

J. Lanfranco & Cie

Supporting the Track



Diamonds Canada

Our presence on the international markets is constantly growing, and the track is a very important area of application as it combines two distinct sectors, freight and passenger lines.

Europe has been our latest zone to re-engage with freight and it also has a more limited network, but it's another significant area of expertise.

As a result, we have seen our subsidiaries developing many applications in Brazil, Chile, Canada and the USA.

Europe

The European railway market is better known for its passenger train and equipment manufacturers than for freight and applications development. We also followed the trend, and this now represents a significant part of our market. J. LANFRANCO & Cie has found its customers, especially for our ESL and ERM locknuts. In recent years, the track, which was often considered as the poor relation of the railway sector, has also received new interest.

Brazil

This is a constantly evolving market, benefiting from the development of the mining sector, transport of construction materials, as well as agricultural and food products. Since 2019, there have been 29 concessions and three early renewals. (The purpose of these rail concessions is to manage and operate the existing railway lines, extensions, improvements, and maintenance in the form of private participation contracts for predetermined periods of about 30 years that belong to the state.)



The aim is to rebalance Brazil's transport core and to double the railway infrastructure. Mining companies often operate the rail network to better control it, as do other major players in the Brazilian industry.

With our Brazilian subsidiary, we have therefore developed our applications for the track: switches, joint bar, frogs, electrical connections and signalling, considering the environment and the assembly conditions.

We adapt to the needs of our customers to ensure their fastener system. For assemblies without critical electrical connections, there are two possibilities: ESL or THU. The most difficult environments with the least amount of maintenance and tools available (only an impact wrench) can rely on the THU.

The self-locking system is obtained by two slots on the same plane, on the nut flange. The deformation occurs on each opposite side. No loosening is possible, reliability is our watchword, 5 possible reuses (according to standard). The ESL has two superimposed slots on the nut flange which is also deformed to obtain its self-locking characteristics.

Freight has many applications, including electrical connections:

Chile

Chile, with its development in the mining sector with companies such as Codelco, also has a significant freight network and EFE, the Chilean state railway company (passenger and freight trains), has an important network for mining, transport, the wood industry, agriculture and containers for the ports to reduce pollution. Investments include railway bridges, line extensions, track maintenance and the creation of specific centres for line maintenance. This has enabled us to provide new solutions for bridges and track (joint bar). A higher level of reliability, faster maintenance and, above all, efficiency, have enabled extending maintenance times so that teams are not mobilised for the same operations. A financial gain because it is no longer necessary to change a reusable nut.

The ESL nut is used to secure sleepers to the track, on electrical deviation systems on sleepers allowing track changes and can be positioned anywhere in tunnels, or on viaducts. The ESL nut is today, together with the





THU, the only nut that prevents the loosening of the rail joint bar connections.

The ESL ensures that there is no loosening and that equipment subject to a lot of vibration can be installed quickly and safely.

The double-slotted nut design provides greater resistance to vibration, shock, temperature extremes and corrosion. ESL nuts are reusable up to five times and ensure assembly and disassembly without loosening or seizing.

Canada & US

LANFRANCO Inc., our Canadian subsidiary, works a lot with Class 1 railways. These are companies that only do freight, a market specifically for the track. These are very heavy tracks with much higher forces than what you can find in Europe.

Most of the rail network on the freight side is very old and may date back a century. Some railways have 75,000km of track to maintain, which may be in mountains, fields or forests. Conditions are very different from the European market, and unique to Canada, the USA and Brazil.

The equipment and vehicles of the major rail freight companies are required to carry heavy loads over long distances, sometimes in extreme environments and conditions. Some of our customers have experienced loosening on critical assemblies. The most obvious example is the rail joint bar.



Signalling cable fixation with box Brazil



Diamonds Canada

Conclusion

Our products help freight companies in Europe such as Mercancia al tren (which we support) relieve motorway congestion and limit pollution and ensure a new future for freight in Europe.

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