

# Exporting metal parts for earthmoving equipment to Europe

Europe is among the largest manufacturers of earth-moving equipment in the world. Imports from developing countries to Europe have shown positive trends in the past few years. European producers are increasingly buying parts in developing countries for cost-saving reasons. If the product quality and price expectations of the buyers are met, exporters from developing countries have good opportunities in terms of subcontracting the production of steel parts for earth-moving equipment.

## Contents of this page

1. [Product description](#)
2. [What makes Europe an interesting market for earth-moving equipment parts?](#)
3. [What trends offer opportunities on the European market for earth-moving equipment parts?](#)
4. [What requirements should metal parts for earth-moving equipment comply with to be allowed on the European market?](#)

## 1. Product description

When 'earth-moving equipment parts' or '(metal) parts for earth-moving equipment' are referred to in this survey, this concerns the selection of products with the following [Harmonised System](#) codes, unless otherwise stated:

- 843141 - Buckets, shovels, grabs and grips for earth-moving machinery
- 843142 - Bulldozer or angledozer blades
- 843149 - Heavy equipment parts (including earth-moving equipment and cranes)

## Product specification

Specifications of metal parts for earth-moving equipment as required by European buyers are described below. Furthermore, pictures 1-3 show some examples of earth-moving equipment parts that are used in Europe; pictures 4-6 show some examples of earth-moving equipment.





## Material and design

Earth-moving equipment parts are mostly made of steel. The parts have moderate requirements for surface finishing, however the requirements depend on the application of the part in the machine. The buyer specifies the exact requirements of the earth-moving equipment parts. They can vary from buyer to buyer, as they depend a lot on the brand of the equipment.

### Tip:

Some websites of European distributors or producers offer specifications, for example [Trevibenne](#) - Italian producer of wear parts for machinery, including earth-moving equipment.

## Labelling and packaging

Due to the great diversity of earth-moving equipment parts, there is also diversity of packaging. However, the standard means of transportation is wooden boxes for large parts. Cartons can be used for smaller parts.

Usually the packaging and labelling must be done according to buyer specific requirements.

Worked steel parts are coated with a rust inhibitor before being packed and shipped. Oil-paper may be used to avoid the dispersion of the protective oil. Sometimes in case of small parts, hermetically, vacuum-sealed synthetic pouches are applied.

Depending on the product characteristics and buyer wishes, steel parts are packed in wood, plastic or in containers. In the case of a heavy product, for example, the outer package may be a heavy box.

However, all of the empty space in the box must be filled to prevent the product from moving. The package for ocean transportation may be wooden or iron pallets wrapped with plastic sheeting and packed with metal strips.

Last but not least: packaging is always labelled, not only for the purposes of identification during transport, but also to indicate the quantity, weight, the products themselves and the producer's name.

## Quality

Quality standards of individual companies in Europe are high. They may depend on the equipment producer's country of origin. Within Europe, individual company quality standards in Germany are probably the highest in Europe. Such quality standards impact upon many issues, such as the finishing and painting of the part (the

visual-optical qualities or the appearance of the part), the requirements for packaging, the accessory documentation etc.

Many of the earth-moving equipment producers increasingly depend on exports, and have therefore also implemented stricter quality standards than previously.

## 2. What makes Europe an interesting market for earth-moving equipment parts?

Please be aware that the figures do not represent the total value of earth-moving equipment parts. In reality, the figures are 25-40% lower. This is due to the fact that other machinery parts are also included in the selection of codes (code 843149 covers not only earth-moving equipment parts but also parts for cranes).

### Imports

European import of metal earth-moving equipment parts decreased by 2% per year between 2011-2015 to €7.2 billion in 2015. 80% of European imports are unspecified; 13% are cast parts and 7% are in the category of buckets, shovels, grabs and grips.

Intra-European trade dominates imports, although it is showing a downward trend in the period under review.

Actually, imports from developing countries are the only category that showed year-on-year growth in 2014 and 2015. Between 2011-2015, imports from developing countries increased by 6% per year on average.

In 2015, imports from developing countries held a 13% share in the total European imports. Note that China and Turkey are included in the group of developing countries.

Germany is the largest importer of earth-moving equipment metal parts, followed by France and the United Kingdom. The imports from developing countries were the highest in the United Kingdom (€254 million), followed by Germany (€146 million). The United Kingdom showed the highest absolute growth (+€62 million) in metal parts for earth-moving equipment from developing countries.

