

# Heavy Construction Equipment Market by Machinery Type (Earthmoving equipment, Material Handling Equipment, Heavy Construction Vehicles), Propulsion Type (Diesel, CNG/LNG/RNG, Electric), Engine Capacity, End-Use Industry & Region-Global Forecast to 2028

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# **Abstracts**

The global heavy construction equipment market is estimated to grow from USD 190.3 billion in 2022 to reach USD 252.4 billion by 2028, at a CAGR of 4.8%. The increasing demand for heavy construction equipment in mining and construction industry is one of the most significant factors projected to drive the growth of the heavy construction equipment market.

"increasing investments in construction and infrastructure sectors to drive the heavy construction equipment market"

dDemand for heavy construction equipment is fueled by the increasing investments in construction activities. For instance, Beijing, China is making 6.8 trillion yuan (aboutapproximately USD 1 trillion) of government funds available for construction projects. More than 800 billion yuan (USD 115.96 million) were set to be invested in the construction of canals, dams, and reservoirs in 2022. And uUrban infrastructure building including urban roads, gas and water pipe networks, and parks — is the most popular choice for spending by local governments, which account for the bulk of China's infrastructure spending. Further, China also plansned to build 70,000 km of high-speed rail by 2035.

As per the declaration in June 2022, the European Union announced an investment of



nearly USD 5.4 billion for the development of transport infrastructure development. The European Union has selected around 135 infrastructure projects to disburse development funds. According to the UK Construction Leadership Council, planned investments include 700 projects and over USD 645.7 billion in the National Infrastructure Pipeline. Such planned investments and growing construction activities for infrastructure development would are expected to drive the demand for construction equipment during the forecast period.

"Stringent government regulations to restrain for heavy construction equipment market."

One of the major obstacles faced by heavy construction equipment players is regionspecific government regulations. For a company to start heavy construction, it needs to undergo a lengthy and rigorous process of obtaining a permit after various required checks.

For instance, since the construction industry uses more diesel engines than any other industry, in order to meet EU emissions regulations, proper baseline data is collected to adequately characterize the environmental condition of the area. Surveys are carried out related to the cultural and historical resources, soil, vegetation, wildlife, surface & groundwater hydrology, climatology, and wetlands. After the permit is prepared and submitted to the regulatory agency, it goes through completeness and technical reviews.

Companies are required to adhere to the following Acts/Regulations to perform heavy construction activities:

National Environmental Policy Act (1970)

Federal Land Policy and Management Act (1976)

Clean Air Act (1963)

Federal Water Pollution Control Act (1972)

Toxic Substance Control Act (1976)

Such lengthy, time-consuming, and often varying regulations act as a restraint to the



heavy construction equipment market.

"Digitization of services to provide an opportunity for the heavy construction equipment market."

There are enormous possibilities for implementing digitization, innovative technologies, and new construction techniques in the construction equipment industry. New technologies like connected equipment and tools, telematics, smart applications, and autonomous heavy equipment can be delayed deployed and used on worksites globally.

Construction equipment manufacturers use data to make better decisions, increase efficiency, improve job site safety, and lower risks. Artificial Intelligence (AI) and machine learning systems are used to develop predictive analyticssis tools in the construction equipment for monitoring machine health. In January 2022, Hitachi Construction Machinery Co., Ltd. launched the ConSite Mine to the global market, a solution that provides machine analytics to help resolve issues at mining sites by using IoT to monitor mining machinery 24 hours a day remotely.

"Development of alternative solutions to be a major challenge for heavy construction equipment market."

Battery and motor are the two most fundamental elements of electric heavy construction equipment. The motor provides the force, and the battery stores and supplies the energy. Controlling the speed and torque of the motor across a wide range of speed and load conditions is one of the challenges for heavy construction equipment manufacturers. With the finite amount of stored energy available in a battery, the capacity must get is required to be used as efficiently as possible. An increase in the battery size would help increase the battery's capacity, but this directly increases the weight and the cost of the heavy construction equipment directly.

Battery charging is one of the major challenges as batteries in electric-powered heavy-duty construction equipment take a long time to recharge. This increases downtime and delays the return on investment. Apart from this, battery thermal management systems face leaks, corrosion, clogging, climate, and aging. Heavy construction equipment manufacturers and technology experts are developing advanced battery thermal management systems to resolve this challenge.

