

DIN EN 15436-2:2015-09 (E)

Road service area maintenance equipment - Part 2: Performance assessment

Contents		Page
Foreword		4
Introduction		5
1	Scope	6
2	Normative references	6
3	Terms and definitions	6
4	Cutting specifications check	6
4.1	Articulated-arm grass cutter - brushcutter	6
4.1.1	Cutting width (w)	6
4.1.2	Cutting height (h)	6
4.1.3	Cutting rotor stop time	6
4.2	In-line flail mower	7
4.2.1	Cutting width (w)	7
4.2.2	Cutting height (h)	7
4.2.3	Cutting tool stop time	7
4.3	Mechanical plant cutting	7
4.3.1	Cutting width (w)	7
4.3.2	Cutting tool stop time	8
5	Kinematic properties check	8
5.1	General	8
5.2	Articulated-arm grass cutters - brushcutters	9
5.2.1	General	9
5.2.2	Horizontal range (A)	10
5.2.3	Embankment range (E)	10
5.2.4	Ditch range (D1)	10
5.2.5	Ditch range with slide rail (D2)	10
5.2.6	Offset (S)	13
5.2.7	Cutting head clearance angle	13
5.2.8	Cutting head rotation angle	13
5.3	In-line flail mower	13
5.3.1	General	13
5.3.2	Horizontal range (A)	14
5.3.3	Horizontal clearance (Dh)	14
5.3.4	Embankment range (R = E + F)	14
5.3.5	Ditch range (D = E + F)	15
5.3.6	Cutting head clearance angle	15
5.4	Mechanical plant cutting	15
5.4.1	General	15
5.4.2	Vertical range (B)	16
5.4.3	Hedge side range (I)	16
5.4.4	Hedge side position variation (I)	17
5.4.5	Maximum hedge topping height (C)	17
5.4.6	Offset (Dp)	17
5.4.7	Cutting head clearance angle	18
6	Weights and dimensions check	18
6.1	General	18

6.2	Transport dimensions	20
6.2.1	General	20
6.2.2	Height (H)	20
6.2.3	Width (L1 + L2)	20
6.2.4	Length (Lg1 + Lg2)	20
6.3	Total machine weight	20
7	Specifications check for machines driven over PTO shaft with mechanical or hydraulic power transmission	21
7.1	General	21
7.2	Measurements to be performed and data required	21
7.2.1	Hydraulic circuit oil temperature	21
7.2.2	Machine power supply	21
7.2.3	Cutting tool rotational speed	21
7.2.4	Cutting tool rotating torque	21
7.2.5	Cutting tool circumferential speed	22
7.2.6	Cutting head kinetic energy	22
7.3	Determination of power	22
7.3.1	General	22
7.3.2	Parameters to be measured	22
7.3.3	Formula to be applied	23
7.4	Performance characteristics	23
7.4.1	General	23
7.4.2	Maximum continuous power	23
7.4.3	Maximum instantaneous power	24
8	Specifications check for machines with power supplied by the carrying vehicle hydraulics	25
8.1	General	25
8.2	Measurements to be performed and data required	25
8.2.1	Hydraulic circuit oil temperature	25
8.2.2	Machine power supply	25
8.2.3	Cutting tool rotational speed	25
8.2.4	Cutting tool rotating torque	25
8.2.5	Cutting tool circumferential speed	26
8.2.6	Cutting tool kinetic energy	26
8.3	Determination of power	26
8.3.1	General	26
8.3.2	Parameters to be measured	26
8.3.3	Formula to be applied	27
8.4	Performance characteristics	27
8.4.1	General	27
8.4.2	Maximum continuous power	27
8.4.3	Maximum instantaneous power	28
	Annex A (informative) Presentation of results - Articulated-arm grass cutters - Brush cutters	29
	Annex B (informative) Presentation of results - In-line flail mowers	32
	Annex C (informative) Presentation of results - Mechanical plant cutting	34
	Annex D (normative) Tests with movable arms	37
	Bibliography	38