The import of earth-moving equipment parts is expected to grow slightly in the next few years, in the range of 0-2%. Imports from developing countries are expected to perform the best, with a forecast of 3-5% growth per year. This is because European producers are expected to buy increasingly from overseas countries for cost-saving reasons.

### Leading suppliers

Germany, Italy, China, Belgium, France, the Netherlands and Sweden are the top seven leading suppliers.

Together, they represented 45% of the total supply to Europe in 2015.

The United States (2.9%) and South Korea (2.6%) are the largest suppliers in the category 'Rest of the world'.

Representing more than 7% of the total supply, China is the largest supplier of earth-moving equipment parts to Europe from a developing country. China country also showed the highest annual growth in 2011-2015 (+8.8%) of all leading suppliers.

### Tips:

Benchmark your company against your peers from developing countries such as China, but also Turkey, India and those from European countries. Several factors can be taken into account, such as market segments served, perceived price and quality level, countries served, etc. One source that can be used to find exporters of metal parts per country is [ITC Trademap](#) (you have to register first).

You can find more information about the earth-moving equipment industry in different countries on the websites of sector associations such as [CECE](#) (Europe), [VDMA-BUB](#) or [VDMA-LT](#) (Germany) and [CEA](#) (the United Kingdom).

## Exports

European exports of earth-moving equipment metal parts decreased by 4% per year between 2011-2015 to €8.4 billion in 2015. European exports are mainly destined for other European countries. In 2015, European exports to developing countries amounted to almost €1.8 billion.

The share of developing countries in European exports showed a downward trend in the period under review, from 23% in 2011 to 21% of total European exports in 2015.

Germany is the largest European exporter of metal parts for earth-moving equipment, accounting for 19% of total European exports. Italy, France, Belgium, the United Kingdom and the Netherlands are other leading exporters. Together, these six countries represented 63% of the total export value in 2015.

Germany was also the largest European exporter of metal earth-moving equipment parts to developing countries in 2015. The countries with the highest absolute growth in exports to developing countries over four years' time are Spain (+€16 million) and Italy (+€13 million).

European exports of earth-moving equipment parts are expected to grow slightly in the next few years, in the range of 0-2%. This growth is strongly connected to the production of earth-moving equipment. Conversely, earth-moving equipment production will be driven by economic growth in Europe in the next few years.

For the coming years, this market share is forecast to decrease further to 20% due to the anticipated reduced need for equipment imports.

## Production

Note that the issue of supply and demand applies to the complete earth-moving equipment industry and not only to metal parts for earth-moving equipment.

Production of metal parts for earth-moving equipment peaked in 2012 at €14 billion. After this, it dropped to €11 billion in 2014. Germany is the largest producer in Europe (25% share), followed by the United Kingdom, Belgium, France, Italy and Austria. Together, these countries were responsible for almost 90% of total production in 2015.

Of these countries, the production output in Italy and the United Kingdom grew the fastest. Another country that showed a positive development in the production of earth-moving equipment parts is Bulgaria. However, the value of Bulgarian production (€37 million) remains small in comparison with the main earth-moving equipment producers.

Note that the production value of Belgium is, to some extent, the result of transit trade. Belgium is a large importer and re-exporter of construction equipment.

Production decreased by between 4-6% on average in 2015, mainly caused by a number of poorly performing export markets. In particular, the demand from Russia has weakened. The outlook for 2016 is uncertain, but there is reason for some optimism.

### Tips:

The presence of producers in Europe offers subcontracting opportunities. Besides Germany, there is considerable production output in the United Kingdom, France, Italy and in most other European countries.

[The Committee for European Construction Equipment \(CECE\)](#) provides [economic and sector-based updates](#) for construction and earth-moving equipment. The website also shows [an overview of relevant trade fairs for the sector](#).

If you want to get an idea of the European market and potential customers, you should visit (and

eventually participate in) European trade fairs. Within Europe, the [Bauma](#) fair is the key event in this industry, held every three years in Germany. You can find other relevant trade fairs in databases such as [AUMA](#) and [Eventseye](#).

