



# TEST REPORT

## STIHL MS 310

**TEST CERTIFICATE HOLDER:**

**Manufacturer and applicant:**

Andreas Stihl AG & Co KG

Badstrasse 115

D-71336 Waiblingen

www: [stihl.de](http://stihl.de)

[www.stihl.de](http://www.stihl.de)





## Test Results and Evaluations

### Chainsaw Stihl MS 310

Firma Andreas Stihl AG & Co KG; 71336 Waiblingen, Badstrasse 115

Test item	Test results				Evaluation
Function	Chain saw in the power class up to 4 kW, for semi-professional use				
<b>Engine power</b>					
Power	Engine speed	Torque	Spec. fuel consumption		NE
max. 3.2 kW	9500 min <sup>-1</sup>	3.2 Nm	54 kW/l		
2.5 kW	7000 min <sup>-1</sup>	max. 3.5 Nm	45 kW/l		
<b>Fuel consumption</b>					
	max. power		max. torque		
absolute / specific	2.0 l/h	470 g/kWh	1.8 l/h	537 g/kWh	○
<b>Exhaust emission</b>					
	complies with level I of the standard 2002/88 EG				○
<b>Chain lubrication</b>					
Oil consumption	at 5000 min <sup>-1</sup>		at 9000 min <sup>-1</sup>		
min. / max	4 ml/min / 8 ml/min		5 ml/min / 14 ml/min		○
<b>Noise</b>					
	idling	full load	racing		
Sound pressure level	81 dB(A)	103 dB(A)	105 dB(A)		○
Equivalent sound pressure level 102 dB(A) (operation modes idling/ full load/ racing with equal duration of exposure)					
Sound power level 113 dB(A) according to Directive 2000/14/EG					
<b>Vibration</b>					
	idling	full load	racing		
front handle	4.1 m/s <sup>2</sup>	4.4 m/s <sup>2</sup>	4.3 m/s <sup>2</sup>		○
rear handle	3.9 m/s <sup>2</sup>	6.4 m/s <sup>2</sup>	3.2 m/s <sup>2</sup>		
Equivalent vibration total value					
front/rear 4,3 / 4,7 m/s <sup>2</sup> (operation modes idling/ full load/ racing with equal duration of exposure)					

## Stihl MS 310

<b>Chain brake</b>				
Hand guard activation	activation force	aver. braking time	max. braking time	NE
	27 N	0.10 s	0.11 s	
Inertia activation	horizontal acceleration	vertical acceleration		NE
	330m/s <sup>2</sup>	570 m/s <sup>2</sup>		
<b>Kickback</b>				
Cutting attachment 35cm , 3/8"		Chain stop angle		NE
Half chisel tooth		<29 °		
<b>Power to weight ratio</b>				
MS 310	With cutting attachment	Without cutting attachment		+
	2.2 kg/kW	1.9 kg/kW		
<b>Operability / handling</b>				
Control elements	Easy to reach and use			+
	Fuel tank cap removable without tools.			+
Primer	not provided			o
Chain assembly	Chain sprocket easily accessible.			o
Chain tensioning	laterally in drive sprocket cover.			o
<b>Maintenance</b>				
Air filter and spark plug cover - Casing	removable without tools.			+
	not removable, cleaning awkward.			-
Air filter	cleaning	Tools required, 1 screw		+
	soiling	normal		o
<b>Reliability</b>				
	No defects during test			+
<b>Operating manual</b>				
	clear, well illustrated			+
<b>Operator safety</b>				
EG-type examination test	(DPLF) Test certificate No. K-EG-2000-3091			
GS-Test	(DPLF) Test certificate No. K-GS-2000-3092			

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

## Description and Technical Data

### Motor

- Air-cooled single-cylinder two-stroke engine;
- Engine displacement 59 cm<sup>3</sup>; bore 47 mm; stroke 34 mm;
- Fuel: minimum octane number 90 ROZ; mixed lubrication;  
2-T- special fuel with "KWF-TEST" or regular lead-free petrol;
- Spark plug Bosch WSR 6F or NGK BPMR 7A;
- Idling speed: 2800 min<sup>-1</sup>; max. speed: 13.000 min<sup>-1</sup>;
- membrane carburettor Zama.

### Cutting attachment

- Clutch drum with external chain sprocket;
- Available guide bars lengths from 32 to 50 cm;
- pitch 0,325" or 3/8", gauge 1.6 mm

### Main dimensions and weights

		<b>MS 310</b>
Length,	incl. cutting attachment 37 cm	787 mm
	engine unit without spiked bumper	429 mm
Width,	engine unit	195 mm
	incl. handle	267 mm
Height,	engine unit	210 mm
	with front hand guard	255 mm
Stump height,	chain sprocket cover	20 mm
	handle	30 mm
Tank capacity	fuel	510 ml
	chain oil	270 ml
Weight,	incl. cutting attachment 35 cm	7.1 kg
	without cutting attachment	6.1 kg

## Test

### Test carried out

Kuratorium für Waldarbeit und Forsttechnik Groß-Umstadt

DLG-Testzentrum Technik & Betriebsmittel Groß-Umstadt

### Field test

Landesanstalt für Ökologie, Bodenordnung und Forsten, Arnsberg

Revierförsterei Groß-Umstadt

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### FPA/DLG-Test Committee

„Geräte und Werkzeuge“ (“Equipment and tools”) with 16 members

Chairman: Alois Zollner

### FPA/DLG- approval:

May 2006

FPA- Index: 1.01.4203

DLG- Test Report: 5594

According to the test regulations, the applicant is entitled to display the test mark on machines of this type and to use the certification for advertising purposes.

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