

## **Automotive Engine - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)**

Market Report | 2025-06-01 | 150 pages | Mordor Intelligence

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### **Report description:**

Automotive Engine Market Analysis

The automotive engine market is valued at USD 84.44 billion in 2025 and is forecast to climb to USD 94.79 billion in 2030, expanding at a 2.34% CAGR. This measured trajectory shows that the automotive engine market is adapting to stricter emission rules while retaining scale through cleaner combustion, hybrid integration, and selective deployment of alternative fuels. Asia-Pacific leads demand and production, hydrogen internal-combustion pilots are gathering pace, and synthetic e-fuels are emerging to hedge against electrification uncertainty. Automakers are spreading risk across architectures, improving thermal efficiency, and partnering with energy suppliers to extend the relevance of the automotive engine market amid growing battery-electric sales. Supply-chain resilience, especially for rare earths and after-treatment substrates, is becoming a critical differentiator as manufacturers aim to hold margins in a competitive yet fragmented landscape.

Global Automotive Engine Market Trends and Insights

Stricter Global Emission Rules Accelerate Efficiency Upgrades

Euro 7 limits cut permissible NOx by 35% versus Euro 6 and introduce fresh particulate caps for brakes and tires, prompting bigger catalytic converters, electrically heated after-treaters, and variable-compression combustion strategies. Similar measures in North America and key Asia-Pacific markets are forcing global power-train standardization, which helps scale next-gen components. Variable valve timing, Miller-cycle calibrations, and low-temperature combustion are shifting from premium options

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to baseline fitments. The resulting efficiency gains narrow the carbon gap with battery-electric drivetrains when renewable fuels are blended. Altogether, these regulations reinforce the automotive engine market by ensuring compliance without abandoning liquid fuels.

#### Rising Vehicle Production in Emerging Asia-Pacific Economies

From April 2023 to March 2024, the combined production of Passenger Vehicles, Commercial Vehicles, Three-Wheelers, Two-Wheelers, and Quadricycles reached 28,434,742 units. Competitive labor costs, supportive industrial policies, and expanding middle-class demand create a self-reinforcing production loop. Such momentum sustains internal-combustion investment for regional models even as electrification accelerates in mature economies, thereby underpinning growth in the automotive engine market.

#### Rapid BEV Adoption Diverts R&D Budgets from ICE

Battery-electric volumes topped new-car sales in several major markets during 2024, pulling engineering talent and capital toward software and power electronics. Internal-combustion programs face shorter refresh cycles and leaner budgets, which risks widening a technology gap against ever-improving EV efficiency. Tier-one suppliers confronted with smaller order volumes may accelerate factory retooling toward electrified components, placing cost pressure on remaining ICE output and weighing on the automotive engine market.

Other drivers and restraints analyzed in the detailed report include:

E-commerce Logistics Boosts Light-Commercial-Vehicle Demand / Synthetic E-fuels Extend the Combustion Engine Lifecycle / Zero-Emission Urban Zones Curb ICE Sales /

For complete list of drivers and restraints, kindly check the Table Of Contents.

#### Segment Analysis

Due to established tooling and packaging advantages, the in-line layout secured 45.12% of 2024 revenue in the automotive engine market and remains the preferred architecture for mass-market passenger cars. Opposed-piston units are expanding at a 4.48% CAGR; prototypes demonstrate double-digit thermal-efficiency gains and fewer moving parts. Research engines now exceed 1,000 hp while cutting fuel use and emissions. Growing interest from commercial and defence segments suggests a viable pathway to volume adoption in the late 2020s. V-type configurations hold share in premium SUVs and heavy-duty trucks, where power density offsets complexity. Flat engines continue in low-volume sports and off-road vehicles that benefit from a low centre of gravity.

Demand for innovative layouts signals a wider industry pivot toward architectures that deliver efficiency without full electrification. The automotive engine market, therefore, supports diversified engineering roadmaps, mitigating single-technology risk and allowing regional optimisation of power-train portfolios.

Gasoline retained 60.84% share in 2024, bolstered by ubiquitous refuelling networks and continuous combustion-system upgrades. Hydrogen internal-combustion variants are the fastest-growing segment with a 13.42% CAGR through 2030; field tests demonstrate near-zero CO<sub>2</sub> alongside familiar engine reliability. National subsidies for green-hydrogen production, combined with heavy-truck duty-cycle suitability, create an early commercial beachhead. Diesel still dominates long-haul freight, yet tightening NO<sub>x</sub> caps raise system cost, levelling the field for gas and hydrogen.

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Natural-gas engines maintain relevance for fleet users with depot refuelling, whereas e-fuel-ready engines give OEMs a route to compliance without redesign. This fuel diversification keeps the automotive engine market resilient against rapid shifts in infrastructure and policy.

The Automotive Engine Market Report is Segmented by Placement Type (In-Line, V-Type, W-Type, Boxer / Flat, and More), Fuel Type (Gasoline, Diesel, Natural Gas / CNG, and More), Vehicle Type (Passenger Cars, Light Commercial Vehicles, and More), Engine Capacity (Below 1.5 L, 1.5 To 3 L, and More), and Geography. The Market Forecasts are Provided in Terms of Value (USD) and Volume (Units).

## Geography Analysis

Asia-Pacific holds 41.66% of global turnover and posts a 3.06% CAGR that outpaces every other region. China continues to scale exports, India aspires to top world rankings, and Southeast Asia diversifies supply with Indonesia and Malaysia stepping up output. Cost advantages, supportive policy frameworks, and rising household incomes reinforce regional ICE production.

North America sustains a 2.1% CAGR as replacement cycles, commercial-fleet renewal, and multipropulsion manufacturing keep plants busy. Tariff risks and elevated financing costs curb upside, but ICE still commands more than 90% of output today. Automakers plan flexible lines to serve mixed propulsion demand into the next decade.

Europe records a 1.8% CAGR, reflecting the toughest regulatory climate, higher energy costs, and slower post-pandemic recovery. The bloc nevertheless hosts leading combustion R&D centres focused on ultra-low emission and e-fuel-ready engines that enable compliance while retaining domestic employment.

Overall, geography segmentation shows that the automotive engine market evolves at different speeds, balancing mature-market electrification with developing-market demand for proven combustion power.

## List of Companies Covered in this Report:

Toyota Motor Corporation / Volkswagen AG / Hyundai Motor Group / General Motors / Stellantis N.V. / Ford Motor Company / Mercedes-Benz Group AG / BMW AG / Honda Motor Co., Ltd. / Nissan Motor Co., Ltd. / Cummins Inc. / Volvo Group / Tata Motors Limited / Scania AB / Caterpillar Inc. /

## Additional Benefits:

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

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