

# DIN EN 15830:2012-08 (E)

## Rough-terrain variable reach trucks - Visibility - Test methods and verification

---

<b>Contents</b>		<b>Page</b>
Foreword .....		4
Introduction .....		5
1	Scope .....	6
2	Normative references .....	6
3	Terms and definitions .....	6
4	Basic dimensions .....	10
4.1	Light bulb spacing dimensions .....	10
4.2	Masking dimensions .....	10
4.3	Reference dimensions for the measurement .....	10
5	Test apparatus .....	11
5.1	Test load .....	11
5.2	Light source apparatus .....	11
5.3	Vertical test object .....	11
5.4	Observation mirror .....	11
6	Truck test configuration .....	11
6.1	Equipment of the truck .....	11
6.2	Openings .....	12
6.3	Position of the truck and load handling attachment .....	12
6.3.1	General .....	12
6.3.2	Tests in normal travel mode .....	12
6.3.3	Tests with suspended load .....	13
6.3.4	Lorry trailer loading condition .....	14
7	Measurement procedure .....	14
7.1	Test-surface marking and truck location on the test surface .....	14
7.2	Positioning of the test apparatus .....	15
7.3	Measurement of the masking .....	16
7.3.1	General .....	16
7.3.2	Measurement at the visibility test circle .....	16
7.3.3	Measurement at the rectangular 1 m boundary .....	16
7.4	Fork arm visibility .....	17
7.5	Requirements for derivative trucks .....	18
8	Calculation method and computer simulation .....	18
8.1	Calculation method .....	18
8.2	Computer simulation .....	18
9	Evaluation method and performance criteria .....	18
9.1	Visibility performance criteria on the visibility test circle .....	18
9.2	Visibility performance criteria for the rectangular 1 m boundary .....	19
9.3	Visibility masking that exceed the visibility performance criteria with direct view .....	23
9.4	Fork arm visibility criteria .....	23
10	Test reports .....	23
10.1	Truck details .....	23

<b>10.2</b>	<b>Drawing</b> .....	<b>23</b>
<b>11</b>	<b>Information for use</b> .....	<b>23</b>
	<b>Annex A (normative) Light bulb spacing dimensions</b> .....	<b>25</b>
	<b>Annex B (informative) Performance criteria for additional devices</b> .....	<b>26</b>
<b>B.1</b>	<b>Performance criteria for mirrors</b> .....	<b>26</b>
<b>B.2</b>	<b>Performance criteria for CCTV system</b> .....	<b>26</b>
	<b>Annex C (informative) Procedure for the determination of masking at the visibility test circle or the rectangular 1 m boundary</b> .....	<b>27</b>
	<b>Annex D (informative) Examples of drawings for the test report</b> .....	<b>28</b>
	<b>Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC</b> .....	<b>30</b>
	<b>Bibliography</b> .....	<b>31</b>