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NSH Group & NSH USA

Railway Wheelset Maintenance: NSH Group Delivers Continuous Improvement

The NSH Group (Niles-Simmons-Hegenscheidt) and its North American subsidiary NSH USA Corporation (Albany, New York and Sterling Heights, Michigan) have a long history of supporting transit and freight railway maintenance facilities worldwide.

This longevity is based in part on a dedication to continuous improvement of wheelset maintenance machines and practices.

The **Stanray® Wheel Truing Machines** have been the standard for freight and transit railway wheel reprofiling throughout North America for decades. The machines utilise milling machining technology (known as ‘wheel truing’) where the work piece (in this case, the wheelset) rotates slowly while the cutting tool with multiple cutting inserts rotates rapidly. This wheel reprofiling technology differs from a lathe (known as ‘turning’), where the work piece rotates rapidly, and the single point cutting tool is stationary. Both technologies reprofile the wheel and remove wear and defects to return the wheel profile back to the optimal shape. However, for customers with moderate or extreme wheel wear, wheel truing (milling) is the ideal solution due to the milling cutter’s efficient material removal properties.

NSH USA recently updated the



Stanray® M1 Above-Floor Wheel Truing Machine installed in transit maintenance facility

Stanray product line with the new **M-Series Wheel Truing Machines**. While still employing the same milling machining technology, the new machines include innovations that were not possible when the Stanray was introduced in 1949.

They now feature integrated measurement for more efficient machining as well as better access to asset data. The system’s automated machining and measuring cycles mean less chance for operator error and increased safety and efficiency. And with the new patent-pending centreless wheelset clamping, less time is

spent accessing wheelset axle centres – in fact, wheel truing can take place on fully mounted wheelsets as well as vehicles that were not accessible before. The new machines can be installed on the facility’s floor as an Above-Floor M1 or in a pit as an Underfloor M2 or M3.

Combining decades of dependable wheel truing technology with modern measuring and automation practices, the Stanray® M-Series Wheel Truing Machines are the right choice for freight and transit railways worldwide.

State Analysis

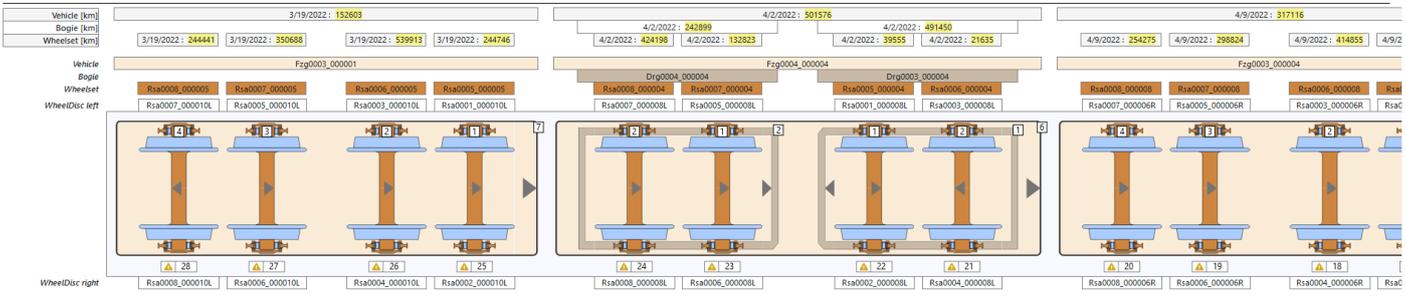
Search

Folder: All | Construction Series Type: Train | Construction Series: All

Master Data: Train0001_000001 | Configuration Date: 7/7/2022 4:51 PM | Days to go back: 14

Measurement Name: | Measurement Device: All | Search

Operating Data



Wheelset

| SR [mm] | 1,349.97
(1,349.97) |
|---------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| AR [mm] | 1,209.97
(1,209.97) |

Example of data available from the Hegenscheidt Total Wheelset Management software

Hegenscheidt TWM (Total Wheelset Management) Software

Another member of the NSH Group, **Hegenscheidt-MFD** (Erkelenz, Germany), also combines decades of wheelset maintenance experience with continuous improvement to better serve transit railways around the world. The company recently released the **TWM (Total Wheelset Management)** software that supports better maintenance operations in data management, maintenance planning and control of all wheelset-related maintenance operations.

The maintenance of railway fleets has become more complex. Increased demand for asset measurement data as well as a moving away from outdated maintenance practices based on a reactive model which targets wheelset condition or mileage meant new solutions were necessary.

That's where the TWM software comes in. It works in combination with the ARGUS® II In-Track Measurement System for Wheel Set Diagnosis and the Hegenscheidt U2000-Series Underfloor Wheel Lathes. As the rail vehicle travels over the ARGUS® II, the system captures real-time measurements of the vehicles' wheelsets. That data is transmitted and made available to the wheel lathe operator, who can then make informed choices about reprofiling order based on accurate measurements and wheel conditions. After reprofiling, the lathe performs post-machining measurement to verify that all wheelsets are within tolerance. That data is also collected by the TWM and available to maintenance personnel.

Beyond simply decreasing the time needed to maintain rail vehicles and return them to revenue service, better access to the wheelset measurement data allows operators to shift from a reactive maintenance model to a

more modern predictive model. Operators can analyse trends to plan more efficient maintenance practices as well as monitor asset livelihood. The end result? Increased lifespan for railway wheelsets and safer railways.

