

Locomotive Market ? Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Component (Rectifier, Inverter, Traction motor, Alternator, Auxiliary Power Conversion Unit), By Type (Diesel, Electric, Diesel-Electric), By Technology (IGBT Module, GTO Thyristor, SiC Module), By Operational Engine (Station Pilot, Banking Engine, Pilot Engine, Others (Train Engine, Light Engine)), By End Use (Freight, Passenger, Others), By Region & Competition, 2021-2031F

<https://marketpublishers.com/r/L671C0BD7769EN.html>

Date: January 2026

Pages: 185

Price: US\$ 4,500.00 (Single User License)

ID: L671C0BD7769EN

Abstracts

The Global Locomotive Market is projected to expand from a valuation of USD 20.19 Billion in 2025 to USD 33.95 Billion by 2031, reflecting a CAGR of 9.05%. Locomotives, defined as self-propelled vehicles that provide the necessary motive power to haul trains, act as the crucial propulsion units for moving passengers and freight across rail networks. The market is primarily driven by the escalating global need for efficient bulk cargo transport and rigorous government mandates for decarbonization, which require the renewal of existing fleets. These drivers are further strengthened by significant public investments aimed at modernizing aging railway infrastructure to handle heavier loads and higher speeds, with UNIFE projecting that the global rail supply market will grow by an annual average of 3 percent in real terms between 2027 and 2029.

Despite these strong growth indicators, the market encounters a major obstacle regarding international market accessibility. An increase in protectionist trade policies and strict local content mandates is restricting the capacity of foreign manufacturers to

bid for contracts in key jurisdictions. This reduction in open market access constrains competition and adds complexity to global supply chains, presenting a significant challenge that could impede the broader expansion of the global locomotive industry.

Market Driver

Increasing government investment in rail infrastructure modernization acts as a primary catalyst for the global locomotive market, with funds increasingly allocated to upgrading aging fleets and expanding network capacities. Administrations around the world are prioritizing rail reliability, generating significant procurement opportunities for manufacturers of advanced rolling stock. This trend is visible in funding initiatives designed to strengthen supply chains and passenger services; for instance, Progressive Railroading reported in October 2024 that the Federal Railroad Administration awarded over \$2.4 billion in CRISI grants specifically to fund projects such as track upgrades and the acquisition of modern locomotives, facilitating immediate purchases and stimulating long-term development.

Concurrently, the transition toward alternative propulsion systems, such as hydrogen and hybrid engines, is transforming market dynamics as operators aim to meet decarbonization mandates. Rail companies are actively replacing diesel units with zero-emission technologies to comply with environmental regulations, accelerating the commercial deployment of compliant motive power. As reported by Railway PRO in January 2024, Ferrovie del Sud Est awarded Alstom a contract for two Coradia Stream H hydrogen trains to replace diesel vehicles, while Siemens Mobility reinforced this momentum in 2024 by signing a framework agreement with Railpool for the delivery of up to 250 locomotives, underscoring the sustained demand for advanced traction units.

Market Challenge

Restricted access to international markets, resulting from rising protectionist trade policies, serves as a formidable barrier to the Global Locomotive Market. Requirements for local content and preferential treatment for domestic manufacturers are increasingly preventing foreign suppliers from competing for major contracts, effectively fragmenting the global landscape. This trend not only suppresses competition but also disrupts supply chains, compelling companies to duplicate manufacturing efforts or navigate complex regulatory environments to gain entry, resulting in reduced operational efficiencies and higher costs that slow down the broader deployment of advanced locomotive technologies across borders.

The extent of this exclusion is quantified by recent industry analysis which highlights a worrying contraction in open bidding opportunities. According to UNIFE data from 2024, the accessible market share for international suppliers fell to approximately 59 percent for the 2021-2023 period, continuing a historical downward trend. This reduction indicates that a significant portion of global demand is now closed to cross-border bidding, creating an uneven playing field that limits revenue potential for global manufacturers and concentrates market power within isolated domestic sectors, directly impeding the locomotive industry's ability to capitalize on rising demand.

