Editorial

2023年[,]您的起手式在何處?

Where is Your Starting Point in

2023 is a year when fastener, hand tool, and hardware parts manufacturers are going full steam ahead. International trade shows are blooming all over the world, and there are reports of returning exhibitors. Fastener World even observed reappearance of Indian, Taiwanese and Chinese exhibitors at the European and American trade shows since last year, which denotes fierce competition among them. This phenomena shows that the world is glad to see full reopening of the European and American markets, and is optimistic about the huge business opportunities after the reopening. In addition, as China faces unprecedented political changes and a huge economic bottleneck in 2022, many buyers in Europe and the U.S. will not only strengthen their own production capabilities, but also prefer to purchase from Asia, which has competitive prices and stable supply capabilities. This also brings business growth opportunities for Taiwan and even Asian suppliers in 2023.

In light of this, this editorial will be divided into three topics: fastening tools, parts, and screws, and will guide readers to understand: (1) the export market size of Taiwan's fastening tools; (2) the demand scale of global fastening tools; (3) growth opportunities of the parts and fastening tools industry; and (4) the current situation and outlook of the fastening tools industry. In this way, readers from all over the world will be able to understand the current situation in Taiwan and the global trend.

The Fastening Tools Industry in Taiwan's and Global Perspective

The Customs codes for fastening tools in Taiwan include "820411 - Non-adjustable manual spanners & wrenches" (**Table 1**), "820412 - Adjustable manual spanners & wrenches" (**Table 2**), "820420 – Socket wrenches" (**Table 3**), "820540 - Screwdrivers" (**Table 4**), and "820790 - Bits and tapping tools" (**Table 5**). The total export value of Taiwan fastening tools to the world for these five customs codes increased by 4.5% from US\$1.03 billion in 2021 to US\$1.076 billion in 2022. Among them, except for Taiwan's "820790- Bits and tapping tools" (**Table 5**), which showed a slight decrease of 5% in the global export value in 2022, all the other fastening tool products showed growth. In addition, we also found from the pre-pandemic 2019 to the post-pandemic 2022, the export value of Taiwan fastening tools to the world was growing steadily every year.

The statistics reveal that Taiwan fastening tool industry has maintained its growth momentum in the face of global changes in economy, politics, and health care over the past four years, and it is a strong and resilient industry. With the overseas demand for DIY, construction, auto repair, shipbuilding, and passenger aircraft assembly expected to continue to increase this year, Taiwan's fastening tool export to the world should be able to maintain growth momentum in 2023. From **Tables 1** to **5**, it can be observed that the U.S., Germany and China are the top three destinations for Taiwan's fastening tools. In 2022, the Chinese market tightened significantly due to intense domestic surveillance, resulting in a significant negative growth in the export value of Taiwan fastening tools to China.

From a broader perspective, according to Industry Research, the global market scale for fastening power tools could reach US\$995 million in 2022 and grow at a compound annual growth rate of 3.7% to US\$1.24 billion by 2028. In the backdrop of continuing growth in the fastening tool market, a wrench manufacturer in Taiwan has taken advantage of business opportunities from this year's trade shows to promote products to overseas readers early in the first quarter of 2023, by appearing in the pre-show promotion feature in this magazine. Read our report on Kang Tai Industrial for more detail.

Taiwan mainly provides small-quantity, diverse and customized hand tools. Although the number of Taiwanese hand tool companies listed on Taiwan Stock Exchange is fewer than that of fastener companies, a noteworthy case story that successfully made it into Taiwan Stock Exchange is Eclatorq Technology, which is a joint venture co-invested by 11 industry-leading hand tool manufacturers from Taiwan on ITRI's invitation. The company has integrated AI, AR/VR, Big Data, and IoT into hand tools, and by forming a group, they have completed industrial transformation and upgrade, raising product value and profit.

