Middle East & Africa Marine Engines Market By Stroke (Four Stroke, Two Stroke and Others), By Capacity (Up to 1,000 HP, 1,001-5,000 HP, 5,001-10,000 HP, 10,001-20,000 HP and Above 20,000 HP), By Fuel Type (Heavy Fuel Oil, Intermediate Fuel Oil and Others), By Ship Type (Bulk Carriers, General Cargo Ships, Container Ships, Ferries & Passenger Ships, Oil Tankers and Others), By Country, By Competition Forecast & Opportunities, 2018-2028

Market Report (3 business days) | 2023-10-03 | 127 pages | TechSci Research

AVAILABLE LICENSES:

- Single User License $4400.00
- Multi-User License $5400.00
- Custom Research License $8400.00

Report description:

Middle East & Africa Marine Engines Market has valued at USD 583.91 million in 2022 and is anticipated to project robust growth in the forecast period with a CAGR of 3.09% through 2028. The level of international trade and shipping activity plays a crucial role in driving the marine engines market. The strategic location of the Middle East & Africa region along global trade routes often leads to an upsurge in trade volumes, resulting in a greater demand for vessels and, consequently, marine engines.
Key Market Drivers
Growing Maritime Trade and Shipping Activities
The Middle East and Africa (MEA) region has witnessed a significant surge in maritime trade and shipping activities in recent years. This growth is propelled by several factors, establishing it as a key driver of the marine engines market in the region.
One of the pivotal factors contributing to the expansion of maritime trade in the MEA region is its strategically advantageous geographical location. Serving as a vital transit point for global shipping routes, the MEA region connects Europe, Asia, and Africa. A critical chokepoint in this region is the Suez Canal in Egypt, through which a substantial portion of global trade flows. This strategic location has resulted in an increased number of vessels passing through the region, including container ships, bulk carriers, and oil tankers, all of which require dependable marine engines to power their journeys.

Moreover, the MEA region is home to several emerging economies with growing import and export activities. Nations such as the United Arab Emirates, Saudi Arabia, and South Africa have made significant investments in port infrastructure and logistics to facilitate trade. Consequently, there is a heightened demand for marine engines to support the operations of various types of vessels, ranging from container ships transporting goods to cruise liners catering to the expanding tourism industry.
Furthermore, the exploration and production of offshore oil and gas reserves in the MEA region have also bolstered the demand for marine engines. Many oil and gas platforms in the Persian Gulf and along the African coast rely on marine engines to power support vessels, rigs, and exploration equipment. This growing energy sector significantly contributes to the MEA marine engines market.
To meet the demands of the burgeoning maritime trade and shipping activities, shipbuilders and fleet operators are increasingly opting for more advanced and fuel-efficient marine engines. Modern marine engines offer improved fuel efficiency, reduced emissions, and enhanced reliability, addressing environmental concerns and regulatory requirements while improving overall operational efficiency.
In conclusion, the MEA marine engines market is driven by the region's strategically advantageous geographical location, the growth of maritime trade, and the expansion of offshore energy exploration. These factors are fostering the demand for modern and efficient marine engines, creating opportunities for manufacturers and suppliers in the region.
Increasing Investment in Naval Defense
The Middle East and Africa (MEA) region has observed a significant upsurge in defense expenditure in recent years, particularly in the naval defense sector. This increase in investment serves as a major catalyst for the growth of the marine engines market in the region.
Numerous factors contribute to the rise in naval defense spending in the MEA region. One of the primary drivers is the prevalent geopolitical instability and security concerns across various parts of the region. Challenges such as piracy, terrorism, and regional conflicts have compelled governments to reinforce their naval capabilities. Consequently, several MEA countries are undertaking the modernization of their naval fleets through the acquisition of new warships, submarines, and patrol boats, all of which rely on advanced marine engines for propulsion.
Another factor propelling investment in naval defense is the safeguarding of maritime trade routes. Given the region's strategic location as a transit point for global shipping, ensuring the security of these routes is vital for international trade. Naval forces are entrusted with the responsibility of patrolling and securing these waters, which necessitates the procurement of advanced marine engines for their vessels.
Furthermore, the exploration and protection of offshore resources have also contributed to the expansion of naval fleets in the MEA region. Countries like Israel, Egypt, and Mozambique have discovered substantial offshore natural gas reserves. Protecting these valuable assets requires the deployment of naval vessels equipped with reliable marine engines.
The growing emphasis on indigenous defense manufacturing in the MEA region has further bolstered the marine engines market. Governments are actively encouraging local production of naval vessels and marine engines to reduce dependence on foreign suppliers and enhance national security. This has resulted in collaborations between international marine engine manufacturers and local companies, fostering the development of a domestic marine engine manufacturing industry.
Consequently, the MEA marine engines market is witnessing an increasing demand for technologically advanced engines that are fuel-efficient, environmentally friendly, and capable of meeting the stringent requirements of naval applications. Manufacturers are responding by developing innovative marine engines tailored to the specific needs of naval fleets in the region.
To conclude, the escalating investments in naval defense, driven by security concerns, protection of trade routes, and resource exploration, serve as significant drivers of the marine engines market in the Middle East and Africa. This trend is expected to persist, presenting growth opportunities for marine engine manufacturers and suppliers in the region.
Rising Demand for Commercial Fishing and Aquaculture
The Middle East and Africa (MEA) region is witnessing a surge in demand for seafood due to population growth, changing dietary preferences, and heightened awareness of the health benefits associated with fish consumption. This increased demand has resulted in the expansion of commercial fishing and aquaculture activities, consequently driving the growth of the marine engines market in the region.
One of the key factors contributing to the growth of commercial fishing and aquaculture in the MEA region is the presence of an

