

STIHL RG-KM

STIHL



2 - 11 Instruction Manual



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1 Introduction

Dear Customer,

Thank you for choosing STIHL. We develop and manufacture our quality products to meet our customers' requirements. The products are designed for reliability even under extreme conditions.

STIHL also stands for premium service quality. Our dealers guarantee competent advice and instruction as well as comprehensive service support.

STIHL expressly commit themselves to a sustainable and responsible handling of natural resources. This user manual is intended to help you use your STIHL product safely and in an environmentally friendly manner over a long service life.

We thank you for your confidence in us and hope you will enjoy working with your STIHL product.



Dr. Nikolas Stihl

IMPORTANT! READ BEFORE USING AND KEEP IN A SAFE PLACE FOR REFERENCE.

2 Guide to Using this Manual

2.1 Applicable Documentation

Local safety regulations apply.

- ▶ Read, understand and save the following documents in addition to this instruction manual:
 - Instruction manual of STIHL KombiTool being used.

2.2 Symbols used with warnings in the text



WARNING

- This symbol indicates dangers that can cause serious injuries or death.
 - ▶ The measures indicated can avoid serious injuries or death.

NOTICE

- This symbol indicates dangers that can cause damage to property.
 - ▶ The measures indicated can avoid damage to property.

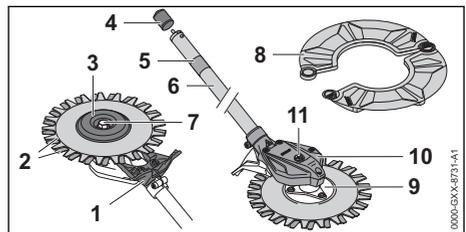
2.3 Symbols in Text



This symbol refers to a chapter in this instruction manual.

3 Overview

3.1 KombiTool



1 Machine Support

For resting KombiTool on the ground.

2 Blades

Cut weeds and grass.

3 Rider Plate

Covers the blade mounting.

4 Protective cap

Covers the end of the drive tube.

5 Mark

Defines the depth the KombiTool must be inserted in the KombiMotor.

6 Drive Tube

Connects KombiTool to KombiMotor

7 Screw

Secures rider plate to KombiTool.

8 Transport Guard

Helps protect user from contact with blades.

9 Blade Mounting

Serves to secure the blades.

10 Encloses the gearbox.

11 Screw Plug

Closes filler opening for STIHL gear grease.

3.2 Symbols

Meanings of symbols that may be on the KombiTool:



This symbol marks the filler opening for STIHL gear grease.



Push drive tube into KombiTool's coupling sleeve as far as mark.

4 Safety Precautions**4.1 Warning Symbols**

Meanings of warning symbols on the KombiTool:



Observe safety notices and take the necessary precautions.



Read, understand and save the instruction manual.



Wear safety glasses and hearing protection.



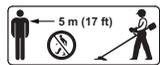
Wear safety boots.



Wear protective gloves.



Do not touch the moving blades.



Maintain safe distance.



Do not touch hot surface.

4.2 Intended Use

The STIHL RG-KM KombiTool is designed to be combined with a STIHL KombiMotor and used for removing weeds and mowing grass.

▲ WARNING

- Using the KombiTool for purposes for which it is not designed may result in serious or fatal injuries and damage to property.
 - ▶ Use the KombiTool as described in this instruction manual.
 - ▶ Use the KombiMotor as described in the instruction manual supplied with the STIHL KombiMotor.

4.3 The Operator**▲ WARNING**

- Users who have had no instruction cannot recognize or assess the risks involved in using the KombiTool. The user or other persons may sustain serious or fatal injuries.



- ▶ Read, understand and save the instruction manual.

- ▶ If you pass the KombiTool on to another person: Always give them the instruction manual.
- ▶ Make sure the user meets the following requirements:
 - The user must be rested.
 - The user must be in good physical condition and mental health to operate and work with the KombiTool. If the user's physical, sensory or mental ability is restricted, he or she may work only under the supervision of or as instructed by a responsible person.
 - The user is able to recognize and assess the risks involved in using the KombiTool.
 - The user must be of legal age or is being trained in a trade under supervision in accordance with national rules and regulations.
 - The user has received instruction from a STIHL servicing dealer or other experienced user before working with the KombiTool for the first time.
 - The user must not be under the influence of alcohol, medication or drugs.
- ▶ If you have any queries: Contact a STIHL servicing dealer for assistance.

4.4 Clothing and equipment

⚠ WARNING

- Objects can be thrown at high speed during operation. This may result in injury to the user.



