

Air Brake System - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2024 - 2029)

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Abstracts

The Air Brake System Market size is estimated at USD 3.60 billion in 2024, and is expected to reach USD 4.13 billion by 2029, growing at a CAGR of 2.80% during the forecast period (2024-2029).

Over the medium term, the demand for commercial trucks and buses witnessed a rise in sales and production, particularly in the logistics and construction sectors, which is likely to drive the growth of the market significantly during the forecast period.

The development of major infrastructure projects in several regions, encompassing the construction of highways, feeder roads, ports, and airports, is playing a pivotal role in bolstering the demand for heavy-duty trucks, which is anticipated to enhance the demand for air brake systems in the coming years.

Electric vehicles (EVs) are growing rapidly due to the specific manufacturing requirements of EV components. The demand for lightweight and high-performance components has increased, creating a lucrative opportunity for the market.

Air Brake System Market Trends

Buses Hold Major Market Share

Hybrid and electric buses employ two braking systems: regenerative braking and air braking. Regenerative braking works by utilizing the electric motor as a generator to capture the energy released during braking by performing 'regenerative deceleration.' In this process, kinetic energy is converted into electrical energy, which is stored in the battery for later use. This process is similar to the principle of a dynamo on a bicycle.



When vehicles are fitted with regenerative braking, the air brake system is used less frequently than diesel buses that rely solely on air braking. It is important to note that while regenerative braking is helpful, it is not sufficient to stop a vehicle. Therefore, air braking remains necessary for this critical function. Thus, the demand for air brake systems is likely to witness significant growth in the coming years.

By 2030, the prices of electric buses are expected to be on par with diesel-engine buses. Electric buses can reduce maintenance and operating costs by 81-83% compared to diesel-engine buses, which is expected to increase demand for air brake systems. Manufacturers are increasingly focused on launching new bus models and are expected to roll out customized buses with improved interiors and aesthetics over the forecast period. Many governments and city authorities are investing in the modernization of their bus fleets to improve public transportation infrastructure, address traffic congestion, and reduce air pollution.

Asia-Pacific Witnessing Major Growth

Asia-Pacific currently holds a major market share due to an increase in the sale of commercial trucks and buses, driven by the presence of major commercial vehicle manufacturers with advanced research facilities.

Trucks play a vital role in many industries, such as mining, construction, infrastructure development, and energy plants. There is a growing need for a consistent supply of materials to the power industries and efficient debris removal to speed up mining activities.

China, India, and South Korea are currently the top three markets for electric buses. China alone has more than 98% of all-electric buses globally, with a fleet of over 500,000 units.

The rapid expansion of automotive component manufacturers across the region is driving the market. For instance, in May 2023, Kendrion NV opened a new facility spanning 28,000 square meters - the largest one in the Kendrion Group.

The increase in the sale of commercial vehicles in Asia-Pacific and the rise in demand for electric commercial vehicles is expected to boost the growth of the air brake systems



market.

Air Brake System Industry Overview

The air brake system market is dominated by several key players, such as Knorr-Bremse AG, Wabtec Corporation, ZF Friedrichshafen AG, Haldex Group, and others. The market is expected to witness significant growth during the forecast period due to the rapid expansion of manufacturing industries and growing strategic development among key players worldwide.

In December 2023, Kongsberg Automotive's Flow Control Systems business unit secured a three-year contract extension worth over USD 32.58 million. The extension was granted by a European commercial vehicle OEM for FCS Couplings' compressed air systems.

In June 2023, Knorr-Bremse AG, a leading manufacturer of braking systems, introduced a cutting-edge electromechanical train braking system (EM brake) that utilizes compressed air to apply the brake pads to the brake discs effectively. This advanced system is designed to deliver optimal braking performance and ensure the safety of passengers and freight on trains.

Additional Benefits:

The market estimate (ME) sheet in Excel format

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