extensive coastline and abundant marine resources. Countries situated along the Mediterranean Sea, Red Sea, Indian Ocean, and Atlantic Ocean have access to diverse and valuable fish stocks. As a result, there has been a significant rise in commercial fishing operations, ranging from small-scale artisanal fisheries to large industrial fleets.

Moreover, aquaculture has gained prominence in the MEA region as a means to meet the escalating demand for seafood. Fish farming in controlled environments such as ponds, tanks, and cages has become a crucial source of fish and seafood production. These aquaculture facilities require specialized marine engines for tasks such as water circulation, aeration, and transportation of harvested fish.

The growth of the fishing and aquaculture industries has also led to an increased demand for vessels equipped with powerful and dependable marine engines. Fishing trawlers, longliners, and aquaculture support vessels heavily rely on marine engines for propulsion and auxiliary functions. As these industries continue to expand, there is a corresponding need for advanced marine engine technology that offers improved fuel efficiency, reduced emissions, and enhanced reliability to optimize operational efficiency.

Furthermore, the export potential of seafood from the MEA region has prompted governments and private investors to invest in the modernization and expansion of fishing and aquaculture fleets. Augmenting infrastructure and equipping vessels with better amenities has become imperative to meet international quality and safety standards, further bolstering the demand for marine engines.

In conclusion, the escalating demand for seafood in the MEA region, driven by population growth and health-conscious consumer preferences, has propelled the growth of commercial fishing and aquaculture activities. Consequently, the demand for specialized marine engines and modernized vessels has increased. As these industries continue to expand, the marine engines market in the MEA region is poised for sustained growth, presenting opportunities for manufacturers and suppliers to cater to the evolving needs of the fishing and aquaculture sectors.

Key Market Challenges

Regulatory and Environmental Compliance

The Middle East and Africa (MEA) marine engines market encounters significant challenges regarding regulatory and environmental compliance. As the global emphasis on sustainability and environmental accountability intensifies, governments and international organizations are implementing more stringent regulations to mitigate emissions, minimize pollution, and safeguard marine ecosystems. These regulations present multiple challenges to the MEA marine engines market.

One of the primary challenges is ensuring compliance with increasingly rigorous emission standards. International agreements such as the International Maritime Organization's (IMO) MARPOL Annex VI mandate reductions in sulfur and nitrogen oxide emissions from ships. This necessitates the development and adoption of cleaner-burning marine engines or retrofitting existing engines with emission-control technologies. Manufacturers in the MEA region must invest in research and development to produce engines that meet these requirements, which can be a costly and time-consuming endeavor.

