



ELPHINSTONE PRODUCT OVERVIEW

Elphinstone Mining Solutions
www.elphinstone.com

ELPHINSTONE



WR810

10-TONNE BASE PLATFORM

Wide range of applications

The Elphinstone range of WR810 underground support vehicles is designed to thrive in the harshest underground hard rock mining environments. The WR810 is a highly configurable, 10-tonne nominal base platform, comprising of a delivery with crane, scissor lift, 6m³ agitator, fuel and lube truck, water cannon and others.

Two cabin configurations available

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

The cabin also includes the following features:

- Integrated cabin Rollover Protective Structure (ROPS) certified to ISO 3471:2008 and Falling Object Protective Structure (FOPS) certified to ISO 3449:2005.
- 300mm (12in) touch screen operator display.
- Integrated multi-function joystick controls mounted to operators seat for retarder and implement control.
- Keypad transmission control conveniently located near the operator's right hand with finger touch accuracy reducing operator fatigue.
- 3 full size seats. Air-ride suspension driver's seat and non-suspended seats for occupants is standard. Optional Air-ride suspension seats for all persons.
- Climate-control and optional cab pressurisation.
- Seat belts with occupant detection systems (operator seat).
- Tilting or extending steering column can be adjusted to an ergonomic position for maximum operator comfort.
- Emergency stop inside cab.

Forward tilting cab mounting

The cabin, resiliently mounted to the machine chassis, tilts and locks into position with supports for safe and easy maintenance.

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.

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.

Machine isolation

All engine and machine isolation functions are conveniently located on one panel accessible from ground level.

Ground level servicing access

Allows convenient servicing to tanks, filters, lubrication points and compartment drains.

C7.1 Tier 3 and Tier 4 Final engine arrangements

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 (225hp) 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.

Machine commonality

The Caterpillar C7.1 engine and other major components are sourced from Caterpillar products that are common across all WR810 machine configurations. The WR810 components have been optimised to thrive in the harsh underground environment, providing the highest level of reliability, durability, and superior parts availability worldwide through the Caterpillar Dealer Network.



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 retarder is controlled via an integrated multi-function joystick controller located on the operator's right-side armrest.



WR810 Cab Chassis: Base chassis provisioned for the installation of modules for specific applications.



WR810 Flat Deck: Provides a solution for transport of parts, components, equipment, and maintenance personnel safely and securely throughout the mine site.



WR810 Fuel: Provides bulk transport of fuel underground to storage tanks or can be used for in situ filling of production machines minimising down time.



WR810 Delivery

Machine Application

A flexible transport solution with lift on or lift off capability ideal for moving parts, components, equipment, and maintenance personnel safely and securely throughout the mine site. The large flat deck has the capacity to fit 6 standard size pallets.

Standard features:

- Cat powertrain.
- All wheel drive with lock-up torque converter.
- Three seat operator station.
- Tilting cab.
- 12" digital touch screen operator display.
- Swing out radiator grill.
- Bulkhead connections in hitch for hoses and harnesses.
- Wheel chocks.
- Hinged bonnet and exhaust module.
- Oscillating hitch.
- Secondary steering and recovery brake release system.
- Electro-magnetic retarder.
- Electronic speed control.
- Automatic crane pack up.
- HIAB crane with rated lift capacity of 8.8 TM.
- Crane outreach 7.7 m.
- Crane incorporates stabiliser legs with levelling sensors.

- Crane controlled via manual lever control or wireless joystick remote control.
- Deck size 2.5 m x 3.7 m
- Cameras - multiple viewing options available.

Optional features:

- Enclosed climate controlled operator station with 24V DC aircon system.
- DPF exhaust muffler.
- Front suspension.
- High speed fluid change.
- Cat C7.1 ACERT™ TIER 3 engine arrangement.
- Fire suppression system.
- Automatic lubrication system.



Specification Snapshot

GVM*	28,760 kg
Maximum payload	11,130 kg
Engine model	Cat C7.1 ACERT™ TIER 3
Gross power	SAE J1995 168kW / 228 hp
Articulation	42.5°
Tyres	14.00R20

*Approximate only. GVM dependent on product configuration.



