

JB

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

JB/T 4149-1994

Replacing JB 4149-1985

**Boom-type bucket wheel stacker-reclaimers - Technical
specifications**

臂式斗轮堆取料机 技术条件

(English Translation)

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Table of Contents

1 Subject Contents and Application Scope
2 Normative References
3 Specifications
4 Test Methods
5 Test Rules
6 Acceptance
7 Marking, Packing, Transportation and Storage
Annex B Precision of Rail for Boom-type Bucket Wheel Stacker Reclaimer
Annex C Field Test Method for Paint Film Adhesion: X Cut Line Pressure-sensitive Adhesive Tape Method
Annex D Requirements of Boom-type Bucket Wheel Stacker Reclaimer on Running Rail
Additional Explanations:

1 Subject Contents and Application Scope

This standard specifies the technical requirements, test methods, test rules, labels, package, transportation and storage of Boom-type bucket wheel stacker reclaimer (hereinafter referred to as stacker reclaimer).

This standard is applicable to the Boom-type bucket wheel stacker reclaimer, Boom-type bucket wheel excavator and Boom-type stocker that and specified in GB/T 14695 and is adopted as the criteria in the design, manufacture, installation, inspection, acceptance and application of stacker-reclaimer.

2 Normative References

GB 150 "Steel Pressure Vessels"

GB 191 "Packaging-Pictorial Marking for Handling of Goods"

GB 699 "Technical Requirements for Carbon Constructional Quality Steel"

GB 700 "Carbon Structural Steel"

GB 985 "Basic Forms and Sizes of Weld Grooves for Gas Welding Manual Arc Welding and Gas-shielded Arc Welding"

GB 986 "Basic Forms and Sizes of Weld Grooves"

GB 1031 "Surface Roughness Parameters and their Values"

GB 1048 "Nominal Pressures and Test Pressures for Pipes and Pipe Line Accessories"

GB 1184 "Specifications for No Marking Tolerance of Shape and Position Tolerance"

GB/T 1228~1231 "Specifications of High Strength Bolts with Large Hexagon Head, Large Hexagon Nuts, Plain Washers for Steel Structures"

GB 1496 "Measuring Method for Noise of Power-driven Vehicles"

GB 1591 "High Strength Low Alloy Structural Steels"

GB 1800~1803 "Limits and Fits"

GB/T 1804 "General Tolerances-Tolerances for Linear Dimensions without Individual Tolerance"

GB 3766 "Hydraulic Fluid Power--General rules for the Application of Equipment to Transmission and Control Systems"

GB 3767 "Determination Sound Power Levels of Noise Sources Using Engineering Method and Quasi-engineering Method"

GB 4323 "Pin Coupling with Elastic Sleeve"

GB 4879 "Rustproof Packaging"

GB 4892 "Dimensions of Rigid Rectangular Packages-Transport Packages"

GB 5014 "Pin Coupling with Elastic Sleeve"

GB 5015 "Gear Coupling with Pin Elastomer"

GB 5083 "General Rules for Designing the Production Facilities in Accordance with Safety and Health Requirements"

GB 5117 "Carbon Steel Covered Electrodes"

GB 5118 "Low Alloy Electrodes"

GB 5272 "Coupling with Elastic Spider"

GB 5676 "Cast Carbon Steels for General Engineering Purposes"

GB 6069 "Roller Chain Coupling"

GB 6333 "The Electro-hydraulic Double-shoe Brakes"

GB 6946 "Aluminium-alloy Swaged Ferrules for Steel Wire Rope"

GB 8923 "Rust Grades and Preparation Grades of Steel Surfaces before Application of Paints and Related Products"

GB 9286 "Paints and Varnishes-Cross-cut Test for Films"

GB 9439 "Grey Iron Castings"

GB 10089 "Accuracy of Cylindrical Worm and Wormwheel"

GB 10095 "Accuracy of Involute Cylindrical Gears"

GB 10595 "General Specification for Belt Conveyors"

GB 11365 "Accuracy of Bevel and Hypoid Gears"

GB/T 12469 "Quality Assurance of Welding Requirement for Fusion Welding Joint of Steel and Classification for Imperfection"

GB/T 13306 "Plates"

GB/T 14695 "Bucket Wheel Stacker Reclaimer-Types and Basic Parameters"

GBJ 4 "Tentative Emission Standard of Three Industrial Wastes"

GBJ 232 "Specifications for Construction and Acceptance of Electrical Apparatus Installation Work"

JB 7326 "Safety Code for Bucket Wheel Stacker Reclaimer"

JB/T 7328 "Inspection Specifications for Bucket Wheel Stacker Reclaimer"

JB 3722~3724 "NGW-type Planetary Reducer"

ZB J81 001 "Mobile Equipment for Continuous Handling of Bulk Materials Rules for Structural Design"

JGJ 82 "Code for Design, Construction and Acceptance of High Strength for Steel Structure"

TJ 36 "Hygienic Standards for the Design of Industrial Enterprises"

TJ 231 "Code for Construction and Acceptance of Installation Works of Mechanical Equipments (IV)"

3.1 Basic Requirements

The design, manufacture and application of stacker-reclaimer shall meet the following requirements:

- a. The worker shall be ensured with maximum safety;
- b. The maintenance shall be carried out conveniently and economically;
- c. The production shall be with continuity;
- d. The equipments shall be with long life;
- e. The foundational spare parts shall be standardized and generalized.

3.2 Drawings and documents

The stacker-reclaimer shall be in accordance with those specified in ZB J81 001 and this standard, and shall be manufactured according to the drawings and technical documents that are approved by established procedure.

3.3 Security

In design, manufacture and application of equipments, the possible modes of various accidents must be taken into consideration and must be implemented according to those specified in GB 5083 and JB 7326 at all conditions. The personal safety shall be firstly assured, the equipment safety secondly and the production safety finally.

3.4 Main Technical Parameters

The deviation for the technical parameters of stacker-reclaimer shall be within the following limit range:

- a. Rated capacity: 0~+10%;
- b. Stack reclaiming height: 0~+3m at nominal upper bound dimension of material pile;
0~-0.1 at nominal lower bound dimension of material;
- c. Diameter of scoop wheel: ± 0.500 ;
- d. Rotational speed of scoop wheel (with rated load): $\pm 5\%$;
- e. Speed of conveyer belt (with rated load): $\pm 5\%$;
- f. Gyroradius of arm support: 0~+0.5%;
- g. Swivelling angle of arm support: 0~+2 %;
- h. Pitching angle of arm support: 0~+2%;
- i. Running speed: $\pm 5\%$;
- j. Span (distance between the central planes of walking tire tread): $\pm 5\text{mm}$.