HIGH SPEED TRAIN

This article discussed one of the fastest transportations in China, High-speed Train. During the research, we found that a lot of new technologies have been used to make the trip runs successfully.

Introduction

High-speed train was first invented in Japan and brought in China later. In order to solve the traffic pressure and develop the traffic industry, the Chinese government decided to develop the high-speed train technology. And with the development of science and technology, high-speed train has been transformed into one of the Chinese business cards. A lot of systems have been used in the train, such as ionic smoke sensing alarm and advanced fault diagnosis technology and so on.

I. CLASSIFICATION OF HIGH-SPEED TRAIN

High-Speed Train has different regulations in different countries and times.

China's National Railway Administration defines: the new design to run 250 km/h (including reservation) and above train sets, the initial operating speed is not less than 200 km/h passenger line railway. The features of High-Speed Train are newly built, speed is not less than 250 and passenger-specific. China's railways are divided into three levels: high-speed railway – fast railway – ordinary railway. High-speed railway level is higher than the national railway I level, for fast rail and backbone of the railway. China's high-speed railway generally uses the trackless track and high-speed train group (G-head train), initially with CRH2C, CRH380 series dedicated to high-speed train.

II. Characteristics of High-speed Train

There are four main characteristics of High-speed Train:

- High-speed.
- Comfortable.
- On time.
- Secure.

III. TECHNOLOGY USED IN HIGH-SPEED TRAIN

There are three main technology used in High-speed Train:

- Real-time fault diagnosis technology for highspeed train information control system
- High-speed rail traction power supply system
- Ionic smoke sensing alarm

IV. THE INFLUENCE OF HIGH-SPEED TRAIN

Transportation is a fundamental, pioneering, strategic industry and an important service industry in the national economy.

It is an important support for sustainable development. With the development of G-Series High-Speed Train, China has grown more and more stable, what's more, become more and more famous for "China smart" and the new "Silk Road" connected by G-Series High-Speed Train. The Chinese citizen not only live happily but also conveniently and quickly due to the appearance of G-Series High-Speed Train. It also help strengthen mutually beneficial cooperation with other countries in transport connectivity and offer a better support for the global devilment.

In general, G-Series High-Speed Train plays a significant role in the development of the global transportation.

CONCLUSION

Transportation is a fundamental, pioneering, strategic industry and an important service industry in the national economy.

It is an important support for sustainable development. With the development of G-Series High-Speed Train, China has grown more and more stable, what's more, become more and more famous for "China smart" and the new "Silk Road" connected by G-Series High-Speed Train. The Chinese citizen not only live happily but also conveniently and quickly due to the appearance of G-Series High-Speed Train. It also help strengthen mutually beneficial cooperation with other countries in transport connectivity and offer a better support for the global devilment.

In general, G-Series High-Speed Train plays a significant role in the development of the global transportation.

 ${\it He~Jia},~{\rm undergraduate's~student}$ in the Faculty of Information Technology and Control of BSUIR, $1033513597@{\rm qq.com}$

 ${\it Guo~Qi},~{\rm undergraduate's~student}$ in the Faculty of Information Technology and Control of BSUIR, 2579777859@qq.com

 $\it Ye~Xiaojiao,~$ undergraduate's student in the Faculty of Information Technology and Control of BSUIR, 799382635@qq.com

Trofimovich Alexey, Senior Lecturer of the Information Technologies in Automated Systems Department, trofimaf@bsuir.by.