

TEST REPORT



STIHL MS 881

OWNER OF TEST CERTIFICATE:

Test no.: 9537

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

www.stihl.de





Test results and evaluations

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

Chainsaw MS 881 R tested with 75 cm full chisel cutting attachment

Application field

Petrol chainsaw in the power range above 4 kW for professional use.

Operation, maintenance and product safety		
Operability / Handling / Ergonomics		
Control elements	Easy to reach and operate, even when using gloves.	o
Starting the engine	Decompression valve.	o
Engine control	Manual carburettor adjustment with set screws	o
Mounting of the saw-chain	Easy to access and use.	o
Chain tensioning	Lateral chain tensioner.	o
Refilling	No tools required for removing fuel tank caps. Easy access.	o
Maintenance		
Engine-, airfilter- and spark plug cover	Quick release / requires combine wrench.	o
Airfilter	No tools required. Low	+
Cleaning		+
Soiling		
Reliability	No noticeable problems in the course of the tests.	o
Safety and user information		
Instruction manual	Clearly, well illustrated.	+
Work safety	-	w/o r.
GS-type examination		

Technical data		
Main dimensions and weights		
Length	Engine unit w/o bumper spike	548 mm
Width	Engine unit w/ handle	230 mm 282 mm
Height	Engine unit w/ handguard	255 mm 340 mm

Stump hieght	Sprocket cover Handle (R-Version / standard)	31 mm 83 mm / NA			
Tank volumes	Fuel Chainoil	1.300 ml 700 ml			
Empty weight	Including cutting set 75 cm w/o cutting set	12,6 kg 9,9 kg			
Cutting set					
<ul style="list-style-type: none">• Clutch bell with external sprocket (7 teeth)• Guide bar Rollomatic ES with sprocket nose• Semi- or full chisel chain• Pitch 0,404" with gauge 1,6 mm• Further guide bar lengths and chain types available according manual					
Engine data					
<ul style="list-style-type: none">• Air-cooled single-cylinder two-stroke engine• Displacement: 121,6 cm³; cylinder bore: 60 mm; piston stroke: 43 mm• Spark plug: Bosch R10 WSR6F• Idle speed: 2.800 min⁻¹; racing speed: 11.500 min⁻¹ <p>Fuel: minimum octane index 90 ROZ (mixture ratio 1:50) or two-stroke alkylate gasoline with „KWF-Test“. Manufacturer's recommendation: Stihl MotoMix</p>					
Power / torque at	Revolutions	Torque	Power / displacement	w/o r.	
P _{max} = 6,6 kW	8500 1/min	7,4 Nm	55 kW/l		
M _{max} = at 5,0 kW	6000 1/min	8,0 Nm	41 kW/l		
	0,4 kW/kg		0,45 kW/kg		
Power to weight ratio	incl. cutting attachment		excl. cutting attachment		o
	1,9 kg/kW		1,5 kg/kW		
Fuel consumption	at max. power output		at max. torque output		+
absolute / specific	2,6 l/h	400 g/kWh	2,5 l/h	500 g/kWh	
Chain oil consumption	at 5.000 min ⁻¹		at 9.000 min ⁻¹		o
min / max	5 ml/min	14 ml/min	10 ml/min	25 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.					
Noise emissions (maximum values according to manufacturer)					
Max. noise emissions (Cutting set 63 cm)	Idle	Full throttle	Full load	-	
At the operator's ear	89 dB(A)	108 dB(A)	- 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)					
Vibration (maximum values according to manufacturer)					
Equivalent total vibration value	according to DIN EN ISO 22867			o	

	Front handle: 8,9 m/s ² ; Rear handle 8,9 m/s ²	
Rating: ++ / + / o / - / -- ; o = standard ; w/o r. = w/o rating ; – compliance with threshold value		

Published with funding from the Federal Ministry of Food and Agriculture on the basis of a resolution of the German Bundestag and by the Federal State Ministries of Forestry by:



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

Test completion **May 2021**
Approval until **May 2026**
First approval **May 2021**
Responsible test engineer
Rainer Kobow
rainer.kobow@kwf-online.de

Practical work with professional users

Kuratorium für Waldarbeit und Forsttechnik e.V.
 Spremberger Straße 1
 D - 64823 Groß-Umstadt
 Phone: 06078-785-0
 Fax: 06078/785-39
 Homepage: www.kwf-online.de