

# 2022 Global Automobile



Automobile production is one of the reference indicators for evaluating market development momentum, and it is also an important basis for predicting future demand for automotive fasteners and components. In addition, in recent years, the research and development focus of the world's major automakers has gradually moved towards electrification and modularization, which has led to changes in the market's demand for fasteners and demand types. This has also made many fastener manufacturers who focus on the development of automotive fasteners start to seriously think about whether the advent of the electric vehicle era will completely rewrite the layout of the fastener industry. In the following, the author will lead readers to have a glimpse of the current status and future of the automotive industry from the total output of automobiles in major countries around the world and the changes and growth in the output of various mainstream models (including passenger cars, light commercial vehicles, heavy trucks and heavy buses) in each country.

## Production and Model Comparison



by Gang Hao Chang, Vice Editor-in-Chief of Fastener World

### Comprehensive Output

First of all, judging from the latest data released by the International Organization of Motor Vehicle Manufacturers, OICA (see **Table 1**), **global automobile production seems to have maintained a steady growth in the past three years despite the impact of major environmental factors such as the epidemic. From approximately 77.65 million vehicles in 2020, approximately 80.2 million vehicles in 2021, and a substantial increase to approximately 85.01 million vehicles in 2022, an increase of 6% year-on-year.** Analyzed by continent, the automobile production in the Asia-Pacific region ranks first in the world, reaching 50.02 million vehicles in 2022, followed by the Americas with 17.75 million vehicles, and Europe with 16.21 million vehicles. The total production of Europe, America and Asia alone accounts for more than 98% of the world. In the African region, due to the small scale of the automobile manufacturing industry, it only maintains about 1 million vehicles per year.

**The top five auto-producing countries in the Asia-Pacific region are: China, Japan, India, South Korea, and Thailand.** China's record of 27 million vehicles accounts for more than half of the region's share and is growing every year. Japan's sound automobile manufacturing chain will continue to keep it in second place, reaching nearly 8 million vehicles in 2022. It is worth noting that in 2020, South Korea briefly surpassed India to become the third largest automobile producer in the region, but it was overtaken by India to rank fourth in the following two years. India currently ranks third with approximately 5.45 million vehicles. South Korea's production scale is roughly maintained at

around 3.5-4 million vehicles. Thailand's production also shows that it is picking up year by year, reaching 1.88 million in 2022. If the market economy gradually improves, it is expected to return to the level of 2 million in 2023.

**The top five producing countries in the Americas are, in that order: the United States, Mexico, Brazil, Canada, and Argentina.** The United States accounted for more than 56% of the total production in the Americas, amounting to 10.06 million vehicles. Mexico, which ranks second, also has 3.5 million vehicles, and Brazil also has 2.37 million vehicles. It can be observed that the focus of car production in North America is still dominated by the United States and Mexico, and Brazil's position in car manufacturing in South America remains unshakable. The data also shows that compared with 2021, the automobile production in the United States, Mexico and Canada has a significant growth of about 10%. Regardless of whether it is North America or South America, its automobile production has shown a trend of increase year by year in the past three years. Originally, the Americas region was the third largest automobile production region in the world, but it successfully overtook Europe to be promoted to second place last year.

