# Hardware & Fastener Components - no.54/2022

# HARD JARE ORLD ASE MEN S

compiled by Fastener World

# **Industry Development**

# 俄烏衝突下歐洲鋼鐵價格飆漲22%,中鋼擬跟進 Russia-Ukraine Conflict Spurs Steel Price up 22% and Taiwan CSC Also Intends to up the Price

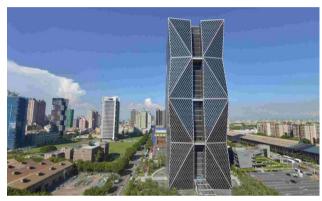
The impact of the Russia-Ukraine war falls on the two major steel manufacturing countries. The European steel price surged 22% to 1,160 euros (USD 1,257) per ton, a new high over the last 8 months. ArcelorMittal and Metinvest Holding, two steelmakers in Ukraine, are forced to stop production because of the war. Ukraine is one of the top 5 steel manufacturing countries exporting to the EU. A halt in Ukraine's supply will further tense up the steel market.

On another note, the Russian steelmakers are also having a difficult time exporting to the EU. After a sanction laid on the Russian metal mogul Alexei Mordashov, his steel company Severstal PJSC stopped sales to Europe which is his largest market for export.

The heightened metal price as a result of the war could bring greater harm to manufacturers and constructors who have been through the record-breaking metal price hike last year. If the rise in energy price leads to further reduction in production from European steelmakers, it will worsen supply to the market.

On Taiwanese domestic wire rod price for O2, Taiwan CSC said it is collecting global intelligence on wire rod price trend. The company will evaluate inventory status across the market, downstream clients' competitiveness, price condition and other factors to mildly raise the price.





中鋼公布2022年第2季盤價 **Taiwan CSC Announces Price Adjustments for Q2 2022** 

On March 15th, Taiwan's China Steel Corporation (CSC) announced the price adjustments for certain steel products for the second quarter of 2022. In terms of certain products related to the fastener industry, the price of wire rod (low carbon/mediumto-high carbon/cold forged/low alloy) has been increased by NT\$2,200 per metric ton and the price of automotive materials has been increased by NT\$ 2,400 per metric ton. The average price adjustment margin for all steel products is about 5.83%.

#### 俄烏衝突可能使今年全球汽車銷量下降2%

# **Russia-Ukraine Conflict Could Bring down Global Automotive** Sales by 2%

Wall Street Journal reports, according to S&P Global, the Russian-Ukraine war worsens the disruption of global supply chain and could make the global sales of light vehicles drop 2%. S&P Global previously predicted the automotive sales of 2022

would grow 4% to 6%. It says the war may affect the European market because Europe relies on supply of materials, natural gas and petroleum.

S&P Global states the price rise will not affect the transition to electric vehicles, and points out the possible shortage of palladium as well as a possible price increase in steel, copper, aluminum and nickel, which bring critical risks to the automotive industry this year.



#### 日本對俄烏鋼鐵螺栓出口恐因當地日系車廠停產受影響

# Japan's Iron and Steel Bolt Export to Russia and Ukraine Could be Affected by Halted Production of Local Japanese Carmakers

On the Russia-Ukraine war, KINSAN Fastener News (Japan) wrote, the pandemic had the world come to a halt and then the war outbreak put the world in a state of uncertainty. KINSAN continued, carmakers decided to raise the price of supplied materials in February and therefore the steel price would continue to rise as it did last year. Additionally, Japan is highly dependent on overseas resources and its industry policies and production is highly subject to external factors, making itself inevitably prone to the political shockwave from the Ukraine crisis.

KINSAN analyzed, Japan's total fastener import from Ukraine and Russia in 2021 was almost none according to Ministry of Finance (Japan), but the total export to Russia exceeded 4,000 tons and the export to Ukraine was under 1 ton. It means Japan's fastener export to Ukraine and Russia accounts for 1% of Japanese fasteners going to the world. Among that 1% are iron and steel bolts taking the largest portion of 3,000 tons. These exported fasteners generally go to the automotive industry, but could be affected by the halted production of local Japanese carmakers due to the war.