Furthermore, regulations pertaining to ballast water management, aimed at preventing the spread of invasive species through ship ballast water, also impact the marine engines market. Shipowners are obliged to install ballast water treatment systems, which can increase the overall cost of vessel ownership. Adhering to these regulations is crucial for vessels operating in MEA waters and participating in international trade routes.

Another aspect of environmental compliance concerns waste disposal, including oil and sewage, from vessels. Regulations stipulate that ships must utilize approved waste reception facilities in ports, placing additional responsibilities on port authorities and ship operators. This, in turn, affects the selection and operation of marine engines, as fuel efficiency and waste management capabilities become key considerations.

The challenge of regulatory and environmental compliance in the MEA marine engines market necessitates investments in research, development, and technology adoption by manufacturers and shipowners. Striking a balance between compliance and cost-effectiveness is an ongoing struggle, and the industry must continuously adapt to evolving regulations to maintain competitiveness and environmental responsibility.

Volatile Oil Prices and Energy Transition

The Middle East and Africa (MEA) region plays a crucial role in the global oil and gas industry, and the volatility of oil prices poses a significant challenge to the marine engines market in this region. The economies of many MEA nations heavily rely on oil,

making them susceptible to fluctuations in global oil prices. Consequently, this volatility impacts investments in marine infrastructure and the demand for marine engines.

During periods of high oil prices, MEA countries often have more financial resources to invest in their maritime sectors, including the acquisition of new vessels and marine engines. However, when oil prices are low, budget constraints may limit these investments, resulting in reduced demand for marine engines.

Additionally, the global energy transition towards cleaner and more sustainable power sources presents a long-term challenge for the MEA marine engines market. As countries worldwide strive to reduce their carbon emissions and shift away from fossil fuels, the MEA region's heavy dependence on oil and gas revenue could become a liability. This transition may lead to a decrease in demand for traditional marine engines powered by fossil fuels.

To address this challenge, the MEA marine engines market must adapt by exploring alternative propulsion technologies, such as hybrid systems, electric engines, or engines that run on cleaner fuels like natural gas or hydrogen. Although the transition to greener technologies can be costly, it is crucial to maintain competitiveness in the global maritime industry, where sustainability is increasingly valued.

Furthermore, the MEA region should consider diversifying its energy portfolio to reduce reliance on oil and gas. Investments in renewable energy sources like wind and solar power for port operations and auxiliary functions can help mitigate the impact of oil price volatility and support the transition to cleaner marine engines.

Infrastructure and Connectivity Gaps

The MEA marine engines market encounters significant challenges concerning infrastructure and connectivity gaps in the region. These challenges can impede the efficient operation and growth of the maritime industry, impacting the demand for marine engines.

One of the primary infrastructure challenges is the limited availability and capacity of ports and harbors in certain parts of the MEA region. While countries like the United Arab Emirates and Saudi Arabia have made substantial investments in expanding and modernizing their ports, other nations face bottlenecks in handling the increasing maritime traffic. Inefficient port operations can result in delays and increased costs for shipowners, which in turn discourage investment in new vessels and marine engines.

Connectivity challenges also affect the MEA maritime sector. Inadequate digital infrastructure, including unreliable internet connectivity and data-sharing systems, can hinder the adoption of advanced technologies in shipping operations. Modern marine engines often rely on data-driven systems for maintenance, performance optimization, and emissions monitoring. Without robust digital infrastructure, the full potential of these engines may not be realized.

Moreover, challenges related to inland transportation infrastructure can have an impact on the marine engines market. Efficient transportation of goods to and from ports is crucial for the growth of maritime trade. Delays or inefficiencies in the transportation network can discourage companies from investing in larger vessels with advanced marine engines, as they may not achieve the expected cost and time savings.

To address these challenges, governments and private stakeholders in the MEA region must prioritize investments in port infrastructure, digital connectivity, and inland transportation networks. Enhancing these elements can improve the efficiency of maritime operations, stimulate demand for marine engines, and increase the competitiveness of the MEA region in the global maritime industry. Collaboration between governments, industry players, and international organizations is crucial for overcoming these infrastructure and connectivity gaps and unlocking the full potential of the MEA marine engines market.