## Demand

After the very weak year 2010, having only just recovered from the financial crisis, the European market for earth-moving equipment improved greatly in 2011 and 2012, reaching a peak in 2012 (€8.9 billion). The apparent demand dropped in 2013 to €7.9 billion but recovered slightly in 2014, reaching €8.0 billion. Germany, the United Kingdom and France are the largest markets for earth-moving equipment. Together, they held 50% of the total market in 2015. Of these countries, the United Kingdom showed the highest annual growth (+38%) between 2010-2014. This was mainly due to the fact that production in the United Kingdom had been impacted severely by the financial crisis.

## 3. What trends offer opportunities on the European market for earth-moving equipment parts?

### Costs are decisive for manufacturing strategies

With respect to primary machines such as excavators, there are only a handful of international companies dominating the field. This implies tight controls over distribution. It will make it more difficult to gain access to these producers. But, it offers better opportunities once contracts have been signed, because the scale of the existing companies has grown.

Bulldozers, excavators, caterpillars and wheel loaders account for a large share of earth-moving equipment production in Europe. [Large international groups](#) that have a dominant position in the sector make them, such as:

- [Terex](#),
- [Volvo](#),
- [Liebherr](#),
- [Komatsu](#).

These multinationals use type manufacturing organised at a European and global level, with component and assembly plants linked to the sites.

The strong interest in lowering production costs incurred by Western companies offers several opportunities:

- in outsourcing,
- in contract manufacturing,
- in joint ventures,
- in technology agreements.

### Tip:

Your entry strategy could fall into one of these paths: (1) engage in demanding procurement procedures and comply with a variety of requirements for the large international equipment manufacturers; (2) search for specialised small and medium companies; (3) find aftermarket trade opportunities; (4) find a subcontracting partner in Europe (a European parts producer who is looking for a partner able to produce at relatively low costs).

## Delivery of parts forms bottleneck

Timing in relation to the delivery of parts plays a very important role in the industry. A main problem occurring from time to time is delivery bottlenecks at suppliers. For example, during some periods in the period 2011-2015 deliveries of certain parts (large castings) for earth-moving equipment could take between 25 and 32 weeks.

### Tip:

If you can offer shorter delivery terms, you may have improved chances of becoming a supplier to the European earth-moving equipment industry.

## Ongoing innovation in the sector

Electronics are increasingly incorporated in construction equipment. Apart from fuel management, brake control and other vehicle management functions, electronics are increasingly used for task management and execution. Based on a combination of Global Positioning System (GPS) and robot station signals, the latest machine control packages offer high accuracy. They also offer a reduction in the need for reworking, making major savings in earth-moving costs.

Government projects in particular, but increasingly private projects as well, demand compliance with environmental targets. This requires the use of more sophisticated and modern equipment. This trend favours the acquisition of new machinery, discarding the older, more heavily polluting equipment.

### Tips:

Original Equipment Manufacturers and system suppliers outsource metal/mechanical parts in developing countries more easily than high-tech parts and components, including electronics.

Refer to our study [Trends for Metal Parts and Components](#) for general trends.

## Opportunity for labour-intensive products

In general, the more common the product, the more competition there will be and the lower the margin for the producer. On the other hand, the more sophisticated the product, the higher the labour factor in the landed cost price and the greater the interest of European companies in sourcing in developing countries.

This is due to the fact that manufacturers in developing countries have a competitive edge in terms of labour compared to European manufacturers. This provides an opportunity in relation to labour-intensive products, as up to 50% of the European manufacturer's cost price may be made up of labour. See Table 1 for a comparison of cost price elements in Europe and developing countries.



**Table 1: Price level of cost price elements in Europe and developing countries, in €**

	Europe	Developing countries
<b>Labour (per hour)</b>	35-40	0.7-1
<b>CNC machining (per hour)</b>	50-120	5-12
<b>Set of tooling (example)</b>	10,000	1,000-2,000

Source: Lichthart Solutions and Globally Cool (2012-2014)

The difference in labour costs between Europe and developing countries is partly offset by higher labour productivity in the European countries under review. However, a difference of about 30-40% in cost price is possible in many cases. Of course, cost price calculations depend on the amount of labour necessary to make a specific part. For example, parts that need a great deal of MIG/MAG welding are relatively labour-intensive. Experienced buyers in Europe consider a saving of 30% necessary to cover all costs involved in global sourcing (such as inspection costs, transport costs, costs on maintaining overseas relations including visits, higher stock levels because of longer delivery times, import duties, extra quality assurance costs).

