+357 96 030922
info@marketpublishers.com

North America Aircraft Engine Forging Market Size and Forecast (2021 - 2031), Regional Share, Trend, and Growth Opportunity Analysis Report Coverage: By Forging Type (Closed Die Forging and Seamless Rolled Ring Forging), Material Type (Nickel Alloy, Titanium Alloy, Aluminum, and Others), Aircraft Type (Commercial Aircraft, Military Aircraft, and General Aviation), and Application (Fan Case, Combustion Chamber Outer Case, Turbine Disc, Rotors, and Others)

https://marketpublishers.com/r/NFFBF8C97600EN.html
Date: March 2026
Pages: 134
Price: US$ 3,450.00 (Single User License)
ID: NFFBF8C97600EN

Abstracts

The North America Aircraft Engine Forging Market is projected to grow significantly, reaching an estimated US$ 2,124.2 million by 2031, up from US$ 1,340.5 million in 2024. This growth represents a compound annual growth rate (CAGR) of 6.9% from 2025 to 2031.
Executive Summary and Market Analysis
In North America, aircraft manufacturers are increasingly focusing on the development of lightweight and high-strength forged components to enhance engine efficiency and performance. The aerospace sector, particularly in the United States and Canada, is witnessing substantial investments in forging technologies to comply with rigorous safety and quality standards. Notably, in 2024, the U.S. defense initiative known as the Next-Generation Adaptive Propulsion (NGAP) allocated significant resources towards advanced forging research and development. Additionally, regulatory bodies such as the Federal Aviation Administration (FAA) and the Environmental Protection Agency (EPA) are driving the demand for cleaner and more efficient engines, which in turn

+357 96 030922
info@marketpublishers.com

boosts the need for high-performance forged parts.

On February 13, 2025, the Canadian government announced a federal funding package of CAD 180 million to support the Calgary Airport Authority and Lufthansa Technik in constructing a 150,000 square foot engine test and maintenance hub at Calgary International Airport (YYC). This project is expected to commence in mid-2025 and be completed by 2027, further enhancing the region's capabilities in aircraft engine maintenance and testing.

The market is also characterized by the presence of key industry players and ongoing innovations in materials, particularly titanium and nickel-based alloys, which are crucial for the production of high-performance engine components. However, challenges such as high production costs and the complexities associated with forging processes remain prevalent. As a response, manufacturers are increasingly focusing on automation and precision forging techniques to improve efficiency and reduce costs.

Market Segmentation Analysis

The North America Aircraft Engine Forging Market can be segmented based on various criteria:

Forging Type: The market is divided into Closed Die Forging and Seamless Rolled Ring Forging, with Closed Die Forging holding the largest market share in 2024.

Material Type: The segmentation includes Nickel Alloy, Titanium Alloy, Aluminum, and Others, where Titanium Alloy dominated the market in 2024.

Aircraft Type: The market is categorized into Commercial Aircraft, Military Aircraft, and General Aviation, with Commercial Aircraft leading in market share in 2024.

Application: This includes components such as Fan Case, Combustion Chamber Outer Case, Turbine Disc, Rotors, and others, with the Combustion Chamber Outer Case being the most significant segment in 2024.

Market Outlook

As aerospace manufacturers transition towards advanced, fuel-efficient, and lightweight aircraft, the demand for high-performance engine components is rapidly increasing. Forged engine parts are recognized for their superior strength, fatigue resistance, and structural integrity, making them essential for meeting the stringent performance and safety standards of modern aviation.

+357 96 030922
info@marketpublishers.com

Next-generation aircraft engines operate under extreme conditions, necessitating components that can withstand high temperatures and pressures without failure. Forging processes that utilize high-temperature alloys, such as titanium and nickel-based superalloys, are critical for producing turbine disks, shafts, and compressor blades. As original equipment manufacturers (OEMs) aim to optimize thrust-to-weight ratios and minimize emissions, the role of forged components becomes increasingly vital in ensuring reliable engine performance.

The shift towards sustainable aviation, including the development of hybrid and electric propulsion systems, further amplifies the demand for precision-forged components. These emerging technologies require innovative design architectures and materials, presenting opportunities for forging companies to expand their capabilities and innovate. The growing demand for air travel in emerging markets, coupled with the increasing number of aircraft fleet upgrades, creates a robust pipeline for the production of engine components. Investment in digital forging technologies, automation, and advancements in material science enables manufacturers to produce parts with tighter tolerances, shorter lead times, and enhanced performance.

Collaborations between aerospace OEMs and forging suppliers are fostering innovation and strengthening supply chains to meet future demands. In summary, the evolution of next-generation aircraft represents a significant technological advancement for the aviation industry and serves as a catalyst for growth in the aircraft engine forging sector. Companies that invest in advanced forging processes and adapt to the changing aerospace landscape are well-positioned to capitalize on the industry's transformation.

Country Insights

The North America Aircraft Engine Forging Market is primarily segmented by country into the U.S., Canada, and Mexico, with the U.S. holding the largest market share in 2024. The U.S. aerospace and defense industry is characterized by advanced technological capabilities, a high demand for performance-driven materials, and the presence of leading global manufacturers. The market is primarily driven by growth in commercial aviation, military aircraft modernization programs, and a strong emphasis on fuel efficiency and engine performance. Major engine OEMs, such as General Electric Aviation, Pratt & Whitney, and Rolls-Royce North America, rely heavily on high-strength forged components for turbine engines, which are essential for producing reliable and efficient aircraft.

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

9. NORTH AMERICA AIRCRAFT ENGINE FORGING MARKET REVENUE ANALYSIS - BY AIRCRAFT TYPE

10. NORTH AMERICA AIRCRAFT ENGINE FORGING MARKET REVENUE ANALYSIS - BY APPLICATION

+357 96 030922
info@marketpublishers.com

11. NORTH AMERICA AIRCRAFT ENGINE FORGING MARKET - COUNTRY ANALYSIS

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

List Of Tables

LIST OF TABLES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

List Of Figures

LIST OF FIGURES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: North America Aircraft Engine Forging Market Size and Forecast (2021 - 2031), Regional Share, Trend, and Growth Opportunity Analysis Report Coverage: By Forging Type (Closed Die Forging and Seamless Rolled Ring Forging), Material Type (Nickel Alloy, Titanium Alloy, Aluminum, and Others), Aircraft Type (Commercial Aircraft, Military Aircraft, and General Aviation), and Application (Fan Case, Combustion Chamber Outer Case, Turbine Disc, Rotors, and Others)

Product link: https://marketpublishers.com/r/NFFBF8C97600EN.html

Price: US$ 3,450.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/NFFBF8C97600EN.html