Scraper Chain & Rake Car Rail - better performance for your reclaimers
Want better performance from your reclaimer?

FLSmidth has redesigned important elements of the reclaimer system to increase reliability and optimise maintenance, cost and time.
New scraper chain for greater reliability
The redesigned chain and scraper blades are now even more robust, specifically to increase reliability, reduce maintenance and prolong the lifetime of your entire scraper chain system. The new chain assembly includes important updates that improve its strength and reliability – helping us to achieve our goal of preventing damage and fatigue failures.

Why upgrade the scraper chain?
Upgrading an existing scraper system with a sturdier chain and blade will increase the system’s lifetime and improve reliability. Your operations benefit from:

- Reduced downtime thanks to simpler, faster maintenance procedures
- Lower component replacement costs
- Improved overall performance of your installation

Robust features
We have doubled the number of guide rollers for the scraper blades to ensure the chain retains its path. This lowers the wear on chain links, chain guides and bearings.

To minimise internal stresses and reduce the risk of cracks, the outer chain link has been strengthened thanks to a new design without bends or welds. Instead, it is fabricated from a single steel plate and bolted to the chain links – with the bolts also functioning as hubs for the chain rollers.

The chain links are fitted with a hollow section. This improves the chain’s overall stiffness, resulting in a better locking assembly and reducing fatigue failures caused by repetitive impacts. The hardness and hardening depths for the chain roller, chain pin and bushing have also been optimised.

Efficient upgrade process
An upgrade can be performed quickly and with minimum effort. During the upgrade, most of the reclaimer remains untouched and only the scraper chain, blades, shaft, chain guide and lubrication system need changing. The typical process involves:

1. Removing the existing chain system and guides
2. Installing new shafts and sprocket wheels
3. Re-fitting and re-aligning shafts and chain guide system
4. Assembling new scraper chain and scraper blades
5. Replacing the lubrication system
6. Commissioning the new installation

Fast installation
Your bridge reclaimer can be installed and back in service typically within 2-3 weeks – which can be achieved within a normal maintenance stop.
Design features

With FLSmidth’s newly designed scraper chain and blades, you can prolong the lifetime of your entire scraper chain system.
A rake car rail system that lasts longer

The redesigned rake car rail setup increases the lifetime of the system and eases future maintenance procedures. In your future rail replacements, downtime will be reduced.
Longer life, easier maintenance
FLSmidth has redesigned the rake car rail. The new design increases the lifetime of the rake car rail system and eases maintenance procedures.

Why upgrade the rake car rail?
Upgrading the rail increases the lifetime of the entire rake car rail system, while reducing downtime and maintenance costs. Your operations benefit from:

- Reducing the wear of rails and wheels
- Easy alignment of rail system
- No welding is required for replacement of new rails

A rubber pad fitted below the rails ensures constant, full contact with the wheel, providing better support – meaning smoother operation and less system wear.

Efficient upgrade process
When the new rail system has been installed, your own team can easily perform any necessary future replacements. The system uses stock quality rails, which are normally readily available from your local supplier.

In a typical process, your team will:

1. Remove the existing rails by gouging
2. Prepare the top surface of the main girder
3. Weld flat bars to the main girder top surface
4. Mount the rail fixing accessories
5. Align and install the new rails
6. Dismantle rake car wheels and guide rollers

Replacing worn-out rails in the future will take no more than approximately one day.

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Design features

FLSmidth’s new rake car rail increases the lifetime of rails, while reducing downtime.