

# DIN EN 16517:2022-04 (E)

## Agricultural and forestry machinery - Mobile yarders for timber logging - Safety

---

Contents		Page
European foreword .....		4
Introduction .....		5
1	Scope .....	6
2	Normative references .....	6
3	Terms and definitions .....	8
4	List of significant hazards .....	12
5	Safety requirements and / or protective risk reduction measures .....	16
5.1	General .....	16
5.2	Structural calculations .....	16
5.2.1	General .....	16
5.2.2	Information to be given in the calculation .....	17
5.2.3	Loads and forces .....	17
5.2.4	Load combinations .....	17
5.3	Stress analyses .....	18
5.4	Mechanical arrangements .....	18
5.4.1	Tower .....	18
5.4.2	Guying .....	18
5.4.3	Stabilizers .....	18
5.4.4	Securing for transport .....	18
5.5	Rope drive - Drive mechanism .....	18
5.5.1	General .....	18
5.5.2	Ropes .....	19
5.5.3	Winches .....	20
5.5.4	Designs of blocks, drums, traction sheave .....	20
5.5.5	Brake .....	20
5.6	Carriage .....	21
5.6.1	Derailing .....	21
5.6.2	Stopping devices .....	21
5.6.3	Carriage clamp .....	21
5.6.4	Drums and pulleys .....	21
5.6.5	Load balance .....	21
5.6.6	Diameter of pulley and roller .....	21
5.7	Hydraulic system .....	22
5.8	Limiting and indicating devices .....	22
5.8.1	Load limiter .....	22
5.8.2	Motion limiters .....	22
5.8.3	Speed limiters .....	22
5.8.4	Acoustic/visual warnings .....	22
5.8.5	General safe stop (GSS) .....	22
5.9	Controls .....	22
5.9.1	General .....	22
5.9.2	Control from different control stations .....	23
5.9.3	Controls automatic returning to neutral position .....	23
5.9.4	Controls with holding position .....	23
5.9.5	Emergency devices against uncontrolled 'carriage' downhill movement .....	23
5.9.6	Symbols .....	23

<b>5.10</b>	<b>Control stations .....</b>	<b>23</b>
5.10.1	General .....	23
5.10.2	Operator cabin .....	24
5.10.3	Safety .....	24
5.10.4	Ground control .....	24
5.10.5	Control station for setting up .....	24
<b>5.11</b>	<b>Platform and ladder .....</b>	<b>24</b>
5.11.1	Platform .....	24
5.11.2	Ladder .....	24
5.11.3	Strength and rigidity of components .....	25
<b>5.12</b>	<b>Electrical systems .....</b>	<b>25</b>
<b>5.13</b>	<b>Assembly of machine components .....</b>	<b>25</b>
5.13.1	Attachment to three-point hitch system .....	25
5.13.2	Combination of components of different manufacturers .....	25
<b>6</b>	<b>Verification of safety requirements and measures .....</b>	<b>25</b>
<b>7</b>	<b>Information for use .....</b>	<b>26</b>
7.1	Mounting instructions .....	26
7.1.1	General .....	26
7.1.2	Instructions for assembly .....	26
7.2	Markings .....	27
7.2.1	General .....	27
7.2.2	Manufacturer's plate .....	27
7.2.3	Installer's plate .....	28
7.2.4	Load signs .....	28
7.2.5	Warnings .....	28
7.3	Operator's manual .....	28
<b>Annex A (informative) Risk zone .....</b>	<b>30</b>	
<b>Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC aimed to be covered .....</b>	<b>32</b>	
<b>Bibliography .....</b>	<b>35</b>	