



GANTREX®

ON TRACK. WITH YOU.

Trolley Rail Services

The Short Rail is the rail section located at the boom hinge joint of the crane where the boom and girder rails are separated to allow the crane to boom up. Different styles of rail joints are available for this area and majority require special machining.

Gantrex is the world largest supplier of short rail systems and is able to tailor custom solutions depending on budgetary and operational constraints.

GANTREX SOLUTIONS CAN RANGE FROM INEXPENSIVE SIMPLY MACHINED RAILS TO THE MORE INNOVATIVE RAILS WITH VULCANIZED RUBBER.



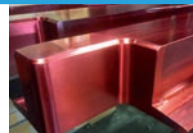
STANDARD SHORT RAIL

- Standard rail machined to a given joint profile
- Very inexpensive solution sometimes installed on cranes with very low utilization rates
- Subject to accelerated wear and plastic deformation of the railhead due to decreased rail web thickness



STANDARD SHORT RAIL WITH WELDED STIFFENER

- Standard rail machined to a given joint profile with a welded stiffener between the rail head and rail toe
- Inexpensive solution installed on cranes with low to medium utilization rates
- Increased vertical stiffness minimizes plastic deformation
- Cracks can appear within the weld between the rail and stiffener within months of operation



FULL WEB SHORT RAIL

- Machined section of rail that keeps a uniform thickness of material from the railhead to rail toe
- A robust solution installed on cranes with medium to high utilization rates
- Eliminates stiffener cracks
- Subject to localized wear with no amortization of shocks and vibrations



GANTREX® SHORT RAIL

- The railhead is separated from the rail foot with a rubber layer
- A reliable solutions suggested for cranes with medium to high utilization rates
- Amortizes shocks and vibrations
- Minimizes wear and tear to the short rail system and crane structure
- Prolongs the life cycle of the whole short rail system



Gantrex® Short Rails



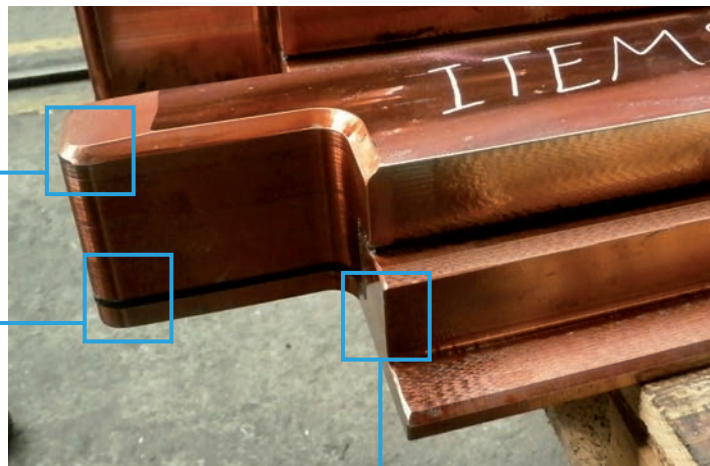
The rail joint area is subject to very high duty cycles as the trolley moves containers from ship to shore and vice versa. As the trolley wheel passes over the rail joint between the boom and girder it introduces shocks and vibrations that are transferred into the whole trolley rail system. These shocks and vibrations **accelerate the wear and tear** of the short rail, the short rail fixing system, trolley and crane structure.

To minimize the shocks and vibrations at the boom hinge area Gantrex has developed the **Gantrex® Short Rail solution**, which includes an elastomeric layer vulcanized into the web of the rail.

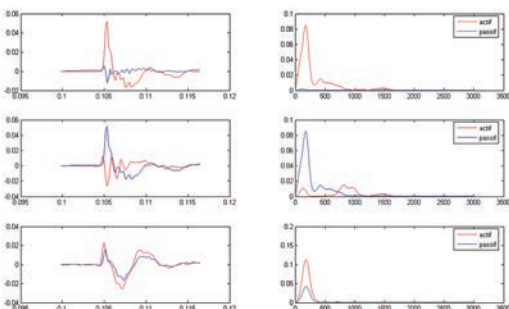
Vibration results gathered from different installations around the world show great **amortization of shocks and vibrations**. The rubber layer helps in absorbing the vibration transferred from the trolley wheel into the rail and minimizes the shocks as the trolley wheel travels over the rail joint.

Railhead machined from larger rail sizes to fit existing profile, standard material grade 110CrV

Vulcanized rubber layer between Railhead and "Rail Foot"



"Rail Foot" machined as a cavity to fit the Railhead and to fit existing rail profile



