

# Test Report



## STIHL MS 400 C-M

Test no.: 9133

OWNER OF TEST CERTIFICATE:

Andreas Stihl AG & Co. KG

Badstrasse 115

71336 Waiblingen - Germany

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





## Test results and evaluations

Chain-saw with combustion engine for forestry work STIHL MS 400 C-M  
Tested with 45 cm Full chisel cutting attachment

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

Test item	Test result				Rating
<b>Function</b>	Chain-saw in the power class from 4 kW, for professional use				
<b>Engine power</b>	Engine speed	Torque	specific output		<b>n.e.</b>
$P_{\max} = 4,0 \text{ kW}$	10.000 rpm	3,8 Nm	60 kW/l		
$Md_{\max}$ at 3,3 kW	7.500 rpm <sup>1</sup>	4,2 Nm	49 kW/l		
<b>Fuel consumption</b>	at max. power		at max. torque		<b>+</b>
absolute / specific	2,4 l/h	421 g/kWh	2,2 l/h	460 g/kWh	
<b>Exhaust emissions</b>	Comply with level V of guide line 97/68/EG in version (EU) 2016/1628				<b>o</b>
<b>Chain lubrication</b>	at 5000 rpm		at 9000 rpm		<b>o</b>
Consumption min / max	4 ml/min	8 ml/min	6 ml/min	14 ml/min	
<b>Noise emissions</b>	Idling	Full load	Full throttle		<b>-</b>
on the operator's ear	88 dB(A)	107 dB(A)	109 dB(A)		
Equivalent sound pressure level	according to DIN EN ISO 22868: 106 dB(A)				
Equivalent sound power level	according to DIN EN ISO 22868: 118 dB(A)				
<b>Vibration emissions</b>	Equivalent vibration level according to DIN EN ISO 22867				<b>o</b>
	front / rear handle: 3,1 m/s <sup>2</sup> / rear 3,3 m/s <sup>2</sup>				
<b>Power/weight ratio</b>	with cutting attachment		without cutting attachment		<b>++</b>
	1,7 kg/kW		1,4 kg/kW		

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<b>Usability / handling</b>		
Controls	Easily accessible and usable even when wearing with gloves	o
Starting aid	Decompression valve provided	o
Engine control	Electronic control, no regulator screws, saw automatically adjusts for optimal performance	+
Assembly of saw chain	Easy access and use	o
Chain tension	tensioning on the side of machine with tool	o
Refuelling	No tools required for removing fuel tank caps, easy access	o
<b>Maintenance</b>		
Air filter and spark plug cover, casing	Quick release mechanism, requires wrench	o
Air filter cleaning	Without tool	+
soiling	low	+
<b>Reliability</b>		
	No multiple damages occurred during test	o
<b>User's manual</b>		
	Clear and illustrated	+
<b>Work safety</b>		
	GS- tested by DPLF	+

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

## Description and technical data's

### Engine

- Air-cooled single-cylinder two-stroke engine
- Displacement 66,8 cm<sup>3</sup>; bore 50 mm; stroke 34 mm
- Fuel: minimum octane number 90ROZ (Mixture 1:50) or two-stroke special fuel with "KWF-Test"; manufacturers recommendation: Stihl MotoMix
- Spark plug: NGK CMR6H
- Idling speed 2.800 rpm; maximum speed 13.500 rpm

### Cutting attachment

- Clutch drum with external chain sprocket (7 teeth)
- Guide bar with sprocket nose and full chisel saw chain
- Pitch 3/8", gauge 1,6 mm
- Several guide bars available according to manual

### Technical data's (measured values)

Length	Including cutting attachment	880 mm
	Engine unit with spiked bumper	440 mm
Width	Engine unit	185 mm
	With hand guard	255 mm
Height	Engine unit	220 mm
	With hand guard	300 mm
Stump high	Chain sprocket cover	21 mm
	Handle	33 mm
Tank volume	Fuel	620 ml
	Chain lubrication	330 ml
Dry weight	Including cutting attachment	6,9 kg
	Without cutting attachment	5,7 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**

**Inspection closed**      **May 2020**

**Approval until**         **May 2025**

**First approval**        **May 2020**

**Responsible test engineer:**

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**practical application carried out by professional user**

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