**The top five producing countries in Europe (including the UK) are: Germany, Spain, France, Czech Republic**



Table 1. World Motor Vehicle Production By Country/Region

All Vehicles	Units	2019	2020	2021	2022	Variation 2022/2019	Variation 2022/2020	Variation 2022/2021
<b>Europe</b>		<b>21,531,339</b>	<b>16,904,429</b>	<b>16,338,165</b>	<b>16,216,888</b>			
<b>European Union 27 Countries + UK</b>		<b>17,978,353</b>	<b>13,781,659</b>	<b>13,129,583</b>	<b>13,801,210</b>	<b>-23%</b>	<b>0%</b>	<b>5%</b>
Germany, Cars and LCV Only		4,947,316	3,742,570	3,308,692	3,677,820	-26%	-2%	11%
Spain		2,822,632	2,268,185	2,098,133	2,219,462	-21%	-2%	6%
France, Cars and LCV Only		2,172,515	1,315,997	1,352,226	1,383,173	-36%	5%	2%
Czech Republic		1,433,961	1,159,151	1,111,432	1,224,456	-15%	6%	10%
Slovakia		1,107,902	990,598	1,030,000	1,000,000	-10%	1%	-3%
United Kingdom		1,381,405	987,044	932,488	876,614	-37%	-11%	-6%
Italy		915,291	777,057	797,243	796,394	-13%	3%	0%
Romania		490,412	438,107	420,755	509,465	4%	16%	21%
Poland		649,864	451,382	439,421	483,840	-26%	7%	10%
Hungary		498,158	406,497	416,725	441,729	-11%	9%	6%
Portugal		345,688	264,236	289,954	322,404	-7%	22%	11%
Belgium		285,797	267,293	261,038	276,554	-3%	4%	6%
Sweden, Yearly Only		279,000	249,000	258,023	238,955	-14%	-4%	-7%
Austria		179,400	125,000	136,700	107,500	-40%	-14%	-21%
Netherlands, Yearly Only		176,113	127,058	107,021	101,670	-42%	-20%	-5%
Finland, Cars Only		114,785	86,270	85,934	73,044	-36%	-15%	-15%
Slovenia		199,114	141,714	95,797	68,130	-66%	-52%	-29%
Serbia		35,120	23,375	21,263	4,498	-87%	-81%	-79%
<b>CIS (Excluding Belarus)</b>		<b>2,056,631</b>	<b>1,801,527</b>	<b>1,911,188</b>	<b>1,058,532</b>	<b>-49%</b>	<b>-41%</b>	<b>-45%</b>
Belarus		30,494	31,273	29,891	N/A			
Russia		1,720,487	1,435,551	1,567,007	608,460	-65%	-58%	-61%
Uzbekistan		277,967	284,885	242,104	333,569	20%	17%	38%
Kazakhstan		49,400	74,831	92,417	112,540	128%	50%	22%
Azerbaijan		2,523	2,058	2,318	2,473	-2%	20%	7%
Ukraine		7,266	4,951	8,153	1,490	-80%	-70%	-82%
<b>Turkey</b>		<b>1,461,244</b>	<b>1,297,878</b>	<b>1,276,140</b>	<b>1,352,648</b>	<b>-7%</b>	<b>4%</b>	<b>6%</b>
<b>America</b>		<b>20,160,401</b>	<b>15,692,927</b>	<b>16,190,835</b>	<b>17,756,263</b>	<b>-12%</b>	<b>13%</b>	<b>10%</b>
NAFTA		16,822,606	13,374,404	13,467,065	14,798,146	-12%	11%	10%
USA		10,892,884	8,821,026	9,157,205	10,060,339	-8%	14%	10%
Mexico		4,013,137	3,177,251	3,194,858	3,509,072	-13%	10%	10%
Canada		1,916,585	1,376,127	1,115,002	1,228,735	-36%	-11%	10%
South America		3,337,795	2,318,523	2,723,770	2,958,117	-11%	28%	9%
Brazil		2,944,988	2,014,055	2,248,253	2,369,769	-20%	18%	5%
Argentina, Cars and LCV Only		314,787	257,187	434,753	536,893	71%	109%	24%
Colombia		78,020	47,281	40,764	51,455	-34%	9%	26%
<b>Asia-Oceania</b>		<b>49,333,841</b>	<b>44,276,549</b>	<b>46,768,800</b>	<b>50,020,793</b>	<b>1%</b>	<b>13%</b>	<b>7%</b>
China		25,750,650	25,225,242	26,121,712	27,020,615	5%	7%	3%
Japan		9,684,507	8,067,943	7,836,908	7,835,519	-19%	-3%	0%
India		4,524,366	3,381,819	4,399,112	5,456,857	21%	61%	24%
South Korea		3,950,614	3,506,774	3,462,404	3,757,049	-5%	7%	9%
Thailand		2,013,710	1,427,074	1,685,705	1,883,515	-7%	32%	12%
Indonesia		1,286,848	690,176	1,121,967	1,470,146	14%	113%	31%
Iran, Yearly Only		821,060	880,997	894,298	1,064,215	30%	21%	19%
Malaysia		571,632	485,186	481,651	702,275	23%	45%	46%
Taiwan		251,304	245,615	265,320	261,263	4%	6%	-2%
Pakistan		186,751	117,375	238,702	235,454	26%	101%	-1%
Vietnam, Yearly Only		176,203	165,568	167,799	232,410	32%	40%	39%
Philippines, Yearly Only		95,094	67,297	85,874	92,223	-3%	37%	7%
Australia, Yearly Only		5,606	4,730	5,391	6,077	8%	29%	13%
Myanmar, Yearly Only		15,496	10,753	1,957	3,175	-80%	-71%	62%
<b>Africa (Excluding Egypt)</b>		<b>1,095,151</b>	<b>776,247</b>	<b>907,302</b>	<b>1,022,783</b>	<b>-7%</b>	<b>32%</b>	<b>13%</b>
Egypt, Yearly Only		18,500	23,754	N/A	N/A			
South Africa		631,921	447,213	499,087	555,889	-12%	24%	11%
Morocco		403,218	328,280	403,007	464,864	15%	42%	15%
Algeria		60,012	754	5,208	2,773	-95%	268%	-47%
<b>Total</b>		<b>92,120,732</b>	<b>77,650,152</b>	<b>80,205,102</b>	<b>85,016,728</b>	<b>-8%</b>	<b>10%</b>	<b>6%</b>