WR810 Scissor Lift

Machine Application

A purpose-built underground elevated work platform (EWP) with 17% levelling capability utilising hydraulic jacking legs. Ideal for the safe transportation and installation of large components and services into the ceiling of the mine.

Standard features:

- Cat powertrain.
- All wheel drive with lock-up torque convertor.
- Three seat operator station.
- Tilting cab.
- 12" digital touch screen operator display.
- Swing out radiator grill.
- Bulkhead connections in hitch for hoses and harnesses.
- Wheel chocks.
- Hinged bonnet and exhaust module.
- Oscillating hitch with stabilising lock cylinders.
- Platform size 2,400mm wide x 4,000mm long.
- Dual access ladders to either side of scissor basket.
- 17% levelling ability for machine via levelling cylinders.
- Digital inclinometer reading in cab.

- Secondary steering and recovery brake release system.
- Reverse camera.

Optional features:

- Enclosed climate controlled operator station with 24V DC aircon system.
- DPF exhaust muffler.
- Front suspension.
- High speed fluid change.
- Fire suppression system.
- Automatic lubrication system.



Specification Snapshot

GVM*	23,400 kg
Rated capacity	5,000 kg AS1418.10 Group A, Type 1
Engine model	Cat C7.1 ACERT™ TIER 3
Gross power	SAE J1995 168 kW / 228 hp
Articulation	42.5°
Tyres	14.00R20

*Approximate only. GVM dependent on product configuration



WR810 Agitator 6m³

Machine Application

Specialising in the transport of smaller batches of concrete to backfill voids, this agitator has an excellent top speed at full capacity improving cycle times and increasing production. Capable of onboard mixing and loading via chute or conveyor.

Standard features:

- Cat powertrain.
- All wheel drive with lock-up torque convertor.
- Three seat operator station
- Tilting cab.
- 12" digital touch screen operator display.
- Swing out radiator grill.
- Bulkhead connections in hitch for hoses and harnesses.
- Wheel chocks.
- Hinged bonnet and exhaust module.
- Oscillating hitch.
- Secondary steering and recovery brake release system.
- Electro-magnetic retarder.
- Electronic speed control.
- 6m³ agitator bowl including 2x access covers and 2x empty bowl lift points.
- Reverse camera.
- Digital slump meter reading in cab.

- Transit bowl speed 0-6 rpm.
- Plant mix bowl speed 0-19 rpm.
- Agitator bowl motor fitted with quick connect couplings.

Optional features:

- Enclosed climate controlled operator station with 24V DC aircon system.
- DPF exhaust muffler.
- Front suspension.
- High speed fluid change.
- Cat C7.1 TIER 4F engine arrangement.
- Rear agitator bowl access ladder and platform.
- Manual slump gauge at the rear of the machine.
- High pressure washdown System.
- Onboard chemical additive system.
- Manual hand pump to add chemicals direct to bowl.
- Steel mesh bowl guarding.
- Discharge chute camera.
- Fire suppression system.
- Automatic lubrication system.



Specification Snapshot

GVM*	29,400 kg
Volume	6 m³
Engine model	Cat C7.1 ACERT™ TIER 3
Gross power	SAE J1995 168kW / 228 hp
Articulation	42.5°
Tyres	14.00R20

*Approximate only. GVM dependent on product configuration.



WR810 Fuel & Lube

Machine Application

Designed for in situ top up servicing of machines and equipment within the mine. Eliminates the need for production machines to leave remote work areas for minor maintenance work, reducing servicing time and traffic on haul routes.

Standard features:

- Cat powertrain.
- All wheel drive with lock-up torque convertor.
- Three seat operator station
- Tilting cab.
- 12" digital touch screen operator display.
- Swing out radiator grill.
- Bulkhead connections in hitch for hoses and harnesses.
- Wheel chocks.
- Hinged bonnet and exhaust module.
- Oscillating hitch.
- Secondary steering and recovery brake release system.
- Provision for 1 x grease container.
- Provision for 2 x 44 gal drums with 2 point lash down device.
- Hose reel cabinet at rear of machine.
- Fire extinguisher in rear hose reel cabinet.

- Electro-magnetic retarder.
- Electronic speed control.
- 1 x 5,000L diesel fuel tank.
- 4 x 300L oil tanks.
- Reverse camera.

