# ISO 19472-2:2022-01 (E)

## Machinery for forestry - Winches - Part 2: Traction aid winches

## Contents

Page


**Foreword** ..... **v**

**Introduction** ..... **vi**

**1 Scope** ..... **1**

**2 Normative references** ..... **1**

**3 Terms, definitions and symbols** ..... **3**
3.1 Terms and definitions ..... 3
3.2 Symbols ..... 7

**4 Safety requirements for traction aid winches** ..... **7**
4.1 General ..... 7
4.2 Design ..... 8
4.2.1 Modes of operation ..... 8
4.2.2 Anchor monitoring ..... 8
4.2.3 Mechanical safety and stability ..... 8
4.3 Rope drive ..... 8
4.3.1 General ..... 8
4.3.2 Steel wire ropes ..... 9
4.3.3 Rope end connectors ..... 10
4.4 Attachment points at the supported machine for use with remote traction aid winches ..... 10
4.5 Combination of the supported machine with the traction aid winch system ..... 10
4.6 Brake systems ..... 11
4.7 Electrical safety ..... 11
4.8 Energy supply ..... 11
4.9 Operator controls, starting and stopping ..... 11
4.10 Emergency stop ..... 12
4.11 Control system ..... 12
4.11.1 General ..... 12
4.11.2 Operation mode control ..... 12
4.11.3 Remote control system ..... 13
4.11.4 Safety relevant functions ..... 13
4.12 Additional requirements for removable traction aid winches of both integrated traction aid winches removable installation and the remote traction aid winches removable from their anchor machines ..... 13
4.13 Additional requirements for remote traction aid winches ..... 14
4.14 Noise emissions ..... 15
4.15 Vibration ..... 15
4.16 Fire risks ..... 15
4.17 Maintenance ..... 16
4.18 Access system ..... 16
4.19 Tie down and machine lifting devices ..... 16

**5 User information** ..... **16**
5.1 General ..... 16
5.2 Special requirements ..... 17
5.3 Hazard zones ..... 19

**6 Marking** ..... **19**

**Annex A** (normative) **Hazard zones** ..... **21**

**Annex B** (normative) **Rope arrangement for proper spooling** ..... **24**

**Annex C** (informative) **List of significant hazards** ..... **25**
**Annex D** (normative) **Noise test code** ..... **27**
**Annex E** (informative) **Aspects of operating traction aid winches** ..... **30**
**Annex F** (informative) **Example machine safety label (ISO 15817:2012)** ..... **36**
**Annex ZA** (informative) **Relationship between this European Standard and the essential Requirements of EU Directive 2006/42/EC aimed to be covered** ..... **37**
**Bibliography** ..... **40**