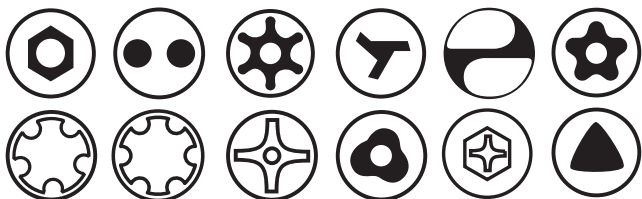
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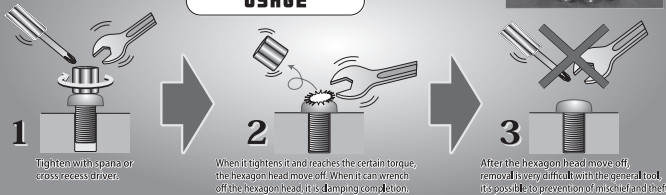
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and Slovenia. Germany, which ranks first, had 3.67 million vehicles in 2022. Although it is lower than 2020, it is still higher than 2021. Spain, which ranks second, also had more than 2 million vehicles in 2022. France, the Czech Republic and Slovenia also roughly maintained the level of 1 million vehicles. Except for several typical automobile production countries in Western Europe, it can be seen that the development of the automobile manufacturing industry in Central and Eastern Europe can be described as blooming everywhere, and there is a trend of gradually catching up from behind. For car manufacturers, the Czech Republic, Slovakia, Romania, Poland, Hungary and Portugal are all attractive investments. Especially in Romania, Poland and Portugal, their performance in 2022 increased by 21%, 10% and 11% respectively compared to 2021. In addition, if Turkey is also counted in Europe, there is also a production scale of about 1.3 million vehicles, which can also set off a certain influence in the European auto supply chain.

The main producing countries in Russia and Central Asia are: Russia, Uzbekistan, Kazakhstan, Belarus and Ukraine. In the past, Russia's average annual production volume was about 1.5 million vehicles, which shrank sharply to 608,000 vehicles in 2022, which may be related to the factors of international economic sanctions and the embargo of raw materials from Western countries. On the contrary, although the production scale of Uzbekistan and Kazakhstan is not large compared with other countries, the production in 2022 showed a significant growth of 38% and 22% respectively compared with 2021. The automobile industries in Belarus, Ukraine, and Azerbaijan are relatively underdeveloped in terms of data, with only a few thousand or tens of thousands of vehicles.

On the whole, if you don't look at the African part (too small), the car production in the Americas has the most significant growth year-on-year, reaching 10%. The Asia-Pacific region followed closely behind, also growing by 7%. The European region is roughly the same as in 2021, with only a slight decrease of 1% (if you only look at the part of the EU 27 + the United Kingdom, there will also be a 5% growth).

### Passenger Cars

Passenger cars are the mainstream purchases of general car consumers, and global passenger car production has grown year by year in the past three years. Passenger car production in 2022 increased by 8% compared to 2021 to approximately 61.59 million units, accounting for more than 72% of the total global car production. It can be seen that **passenger cars are still the largest type of automobile production** (see Table 2).

Benefiting from the demographic dividend in the region, about 68% of the passenger car production in the Asia-Pacific region reached 42.32 million units, accounting for 84% of the total automobile production in the Asia-Pacific region. Passenger vehicle production in the Asia-Pacific region is highly concentrated in China, Japan, India, South Korea and Indonesia, with 23.83 million, 6.56 million, 4.43 million, 3.43 million and 1.21 million vehicles respectively. In 2022, except for Japan, which experienced a 1% decline, the other five countries had a growth rate of more than 10% compared to 2021, especially Indonesia's 37% growth rate is the most obvious.





