

China's fasteners play an important role in the global fastener industry. However, in terms of the industry's product type, quality level, technical level, and dedication to resource and the environment, China still has a long way to go to compare with the advanced level of overseas countries. Currently the main situation is that China's fastener production still has the problem of "overcapacity" and "shortage". That is, fasteners below grade 8.8 are supplied more than they are demanded and they are substantially exported, while in the meantime a part of high precision/strength/level fasteners above grade 10.9 must be imported from developed countries and regions. Therefore, China is a big fastener manufacturing country, but not a strong one.

Although China has an enormous amount of fastener capacity, it started later than overseas countries. Global consulting firm PAC Group made a survey and revealed that many developing countries having orders switched posed a challenge to Chinese fastener industry. In recently years a monetary worth of RMB 250 million of orders will flee from China annually. The cause of this situation is the fact that local companies lack core techniques and exclusive capability. Many local companies invest fewer in technology, which leads to weaker R&D of technology, inferior technique, longer lead time, delayed quality upgrade coupled with increased volume, weaker awareness of innovation, insufficient ability of self-innovation, and incomplete corporate structure for innovation.

Currently China's fastener market is getting bigger and bigger, but the frequently occurring incidents related to product quality and environmental pollution have brought an enormous challenge and opportunity to the domestic industry. In this new common situation, the future Chinese fastener industry can only count on quality upgrade and increase of volume to make profits. Therefore, some brandless small scale and technically inferior companies, which live on low price competition by means of offering bad materials and

"Standard" is the Cornerstone of Fastener Technological Innovation

by Feng Chin

skipping materials, will be kicked out of the game of transformation and innovation.

During the 13th 5-year plan of China, and for the next decade, the development of Chinese fastener industry has set 4 goals: (1) Total volume control and improvement of quality and efficiency; (2) Cultivating a group of world famous brands, fostering benchmark companies in every field, and increasing industry concentration; (3) Speeding up product structural adjustment and technical innovation; (4) Realizing initial production system based on the combination of the Internet, robot, and Manufacturing 4.0. High speed rail, wind power, automotive, aerospace and construction industries are the source for the

increase of domestic demand. For example, the automotive industry emphasizes on light weight and new-energy cars, and the aerospace industry emphasizes on material upgrade on high strength fasteners. In 2016 those fasteners will become the focus of development, and I expect the industry to dedicate in turning most of imported products into localized production.

Therefore, technical quality upgrade of fasteners is a critical issue. Product upgrade and substitution require the backup of standards. In terms of fastener materials, the majority of the industry adopts overseas standards, but the level of Chinese domestic standards is less complete than those of the U.S. and Europe. With the products from overseas advanced countries, people are forced to consider making more

sophisticated products. The previous production mode that produces rough products must be altered, and in the meantime standards become the weapon at hand, and then companies guard quality and standards with their life, ensuring the value of products.

It is not an exaggeration to say that the key to becoming a successful company lies in the compliance with standards. Compliance with standards helps companies sell more products. They also make us more scientifically-based and objective to understand the one and only principle of objective matters. This is the ultimate goal of using standards. China's fastener industry must

quickly foster corporate transformation through standardization, and evaluate themselves through standards. As such, they will know the benefits in the near future.

The national fastener standardization technical committee centers on GB/T and other 450 national standards for fasteners. In order to better exert the function of companies, during the formulation of standards the committee takes the lead and formulates standard every 5 to 8 years. Every year General Administration of Quality Supervision, Inspection and Quarantine will publish new fastener standards.

Critical fastener companies should become the forerunners of technical innovation. "Standard" is the cornerstone of fastener technological innovation. In a global perspective, advanced countries and regions have very stringent requirements for mid and high end fasteners. There will always be critical improvements every 7 or 8 years. Therefore, the national fastener standardization technical committee takes the lead and formulates basic standards, and it publishes new standards every year. Many fastener standards have been formulated, amended and published, and will be implemented in 2016. We are excited to witness the bright future of the fastener industry, and it is already visible because the standards of this industry are becoming better formulated.