TEST REPORT

Stihl MS 241 C-M

OWNER OF TEST CERTIFICATE:

Test no.: 5957

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MS 241 C-M

MS 241 C-M VW

Test results and evaluations

Andreas Stihl AG & Co. KG, Badstrasse 115, D – 71336 Waiblingen

Chainsaw tested with a 35 cm cutting set.

STIHL MS 241 C M (with electronic engine management)
STIHL MS 241 C M VW (with electronic engine management, handle and carburettor heating)

Application field

Petrol chainsaw in the power range up to 3 kW for professional use.

Operation, maintenance and product safety		
Operability / Handling / Ergonomics		
Control elements	Easy to reach and operate.	o
Starting the engine	Decompression valve.	o
Engine control	Electronical control.	o
Mounting of the saw-chain	Easy to access and use.	o
Chain tensioning	Simple. Tensioner on the side of the machine.	o
Refilling	No tools required for removing fuel tank caps. Easy access.	o
Handle heating (MS 241 C-M VW)	Activation with flip switch. The usability with gloves is good.	o
Maintenance		
Engine-, airfilter- and spark plug cover	Quick release / requires combine wrench.	o
Airfilter Cleaning Soiling	 No tools required. Low	 + +
Reliability	No noticeable problems in the course of the tests.	o
Safety and user information		
Instruction manual	Clearly, well illustrated.	+
Work safety EG-type examination GS-type examination	 DPLF K-EG-2010/5607 DPLF K-GS-2010/5608	w/o r.

Technical data

Main dimensions and weights

Length	Including cutting set 45 cm Engine unit w/o bumper spike	730 mm 405 mm
Width	Engine unit w/ handle	175 mm 254 mm
Height	Engine unit w/ handguard	203 mm 283 mm
Stump hieght	Sprocket cover Handle	19 mm 32 mm
Tank volumes	Fuel Chainoil	400 ml 260 ml
Empty weight	Including cutting set 45 cm w/o cutting set	5,5 kg 4,8 kg

Cutting set

- Clutch bell w/ external sprocket
- Guide bar w/ 9- or 11-toothed sprocket nose
- Semi- or full chisel chain
- Pitch 3/8“ P w/ gauge 1,3 mm or pitch 0,325“ with gauge 1,6 mm
- Further guide bar lengths and chain types fitting the saw type available

Engine data

- Air-cooled single-cylinder two-stroke engine
- Displacement: 42,6 cm^3; cylinder bore: 42,5 mm; piston stroke: 30,0 mm
- Spark plug: NGK CMR6H
- Idle speed: 2.800 min^{-1}; racing speed: 14.000 min^{-1}

Fuel: minimum octane index 90 ROZ (mixture ratio 1:50) or two-stroke alkylate gasoline with „KWF-Test“. Manufacturer’s recommendation: Stihl MotoMix

Power / torque at P_{max} = 2,2 kW, M = 1,9 Nm M_{max} = 2,2 Nm, P = 2,0 kW	revolutions 10.750 min^{-1} 6.750 min^{-1}	Power / dis-placement 52 kW/l 38 kW/l	w/o r.

Power to weight ratio (MS 241 C-M)	w/ cutting set 35 cm		w/o cutting set		+
	0,4 kW/kg		0,45 kW/kg		
Fuel consumption	at max. power output		at max. torque output		+
absolute / specific	1,2 l/h	278 g/kWh	1,0 l/h	404 g/kWh	
Chain oil consumption	at 5.000 min^{-1}		at 9.000 min^{-1}		o
min / max	4 ml/min	6 ml/min	7 ml/min	10 ml/min	

Exhaust emissions

Comply with stage V of engine category NRSh-v-1a of EU-directive (EU) 2016/1628.
Approval no. given on the type plate.

	Limits according to EU regulation 2016/1628		Manufacturer‘s information	o
CO	805 g/kWh		- g/kWh	
HC + NO_X	50,0 g/kWh		- g/kWh	
Noise emissions (maximum values according to manufacturer)				
Max. noise emissions (Cutting set 63 cm)	Idle	Full throttle	Full load	-
At the operator’s ear	79 dB(A)	104 dB(A)	102 dB(A)	
Equivalent sound pressure level according to DIN EN ISO 22868: 101 dB(A) Equivalent sound power level according to DIN EN ISO 22868: 112 dB(A) (Mix: idle / full throttle)				
Vibration (maximum values according to manufacturer)				
Max. vibrations (Cutting set 33 cm)	Idle	Full throttle	Full load	o
Front handle	1,9 m/s²	1,3 m/s²	4,0 m/s²	
Rear handle	3,1 m/s²	1,6 m/s²	3,8 m/s²	
Equivalent total vibration value according to DIN EN ISO 22867 Front handle: 2,7 m/s²; Rear handle 3,0 m/s²				
Rating: ++ / + / o / - / -- ; o = standard ; w/o r. = w/o rating ; – compliance with threshold value				

In the field of measurement tolerances, the Stihl MS 241 C-M is still manufactured unchanged.

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Test commitee equipment and tools
Chairman: Dr. Johannes Windisch, Regensburg

Practical work with professional users

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