Market Trends

The integration of AI-driven predictive maintenance solutions is fundamentally changing fleet management strategies by shifting operators from reactive repairs to condition-based interventions. By leveraging real-time data from onboard sensors, these systems analyze component health to forecast failures before they occur, thereby maximizing asset availability and operational efficiency. This technology is becoming a standard requirement for modern locomotives to mitigate high costs associated with unscheduled downtime; for example, Informed Infrastructure reported in July 2024 that Siemens Mobility's Railigent X application suite, which combines IoT and AI, can reduce costs due to service delays by up to 40 percent, accelerating the adoption of digital ecosystem platforms.

The advancement of autonomous and driverless train technologies is rapidly progressing from experimental pilot programs to viable commercial applications intended to address labor shortages and enhance network capacity. Manufacturers and research institutes are investing heavily in Grade of Automation systems that enable remote control and train-to-train communication, removing the reliance on traditional trackside signaling. This push toward automation is evidenced by significant R&D initiatives, such as the Korea Railroad Research Institute concluding a 33.1 billion won program to validate 5G-based autonomous train control technology as reported by Railway Gazette in October 2024, indicating a future where locomotive fleets operate with higher precision and reduced human intervention.

Key Market Players

CRRC Corporation Limited

Alstom SA

Siemens AG

Wabtec Corporation

Hitachi Ltd

Mitsubishi Heavy Industries Ltd

Bharat Heavy Electricals Limited

Toshiba Corporation

Transmashholding

Bombardier Transportation

Report Scope

In this report, the Global Locomotive Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

Locomotive Market, By Component

Rectifier

Inverter

Traction motor

Alternator

Auxiliary Power Conversion Unit

Locomotive Market, By Type

Diesel

Electric

Diesel-Electric

Locomotive Market, By Technology

IGBT Module

GTO Thyristor

SiC Module

Locomotive Market, By Operational Engine

Station Pilot

Banking Engine

Pilot Engine

Others (Train Engine, Light Engine)

Locomotive Market, By End Use

Freight

Passenger

Others

Locomotive Market, By Region

North America

United States

Canada

Mexico

Europe

France

United Kingdom

Italy

Germany

Spain

Asia Pacific

China

India

Japan

Australia

South Korea

South America

Brazil

Argentina

Colombia

Middle East & Africa

South Africa

Saudi Arabia

UAE

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the Global Locomotive Market.

Available Customizations:

Global Locomotive Market report with the given market data, TechSci 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).

Contents

1. PRODUCT OVERVIEW

- 1.1. Market Definition
- 1.2. Scope of the Market
 - 1.2.1. Markets Covered
 - 1.2.2. Years Considered for Study
 - 1.2.3. Key Market Segmentations

2. RESEARCH METHODOLOGY

- 2.1. Objective of the Study
- 2.2. Baseline Methodology
- 2.3. Key Industry Partners
- 2.4. Major Association and Secondary Sources
- 2.5. Forecasting Methodology
- 2.6. Data Triangulation & Validation
- 2.7. Assumptions and Limitations

3. EXECUTIVE SUMMARY

- 3.1. Overview of the Market
- 3.2. Overview of Key Market Segmentations
- 3.3. Overview of Key Market Players
- 3.4. Overview of Key Regions/Countries
- 3.5. Overview of Market Drivers, Challenges, Trends

4. VOICE OF CUSTOMER

5. GLOBAL LOCOMOTIVE MARKET OUTLOOK

- 5.1. Market Size & Forecast
 - 5.1.1. By Value
- 5.2. Market Share & Forecast
 - 5.2.1. By Component (Rectifier, Inverter, Traction motor, Alternator, Auxiliary Power Conversion Unit)
 - 5.2.2. By Type (Diesel, Electric, Diesel-Electric)
 - 5.2.3. By Technology (IGBT Module, GTO Thyristor, SiC Module)