Optional features:

- Enclosed climate controlled operator station with 24V DC aircon system.
- DPF exhaust muffler.
- Front suspension.
- High speed fluid change.
- Cat C7.1 TIER 4F engine arrangement.
- Fire suppression system.
- Automatic lubrication system.

Specification Snapshot

GVM*	24,750 kg
Diesel tank	5000 L
Engine model	Cat C7.1 ACERT™ TIER 3
Gross power	SAE J1995 168kW / 228 hp
Articulation	42.5°
Tyres	14.00R20

*Approximate only. GVM dependent on product configuration

WR810 Water Cannon

Machine Application

The dual application machine features a water cannon to wash down valuable ore fines, blast material hang ups, and fight fires. In addition, the side and rear water sprays suppress haul road dust and wash down internal surfaces of tunnels.

Standard features:

- Cat powertrain.
- All wheel drive with lock-up torque convertor.
- Three seat operator station.
- Tilting cab.
- 12" digital touch screen operator display.
- Swing out radiator grill.
- Bulkhead connections in hitch for hoses and harnesses.
- Wheel chocks.
- Hinged bonnet and exhaust module.
- Oscillating hitch.
- Secondary steering and recovery brake release system.
- Electro-magnetic retarder.
- Electronic speed control.
- Automatic boom pack up.
- Water cannon on extendable boom with reach of approx. 8m.
- Boom movement, 32° up, 10° down, 95° left and 95° right from centre.

- Boom and water cannon controlled by either tethered remote or in cab.
- Cameras - multiple viewing options available.
- Water pressure approx. 150 psi.
- Water flow approx. 2,700 L/min.
- Water cannon nozzle size 38 mm (1½").

Optional features:

- Enclosed climate controlled operator station with 24V DC aircon system.
- DPF exhaust muffler.
- Front suspension.
- High speed fluid change.
- Cat C7.1 TIER 4F engine arrangement.
- Fire suppression system.
- Automatic lubrication system.
- Wireless remote controlled boom and water cannon.

Specification Snapshot

GVM*	28,660 kg
Water tank	8000 L
Engine model	Cat C7.1 ACERT™ TIER 3
Gross power	SAE J1995 168kW / 228 hp
Articulation	42.5°
Tyres	14.00R20

*Approximate only. GVM dependent on product configuration.



WR820

20-TONNE BASE PLATFORM

Designed for various underground mining applications, the Elphinstone WR820 chassis is a heavy-duty multipurpose platform with applications comprising a 10m³ and 8m³ agitator, and a 16000 L capacity water tank.

Two cabin configurations available

Fitted with a standard open cabin, the WR820 is also available with an optional climate-controlled, enclosed cabin (pictured above). The enclosed cabin features ergonomics for operator comfort, user-friendly intuitive controls, and excellent visibility. The cabin includes the following features:

- ROPS/FOPS certified design.
- Air ride suspended seat standard.
- Enclosed operator station available as an option, with climate-control and cabin pressurisation.
- Seatbelt, 2-point retractable lap with optional occupancy indicator.
- Emergency stop inside the cabin.

Other key features

- The modular ROPS/FOPS compliant cabin is resiliently mounted on the truck chassis, reducing vibration for greater comfort and a quieter ride.
- Machine health monitoring system and alarm strategy provides a 3-tier warning and shutdown functionality.
- Machine Isolation functions accessible at ground level.
- Engine compression brake integrated with engine retarder for superior braking performance.
- Ground level access to all service points and filters.
- Interlock system detects the absence of the operator and applies the park brake.

Visit elphinstone.com to find out more.



WR820 Water Tank

Machine Application

Utilises water spray heads mounted at the rear and sides of the tank to suppress haul road dust and wash down internal surfaces of tunnels. The optional water cannon can be used to wet down ore stockpiles, draw points and to fight fires.

Standard features:

- Cat powertrain.
- All wheel drive.
- Front oscillating axle.
- Swing out radiator grill.
- Bulkhead connections in hitch for hoses and harnesses.
- Wheel chocks.
- Automatic retarder.
- Variable water delivery system - varies the water output rate with ground speed to maintain a constant volume of water on the road regardless of ground speed.
- Water flow control, water level and pressure on in cab control screen.
- Automatic water pump shutdown when tank is empty.
- 3 x water spray heads (1 x horizontal & 2 x vertical (1 x on each side of the truck)).
- Water tank pump and hydraulic valves easily accessible for maintenance.