Table 2. World Passenger Cars Production By Country/Region

Passenger Cars	Units	2019	2020	2021	2022	Variation 2022/2019	Variation 2022/2020	Variation 2022/2021
<b>Europe</b>		<b>18,700,957</b>	<b>14,534,879</b>	<b>13,822,390</b>	<b>13,725,107</b>	<b>-27%</b>	<b>-6%</b>	<b>-1%</b>
<b>European Union 27 Countries + UK</b>		<b>15,835,919</b>	<b>12,045,025</b>	<b>11,338,938</b>	<b>12,025,961</b>	<b>-24%</b>	<b>-0.2%</b>	<b>6%</b>
Germany		4,663,749	3,515,488	3,096,165	3,480,357	-25%	-1%	12%
Spain		2,248,291	1,800,664	1,662,174	1,785,432	-21%	-1%	7%
Czech Republic		1,427,563	1,152,901	1,105,223	1,217,787	-15%	6%	10%
France		1,662,963	927,344	918,825	1,010,466	-39%	9%	10%
Slovakia		1,107,902	990,598	1,030,000	1,000,000	-10%	1%	-3%
United Kingdom		1,303,135	920,928	859,575	775,014	-41%	-16%	-10%
Romania		490,412	438,107	420,755	509,465	4%	16%	21%
Italy		542,472	451,718	443,819	473,194	-13%	5%	7%
Hungary		498,158	406,497	416,725	441,729	-11%	9%	6%
Portugal		282,142	211,281	229,221	256,018	-9%	21%	12%
Poland		434,700	278,900	260,800	255,100	-41%	-9%	-2%
Sweden		279,000	249,000	258,023	238,955	-14%	-4%	-7%
Belgium		247,020	237,057	224,180	232,100	-6%	-2%	4%
Austria		158,400	109,500	124,700	107,500	-32%	-2%	-14%
Netherlands		176,113	127,058	107,021	101,670	-42%	-20%	-5%
Finland		114,785	86,270	85,934	73,044	-36%	-15%	-15%
Slovenia		199,114	141,714	95,797	68,130	-66%	-52%	-29%
Serbia		34,985	23,272	21,109	4,358	-88%	-81%	-79%
<b>CIS</b>		<b>1,847,411</b>	<b>1,611,539</b>	<b>1,679,508</b>	<b>883,899</b>	<b>-52%</b>	<b>-45%</b>	<b>-47%</b>
Belarus		20,427	21,295	29,891	N/A	-	-	-
Russia		1,523,607	1,260,518	1,352,740	448,897	-71%	-64%	-67%
Uzbekistan		271,113	280,080	236,668	328,118	21%	17%	39%
Kazakhstan		44,077	64,790	80,679	103,345	135%	60%	28%
Azerbaijan		2,360	1,949	2,079	2,049	-13%	5%	-1%
Ukraine		6,254	4,202	7,342	1,490	-76%	-65%	-80%
<b>Turkey</b>		<b>982,642</b>	<b>855,043</b>	<b>782,835</b>	<b>810,889</b>	<b>-18%</b>	<b>-5%</b>	<b>4%</b>
<b>America</b>		<b>7,004,767</b>	<b>4,967,015</b>	<b>4,491,915</b>	<b>4,832,901</b>	<b>-31%</b>	<b>-3%</b>	<b>8%</b>
<b>NAFTA</b>		<b>4,369,893</b>	<b>3,219,558</b>	<b>2,559,194</b>	<b>2,699,108</b>	<b>-38%</b>	<b>-16%</b>	<b>6%</b>
USA		2,511,711	1,924,398	1,562,717	1,751,736	-30%	-9%	12%
Mexico		1,396,812	967,479	708,242	658,001	-53%	-32%	-7%
Canada		461,370	327,681	288,235	289,371	-37%	-12%	0%
<b>South America</b>		<b>2,634,874</b>	<b>1,747,457</b>	<b>1,932,721</b>	<b>2,133,793</b>	<b>-19%</b>	<b>22%</b>	<b>10%</b>
Brazil		2,448,490	1,607,175	1,707,851	1,824,833	-26%	14%	7%
Argentina		108,364	93,001	184,106	257,505	138%	177%	40%
Colombia		78,020	47,281	40,764	51,455	-34%	9%	26%
<b>Asia-Oceania</b>		<b>40,650,626</b>	<b>35,822,949</b>	<b>38,188,956</b>	<b>42,324,447</b>	<b>4%</b>	<b>18%</b>	<b>11%</b>
China		21,389,833	19,994,081	21,444,743	23,836,083	11%	19%	11%
Japan		8,329,130	6,960,411	6,619,245	6,566,356	-21%	-6%	-1%
India		3,629,008	2,836,534	3,631,095	4,439,039	22%	57%	22%
South Korea		3,612,587	3,211,706	3,162,727	3,438,355	-5%	7%	9%
Indonesia		1,045,666	551,426	889,756	1,214,250	16%	120%	37%
Iran, Yearly Only		770,000	826,210	838,251	997,519	30%	21%	19%
Malaysia		534,115	457,755	446,431	650,190	22%	42%	46%
Thailand		795,254	537,633	594,690	594,057	-25%	11%	0%
Taiwan		189,549	180,967	196,749	191,409	1%	6%	-3%
Pakistan		156,623	95,504	193,991	190,555	22%	100%	-2%
Vietnam, Yearly Only		129,006	125,235	123,482	162,491	26%	30%	32%
Philippines		57,238	37,141	46,278	41,663	-27%	12%	-10%
Myanmar, Yearly Only		12,617	8,346	1,519	2,480	-80%	-70%	63%
Australia		0	0	0	0	-	-	-
<b>Africa</b>		<b>777,220</b>	<b>538,723</b>	<b>582,814</b>	<b>716,195</b>	<b>-8%</b>	<b>33%</b>	<b>23%</b>
Egypt, Yearly Only		18,500	23,754	N/A	N/A	-	-	-
Morocco		368,543	299,753	338,339	404,742	10%	35%	20%
South Africa		348,665	238,216	239,267	309,423	-11%	30%	29%
Algeria		60,012	754	5,208	2,030	-97%	169%	-61%
<b>Total</b>		<b>-</b>	<b>55,863,566</b>	<b>57,086,075</b>	<b>61,598,650</b>	<b>-8%</b>	<b>10%</b>	<b>8%</b>

The second largest production center for passenger cars is Europe, whose production of passenger cars in 2022 reached 13.72 million units, accounting for about 84% of the total car production in Europe. The top five passenger car producing countries in the region are Germany, Spain, Czech Republic, France and Slovakia, with 3.48 million, 1.78 million, 1.21 million, 1.01 million and 1 million vehicles respectively. Among them, Germany, France and Czech Republic all showed a performance of 10% compared with the previous year.

As for the Americas, which is currently the second largest automobile production region in the world, the production data of passenger vehicles has a very unexpected performance. The production of passenger vehicles in the Americas region in 2022 was approximately 4.83 million units, accounting for less than 30% of its total vehicle production (17.75 million units) in the same year, which is a relatively low proportion. The top 5 passenger car producing countries are Brazil, the United States, Mexico, Canada and Argentina in order, with 1.82 million, 1.75 million, 650,000, 289,000 and 257,000 vehicles respectively. Brazil has even surpassed the United States to become the most important passenger car production center in the Americas.

