



2022 全球汽车生产及车型比较



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.

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

2022 Global Automobile Production and Model Comparison

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 the second place last year.

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



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 |
|---|-------------------|-------------------|-------------------|-------------------|-------------|------------------------|------------------------|------------------------|
| Europe | 21,531,339 | 16,904,429 | 16,338,165 | 16,216,888 | | | | |
| European Union 27 Countries + UK | 17,978,353 | 13,781,659 | 13,129,583 | 13,801,210 | -23% | 0% | 5% | |
| 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% | |
| CIS (Excluding Belarus) | 2,056,631 | 1,801,527 | 1,911,188 | 1,058,532 | -49% | -41% | -45% | |
| 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% | |
| Turkey | 1,461,244 | 1,297,878 | 1,276,140 | 1,352,648 | -7% | 4% | 6% | |
| America | 20,160,401 | 15,692,927 | 16,190,835 | 17,756,263 | -12% | 13% | 10% | |
| 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% | |
| Asia-Oceania | 49,333,841 | 44,276,549 | 46,768,800 | 50,020,793 | 1% | 13% | 7% | |
| 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% | |
| Africa (Excluding Egypt) | 1,095,151 | 776,247 | 907,302 | 1,022,783 | -7% | 32% | 13% | |
| 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% | |
| Total | 92,120,732 | 77,650,152 | 80,205,102 | 85,016,728 | -8% | 10% | 6% | |

Estimate / N/A : Not Available / Source:OICA





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 |
|---|-------|-------------------|-------------------|-------------------|-------------------|---------------------|---------------------|---------------------|
| Europe | | 18,700,957 | 14,534,879 | 13,822,390 | 13,725,107 | -27% | -6% | -1% |
| European Union 27 Countries + UK | | 15,835,919 | 12,045,025 | 11,338,938 | 12,025,961 | -24% | -0.2% | 6% |
| 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% |
| CIS | | 1,847,411 | 1,611,539 | 1,679,508 | 883,899 | -52% | -45% | -47% |
| 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% |
| Turkey | | 982,642 | 855,043 | 782,835 | 810,889 | -18% | -5% | 4% |

Estimate / N/A : Not Available

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.

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





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 |
|---------------------------|-------|-------------------|-------------------|-------------------|-------------------|---------------------|---------------------|---------------------|
| America | | 7,004,767 | 4,967,015 | 4,491,915 | 4,832,901 | -31% | -3% | 8% |
| NAFTA | | 4,369,893 | 3,219,558 | 2,559,194 | 2,699,108 | -38% | -16% | 6% |
| 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% |
| South America | | 2,634,874 | 1,747,457 | 1,932,721 | 2,133,793 | -19% | 22% | 10% |
| 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% |
| Asia-Oceania | | 40,650,626 | 35,822,949 | 38,188,956 | 42,324,447 | 4% | 18% | 11% |
| 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 | - | - | - |
| Africa | | 777,220 | 538,723 | 582,814 | 716,195 | -8% | 33% | 23% |
| 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% |
| Total | | - | 55,863,566 | 57,086,075 | 61,598,650 | -8% | 10% | 8% |

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**)

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 **Table 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**.

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.





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

| Light Commercial Vehicles | Units | 2019 | 2020 | 2021 | 2022 | Variation 2022/2019 | Variation 2022/2020 | Variation 2022/2021 |
|--|-------|-------------------|-------------------|-------------------|-------------------|---------------------|---------------------|---------------------|
| Europe | | 2,524,134 | 2,110,169 | 2,181,987 | 2,148,379 | -15% | 2% | -2% |
| European Union 27 Countries + UK | | 1,953,385 | 1,590,962 | 1,605,118 | 1,580,918 | -19% | -1% | -2% |
| Slovenia | | N/A | N/A | N/A | N/A | - | - | - |
| Finland / Netherlands / Sweden / Hungary | | 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 | - | - | - |
| CIS (Only Russia) | | 122,749 | 109,468 | 129,776 | 83,813 | -32% | -23% | -35% |
| 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 | - | - | - |
| Turkey | | 447,874 | 409,646 | 446,948 | 483,508 | 8% | 18% | 8% |
| America | | 12,444,040 | 10,225,219 | 11,055,411 | 12,197,931 | -2% | 19% | 10% |
| NAFTA | | 11,882,266 | 9,763,494 | 10,442,053 | 11,567,376 | -3% | 19% | 11% |
| 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% |
| South America | | 561,774 | 461,725 | 613,358 | 630,555 | 12% | 37% | 3% |
| 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% |
| Asia-Oceania | | 5,255,384 | 4,668,333 | 5,108,390 | 5,238,222 | 0% | 12% | 3% |
| 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 | - | - | - |
| Africa | | 289,092 | 214,218 | 296,834 | 275,594 | -5% | 29% | -7% |
| 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 | - | - | - |
| Total | | 20,512,650 | 17,217,939 | 18,642,622 | 19,860,126 | -3% | 15% | 7% |

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.**

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.

