

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.



Clayton Equipment Ltd.

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ISO9001:2015 certified



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

TUNNELLING & CONSTRUCTION

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.





Specifications Table*

			*	Specification may be subject	to change and can be tailored t	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™
	Gauge	From 450 mm to 1,067 mm to suit your application	From 50	0 mm to 1,067 mm to suit your a	pplication	From 600 mm to 1,435 mm to suit your application			
Track	Cant	Up to 200 mm							
	Gradient	· · ·							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 a	available as standard. Special orde	ronly	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 @	0457 mm rail wheels	Heat treated steel Ø610 mm rail wheels	Heat treated steel Ø711 mm rail wheels	Heat treated steel @	Ď840 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						to both drive axles	Fully enclosed reduction 90° gearboxes to both drive wheels
		Sealed bearings in axle boxes	d 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 S	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 standa	rd 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 μ = 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 μ = 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 m 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
Cab seating		Driver's seat, side facing Driver's seat,		Driver's seat, side	e or forward facing	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 option	nal roof, doors and windows		Strengthened cab with roof, wi	th 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							ab
		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)							
		CE Marking (EU and UK only). Other compliances as requested							
Noise and vibration		75–85 dB(A), <2.5 ms-2							