- ▶ Wear close-fitting safety glasses. Suitable safety glasses are tested in accordance with EN 166 or national regulations and available commercially with the corresponding marking.

- ▶ Wear long trousers made from resistant material.

- Noise is generated during operation. Noise can damage your hearing.



- ▶ Wear ear protection.

- Dust can be whipped up during operation: Whipped up dust can damage the respiratory passages and cause allergic reactions.

- ▶ If dust is whipped up or forms a cloud: Wear a dust respirator mask.

- Unsuitable clothing can snag on wood, brush or the KombiTool. Users not wearing suitable clothing are at risk of serious injury.

- ▶ Wear close-fitting clothing.
- ▶ Remove scarves and jewelry.

- The user can come into contact with the blades during operation. This may result in serious injury to the user.



- ▶ Wear steel-toed safety boots.

- ▶ Wear long trousers made from resistant material.

- The user can come into contact with the blades during cleaning and maintenance work. This may result in injury to the user.



- ▶ Wear work gloves made from resistant material.

- Wearing unsuitable footwear may cause the user to slip. This may result in injury to the user.

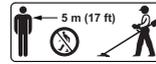
- ▶ Wear sturdy, closed-toed footwear with high-grip soles.

4.5 Work Area and Surroundings

⚠ WARNING

- Innocent bystanders, children and animals are not aware of the dangers of the KombiTool or flying debris. Bystanders, children and animals

may be seriously injured and damage to property may occur.



- ▶ Do not allow bystanders, children or animals within 5 meters of the work area.

- ▶ Maintain a clearance of 3 meters from objects.

- ▶ Do not leave the KombiTool unattended.

- ▶ Make sure that children cannot play with the KombiTool.

4.6 Safe Condition

4.6.1 KombiTool

The KombiTool is in a safe condition if the following points are observed:

- The KombiTool is not damaged.
- The KombiTool is clean.
- The KombiTool is correctly mounted.
- Original STIHL accessories for this KombiTool model are fitted.
- The accessories are correctly attached.

⚠ WARNING

- If not in safe condition, components may no longer operate correctly and safety devices may be disabled. This may result in serious or fatal injury to people.

- ▶ Work only with an undamaged KombiTool.

- ▶ If the KombiTool is dirty: Clean the KombiTool.

- ▶ Do not modify the KombiTool.

- ▶ Fit original STIHL accessories designed for this KombiTool model.

- ▶ Fit the blade as described in this Instruction Manual.

- ▶ Attach accessories as described in this User Manual or in the User Manual for the accessories.

- ▶ Replace worn or damaged labels.

- ▶ If you have any doubts, be sure to consult a STIHL dealer.

4.6.2 Blades

The blades are in a safe condition if the following points are observed:

- The blades and mounting hardware are undamaged.

- The blades are not deformed.

- The blades are properly mounted.

- The blades are burr-free.

⚠ WARNING

- If they are in an unsafe condition, parts of the blades may come off and be thrown at high speed. This can result in serious injuries.

- ▶ Never work with damaged blades or damaged mounting hardware.
- ▶ Sharpen the blades properly.
- ▶ Deburr the cutting edges with a file.
- ▶ If you have any queries: Contact a STIHL servicing dealer for assistance.

4.7 Operation

⚠ WARNING

- The user cannot concentrate on the work in certain situations. The user may stumble, fall and be seriously injured.
 - ▶ Work calmly and carefully.
 - ▶ If light and visibility are poor: Do not work with the KombiTool.
 - ▶ Operate the KombiTool alone.
 - ▶ Keep the KombiTool close to the ground.
 - ▶ Watch out for obstacles.
 - ▶ Stand on the ground while working and keep a good balance.
 - ▶ If you begin to feel tired: Take a break.
- The moving blades can cut the user. This can result in serious injuries.



- ▶ Do not touch the moving blades.
- ▶ If the blades are blocked by an object: Switch off the KombiMotor. Then remove the object causing the blockage.

- If the behavior of the KombiTool changes during operation or feels unusual, it may no longer be in a safe condition. This can result in serious injuries and damage to property.
 - ▶ Stop work and contact your STIHL dealer for assistance.
- KombiTool vibrations may occur during operation.



- ▶ Wear gloves.

- ▶ Take regular breaks.
- ▶ If signs of circulation problems occur: Seek medical advice.
- Sparks may occur if the rotating blades make contact with a hard object. Sparks may cause a fire in an easily combustible location. This can result in serious or fatal injuries and damage to property.
 - ▶ Do not work in an easily combustible location.
- There is an increased risk of objects being thrown if cutting performance deteriorates or cuttings frequently become jammed. This can result in personal injury.

