

TEST REPORT



Stihl MS 661 C-M

Test number: 6812

OWNER OF THE TEST CERTIFICATE:

Manufacturer and applicant:

Andreas Stihl AG & Co. KG

Badstrasse 115

71336 Waiblingen - Germany

www.stihl.de





Test Results and Evaluations

Chain saws

STIHL MS 661 C-M (with electronic engine management M- Tronic)

STIHL MS 661 C-MW (with electronic engine management M- Tronic and handle heating)

Tested with 45 cm Rollomatic E bar and 3/8" full chisel saw chain

Andreas Stihl AG & Co. KG; Badstrasse 115; 71366 Waiblingen - Germany

| Test item | Test results | | | | Evaluation |
|---|---|----------------|---------------------------|-----------|------------|
| Class | Chain saw in the power class over 4 kW for professional use | | | | |
| Engine power | | | | | |
| P _{max} = 5.4 kW | Engine speed | Torque | Spec. fuel consumption | | N.E. |
| Md _{max} at 4.5 kW | 9.500 min ⁻¹ | 5.4 Nm | 59 kW/l | | |
| | 7.500 min ⁻¹ | 5.7 Nm | 49 kW/l | | |
| Fuel consumption | | | | | |
| | maximum power | maximum torque | | | |
| absolute / specific | 2.8 l/h | 388 g/kWh | 2.6 l/h | 428 g/kWh | + |
| Exhaust emission | | | | | |
| Complies with type approval regulations stage IV of 97/68/EG in version (EU) 2016/1628, approval number: e1*2016/1628*2016/1628SHB3/P*0112*00 | | | | | o |
| Chain lubrication | | | | | |
| Oil consumption | at 5000 min ⁻¹ | | at 9000 min ⁻¹ | | |
| min / max | 5 / 10 ml/min | | 9 / 17ml/min | | o |
| Sound pressure level | | | | | |
| (63 cm saw bar) | idling speed | | full load speed | | |
| at ear of the operator | 85 dB(A) | | 105 dB(A) | | - |
| Equivalent sound pressure level, total value according to DIN EN ISO 22868: 102 dB(A) | | | | | |
| (50:50 Mix: Idling/full load) | | | | | |
| Accoustic power according to DIN EN ISO 22868: 114 dB(A) | | | | | |
| (50:50 Mix: Idling/full load) | | | | | |

| | | | | |
|--|---|----------------------|---------------------------|------|
| Vibration | | | | |
| (63 cm saw bar) | idling speed | | full load speed | |
| front handle | 6.3 m/s² | | 5.2 m/s² | |
| rear handle | 4.0 m/s² | | 4.5 m/s² | |
| Total equivalent vibration according to DIN EN ISO 22867 | | | | |
| Front handle 5.8 m/s²; rear handle 4.2 m/s² | | | | |
| Chain brake | | | | |
| Handguard activation | Actuating force | Average braking time | Maximum braking time | N.E. |
| | 28 N | 0.03 s | 0.05 s | |
| Inertia activation (40 cm bar) | horizontal acceleration | | vertical acceleration | |
| | 266 m/s² | | 507 m/s² | |
| Weight | | | | |
| Weight per unit power | With cutting equipment | | Without cutting equipment | |
| | 1.6 kg/kW | | 1.4 kg/kW | |
| Operability / handling | | | | |
| Control elements | Easy to reach and use | | | o |
| | Decompression valve | | | + |
| Machine start | Mechanical starter (shock absorber in starter handle), combined switch for motor ON, OFF, START | | | + |
| Engine control | Electronic control | | | ++ |
| | No regulator screws | | | |
| Chain assembly | Easy to access and use | | | o |
| | drive sprocket cover fixed by permanently attached fasteners | | | + |
| Chain tensioning | simple, tensioning on the side of machine | | | o |
| | chain tensioner under chain sprocket cover, tools required, | | | o |
| Refilling | Fuel tank covers can be opened without tools, easy to access | | | o |

| | | | |
|---|----------|--|-------------|
| Maintenance | | | |
| Engine, air filter and spark plug cover | | Simple, clips removable using combination wrench | o |
| Air filter | cleaning | No tools required | + |
| | soiling | normal | o |
| Reliability | | No damage reported during tests | o |
| Operating manual | | clear, well-illustrated | + |
| Work safety | | | |
| EG-type examination test | | DPLF K-EG-2012/6332 | N.E. |
| GS- Test | | DPLF K-GS-2012/6333 | |

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

Description and technical data

Engine

- Air-cooled single-cylinder two-stroke engine
- Displacement 91.1 cm³; bore 56 mm; stroke 37 mm
- Fuel: minimum octane number 90 RON (ratio 1:50), or 2T-special fuel with "KWF-TEST"; manufacturer recommended fuel: MotoMix
- Spark plug NGK BPMR 7A
- Idling speed 2800 min⁻¹; rated speed 9500 min⁻¹

Cutting equipment

- Clutch drum with external chain sprocket
- Guide bar with 11-tooth sprocket nose
- full or half chisel tooth chain
- pitch 3/8" gauge 1.6 mm
- various guide cutting attachments also with 0,404" chain pitch available for this saw model

Main dimensions and weights (measured values MS 661 C-M)

| | | |
|---------------|-----------------------------------|--------|
| Length | incl. cutting equipment 45 cm | 880 mm |
| | engine unit without spiked bumper | 440 mm |
| Width | engine unit | 215 mm |
| | incl. handle | 270 mm |
| Height | engine unit | 235 mm |
| | with front hand guard | 282 mm |
| Stump height | chain sprocket cover | 21 mm |
| | handle | 27 mm |
| Tank capacity | fuel | 860 ml |
| | chain oil | 380 ml |
| Net weight | incl. cutting equipment 45 cm | 8.7 kg |
| | without cutting equipment | 7.3 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: March 2019
Approval until: March 2024
First approval: April 2014
Responsible test engineer
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practical application carried out by professional user

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