

ICS 53.020.20

CCS R 46



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

GB/T 14783-2009

Replacing GB/T 14783-1993

Rubber tyred gantry cranes

轮胎式集装箱门式起重机

Issued on: May 11, 2009

Implemented on: December 20, 2009

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine;
Standardization Administration of the PRC**

Table of Contents

1 Scope	1
2 Normative references 1	3
4 Test Method 14	16

Foreword

This standard replaces GB/T 14783-1993 "rubber-tyred gantry crane technical conditions" and GB/T 15362-1994 "tire Container gantry crane test methods ", the GB/T 15362 into content GB/T 14783 in. The main technical differences between standard compared with GB/T 14783-1993 as follows:

- Abolition of the "term";
- On the "gear reducer and" content has been modified and improved (see 3.6.1);
- On the "Coupling" was supplemented by the selection requirements (see 3.6.3);
- Cancel the original "main part", the original content into the trolley track "car wheels and the track" (see 3.6.7), the original lifting mechanism, small Car running and traveling mechanism agencies contents into the "institution" (see 3.7), other content into a single article (see 3.6);
- On the "power plant" content is supplemented (see 3.8);
- To "test" the content of the revised and improved (see Chapter 4). Appendix A of this standard is an informative annex. The standard proposed by the Ministry of Transport of the People's Republic of China. This standard is under the jurisdiction of the Ministry of Transport Port Machinery standard focal point. This standard was drafted. Shanghai Zhenhua Port Machinery (Group) Co., Ltd., Shanghai Port Machinery Heavy Industry Co., Ltd., the Ministry of Water Transport Section Graduate School. The main drafters of this standard. Li Haibo, Hugui Jun, He Gang, Li Guohui, Raojing Chuan, Li Wei. This standard replaces the standards previously issued as follows:

- GB/T 14783-1993;
- GB/T 15362-1994. Rubber-tyred gantry cranes

1 Scope

China's national standard for rubber tyred gantry cranes - the RTGs that stack containers in a terminal yard, running on tyres rather than rails so that they can be moved between

stacks. They are the machine on which the throughput of a container terminal depends more than on any other, and China builds most of the world's supply. It specifies the technical requirements, the test methods, the inspection rules, and the marking and transport of rubber tyred gantry cranes. Running on tyres instead of rails is what defines the machine and what makes it harder than a rail-mounted gantry. There is no rail to guide it, so the crane must steer, and it must track straight down a container lane of fixed width with a tolerance measured in centimetres - which is why the steering, the gantry alignment and the automatic steering or guidance system are requirements rather than options. The load is carried on tyres and on ground rather than on rails and foundations, so the wheel loads and the pavement they act on are part of the specification. And the machine is usually diesel-electric or cable-fed, so its own power generation is part of it. The requirements cover the structure and the legs, the hoisting, trolley and gantry travel mechanisms, the spreader and its twistlocks and the container handling functions, the anti-sway system which determines how fast a container can actually be moved, the power unit, the cab and controls, and the safety devices - the overload protection, the limits, the wind speed alarm and the securing arrangements. The test clause sets the no-load, rated load and overload tests and the operational trials. Issued on 11 May 2009 and in force since 20 December 2009, it replaces GB/T 14783-1993.

This standard specifies the rubber-tyred gantry cranes (hereinafter referred to as the crane) technical requirements, test methods, inspection rules, marking And transportation. This standard applies to handling in line with GB/T 1413 under international container crane.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 699 high-quality carbon structural steel

GB/T 700 carbon structural steel (GB/T 700-2006, ISO 630.1995, NEQ)

GB/T 985.1 gas welding, arc welding, gas welding and beam welding Recommended groove (GB/T 985.1-2008, ISO 9692- 1.2003, MOD)

GB/T 985.2 SAW recommended groove (GB/T 985.2-2008, ISO 9692-2.1998, MOD)

GB/T 1184 shape and position tolerances without individual tolerance value (GB/T 1184-1996, eqv ISO 2768-2. 1989)

GB/T 1228 high strength steel with large hexagon head bolts (GB/T 1228-2006, ISO 7412. 1984, NEQ)

GB/T 1229 steel with high strength large hexagon nuts (GB/T 1229-2006, ISO 4775. 1984, NEQ)

GB/T 1230 high-strength steel washer (GB/T 1230-2006, ISO 7416. 1984, NEQ)

GB/T 1231 steel hexagon bolts, hexagon nuts, plain washers for high-strength

GB/T 1413 Series 1 freight containers - Classification, dimensions and ratings (GB/T 1413-2008, ISO 668.1995, IDT)

GB/T 1591 high strength low alloy structural steel

GB/T 1801 limits and tolerances and mating with the choice (GB/T 1801-1999, eqv ISO 1829. 1975) GB 2893 Safety colors (GB 2893-2008,

ISO 3864-1.2002, Graphical symbols-Safety colours and safety signs-Part 1. Design principles for safety signs in workplaces and public areas, MOD)