



ZERO-EMISSION RAIL MILLING TECHNOLOGY.

LM1 HYBRID RAIL MILLER

The LM1 Hybrid Rail Miller, a zero-emission machine, is the first of its kind in the global rail market. Loram's first eco-friendly machine offers huge benefits to railways using milling technology for corrective maintenance in highly sensitive areas such as dust and fire. The milling technology makes it possible to remove up to 1 mm in a single pass. The miller processing is 'dry', meaning no cooling water or fluid is needed while operating.

The LM1 Hybrid is powered by Hybrid Power Source (fuel cell + battery) using gaseous hydrogen for fuel, making it less flammable in the atmosphere than common fuel, such as diesel. Water vapor is the only bi-product of the power system. The hydrogen gas is stored in exceptionally solid tanks that consist of a plastic core which is wrapped with carbon fibers. This allows hydrogen to be stored under high operational pressure for years of use. A 60-kWh battery system is mounted on the roof of the machine to prevent work delays.

FEATURES AT A GLANCE

- **Hybrid Power Source** (fuel cell + battery)
- **No emissions** – even applicable in the most sensitive areas Low heat development due to fuel cell drive
- **Suctions more than 99.5%** of milling chips
- **Mills switches and turnouts**
- **Flexible transport options**
- **Low noise emission** during processing
- **No cooling agents** needed

For more information on this machine, or on developing a tailored maintenance program for your railroad, contact Loram at **1-800-328-1466** or visit **LORAM.COM**

SPECIFICATIONS

LORAM LM1 HYBRID RAIL MILLER

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Length	42.7 ft (13.0 m)
Width	7.25 ft (2.21 m)
Height	10.2 ft (3.1 m)
Maximum Axle Weight	11 ton (10 tonne)
Working Units (each side)	One milling unit: electric / One grinding unit: electric
Working Speed	1,160-1,955 ft/hr (360 – 600 m/h)
Travel Speed	Self-propelled up to 30 mph (50 km/h)
Minimum Curve Radius	115 ft (35 m)
Gradeability	Up to 4%
Main Engine	Fuel cell plant 200 hp (150 KW); battery system 80 hp/h (60 KWH)
Fuel Capacity	39 kg at 350 bar
Track Gauge	39 – 65.7 in (1,000 – 1,668 mm)
Chip Container Volume	2.0 yd ³ (1.5 m ³)

Specifications subject to change

LM1 Hybrid Additional Features and Benefits

- No emissions
- Low heat emission due to fuel cell drive
- Suctions more than 99.5% of milling chips
- Low noise emissions while working
- Variable gauge 39 – 65.7 in (1,000 – 1,668 mm)
- Driving cap equipped with two seats
- Mills switches and turnouts
- Customized material removal: up to 0.4 in (1 mm) in one pass
- Includes transverse and longitudinal profile measurement



SERVICE & SUPPORT

With a 70-year legacy of serving the railroad industry with the most advanced technologies, the most reliable and productive maintenance of way equipment and world-class contract service work, Loram brings its partnership approach to every customer relationship. This includes an extensive training and technical support program with every machine. Whether for a heavy haul, high-speed, underground or metro-rail system, Loram has the equipment and services you need.

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