5.2.4. By Operational Engine (Station Pilot, Banking Engine, Pilot Engine, Others (Train Engine, Light Engine))

5.2.5. By End Use (Freight, Passenger, Others)

5.2.6. By Region

5.2.7. By Company (2025)

5.3. Market Map

6. NORTH AMERICA LOCOMOTIVE MARKET OUTLOOK

6.1. Market Size & Forecast

6.1.1. By Value

6.2. Market Share & Forecast

6.2.1. By Component

6.2.2. By Type

6.2.3. By Technology

6.2.4. By Operational Engine

6.2.5. By End Use

6.2.6. By Country

6.3. North America: Country Analysis

6.3.1. United States Locomotive Market Outlook

6.3.1.1. Market Size & Forecast

6.3.1.1.1. By Value

6.3.1.2. Market Share & Forecast

6.3.1.2.1. By Component

6.3.1.2.2. By Type

6.3.1.2.3. By Technology

6.3.1.2.4. By Operational Engine

6.3.1.2.5. By End Use

6.3.2. Canada Locomotive Market Outlook

6.3.2.1. Market Size & Forecast

6.3.2.1.1. By Value

6.3.2.2. Market Share & Forecast

6.3.2.2.1. By Component

6.3.2.2.2. By Type

6.3.2.2.3. By Technology

6.3.2.2.4. By Operational Engine

6.3.2.2.5. By End Use

6.3.3. Mexico Locomotive Market Outlook

6.3.3.1. Market Size & Forecast

- 6.3.3.1.1. By Value
- 6.3.3.2. Market Share & Forecast
 - 6.3.3.2.1. By Component
 - 6.3.3.2.2. By Type
 - 6.3.3.2.3. By Technology
 - 6.3.3.2.4. By Operational Engine
 - 6.3.3.2.5. By End Use

7. EUROPE LOCOMOTIVE MARKET OUTLOOK

- 7.1. Market Size & Forecast
 - 7.1.1. By Value
- 7.2. Market Share & Forecast
 - 7.2.1. By Component
 - 7.2.2. By Type
 - 7.2.3. By Technology
 - 7.2.4. By Operational Engine
 - 7.2.5. By End Use
 - 7.2.6. By Country
- 7.3. Europe: Country Analysis
 - 7.3.1. Germany Locomotive Market Outlook
 - 7.3.1.1. Market Size & Forecast
 - 7.3.1.1.1. By Value
 - 7.3.1.2. Market Share & Forecast
 - 7.3.1.2.1. By Component
 - 7.3.1.2.2. By Type
 - 7.3.1.2.3. By Technology
 - 7.3.1.2.4. By Operational Engine
 - 7.3.1.2.5. By End Use
 - 7.3.2. France Locomotive Market Outlook
 - 7.3.2.1. Market Size & Forecast
 - 7.3.2.1.1. By Value
 - 7.3.2.2. Market Share & Forecast
 - 7.3.2.2.1. By Component
 - 7.3.2.2.2. By Type
 - 7.3.2.2.3. By Technology
 - 7.3.2.2.4. By Operational Engine
 - 7.3.2.2.5. By End Use
 - 7.3.3. United Kingdom Locomotive Market Outlook

- 7.3.3.1. Market Size & Forecast
 - 7.3.3.1.1. By Value
- 7.3.3.2. Market Share & Forecast
 - 7.3.3.2.1. By Component
 - 7.3.3.2.2. By Type
 - 7.3.3.2.3. By Technology
 - 7.3.3.2.4. By Operational Engine
 - 7.3.3.2.5. By End Use
- 7.3.4. Italy Locomotive Market Outlook
 - 7.3.4.1. Market Size & Forecast
 - 7.3.4.1.1. By Value
 - 7.3.4.2. Market Share & Forecast
 - 7.3.4.2.1. By Component
 - 7.3.4.2.2. By Type
 - 7.3.4.2.3. By Technology
 - 7.3.4.2.4. By Operational Engine
 - 7.3.4.2.5. By End Use
- 7.3.5. Spain Locomotive Market Outlook
 - 7.3.5.1. Market Size & Forecast
 - 7.3.5.1.1. By Value
 - 7.3.5.2. Market Share & Forecast
 - 7.3.5.2.1. By Component
 - 7.3.5.2.2. By Type
 - 7.3.5.2.3. By Technology
 - 7.3.5.2.4. By Operational Engine
 - 7.3.5.2.5. By End Use