- Manual 2.5" dump valve in water tank.
- Thermal lagging material on turbo, exhaust pipe and muffler.
- Secondary steering and recovery brake release system.

Optional features:

- Climate controlled enclosed operator station.
- Fire suppression system.
- DPF exhaust muffler.
- Water cannon (joystick controlled from cab).
- Cameras - multiple viewing options available.



Specification Snapshot

GVM*	42,631 kg
Water capacity	16,000 L
Engine model	Cat C11 ACERT™ TIER 3
Gross power	SAE J1995 242kW / 325 hp
Articulation	42.5°
Tyres	18.00R25

*Approximate only. GVM dependent on product configuration.



WR820 Agitator 10m³

Machine Application

Highly productive bulk transport of concrete to backfill voids, and transfer of shotcrete to shotcrete machines. Front suspension and increased braking performance allow the machine to travel at speeds equal to the production fleet increasing productivity.

Standard features:

- Cat powertrain.
- All wheel drive.
- Front suspension.
- Swing out radiator grill.
- Bulkhead connections in hitch for hoses and harnesses.
- Wheel chocks.
- Automatic retarder.
- 10m³ agitator bowl including 2x access covers and 2x empty bowl lift points.
- Digital slump meter gauge in cab display.
- High performance heavy duty axles.
- Agitator variable speed bowl controls in cab and manual pendant at rear of the machine.
- Digital inclinometer in cab.
- Agitator bowl motor fitted with connect couplings.
- Thermal lagging material on turbo, exhaust pipe and muffler.

- Secondary steering and recovery brake release system.
- Plant mix bowl speed 0-19 rpm.
- Transit bowl speed 0-8 rpm.

Optional features:

- Analogue slump meter gauge at rear control panel.
- Rear agitator bowl access ladder and platform.
- Climate controlled enclosed operator station.
- Fire suppression system.
- DPF exhaust muffler.
- 235L water tank with water hose reel.
- Automatic lubrication system.
- 265L chemical tank.
- Manual hand pump to add chemicals direct to bowl.
- Steel mesh bowl guarding.
- Storage rack for 2 x 20L rectangular drums.
- Cameras - multiple viewing options available.

Specification Snapshot

GVM*	50,095 kg
Volume	10 m ³
Engine model	Cat C11 ACERT™ TIER 3
Gross power	SAE J1995 242kW / 325 hp
Articulation	42.5°
Tyres	18.00R25

*Approximate only. GVM dependent on product configuration.

WR820 Agitator 8m³

Machine Application

Specialising in large volume transport of concrete to backfill voids and transfer of shotcrete to shotcrete machines. The front oscillating axle maintains contact with the ground for increased traction while negotiating rough terrain.

Standard features:

- Cat powertrain.
- All wheel drive.
- Front oscillating axle.
- Swing out radiator grill.
- Bulkhead connections in hitch for hoses and harnesses.
- Wheel chocks.
- Automatic retarder.
- 8m³ agitator bowl including 2x access covers and 2x empty bowl lift points.
- Digital slump meter gauge in cab display.
- Agitator variable speed bowl controls in cab and manual pendant at rear of the machine. Agitator bowl motor fitted with connect couplings.
- Thermal lagging material on turbo, exhaust pipe and muffler.
- Secondary steering and recovery brake release system.

- Transit bowl speed 0-8 rpm.
- Plant mix bowl speed 0-19 rpm.

Optional features:

- Analogue slump meter gauge at rear control panel.
- Rear agitator bowl access ladder and platform.
- Climate controlled enclosed operator station.
- Fire suppression system.
- DPF exhaust muffler.
- 235L water tank with water hose reel.
- Automatic lubrication system.
- 265L chemical tank.
- Manual hand pump to add chemicals direct to bowl.
- Steel mesh bowl guarding.
- Storage rack for 2 x 20L rectangular drums.
- Cameras - multiple viewing options available.

Specification Snapshot

GVM*	42,200 kg
Volume	8 m ³
Engine model	Cat C11 ACERT™ TIER 3
Gross power	SAE J1995 242kW / 325 hp
Articulation	42.5°
Tyres	18.00R25

*Approximate only. GVM dependent on product configuration.



