



METRO, MAINLINE & SHUNTERS

Clayton's range of shunting locomotives are becoming the haulage solution of choice.

We offer a new generation of shunters/switchers providing cost-effective solutions: low emissions, low costs and low maintenance.

Alternatively, conversions provide an economical solution to deliver reliability, environmental and performance benefits.

MINING

The most comprehensive range of locomotives available for surface and underground mining applications.

From 1.75 tonnes to 90 tonnes, for both hazardous and non-hazardous locations.

Overhead trolley/pantograph, battery, Diesel or hybrid powered.



DESIGN & BUILD

We offer Design & Build solutions for your project, including tunnel drilling machines, cable handlers, overhauling or upgrading your existing equipment.

We can also offer conversions from old Diesel powered units to clean battery.



TUNNELLING & CONSTRUCTION

The innovative LoCo™ tunnelling locomotive, with patent pending features, provides a cost effective solution with its low capital and operating costs, adjustable gauge and high haulage capabilities.

Cheaper than leasing and can be deployed to other sites with different gauges.



TUNNELLING & CONSTRUCTION

At Clayton Equipment, we have developed a range of locomotives, drilling and associated equipment, that are uniquely adapted for the construction and tunnelling market, where quick capital payback and minimal downtime are critical to the success of your project.

BATTERY

DIESEL

HYBRID

LoCo™

BAS™

Low Cost Flexible Solutions

Innovative solutions enable our locomotives to be deployed on a number of different tunnelling projects, across multiple construction sites during their lifetime.

Drilling machines are designed and manufactured to suit different operating parameters and are not solely restricted to their initial needs.

The emissions free BAS™ provides a stand alone power supply for remote locations.

Uniquely adapted for the construction market.

Locomotive benefits include:

- Fast gauge adjustment without any specialised tools or facilities
- Quick increase in haulage capacity
- Simplified operator controls for reduced maintenance and training costs
- High reliability system controls
- Use off the shelf components to minimise spare part costs and improve availability
- Up to 1:10 (10%) gradients

An excellent example of Clayton Equipment's capabilities is showcased by the recent 500 metre long construction train, designed, built, delivered and commissioned for drilling the tunnel wall and installing cable supports along the complete length of 55 km.



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ISO9001:2015 certified



Specifications Table*

* Specification may be subject to change and can be tailored to suit your requirements