Taiwan in comparison exported 15,934 tons of fasteners to Russia in 2021, which accounted for 0.99% of those going to the world, which is also 4 times more than Japan's export to Russia. Taiwan exported 1,780 tons (0.11%) of fasteners to Ukraine, far more than Japan did. In export values, Taiwan exported USD 38.24 million (0.72%) worth of fasteners to Russia and a worth of USD 4.06 million (0.07%) to Ukraine. Although Taiwan and Japan both have 1% in fastener export to Ukraine and Russia, Taiwan has far more volume than Japan does and faces a greater risk



# **Directorate General Of Trade Remedies**

Department Of Commerce New Delhi

# 印度宣布不延長對中線材反傾銷措施 India Forgoes Chinese Wire Rod Anti-dumping Duty Extension

The Indian government has decided to reject the recommendation to impose a definitive anti-dumping duty on imports of wire rod of alloy or non-alloy steel originating in or exported from China. The Directorate General of Trade Remedies (DGTR) previously recommended extending the anti-dumping measures for five further years, Kallanish notes.

"In exercise of the powers conferred by sub-sections (1) and (5) of section 9A of the Customs Tariff Act, read with rules 18 and 23 of the Customs Tariff (Identification, Assessment and Collection of Anti-dumping Duty on Dumped Articles and for Determination of Injury) Rules, 1995, the Central Government, after considering the aforesaid final findings of the designated authority, has decided not to accept the aforesaid recommendations," says India's Finance Ministry.

The products under consideration were bars and rods, hotrolled, in irregularly wound coils of iron or non-alloy steel or alloy steel, commonly known as wire rod. The products are used



#### 台灣對俄三大出口貨品面臨衝擊

# 3 Categories of Taiwanese Merchandise May Bear the Brunt in Sanctions Against Russia

The Russia-Ukraine War is followed by sanctions imposed from the U.S., UK, and the EU. If Taiwan restricts exports to Russia, its top 3 merchandise including information and communication products, machines and basic metal products are likely to be affected. In imports, natural gas, coal, steel, copper and other basic metals may bear the brunt.

According to the export statistics from the Ministry of Finance (Taiwan), Taiwan exported USD 1.02 billion-1.32 billion worth of products to Russia annually in the past 3 years. In terms of export in 2021, Taiwan exported around USD 38.49 billion worth of products to Europe (with Russia accounting for around USD 1.32 billion). By estimate, restrictions on the export to Russia have limited impact on Taiwan's total export.

Regarding the merchandise Taiwan exported to Russia in 2021, information/communication products and audio-video products were the top category accounting for USD 374 million, followed by machines taking the second place at USD 255 million, and basic metals third at USD 178 million which were mainly stainless steel products (USD 41 million) as well as stainless screws and bolts (USD 38 million). In terms of import, Taiwan imported USD 5 billion worth of merchandise from Russia in 2021, 60% of which were natural gas and coal, and 30% of which were basic metals such as steel and copper.



in automotive components, welding electrodes, springs, wire mesh, fasteners, nails, railway sleepers, and binding wires.

DGTR had recommended an anti-dumping rate equal to the difference between the landed value of the imports and \$546/tonne. If the landed value of imports was more than \$546/t, then no duties would be applicable.



#### 泰國終止對中國低碳盤元收反傾銷稅

# Thailand Terminates Anti-dumping Tax on Low Carbon Wire Rods Originated in China

Thailand launched an investigation on January 9 in 2015 on low carbon wire rods originated in China, and then imposed an anti-dumping tax of 12.81%-31.15% starting March 10, 2016. On March 9, 2021, Thailand launched the first sunset review investigation on China's low carbon wire rods with a diameter greater than or equal to 16 mm and less than 0.29% of carbon content. The involved product codes are: 7213.9120.000, 7213.9190.010, 7213.9190.011, 7213.9190.012, 7213.9190.013, 7213.9190.033, 7213.9190.034, 7213.9190.035, 7213.9190.090, 7213.9920.000, 7213.9990.000, 7227.9000.021, 7227.9000.022, 7227.9000.023, 7227.9000.034, 7227.9000.035, 7227.9000.031, 7227.9000.032, 7227.9000.033, 7227.9000.034, 7227.9000.035, 7227.9000.039, 7227.9000.090.