THE REDUCTION OF SHOCKS AND VIBRATIONS

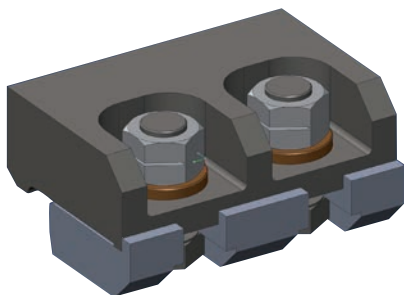
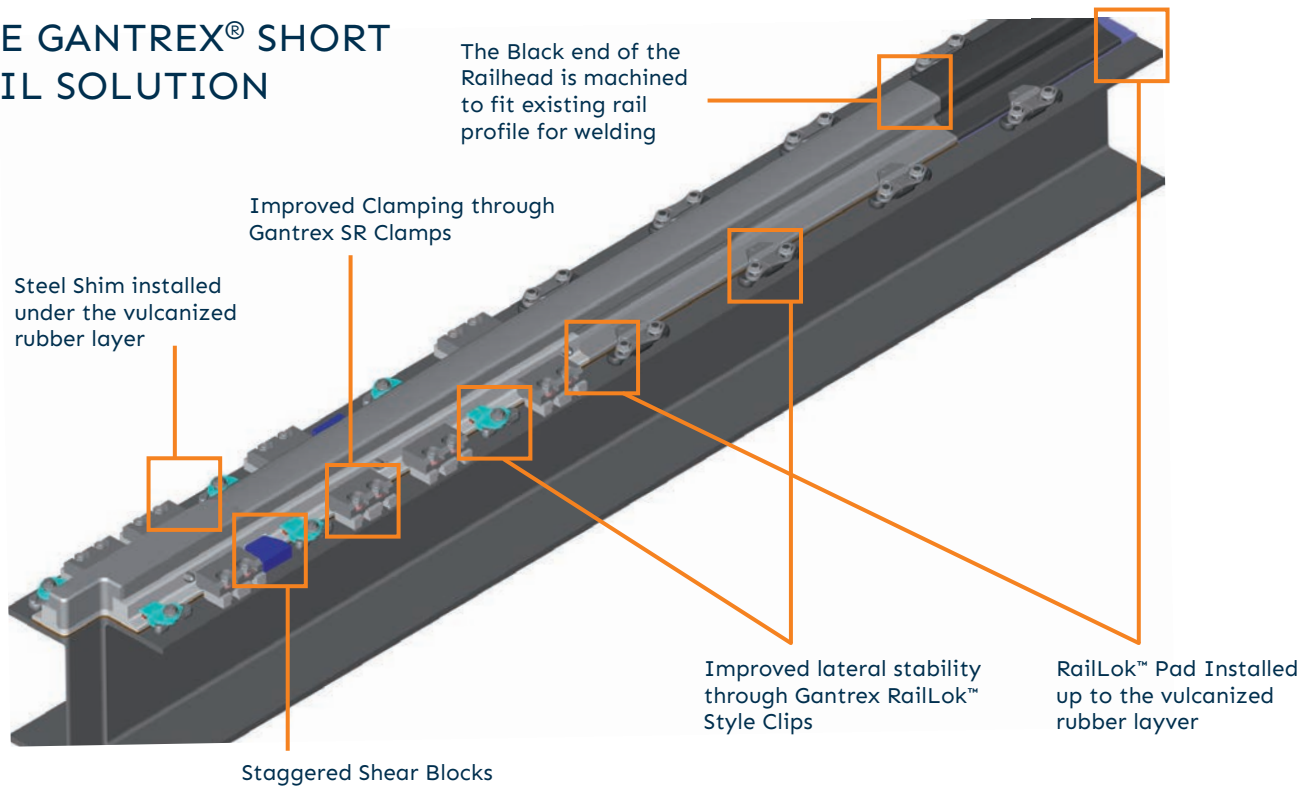
- Minimizes the wear and tear on the rail system
- Minimizes fatigue related failures in the crane structure
- Prolongs the life cycle of the short rail system
- Improves driver comfort and confidence

Gantrex has improved the performance of the clamping system by introducing the new Gantrex® Short Rail Clamps and redesigning the fixing system to include more stable lateral clips and staggered longitudinal fixing points.

The improved fixing system with all the necessary engineered drawings can be supplied for all short rail solutions.



THE GANTREX® SHORT RAIL SOLUTION



GANTREX® SHORT RAIL CLAMPS

- Increased clamping force
- Improved vertical contact between the clamp and Short Rail Foot
- Improved interface between clamp upper and lower component
 - Further minimizes the transfer of shock and vibration into the clip and stringers
 - Improves force transfer between the short rail, Short Rail Clamp and the Stringer

for more information and latest project references



Rely on Gantrex to help you with your next Short Rail or Trolley Rail replacement project from Engineering to Installation. Gantrex personnel are specialized short rail and trolley rail installers with world wide experience, our installation teams implement industry leading best practices and install the trolley rail systems to the highest quality standards. Visit www.gantrex.com/trs to see what our customers say.

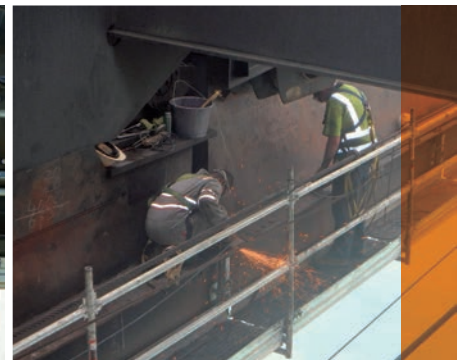
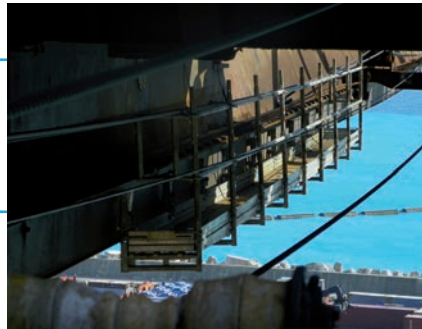
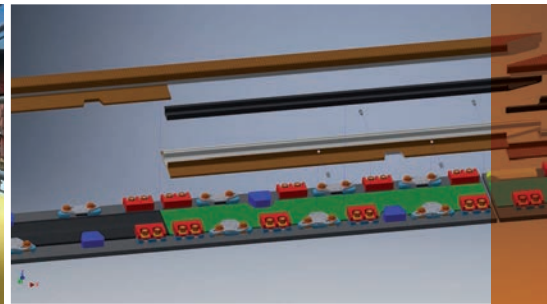
Gantrex services include:

Survey and Inspection

System Design

Scaffolding Installation

Full Trolley Rail and Short Rail Replacement



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Visit www.gantrex.com/trs
for more information and latest project references