- ▶ Sharpen the blades as described in the instruction manual.
- Note that the blades continue to move for a few seconds after you let go of the throttle on the KombiMotor. This can result in serious injuries.
 - ▶ Wait until the blades come to a complete standstill.

⚠ DANGER

- Working near live electric cables can result in accidental contact with the blades and damage the cables. This can result in serious or fatal injuries.
 - ▶ Do not work near live electric cables.
 - ▶ Also watch out for buried cables.

4.8 Transporting

⚠ WARNING

- The gear housing can get hot during operation. There is a risk of burn injuries.
 - ▶ Do not touch a hot gear housing.



- The KombiTool can turn over or move while being transported. This may result in personal injuries and damage to property.
 - ▶ Fit the transport guard.
 - ▶ Secure the KombiTool with lashing straps, belts or a net to prevent it turning over and moving.

4.9 Storing

⚠ WARNING

- Children are not aware of and cannot assess the dangers of the KombiTool and can be seriously injured.
 - ▶ Fit the transport guard.
 - ▶ Store KombiTool out of the reach of children.
- The metal parts of the KombiTool can corrode if they are damp. The KombiTool may be damaged.
 - ▶ Store the KombiTool in a clean and dry condition.

4.10 Cleaning, Maintenance and Repair

⚠ WARNING

- The gear housing can get hot during operation. There is a risk of burn injuries.



- ▶ Do not touch a hot gear housing.

- Harsh detergents, cleaning with a water jet or sharp objects can damage the KombiTool. If the KombiTool is not cleaned correctly, components may no longer function properly or safety devices may be rendered inoperative. They may cause serious injury to persons.
 - ▶ Clean the KombiTool as described in this instruction manual.
- If the KombiTool is not serviced or repaired correctly, components may no longer function properly or safety devices may be rendered inoperative. This may result in serious or fatal injury to people.
 - ▶ Do not attempt to repair the KombiTool yourself.
 - ▶ If the KombiTool needs to be repaired: Contact a STIHL servicing dealer for assistance.
 - ▶ Maintain the KombiTool as described in this instruction manual.
- The user can be cut by the sharp cutting edges while cleaning or maintaining the blades. This may result in injury to the user.



- ▶ Wear work gloves made from resistant material.

5 Preparing KombiTool for Operation

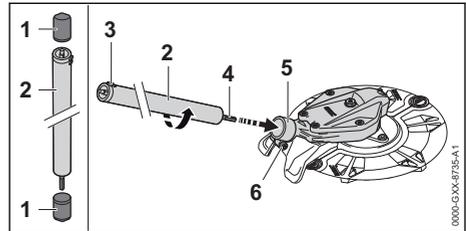
5.1 Preparing KombiTool for Operation

Perform the following steps before starting work:

- ▶ Make sure the following components are in a safe condition:
 - KombiTool, 4.6.1.
 - KombiMotor, as described in the instruction manual.
- ▶ Clean the KombiTool, 12.1.
- ▶ Connect drive tube to the gearbox, 6.1.
- ▶ Mount the KombiTool on the KombiMotor, 6.2.1.
- ▶ If you are using a KombiMotor with a loop handle: Mount a barrier bar as described in the KombiMotor's instruction manual.
- ▶ Use a carrying system, 8.1.
- ▶ If you cannot carry out the above steps: Do not use the KombiTool and contact your STIHL servicing dealer for assistance.

6 Assembling the KombiTool

6.1 Connecting Drive Tube to Gear Housing

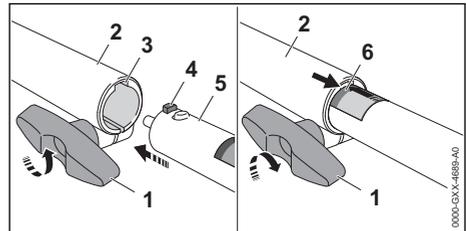


- ▶ Remove protective caps (1) from both ends of the drive tube (2).
- ▶ Loosen the screw (6).
- ▶ Push the drive tube (2) into the gear housing (5) and rotate it until the gear shaft (4) engages.
- ▶ Tighten the screw (6) moderately.
- ▶ Align the drive tube (2) so that the lug (3) faces up.
- ▶ Tighten down the screw (6) firmly.

The drive tube need not be removed again.