March 11, 2022, Thailand announced the termination of the anti-dumping tax on low carbon wire rods originated in China.

............

#### 印度當地扣件協會建議會員企業勿出口至俄烏

### **Indian Local Fastener Associations Advise Members Not to Export to Russia and Ukraine**

Amid the Russia-Ukraine conflict, Indian fastener associations have advised their members in early March, who are exporters of various goods to both these countries, to halt the shipment of goods until the situation normalizes. Businessmen say there are chances of their payments being held up and there is high risk of their shipments not reaching the destinations.

Rajkumar Singla, president of Fasteners' Suppliers' Association of Ludhiana, said, "We held a meeting of our association and discussed the problems being faced by our industry. We have also decided that our members exporting to Russia and Ukraine must halt the trade till the conflict ends. The decision was taken after analyzing the current situation, which may also hit the cargo movement."



Narinder Bhamra, president of Fasteners' Manufacturers' Association of India, said "The war will cost the exporters doing business with Russia and Ukraine and their neighbouring countries. Already there are reports of payments of several exporters getting stuck with the buyers there, as they have sought more time due to the war. Now with tension escalating, we must refrain from doing business with them. Our association too has advised our members against dispatching new orders till the situation normalizes."

According to Atul Sethi, a fastener manufacturer, "Russia and Ukraine are big markets for us and several factories from Ludhiana export their goods to these countries. But due to the war, it is not safe to do business with them and even with their neighboring countries for which Russia and Ukraine are the transit points. We are following a wait-and-watch approach."

# 渡輪業者損失380萬美金,竟因一支螺栓未拴緊

# Ferry Company Loses USD 3.8 Million for an Insufficiently Torqued Bolt

An engine fire inside the Washington state ferry Wenatchee was caused by an insufficiently torqued bolt, which set off a chain reaction of broken parts and overheating, said a National Transportation Safety Board report released March 15, 2022.

There were no injuries during the incident, which happened on a test sailing after a series of repairs. The 13-member ferry crew extinguished the fire within two to three minutes. However, the fire caused \$3.8 million in damage and kept the Wenatchee out of service for nine months.

The summary report says an oiler discovered white smoke in an engine room while the ferry was cruising at full power. Another crew member near the control panels saw fire, smoke and debris flying everywhere. Afterward, engineers found a large rod and piston strewn on the steel engine-room floor. Investigations found two broken bolts and another unfastened while the engine was running. They were supposed to be torqued to 75 footpounds.



By magnifying the grooves, engineers confirmed the "backed off" or unfastened nut hadn't been tightened enough, which led to other parts misaligning, then a loss of lubricating oil. Hot gases spewed into the engine room and exploded.

Ferry officials have added engine room cameras, and will require secondary inspections of critical engine work including bolts. The Wenatchee returned to service in late January and serves the Bainbridge Island-Seattle route.



# **Companies Development**

MacLean-Fogg發表Threadstrong®車用輪胎扣件系列

# MacLean-Fogg Announces Launch of Threadstrong® Line of Made-In-USA Aftermarket Wheel Fasteners

MacLean-Fogg Component Solutions (MFCS), a leading supplier of original equipment automotive components, announces the launch of the Threadstrong® brand.



"We are well known as the leading OEM supplier in North America for high performance, decorative wheel fasteners. It's always been frustrating to us to see the aftermarket flooded with inferior, low quality and potentially dangerous replacement wheel fasteners of unknown origin. So, we decided to do something about it." Said Brad Southwood, MFCS Vice President of Sales and Marketing.

"No team is more knowledgeable about how to engineer and manufacture safe and durable wheel fasteners than the MacLean-Fogg team. We've been the leading supplier to many of the world's largest automakers for over 40 years. We want the aftermarket consumers to know that when they buy a Threadstrong® wheel fastener, they can trust it was made in the U.S.A to all of the needed safety specifications." Said Rob Whitney, President of the MFCS Fastener Division.

