

Equipment making to spur transformation



Northern province keen to move on from heavy industrial past by embracing new technology

By YUAN SHENGGAO

CRRC Taiyuan, a major railway equipment manufacturer based in North China's Shanxi province, recently announced the trial operation of its 96-head rail grinder on Oct. 23. The announcement shows the company has reached an advanced level in the domestic industrial chain.

The rail grinder is a large-sized rail-borne machine and a crucial piece of equipment for the maintenance of railway lines.

The vehicle made by CRRC Taiyuan is equipped with 96 electric motors and 96 grinding heads. It cost nearly 100 million yuan (\$15 million) in research and development and manufacturing processes, according to Jia Fei, a senior engineer in charge of the project.

He said that after about a month-long trial, the product is expected to be delivered to client by the end of the year.

China uses mostly imported 16-head rail grinders to grind and polish the tracks of the most extensive railway system in the world, according to Jia.

"Compared with the 16-head version, the 96-head machine we produce features a much more powerful



Clockwise from top: CRRC Taiyuan is one of the leading railway maintenance equipment suppliers in China. LI HUIJUN / FOR CHINA DAILY The 96-head rail grinder represents an advanced level in the industry worldwide. GUO JUNHAO / FOR CHINA DAILY A range of railway maintenance machines produced by CRRC Taiyuan are displayed on the company's premises. GUO JUNHAO / FOR CHINA DAILY

performance and much higher efficiency, leading to a longer life cycle of the rails," He said.

With a history of about 120 years, CRRC Taiyuan is one of the leading railway maintenance equipment suppliers in China.

Shi Hongbin, board chairman of

the company, said the 96-head rail grinder and other railway equipment like rail ballast wagons and cement hoppers are cutting-edge products the company developed in recent years based on its improved R&D capability.

In cooperation with the CRRC

Electrical Locomotive Research Institute based in Zhuzhou, Hunan province, the company founded a branch company in Taiyuan in January 2019 for the R&D of rail construction and maintenance machines. The 96-head grinder is the latest product developed by

“CRRC Taiyuan will continuously develop more cutting-edge products and solutions to get onto the higher end of the industrial chain.”

Shi Hongbin, board chairman of CRRC Taiyuan

the branch, according to Shi.

"In addition to large-sized track maintenance equipment, we also offer products and solutions for the maintenance of electrical locomotives and rail-borne vehicles," the executive said.

During the first three quarters of this year, CRRC Taiyuan delivered more than 5,000 units of railway and train maintenance equipment to clients, fulfilling its sales target for the period despite the COVID-19 pandemic.

"As a major player designated by the provincial authorities for Shanxi's recent industrial upgrade and transformation, CRRC Taiyuan will continuously develop more cutting-edge products and solutions to get onto the higher end of the industrial chain," Shi said.

Shanxi is carrying out a huge campaign to shift its coal-reliant economy to one that features diversified sectors and advanced technologies.

Local authorities have pinned hopes on the equipment manufacturing sector to make such a shift possible.

They expect the sector to provide more products, technologies and solutions to upgrade Shanxi's tradi-

tional industries and foster new, emerging ones.

They also hope the equipment made in Shanxi will earn greater recognition across China and in the rest of the world.

The Shanxi Transition and Comprehensive Reform Demonstration Zone, which includes four industrial development areas in Taiyuan and its neighboring Jinzhong city, is the major venue that hosts projects relating to industrial transition.

The Shanxi Construction Equipment Manufacturing Base was one of the first projects to be launched in the zone.

"Construction of the project is underway and it is scheduled to be operational in July 2021," said Zhang Zefeng, an executive of the company in charge of construction.

The facility is expected to produce 1,000 cranes and 1,500 construction hoists annually, among other equipment, Zhang said.

Also in the zone is a smart mining equipment project launched by Datong Coal Mine Group. It is the company's latest move to tap into the emerging equipment manufacturing sector.

Datong Coal Mine Group's latest offering is called the "smart, comprehensive coal-mining system". It includes equipment such as drilling machines, mining machines, conveyors, and monitoring and safety devices, as well as central control units that connect all the devices together, according to Chen Yongxin, an executive of the company.

Chen said Datong Coal Mine's manufacturing facility reported a sales revenue of 1 billion yuan last year, marking a breakthrough in the company's efforts in operational transformation.

Guo Yanjie contributed to this story.



Temples were built in Cangshan to memorialize the story of Cheng Ying and the orphan of Zhao. LIU JINWEI / FOR CHINA DAILY

Exploring Cangshan's historic hiding place

By YUAN SHENGGAO

During the 18th century, renowned French philosopher and author Francois-Marie Voltaire wrote a play called *The Orphan of China* and put it on stage.

The play was based on a real story that took place in Yuxian county in Shanxi province more than 2,600 years ago. Adapted from the popular Chinese opera *The Orphan of Zhao*, it caused great enthusiasm for Chinese culture among French intellectuals at that time.

And the mountain of Cangshan — which literally means the hiding mountain, some 18 kilometers north to the county seat, was the exact place where the orphan had been hidden for 15 years since he was an infant.

According to historical records, Zhao Dun, a high-ranking official in the Jin state during the Spring and Autumn Period (770-476 BC), was killed by his rival Tu'an Gu. Before his death, Zhao entrusted his only son, Zhao Wu, into the care of his close friend Cheng Ying.

Cheng honored his promise by living with the orphan in an secluded cave in Cangshan for 15 years. He successfully protected the child from being found and killed by his enemy until the monarch of Jin redressed the wrong doings against the Zhao family and gave the orphan noble status.