Key Market Trends

Transition to Green and Sustainable Propulsion Systems

One notable trend in the Middle East and Africa (MEA) marine engines market is the ongoing transition towards green and sustainable propulsion systems. Environmental concerns, stringent emissions regulations, and the global shift towards cleaner energy sources have all contributed to this transformative process.

Environmental consciousness and efforts to mitigate climate change have compelled the maritime industry in the MEA region to embrace more eco-friendly marine engines. A key aspect of this trend is the development and adoption of cleaner-burning fuels, such as natural gas and hydrogen. These alternative fuels yield lower emissions of greenhouse gases and pollutants compared to traditional marine fuels like heavy fuel oil (HFO) and marine diesel oil (MDO).

LNG (liquefied natural gas) has gained prominence as a cleaner marine fuel in the MEA region. Several ports and shipping

companies have made investments in LNG infrastructure, including bunkering facilities and LNG-powered vessels. This trajectory aligns with the International Maritime Organization's (IMO) regulations aimed at reducing sulfur emissions, such as the IMO 2020 sulfur cap, which has incentivized the utilization of low-sulfur fuels like LNG.

Furthermore, electric and hybrid propulsion systems are emerging as viable alternatives, particularly for smaller vessels and ferries operating in coastal and inland waters. These systems effectively mitigate emissions, noise pollution, and fuel consumption, thus making them suitable for eco-sensitive regions like the Arabian Gulf and Red Sea.

Moreover, the integration of renewable energy sources, such as wind and solar power, into hybrid propulsion systems is gaining momentum. These systems have the capability to harness clean energy to supplement traditional engines, further diminishing the carbon footprint of vessels operating in the MEA region.

As environmental regulations become more stringent and sustainability takes center stage, the MEA marine engines market is expected to witness a continued shift towards cleaner and more sustainable propulsion systems. Manufacturers and shipowners in the region are likely to invest in research and development to innovate in this space, offering eco-friendly solutions that align with global sustainability goals.

Digitalization and Connectivity for Enhanced Efficiency

One significant trend in the Middle East and Africa (MEA) marine engines market is the shift towards environmentally friendly and sustainable propulsion systems. The growing concern for the environment, stricter emissions regulations, and the global transition to cleaner energy sources have all contributed to this transformation.

The MEA maritime industry has embraced eco-friendly marine engines to address environmental awareness and climate change mitigation efforts. Cleaner-burning fuels like natural gas and hydrogen have emerged as key components of this trend. These alternative fuels offer lower emissions of greenhouse gases and pollutants compared to traditional marine fuels such as heavy fuel oil (HFO) and marine diesel oil (MDO).

LNG (liquefied natural gas) has gained significant traction as a cleaner marine fuel in the MEA region. Several ports and shipping companies have made investments in LNG infrastructure, including bunkering facilities and LNG-powered vessels. This trend aligns with the International Maritime Organization's (IMO) regulations to reduce sulfur emissions, such as the IMO 2020 sulfur cap, which has incentivized the use of low-sulfur fuels like LNG.

Moreover, electric and hybrid propulsion systems are emerging as viable alternatives, particularly for smaller vessels and ferries operating in coastal and inland waters. These systems help reduce emissions, noise pollution, and fuel consumption, making them suitable for eco-sensitive regions like the Arabian Gulf and Red Sea.

Furthermore, the integration of renewable energy sources, such as wind and solar power, into hybrid propulsion systems is gaining momentum. These systems can harness clean energy to supplement traditional engines, further reducing the carbon footprint of vessels operating in the MEA region.

As environmental regulations become more stringent and sustainability gains importance, the MEA marine engines market is expected to witness a continued shift towards cleaner and more sustainable propulsion systems. Manufacturers and shipowners in the region are likely to invest in research and development to innovate in this space, offering eco-friendly solutions that align with global sustainability goals.

Another significant trend in the MEA marine engines market is the increasing focus on digitalization and connectivity to enhance operational efficiency and reduce costs. Digital technologies and data-driven solutions are seamlessly integrated into marine engines and vessel systems.

One key aspect of this trend is the adoption of predictive maintenance solutions. Marine engine manufacturers are equipping their engines with sensors and IoT (Internet of Things) devices that collect real-time data on engine performance, temperature, and wear. This data is transmitted to shore-based teams who can proactively monitor engine health and schedule maintenance, reducing downtime and preventing costly breakdowns.