"A lot goes into wheel fasteners that the general consumer probably doesn't think about. Beyond just obvious considerations like material strength, corrosion resistance, and durability, there is a tremendous amount of engineering and quality control that goes into controlling the friction of the fastener's load bearing surface against the wheel. Too much friction and the wheel fastener will torque down while still being loose against the wheel, creating a potentially unsafe condition. Too little friction and the act of torqueing the nut down can overstretch the stud creating a wheel stud failure. Can you trust that the replacement nuts you see online or in retail stores have the proper friction and coatings needed to assure a safe clamp? Our benchmark testing shows significant inconsistencies. What we do know is that Threadstrong® wheel fasteners will be safe to install and will work in the stated application." Said Mark Raves, Director of Wheel Fastener Engineering for MFCS.

Every Threadstrong<sup>®</sup> aftermarket wheel fastener is engineered and built in MFCS factories in Michigan and Illinois. The Threadstrong<sup>®</sup> brand is launching with a limited number of applications in both stainless steel and black appearance with new applications to be added soon.







#### 德國fischer發表全新 FGW 90F氣動緊固工具

# **New fischer FGW 90F Gas-actuated Fastening Tool**

The new fischer FGW 90F fastening tool allows nails to be processed quickly, safely and easily in wood. The gas-actuated fastening tool can set up to three fastenings per second, more than 1,100 fastenings per fuel cell and 8,000 fastenings per battery charge. The FGW 90F thereby makes working in wood economical and efficient.

Be it roofing battens, wood frame construction or facade cladding – wood is a highly popular building material, including in multi-storey residential and commercial construction, not to mention in classic applications such as floor surfacing, decking boards or ceiling cladding. With

various types of wood and wood materials, users require a reliable tool that allows them to cover every kind of application while creating quick and safe fastenings.

The fischer FGW 90F gas-actuated fastening tool fulfils these requirements. With a weight of 3.8 kilogrammes and compact dimensions (390 mm length x 108 mm width x 381 mm height), the tool is comfortable to grip. Users can quickly commence any fastening tasks, as the

pressure loaded magazine can be quickly and easily loaded with up to 60 nails. A safety clip prevents nails from falling out, making it safe to reinsert them. Thanks to the high-grip nose and a setting energy of 90 joules, nails can be set at precisely the right location and in every direction, which also makes overhead installation easy to do.



# Böllhoff 發表電動車電池模組鎖固系統RIVKLE®

# RIVKLE® Solutions for Electric Vehicle Battery Packs

Böllhoff has developed the RIVKLE® Seal Ring range of blind rivet nuts and studs with integrated and captive sealing function for battery pack applications.

The resulting assembly is robust and fluid tight; the entire range meets the most stringent sealing quality requirements (ISO 20653 IPX7) and automotive quality requirements.

In combination with Böllhoff's automatic setting tools, the RIVKLE® solution is optimised in terms of cost and speed of installation, with an unprecedented level of validation of the quality of the implemented product (process control).

This global approach also allows optimal machine availability, thanks to both a high autonomy of the machines (automatic function "2nd try" with replacement of the RIVKLE®) and reduced frequencies and periods of maintenance (optimized TCO).







# Trex<sup>®</sup>萬向扣件安裝工具改善木板安裝和使用壽命 Trex<sup>®</sup> Universal Fastener Installation Tool Improves Deck Installation and Longevity

More than a decade ago, Trex expanded its Hideaway® Hidden Fastening System with the introduction of the Universal Fastener, which can be used with most major competitive deck boards. This product was designed in conjunction with contractor feedback to deliver a fast and easy installation while eliminating the excess waste of carrying several product lines' hidden fasteners. To further help building professionals optimize both cost and time efficiency, Trex has introduced the new Trex® Universal Fastener Installation Tool, an innovative accessory designed to increase application ease and accuracy, while reducing installation time by up to 50%.

Created with both professionals and DIYers in mind, this tool cuts installation time in half by allowing the installer to fully actuate the fastener in one easy step. Utilizing a nose cone to make sure the bit hits the fastener head, as well as a unique drive angle, the installer can now fully tighten each clip while easily sliding the next board into place. Lightweight and durable, the tool also features a rotatable handle that allows for both pushing and pulling from a variety of angles, along with a handy bit holder on the underside.