Estimate / N/A : Not Available





Table 4. World Heavy Truck Production by Country/Region

| Heavy Trucks | Units | 2019 | 2020 | 2021 | 2022 | Variation 2022/2019 | Variation 2022/2020 | Variation 2022/2021 |
|---|-------|------------------|------------------|------------------|------------------|---------------------|---------------------|---------------------|
| Europe | | 263,013 | 220,927 | 298,553 | 305,319 | 16% | 38% | 2% |
| European Union 27 Countries + UK | | 174,018 | 133,062 | 174,154 | 182,675 | 5% | 37% | 5% |
| Austria | | 21,000 | 15,500 | 12,000 | N/A | - | - | - |
| Slovenia | | N/A | N/A | N/A | N/A | - | - | - |
| Finland / France / Germany / Netherlands / Sweden | | 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 | - | - | - |
| CIS | | 69,992 | 64,615 | 85,825 | 76,074 | 9% | 18% | -11% |
| Belarus | | 8,798 | 8,629 | N/A | N/A | - | - | - |
| Ukraine | | 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% |
| Turkey | | 19,003 | 23,250 | 38,574 | 46,570 | 145% | 100% | 21% |
| America | | 677,275 | 479,180 | 621,087 | 688,717 | 2% | 44% | 11% |
| NAFTA | | 563,799 | 388,244 | 462,277 | 526,725 | -7% | 36% | 14% |
| 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% |
| South America | | 113,476 | 90,936 | 158,810 | 161,992 | 43% | 78% | 2% |
| Argentina | | Confidential | | | | - | - | - |
| Brazil | | 113,476 | 90,936 | 158,810 | 161,992 | 43% | 78% | 2% |
| Colombia | | N/A | N/A | N/A | N/A | - | - | - |
| Asia-Oceania | | 3,160,164 | 3,626,520 | 3,331,219 | 2,280,468 | -28% | -37% | -32% |
| 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 | - | - | - |
| Africa | | 27,840 | 22,567 | 26,969 | 30,249 | 9% | 34% | 12% |
| 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% |
| Total | | 4,128,292 | 4,349,194 | 4,277,828 | 3,304,753 | -20% | -24% | -23% |

Estimate / N/A : Not Available

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).





Table 5. World Heavy Buses Production by Country/Region

| Heavy Buses | Unit | 2019 | 2020 | 2021 | 2022 | Variation 2022/2019 | Variation 2022/2020 | Variation 2022/2021 |
|---|------|----------------|----------------|----------------|----------------|------------------------|------------------------|------------------------|
| Europe | | 43,235 | 38,454 | 35,235 | 38,083 | -12% | -1% | 8% |
| European Union 27 Countries + UK | | 15,031 | 12,610 | 11,373 | 11,656 | -23% | -8% | 3% |
| 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 / Germany / Netherlands / Sweden | | 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 | - | - | - |
| CIS | | 16,479 | 15,905 | 16,079 | 14,746 | -11% | -7% | -8% |
| 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 | - | - | - |
| Turkey | | 11,725 | 9,939 | 7,783 | 11,681 | 0% | 18% | 50% |
| America | | 34,319 | 21,513 | 22,422 | 36,714 | 7% | 71% | 64% |
| NAFTA | | 6,648 | 3,108 | 3,541 | 4,937 | -26% | 59% | 39% |
| 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 | - | - | - |
| South America | | 27,671 | 18,405 | 18,881 | 31,777 | 15% | 73% | 68% |
| 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 | - | - | - |
| Asia-Oceania | | 267,667 | 158,747 | 140,234 | 177,657 | -34% | 12% | 27% |
| 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 | - | - | - |
| Africa | | 999 | 739 | 685 | 745 | -25% | 1% | 9% |
| 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 | - | - | - |
| Total | | 346,220 | 219,453 | 198,576 | 253,199 | -27% | 15% | 28% |

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. ■

Estimate / N/A : Not Available

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