Furthermore, digital twins of marine engines and vessels are being created, allowing for virtual simulations and testing. This technology enables engineers and operators to optimize engine performance, fuel efficiency, and emissions control before implementing changes in the physical engine.

Connectivity also plays a crucial role in this trend, with satellite communication systems and advanced vessel tracking technologies enabling real-time monitoring and reporting of vessel operations. This enhances safety, security, and compliance

with regulations, which are particularly important in the MEA region's busy and often unpredictable maritime environment. Additionally, the adoption of electronic fuel management systems and route optimization software helps vessel operators reduce fuel consumption and emissions. These technologies analyze factors such as sea conditions, weather, and cargo weight to recommend the most fuel-efficient routes and speeds.

Overall, the digitalization and connectivity trend in the MEA marine engines market is driven by the objective to optimize operations, improve safety, reduce environmental impact, and cut operational costs. As technology continues to advance, we can expect even greater integration of digital solutions into marine engines and vessels in the MEA region.

Segmental Insights

Stroke Insights

The Two Stroke segment emerged as the dominant player in 2022. Two-stroke engines are extensively utilized in naval vessels, such as warships and patrol boats, within the MEA region. Given the security challenges and geopolitical considerations, countries like Saudi Arabia are investing in their naval capabilities by acquiring and modernizing naval fleets. Consequently, there is a growing demand for two-stroke engines specifically designed for naval applications.

The Suez Canal is a critical maritime route that connects the Mediterranean Sea to the Red Sea, providing vital access to the Indian Ocean. It serves as a crucial transit point for vessels traveling between Europe and Asia. Many of these vessels transiting through the Suez Canal are powered by two-stroke engines, contributing significantly to the demand for this engine type in the region.

To meet the increasing demand for two-stroke engines and enhance regional self-sufficiency, certain MEA countries have expressed interest in establishing local manufacturing and technology transfer partnerships with international engine manufacturers. This presents promising opportunities for collaborations and localized production of two-stroke engines in the region.

In summary, the two-stroke segment of the MEA marine engines market is notable for its significant presence in large commercial vessels, offshore energy operations, naval defense, and maritime trade routes. The growing emphasis on emissions reduction and compliance with environmental regulations is driving the adoption of cleaner and more efficient two-stroke engines in the region. This segment is anticipated to remain a vital component of the MEA marine engines market, particularly as the region's maritime activities continue to expand and evolve.

Capacity Insights

The Above 20,000 HP segment is projected to experience rapid growth during the forecast period. Many Middle East and Africa (MEA) countries, including Saudi Arabia and the United Arab Emirates, have been actively investing in their naval capabilities to safeguard their coastlines and protect strategic interests. This includes the acquisition and modernization of naval fleets with high-power engines. The segment catering to the specific needs of these naval applications is the above 20,000 HP category.

The development of cleaner and more fuel-efficient engines in the above 20,000 HP category is driven by emissions regulations set by the International Maritime Organization (IMO) and the increasing focus on sustainability. MEA countries are adopting these engines to comply with environmental standards while meeting the power requirements of their vessels.

The MEA region is home to crucial maritime chokepoints, such as the Suez Canal, Bab-el-Mandeb, and the Strait of Hormuz, which are vital for global trade and energy transportation. Vessels passing through these strategic locations often require high-power engines. The demand for above 20,000 HP engines is influenced by the transit of vessels through these critical maritime hubs.

To enhance regional self-sufficiency and meet the demand for above 20,000 HP engines, some MEA countries have expressed interest in local manufacturing and technology transfer partnerships with international engine manufacturers. Such collaborations could lead to localized production and assembly of high-power engines in the region.

In summary, the above 20,000 HP segment of the MEA marine engines market plays a pivotal role in powering large vessels, offshore energy operations, cruise ships, naval fleets, and maritime trade in the region. The segment's growth is driven by a combination of regional economic activities, environmental regulations, and strategic maritime considerations, making it a significant and dynamic component of the MEA marine engines market.