8. ASIA PACIFIC LOCOMOTIVE MARKET OUTLOOK

- 8.1. Market Size & Forecast
 - 8.1.1. By Value
- 8.2. Market Share & Forecast
 - 8.2.1. By Component
 - 8.2.2. By Type
 - 8.2.3. By Technology
 - 8.2.4. By Operational Engine
 - 8.2.5. By End Use
 - 8.2.6. By Country
- 8.3. Asia Pacific: Country Analysis

- 8.3.1. China Locomotive Market Outlook
 - 8.3.1.1. Market Size & Forecast
 - 8.3.1.1.1. By Value
 - 8.3.1.2. Market Share & Forecast
 - 8.3.1.2.1. By Component
 - 8.3.1.2.2. By Type
 - 8.3.1.2.3. By Technology
 - 8.3.1.2.4. By Operational Engine
 - 8.3.1.2.5. By End Use
- 8.3.2. India Locomotive Market Outlook
 - 8.3.2.1. Market Size & Forecast
 - 8.3.2.1.1. By Value
 - 8.3.2.2. Market Share & Forecast
 - 8.3.2.2.1. By Component
 - 8.3.2.2.2. By Type
 - 8.3.2.2.3. By Technology
 - 8.3.2.2.4. By Operational Engine
 - 8.3.2.2.5. By End Use
- 8.3.3. Japan Locomotive Market Outlook
 - 8.3.3.1. Market Size & Forecast
 - 8.3.3.1.1. By Value
 - 8.3.3.2. Market Share & Forecast
 - 8.3.3.2.1. By Component
 - 8.3.3.2.2. By Type
 - 8.3.3.2.3. By Technology
 - 8.3.3.2.4. By Operational Engine
 - 8.3.3.2.5. By End Use
- 8.3.4. South Korea Locomotive Market Outlook
 - 8.3.4.1. Market Size & Forecast
 - 8.3.4.1.1. By Value
 - 8.3.4.2. Market Share & Forecast
 - 8.3.4.2.1. By Component
 - 8.3.4.2.2. By Type
 - 8.3.4.2.3. By Technology
 - 8.3.4.2.4. By Operational Engine
 - 8.3.4.2.5. By End Use
- 8.3.5. Australia Locomotive Market Outlook
 - 8.3.5.1. Market Size & Forecast
 - 8.3.5.1.1. By Value

- 8.3.5.2. Market Share & Forecast
 - 8.3.5.2.1. By Component
 - 8.3.5.2.2. By Type
 - 8.3.5.2.3. By Technology
 - 8.3.5.2.4. By Operational Engine
 - 8.3.5.2.5. By End Use

9. MIDDLE EAST & AFRICA LOCOMOTIVE MARKET OUTLOOK

- 9.1. Market Size & Forecast
 - 9.1.1. By Value
- 9.2. Market Share & Forecast
 - 9.2.1. By Component
 - 9.2.2. By Type
 - 9.2.3. By Technology
 - 9.2.4. By Operational Engine
 - 9.2.5. By End Use
 - 9.2.6. By Country
- 9.3. Middle East & Africa: Country Analysis
 - 9.3.1. Saudi Arabia Locomotive Market Outlook
 - 9.3.1.1. Market Size & Forecast
 - 9.3.1.1.1. By Value
 - 9.3.1.2. Market Share & Forecast
 - 9.3.1.2.1. By Component
 - 9.3.1.2.2. By Type
 - 9.3.1.2.3. By Technology
 - 9.3.1.2.4. By Operational Engine
 - 9.3.1.2.5. By End Use
 - 9.3.2. UAE Locomotive Market Outlook
 - 9.3.2.1. Market Size & Forecast
 - 9.3.2.1.1. By Value
 - 9.3.2.2. Market Share & Forecast
 - 9.3.2.2.1. By Component
 - 9.3.2.2.2. By Type
 - 9.3.2.2.3. By Technology
 - 9.3.2.2.4. By Operational Engine
 - 9.3.2.2.5. By End Use
 - 9.3.3. South Africa Locomotive Market Outlook
 - 9.3.3.1. Market Size & Forecast

