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International Standard 6973

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Drop-forged rivetless chains for conveyors

Chaînes à maillons non rivés, forgés par estampage pour convoyeurs

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Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 6973 was prepared by Technical Committee ISO/TC 100, *Chains and chain wheels for power transmission and conveyors*.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

Drop-forged rivetless chains for conveyors

0 Introduction

American National Standard, ANSI B29-22M, deals with three types of rivetless chain, i.e. "regular", "X" and "modified X" types. This International Standard deals with chains similar to the "X" type with an assured dimension on the centre link similar to the "modified X" type. The chains specified in this International Standard are intended to be used in place of all three types of ANSI chains.

By adhering to the dimensions specified in this International Standard, it is possible to ensure that parts of chains of different origins can be joined together. It should be noted, however, that the pin should be of the same origin as the side bars.

It is recognized that methods other than "drop"-forging may be used to manufacture these chains, e.g. air, steam, press or other forging methods.

The dimensions specified in this International Standard are shown in inches and millimetres; the latter are conversions of the basic inch dimensions.

1 Scope and field of application

This International Standard lays down the dimensions, tolerances, measuring loads and minimum breaking loads, for drop-forged rivetless chains suitable for conveyor applications under a variety of conditions.

2 Chains

2.1 Nomenclature

The nomenclature of the chains is indicated in figure 1. Figure 1 illustrates the chain components.

2.2 Designation

Drop-forged rivetless chains are designated by the prefix "F" followed by a number, e.g. 348, which indicates the reference, not actual, pitch in inches, i.e. 3 in, and the nominal diameter of the pin, i.e. 4/8 in or 1/2 in.

2.3 Construction

A chain is assembled from three basic parts, each of forged manufacture (see clause 0), having a precise dimension on the

centre link for securing an attachment (see figure 1). The centre link is joined to the two outside bars, which are symmetrical, by a tee-headed pin. Assembly is made by moving the pin and side bars forward to the midpoint of the centre link and rotating the assembly 90°.

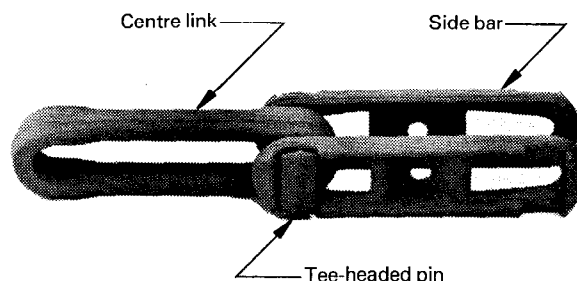


Figure 1 — Chain assembly

2.4 Dimensions

Chains shall conform to the dimensions given in tables 1 and 1M. Maximum and minimum dimensions are specified to ensure that chain elements manufactured by different makers can be joined together. They represent limits for interchangeability but are not the actual tolerances that should be used in manufacture.

NOTE — The dimensions given in tables 1 and 1M are illustrated in figure 2.

Pitch, p , is a theoretical dimension used in calculating strand lengths and chain wheel dimensions; it is not intended for inspection of individual links. Pitch, p (not the reference pitch), is used with the tolerances indicated to describe chain characteristics and length.

2.5 Finish

Sharp edges and protrusions shall be absent from the pin seating and driving face areas of the centre link.

2.6 Minimum ultimate tensile strength

The test length shall have a minimum of four free pitches. The ends shall be attached to the tensile testing machine fixtures by a pin through the space in the centre link on one end and through the holes of the outer sidebars, or through the centre