K-SERIES

SIMPLE, ROBUST AND PRODUCTIVE

Designed for productivity - all day

K Series cabs with traditional steering wheel and levers provides the operator with sense of control. Levers and pedals positioned ergonomically and adjustable steering wheel angle ensures the operator is relaxed and comfortable.

Easy-to-read instrument cluster

The instrument panel, with easy-to-read, high-visibility gauges and warning lamps, places vital machine information and diagnostic capability easily in your view. The dash located to the left of the operator includes gauges for engine coolant temperature, articulation, voltage and fuel level. All major systems are monitored by warning lights. Both doors are fitted with interlocks and seat belt alarms (optional) are visual and audible.

Additional standard features

Additional cab features include a storage area, adjustable control console and coat hook. Optional features include a power port, an air conditioner/heater, suspension seat, defroster fan, backup lights, intermittent front wipers, radio installation ready and cup holder.

Frame provides solid work platform

The front frame is a continuous top and bottom plate structure. Flanged box section design removes welds from high stress areas, improving reliability and durability. The rear frame structure has two box section channels with a fully-welded differential case for a solid working platform.

Drawbar, circle and moldboard

The K Series drawbar is designed for high strength and optimum durability for any application. The circle stands up to high stress loads. Raised wear surfaces prevent circle teeth wear against the drawbar. The moldboard provides optimal curvature and large throat clearance that helps move all material types quickly and efficiently.



UG20K Motor Grader

Machine Application

Simple and robust, the UG20K smooths and maintains haul roads for increased productivity and reduced operational costs of the haul fleet. The UG20K utilises the Cat® 120K2 base machine with custom modifications designed for underground conditions.

Standard features:

- Low profile ROPS/FOPS open canopy.
- C7 TIER 2 engine and power shift countershaft transmission.
- Proven Cat powertrain with Tier 2, Bharat Stage III and China Stage II equivalent emission levels.
- 3 piece wheel rims (24", 610mm nominal diameter).
- Wheel chocks.
- Easy to read in-dash instrument cluster.
- Rear radiator protection frame.
- "Live Spindle" front axle design.
- Conventional steering wheel and lever hydraulic implement controls.
- Eight forward and six reverse gears for optimal productivity.
- Reduce height of mold-board lift cylinders.

- Reduce height of the exhaust outlet and air intake.
- Turning circle inner/outer 60 / 227" 1524 / 5766mm.
- Width over front tyres 96.4" 2449mm.

Optional features:

- Low profile ROPS/FOPS enclosed cabin with air conditioning.
- Shortened wheel base.
- Reduced width moldboard from 12' to 10' (3658 to 3048 mm).
- Fire suppression system.
- DPF exhaust muffler.
- Automatic lubrication system.
- Reverse camera.
- Rear Mounted Ripper Assembly (Dealer Fit).



Specification Snapshot

GVM*	15,000 kg
Engine model	Cat C7 ACERT™ TIER 2
Gross power	SAE J1995 108 kW / 145 hp
Frame articulation left/right	20°
Steering range left/right	47.5°
Tyres (Tubeless)	14.00 x 24 Triangle 12 ply E2

*Approximate only. GVM dependent on product configuration.



M-SERIES ERGONOMIC FINE CONTROL

Ergonomically designed for all-day comfort

M Series cabs are designed to keep the operator comfortable, relaxed and productive. Features two electro-hydraulic control joysticks which replace the conventional steering and lever controls. Located either side of the operators seat, the joysticks can be positioned for optimal operator comfort and reduced fatigue. Productivity and safety are enhanced by the operator's clear view of the moldboard and tandem tyres. Working in the dark is easier with backlit transmission shifter and rocker switches.

In-dash instrument cluster

The instrument panel, with easy-to-read, high-visibility gauges and warning lamps, places vital machine information and diagnostic capability easily within the operator's view. The dash includes gauges for engine coolant temperature, articulation, voltage and fuel level. Hour meter, speedometer and tachometer are standard. All major systems are monitored by warning lights. Both doors are fitted with interlocks and seat belt alarms are visual and audible.

