

TEST REPORT



Stihl MS 291/C

Test number: 6192

OWNER OF THE TEST CERTIFICATE:

Manufacturer and applicant:

Andreas Stihl AG & Co. KG

Badstrasse 115

D- 71336 Waiblingen

www.stihl.de



MS 291



Test Results and Evaluations

Chain saws

STIHL MS 291 (Standard version)

STIHL MS 291 C-BE (with Ergostart and quick chain tensioner)

Tested with 40 cm saw bar length (bar Rollomatic E; saw chain 36 RM3)

Andreas Stihl AG & Co. KG; Badstrasse 115; D- 71336 Waiblingen

Test item	Test results				Evaluation
Class	Chain saw in the power class up to 3 kW for semi-professional use				
Engine power					
P _{max} = 2.8 kW	Engine speed	Torque	Spec. fuel consumption		N.E.
Md _{max} at 2.4 kW	9.500 min ⁻¹	2,8 Nm	50 kW/l		
	7.500 min ⁻¹	3,0 Nm	43 kW/l		
Fuel consumption					
	max. power	max. torque			
absolute / specific	1,5 l/h	407 g/kWh	1,4 l/h	442 g/kWh	+
Exhaust emission	Complies with type approval regulations stage IV of 97/68/EG in version (EU) 2016/1628, approval number: e1*2016/1628*2016/1628SHB2/P*0125*00				o
Chain lubrication					
Oil consumption	at 5000 min ⁻¹		at 9000 min ⁻¹		
min / max	3 ml/min	5 ml/min	4 ml/min	9 ml/min	o
Sound pressure level					
	idling speed	full load speed	Full throttle no load		
at ear of the operator	86 dB(A)	102 dB(A)	105 dB(A)		-
Equivalent sound pressure level, according to DIN EN ISO 22868: 102 dB(A)					
Sound power according to DIN EN ISO 22868: 115 dB(A)					
Vibration					
35 cm saw bar (chain 63 PM3)	idling speed	full load speed	full throttle no load		
front handle	3.0 m/s²	4.3 m/s²	2.3 m/s²		o
rear handle	1.9 m/s²	5.5 m/s²	3.1 m/s²		
Total equivalent vibration according to DIN EN ISO 22867					

Test item	Test results			Evaluation
Front handle 3.3 m/s²; rear handle 3.8 m/s²				
Chain brake				
Handguard activation (MS 241 C M)	Actuating force 42 N	aver. braking time 0.06 s	max. braking time 0.08 s	N.E.
Inertia activation	horizontal acceleration 321 m/s²		vertical acceleration 571 m/s²	
Kickback				
35 cm saw bar (chain 63 PM3)	Chain stop angle without chain brake 25 °			N.E.
Weight				
Weight per unit power (MS 271)	With cutting equipment 2.2 kg/kW		Without cutting equip- ment 2.1 kg/kW	+
Operability / handling				
Control elements	Easy to reach and use			o
Machine start	Combined control for ON, OFF and Choke			o
	Primer and Ergostart for easy start, MS 291 C BE version only			o
Engine control	Manual control, carburettor pre-set, limited adjustable			o
Chain assembly	Easy to access and use			o
Chain tensioning	simple, tensioning on the side of machine, MS 271 C BE version requires no tools for tensioning chain			o
Refilling	No tools required for removing fuel tank caps, easy access; requires combined wrench for removal			o
Maintenance				
Air filter and spark plug cover, casing	Disassembly difficult (3 screws), removable with combination key			o
Air filter cleaning	No tools			+
soiling	low			+
Reliability	No problems encountered during tests			o
Operating manual	clear, well-illustrated			+
Work safety				
EG-type examination test	DPLF K-EG-2010/5607			N.E.
GS-Test	DPLF K-GS-2010/5608			N.E.

Evaluation: ++ / + / o / - / --./.(o = Standard / NE= no evaluation, complies with tolerance value)

Threshold values and evaluation criteria are described in the “Information for the Utility Value Test” available from the KWF.

Description and Technical Data

Engine

- Air-cooled single-cylinder two-stroke engine
- Displacement 55. cm³; bore 47 mm; stroke 32 mm
- Fuel: minimum octane number 90ROZ (Mixture 1:50) or two-stroke special fuel with “KWF-Test”; manufacturers recommendation: Stihl MotoMix
- Spark plug NGK BPMR 7A
- Idling speed 2.800 rpm; max. speed 13.000 rpm

Cutting equipment

- Clutch drum with external chain sprocket
- Guide bar with 11 tooth sprocket nose
- Half or full chisel tooth chain
- Pitch 3/8“ gauge 1.6 mm
- Several guide bars and saw chain types available, also with 0,325“

Main dimensions and weights (measured values)

Length	incl. cutting equipment 45 cm	785 mm
	engine unit without spiked bumper	435 mm
Width	engine unit	185 mm
	incl. handle	235 mm
Height	engine unit	205 mm
	with front hand guard	280 mm
Stump height	chain sprocket cover	20 mm
	handle	30 mm
Tank volume	fuel	500 ml
	chain oil	240 ml
Weight	incl. cutting equipment 35 cm	6,8 kg
	without cutting equipment	5,6 kg

In acknowledgement of the results of the test carried out by the KWF the approved product is also entitled to carry the following test marks: "DLG anerkannt".

Test committee: tools and equipment
Chairman: Dr. Sebastian Paar, Laubau

practical application carried out by professional
user, product is further made unchanged

Inspection closed: **October 2017**

Approval until: **October 2022**

First approval: **May 2012**

Responsible test engineer

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