### **Tips:**

Exploit your advantageous low labour costs by specialising in labour intensive processes such as CNC machining and metal casting.

The following website offers price indications for earth-moving equipment parts: [Marketbook](#) - UK based online auction for heavy machinery equipment and parts.

## **4. What requirements should metal parts for earth-moving equipment comply with to be allowed on the European market?**

Requirements can be divided into (1) legal requirements, which must be met in order to enter the market, and (2) non-legal requirements, which most competitors have implemented and which should be met in order to keep pace with the market. See our study [EU buyer requirements for metal parts](#) for a general overview of requirements; below are the requirements that specifically apply to parts for earth-moving equipment.

### **Legal requirements**

For metal parts in general, there are no specific legal requirements.

### **Packaging and liability**

Note that there is also non-product-specific legislation on [packaging](#) and [liability](#) that applies to all goods marketed in the EU.

### **Import duties**

Earth-moving equipment parts from outside Europe can be exported to Europe on a duty-free basis.

## Non-legal requirements

Certification according to ISO 9001 is a minimum that European buyers expect when searching for new suppliers. Other certification, such as ISO 14001 (environmental management) and [OHSAS 18001](#) (health and safety), can be beneficial when promoting your company and products to potential buyers.

## Buyer's specifications

As soon as a prospect is seriously interested, first the supplier will be audited. This is because of the high risks involved, as the parts are relatively expensive. After a positive audit, the main requirements will be related to the parts. This means that material, dimensions and finishing must meet the buyer's specifications.

In fact, these issues are key in the sample phase. If the buyer accepts the samples and all other conditions are agreed upon, the contract can be signed. After that, the main challenge for the suppliers is to deliver the products according to the agreed specifications, delivery times and volumes.

Suppliers should not underestimate these conditions. When supplying directly to earth-moving equipment producers in particular, delivery times and delivery reliability are of utmost importance, as production in their factories is subject to tight schedules.

Disruption to production because parts are unavailable has a large financial impact on the equipment producers. For this reason, equipment producers always practice dual sourcing, which means that for each part the buyer has at least two suppliers.

### Tips:

You should not underestimate the time you need for developing a relationship with a buyer. Often it takes more than a year.

If you manage to become a supplier to European buyers, you should focus on buyer satisfaction by performing strongly on delivery times and quality.

## Testing requirements

Depending on the type of application (critical or non-critical), the buyer may have material and/or testing requirements. As far as material requirements are concerned, the following generally applies.

The metal that is used must be covered by an international standard and approved with a material certificate. This can be stated in an EN10204 type 3.1 certificate, which is internationally accepted. In addition, the buyer may also have testing requirements to ensure the required quality of the parts, such as:

- non-destructive testing (NDT) surface tests: magnetic testing (MT) or penetrant testing (PT),
- section tests: ultrasonic testing (UT) and X-ray testing (RT).

Note that in the case of some finished earth-moving equipment parts, there are [international ISO standards](#) that may be relevant and demanded by buyers.

### Tips:

Go to the [ISO Catalogue - Search with "earth-moving"](#) for an overview of relevant ISO standards.

See our [10 tips for doing business with European buyers of metal and plastic parts and components](#) and our [10 tips for finding buyers in the metal parts and components sector](#). These tips also offer more information on which topics are decisive for European buyers when searching for (new) suppliers.



Consult the [EU Export Helpdesk](#) for more information on gaining access to the European market.

## Additional requirements

There are several European (voluntary) [standards for welding](#), the most important being EN ISO 3834: Quality requirements for fusion welding of metallic materials. Ensuring this welding quality management system requires the control of a welding coordinator, who should be qualified according to the ISO standard [EN ISO 14731: Welding coordination - Tasks and responsibilities](#).

## Through what channels can you get parts for earth-moving equipment on the European market?

The most common market channels are producers of (parts for) earth-moving equipment, followed by importers. Although most production takes place in the plants of the large multinational earth-moving equipment manufacturers, these facilities usually retain sourcing 'freedom' and responsibility. Europe is home to several interesting players. As each company is unique, with its own buyers, market segments and products, the profile of the potential partner is very important. You are very likely, however, to find a match.

