controller located on the operator’s right-side armrest.

Reduced shifting
The 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.

All wheel drive (AWD)
All-wheel drive provides excellent power distribution, increases traction of the machine reducing tire slippage, improving performance, handling and manoeuvrability in tough and challenging terrain.

Front and rear axles
The front axle is rigid mounted design with front suspension available as an option. The rear axle is rigidly mounted to the rear frame.

Tyres
Tyres are an integral part in a machines ability to carry it’s load at higher speeds. Fitted with the larger 14.00 R20 Radial tires ensures the WR810 stays within the tires TKPH limits. This allows the WR810 to carry larger loads at faster speeds than conventional utility equipment.

Service brakes
Hydraulically applied spring release brake system. Brake components are oil immersed inside the axles, protecting them from contamination. Modulated braking provides smooth deceleration for precision stopping and operator control.

Parking brake
The parking brake is a spring applied oil released “fail to safe” enclosed wet disc on all 4-wheel ends.

Brake design
With large discs and plates for reliable, adjustment free operation and performance. Oil cooled disc brakes are completely enclosed to prevent contamination and reduce maintenance.

Emergency braking
When the WR810 safety system detects loss of critical drive pressure or brake pressure the operator will receive a warning and then the parking brake system will be safely apply.

Load sensing
A load sensing variable displacement pump and pressure compensating system continually monitor hydraulic power requirements, then provides power based on demand. This improves fuel economy and reduces emissions. Other features include suction circuits, pump case-drain and steering return, filtered fan/brake pressure circuit, and closed loop hydraulic system.
DELIVERING SHOTCRETE OR CONCRETE ON TIME WITH IMPROVED RIDE CAPABILITY.

- **Hinged Engine Bonnet**: Allows easy access to engine and exhaust system.
- **Swing Out Radiator Grill**: Provides easy access to facilitate cleaning and maintenance on cooling system.
- **LED Lighting**: All operation lighting.
- **Radiation Measurement**.
- **Battery Compartment**: Enclosed.
- **Retarder Dial Controller**: Located on the operator’s arm rest.
- **Machine Isolation**: Located at ground level adjacent to the operator’s cabin.
- **Emergency Stop**: Located at the front of the machine.
- **Oscillating Hitch**: Provides superior operator comfort while maintaining constant ground contact.
- **Articulation Lock**: Machine isolation.
- **Machine Tie Down Points**: Located at ground level.
- **3-Seat Open Cabin ROPS/FOPS Certified**: Superior operator comfort and cabin tilt for maintenance and serviceability.
- **3-Seat Enclosed Cabin ROPS/FOPS Certified**: Superior operator comfort and cabin tilt for maintenance and serviceability.
- **Electro-Magnetic Braking Retarder**: Adjustable from the operator’s seat, provides superior and reliable braking capability.
- **Hinged Engine Bonnet**: Allows easy access to engine and exhaust system.
- **Swing Out Radiator Grill**: Provides easy access to facilitate cleaning and maintenance on cooling system.
- **Bolt-On Radiator Cover**: Painted red.
- **Fire Suppression Actuation**: Machine isolation.
- **Machine Lifting Points**: Painted red.
- **Ground Level Access to All Filters and Service Points**: All filters and service points can be serviced from ground level or the access platforms on either side at the front of the machine.
- **Machine Isolation**: Located at ground level adjacent to operators cabin.
- **Emergency Stop**: Machine isolation.
- **Machine Tie Down Points**: Located at ground level.
- **Rear Window Guard**: Machine isolation.
- **Machine TIE DOWN POINTS**: Painted red.
- **Wheels Chocks x2**: Stored below grill.
- **Centre Machine Retrieval Point**: Painted red.
- **Retarder Dial Controller**: Located on the operator’s arm rest.
- **LED Lighting**: All operation lighting.
- **Hydraulic Oil Tank**: Located on RHS of engine.
- **Battery Compartment**: Enclosed.
- **Retarder Dial Controller**: Located on the operator’s arm rest.
- **BOWL CONTROL PANEL**: Located on RHS side of machine at ground level. Emergency stop (standard) and fire suppression actuation (optional).
- **SWIVEL CHUTE**: Hydraulically raised and lowered.
- **WORK LIGHTS**: Large 6M3.
- **AGITATOR BOWL**: Includes two inspection hatches 180 degrees apart and lifting points on front and rear of bowl.
- **CHEMICAL TANK** and **WATER TANK**: Stainless steel fill points located on RHS side of machine at ground level.
- **ADDITIVE TRANSPORT RACK 3x20L DRUMS**: Located on RHS side of machine at ground level.
- **ROLLER GUARDS**: TRUNNION, BOWL GUARDS.
- **CHUTE GUARD AND RETAINING STRAP**: Feed chute.
- **FIRE SUPPRESSION SYSTEM**: Mounted at ground level for access and includes nozzles mounted throughout the engine compartment.
- **TIE DOWN LIFT POINT**: Painted red.
- **CENTRE REAR MACHINE RETRIEVAL POINT**: Painted red.
- **REAR ACCESS STEPS AND PLATFORM**: 3 points of contact with hand rails and self-closing gate.
- **AUTO LUBRICATION PUMP**: Automatically supplies grease to all lubricating points on machine mounted at ground level for access.
- **HIGH PRESSURE WASH DOWN HOSE REEL AND WAND**.
- **3-PIECE WHEEL RIMS**.
- **BOWL ROTATION LOCK**: Painted red (obscured by motor).
- **BOWL GUARDS**: Located on both sides of bowl.
- **FIRE SUPPRESSION SYSTEM**: Mounted at ground level for access and includes nozzles mounted throughout the engine compartment.
WHEN UPTIME REALLY COUNTS.