Frame provides consistency and strength

The front frame, drawbar and one-piece forged steel circle are designed for durability in heavy applications. The flanged box-section design removes welds from high stress areas, improving reliability and durability. The rear frame structure has two box section channels with a fully-welded differential case for a solid working platform. An integrated bumper reinforces the rear frame to handle high stress loads.

Drawbar, circle and moldboard

The M Series drawbar is designed for high strength and optimum durability. The circle resists high stress loads. Raised surfaces prevent circle teeth wear against the drawbar. The circle is manufactured from forged steel and the teeth are induction hardened to resist wear. The circle is securely attached to the drawbar by four support shoes.



UG20M Motor Grader

Machine Application

With ergonomic and precise control, the UG20M maintains haul roads for increased productivity and reduced operational costs of the haul fleet. The UG20M utilises the Cat® 120M2 base machine with custom modifications designed for underground conditions.

Standard features:

- Low profile ROPS/FOPS enclosed cabin with air conditioning.
- C71 TIER 4 Interim engine and power shift countershaft transmission incorporating Electronic Clutch Pressure Control (ECPC).
- Proven Cat powertrain with U.S. EPA Tier 4 Interim/EU Stage IIIB equivalent emission levels.
- 3 piece wheel rims (24", 610mm nominal diameter).
- Wheel chocks.
- Easy to read in-dash instrument cluster.
- Rear radiator protection frame.
- "Live Spindle" front axle design.
- Electro-hydraulic intuitive joystick steering controls.
- DPF exhaust muffler.
- Electronic throttle control.

- Articulation return to centre.
- Eight forward and six reverse gears for optimal productivity.
- LED cabin step lights.
- Inching pedal for precise control of machine.
- Automatic differential lock.
- LED work lights, brake and indicator lights.
- Shortened wheelbase.
- Turning circle inner/outer 63 / 235" 1600 / 5969mm.
- Overall length 320" 8128mm.**
- Width over front tyres 98.9" 2511mm.

Optional features:

- Reduced width moldboard from 12' to 10' (3658 to 3048 mm).
- Fire suppression system.
- Automatic lubrication system.
- Reverse camera.
- Rear Mounted Ripper Assembly (Dealer Fit).



Specification Snapshot

GVM*	18,000 kg
Engine model	Cat C71 ACERT™ TIER 4 Interim
Gross power	SAE J1995 108-141kW / 145 - 189 hp
Frame articulation left/right	20°
Steering range left/right	47.5°
Tyres (Tubeless)	14.00R24 Bridgestone VUT * L2

*Approximate only. GVM dependent on product configuration. ** Shortened Wheelbase



HAULMAX

3900 EXTENDED HAUL TRUCK

The Haulmax 3900's 80 tonne nominal capacity payload management system, additional tyre capacity and braking capability makes it an ideal solution for extended distance haulage. With its narrow width, low centre of gravity, low ground pressure footprint, the Haulmax 3900 operates well in arduous conditions. Elphinstone have delivered over 120 Haulmax trucks via the global Caterpillar Dealer Network to customers in Australia, North America, Canada, Africa and South America where they are providing solutions as extended distance haul trucks, service trucks, low bed tow tractors, water trucks, and wet weather / downhill haulers.

95% Genuine CAT components

The 3900 series haul truck incorporates a complete Caterpillar powertrain, and with 95% of all serviceable parts being genuine Cat components, customers are able to take full advantage of the local product support capabilities provided by the global Caterpillar dealer network. Elphinstone works closely with Caterpillar® to ensure matched power train components optimise longevity, reliability and mechanical availability, resulting in improved productivity and reduced operating costs.

80 tonne nominal payload capabilities

The 3900 Series Truck was developed to operate on haulage cycles of approximately 50km (30 miles). A narrower width means roads which cost considerably less to build and maintain. The longer the distance, the larger the cost saving.

Payload management

The integrated Haulmax Payload and Tyre Pressure Monitoring System (TPMS) is designed to measure, record and display live data plus prevent overloading.

Spacious two-person cab (ROPS / FOPS certified)

The 3900 features a large two-person cab, offering comfortable working space for both the operator and trainer or trainee. Resiliently mounted to the frame to reduce vibration and sound, the integral ROPS structure provides "five-sided protection" for the operator and passenger.

Independent front suspension

The front suspension system and rear independently mounted 'A' frame axle assemblies combine with a long wheel base offering unrivalled levels of safety and comfort.