Locomotive Mass		1.5–2.0 tonnes	3.5–4.0 tonnes	4.5–5.5 tonnes	6.0–10 tonnes	12–20 tonnes	20–30 tonnes	30–45 tonnes	LoCo™
Track	Gauge	From 450 mm to 1,067 mm to suit your application	From 500 mm to 1,067 mm to suit your application			From 600 mm to 1,435 mm to suit your application			
	Cant	Up to 200 mm							
	Gradient	Up to 1:15 (6.67%)							Up to 1:10 (10%)
Power source	Battery	80 V _{DC} traction battery, with integral lifting points. Capacity (kWh) to suit the haulage requirement	802 V or 120 V _{DC} traction battery, with integral lifting points. Capacity (kWh) to suit the haulage requirement		120 V _{DC} traction battery, with integral lifting points. Capacity (kWh) to suit the haulage requirement	320 V _{DC} traction battery, with integral lifting points. Capacity (kWh) to suit the haulage requirement	320 V or 564 V _{DC} traction battery, with integral lifting points. Capacity (kWh) to suit the haulage requirement		120 V _{DC} traction battery, with integral lifting points. Capacity 65–135 kWh as required
	Diesel	Not available as standard. Special order only			55 kW, up to EU Stage V	97 kW, up to EU Stage V	180–250 kW, up to EU Stage V	390–566 kW, up to EU Stage V	Not available as standard. Special order only
Transmission		Heat treated steel Ø356 mm rail wheels	Heat treated steel Ø457 mm rail wheels		Heat treated steel Ø610 mm rail wheels	Heat treated steel Ø711 mm rail wheels	Heat treated steel Ø840 mm rail wheels		Rubber tread on wheels with steel flange
		Fully enclosed worm reduction gearboxes to both drive axles				Fully enclosed spur and bevel reduction gearboxes to both drive axles			
		Sealed bearings in axle boxes	Sealed bearings in axle boxes and maintenance free primary chevron suspension. Dampers and maintenance free secondary suspension (over 45 tonnes)						Sealed bearings
Drive options (battery)	1 x 5 kW or 1 x 10 kW AC traction motor	1 x 10 kW AC traction motor	1 x 10 kW or 1 x 20 kW AC traction motors	2 x 20 kW or 2 x 30 kW AC traction motors	1 or 2 x 104 kW SR traction motors	2 or 4 x 104 kW SR traction motors		2 x 30 kW AC traction motors	
Drive options (Diesel)	Not available as standard. Special order only			Hydraulic drive	Hydraulic, Diesel Electric or Powershift		Diesel Electric or Powershift	Not available as standard. Special order only	
Typical maximum speed	6 km/h	12 km/h			20 km/h		30 km/h	16 or 20 km/h	
Brakes	Fail safe emergency/parking brake, with gradient hold. Fitted with override for emergency recovery. Either electric, hydraulic or pneumatic depending on rolling stock								
	Electric service brake through motor control (not Diesel locomotives)								
Dimensions, (typical)	Length to buffers	To suit application							
	Width	To suit application							
	Height from rail head	To suit application							
	Ground clearance	50 mm with standard diameter wheels	65 mm with standard diameter wheels		100–125 mm with standard diameter wheels, depending on design			100–150 mm with standard diameter wheels, depending on design	135 mm
Mass, typical	1,750 kg to 2,000 kg (final mass adjusted to suit your haulage requirements)	3,500 kg to 4,000 kg (final mass adjusted to suit your haulage requirements)	4,500 kg to 5,500 kg (final mass adjusted to suit your haulage requirements)	6,000 kg to 10,000 kg (final mass adjusted to suit your haulage requirements)	12,000 kg to 20,000 kg (final mass adjusted to suit your haulage requirements)	20,000 kg to 30,000 kg (final mass adjusted to suit your haulage requirements)	30,000 kg to 45,000 kg (final mass adjusted to suit your haulage requirements)	8,400 kg maximum	
Configuration	0-4-0							4WD	
Towing/propelling capacity (at $\mu = 0.25$)	3–4 kN	7–8 kN	9–11 kN	12–20 kN	24–39 kN	39–59 kN	59–88 kN	41 kN at $\mu = 0.50$	
Coupling	3 pocket, link and pin, height to suit rolling stock, fitted both ends. Alternative couplings to match rolling stock available including 3/4" and full size Willison						Full size Willison or to match rolling stock	3 pocket, link and pin, height to suit rolling stock, fitted both ends. Alternative couplings to match rolling stock available	
Lights	LED white front and rear red marker lights, both ends, with automatic direction changeover. Optional step and cab interior LED lights. Optional warning beacons and strobes						LED white front and rear red marker lights, both ends, with automatic direction changeover. Step and cab interior LED lights. Optional warning beacons and strobes	LED white front and rear red marker lights, both ends, with automatic direction changeover. Optional step and cab interior LED lights. Optional warning beacons and strobes	
Cab seating	Driver's seat, side facing		Driver's seat, side or forward facing			Driver's seat, forward facing with optional second person's seat		Bespoke seating configuration to suit operational preferences	Driver's seat, forward facing
Driver controls	Drive and electric service brake joystick, HMI with switches for direction control, horn, stop and deadmans, sanding, wash/wipe, gradient brake hold, depending on final specification								
	Battery capacity meter (battery locomotives only). Engine and Generator HMI (Diesel and hybrid locomotives only)								
Safety	Strengthened cab with optional roof, doors and windows				Strengthened cab with roof, with optional doors and windows		Strengthened cab, fully enclosed	Strengthened cab with roof, with optional doors and windows	
	Optional CCTV, rear or both ends, colour monitor in cab					CCTV both ends, colour monitor in cab			
	Emergency stop (not available if only hand applied brake is requested). Overspeed activates failsafe brakes. Battery disconnect isolator with plug and socket								
	Hand held fire extinguisher, dry powder. Optional automatic fire suppression (standard on Diesel locomotives)								
Noise and vibration	CE Marking (EU and UK only). Other compliances as requested								
	75–85 dB(A), <2.5 ms-2								