



Special Purpose Machinery
for the **Railway** Industry

BERRY

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BERRY

Our track record

Over 180 years of experience in the manufacture of mechanical and hydraulic machinery is a track record of which we are proud.

Keeping you on track

HENRY BERRY offers a comprehensive range of equipment for the assembly and stripping of wheels on railway locomotives, coaches and wagons.



HENRY BERRY operates from an 8-acre site in Wakefield, England, with over 15,000 sq. metres of factory space under crantage.

The Company's extensive production facility boasts excellent fabrication, machining and fitting departments, ensuring that all aspects of machine build are controlled to HENRY BERRY's quality (ISO 9001:2000), environmental (ISO 14001:2004) and European safety (CE) accreditations.

A major part of the Company product portfolio is an extensive range of railway workshop machinery, which is used to service railway networks throughout the world. Plant for both main line, regional and metro system maintenance is constantly being developed to meet evolving technical requirements and safety standards.

HENRY BERRY's design and manufacturing facilities enable the Company to offer a total service from initial concept through to site installation and commissioning. All major research and development work is conducted in-house and is supported by a well equipped Computer Aided Design department covering mechanical, electrical, hydraulic and software engineering disciplines.

Main (left): Aerial photograph of the Company's Wakefield site.

Top: Wheel Drop Unit with overhead gantry.

Bottom: Special purpose machine for testing completed bogie assemblies, comprising a 50 tonne capacity mobile gantry with loading beam.

Main (right): 400 Tonne Wheel Press with driven adjustment of crosshead, axle support and overhead gantry.

Top: 150 Tonne Wheel Press with driven adjustment of crosshead and axle support.

Middle: Over 15,000 sq. metres of factory space under crantage.

Bottom: 250 Tonne Wheel Press with manual axle support.

Railway Wheel Presses

HENRY BERRY's extensive portfolio of machinery provides our customers with the ability to assemble and maintain a wide variety of rolling stock wheels. Our equipment is geared towards improving railway safety, extending wheel life, and enhancing rail-bound vehicle ride quality.

Features available include:

- Manual or driven adjustment of resistance crosshead to suit axle length
- Manual or hydraulic adjustment of axle supports
- Precise positioning of wheels using digital read-out displays
- Pressure recording instrumentation for mounting loads
- Tooling for handling wheels, gears, collars, axle boxes and crank pins
- Integral gantry with hoists for wheels and axles
- PC based control systems
- Automatic pressing cycles
- Data storage for all measurement data with full traceability
- Servo positioning of the hydraulic ram

HENRY BERRY also supplies flange height and wheel diameter measuring and monitoring equipment.



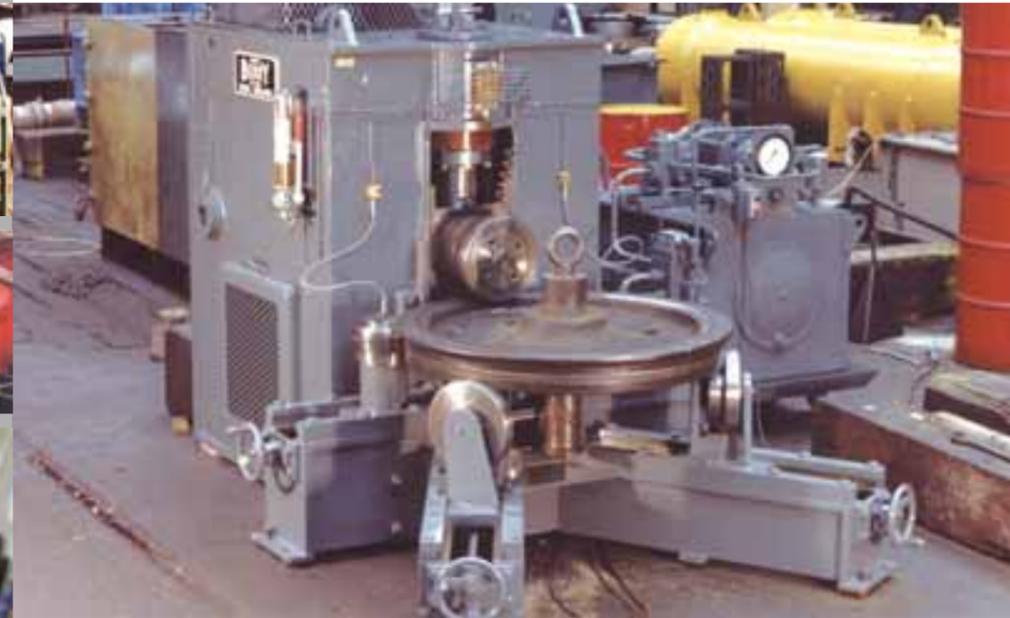
track tested

HENRY BERRY machinery assembles and tests rolling stock springs for railway networks throughout the world.