Country Insights

Saudi Arabia emerged as the dominant region in 2022. Saudi Arabia boasts an extensive coastline along the Red Sea and the Arabian Gulf, strategically positioned at the crossroads of major international shipping routes. This advantageous location renders

the nation a pivotal transit point for global trade, witnessing the passage of numerous vessels annually. Consequently, there exists an ongoing demand for marine engines, catering to a diverse range of vessels such as cargo ships, oil tankers, and passenger carriers.

Moreover, Saudi Arabia's Vision 2030, a comprehensive plan aimed at diversifying the economy beyond oil dependence, places significant emphasis on the maritime sector. Ambitious goals for the development of world-class ports, logistics hubs, and a thriving maritime industry have been set. As such, this drive towards economic diversification presents lucrative opportunities for marine engine manufacturers and suppliers, given the projected increase in demand for vessels equipped with modern engines.

In addition, Saudi Arabia plays a crucial role in the global oil and gas industry, with extensive offshore reserves in the Arabian Gulf necessitating a robust offshore energy sector. The demand for marine engines remains particularly high in this context, as they power essential components such as drilling rigs, production platforms, and support vessels.

To enhance the efficiency of maritime trade and transport, Saudi Arabia has undertaken significant expansion and modernization efforts for its maritime transport infrastructure, including ports and terminals. These infrastructure developments are integral to facilitating seamless maritime operations and present a growing market for marine engine suppliers, catering to vessels operating within these ports and terminals.

Key Market Players

Caterpillar Inc.

Deutz AG

Rolls-Royce Holdings plc

Volvo Penta

MAN Energy Solutions

Wartsila Corporation

Yanmar Co., Ltd.

MTU Friedrichshafen GmbH

Daihatsu Diesel Mfg. Co., Ltd.

SISU Diesel

Report Scope:

In this report, the Middle East & Africa Marine Engines Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

- Middle East & Africa Marine Engines Market, By Stroke:
  - Four Stroke
  - Two Stroke
  - Others
- Middle East & Africa Marine Engines Market, By Capacity:
  - Up to 1,000 HP
  - 1,001–5,000 HP
  - 5,001–10,000 HP
  - 10,001–20,000 HP
  - Above 20,000 HP
- Middle East & Africa Marine Engines Market, By Fuel Type:
  - Heavy Fuel Oil
  - Intermediate Fuel Oil
  - Others
- Middle East & Africa Marine Engines Market, By Ship Type:
  - Bulk Carriers
  - General Cargo Ships
  - Container Ships
  - Ferries & Passenger Ships

o Oil Tankers
o Others
Middle East & Africa Marine Engines Market, By Country:
o United Arab Emirates
o Saudi Arabia
o South Africa
o Turkey
o Qatar
o Nigeria
o Algeria
o Iran
o Egypt
o Morocco
Competitive Landscape
Company Profiles: Detailed analysis of the major companies present in the Middle East & Africa Marine Engines Market.
Available Customizations:
Middle East & Africa Marine Engines market report with the given market data, Tech Sci Research offers customizations according to a company's specific needs. The following customization options are available for the report:
Company Information
Detailed analysis and profiling of additional market players (up to five).

Table of Contents:

Middle East & Africa Marine Engines Market By Stroke (Four Stroke, Two Stroke and Others), By Capacity (Up to 1,000 HP, 1,001-5,000 HP, 5,001-10,000 HP, 10,001-20,000 HP and Above 20,000 HP), By Fuel Type (Heavy Fuel Oil, Intermediate Fuel Oil and Others), By Ship Type (Bulk Carriers, General Cargo Ships, Container Ships, Ferries & Passenger Ships, Oil Tankers and Others), By Country, By Competition Forecast & Opportunities, 2018-2028

Market Report (3 business days) | 2023-10-03 | 127 pages | TechSci Research

To place an Order with Scotts International:

- - Print this form
- - Complete the relevant blank fields and sign
- - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	$4400.00
	Multi-User License	$5400.00
	Custom Research License	$8400.00
	VAT	
	Total	

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*		Phone*	
First Name*		Last Name*	
Job title*			

Company Name*		EU Vat / Tax ID / NIP number*	
Address*		City*	
Zip Code*		Country*	
		Date	2025-06-19
		Signature	