Freedonia Focus Reports
Global Collection

Construction Machinery: China

January 2022

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About This Report

Scope

This report forecasts to 2025 construction machinery (工程机械) demand and production in nominal US dollars at the manufacturer level in China. Total demand is segmented by product in terms of:

- loaders
- excavators
- cranes and draglines
- mixing and paving equipment
- grading and compaction equipment
- dozers and off-highway trucks
- parts and attachments

To illustrate historical trends, total demand is provided in annual series from 2010 to 2020; production and the various segments are reported at five-year intervals for 2010, 2015, and 2020.

Construction machinery used in mining, energy, forestry, and other non-construction applications (e.g., agriculture) is included in this report. This report covers both self-powered and non-self-powered machinery.

However, excluded from the scope of this report are:

- handheld equipment, such as jackhammers
- certain products sometimes considered to be construction equipment, including aerial work platforms, dredging machinery, forklifts and telehandlers, industrial cranes, log splitters, pile driving equipment, and tunneling machinery
- cranes used in seaports (specifically those for maritime applications) and in other industrial settings, such as gantry or overhead cranes
- used construction equipment
- remanufactured equipment
- rental and leased equipment
- sales of parts and attachments to new machinery OEMs

For any given historical year, US dollar amounts are obtained from values expressed in the applicable local currency. These local currency values are converted to US dollars at the average annual exchange rate for that year. For forecast years, the US dollar amounts assume the same annual exchange rate as that prevailing in 2020.

Key macroeconomic indicators are also provided with quantified trends. Other various topics, including profiles of pertinent leading companies, are covered in this report. A full outline of report items by page is available in the Table of Contents.

Sources

Construction Machinery: China (FC75027) is based on *Global Construction Machinery,* a comprehensive industry study published by The Freedonia Group. Reported findings represent the synthesis and analysis of data from various primary, secondary, macroeconomic, and demographic sources, such as:

- firms participating in the industry, and their suppliers and customers
- government/public agencies
- intergovernmental and non-governmental organizations
- trade associations and their publications
- the business and trade press
- indicator forecasts by The Freedonia Group
- the findings of other reports and studies by The Freedonia Group

Specific sources and additional resources are listed in the Resources section of this publication for reference and to facilitate further research.

Industry Codes

Table 5	HS Codes Related to Construction Machinery	
HS Code	**Definition**
8413.40	Pumps for liquids: concrete pumps
8425.31	Winches; capstans: powered by an electric motor
8425.39	Winches; capstans: not powered by an electric motor
8426.20	Cranes: tower cranes
8426.30	Cranes: portal or pedestal jib cranes
8426.41	Cranes: self-propelled derricks and cranes on tires
8426.49	Cranes: self-propelled derricks and cranes not on tires
8426.99	Cranes and derricks other than for mounting on road vehicles
8429.11	Bulldozers and angledozers: self-propelled, track laying
8429.19	Bulldozers and angledozers: self-propelled, other than track laying
8429.20	Graders and levelers: self-propelled
8429.30	Scrapers: self-propelled
8429.40	Tamping machines and road rollers: self-propelled
8429.51	Front-end shovel loaders: self-propelled
8429.52	Mechanical shovels, self-propelled excavators and shovel loaders, with a 360 degree revolving superstructure
8429.59	Mechanical shovels, self-propelled excavators and shovel loaders, without a 360 degree revolving superstructure
8430.61	Machinery: for tamping or compacting, not self-propelled
8431.41	Machinery parts: buckets, shovels, grabs and grips
84314.2	Machinery parts: bulldozer or angledozer blades
8431.49	Machinery: other parts of machines handling earth, minerals or ores
8474.31	Machines: concrete or mortar mixers
8474.32	Machines: for mixing mineral substances with bitumen
8479.10	Machinery and mechanical appliances: for public works, building or the like
8704.10	Motor vehicles: dumpers, designed for off-highway use, for transport of goods
8705.10	Special purpose motor vehicles: mobile cranes
8705.40	Special purpose motor vehicles: concrete mixers

Source: United Nations Statistics Division

Freedonia Methodology

The Freedonia Group, a subsidiary of MarketResearch.com, has been in business for more than 30 years and in that time has developed a comprehensive approach to data analysis that takes into account the variety of industries covered and the evolving needs of our customers.

Every industry presents different challenges in market sizing and forecasting, and this requires flexibility in methodology and approach. Freedonia methodology integrates a

variety of quantitative and qualitative techniques to present the best overall picture of a market's current position as well as its future outlook: When published data are available, we make sure they are correct and representative of reality. We understand that published data often have flaws either in scope or quality, and adjustments are made accordingly. Where no data are available, we use various methodologies to develop market sizing (both top-down and bottom-up) and then triangulate those results to come up with the most accurate data series possible. Regardless of approach, we also talk to industry participants to verify both historical perspective and future growth opportunities.

Methods used in the preparation of Freedonia market research include, but are not limited to, the following activities: comprehensive data mining and evaluation, primary research, consensus forecasting and analysis, ratio analysis using key indicators, regression analysis, end use growth indices and intensity factors, purchase power parity adjustments for global data, consumer and end user surveys, market share and corporate sales analysis, product lifespan analysis, product or market life cycle analysis, graphical data modeling, long-term historical trend analysis, bottom-up and top-down demand modeling, and comparative market size ranking.

Freedonia quantifies trends in various measures of growth and volatility. Growth (or decline) expressed as an average annual growth rate (AAGR) is the least squares growth rate, which takes into account all available datapoints over a period. The volatility of datapoints around a least squares growth trend over time is expressed via the coefficient of determination, or r^2. The most stable data series relative to the trend carries an r^2 value of 1.0; the most volatile – 0.0. Growth calculated as a compound annual growth rate (CAGR) employs, by definition, only the first and last datapoints over a period. The CAGR is used to describe forecast growth, defined as the expected trend beginning in the base year and ending in the forecast year. Readers are encouraged to consider historical volatility when assessing particular annual values along the forecast trend, including in the forecast year.

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