Inside track

In a competitive industry, HENRY BERRY railway workshop machinery gives our customers an inside track to improved productivity.



Spring Machinery

Spring Scragging and Testing

HENRY BERRY offers a wide range of machines for applying rapid scrag and test loads to different types of springs, including leaf, coil and chevron interleaved springs. The machinery is available in both vertical and horizontal configurations, with the facility for automatic cycle and accurate load cell measurement for matching sets of springs.

Additional Options:

- Alternative designs for coil springs only
- Automatic cycle with stroke selection
- Load cell with dial indication of test load

Spring Buckle Assembly and Removal

These machines are designed specifically for the assembly and repair of leaf springs. Features include a vicing cylinder for clamping the spring plates prior to fitting of the heated buckle, and stripping plates sized to suit the buckles being removed.

Main (left): 30 Tonne Horizontal Hydraulic Spring Scragging Machine.

Top: 75 tonne Buckle Assembly Press with handling gear.

Bottom: 150 Tonne Buckle Removal Press with hinged stripping arm.

Main (right): Ring Fixing Machine with tooling.

Top: Wheel Drop Unit, incorporating supplementary jaws for the removal of gearwheels.

Middle: Wheels are manufactured to meet customer specification.

Bottom: Henry Berry operates a full gear manufacturing facility.

Axle/Wheel Assembly Machinery

Ring Fixing Machine

Wheels which have replaceable tyres are fitted with a retaining (Gibson) ring, which secures the tyre to the wheel centre. The ring fixing machine both rolls and applies a load to the lip of the tyre to lock the retaining ring in position. The hardened pressure roller is driven by a hydraulic motor.

A separate machine is available for rolling the retaining ring from bar, prior to location in the tyre.

Gravity Wheel Drop Units

This machine has been developed to prevent scoring when separating the wheel from the axle. A large weight is located under the suspended wheelset by means of adjustable jaws. When high-pressure oil is injected at the wheel/ axle interface, the wheel is released and drops with the weight.

Train Wheels and Rolling Stock Accessories

HENRY BERRY can provide train wheels in a variety of materials, including synthetic composites. The Company also supplies a wide range of rolling stock accessories such as axles, brackets, roller disks and gears.

Fast tracked

When time is of the essence, HENRY BERRY workshop machinery gets rolling stock back in to service – fast!



Off the beaten track

HENRY BERRY takes particular pride in its ability to design and manufacture bespoke machinery and complete turnkey solutions.



Other Workshop Machinery

Rail Twisting Machine

In order to ensure maximum railway safety, rail twisting machinery needs to operate within very tight tolerances. The HENRY BERRY range of rail twisting equipment is capable of imparting a twist in all standard rails to an accuracy of 0.1 degree, thereby meeting the technical requirements of the Company's international customer base.

Axle Box Presses

These machines are of robust construction and are designed for assembly and stripping of axle box bearings on wheelsets. They are wheel mounted for maximum mobility and have handwheel weight adjustment. The mounting press features alignment sleeves and resistance arms, which engage behind the wheel. The removal press has a puller frame fitted with gag plates profiled to suit the axle boxes.

Main (left): Three Hydraulic Frame Presses ranging from 250 to 1000 Tonnes.

Top: Rail Twisting Machine.

Bottom: Axle Box Press.

Main (right): 150 Tonne Wheel Press with overhead gantry, powered crosshead and hydraulic axle support.

Above: The Henry Berry Engineering Department gives a complete design service.

Complete Turnkey Projects

HENRY BERRY's success is based on technical innovation, providing effective and efficient solutions to the railway industry.

The Company has an international reputation for systems integration, successfully interfacing railway workshop machinery with microprocessor or PLC controlled handling and loading equipment. Special projects completed by HENRY BERRY range from the supply of complete sleeper reconditioning plants (detailed below), through to smaller turnkey packages involving machinery fitted with gantry and crane handling systems.

Sleeper Reconditioning Plant

Plant is available for the reconditioning of steel sleepers, which have become distorted through natural wear and tear. The complete system incorporates the following features.

- **PUSHER FURNACE** – The sleepers are indexed through the furnace, which heats the sleepers to around 800 degrees centigrade.
- **HYDRAULIC PRESS** – The press re-forms the heated sleepers and punches holes for rail clips.
- **SLEEPER DIES** – Male and female dies are designed to suit the sleeper profiles, and are water-cooled.
- **COOLING CONVEYOR** – An electrically driven conveyor carries the sleepers for coating with bitumen.
- **RAIL TRACK** – Defective sleepers are carried to the plant on trucks and then taken to a storage area from the end of the conveyor.

Data provided in this literature is an approximate guide and shall not be contractually binding. The policy of Rhodes Interform is one of continuous product development. The right to change specification and designs at any time without notice is reserved.