
Knots and Notes: The Standard Review

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Updates from other standards bodies that are relevant to the cordage industry.

ISO documents currently out for ballot:

- ISO 858 – Fishing nets – Designation of netting yarns in the Tex System
- ISO 1531 – Fishing nets – Hanging of netting – Basic terms and definitions
- ISO 1532 – Fishing nets – Cutting knotted netting to shape (“tapering”)
- ISO XXXX-Draft – Textiles, Manmade fibres – Determination of burning behavior by oxygen index

ISO documents recently voted on:

- ISO 3505 – Ropes and cordage – Equivalence between natural fibre ropes and man-made fibre ropes for use in the mooring of vessels. Voted to withdraw this standard as the use of natural fibre ropes for “vessel mooring” is quite outdated now. (Standard was last updated in 1975)
- ISO 2076 – Textiles – Man made fibres – voted for technical and editorial changes to be made to the document.

ISO documents currently under revision:

- ISO 18264 – Textile slings – Lifting slings for general purpose lifting operations made from fibre ropes – HMPE- This was approved for publish in October, but a special project is being opened to modify information in the document about bend loss. Project was approved and a ballot should be sent out in the next month.

ISO documents have been registered for final editorial review. These will be published soon.

- ISO 1140 - Fibre ropes - Polyamide - 3, 4, 8, and 12-strand ropes
- ISO 1141- Fibre ropes - Polyester- 3, 4, 8 and 12-strand ropes
- ISO 1346 - Fibre Ropes - Polypropylene split film, monofilament, and multifilament (PP2) and polypropylene high tenacity multifilament (PP#)-3, 4, 8, and 12- strand ropes
- ISO 23624 – Cranes – Safe Use of High Performance Fibre Ropes in Crane Applications

ISO documents recently confirmed:

- ISO 1805 – Fishing nets – Determination of breaking force and knot breaking force of netting yarns
- ISO 10547 – Polyester fibre ropes – Double braid construction
- ISO 10554 – Polyamide fibre ropes – Double braid construction
- ISO 10556 – Fibre ropes of polyester/polyolefin dual fibres
- ISO 10572 – Mixed polyolefin fibre ropes
- ISO 16488 – Fishing nets – Marine finish farms – Open net cage – Design and operation

ISO documents being drafted. Project will soon be sent for ballot to determine if draft should be reviewed.

- ISO 1968 - Fibre ropes and cordage - Vocabulary

In light of the current global situation regarding COVID-19, ISO has decided that all ISO governance and technical meetings planned until 30 June 2021 must be held virtually or postponed until after that date. In person meetings are being evaluated on a 3-month rolling basis. <https://www.iso.org/covid-19.html>

ASME has postponed in person meetings until December 2021.

Directive 2006/42/EC, also known as the Machinery Directive,

Directive 2006/42/EC, also known as the Machinery Directive, has been implemented in order to harmonize health and safety requirements applicable to a wide range of 'machinery', to provide a high level of protection of health and safety, and to ensure the free circulation of machinery being put on the EU market. Despite the availability of the 'Guide to the Application of the Machinery Directive 2006/42/EC' as a tool providing explanations of the concepts and requirements and trying to ensure uniform interpretation and application of the Directive, the implementation and interpretation of this Directive is associated with uncertainty, complexity & ambiguity.

In 2018 Eurocord installed a Task Force 'Machinery Directive' acting as a liaison with the European Commission to make sure that Eurocord is heard and can effectively contribute to the ongoing revision of the Directive / Regulation. It is the aim of this Task Force to reduce uncertainty, complexity and ambiguity when putting products, being 'lifting accessories' and 'chains, ropes and webbing' under the regime of the Machinery Directive / Regulation, on the EU market, while supporting value players in complying with this legislation.

In the context of the Directive each product category has a distinct definition, and each is regarded as 'machinery':

'Lifting accessories' are components or equipment not attached to the lifting machinery, allowing the load to be held, which is placed between the machinery and the load or on the load itself, or which is intended to constitute an integral part of the load and which is independently placed on the market. In this context slings (round sling, rope slings and webbing slings), and their components are also regarded as 'lifting accessories'. These are typically components or equipment used below a crane hook;

AND

'Chains, ropes and webbing' are defined as products designed and constructed for lifting purposes as part of 'lifting machinery' or 'lifting accessories'. This typically means products both below and above the hook.

Reviewing these definitions and related requirements clearly reveal the hurdles referred to above.

For the revision of the Directive, Legal and Policy Officers of the European Commission apply the 'technology neutrality' principle and prevention of 'overspecification' as key concepts. These concepts shall leave enough room for innovation using the 'New Approach'. Therefore, a system-based and fit-for-purpose approach are THE cornerstones of this Directive / Regulation.

Over the past few years, the Task Force has made considerable efforts and proposals, described in several publicly available documents, strengthening the focus on a system-based and fit-for-purpose approach by product suppliers as well as creating unambiguity when using the definitions and requirements related to 'lifting accessories' and 'chains, ropes and webbing'. In addition, attention has been paid to a strengthened focus on the requirements for creation of a Technical File – especially in case deviations from general rules are applied!

While these changes focus on the main body text of the Directive, several other proposals provided to the European Commission are now subject to potential integration in the 'Guide to the Application of the Machinery Directive'.

Finally, a clear need for harmonized standards has been envisaged. In view hereof the Task Force has connected with CEN/CENELEC, the European Committee for Standardization to clarify the process as a basis for defining the way forward.

As next steps the Task Force will stay closely connected with the European Commission following the final proposals submitted for the revision of the Directive, get connected with the Editorial Group for creating opportunities to amend the 'Guide' based on proposals submitted, and start paving the road for the creation of new Harmonized Standards.

In light of the COVID pandemic, ASTM has postponed in person meetings until 30 June 2021.

ASTM new work items:

- ASTM D76 – Standard Specification for Tensile Testing Machines for Textiles will be [updated to correct and update the standard and remove references to ASTM D1682](#) – which has been withdrawn. Corrections will be made to the load cell deflection and deflection of the force measuring clamp.
- ASTM D276 - Standard Test Methods for Identification of Fibers in Textiles - [has been withdrawn](#) because it was overdue for review. Editorial updates and corrections have been proposed to update and reinstate the document. Technical changes will not be addressed at this time due to timing. The committee chose to reinstate the document because it is [referenced by external documents](#).
- ASTM D2256 – Standard Test Method for Tensile Properties of Yarns by the Single-Strand Method – is going thru a [regular update and will correct a reference](#) to ISO TC38 that is not correct.
- ASTM D2259 – Standard Test Method for Shrinkage of Yarns – will be [updated to correct an incorrect formula in the standard](#).
- ASTM E4- Standard Practices for Force Verification of Testing Machines has some [open work items](#) to resolve definitions of calibration, verification, and traceability. Revision will also add a Summary of Practice and an explanation of types of errors.

- ASTM E2225 - Standard Guide for Forensic Examination of Fabrics and Cordage - is [updating language](#) and [suggested revisions](#) discovered during public review.

ASTM documents recently published:

- [ASTM E691- Standard Practice for Conducting an Interlab Study to Determine the Precision of a Test Method](#) has been updated to include how to deal with imputation of missing values in a data set to restore balance and new methods for statistics for unbalanced data.

WSTDA documents that are up for regular review:

WSTDA-RS-1HP – High Performance Yarn Roundsling Standard

<https://www.wstda.com/standards/>