"Asia Pacific to be the dominating region in heavy construction equipment market in terms of both value"



Asia Pacific led the heavy construction equipment market, in terms of value, in 2022 and is projected to register a CAGR of 4.9% between 2023 and 2028. This high market penetration is attributed to the increasing mining and infrastructural developments happening in the region especially in China and India. The governments in these countries are promoting development of infrastructure to attract new foreign investments and improve their economy. With the rising demand for raw materials across the globe and to secure their energy interest, the governments of these two countries are actively looking for finding suitable lithium mines in and outside of the country for battery manufacturing. These will promote the increased usage of heavy construction equipment in this region.

This study has been validated through primary interviews with industry experts globally. These primary sources have been divided into the following three categories:

By Company Type- Tier 1- 37%, Tier 2- 33%, and Tier 3- 30%

By Designation- C Level- 50%, Director Level- 20%, and Others- 30%

By Region- North America- 20%, Europe- 25%, Asia Pacific (APAC) - 45%, Middle East & Africa (MEA)-10% South America-5%

The report provides a comprehensive analysis of company profiles:

Prominent companies include Caterpillar (US), Liebherr AG (Germany), Terex Corporation (US), Volvo Group (Sweden), Komatsu (Japan), Hitachi Construction Machinery Co., Ltd. (Japan), SANY Heavy Industry Co., Ltd. (China), HD Hyundai (South Korea), XCMG Group (China), CNH Industrial N.V. (UK), and J C Bamford Excavators Ltd (UK), among others.

#### Research Coverage

This report covers the global heavy construction equipment market and forecasts the market size until 2028. It includes the following market segmentation – By Machinery Type (Earthmoving equipment, Material Handling Equipment, Heavy Construction Vehicles, Others), By Propulsion Type (Diesel, CNG/LNG/RNG, Electric), By Engine Capacity (10 L), by Power Output (400 HP), By application (Material Handling, Transportation, Excavation & Demolition, Heavy Lifting, Tunneling, Recycling & Waste



Management), By End-Use Industry (Mining, Infrastructure, Building & Construction, Forestry & Agriculture, Others), and Region (North America, Europe, Asia Pacific, Middle East & Africa, South America). A detailed analysis of the key industry players has been done to provide insights into their business overview, solutions, services; key strategies; Contracts, partnerships, and agreements. New product & service launches, mergers and acquisitions, and recent developments associated with the heavy construction equipment market. Competitive analysis of upcoming startups in the heavy construction equipment market ecosystem is covered in this report.

# Reasons to buy this report:

The report will help the market leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall heavy construction equipment market and the subsegments. This report will help stakeholders understand the competitive landscape and gain more insights to position their businesses better and plan suitable go-to-market strategies. The report also helps stakeholders understand the pulse of the market and provides them with information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:

Analysis of key drivers (Increasing investments in construction and infrastructure sector, Rapid urbanization, Rising demand in emerging countries, Technological advancements and upgradation, demand for sustainable solutions), restraints (stringent government regulations, Socio-economic effects of heavy construction activities), opportunities (Demand for autonomous heavy construction equipment, Renting or leasing of equipment, Digitization services), and challenges (Development of optimized of alternative solutions, high cost of equipments, Lack of skilled labour force and maintenance & repair related issues) influencing the growth of the heavy construction equipment market

Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product & service launches in the heavy construction equipment market

Market Development: Comprehensive information about lucrative markets – the report analyses the heavy construction equipment market across varied regions.

Market Diversification: Exhaustive information about new products & services,



untapped geographies, recent developments, and investments in the heavy construction equipment industry market

Competitive Assessment: In-depth assessment of market shares, growth strategies, and service offerings of leading players like Caterpillar (US), Liebherr AG (Germany), Terex Corporation (US), Volvo Group (Sweden), Komatsu (Japan), Hitachi Construction Machinery Co., Ltd. (Japan), SANY Heavy Industry Co., Ltd. (China), HD Hyundai (South Korea), XCMG Group (China), CNH Industrial N.V. (UK), and J C Bamford Excavators Ltd (UK), among others in the heavy construction equipment market



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