Air suspension seats

Air suspension seats for both operator and passenger, are fully adjustable enhancing comfort with a cushioned upper high back, adjustable dampening with three settings, ride zone indicator and adjustable lumbar settings.

Ergonomic cabin layout

The 3900 operator station is ergonomically designed for total machine control in a comfortable, productive and safe environment, minimising operator fatigue.



Specification Snapshot

GVM*	135,000 kg
Engine model	Cat C27 ACERT™
Payload (nominal)	80 tonne
Gross power	SAE J1995 587 kW / 787 hp
Maximum speed	76.4 km/h (47.5 mph)
Height (top of standard exhaust)	4770 mm
Length**	14585 mm
Width (across mirrors)	4850 mm

*Approximate only. GVM dependent on product configuration. **Based on 59m³ model.



Box-section chassis design

Incorporates castings in high-stress areas connected with full penetration continuous wrap-around welds.

Cat C27 engine with ACERT™ technology.

Reduces emissions during the combustion process by using advanced technology in the air and fuel systems, in conjunction with integrated electronics. Meets US EPA Tier 2 and European Union Stage II standards.

Application specific transmission

The Cat mechanical drive power train and power shift transmission provides unmatched operating efficiency and control on steep grades in poor underfoot conditions and on haul roads with high rolling resistance.

Lock-up torque converter

Combines maximum rimpull and cushioned shifting of torque converter drive with the efficiency and performance of direct drive. The lock-up torque converter engages at approximately 8 km/h (5 mph), delivering more power to the wheels.

Electronic control module (ECM)

ECM uses advanced engine management software to monitor, control and protect the engine using self-diagnosing electronic sensors. The computerised system senses operating conditions and power requirements and adjusts the engine for peak performance and the most efficient operation at all times.

Instrument cluster

Critical operating information on the 3900 is relayed via the Cat Data Link to five gauges, 18 LED indicator lights, and an LCD digital display.

Traction and control in slippery conditions

Chassis and wheel base symmetry allows improved operator control in slippery underfoot conditions, with optimised weight distribution and dual rear axle drive-braking and traction control.

Suspension system

Designed to handle mine site conditions enhancing a longer frame and service module life plus a more comfortable ride. Six independent self-contained, oil pneumatic, variable rebound suspension cylinders are designed to absorb shocks in the most severe applications.

Brake systems

Hydraulically controlled dry front and rear oilcooled multiple disc brakes provide exceptional, fade-resistant braking and retarding for maximum performance and productivity in all mine site conditions.

Engine shutoff switch

A secondary engine shutoff switch is located at ground level along with a hood tilt switch and other electrical isolators.

Designed with safety as a priority

Access ladders, fire suppression, LED light options, and optional camera at the rear ensure a safe work environment for the operator.

Serviceability equals increased uptime

Easy access to daily service points simplifies servicing and reduces time spent on regular maintenance. Enhanced serviceability and extended 500-hour engine service intervals are designed to increase machine availability and productivity

Maintenance platform

Easy stairway access to engine, air filters and radiator. Platform access for hydraulics and steering. Ground level access allows convenient servicing to tanks, filters, evacuation points, battery disconnect and engine shutdown.

Global Dealer Network

Haulmax trucks are sold and supported via the global Caterpillar Dealer Network providing unparalleled sales and aftermarket support. Elphinstone endeavours to provide the latest technology in all products. Design updates are constantly made to ensure industry expectations of reliability, safety and operator comfort are achieved.

OVER 45 YEARS IN THE MINING INDUSTRY.



Innovate



Design



Manufacture

Elphinstone Pty Ltd is an established Caterpillar Original Equipment Manufacturer with over 45 years' experience in the mining industry. Elphinstone specialises in the design, manufacture and support of quality equipment for the global underground and surface mining industries.

The Elphinstone range of Underground Mining Support Vehicles combines practical design, the latest technology and quality manufacturing to ensure reliable performance.

The current product range also includes the Haulmax 3900 extended distance, off-highway haul truck.

As an authorised Caterpillar Original Equipment Manufacturer, all Elphinstone products are sold and supported via the global Cat® dealer network.

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

Material and specifications are subject to change without notice. Featured machines in photos may include additional equipment.

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