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Kirow Tracklayer

Safe and efficient track replacement technology

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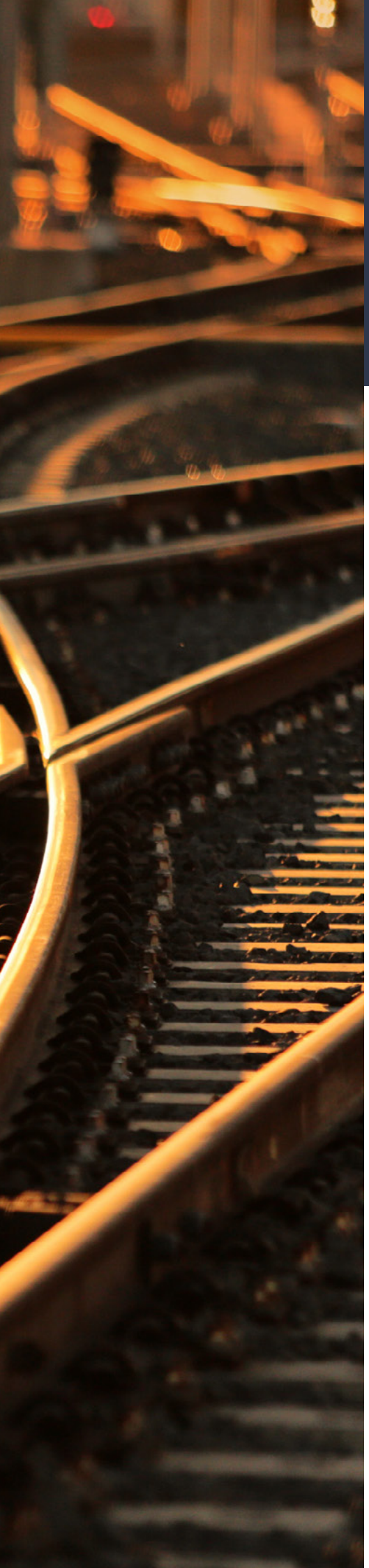

Kirow Tracklayer

The Kirow Tracklayer is purpose built for heavy-duty rail panel installation and maintenance, including turnouts, track replacement, and upkeep. Powered by a high-performance diesel engine, advanced hydraulic systems, and specialised lifting tools, it is engineered for versatility, precision and efficiency.

Its crane-like boom effortlessly lifts heavy materials such as rail tracks, sleepers, and ballast, ensuring precise placement while minimising stress on track assets. Fully remote-controlled, the Kirow eliminates the need for manual operation, improving site safety and productivity.

Highly mobile and self-sufficient, the Kirow can be transported to site on a standard flat wagon or a flatbed truck. Using its rotatable crawlers, it can unload and load itself with ease, while its standard gauge bogies enable localised track travel to project sites.

During rail panel installation, the 360-degree manoeuvrability of the crawlers allows navigation around obstacles and precise manipulation of track panels in any direction. Its adjustable support legs are operational on steep inclines and uneven terrain, ensuring accurate movement and placement, even in demanding environments.

The Kirow can operate under overhead wires and delivers a maximum lifting capacity of 36 tonnes. Extending out to 36 metres in length, it features six discrete lifting beams equipped with twelve standard hooks and four long hooks, offering lifting flexibility for complex rail construction and maintenance tasks.

Benefits

Highly agile and maneuverable

Operating independently on rubber tracks, the Kirow can navigate challenging terrain and effortlessly pick up rail panels from alongside the track, ensuring autonomous transport to the installation site.

Guaranteed stability and monitoring

The Kirow's stable construction and centre of gravity ensures safe machine movement and lifting activities. Its control system continuously monitors machine systems and working component positions.

Backup systems ensure uninterrupted operation

The Kirow is equipped with backup systems such as an auxiliary power unit for main engine failures, an onboard generator for additional power, a backup communication cable, and electrically controlled hydraulic valves with manual levers for manual operation.

Flexible transportation options

The Kirow can be transported on a float and independently loaded or unloaded using its outriggers, before completing the final part of the journey on its crawlers.

No interference with adjacent train movement

With only one track required for installation, the Kirow allows neighbouring traffic flows to continue uninterrupted. It efficiently collects pre-assembled rail panels and precisely inserts them into position.

German designed, technologically advanced

Engineered with enhanced safety mechanisms

The Kirow is operated by a specialised operator using a radio remote control, supported by safety spotters using closed circuit headset communication. This team setup significantly reduces plant versus person interface. With its four wide tracks, the Kirow remains firmly grounded during operation, eliminating load swinging and slewing risks to ensure a secure and efficient track replacement process.

Machine data

Asset number	CR1078, CR1078 Trolley 1, CR1078 Trolley 2	Width	3,460mm (stowed), up to 6,860mm (working)
Build date	2021	Height	3,060mm (stowed), up to 5,160mm (working)
Maximum transfer speed	15-30m/s on crawlers, 5km/h on trollies	SWL	36,000kg
Engine output	TL1200 – CAT C7.1-225 Acert Diesel Engine – 168kW 225hp	Bogie centres	11,000mm
Trollies	Hatz 2 L41 C Diesel Engine 18.9kW@2,000rpm	Working speed	15-30m/s on crawlers, 5 km/h on trollies
Weight	TL1200 – 54,000kg, Trolley – 5,300kg	Minimum horizontal working radius	≥90m
Length	18,500mm (stowed), up to 28,500mm (working)	Gauge convertible	Standard gauge

Case study

In March 2023, our Western Australia Southwest team, with assistance from special plant, successfully replaced an aging turnout for our client, Alcoa.This turnout featured a special track design, and the team had a 36-hour shutdown window to complete the project, which included renewing the sub-ballast capping and points motor.

To accomplish the replacement, the Kirow was used to install the pre-built turnout in two panels. The first panel, comprising the switch/heel/body, measured 17.46 metres in length and weighed 18.8 tonnes. The second panel, consisting of the crossing/body/end fill sections, was 24 metres long and weighed 28.3 tonnes. The team completed the entire installation, including setup and pack-up time, in just three hours and 20 minutes.

The use of the Kirow Tracklayer played a vital role in ensuring the project's efficient completion. It enabled our team to work swiftly and effectively, significantly reducing downtime and minimising disruptions to the network.