If you are attending this year's **InnoTrans** event, the NSH Group will be available in **Hall 22, Booth 660** to discuss these two products as well as other railway wheelset maintenance and production machines and heavy payload automation systems.

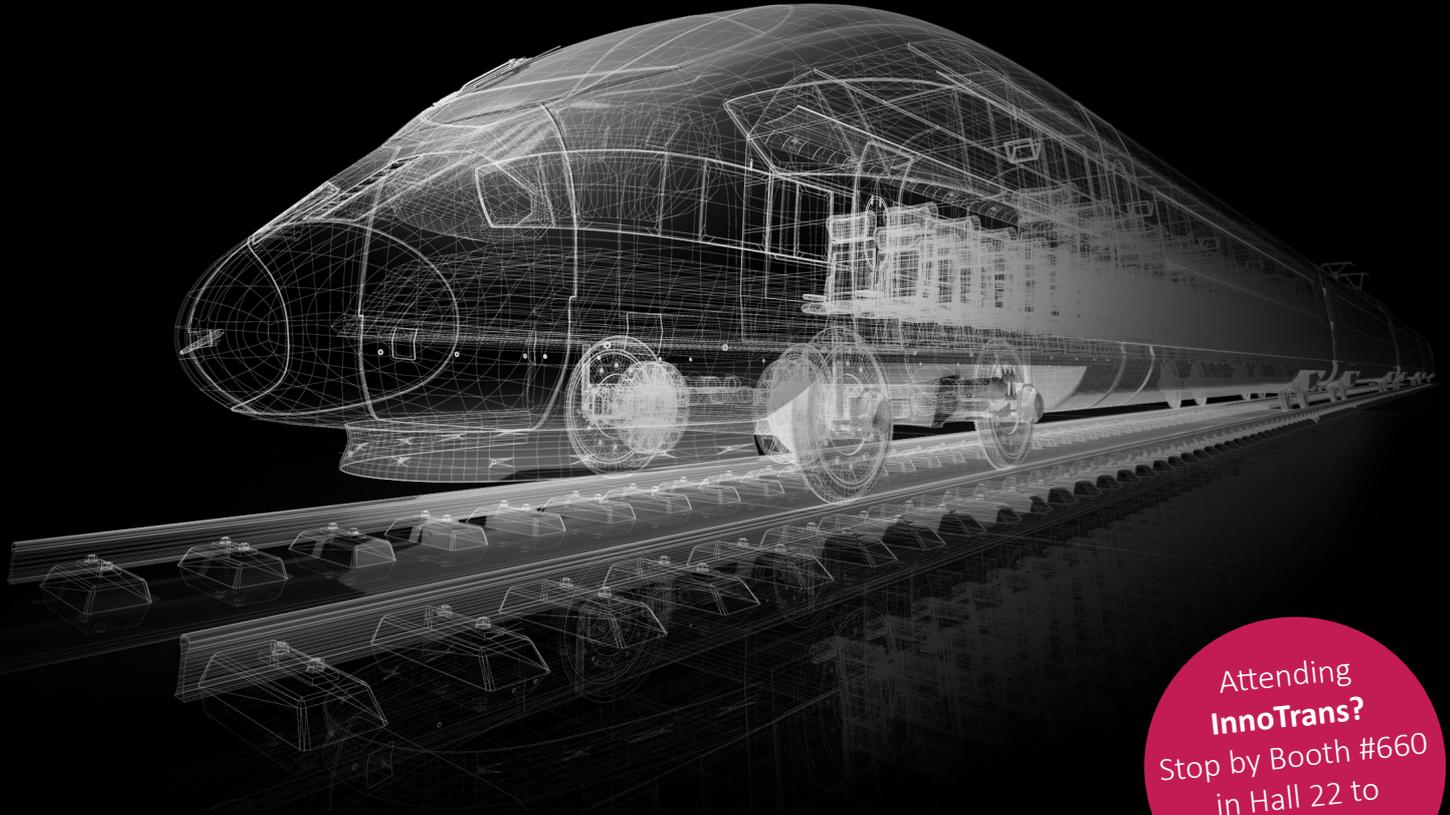
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NILES-SIMMONS-HEGENSCHEIDT MACHINE TOOL MANUFACTURING



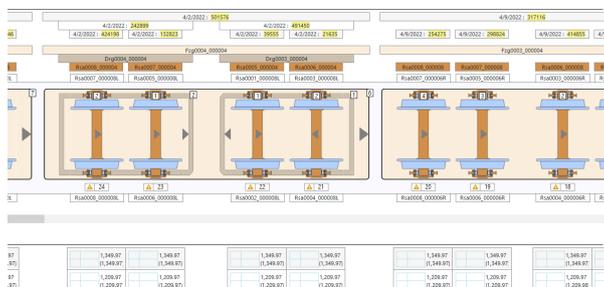
Attending
InnoTrans?
Stop by Booth #660
in Hall 22 to
learn more

Industry Leaders in Wheel Set Production, Maintenance & Automation



Wheel Truing

- Easy to operate and maintain
- Cuts through wheel defects without operator intervention
- Full profile milling process creates the optimal wheel profile every time
- No need to undercut



Total Wheelset Management

- Better access to wheel set measurement data
- Increased lifespan for wheel sets
- Safer and more efficient rail vehicles
- Decreased time needed for maintenance