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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 37400.13-2019

**Heavy mechanical general technical specification - Part 13:
Packaging**

重型机械通用技术条件 第13部分：包装

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Foreword

GB/T 37400, General technical specification for heavy machinery, is divided into 16 parts: Part 1: Product inspection; Part 2: Flame cut parts; Part 3: Welded parts; Part 4: Cast iron parts; Part 5: Non-ferrous metal castings; Part 6: Steel castings; Part 7: Repair welding of steel castings; Part 8: Forgings; Part 9: Machined parts; Part 10: Assembly; Part 11: Piping; Part 12: Painting; Part 13: Packaging; Part 14: Non-destructive testing of steel castings; Part 15: Non-destructive testing of steel forgings; Part 16: Hydraulic systems.

This is Part 13 of GB/T 37400.

This part was drafted in accordance with the rules given in GB/T 1.1-2009.

This part was proposed by, and is under the administration of, the National Technical Committee on Metallurgical Equipment of Standardization Administration of China (SAC/TC 409).

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1 Scope

Part 13 of China's general technical specification for heavy machinery, covering the transport packaging of heavy machinery products. Packing a heavy machine is an engineering job in its own right, and the reason is the journey rather than the machine. A rolling mill or a converter leaves the works as a set of pieces, some of them weighing twenty tonnes apiece, and each piece travels by road, by rail and by sea to a site that may be on another continent, is picked up by a crane at every transfer, and then stands in the open at the receiving end until erection begins months later. Machined faces have to arrive unmarked and free of rust after a season in salt air, bearings and hydraulic parts have to arrive sealed and dry, a case has to survive being stacked two high and having ropes tensioned across it, and it has to be liftable by whatever gear is available at each transfer point and marked so that the man on the crane knows where its centre of gravity is. This part sorts all of that into thirteen categories of package, from the sealed box with a desiccant bag inside a foil laminate liner, good for twenty four months, down to the bundled unit and the bare item, and for each category it states what it is suited to and what its structure has to do. It then covers the packaging materials - the timber and its moisture content, the laminated veneer lumber, the plywood and the bamboo plywood, the metal fittings and the steel structural members - the protection of the goods against water, damp, rust and mould and the cushioning of them, the securing of the load and the loads that securing must be calculated for, the design and the execution of the packing itself, the test methods, the package markings, and the documents that travel with the consignment. The value of it is commercial as much as technical: naming a category in a contract settles in three words what would otherwise take pages, and it settles it the same way for the maker, for the carrier and for the customer.

This part of GB/T 37400 specifies the categories of package, the packaging materials, the protection and the securing of the goods, the packaging requirements, the test methods, the package markings and the accompanying documents for heavy machinery products.

This part applies to the transport packaging of heavy machinery products.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document, including all amendments, applies.

GB/T 41 Hexagon nuts, style 1 - Product grade C; GB/T 95 Plain washers - Product grade C; GB/T 96.2 Plain washers, large series - Product grade C; GB/T 102 Hexagon head wood screws; GB 190 Packaging symbol of dangerous goods; GB/T 191 Packaging - Pictorial marking for handling of goods; GB/T 953 Double end studs of equal length - Product grade C; GB/T 1413 Series 1 freight containers - Classification, dimensions and ratings; GB 1589

Limits of dimensions, axle load and masses for motor vehicles, trailers and combination vehicles; GB/T 1931 Method for determination of the moisture content of wood.

GB/T 4768 Mould proof packaging; GB/T 4879 Rust proof packaging; GB/T 5048 Moisture proof packaging; GB/T 5398 Test method for large transport packages; GB/T 5780 Hexagon head bolts - Product grade C; GB/T 7284 Frame wooden boxes; GB/T 7350 Waterproof packaging; GB/T 8166 Cushioning packaging design; GB/T 10819 Wooden pallets; GB/T 12339 Inner packaging materials for protection; GB 12463 General specification of transport packaging for dangerous goods; GB/T 12464 Ordinary wooden boxes; GB/T 13123 Bamboo plybamboo; GB/T 14188 General rules for the selection of vapour phase rust preventive packaging materials; GB/T 16471 Dimensional and mass limits for transport packages; GB/T 18925 Skid wooden boxes; GB/T 18926 Packaging containers - Wooden components.

GB/T 18927 Packaging containers - Metal fittings; GB 19269 Safety specification for the inspection of packaging of dangerous goods carried by road; GB 19270 Safety specification for the inspection of packaging of dangerous goods carried by water; GB 19359 Safety specification for the inspection of packaging of dangerous goods carried by rail; GB 19433 Safety specification for the inspection of packaging of dangerous goods carried by air; GB/T 20241 Laminated veneer lumber; GB/T 24311 Plywood for combination packing boxes; GB/T 25820 Steel strapping for packaging; GB 50017 Code for the design of steel structures; YB/T 5002 Round steel nails for general use.

3.1 General

3.1.1 The maximum dimensions and the maximum mass of a standard package are as follows: length 1 190 cm, width 240 cm, height 240 cm, mass 20 000 kg.

3.1.2 For a package exceeding those figures, the department that draws up the packing scheme shall agree the dimensions and the mass of the package with the carrier, with the user or with the other departments concerned before the goods are packed.

3.1.3 Where a package is to be carried by air, its maximum dimensions shall be agreed piece by piece with the air carrier, with the user or with the other departments concerned, on the basis that the relevant air transport regulations are complied with.

3.2 Category one packaging (boxed)

3.2.1 Characteristics: the goods are placed in a bag made of an aluminium and plastic composite material, or of an equivalent material, together with a suitable quantity of desiccant, and are then placed inside a closed box and fastened to its base. The guaranteed period is 24 months.

3.2.2 Suitable goods: machine products liable to rust, electrical materials, assembled pipework and the like.