

# DIN EN ISO 19472-2:2022-08 (E)

## Machinery for forestry - Winches - Part 2: Traction aid winches (ISO 19472-2:2022)

---

| <b>Contents</b>  |   | <b>Page</b> |
|--|---|-------------|
| European foreword .....  |   | 4           |
| Annex ZA (informative) Relationship between this European Standard and the essential Requirements of EU Directive 2006/42/EC aimed to be covered ..... |   | 5           |
| Foreword .....   |   | 8           |
| Introduction .....   |   | 9           |
| <b>1</b>   | <b>Scope .....</b>  | <b>11</b>   |
| <b>2</b>   | <b>Normative references .....</b>   | <b>11</b>   |
| <b>3</b>   | <b>Terms, definitions and symbols .....</b>   | <b>13</b>   |
| <b>3.1</b>   | <b>Terms and definitions .....</b>  | <b>13</b>   |
| <b>3.2</b>   | <b>Symbols .....</b>  | <b>17</b>   |
| <b>4</b>   | <b>Safety requirements for traction aid winches .....</b>   | <b>17</b>   |
| <b>4.1</b>   | <b>General .....</b>  | <b>17</b>   |
| <b>4.2</b>   | <b>Design .....</b>   | <b>18</b>   |
| <b>4.2.1</b>   | <b>Modes of operation .....</b>   | <b>18</b>   |
| <b>4.2.2</b>   | <b>Anchor monitoring .....</b>  | <b>18</b>   |
| <b>4.2.3</b>   | <b>Mechanical safety and stability .....</b>  | <b>18</b>   |
| <b>4.3</b>   | <b>Rope drive .....</b>   | <b>18</b>   |
| <b>4.3.1</b>   | <b>General .....</b>  | <b>18</b>   |
| <b>4.3.2</b>   | <b>Steel wire ropes .....</b>   | <b>19</b>   |
| <b>4.3.3</b>   | <b>Rope end connectors .....</b>  | <b>20</b>   |
| <b>4.4</b>   | <b>Attachment points at the supported machine for use with remote traction aid winches ...</b>  | <b>20</b>   |
| <b>4.5</b>   | <b>Combination of the supported machine with the traction aid winch system .....</b>  | <b>20</b>   |
| <b>4.6</b>   | <b>Brake systems .....</b>  | <b>21</b>   |
| <b>4.7</b>   | <b>Electrical safety .....</b>  | <b>21</b>   |
| <b>4.8</b>   | <b>Energy supply .....</b>  | <b>21</b>   |
| <b>4.9</b>   | <b>Operator controls, starting and stopping .....</b>   | <b>21</b>   |
| <b>4.10</b>  | <b>Emergency stop .....</b>   | <b>22</b>   |
| <b>4.11</b>  | <b>Control system .....</b>   | <b>22</b>   |
| <b>4.11.1</b>  | <b>General .....</b>  | <b>22</b>   |
| <b>4.11.2</b>  | <b>Operation mode control .....</b>   | <b>22</b>   |
| <b>4.11.3</b>  | <b>Remote control system .....</b>  | <b>23</b>   |
| <b>4.11.4</b>  | <b>Safety relevant functions .....</b>  | <b>23</b>   |
| <b>4.12</b>  | <b>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 .....</b> | <b>23</b>   |
| <b>4.13</b>  | <b>Additional requirements for remote traction aid winches .....</b>  | <b>24</b>   |
| <b>4.14</b>  | <b>Noise emissions .....</b>  | <b>25</b>   |
| <b>4.15</b>  | <b>Vibration .....</b>  | <b>25</b>   |
| <b>4.16</b>  | <b>Fire risks .....</b>   | <b>25</b>   |
| <b>4.17</b>  | <b>Maintenance .....</b>  | <b>26</b>   |
| <b>4.18</b>  | <b>Access system .....</b>  | <b>26</b>   |
| <b>4.19</b>  | <b>Tie down and machine lifting devices .....</b>   | <b>26</b>   |
| <b>5</b>   | <b>User information .....</b>   | <b>26</b>   |
| <b>5.1</b>   | <b>General .....</b>  | <b>26</b>   |

|            |   |           |
|------------|---|-----------|
| <b>5.2</b> | <b>Special requirements .....</b>   | <b>27</b> |
| <b>5.3</b> | <b>Hazard zones .....</b>   | <b>29</b> |
| <b>6</b>   | <b>Marking .....</b>  | <b>29</b> |
|            | <b>Annex A (normative) Hazard zones .....</b>   | <b>31</b> |
|            | <b>Annex B (normative) Rope arrangement for proper spooling .....</b>   | <b>34</b> |
|            | <b>Annex C (informative) List of significant hazards .....</b>  | <b>35</b> |
|            | <b>Annex D (normative) Noise test code .....</b>  | <b>37</b> |
|            | <b>Annex E (informative) Aspects of operating traction aid winches .....</b>  | <b>40</b> |
|            | <b>Annex F (informative) Example machine safety label (ISO 15817:2012) .....</b>  | <b>46</b> |
|            | <b>Annex ZA (informative) Relationship between this European Standard and the essential<br/>Requirements of EU Directive 2006/42/EC aimed to be covered .....</b> | <b>47</b> |
|            | <b>Bibliography .....</b>   | <b>50</b> |