



## CONSTRUCTION MACHINERY AND RELATED EQUIPMENT

### Overview

Construction machinery and related equipment is an important and growing segment of the U.S. machinery manufacturing sector. U.S. manufacturers in this industry segment have enjoyed strong export growth in recent years and employ more than 170,000 American workers in well-compensated trades and professions. Major product categories include equipment used in construction, surface and underground mining, and logging applications; diesel and semi-diesel engines used in such equipment; and fluid power pumps, motors, cylinders, and actuators.

U.S. exports totaled \$43.6 billion in 2011, a 31 percent increase from 2010. Since 2000, exports have increased 153 percent.<sup>1</sup> The U.S. share of the global market for construction machinery and related equipment varies by industry. For construction and mining machinery and fluid power pumps and motors, U.S. market share is approximately eight percent. U.S. market share for engines and fluid power actuators/cylinders are 5.5 percent and 4.8 percent, respectively.

More than 1,800 American companies manufacture construction machinery and related equipment. These include large multibillion-dollar manufacturers, as well as small and medium enterprises (SMEs) that provide secondary and tertiary components for finished goods. Many SMEs participate in the larger manufacturers' global supply chains. Numerous smaller manufacturers produce specialty equipment.

Leading export markets for U.S. construction equipment and related equipment manufacturers in 2011 include Canada, Mexico, Australia, China and Brazil. Immediately behind these top export country destinations are rapidly growing markets in South Africa, Russia and Colombia. Major competitors in the global construction machinery and related equipment markets include Germany, Italy, Japan, South Korea and China.

### Key Statistics - 2011

*(unless otherwise noted)*

Exports:	\$43.6 billion <sup>2</sup>
Export Growth (2010-11):	31.0 percent <sup>3</sup>
Direct Employment (2010):	173,412 <sup>4</sup>
U.S. Share of Global Market:	6.89 percent <sup>5</sup>
Construction Equipment	8.07 percent
Mining Equipment	7.82 percent
Engines	5.47 percent
Fluid Power Cylinders/Actuators	4.80 percent
Fluid Power Pumps and Motors	7.99 percent

### Major End Uses

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<sup>1</sup> U.S. International Trade Commission Interactive Tariff and Trade Database; includes NAICS 333120 333131 333618 333995 333996.

<sup>2</sup> Ibid.

<sup>3</sup> Ibid.

<sup>4</sup> Bureau of the Census, 2010 Annual Survey of Manufactures; includes NAICS 333120 33313 333618 33399

<sup>5</sup> Global Trade Atlas, United Nations; calculated from certain data in HS Chs. 82 and 84 aggregated at the six digit level.

**Construction** – A wide variety of machinery for use in infrastructure, industrial, and commercial construction projects, such as backhoes, bulldozers, road graders, pile drivers, and more.

**Surface Mining** – Shovels, draglines, loaders, trucks, and other machinery for surface-mining applications.

**Logging** – Harvesters, skidders, feller bunchers, and related equipment for commercial forestry.

**Underground Mining** – Coal breakers, mining cars, core drills, coal cutters, and rock drills as well as manufacturing mineral beneficiating machinery and equipment used in surface or underground mines.

**Construction Machinery and Related Equipment Manufacturing** – Internal combustion engines and fluid power cylinders, actuators, pumps, and motors for use in heavy off-road use in construction, mining, forestry, agricultural, marine, and other equipment (except automotive gasoline and aircraft).

### **Opportunities**

New construction and infrastructure repair are major growth drivers for this industry. With major new construction and infrastructure projects underway or planned worldwide, demand for construction machinery and equipment will continue to grow. Developed countries are expected to rebuild infrastructure, while emerging markets build new infrastructure to sustain development. Raw material demand for infrastructure development is also driving growth for mining equipment.

Government-funded infrastructure and development projects in priority markets also represent significant opportunities for U.S. manufacturers. Centrally planned and funded national infrastructure development plans in key markets include Mexico's National Infrastructure Program and Colombia's National Development Plan. Infrastructure to support events such as the 2014 Winter Olympics in Sochi, Russia and the 2016 Summer Olympics in Rio de Janeiro, Brazil also present strong export growth opportunities for construction machinery and related equipment.

### **Challenges**

Similar to other segments in the machinery manufacturing sector, manufacturers of construction machinery and related equipment face challenges to export growth from an array of tariff and non-tariff barriers imposed by foreign governments. These barriers include high tariffs, import substitution measure, rules of origin, preferential financing for domestic manufacturers, and incentives for foreign manufacturers to enter into manufacturing agreements with domestic competitors. In addition, U.S. exporters in this segment face growing competition from manufacturers of less-expensive but lower-quality goods from China and other countries looking to gain a share of this market. U.S. manufacturers' primary challenge with these lower-cost competitors is convincing customers of the superior value of U.S. made equipment from a lifecycle/operating cost and product reliability standpoint.

### **Manufacturers**

Construction machinery and related equipment manufacturers range in size from large, multibillion-dollar, globally recognized manufacturers, to SMEs proving components for these manufacturers, to small specialty equipment manufacturers. The majority of manufacturers are SMEs, but there are also many large, public companies and recognized American brands that do business on a global scale. Construction machinery and related equipment is manufactured across the United States, but production is concentrated in the industrial Midwest.

### **Employment**

Increased manufacturing productivity efficiency increases have placed downward pressure on employment in recent years. Nevertheless, the U.S. construction machinery and equipment industry accounted for more than 170,000 jobs in 2010.<sup>6</sup>

Machinery manufacturing jobs are primarily in highly-skilled, well-compensated trades and professions. Leading employment categories include team assemblers, machinists, welders, tool-and-die makers, and mechanical and other engineers.

### **Relationship with MAS and ITA**

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<sup>6</sup> Bureau of the Census, 2010 Annual Survey of Manufactures; includes NAICS 333120 33313 333618 33399.

Construction machinery and related equipment manufacturers and the organizations that represent them have been engaged with each of ITA's operating units for many years, including Manufacturing and Services (MAS), the Commercial Service (CS), Market and Compliance (MAC), and the Import Administration (IA). The MAS Office of Transportation and Machinery covers the majority of machinery manufacturing industry sectors.

### **Information for Machinery Exporters**

U.S. Government Resources for Exporters:

[www.export.gov](http://www.export.gov)

The International Trade Administration:

[www.trade.gov](http://www.trade.gov)

The Export Import Bank of the United States:

[www.exim.gov](http://www.exim.gov)

The Small Business Administration:

[www.sba.gov](http://www.sba.gov)