Wind Turbine Gearbox Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)

Market Report | 2023-01-23 | 125 pages | Mordor Intelligence

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Report description:

The wind turbine gearbox market is expected to grow at a CAGR of more than 5.6% over the forecast period of 2022-2027. With the COVID-19 outbreak in 2020, the growth of the wind turbine gearbox market was moderately impacted by delays in manufacturing and supplying wind turbine gearboxes, wind projects, and other challenges for major players' value chains. Factors such as the declining cost of wind energy and increasing investments in wind power projects are the key drivers for this market. However, gaining interest in direct-drive turbines is expected to restrain the gearbox market during the forecast period.

Key Highlights
The offshore segment is expected to witness significant growth during the forecast period, owing to increased developments and investments in offshore wind energy projects worldwide.
The emerging markets in Africa, South America, and some Southeast Asian countries offer a robust business opportunity for the wind power business. As countries, including Brazil, South Africa, Chile, Vietnam, and others, are on the cusp of development in these regions, there is an increased demand for electricity, which is expected to provide market opportunities for the wind turbine gearbox market in the future.
The Asia-Pacific region is expected to be the largest and fastest-growing market, owing to the significant share in terms of wind power generation and the presence of manufacturing and technology hubs in countries like China, India, Japan, etc.

Wind Turbine Gearbox Market Trends

The Offshore Segment to Register Higher Growth

The offshore wind capacity has been growing significantly in recent years. The cumulative global installed offshore wind capacity reached more than 34 GW in 2020 from 28.35 GW in 2019. Most of the offshore wind installations are in China and some European countries like the United Kingdom and Germany

The global offshore wind installation stood at 6.1 GW in 2020, a slight decline compared to 6.24 GW in the previous year. In 2020, China connected more than 3 GW of offshore wind to the grid, while Europe accounted for most of the remaining new installed capacity, led by the Netherlands, which installed about 1.5 GW of new offshore wind in 2020, followed by Belgium with 706 MW. Outside China and Europe, two other countries recorded new offshore wind installations in 2020: South Korea (60 MW) and the US (12 MW). The demand for wind turbine gearboxes in the offshore sector increases significantly with the rise in offshore wind installations.

The supportive government policies and ambitious targets set by countries are likely to have a greater impact on the market. For instance, in March 2021, the President of the United States, Joe Biden, announced an offshore goal of 30 GW by 2030. Further, according to the National Renewable Energy Laboratory (NREL), the United States has a technical resource potential of more than 2,000 GW of offshore wind capacity.

Similarly, India plans to expand its green energy portfolio by harnessing the entirely unexploited offshore wind energy potential along its 7,600-kilometer coastline. The Ministry of New and Renewable Energy in India has set a target of 30 GW by 2030. Such aggressive targets are expected to witness massive offshore wind power projects, thus creating demand for the wind turbine gearbox.

The offshore wind turbine gearboxes must be more robust and more efficient and, in turn, are costlier, as the wind speed in offshore regions is higher. Hence, the growth of the offshore wind energy sector is expected to have a significant positive impact on the market during the forecast period.

The Asia-Pacific Region to Dominate the Market

Asia-Pacific is expected to be one of the largest regions in the global wind turbine gearbox market in the coming years because of the favorable government policies and new installations in the countries.

As of 2020, China accounted for the world's largest wind power generation capacity. According to the National Energy Administration (NEA), China's wind power accounts for around 13% of the country's total installed power supply, with wind-generated electricity accounting for 7.5% of power consumption.

China's wind infrastructure has increased significantly in the past ten years. As the country's wind infrastructure was developed majorly in the past few years, the demand for the wind turbine gearbox market is expected to increase in the coming years.

India holds the fourth-largest wind power installed capacity globally as of 2020. These projects are majorly spread in the northern, southern, and western parts of the country. As of March 2021, the installed wind capacity in India was 39.25 GW and has generated around 60.149 Billion kWh during 2020-21. Moreover, the country has also set aggressive targets to achieve 30 GW of offshore wind power capacity by 2030. All the new installations will create a demand for the wind turbine gearbox making India one of the major hotspots for the market in the forecast period.

The rapidly growing installed base in Asia-Pacific and shifting service strategies of Chinese and Indian asset owners are expected to provide significant growth opportunities for the wind turbine gearbox repair and refurbishment market over the next decade.

Wind Turbine Gearbox Market Competitor Analysis

The wind turbine gearbox market is moderately consolidated. Some of the major companies include Siemens Gamesa Renewable Energy SA, Dana Brevini SpA, ME Production A/S, Winergy Group, and ZF Friedrichshafen AG, among others.

Additional Benefits:

The market estimate (ME) sheet in Excel format
3 months of analyst support

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