Renowned Cat dealer support
From helping you choose the right machine to financing and ongoing support, your Cat dealer provides the best in sales and service.

- Manage your costs with preventive maintenance programs like SOS℠ fluids analysis, coolant sampling.
- Stay productive with best-in-class parts availability.
- Your Cat dealer can also help you boost efficiency with operator training.
- When it’s time for component replacement, your Cat dealer can help you save even more. Genuine Cat remanufactured parts carry the same warranty and reliability as new products at savings of 40 to 70 percent for powertrain and hydraulic components.
- Technical training and maintenance planning are also part of the Dealer offerings.
- Would you like the Dealer to do more? Programs such as Customer Service Agreements, to a full Maintenance and Repair contract are available.

FUTURE SUSTAINABILITY

THINKING INTO THE FUTURE.

Sustainable waste and cost management
- Integrated machine systems and technologies improve productivity for greater accuracy, lower fuel use and reduce machine wear.
- Replaceable wear parts save maintenance time and cost and extend major component life.
- Ecology drains help make draining fluids more convenient and help prevent spills.
- Major components are built to be rebuilt, eliminating waste and saving customers money by giving the machine and/or major components a second – and even third life rebuilds.
- A variety of safety features help safeguard operators and others on the job.
**SERVICEABILITY MEANS MORE TIME FOR PRODUCTION.**

**Engine access**
Forward tilting cabin, swing out radiator grill, hinged bonnet and exhaust module make regular maintenance quick and easy. Easy access to daily service points increases the likelihood that maintenance will be done resulting in increased machine service life. In addition, less maintenance time means more working time and greater productivity.

**Frame access**
Steps and grab handles positioned for 3-point contact are standard 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.

**Air filters**
Air filters are 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.

**SOS 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.

**Electrical system**
The 24V electrical system delivers a reliable electrical capacity for engine starting and additional lighting. Wiring circuits are colour coded and numbered for easy diagnosis and repair. All circuits are protected by circuit breakers. Wiring is double insulated with sealed electrical connectors to prevent moisture and dirt access. Harnesses are covered with fire resistant material for additional protection.

**On-board diagnostic systems**
The monitoring system continuously checks all critical machine functions and components and helps locate faults quickly for faster repair.

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

**Centralised service centre**
A centralised service centre that includes fast fill and evacuation points (optional).
## TECHNICAL SPECIFICATIONS