The new Trex tool delivers a simple installation process that allows for a clean, superior, fastener-free deck surface. The Universal Fastener also makes it faster and easier to replace damaged boards – even those in the middle of a deck – resulting in less time spent on callbacks.



Würth Industry North America繼續成為美國扣件訓練協會2022永續贊助商

# Würth Industry North America Renews Exclusive Partnership with Fastener Training Institute as 2022 Sustaining Sponsor

Würth Industry North America is pleased to announce the renewal of their exclusive partnership with the Fastener Training Institute as their 2022 Sustaining Sponsor. This sponsorship funds existing training programs, develops new industry-leading content, and supports FTI's virtual training platform. The generous support of Würth will be acknowledged throughout the year at FTI classes, webinars, and industry events.

Würth Industry North America has been the Sustaining Sponsor of the Fastener Training Institute since 2019. Embedded in their philosophy and values, Würth believes education and lifelong learning inspire visionary thinking that transforms industries. They deliver on their commitment to supporting education, certification, and professional development through their partnerships with trusted industry education organizations.

"Investing in education is critical to strengthening the fastener industry and fostering innovation—it is a key element of advancing our technologies, improving the ways we serve our customers, and navigating challenging times," said Dan Hill, chief executive officer for Würth Industry North America, "We are proud to invest in the present and future of the fastener industry by partnering with Fastener Training Institute for the fourth consecutive year."

# TR Fastenings發表壓縮控制扣件系列

# **TR Fastenings Launches a Range of Compression Limiters**

As the speed of technology and trends in consumer behaviour accelerates, companies around the world are evolving quickly and TR Fastenings is no exception. TR's latest product launch of Compression Limiters has been developed to meet the growing global demand from multi-sector manufacturers developing products using plastics, particularly in the EV space.



Compression Limiters reduce the stress that's generated by traditional threaded fasteners. Demand has mainly been driven by the automotive sector, and applications in the energy and general industrial sectors where high load bearing plastic components are used and have also contributed to the surge in worldwide demand.

Compression Limiters are used extensively in composites and plastic mouldings as through holes help reduce the stress generated by conventional fasteners. These non-threaded inserts are commonly used in applications where a compressive load is applied to a plastic assembly to prevent the integrity of the plastic being compromised.

These products are used extensively in electric vehicles and the battery housings. As technological advances continue, so does the need to continually develop the primary components that make up an electric vehicle. Newly created giga factories and battery housings manufacturers in Europe, Asia and North America will be looking to include these products in many upcoming automotive research and development projects and with a global presence, TR Fastenings is ideally positioned to meet this demand, whilst also providing technical and design assistance.

TR's experience over the last few years is that many of these are designed in specials and required in high volume. There are a number of different types and as a guide the TR's Compression Limiter range consists of symmetrical, flanged, split seam and oval manufactured from steel, stainless, brass and aluminium.





# 日本Yamahiro公司導入共同開發的物聯網系統 Japanese Yamahiro Adopts Co-developed IoT System

Yamahiro is a construction fastener manufacturer and developer headquartered in Osaka. The company decided to introduce an IoT system to improve productivity. The practical experience they shared can shed a light on the efficacy from upgrading to smart factory and the tasks to heed.

At first they purchased an IoT system worth a million Japanese dollars and tried connecting it to 3 machines, but they were not able to get the specific data they wanted. They thought they had their own technical people, so they headed on to co-develop their own IoT system. They had the technical personnel collect data from machines, and had another person use the Amazon Web Services platform (a cloud-computing platform established by Amazon).

Using IoT, the first change they observed is the ability to measure productivity. By "visualizing data", they discovered they had less than 50% of total machine utilization. Knowing why and for how long the machines had stopped, they were able to improve to 85% and increase productivity by 170%. They used to have 2 shifts till 9 pm. Now they can achieve the same level of productivity on just the 1st shift till 5 pm. Besides shortening work time, they saved electricity bills, shortened 30 minutes from taking inventory, and discovered other unforeseen problems.

