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

MT/T 153-1987

**Center single-chain scraper conveyor head frog links
(English Translation)**

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Center single chain scraper conveyor frog-shaped link head this standard applies to frog-shaped link heads (connected to high-strength circular chains for mining) in single-chain scraper conveyors and reloaders in coal mines.

(Hereinafter referred to as the link header).

1 Definition of terms

- 1.1 Specifications. The specifications of the link heads in this standard refer to the rod diameter and pitch of the round chain that matches it.
- 1.2 Breaking load. The maximum load that the joint specimen can withstand in the tensile test.

2 Product specifications and size parameters

2.1 This standard includes 10 mm x 40 mm, 14 mm x 50 mm, 26 mm x 92 mm, 30 mm x 108 mm four specifications of the chain the geometry and main dimensions of the joint shall comply with the requirements of Figure 1 and Table 1.

1 frog link

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1 mm

size

specification

A b R d

10 x 40 46 ± 0.5 11 5.5 11 14 x 50 62 ± 0.75 15 7.5 13.5 26 x 92 110 ± 1 36 14.5 22 30 x
108 130 ± 1 55 17.5 26

2.2 Marking example

Size 26

mm x 92

The mm link header is marked as.

Link 26 x 92 MT

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3 Technical requirements

3.1 The link head shall comply with the requirements of this standard and shall be manufactured in accordance with the drawings and technical documents approved by the prescribed procedures.

3.2 The link should be made of calm steel that meets the national or ministry standards and has good forging performance. In ensuring that the mechanical properties of the link head meet Under the circumstances specified in this standard, the steel grade can be selected by the manufacturer.

3.3 There must be no cracks, delaminations, scars, peeling or similar defects on the surface of the link, and there must be no meat shortage in the parts that affect the use and strength.

phenomenon.

3.4 After the link specified in this standard is processed, it must be heat treated to ensure the hardness HRC 35 or more.

3.5 The static tensile test of the link must comply with the requirements in Table 2. After unloading, no cracks should be visible.

Link specification, mm breaking load, kN 10 x 40 ≥130 14 x 50 ≥250 26 x 92 ≥850 30 x 108 ≥1 Note.

Applicable to round-chain chains (including C-grade).

3.6 The surface of the link head should be coated with anti-rust protection.

4 Test method

The test item is a static tensile test.

4.1 Test conditions

4.1.1 The joint test piece is assembled with two loose joints (including the joint, stop ring, chain ring, split pin, U-bolt, nut), see figure 2.

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1-fixture; 2-link head; 3-U bolt; 4-nut;

5-stop ring; 6-chain ring; 7- split pin

4.1.2 Requirements for the testing machine. The loading range of the static tensile testing machine should be able to meet the range of loading required for the tensile test of the link head.

Its accuracy should meet the relevant national standards. The testing machine shall have an automatic recording mechanism and shall be checked regularly.

4.1.3 Requirements for the test fixture. the shape of the contact surface between the test fixture, U-bolt, nut, test link and link and dimensions should conform to the shape and dimensions of the actual load, and should have sufficient rigidity.

4.2 Test method

After the test piece is assembled, it is tightened on the test machine to $9.8 \text{ Load N}/(\text{mm}^2 \cdot \text{s})$ to the breaking load value specified in Table 2.

(The cross-sectional area is calculated based on the total cross-section of the round chain of the same nominal size).

5 Inspection rules

5.1 Each batch of products must pass the inspection of the manufacturer's technical inspection department before passing the factory.

5.2 The test specimens shall be arbitrarily selected from the finished product link heads, and the test specimens shall not have any coating covering the defects.

5.3 The factory inspection includes dimensional inspection, surface quality inspection and static tensile test.

5.3.1 Dimension and surface quality inspection Batch links are produced in groups of 500 pieces. If the number is less than 500, they are still considered as a group. The number of random inspections in each group should not be less than 5.

The size and surface quality of the parts shall be inspected according to drawings, technical documents and Tables 1 and 3.3 of this standard. If one item fails, it should be in the same Double the number of test pieces from the remaining set of pieces to be inspected. If the test results are still unsatisfactory, the group of products shall be inspected piece by piece.

5.3.2 Static tensile test Links that have passed the size inspection start with 1 000 pieces in a group, less than 1 000 pieces are still considered as a group, and 4 pieces are taken from each group for testing the results shall meet the requirements of Table 2.If the test fails, double the number of test specimens from the remaining link heads in the same group for testing.

The results should meet the requirements in Table 2, otherwise the products in this group are unqualified. Except for the failure of the retaining ring and chain link for the test, which makes the link head fail to meet the requirements, and Separate samples for testing.

6 Marking and packaging

6.1

Each manufacturer shall print or forge its factory logo on the obvious part of the link head.

6.2

The link should be bundled firmly or packed in a box when it leaves the factory. Should not spread out during transportation and must be accompanied by product quality Certificate of conformity. The content of the certificate shall include specifications, quantities, inspection dates and inspection personnel codes.

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6.3 When the connector is shipped with the host, press MT

150-87 "General Specifications for Packaging of Scraper Conveyor and Reproducer" was implemented.

Additional information.

This standard is proposed by the Technology Development Department of the Ministry of Coal Industry.