To memorialize Cheng's merit in honoring his promise to his friend, a temple was built near the cave in later years. A temple for Zhao Wu was also built, as he has been recognized

as the ancestor of the Zhao families. The population of his descendants reached more than 26.7 million, according to a 2014 census tally.

The Cangshan area gradually developed into a tourist destination in later centuries, with more than 100 temples built in its vicinity in memory of Cheng and Zhao.

The local performance of *The Orphan of Zhao*, which is presented in storytelling, ballad singing and operas, has been included in the national-level intangible cultural heritage list.

The Cangshan scenic area, with more than 30 ancient buildings including temples, pavilions, towers and opera stages, as well as natural landscapes such as forest-covered mountains, deep valleys, waterfalls, ponds and caves, is a 4A tourist attraction — China's second highest level for tourist attractions.

Many tourists visit the site to connect with its history.

Zhao Ruili, a resident from Taiyuan, recently brought his 13-year-old son to the scenic area.

"Cangshan has played an important role in history as it offered a hiding place to one of the most influential figures," Zhao told his son.

"The descendants of Zhao Wu established the powerful Kingdom of Zhao, which marked the beginning of the Warring States Period (475-221 BC). And the number of his descendants increased steadily in the millenniums to come so that Zhao has become one of the top 10 family names in China," Zhao said.

Li Yali contributed to this story.

Online expo highlights key role of renewable energy

By YUAN SHENGGAO

The 2020 China (Taiyuan) International Energy Industry Expo was held on Oct. 20-22.

This year's expo, hosted by Shanxi province, moved online due to the COVID-19 pandemic.

All the events, including exhibitions, forums, trade talks and agreement signing ceremonies, were held online.

"This year's expo should be the most impressive in its history of eight sessions," said Lu Dongliang, vice-governor of Shanxi province.

"It is an unforgettable event not because it is the only online session but because it is poised to be a long-lasting expo with exhibitions and exchanges continuing for a whole year since today," the official said at the opening ceremony on Oct. 20.

Nearly 140 companies from over 40 countries including the United States, Germany and Japan, as well as 253 domestic companies took part in the event. Agreements for 29 large investment projects were signed, involving 26.7 billion yuan (\$3.98 billion) in total pledged investment, according to expo organizers.

With the slogan of "energy revo-



Officials sign agreements at the expo for 29 large investment projects, involving 26.7 billion yuan (\$3.98 billion) in total pledged investment. HU XUGUANG / FOR CHINA DAILY

lution, international cooperation and green development", this year's event highlighted the renewable energy sector.

Omar Paganini, Uruguay's minister of industry, energy and mining, said at an online forum that Uruguay is willing to share its experience in renewable energy development with China.

The official said Uruguay launched reform in the power sector in 2010 and now 90 percent of the country's electricity comes from renewables.

Delegates to the expo agreed that developing renewables is a trend in the global energy industry and Shanxi's performance in the sector could be felt in the past and current sessions of the expo.

Liu Ke, an expert from Southern University of Science and Technology based in Shenzhen, said he noticed Shanxi's efforts in developing hydrogen and methanol energies.

In August, the provincial capital of Taiyuan began to add hydrogen-fueled vehicles to its fleet of buses.

Chongyang Festival pays homage to ancestors

By YUAN SHENGGAO

On Oct. 25, a grand ceremony was held at the Mausoleum of Emperor Shun in Yuncheng city, Shanxi province, to memorialize one of the legendary ancestors of the Chinese nation.

A leader of the nation some 3,000 years ago, Shun was a role model for ancient Chinese rulers that also included the famed Yellow Emperor and Red Emperor.

According to history books, Shun succeeded Yao — another famed ancient ruler — to the throne at the age of 30. Before that, Shun was recommended to Yao by venerable ministers, and soon impressed Yao with his abilities in managing state affairs. Shun was also known for his quality of moral integrity and filial piety.

Ruling the country for nearly 40 years, Shun died during his inspection trip in a remote southern region of Hunan. His mausoleum was built in Yuncheng and memorial ceremonies have been held on this site every year since the Tang Dynasty (618-907).

The government of Yuncheng



Local students play zeng, a stringed musical instrument, during the Shun cultural festival in Yuncheng. KOU NING / FOR CHINA DAILY

began to hold the Emperor Shun Cultural Festival in 2010, aiming to inspire contemporary generations to inherit Shun's merits.

The celebration also coincides with Chongyang Festival, a celebration held on the ninth day of the ninth lunar month to pay homage to senior family members and ancestors.

Emperor Shun is regarded as the common ancestor of many Chinese families including Sun and Yao.

The ceremony has brought thousands of descendants of Shun to meet in Yuncheng every year.

Sun Decai is the vice-chairman of the Yuncheng Businesspeople Association in Shenzhen. He has

been one of the event's organizers for many years.

"I have been doing business in Shenzhen, Guangdong province, for 16 years. But I would return to Yuncheng every Chongyang Festival to offer sacrifice to my ancestors," Sun said.

Yao Xuemou, vice-chairman of the Yao Families Association, is another organizer of the celebration.

Since 2015, Yao has toured many places in the world, arranging trips for the members of Yao families worldwide to return to Yuncheng for the celebration.

"I once arranged trips for more than 1,200 people," Yao said.

During this year's celebration, a number of role models in Yuncheng were honored for their merits.

Shangguan Weixiao, for instance, was praised as a role model for his volunteer work.

Shangguan and his fellow volunteers opened a restaurant in 2016, which has offered free breakfasts to local city cleaners for about four years.

Li Yali contributed to this story.