### Light Commercial Vehicle

The production of light commercial vehicles is also a very important part of global automobile production. In 2022, the global production of light commercial vehicles reached 19.86 million units, an increase of 7% year-on-year, accounting for about 23% of the total global vehicle production in that year. (See Table 3)

Estimate / N/A : Not Available





Table 3. World Light Commercial Vehicle Production By Country/Region

Unlike passenger car production, which is mostly concentrated in the Asia-Pacific region, **more than 60% of light commercial vehicle production is concentrated in the Americas** (about 12.19 million units in 2022, an increase of 10% compared to 2020, and more than 87 % are concentrated in the United States and Mexico).

Production in the Asia-Pacific region also accounted for more than 26% (about 5.23 million vehicles), and it was mainly concentrated in China and Thailand, with 1.84 million and 1.28 million vehicles respectively.

In contrast, the production of light commercial vehicles in Europe in 2022 was only about 2.14 million, a decrease of 2% from 2021, accounting for only about 10% of the world. Judging from the published data, the most important manufacturers of light commercial vehicles in Europe are Spain, France, Italy, Poland and Germany. The Turkish part has maintained a production scale of 400,000 to 500,000 vehicles in the past few years.

### Heavy Truck

The total production of heavy trucks in the world reached more than 4 million units per year from 2019 to 2021, but dropped sharply by 23% to 3.3 million units in 2022, mainly due to the performance of the Asia-Pacific region (data showed that in 2022, the heavy-duty trucks in the Asia-Pacific region Production fell sharply by 32% year-on-year). See **Figure 4**.

The production of heavy trucks in the Asia-Pacific region in 2022 was 2.28 million units, accounting for nearly 70% of the total global heavy truck production in that year, with **China, Japan and India as the main production centers**.

Light Commercial Vehicle	Units	2019	2020	2021	2022	Variation 2022/2019	Variation 2022/2020	Variation 2022/2021
<b>Europe</b>		<b>2,524,134</b>	<b>2,110,169</b>	<b>2,181,987</b>	<b>2,148,379</b>	<b>-15%</b>	<b>2%</b>	<b>-2%</b>
<b>European Union 27 Countries + UK</b>		<b>1,953,385</b>	<b>1,590,962</b>	<b>1,605,118</b>	<b>1,580,918</b>	<b>-19%</b>	<b>-1%</b>	<b>-2%</b>
Slovenia		N/A	N/A	N/A	N/A	-	-	-
Finland		Confidential	Confidential	Confidential	Confidential	-	-	-
Netherlands		Confidential	Confidential	Confidential	Confidential	-	-	-
Sweden		Confidential	Confidential	Confidential	Confidential	-	-	-
Hungary		Confidential	Confidential	Confidential	Confidential	-	-	-
Spain		524,504	430,616	383,736	377,779	-28%	-12%	-2%
France		509,552	388,653	433,401	372,707	-27%	-4%	-14%
Italy		312,377	277,067	290,021	268,430	-14%	-3%	-7%
Poland, All CVS		207,802	166,445	173,417	223,680	8%	34%	29%
Germany		283,567	227,082	212,527	197,463	-30%	-13%	-7%
United Kingdom		57,442	51,244	55,644	80,210	40%	57%	44%
Portugal		58,141	49,855	56,372	60,649	4%	22%	8%
Serbia		126	93	145	140	11%	51%	-3%
Austria		0	0	0	0	-	-	-
Belgium		0	0	0	0	-	-	-
Czech Republic		0	0	0	0	-	-	-
Romania		0	0	0	0	-	-	-
Slovakia		0	0	0	0	-	-	-
<b>CIS (Only Russia)</b>		<b>122,749</b>	<b>109,468</b>	<b>129,776</b>	<b>83,813</b>	<b>-32%</b>	<b>-23%</b>	<b>-35%</b>
Ukraine		136	51	43	N/A	-	-	-
Russia		122,749	109,468	129,776	83,813	-32%	-23%	-35%
Azerbaijan		0	0	0	0	-	-	-
Belarus		0	0	0	0	-	-	-
Kazakhstan		0	0	0	0	-	-	-
Uzbekistan		0	0	0	0	-	-	-
<b>Turkey</b>		<b>447,874</b>	<b>409,646</b>	<b>446,948</b>	<b>483,508</b>	<b>8%</b>	<b>18%</b>	<b>8%</b>
<b>America</b>		<b>12,444,040</b>	<b>10,225,219</b>	<b>11,055,411</b>	<b>12,197,931</b>	<b>-2%</b>	<b>19%</b>	<b>10%</b>
<b>NAFTA</b>		<b>11,882,266</b>	<b>9,763,494</b>	<b>10,442,053</b>	<b>11,567,376</b>	<b>-3%</b>	<b>19%</b>	<b>11%</b>
USA		8,036,106	6,656,572	7,307,551	7,988,565	-1%	20%	9%
Mexico		2,414,256	2,072,699	2,320,239	2,650,345	10%	28%	14%
Canada		1,431,904	1,034,223	814,263	928,466	-35%	-10%	14%
<b>South America</b>		<b>561,774</b>	<b>461,725</b>	<b>613,358</b>	<b>630,555</b>	<b>12%</b>	<b>37%</b>	<b>3%</b>
Colombia		N/A	N/A	N/A	N/A	-	-	-
Brazil		355,351	297,539	362,711	351,167	-1%	18%	-3%
Argentina		206,423	164,186	250,647	279,388	35%	70%	12%
<b>Asia-Oceania</b>		<b>5,255,384</b>	<b>4,668,333</b>	<b>5,108,390</b>	<b>5,238,222</b>	<b>0%</b>	<b>12%</b>	<b>3%</b>
China		2,002,284	2,151,347	2,174,102	1,846,256	-8%	-14%	-15%
Thailand, All CVS		1,218,456	889,441	1,091,015	1,289,458	6%	45%	18%
Japan		839,582	697,423	708,524	752,774	-10%	8%	6%
India		542,860	385,691	486,911	617,398	14%	60%	27%
South Korea		258,534	229,040	227,673	245,547	-5%	7%	8%
Indonesia		146,150	95,295	157,890	160,171	10%	68%	1%
Vietnam		47,197	40,333	44,317	69,919	48%	73%	58%
Taiwan		55,896	57,362	58,791	60,758	9%	6%	3%
Iran, Yearly Only		40,800	43,778	44,785	53,295	31%	22%	19%
Malaysia, All Cvs		37,517	27,431	35,220	52,085	39%	90%	48%
Philippines, All CVS		37,856	30,156	39,596	50,560	34%	68%	28%
Pakistan		25,373	18,629	39,128	39,306	55%	111%	1%
Myanmar		2,879	2,407	438	695	-76%	-71%	59%
Australia		0	0	0	0	-	-	-
<b>Africa</b>		<b>289,092</b>	<b>214,218</b>	<b>296,834</b>	<b>275,594</b>	<b>-5%</b>	<b>29%</b>	<b>-7%</b>
South Africa		254,417	185,691	232,166	215,472	-15%	16%	-7%
Morocco		34,675	28,527	64,668	60,122	73%	111%	-7%
Algeria		N/A	N/A	0	743	-	-	-
Egypt		0	0	0	0	-	-	-
<b>Total</b>		<b>20,512,650</b>	<b>17,217,939</b>	<b>18,642,622</b>	<b>19,860,126</b>	<b>-3%</b>	<b>15%</b>	<b>7%</b>