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Table 1: Taiwan's "820411 - Non-adjustable Manual Spanners & Wrenches" Exports to the World (US\$)	Rank	Destination	2019	2020	2021	2022	2022 YoY Growth
		World	186,105,470	173,069,760	218,971,362	248,327,886	13.41%
	1	U.S.A	64,662,862	59,771,918	73,632,510	95,834,401	30.15%
	2	Germany	15,092,697	14,994,335	18,587,964	21,417,869	15.22%
	3	China	4,073,735	10,672,076	15,824,738	16,171,532	2.19%
Table 2: Taiwan's "820412- Adjustable Manual Spanners & Wrenches" Export to the World (US\$)	Rank	Destination	2019	2020	2021	2022	2022 YoY Growth
		World	100,075,075	101,588,499	125,281,158	133,993,268	6.95%
	1	U.S.A	30,767,990	36,629,618	43,400,898	49,545,707	14.16%
	2	China	6,549,246	8,576,650	11,860,696	8,634,702	-27.20%
	3	Australia	4,302,315	4,523,387	6,287,858	6,655,864	5.85%
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	Rank	Destination	2019	2020	2021	2022	2022 YoY Growth
Table 3: Taiwan's "820420 - Socket Wrenches" Export to the World (US\$)		World	364,342,036	343,068,376	462,628,925	467,668,894	1.09%
	1	U.S.A	148,561,113	158,108,524	218,667,988	222,591,134	1.79%
	2	China	42,200,364	41,669,900	50,305,032	42,617,237	-15.28%
	3	Germany	19,146,291	18,323,675	22,986,981	21,341,349	-7.16%
	Deals	Destination	2019	2020	2021	2022	2022 YoY Growth
Table 4: Taiwan's "820540- Screwdriver" Export to the World (US\$)	Rank	Destination					
		World	76,171,000	78,367,182	101,703,594	111,962,433	10.09%
	1	U.S.A	36,641,441	44,550,343	58,521,952	72,650,058	24.14%
	2	Japan	3,262,164	3,179,571	3,432,288	3,382,704	-1.44%
	3	China	3,184,021	3,448,303	3,530,694	3,195,959	-9.48%
Table 5: Taiwan's "820790 - Bits and Tapping Tools" Export to	Rank	Destination	2019	2020	2021	2022	2022 YoY Growth
		World	102,961,472	104,561,139	121,534,559	114,768,320	-5.57%
	1	U.S.A	32,902,922	37,891,625	46,810,146	42,860,272	-8.44%
Tapping Tools" Export to the World (US\$)	2	China	11,484,786	11,978,332	15,488,568	9,997,258	-35.45%

The Fastening Tool Industry in the Trend of Environmental Protection

In recent years, the global environmental awareness has been increasing, and Taiwan's hand tool companies, mainly OEMs, are naturally facing the pressure of carbon reduction and rising material costs from overseas customers. Compared with Taiwan, many other countries move faster and have started to save energy and reduce carbon as early as more than a decade ago, and we can reference the practices of overseas manufacturers. For example, the German plier manufacturer KNIPEX Group have invested heavily in heat recycling technology and intelligent energy measurement and control technology since 2009, to recycle the heat generated during the material annealing process and inject it into their own heating system, with a recycling rate of 10%.

In addition to using recycled materials to produce products, Stanley Black & Decker, a major public company, invested in additive manufacturing technology in February 2022 and purchased the first metal additive manufacturing machine, also known as a 3D printer, which is an industry innovation.

Snap-On, another major public company, has invested in AI algorithms to reduce the use of packaging materials and reduce carbon emission. They use a "carton management system" to measure the size of boxes, assign them to the appropriate packing stations, and then replenish them as they are used. They have six packing stations and three carton racks for various sizes of boxes, all of which are prescheduled through AI that analyzes historical orders.

Whether you choose to reduce carbon emission on a fastening tool product (direct approach), or on the manufacturing process (indirect approach), by pairing with a digital analysis system, this intelligent upgrade can reduce production costs and increase profit margins, and get a big slice of the market in the current overseas trend of environmental protection. Especially in Europe where environmental awareness is the strongest, your carbon reduction can create quid pro quo with European buyers and you will get their attention first!

Growth Opportunities for Automotive Parts and Fastening Tools:

Demand for Vehicle Maintenance

The global market is still short of chips and new cars, and coupled with inflation, consumers are turning to buying used cars or extending the use of old cars they currently own. This means the demand for repair of vehicle parts will increase, which in turn will drive the sales momentum of vehicle fasteners and fastening tools.