### Engine

<table>
<thead>
<tr>
<th>Engine Tier</th>
<th>Tier 3</th>
<th>Tier 4 - Reduced Power/Ventilation</th>
<th>Tier 4 - Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Model</td>
<td>Cat C71 ACERT (TA)</td>
<td>Cat C71 ACERT (TA)</td>
<td>Cat C71 ACERT (TA)</td>
</tr>
<tr>
<td>Gross Power SAE J1995</td>
<td>168 kW</td>
<td>129 kW</td>
<td>151 kW</td>
</tr>
<tr>
<td>Displacement</td>
<td>7.0131 L</td>
<td>7.0131 L</td>
<td>7.0131 L</td>
</tr>
<tr>
<td>Bore</td>
<td>105 mm</td>
<td>105 mm</td>
<td>105 mm</td>
</tr>
<tr>
<td>Stroke</td>
<td>135 mm</td>
<td>135 mm</td>
<td>135 mm</td>
</tr>
<tr>
<td>Number of Cylinders</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Max Torque @ Rated Speed</td>
<td>1028 Nm @ 1400 rpm</td>
<td>842 Nm @ 1400 rpm</td>
<td>870 Nm @ 1400 rpm</td>
</tr>
<tr>
<td>Derating Altitude</td>
<td>3000 m</td>
<td>3000 m</td>
<td>3000 m</td>
</tr>
<tr>
<td>Emission Certification</td>
<td>EPA Tier 3</td>
<td>EPA Tier 4 Final</td>
<td>EPA Tier 4 Final</td>
</tr>
<tr>
<td>Alternator</td>
<td>150 amp</td>
<td>150 amp</td>
<td>150 amp</td>
</tr>
<tr>
<td>Electrical System</td>
<td>24 V</td>
<td>24 V</td>
<td>24 V</td>
</tr>
<tr>
<td>Battery - Quantity</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Battery - Volts</td>
<td>12 V</td>
<td>12 V</td>
<td>12 V</td>
</tr>
<tr>
<td>Battery - Capacity</td>
<td>1000CCA</td>
<td>1000CCA</td>
<td>1000CCA</td>
</tr>
<tr>
<td>Starting System</td>
<td>Direct Electric</td>
<td>Direct Electric</td>
<td>Direct Electric</td>
</tr>
</tbody>
</table>

* Power ratings apply at 2200 rpm when tested under the specified standard conditions.

* 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)].

### Powertrain

| Travel Speed - Fwd. 1st | 5.7 km/h | 3.5 mph |
| Travel Speed - Fwd. 2nd | 9.4 km/h | 5.8 mph |
| Travel Speed - Fwd. 3rd | 15.0 km/h | 9.3 mph |
| Travel Speed - Fwd. 4th | 20.0 km/h | 12.4 mph |
| Travel Speed - Fwd. 5th | 32.2 km/h | 20.0 mph |
| Travel Speed - Rev. 1st | 5.7 km/h | 3.5 mph |
| Travel Speed - Rev. 2nd | 9.4 km/h | 5.8 mph |
| Travel Speed - Rev. 3rd | 20.0 km/h | 12.4 mph |
| Torque Converter Type  | Lock-up clutch |
| Transmission          | 5 fwd / 3 rev countershaft powershift |
| Steering, Frame Articulation | 42.5 degrees |
| Brakes - Service Type  | Hydraulic applied inboard WET disc enclosed |
| Brakes - Parking Type  | Internal Spring Applied Hydraulically Released wheel ends (SAHR) |
| Tyres                | 14.00 R20 |

### Service Refill

| Fuel Tank        | 340 L | 89.8 gal |
| Cooling System   | 50 L  | 13.2 gal |
| Differential, Final Drive - F  | 18.5 L | 4.9 gal |
| Differential, Final Drive - R  | 20.5 L | 5.4 gal |
| Engine Oil       | 13.5 L | 3.6 gal |
| Transmission, Torque Converter | 31 L | 8.2 gal |
| Hydraulic Tank   | 150 L  | 39.6 gal |
| Bowl Geared Head | 8 L    | 2.1 gal |

### Weights

| Gross Vehicle Weight (GVM) | 29,400 kg | 64,815.91 lb |
| Tare Weight               | 16,925 kg | 37,313.24 lb |

* Tare weight includes one operator and a full tank of fuel.

### Agitator

| Drum Volume |
| Mixing / Carrying Capacity | 6m³ |
| 100% Drum Volume | 9.4 m³ |

| Bowl Capacities |
| Material SG (kg/m³) | 2000 | 2100 | 2200 | 2300 | 2400 | 2500 |
| Max. Fill Capacity (m³) | 6 | 5.8 | 5.6 | 5.3 | 5.1 | 4.9 |

### Standards

| ROPS/FOPS | ISO 3471-2008 / ISO 3449-2005 |
| Steering | ISO 5010-2007 |
| Braking  | ISO 3450-2011/CSA-M424.3-M90 |
# Machine Dimensions

## Turning Radius

![Turning Radius Diagram](image)

## Side View and Drive Size

![Side View and Drive Size](image)

## Dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Measurement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3000 mm</td>
<td>Height - Top of Cabin</td>
</tr>
<tr>
<td>2</td>
<td>305 mm</td>
<td>Height - Ground Clearance</td>
</tr>
<tr>
<td>3</td>
<td>3225 mm</td>
<td>Height - Top of Feed Chute</td>
</tr>
<tr>
<td>4</td>
<td>3280 mm</td>
<td>Height - Top of Agitator</td>
</tr>
<tr>
<td>5</td>
<td>2100 mm</td>
<td>Width - Machine Front Frame</td>
</tr>
<tr>
<td>6</td>
<td>2315 mm</td>
<td>Width - Machine Rear Frame</td>
</tr>
<tr>
<td>7</td>
<td>1725 mm</td>
<td>Length - Front Axle to Hitch</td>
</tr>
<tr>
<td>8</td>
<td>3750 mm</td>
<td>Length - Hitch to Rear Axle</td>
</tr>
<tr>
<td>9</td>
<td>1545 mm</td>
<td>Length - Front axle to bumper</td>
</tr>
<tr>
<td>10</td>
<td>5475 mm</td>
<td>Length - Wheel Base</td>
</tr>
<tr>
<td>11</td>
<td>2215 mm</td>
<td>Length - Rear Axle to Chute</td>
</tr>
<tr>
<td>12</td>
<td>9235 mm</td>
<td>Length - Overall</td>
</tr>
<tr>
<td>13</td>
<td>42.5 deg</td>
<td>Articulation</td>
</tr>
</tbody>
</table>

## Drive Size

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Measurement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>5496 mm</td>
<td>Radius - Inside Clearance - By design</td>
</tr>
<tr>
<td>15</td>
<td>8606 mm</td>
<td>Radius - Outside Clearance - By design</td>
</tr>
<tr>
<td>16</td>
<td>4500 mm</td>
<td>Minimum Width Portal (90° corner)</td>
</tr>
<tr>
<td>17</td>
<td>4500 mm</td>
<td>Typical Minimum Height Portal</td>
</tr>
</tbody>
</table>
STANDARD AND OPTIONAL EQUIPMENT

## Powertrain
- Air Cleaner, 2-Stage With Integral Pre-Cleaner
- All Wheel Drive with Lock-up Torque Converter
- Axle Breathers, Remote Mounted
- Brakes - Parking, Four Wheel Spring Applied, Enclosed Disc
- Brakes - Service, Four-Wheel Pressure Applied Enclosed Disc
- Brake - Driveline, Electromagnetic Retarder
- Driveline Slip-joint, Lubed for Life
- Engine, Cat C7.1, ACERT Technology, ATAAC
- Fan, Sucker
- Filters, Engine Air, Primary/Secondary
- Final Drives, Outboard Planetary
- Fuel Transfer Pump (Electric)
- Fuel Lines - Double Wire Braided
- Fuel Shutoff Valves Supply & Return
- Lock - Wheel Nut (Torque Retention)
- Muffler/Catalytic Converter
- Oscillating Hitch
- Radiator
- Steering, Rotary Metering Pump
- Suspension, Front Axle
- Transmission, Countershaft Powershift (5F/3R)
- Universal Joints, Lubed for Life
- Fast-Fill Systems
- Coolant, Engine Oil, Hydraulic Oil, Transmission Oil
- Fuel, Non-pressurised
- Antifreeze
  - Coolant, Extended Life for -35°C (-30°F)
  - Coolant, Arctic Extended Life for -50°C (-58°F)
- Operator Environment
  - 300 mm (12 in) Touch Screen Operator Display
  - Brake Retarder Control
  - Cabin, Open, FOPS/ROPS
  - Cabin, Enclosed, FOPS/ROPS, Climate Control Modular 24 V HVAC System, Sliding Door Window
  - Cabin, Pressuriser
  - Cabin, Rear Window Wiper and Washer
  - Cabin, Tilt Supports
  - Cabin, Tilt Supports, Reduced Height
  - Cabin, Window Guard, Rear
  - Camera/Monitor, Reversing
  - Diagnostic Connector
  - Engine Idle Timer
  - Fire Extinguisher 2.5 kg, Hand Held Dry Chemical Powder 3A:40B:E
  - Interior Lamps (LED)
  - Mirrors, Rear View
  - Seat Belt, 3x Retractable, Occupancy Indicator
  - Seat, T-Seat, Air Suspension, Operator
  - Seat Covers, Operator and Companion
  - Steering Wheel, Tilt and Telescoping

## Operator Environment

### Instrumentation, Gauges
- Brake, Accumulator Pressure
- Brake, Oil Pressure
- Engine, Coolant Temperature
- Engine, Oil Pressure
- Fuel, Level
- Hydraulic, Oil Temperature
- Pressuriser Air Filter, High Efficiency Particulate Air
- Pressuriser Air Filter, Activated Charcoal
- Speedometer
- Steering, System Pressure
- Tachometer
- Torque Converter, Oil Temperature