Estimate / N/A : Not Available



**Table 4. World Heavy Truck Production By Country/Region**

The Americas is the second largest production base for heavy trucks. In 2022, the region produced a total of about 680,000 heavy trucks, accounting for about 21% of the global heavy truck production in the same year. Different from the Asia-Pacific region, the production of heavy trucks in the Americas shows a trend of annual growth. After a substantial growth of 44% in 2021, it will continue to grow by 11% by 2022. The United States, Mexico and Brazil are the top three major producers of heavy trucks in the region.

The production scale of heavy trucks in Europe is less than half of that in the Americas. In 2022, the production volume of heavy trucks in this region was about 300,000 units, a slight increase from 2021. Compared with the performance in 2020 and 2021, the growth performance of heavy truck production in Europe has a clear slowdown trend. At present, the most important heavy truck production bases in Europe are Spain, Italy, Belgium and the United Kingdom. Türkiye also has a production scale of nearly 40,000 vehicles.

## Heavy Buses

Compared with the aforementioned models, the production scale of heavy-duty buses is the smallest. In 2022, the global production of heavy-duty buses exceeded 250,000 units, a year-on-year increase of 28%. It also grew by 15% year-on-year before 2021 (see Table 5).

The Asia-Pacific region is the most important production base of heavy-duty buses. The output of heavy-duty buses in this region reached more than 170,000 in 2022, a substantial increase of 27% from the previous year, accounting for nearly 70% of the total global heavy-duty bus production in the same year. **China and India are the main production centers.**

