Nederlandse norm

# NEN-ISO 19426-3

(en)

Structures for mine shafts - Part 3: Sinking stages
(ISO 19426-3:2018,IDT)

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INTERNATIONAL STANDARD

**ISO 19426-3**

First edition
2018-05



# Structures for mine shafts —

## Part 3: Sinking stages

*Structures de puits de mine —*

*Partie 3: Plates-formes de fonçage*

Reference number
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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 (see www.iso.org/directives).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 82, *Mining*.

A list of all parts in the ISO 19426 series can be found on the ISO website.



 

# Introduction

Many mining companies, and many of the engineering companies which provide designs for mines, operate globally so ISO 19426 was developed in response to a desire for a unified global approach to the safe and robust design of structures for mine shafts. The characteristics of ore bodies, such as their depth and shape, vary in different areas so different design approaches have been developed and proven with use over time in different countries. Bringing these approaches together in ISO 19426 will facilitate improved safety and operational reliability.

The majority of the material in ISO 19426 deals with the loads to be applied in the design of structures for mine shafts. Some principles for structural design are given, but for the most part it is assumed that local standards will be used for the structural design. It is also recognized that typical equipment varies from country to country, so the clauses in ISO 19426 do not specify application of the principles to specific equipment. However, in some cases examples demonstrating the application of the principles to specific equipment are provided in informative Annexes.

**INTERNATIONAL STANDARD** **ISO 19426-3:2018(E)**

# Structures for mine shafts —

# Part 3: Sinking stages

## 1 Scope

This document specifies the design loads and the design procedures for the structural design of stages and components of stages.

The loads specified in this document are not applicable for the design of stage ropes or sheaves. Rope sizes are determined in accordance with other standards.

This document does not cover matters of operational safety, or layout of the sinking stage.

This document adopts a limit states design philosophy.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 10721-1, *Steel structures — Part 1: Materials and design*

ISO 10721-2, *Steel structures — Part 2: Fabrication and erection*

ISO 19426-1, *Structures for mine shafts — Part 1: Vocabulary*

ISO 22111, *Bases for design of structures — General requirements*

ISO 2394, *General principles on reliability for structures*

EN 1999-1-1, *Eurocode 9 — Part 1: Design of aluminium structures — Part 1: General structural rules*

EN 1999-1-3, *Eurocode 9 — Part 1: Design of aluminium structures — Part 3: Structures susceptible to fatigue*

EN 1999-1-4, *Eurocode 9 — Par 1: Design of aluminium structures — Part 4: Cold-formed structural sheeting*

CEN/TS 13001-3-1, *Cranes — General design — Part 3-1: Limit states and proof competence of steel structures*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 19426-1 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at http://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org

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