### Instrumentation, Warning Indicators
- Brake, Accumulator Oil Pressure
- Brake, Fault
- Brake, Park Indicator
- Cabin, Door Open
- Electrical System
- Emergency Stop
- Engine, Coolant Temperature
- Engine, Fault
- Engine, Oil Pressure
- Hydraulic, Oil Level
- Hydraulic, Oil Temperature
- Steering, Primary
- Steering, Secondary
- Torque Converter, Oil Temperature
- Transmission, Fault
- Transmission, Oil Filter Bypass

### Instrumentation, Digital Data
- Gear and Direction
- Driveline Retarder, Braking Percentage
- Service Hour, Meter

### Electrical
- Accessory Power Port (12 V) & (24 V)
- Alarm, Back-up
- Alternator, 150 amp
- Auxiliary Start Receptacle
- Batteries, Maintenance Free (2x1000 CCA)
- Battery Isolation, Lockable Disconnect Switch (2 Post)
- Emergency Stop - Cabin
- Emergency Stop - Ground Level, LH Side Front
- Emergency Stop, Additional, RH Side Front
- Horn, Warning
- Lights, Beacon (LED), Cab Mounted (Amber/Red/Blue)
- Lights, Headlights (LED)
- Lights, Reversing
- Lights, Stop/Tail/Turn (LED)
- Lights, Work, Front/Rear - Cab Mounted (LED)
- Radio, Ready, Communications
### Standard and Optional Equipment

#### Electrical
- Radio, AM/FM/USB/Bluetooth
- Sealed Electrical Connectors
- Starter, Electric, Heavy Duty
- Starter Isolator, Lockable Disconnect Switch (2 Post)
- Starting And Charging System, 24 V

#### Hydraulics
- Case Drain Return Screen
- Closed Center-load Sensing System
- Hydraulic Oil Cooler
- Hydraulic Oil Filling System, Filtered
- Line Filter, Full Flow Return
- Suction Screen

#### Agitator
- Bowl, Auxiliary Motor Quick Connection Fittings
- Bowl, Access Platform/Ladder - Rear LH Side
- Bowl, Controls, Cabin
- Bowl, Controls, Fixed, Rear
- Bowl, Guards
- Bowl, Lifting Hardware
- Bowl, Lock
- Bowl, Maintenance Access Covers
- Camera, Rear, Discharge Chute, Mounted
- Chute Extensions, Base/Extension/Placement
- Tank, Chemical Additive
- Emergency Stop, Ground Level, RH Side Rear
- Lights, Work, Rear (LED) x6
- Water Pump, High Pressure, Hose, Reel, and Lance
- Water Pump, Low Pressure, Hose, Reel
- Tank, Chemical Additive
- Tank, Water
- Slump Meter Gauge, Rear
- Operator Display
- Bowl, Speed (RPM)
- Current Mode of Operation - Plant Mix, Transit Mix, Discharge
- Slump Meter, Cab

#### Other
- Brakes, Park, Onboard, Release for Machine Retrieval
- Engine, Enclosures, Hinged
- Film, GP Reflective, Fluorescent Yellow
- Film, GP Reflective, Fluorescent Orange
- Fire Extinguisher, 4.5 kg, Hand Held Dry Chemical Powder 4A:60B:E LH and RH Side
- Fire Extinguisher, 9 kg, Hand Held Dry Chemical Powder 6A:80B:E LH and RH Side
- Fire Suppression System, Ansul A101 Dry Chemical Powder, Engine Shutdown
- Fire Suppression System, Sandvik Aqueous-Film Forming Foam, Engine Shutdown
- Grease Lubrication System, Centralised, Manual
- Grease Lubrication System, Automatic
- Lift, Tie Down and Retrieval Points (Front and Rear)
- Mudguards
- Radiator, Cap, Manual Pressure Release
- Scheduled Oil Sampling (SOS) ports
- Steering, Frame Lock Link
- Steering, Secondary
- Tyres, Tubeless Rims (14.00 R20)
- Tyre and Rim, Spare (14.00 R20)
- Unit Number Placard
- Wheel Chocks
UNDERGROUND RELIABILITY.
Over 40 years’ experience in the mining industry.

WR810 Agitator 6m³

For more complete information on Elphinstone products, dealer services, and industry solutions, visit www.elphinstone.com or contact your local Cat dealer.

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