## Purchasing practices in Europe

The earth-moving equipment production facilities in Europe may have sourcing responsibility, however sometimes sourcing practices are largely dictated by the central purchasing office. The plants purchase raw materials, manufactured components and replacement parts from medium-sized to large suppliers both domestically and internationally (in a few cases also relatively small suppliers). These materials and components include a variety of steel products, steel and iron castings, forgings, plastics, electronics and ready-to-assemble components made to company-specific specifications. Most of the companies build upon long-term supplier relationships to ensure a stable supply. Each of the large European production countries is home to a different set of earth-moving equipment manufacturers.

## Germany

Major German earth-moving machine producers include [Viktor Baumann](#) and [Wacker Neuson](#). Foreign producers with earth-moving equipment plants in Germany include:

- [Liebherr](#),
- [Atlas](#),
- [Volvo](#),
- [Komatsu-Hanomag](#),
- [Kramer Allrad](#),
- [Ahlmann](#),
- [Hydrema](#),
- Terex.

## Italy

The Italian earth-moving equipment industry is made up of small and medium-sized enterprises. They produce mainly accessories, which have either been assembled overseas or in Italian consortiums. There are also several major multinational enterprises, producing both complete machines and components. Last but not least, Italy is also home to a few specialised earth-moving equipment parts manufacturers such as:

- [Alcar](#),
- [CGA](#),
- [GF Gordini](#),
- [Trevibenne](#),
- [U.Emme](#).

## The United Kingdom

JCB, headquartered in the United Kingdom, is one of the world's leading earth-moving equipment manufacturers. Foreign players also play an important role in the United Kingdom, both in terms of demand and production. The major foreign players are:

- [Liebherr](#) (Switzerland),
- [Terex](#) (the United States),
- [Komatsu](#) (Japan),
- [Caterpillar](#) (the United States).

## The Netherlands

The Dutch market is dominated by the large earth-moving equipment manufacturers [Caterpillar](#), [Volvo](#), [Komatsu](#) and [Hitachi](#). Of these companies, only Hitachi actually produces equipment in the Netherlands. The other companies sell equipment made in their plants in other European countries. Hitachi mostly subcontracts the production of parts. There is one local player in the Netherlands: [Werklust](#). Werklust, like [Hitachi](#), has focused on assembly and sources all parts from suppliers.

## Trade channels for wear parts

Wear parts are somewhat different from most other earth-moving equipment parts. Of course, they are used by machinery producers in the initial production of machinery (called Original Equipment Manufacturers 'OEM' market).

However, most demand for wear parts comes from the aftermarket. This market covers the replacement of worn parts during the lifetime of machines. Therefore, there is also an additional trade channel for these parts: distributors of (earth-moving equipment) parts.

Often, these distributors trade in certain brands of machinery in several categories, such as agricultural machinery and construction equipment. Usually they also supply the accessory parts and maintenance services for these machines, including wear parts.

The aftermarket is the market for replacement and improvement products. These parts can be made by original equipment suppliers (OES) or qualified suppliers (IAM). IAM stands for independent aftermarket and means that companies that have not been officially approved by the OEMs have made the parts. The IAM aftermarket offers particular opportunities for suppliers from developing countries, as it is easier to enter than the OES aftermarket.

### Tips:

For additional information, refer to our studies [Market Channels and Segments](#) and [Competition for Metal Parts and Components](#).

If you produce wear parts, you should focus on companies that operate in the independent aftermarket, as that is a large market segment for wear parts.

If you already supply wear parts to OEMs in your home country or region, you could opt for the OES aftermarket. Still, be aware that it will cost more time and efforts to enter the OES aftermarket.


You can get information about the latest trends and developments in the earth-moving equipment industry from magazines and websites such as [Mot-Bau](#) (Germany), [Bouwmachines.nl](#) (the Netherlands), [Macchine Edili](#), [Noleggio](#), [Mondo Macchina](#) (Italy), [Connecting Industry](#) (the United Kingdom) and [KHL](#). You can use online translation services such as Google Translate to convert the

website to your language.

[Commisceo Global](#) offers extensive information about differences in business cultures and etiquette. You should pay some attention to this aspect before you start exporting to Europe.

Please review our [market information disclaimer](#).

Follow us for the latest updates

(opens in a new tab)  Twitter

(opens in a new tab)  Facebook

(opens in a new tab)  LinkedIn



[RSS](#)

---