- 9.3.3.1.1. By Value
- 9.3.3.2. Market Share & Forecast
 - 9.3.3.2.1. By Component
 - 9.3.3.2.2. By Type
 - 9.3.3.2.3. By Technology
 - 9.3.3.2.4. By Operational Engine
 - 9.3.3.2.5. By End Use

10. SOUTH AMERICA LOCOMOTIVE MARKET OUTLOOK

- 10.1. Market Size & Forecast
 - 10.1.1. By Value
- 10.2. Market Share & Forecast
 - 10.2.1. By Component
 - 10.2.2. By Type
 - 10.2.3. By Technology
 - 10.2.4. By Operational Engine
 - 10.2.5. By End Use
 - 10.2.6. By Country
- 10.3. South America: Country Analysis
 - 10.3.1. Brazil Locomotive Market Outlook
 - 10.3.1.1. Market Size & Forecast
 - 10.3.1.1.1. By Value
 - 10.3.1.2. Market Share & Forecast
 - 10.3.1.2.1. By Component
 - 10.3.1.2.2. By Type
 - 10.3.1.2.3. By Technology
 - 10.3.1.2.4. By Operational Engine
 - 10.3.1.2.5. By End Use
 - 10.3.2. Colombia Locomotive Market Outlook
 - 10.3.2.1. Market Size & Forecast
 - 10.3.2.1.1. By Value
 - 10.3.2.2. Market Share & Forecast
 - 10.3.2.2.1. By Component
 - 10.3.2.2.2. By Type
 - 10.3.2.2.3. By Technology
 - 10.3.2.2.4. By Operational Engine
 - 10.3.2.2.5. By End Use
 - 10.3.3. Argentina Locomotive Market Outlook

- 10.3.3.1. Market Size & Forecast
 - 10.3.3.1.1. By Value
- 10.3.3.2. Market Share & Forecast
 - 10.3.3.2.1. By Component
 - 10.3.3.2.2. By Type
 - 10.3.3.2.3. By Technology
 - 10.3.3.2.4. By Operational Engine
 - 10.3.3.2.5. By End Use

11. MARKET DYNAMICS

- 11.1. Drivers
- 11.2. Challenges

12. MARKET TRENDS & DEVELOPMENTS

- 12.1. Merger & Acquisition (If Any)
- 12.2. Product Launches (If Any)
- 12.3. Recent Developments

13. GLOBAL LOCOMOTIVE MARKET: SWOT ANALYSIS

14. PORTER'S FIVE FORCES ANALYSIS

- 14.1. Competition in the Industry
- 14.2. Potential of New Entrants
- 14.3. Power of Suppliers
- 14.4. Power of Customers
- 14.5. Threat of Substitute Products

15. COMPETITIVE LANDSCAPE

- 15.1. CRR Corporation Limited
 - 15.1.1. Business Overview
 - 15.1.2. Products & Services
 - 15.1.3. Recent Developments
 - 15.1.4. Key Personnel
 - 15.1.5. SWOT Analysis
- 15.2. Alstom SA

- 15.3. Siemens AG
- 15.4. Wabtec Corporation
- 15.5. Hitachi Ltd
- 15.6. Mitsubishi Heavy Industries Ltd
- 15.7. Bharat Heavy Electricals Limited
- 15.8. Toshiba Corporation
- 15.9. Transmashholding
- 15.10. Bombardier Transportation

16. STRATEGIC RECOMMENDATIONS

17. ABOUT US & DISCLAIMER

I would like to order

Product name: Locomotive Market ? Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Component (Rectifier, Inverter, Traction motor, Alternator, Auxiliary Power Conversion Unit), By Type (Diesel, Electric, Diesel-Electric), By Technology (IGBT Module, GTO Thyristor, SiC Module), By Operational Engine (Station Pilot, Banking Engine, Pilot Engine, Others (Train Engine, Light Engine)), By End Use (Freight, Passenger, Others), By Region & Competition, 2021-2031F

Product link: <https://marketpublishers.com/r/L671C0BD7769EN.html>

Price: US\$ 4,500.00 (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/L671C0BD7769EN.html>