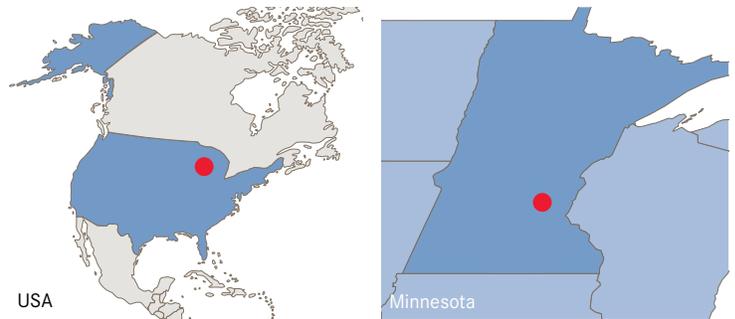


Loram and MTU keep the ride smooth and steady



Who: Loram Maintenance of Way, Inc.
What: Series 60 and Series 4000 diesel engines
Why: More uptime, improved fuel economy and greater efficiency for innovative rail grinders
Where: Hamel, Minnesota, USA



Loram's new RG400 Series Production Rail Grinder depends on MTU for the dependable power needed to smooth and reshape thousands of miles of tracks all over the world.

There are roughly 140,000 miles of mainline, regional and light railways crisscrossing the United States. Tracks are subjected to continuous wear and tear. And they're continuously inspected by railway owners/operators and overseen by the U.S. Federal Railway Administration. Systematic, cost-effective methods for keeping expensive railway assets in optimum condition and maximizing their lifespan are essential.

Loram Maintenance of Way, Inc. (Hamel, Minnesota) has provided critical preventive maintenance services and equipment since 1954. Loram manufactures sophisticated rail grinders, which includes a grinder car equipped with diesel generator set-powered stone wheels that automatically smooth and reshape the

tracks while it moves down the rails. Loram's customers include Burlington Northern Santa Fe Corporation, Amtrak, Canadian National Railway, Union Pacific, London Underground and Germany's Deutsche Bahn AG. Major rail lines in Australia and India are also Loram clients.

According to Loram, "Rail grinding is considered the single most effective maintenance practice to control the effects of rolling contact fatigue, restore profile, and maximize value from the rail asset." In addition to extending rail life, Loram says rail grinding benefits also include reduced wear on rail cars, increased train speed, fuel savings and better ride quality and passenger comfort.

Vernon Reinhardt, equipment manager, Stewart & Stevenson
"Early tests indicate that the MTU engines will have greater uptime than the competitor's engines."



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Each grinding car houses four MTU engines: three Series 4000 and one Series 60.

Meeting high standards

Loram rail grinders help rail operators enjoy more uptime, improved fuel economy, and greater efficiency. These are the same benefits Loram sought from its new diesel engine supplier, and why Loram chose custom-built power packages from Houston-based Stewart & Stevenson (S&S) with MTU engines for its new RG400 Series Production Rail Grinder.

Aside from the uniform Loram yellow color, the RG400 rail grinder looks a bit like a very short train. A lead control car, featuring a comfortable operator's cockpit with clear lines of sight of the track ahead, crew quarters and centralized electronic controls, pulls high-capacity water cars and a number of grinder cars appropriate to the scope of the grinding job.

In each grinding car, the space normally occupied by passengers or cargo is used to house three 1,500 kW power systems based on MTU 12V 4000 engines, along with a single 500 kW auxiliary generator featuring a Series 60 diesel engine. The generators and their control systems, designed and manufactured by S&S, provide power to the rail grinding control and traction systems for the car's six grinding modules, three per side.

The MTU Series 4000 engines generate more than high power. They produce economical benefits as well. Lightweight design means greater horsepower-to-weight ratio, which improves rail grinder efficiency and projected fuel economy.

And the engines' high power output means faster and more precise grinding than previous Loram rail grinders. This increased efficiency has led to greater profits for Loram's rail grinding service department.

S&S equipment manager Vernon Reinhardt says, "The most important characteristic that Loram was seeking from our generator sets was uptime. No hard data exists yet but early tests indicate that the MTU engines will have greater uptime than the competitor's engines that were under consideration for this rail grinder."

Working wonders

What's different about the new Loram RG400 is its capacity. The power of the MTU engines, combined with Loram's advanced engineering, results in a rail grinder that can operate at up to 20 miles per hour – fast enough to maximize available track time while removing more metal with greater precision than ever before. Boasting other Loram innovations, including improved dust collection and fire suppression systems, the new rig is a uniquely potent machine in an industry under constant pressure to grind faster, better and more accurately.

A perfect fit

Reinhardt says this latest incorporation by Loram of MTU diesel power into its equipment reflects a 30-year relationship and a true team effort. "We've built several power packages over the years for older Loram rail grinders, but this

was a big step forward in our business with them," he explains, citing as "instrumental" the work of S&S colleagues Evangelos Malliaros, account representative, and Craig Kean, manufacturing project manager.

"This project started in 2009 and involved over 1,000 hours of engineering design and engine testing with Loram. Ultimately, the performance of the generator sets and the global support of MTU products played a major role in their decision," adds Reinhardt, who notes that the S&S team established a single-source point of contact for Loram's service needs.

"We field every call in Houston and communicate the service need to the appropriate local MTU distributor anywhere in North America. It was essential to Loram that they have a single point of contact," says Reinhardt. "Loram is a highly customer-focused company that's become a world leader by emphasizing the importance of excellence in every detail. It's a perfect fit for what Stewart & Stevenson and MTU offer."

MTU America Inc.

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MTU is a brand of Rolls-Royce Power Systems AG. MTU high-speed engines and propulsion systems provide power for marine, rail, power generation, oil and gas, agriculture, mining, construction and industrial, and defense applications. The portfolio is comprised of diesel engines with up to 10,000 kilowatts (kW) power output, gas engines up to 2,150 kW and gas turbines up to 35,320 kW. MTU also offers customized electronic monitoring and control systems for its engines and propulsion systems.



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