The second change is "data sharing". Everyone including the employees and owner with a computer can see the data and give suggestions on the spot. If the owner sees a machine not operating, he will give orders to onsite personnel right away. Therefore, they solved the bottleneck in the fastener heading process.

The third change is "prolonging dies life". They started with dies requiring frequent changes, and were able to go from one hour a time to ten hours a time for changing the dies, saving work time.

Right now their most critical task is to cultivate analytic talents. It is very time-consuming to analyze data; and therefore, requires experienced people to take charge. The other task is to reduce errors by onsite personnel who collect and input machine data which also requires management by a dedicated person. Their next step is to apply IoT to threading, forming and packaging to save labor and freights, through which they can form a distribution unit in the company to maintain profit margin and tackle the challenges from the pandemic. The workforce saved from the production line can be assigned to the work with higher added values.



After Sanko Techno launched sales of its expansion anchors back in October 2020, customers had hoped for an expansion anchor that can be used in tunnel construction. Therefore, the company developed "Smart Expansion Anchor". With a shorter embedding length, the new anchor expands and cuts the wall as it is drilled into the hole with a small hammer drill, so the operator can quickly complete the work even when the anchor is drilled upwards. Using anti-loosening nut with the anchor can prevent deterioration in the gap between the anchor and the hole.

"Smart Expansion Anchor" is available in 3 sizes including M8, M10 and M12, and in two material types including steel and stainless steel. It launched sales on March 1, and is expected to bring a total revenue of JPY 15 million this year.



# 日本Toneji推出T-LSB木鋼混合結構建築用扣件 Japanese Toneji Rolls out T-SLB Fasteners for Wood-steel Hybrid Buildings

T-LSB (Lug Screw Bolt) is a type of fastener for fastening steel plates and cross-laminated timber (CLT). It is designed to simplify construction process and reduce costs, delivering great performance on wood-steel hybrid buildings.

The features of T-LSB are:

- Unlike the previous type of LSB fastener, T-LSB doesn't include a hexagonal head and doesn't require counterboring the wood.
- Without counterboring, there is no need to fill in epoxy
- The operator can use designated bolts to drive in with
- Simplified construction process, shortened work time.



# **Mergers & Acquisitions**









Birmingham Fastener宣布 併購K-T Bolt

# Birmingham Fastener Announces K-T Bolt Acquisition

Birmingham Fastener is excited to announce the acquisition of K-T Bolt Manufacturing, Inc. based in Katy, Texas. With over 100 years of combined fastener production, this acquisition strengthens Birmingham Fastener's product offering and manufacturing diversity. Most importantly, it allows it to add teammates to its world-class staff and will yield long-term benefits for its customers. In doing this, the level of service it can offer to its customers will be increased.

K-T Bolt Manufacturing provides custom fabrication, closed-die forging, in-house heat treating, and electropolishing. With this partnership, Birmingham Fastener and its sister companies can expand product and service offerings to its customers. Randy Peck will stay on as President of K-T Bolt and join the leadership team at Birmingham fastener, offering his expertise in the field.

"The future of our company is now and always will be about growth and productive changes. At the same time, we must hold fast to our core values like world-class service, accountability, and a commitment to excellence that we've had since my father founded this company in 1980" says Brad Tinney, President and CEO of Birmingham Fastener. "This partnership allows us to further expand our footprint and strengthen our commitment to American fastener manufacturing."

# 日本日東精工取得KM精工株式會社所有股權

# **Japanese Nitto Seiko Acquires All Shares of KM Seiko**

A professional public manufacturer of auto screw driving machines, Nitto Seiko signed an agreement with KM Seiko to acquire all shares of KM Seiko. With a revenue of JPY 3.2 billion, KM Seiko designs, manufactures and sells bolts, nuts, cold headed and cold formed parts to the automotive and construction industries in Japan and overseas. After the share transfer, KM Seiko becomes a subsidiary under Nitto Seiko.

Nitto Seiko signed a share transfer agreement with KM Seiko as part of the "NITTOSEIKO Mission "G" tactic, expecting to utilize respective distribution routes, product development and production to create a synergy and provide automotive and construction customers with solutions.