Market research firm ReportLinker released a report indicating that the global automotive repair market will grow from US\$750.8 billion in 2021 to US\$836.2 billion in 2022 at a compound annual growth rate of 11.4%. This phenomenon is due to the fact that the pandemic has led many companies to restructure and adopt innovative business models and successfully shake off the impact of the pandemic. The company forecasts that the automotive repair market will grow at a rate of 10.3% to reach US\$1,237.4 billion by 2026. The future vehicle repair demand is worth the attention!

Fastener Market Battleground

Cost, Profit, Transformation

In 2022, Taiwan's fastener export to the world grew by a whopping 15% to US\$6.14 billion, surpassing US\$4.31 billion in 2019 before the pandemic. In other words, the gap in growth between the world's market reopening and the pre-pandemic period was large at 42%. In addition, the weight of fasteners exported from Taiwan to the world only decreased by 0.2% during this period, which is nearly zero decline. Instead of getting beaten down by the virus, Taiwan's fastener industry rebounded higher and it is as resilient as the fastening tool industry. Seeing that Taiwan's fastener export weight remained flat while the export value increased significantly, some analysts said it was because the pandemic pushed some Taiwanese companies to start increasing production of more high-end and high-profit products. This phenomenon is inter-related with the global trend.

With inflation still lingering, buyers in many countries are seeking lower prices for the same quality to gain price competitiveness. Not only Taiwan suppliers are experiencing this, so are those in other countries. In addition, after the EU announced the carbon tax will be officially implemented in 2026, many manufacturers selling to Europe are speeding up their response. In the face of cost pressure and the future challenge of carbon tax, some Taiwanese manufacturers are calling for the industry to reduce cost, lift profit margin, and accelerate transformation. The faster ones will get a bigger share of the pie in this era of great change. This could also be reference for global suppliers.

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Values of Fasteners Exported from Taiwan to the World (USD)									
Target	2019	2020	2021	2022	2022 YoY Growth				
World	4,316,380,032	3,969,114,428	5,319,398,407	6,142,147,996	15.47%				
Weights of Fasteners Exported from Taiwan to the World (KG)									
Target	2019	2020	2021	2022	2022 YoY Growth				
World	1,479,292,223	1,363,249,857	1,610,697,606	1,607,447,733	-0.20%				

Q1 2013 is the Critical Starting Point

Before the 1970s, Taiwan was still producing low quality fasteners. The demand for military screws for the U.S. Army in Vietnam War brought the birth of a group of first-generation screw factories. In 2003, China replaced Taiwan as the world's largest fastener exporter, and the fastener industry in Taiwan began to transform and upgrade.

From 2008 to 2010, the U.S. quantitative easing in response to the financial crisis was in favor of the export of fasteners from Taiwan, and the fastener supply chain in Taiwan played its part and achieved record growth of nearly 50% in export weight and nearly 60% in export value. Next, Taiwanese companies are already anticipating for another quantitative easing in the U.S. in 2023~2024, which should bring benefits to Taiwan's export.

From the financial crisis and the pandemic, we can observe that the fastener supply chain in Taiwan can neutralize economic impact or even form a V-shaped growth track. Rather than agonizing about when the economy will recover, Taiwan fastener manufacturers should focus on technological transformation and upgrade, and seek collaboration with others inside and outside of the fastener industry. They should try to trigger neutralization and V-shaped growth within their own enterprises or in the whole fastener industry as guickly as possible.

Combining domestic and overseas perspectives, Fastener World observed a consensus that the global market is expected to fully recover in the second quarter of this vear at the earliest. However, Taiwanese manufacturers are not going to wait and they are already locked on Q1 to go overseas for purchase orders and hopefully will be able to ship out products in time. Their first starting point is Fastener Fair Global with the participation of many Taiwanese and other overseas exhibitors. Companies outside of Taiwan have made their moves earlier by deploying overseas when the lockdown was lifted last year. Instead of longing for a quick return of recovery, the best move is to seize the current opportunity early!



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