

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION

R 610

HIGH-TENSILE STEEL CHAINS (ROUND LINK) FOR CHAIN CONVEYORS AND COAL PLOUGHS

1st EDITION

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BRIEF HISTORY

The ISO Recommendation R 610, *High-tensile steel chains (round link) for chain conveyors and coal ploughs*, was drawn up by Technical Committee ISO/TC 82, *Mining*, the Secretariat of which is held by Deutscher Normenausschuss (DNA).

Work on this question by the Technical Committee began in 1959 and led, in 1962, to the adoption of a Draft ISO Recommendation.

In June 1964, this Draft ISO Recommendation (No.727) was circulated to all the ISO Member Bodies for enquiry. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies:

Belgium	Korea, Rep. of	Switzerland
Colombia	Netherlands	Turkey
Czechoslovakia	New Zealand	U.A.R.
France	Poland	United Kingdom
Germany	Spain	
Italy	Sweden	

Two Member Bodies opposed the approval of the Draft:

India
Japan.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in August 1967, to accept it as an ISO RECOMMENDATION.

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HIGH-TENSILE STEEL CHAINS (ROUND LINK) FOR CHAIN CONVEYORS AND COAL PLOUGHS

1. GENERAL

1.1 Scope

This ISO Recommendation covers the requirements for a range of high grade special purpose chains.

These are calibrated high-tensile, electrically welded, steel chains (round link) specially manufactured for use with machines and equipment in mining, such as the following:

- (a) conveyors, flexible and rigid conveyors of the chain type, chain belt conveyors, gate end and stage loaders,
- (b) coal ploughs and coal cutters,
- (c) bucket elevators, and
- (d) other similar machines in mines.

This ISO Recommendation covers a size range from 14 to 26 mm.

Three grades of quality are specified with regard to the mechanical properties of the chain.

The chains covered by this ISO Recommendation are not designed for lifting appliances, such as cranes and slings.

1.2 Definitions

For the purposes of this ISO Recommendation, the following definitions apply:

- 1.2.1 *Size.* The nominal diameter of the steel wire or bar from which the chain is made.
- 1.2.2 *Test load.* The load to which a sample length of finished chain is subjected in order to determine the extent of total and permanent elongations.
- 1.2.3 *Breaking load.* The maximum load which the chain withstands during the course of a tensile test.
- 1.2.4 *Processing.* Any treatment of the chain subsequent to welding, e.g. heat treatment, polishing or other surface treatment.
- 1.2.5 *Inspector.* The representative of the purchaser.

NOTE. — The use of other technical terms such as “energy absorption factor”, “total extension” and “permanent extension” is illustrated in the load extension diagram given in Annex A, page 13.

2. DIMENSIONS OF CHAINS

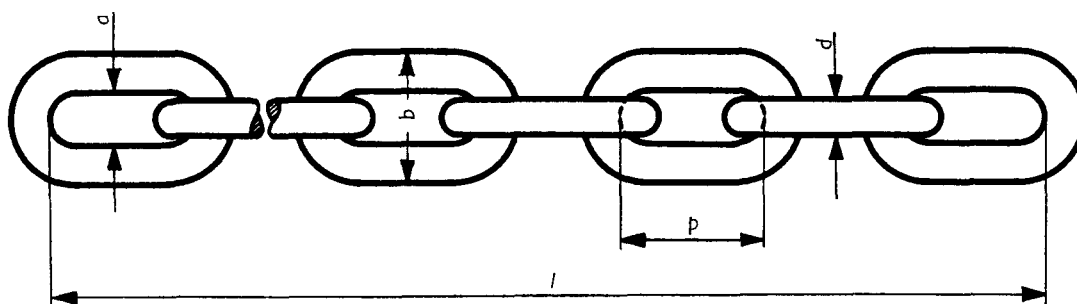


FIG. 1 — Dimensions of chains