



by Shervin Shahidi Hamedani

Fastener Market: Malaysia Mega Rail Projects

Introduction

Railways are the fastest means of agglomeration transport and its comparative advantages in terms of technical and economic such as transport capacity, cost and low-carbon, has made the railways, more specifically high-speed railways, as one of the fastest developing sectors in many countries. Today, the passengers have more concern about the quality of services more than ever in terms of safety, efficiency, convenience, and sustainability of transportation.

Putting aside the impact of current pandemic, with the development of global economic industrialization and urbanization as well as fast economic growth of emerging economies, the overall scale and the total volume of railway passenger and cargo transportation have generally shown steady growth trend in the past decade in the world. Apparently, those scales and structures vary in different countries. The growth of railway passenger transportation is mainly concentrated in the Asian market. With the advancement of urbanization, population growth and the large-scale opening and operation of railway passenger-dedicated line, rail track sizes in Asia are huge, and the future is prosperous for the investment in upstream and downstream industries.

This introduction can explain why the railway fastener market has become a very prosperous market in Asia. The leaping railway development and rail track sizes in Asia are becoming larger and larger, while creating more demands on railway fasteners, as they are important components of rail tracks and they are always used to connect track rails with railway ties or railway sleepers. Additionally, there is a wide range of industrial fasteners used in manufacturing trains and rail cars.



Malaysia



Malaysia Mega Rail Projects

As mentioned, the large demand from downstream high-speed train industry, subway industry and other industries drives the rail fastener industry to develop fast. One of the Asian countries, which has recently undertaken several mega rail projects, despite the Covid-19 pandemic, is Malaysia.

The government of Malaysia is looking to put the economy back on the rails by continuing with the mega infrastructure projects like the East Coast Rail Link (ECRL), Kuala Lumpur - Singapore High Speed Rail (HSR), Mass Rapid Transit (MRT) and Light Rail Transit (LRT) projects. In February this year, it was reported that Malaysia's economy contracted 5.6%, which is its worst performance since 1998. Therefore, the stakeholders, contractors and owners of all those mega rail projects in the country have taken measures to ensure work on these critical infrastructures will continue even in the face of the Covid-19 pandemic.

In the following sections, major rail projects in Malaysia and their overall impacts on fastener markets have been studied.

Kuala Lumpur - Singapore High Speed Rail (HSR) project aims to reduce travel times along the 350-kilometre route between Kuala Lumpur and Singapore to just 90 minutes (as compared to the current time of 11 hours on existing lines), creating a new era of connectivity between these partner nations.

The latest Light Rail Transit (LRT) project is part of the Greater Kuala Lumpur (GKL) plan, which will provide connectivity to the western part of GKL. Development of the project is also expected to fuel economic growth in the region and generate employment for about 2,000 personnel during the construction phase.

The Mass Rapid Transit (MRT) project is a strategic Government project which will increase connectivity of the Klang Valley's public rail network. Klang Valley is an urban conglomeration in Malaysia that is centered in Kuala Lumpur, and includes its adjoining cities and towns in the state of Selangor.

On top of all these projects is a very important and strategic project, which is the largest rail project in Malaysia, called East Coast Rail Link (ECRL) project. ECRL is a 640km railway link connecting different parts of the east coast region with the west coast region in Malaysia. This project is the biggest economic and trade project between China and Malaysia. This is a joint venture partnership with a 50-50 ownership between these two countries. Construction on the ECRL project began in Kuantan (the capital city of the state of Pahang on the east coast of Peninsular Malaysia) in August 2017, but the work was suspended in 2018 due to financial reasons. Construction resumed in July 2019, with the completion scheduled for December 2026. This could be good news for fastener manufacturers, as this project needs a large quantity of fasteners and tools. Some of the common types of fasteners used in rail projects are Concrete Pillow Fasteners, Buckle Plate Fasteners and Spring Fasteners. The amount of usage depends on projects if it's about Conventional Rail, High Speed, Heavy haul, or Urban Transport.

The ECRL project could be categorised as a conventional mega rail project, which mainly requires fasteners with high spring deflection, high tensioning force, high creep resistance, high elasticity with lower subrail foundation erosion. This is about the fastener demand directly generated from the project, but in overall ECRL will have a significant impact on Malaysia's economy, which indirectly builds more demands for fasteners in this country. The project is expected to produce jobs worth USD4.2bn during the construction, while boosting small and medium-sized businesses. The project is also expected to increase the demand for housing, supplies, and transport in the regions along the East Coast Rail Link. The Kuantan Port-ECRL-Port Klang section will shorten the travel time between the two ports, thus benefiting trade in the region. Port Klang is a town and the main gateway by sea into Malaysia, the largest and nearest port to Kuala Lumpur. Freight transport along the East Coast rail link will account for 70% of the total revenue generated by the rail network, while the remaining 30% will be driven by passenger transport.

Conclusion

Based on what have been discussed, in terms of market development, Southeast Asian countries in general and Malaysia in specific certainly should be targeted by international fastener manufacturers and traders. The majority of the countries in this region have not been able to fully grasp the latest technologies and skill sets related to railway fasteners products and failed to keep up with the technological advances in this industry. Therefore, the majority of supplies of railway fasteners and tools are still shipping from international manufacturers and suppliers, mainly from China and Taiwan. This can be a great opportunity for fastener suppliers to leverage on, in order to grow and to expand their businesses regionally and globally. ■

Source:

*East Coast Rail Link (ECRL) Project, Railway Technology
The Star, Malaysia News: National, Regional and World News*

