INTERNATIONAL STANDARD

ISO 16839

First edition
2013-08-01

Corrected version
2014-02-01

Steel wire ropes — Determination of the transverse rigidity of steel wire ropes under no axial load condition

Câbles en acier — Détermination de le rigidité transversale des câbles en acier sans charge axiale

Reference number
ISO 16839:2013(E)

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

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The committee responsible for this document is ISO/TC 105, *Steel wire ropes*.

This corrected version of ISO 16839:2013 incorporates the modification of Formula (1) in 7.2.

Introduction

In a multilayer spooling, wire ropes are subjected to lateral pressure as shown in Figure 1.

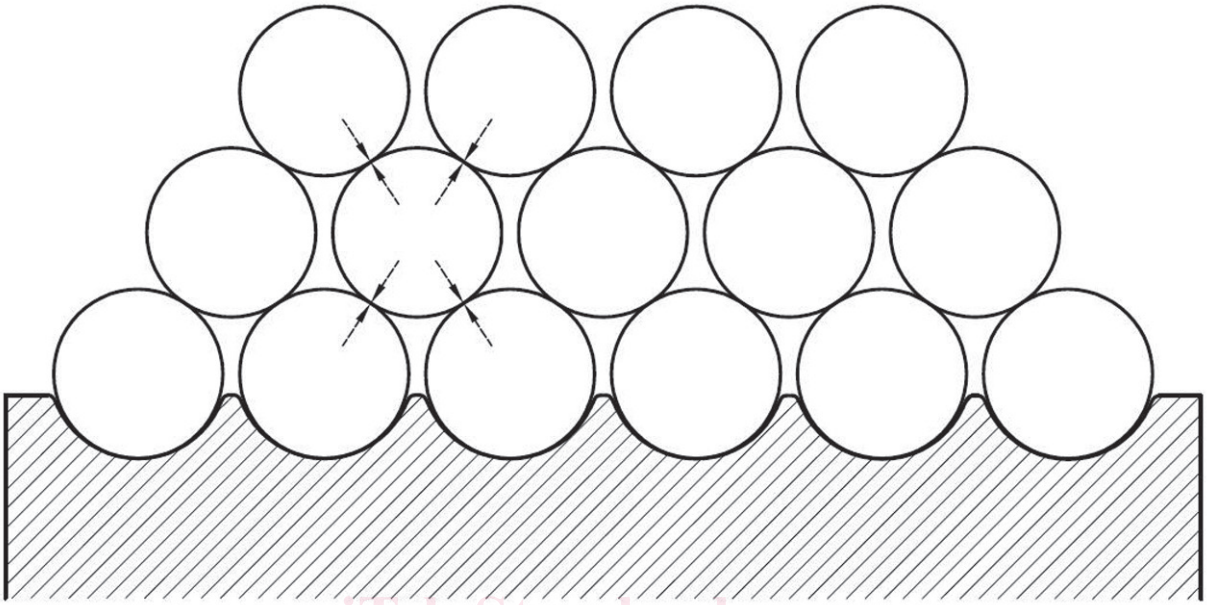

Figure 1 — Schematic presentation of the pyramidal form of layers in a multilayer spooling

The cross-section shows the pyramidal form of layers (parallel sections) with the contact points of the rope to its surrounding turns. The lateral pressure is induced to the rope at four contact points. These working and stress conditions can be simulated with the test set-up shown in this International Standard.

This International Standard is intended to provide manufacturers, suppliers and independent testing bodies with a uniform testing method for determining the resistance against lateral deformation of steel wire rope without axial load.

Lateral deformation values depend on the condition of the rope, and it is thus necessary to know the actual condition under which the deformation is to be, or has been, determined.

The three usual conditions are

— initial (as manufactured),

— partially bedded, or

— final bedded.