

PRÜFBERICHT



STIHL MS 291

OWNER OF TEST CERTIFICATE:

Test no.: 6192

Andreas Stihl AG & Co. KG
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D – 71336 Waiblingen
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Test results and evaluations



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

Chain saw tested with a 40 cm cutting attachment with semi-chisel saw chain

Application field

Chain saw for professional use in the power range up to 3 kW

Handling, maintenance, product safety		
Operability / Handling / Ergonomics		
Controls	Easily accessible and easy to operate	o
Starting procedure	One combined switch for engine ON-OFF and CHOKE (warm/cold start)	o
Engine control	Carburetor preset; adjustment range of carburetor / idle screws limited	-
Chain assembly	Easy; sprocket cover easily accessible	o
Chain tension	Simple; on the side in the sprocket cover	o
Refueling	Fuel filler caps can be loosened without tools; easily accessible	o
Maintenance		
Air filter and spark plug cover	Easy dismantling due to quick-release fasteners / can be dismantled with combination spanner	o
Air filter	No tools required Low	+
Cleaning		+
Contamination		
Reliability	No damage during testing	o
Safety and user information		
Operating instructions	Clearly arranged, well-illustrated	+
Product safety	EC type examination certificate available	o.B.

Technical data's

Main dimensions and weights

Length	Including cutting attachment	785 mm
	Engine unit without spiked bumper	435 mm
Width	Engine unit	184 mm
	With handle tube	235 mm
Height	Engine unit	205 mm
	With hand guard	280 mm
Floor height	Sprocket cover	20 mm
	Handle tube	30 mm
Tank capacity	Fuel	500 ml
	Chain lubrication	240 ml
Dry weight	Including cutting attachment	6,8 kg
	Without cutting set	5,6 kg

Cutting attachment

- Clutch drum with external chain wheel
- Guide bar with 11-tooth deflection sprocket
- Semi-chisel tooth chain
- Pitch 3/8" with groove width 1.6 mm
- Other guide bar lengths and chain types available to match the saw type

Engine data's

- Air-cooled single-cylinder two-stroke engine
- Displacement: 55.5 cm³; cylinder bore: 47 mm; piston stroke: 32 mm
- Spark plug: NGK BPMR 7A
- Idling speed: 2.800 min⁻¹; maximum speed: 13.000 min⁻¹

Fuel: minimum 90 RON (mixing ratio 1:50) or two-stroke special fuel with "KWF-Test". Manufacturer's recommendation: Stihl MotoMix

Power / torque at		Speed		Litre output		o. B.
P _{max} = 2,8 kW, M = 2,8 Nm		9.500 min ⁻¹		50 kW/l		
M _{max} = 3,0 Nm, P = 2,4 kW		6.500 min ⁻¹		43 kW/l		
Power-to-weight ratio		With cutting attachment 2,2 kg/kW		Without cutting attachment 2,1 kg/kW		o
Fuel consumption		at max. power		at max. torque		+
absolute / specific		1,5 l/h	407 g/kWh	1,3 l/h	474 g/kWh	
Chain lubricant consumption		at 5.000 min ⁻¹		at 9.000 min ⁻¹		o
min / max		3 ml/min	5 ml/min	4 ml/min	9 ml/min	

Exhaust emission				
Comply with stage V of engine class NRSh-v-1a of Directive (EU) 2016/1628.				
	Limit values according to EU Regulation 2016/1628	Measured value	o	
CO	603 g/kWh	316 g/kWh		
HC + NO _x	72 g/kWh	70 g/kWh		
Noise emission				
	Idle	Full load	Full throttle	-
on the 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)				
Equivalent sound power level according to DIN EN ISO 22868: 115 dB(A)				
Vibration emission				
	Idle	Full load	Full throttle	o
Front handle	3,0 m/s²	4,3 m/s²	2,3 m/s²	
Rear handle	1,9 m/s²	5,5 m/s²	3,1 m/s²	
Equivalent total vibration value according to DIN EN ISO 22867				
Front handle: 3,3 m/s²				
Rear handle: 3,8 m/s²				
Evaluation range: ++ / + / o / - / -- ; o = Standard ; n.e. = no evaluation ; – limit value observed				

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".

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Test committee equipment and tools
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Practical work with professional users
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