Heavy Truck	Units	2019	2020	2021	2022	Variation 2022/2019	Variation 2022/2020	Variation 2022/2021
<b>Europe</b>		<b>263,013</b>	<b>220,927</b>	<b>298,553</b>	<b>305,319</b>	<b>16%</b>	<b>38%</b>	<b>2%</b>
<b>European Union 27 Countries + UK</b>		<b>174,018</b>	<b>133,062</b>	<b>174,154</b>	<b>182,675</b>	<b>5%</b>	<b>37%</b>	<b>5%</b>
Austria		21,000	15,500	12,000	N/A	-	-	-
Slovenia		N/A	N/A	N/A	N/A	-	-	-
Finland		Confidential	Confidential	Confidential	Confidential	-	-	-
France		Confidential	Confidential	Confidential	Confidential	-	-	-
Germany		Confidential	Confidential	Confidential	Confidential	-	-	-
Netherlands		Confidential	Confidential	Confidential	Confidential	-	-	-
Sweden		Confidential	Confidential	Confidential	Confidential	-	-	-
Spain		49,837	36,905	52,223	56,251	13%	52%	8%
Italy		60,294	47,937	63,167	54,499	-10%	14%	-14%
Belgium		38,434	30,070	36,785	44,357	15%	48%	21%
United Kingdom		18,883	13,931	16,379	20,507	9%	47%	25%
Portugal		5,389	3,039	4,338	5,714	6%	88%	32%
Czech Republic		1,181	1,180	1,262	1,347	14%	14%	7%
Hungary		0	0	0	0	-	-	-
Poland, See LVv		0	0	0	0	-	-	-
Romania		0	0	0	0	-	-	-
Slovakia		0	0	0	0	-	-	-
Serbia		9	10	9	0	-	-	-
<b>CIS</b>		<b>69,992</b>	<b>64,615</b>	<b>85,825</b>	<b>76,074</b>	<b>9%</b>	<b>18%</b>	<b>-11%</b>
Belarus		8,798	8,629	N/A	N/A	-	-	-
Ukraine		Confidential	Confidential	Confidential	Confidential	-	-	-
Russia		60,262	52,103	70,506	63,723	6%	22%	-10%
Kazakhstan, All CVs		4,247	8,240	10,647	7,833	84%	-5%	-26%
Uzbekistan		5,320	4,163	4,433	4,094	-23%	-2%	-8%
Azerbaijan		163	109	239	424	160%	289%	77%
<b>Turkey</b>		<b>19,003</b>	<b>23,250</b>	<b>38,574</b>	<b>46,570</b>	<b>145%</b>	<b>100%</b>	<b>21%</b>
<b>America</b>		<b>677,275</b>	<b>479,180</b>	<b>621,087</b>	<b>688,717</b>	<b>2%</b>	<b>44%</b>	<b>11%</b>
<b>NAFTA</b>		<b>563,799</b>	<b>388,244</b>	<b>462,277</b>	<b>526,725</b>	<b>-7%</b>	<b>36%</b>	<b>14%</b>
USA, Including Buses		345,067	240,056	286,937	320,038	-7%	33%	12%
Mexico		195,421	133,965	162,836	195,789	0%	46%	20%
Canada		23,311	14,223	12,504	10,898	-53%	-23%	-13%
<b>South America</b>		<b>113,476</b>	<b>90,936</b>	<b>158,810</b>	<b>161,992</b>	<b>43%</b>	<b>78%</b>	<b>2%</b>
Argentina		Confidential	Confidential	Confidential	Confidential	-	-	-
Brazil		113,476	90,936	158,810	161,992	43%	78%	2%
Colombia		N/A	N/A	N/A	N/A	-	-	-
<b>Asia-Oceania</b>		<b>3,160,164</b>	<b>3,626,520</b>	<b>3,331,219</b>	<b>2,280,468</b>	<b>-28%</b>	<b>-37%</b>	<b>-32%</b>
Philippines		N/A	N/A	N/A	N/A	-	-	-
Thailand		N/A	N/A	N/A	N/A	-	-	-
Vietnam		N/A	N/A	N/A	N/A	-	-	-
China		2,217,847	2,976,459	2,408,249	1,249,268	-44%	-58%	-48%
Japan		506,541	405,451	506,938	512,809	1%	27%	1%
India		254,165	122,576	246,407	327,369	29%	167%	33%
Indonesia		91,757	41,379	72,983	93,679	2%	126%	28%
South Korea		64,758	55,583	65,895	64,896	0%	17%	-2%
Iran		9,600	10,301	10,538	12,540	31%	22%	19%
Taiwan		5,859	7,286	9,780	9,096	55%	25%	-7%
Australia, Yearly Only		5,606	4,730	5,391	6,077	8%	29%	13%
Pakistan		4,031	2,755	5,038	4,734	17%	72%	-6%
Malaysia		0	0	0	0	-	-	-
Myanmar		0	0	0	0	-	-	-
<b>Africa</b>		<b>27,840</b>	<b>22,567</b>	<b>26,969</b>	<b>30,249</b>	<b>9%</b>	<b>34%</b>	<b>12%</b>
Algeria		N/A	N/A	N/A	N/A	-	-	-
Egypt		0	0	0	0	-	-	-
Morocco		N/A	N/A	N/A	N/A	-	-	-
South Africa		27,840	22,567	26,969	30,249	9%	34%	12%
<b>Total</b>		<b>4,128,292</b>	<b>4,349,194</b>	<b>4,277,828</b>	<b>3,304,753</b>	<b>-20%</b>	<b>-24%</b>	<b>-23%</b>



**Table 5. World Heavy Buses Production By Country/Region**

The scale of production in the Americas and Europe is similar, probably accounting for nearly 40,000 vehicles. It is worth noting that the production scale of heavy-duty buses in the Americas increased by 71% and 64% in 2021 and 2022, respectively. In particular, Mexico and Brazil almost cover the production of heavy-duty buses in the Americas. In Europe, the Czech Republic and Poland are the main production bases for heavy-duty buses.

## Summary

Judging from the data in the above tables, the overall global vehicle production volume has not shown a significant downward trend due to the epidemic in the past four years, but has increased year by year. This result may make many previous analysts who were pessimistic about the auto market. However, on the other hand, it may also mean that the demand for cars from global consumers is still strong, which in turn will boost the production willingness of various car manufacturers. Asia (especially China), the United States, Mexico, Brazil, Western European countries and major Central and Eastern European countries will continue to play very critical roles in global automobile production (whether it is passenger cars, light commercial vehicles, heavy trucks, or heavy buses).

