



# LIGHT RAIL MACHINES





# HI RAIL MACHINES



Harrybilt Engineering have over 20 years' experience in installing Hi Rail Systems on tracked excavators. Over the years the team have worked on machines such as Hitachi, Hyundai, Komatsu, Kubota and more.

Harrybilt Engineering is certified to provide Road Rail Vehicle Compliance Testing for most networks in Australia. Excavators are rigorously commissioned and tested so every Hi Rail Machine is Rail Ready when it leaves the workshop. This is what makes Harrybilt Engineering one of the safest and most reliable Hi Rail Systems manufactured in Australia for Australian conditions.

The Hi Rail System is fully compliant to AS7502 and adapts track excavators and trucks for Rail Applications. The rail wheels can be set to either Narrow, Standard or Broad Gauges and is propelled by hydraulic motors installed within the rail system. A single manually operated valve is installed to switch from track to rail mode while still allowing the excavator to operate in travel mode.

The rail system is integrated into the main chassis and hydraulic deployment to rail controlled and monitored by a PLC system with the display mounted within the cabin.



A family owned manufacturing business located in Ballarat, Victoria established in 1985.  
We specialize in smart innovative design solutions and technology for rail infrastructure, commercial and individual applications.



# HI RAIL SYSTEM



## Hi Rail System Features

- Rail wheels adjustable to Narrow, Standard and Broad Gauges. The gauge will be set to the customer's request prior to leaving the Harrybilt plant
- All wheels will comply with Australian Standard AS 7514.4.
- The Hi Rail wheel bearings are the tapered roller type and are sealed.
- All wheels meet the P/D ratio
- All wheels are insulated
- Twist mechanism in the drive end complies with rail regulator's requirements.
- Twist mechanism locks while stationary to provide a more stable work platform.
- Derailment bars are fitted front and rear
- All wheels have a failsafe park brake and hold a minimum 1.30 grade.
- The brakes will provide minimum deceleration at least 0.9m/s<sup>2</sup>
- Hydraulic cylinders have integrated or hard piped counter balance valves.
- Break away coupling on drive end for hydraulic trailer brake activation.
- GPS speedometer will be installed in the cabin in easy view of the driver.

- 50mm pin tow hitch on the drive end of the machine to suit Ringfeder system.
- Machine conforms to relevant sections of AS7500 series standards
- One emergency hand pump kit, in the event of machine failure this will allow the operator to lift the boom off the ground and raise or lower the Hi Rail wheels.
- Engineering certificates for the Hi Rail System through an independent RPEQ qualified Engineer.
- Directional Lighting is offered at the front and rear of the machine. This is a Red / White lighting system mounted to the Undercarriage.

## Operation

- Wheel sets are raised and lowered hydraulically
- Hi Rail functions operated from the driver's cabin.
- Gauge change rack and handle to assist when changing gauge.

## Options

- Height and Slew as well as a Slew only system is available for excavator movement control.



# ATTACHMENTS SUITED FOR LIGHT RAIL MACHINES

Harrybilt Engineering are committed to providing customised solutions for their customers. The team found there was a need in the market to design and build light weight attachments for small excavators working on rail.

They have sought feedback on this concept then design, manufacture and test these attachments until there is a finished product. Most of these smaller attachments are lightweight versions of our most popular Rail Maintenance Attachments. The team still continue to listen to customer feedback to design new attachments for Light Rail Machines.



**LIGHT WEIGHT  
RAIL GRAB**



**SHORT BLADE  
UNDERCUTTER**



**5T 2X3M  
RAIL TRAILER**



**MINI  
PLATYPUS**



**LIGHT WEIGHT  
TAMPER**



**LIGHT WEIGHT  
FORK**



**MINI  
BULLANT**

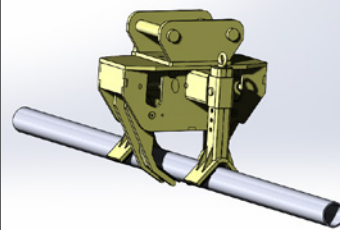


**YABBY  
SIZE 1**



**THREADER**

**COMING SOON**



**MINI POLE  
GRAB**



**CRIBBING  
BUCKET 8T**