This may also be good news for many manufacturers that focus on the production of automotive fasteners. Coupled with the continuous technological improvement of the automobile industry, if the automotive fastener industry can actively strengthen cooperation with customers in major automobile production markets to establish distribution channels, and at the same time grasp the changes and trends in the application of automotive fasteners in the future, automotive fasteners, I believe, will still be a profit-making shortcut full of business opportunities. ■

Heavy Buses	Units	2019	2020	2021	2022	Variation 2022/2019	Variation 2022/2020	Variation 2022/2021
<b>Europe</b>		<b>43,235</b>	<b>38,454</b>	<b>35,235</b>	<b>38,083</b>	<b>-12%</b>	<b>-1%</b>	<b>8%</b>
<b>European Union 27 Countries + UK</b>		<b>15,031</b>	<b>12,610</b>	<b>11,373</b>	<b>11,656</b>	<b>-23%</b>	<b>-8%</b>	<b>3%</b>
Austria		N/A	N/A	N/A	N/A	-	-	-
Finland		N/A	N/A	N/A	N/A	-	-	-
Hungary		N/A	N/A	N/A	N/A	-	-	-
Slovenia		N/A	N/A	N/A	N/A	-	-	-
France		Confidential	Confidential	Confidential	Confidential	-	-	-
Germany		Confidential	Confidential	Confidential	Confidential	-	-	-
Netherlands		Confidential	Confidential	Confidential	Confidential	-	-	-
Sweden		Confidential	Confidential	Confidential	Confidential	-	-	-
Czech Republic		5,217	5,070	4,947	5,322	2%	5%	8%
Poland		7,362	6,037	5,204	5,060	-31%	-16%	-3%
United Kingdom		1,945	941	890	883	-55%	-6%	-1%
Italy		148	335	236	271	83%	-19%	15%
Belgium		343	166	73	97	-72%	-42%	33%
Portugal		16	61	23	23	44%	-62%	0%
Spain		0	0	0	0	-	-	-
Romania		0	0	0	0	-	-	-
Slovakia		0	0	0	0	-	-	-
Serbia		0	0	0	0	-	-	-
<b>CIS</b>		<b>16,479</b>	<b>15,905</b>	<b>16,079</b>	<b>14,746</b>	<b>-11%</b>	<b>-7%</b>	<b>-8%</b>
Belarus		1,269	1,349	N/A	N/A	-	-	-
Ukraine		876	698	768	N/A	-	-	-
Russia		13,869	13,462	13,985	12,027	-13%	-11%	-14%
Kazakhstan		1,076	1,801	1,091	1,362	27%	-24%	25%
Uzbekistan		1,534	642	1,003	1,357	-12%	111%	35%
Azerbaijan		0	0	0	0	-	-	-
<b>Turkey</b>		<b>11,725</b>	<b>9,939</b>	<b>7,783</b>	<b>11,681</b>	<b>0%</b>	<b>18%</b>	<b>50%</b>
<b>America</b>		<b>34,319</b>	<b>21,513</b>	<b>22,422</b>	<b>36,714</b>	<b>7%</b>	<b>71%</b>	<b>64%</b>
<b>NAFTA</b>		<b>6,648</b>	<b>3,108</b>	<b>3,541</b>	<b>4,937</b>	<b>-26%</b>	<b>59%</b>	<b>39%</b>
Canada, See LCV & HCV		N/A	N/A	N/A	N/A	-	-	-
Mexico		6,648	3,108	3,541	4,937	-26%	59%	39%
USA, See LCV & HCV		0	0	0	0	-	-	-
<b>South America</b>		<b>27,671</b>	<b>18,405</b>	<b>18,881</b>	<b>31,777</b>	<b>15%</b>	<b>73%</b>	<b>68%</b>
Argentina		Confidential	Confidential	Confidential	Confidential	-	-	-
Brazil		27,671	18,405	18,881	31,777	15%	73%	68%
Colombia		N/A	N/A	N/A	N/A	-	-	-
<b>Asia-Oceania</b>		<b>267,667</b>	<b>158,747</b>	<b>140,234</b>	<b>177,657</b>	<b>-34%</b>	<b>12%</b>	<b>27%</b>
Malaysia		N/A	N/A	N/A	N/A	-	-	-
Thailand		N/A	N/A	N/A	N/A	-	-	-
Vietnam		N/A	N/A	N/A	N/A	-	-	-
China		140,686	103,355	94,618	89,008	-37%	-14%	-6%
India		98,333	37,018	34,699	73,051	-26%	97%	111%
South Korea		14,735	10,445	6,109	8,251	-44%	-21%	35%
Japan		9,254	4,658	2,201	3,580	-61%	-23%	63%
Indonesia		3,275	2,076	1,338	2,046	-38%	-1%	53%
Iran, Yearly Only		660	708	724	862	31%	22%	19%
Pakistan		724	487	545	859	19%	76%	58%
Australia		0	0	0	0	-	-	-
Myanmar		0	0	0	0	-	-	-
Philippines		0	0	0	0	-	-	-
Taiwan		0	0	0	0	-	-	-
<b>Africa</b>		<b>999</b>	<b>739</b>	<b>685</b>	<b>745</b>	<b>-25%</b>	<b>1%</b>	<b>9%</b>
Algeria		N/A	N/A	N/A	N/A	-	-	-
South Africa		999	739	685	745	-25%	1%	9%
Egypt		0	0	0	0	-	-	-
Morocco		0	0	0	0	-	-	-
<b>Total</b>		<b>346,220</b>	<b>219,453</b>	<b>198,576</b>	<b>253,199</b>	<b>-27%</b>	<b>15%</b>	<b>28%</b>