6.2 Mounting and Removing the KombiTool

6.2.1 Mounting the KombiTool



- ▶ Loosen the wing screw (1).
- ▶ Line up the lug (4) and the slot (3).
- ▶ Push the drive tube (5) into the coupling sleeve (2) as far as stop. The red line (6) is flush with the coupling sleeve (2).
- ▶ Tighten down the wing screw (1) firmly.

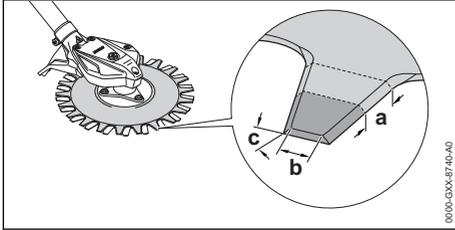
6.2.2 Removing the KombiTool

- ▶ Fit the transport guard.
- ▶ Loosen the wing screw on the KombiTool.
- ▶ Pull the drive tube out of the KombiTool.

7 Checking the KombiTool

7.1 Checking the Blades

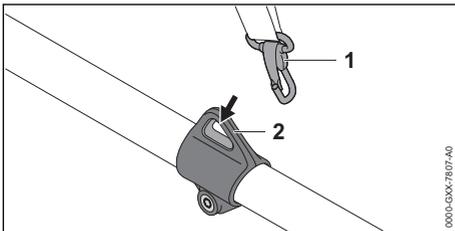
- ▶ Switch off the KombiMotor.



- ▶ Measure the following points on the blades:
 - Length a
 - Width b
 - Angle c
- ▶ Compare measurements, [15.2](#).
- ▶ If the minimum length is less than specified: Offset the blades, [13.4](#).
- ▶ If the minimum width is less than specified: Replace the blades, [13.3](#).
- ▶ If the filing angle is not correct: Sharpen the blades, [13.5](#).
- ▶ If you have any queries: Contact a STIHL servicing dealer for assistance.

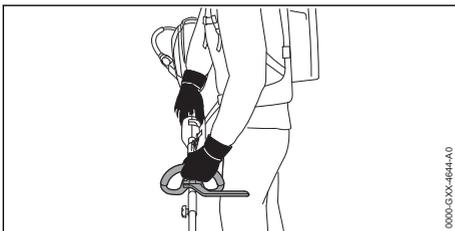
8 Using the KombiTool

8.1 Holding and Controlling the KombiTool



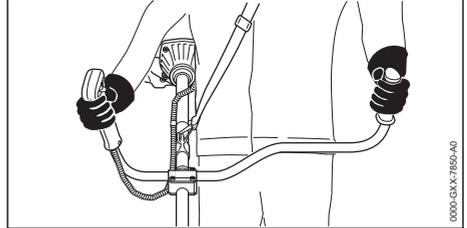
- ▶ Hook the KombiMotor's carrying ring (2) to the carrying system's carabiner (1).

KombiMotor with loop handle.



- ▶ Hold the KombiMotor with your right hand on the control handle – wrap your thumb around the control handle.
- ▶ Hold the KombiMotor with your left hand on the loop handle – wrap your thumb around the loop handle.

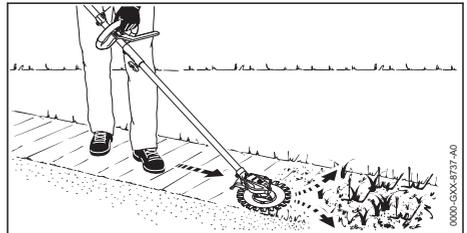
KombiMotor with bike handle



- ▶ Hold the KombiMotor with your right hand on the control handle – wrap your thumb around the control handle.
- ▶ Hold the KombiMotor with your the left hand on the handle – wrap your thumb around the handle.

8.2 Weeding and Mowing Grass

The cutting height is determined by the distance of the blades from the ground.



- ▶ Swing the KombiTool back and forth in an arc.
- ▶ Walk slowly and steadily forwards.

9 After Finishing Work

9.1 After Finishing Work

- ▶ Switch off the KombiMotor.
- ▶ If the KombiTool is wet: Allow KombiTool to dry.
- ▶ Clean the KombiTool.
- ▶ Fit the transport guard.

10 Transporting

10.1 Transporting the KombiTool

- ▶ Switching the KombiEngine Off.
- ▶ Fit the transport guard.

Carrying the KombiTool

- ▶ Carry the KombiTool with one hand on the drive tube.

Transporting the KombiTool in a vehicle

- ▶ Secure the KombiTool to prevent turnover and movement.

11 Storing

11.1 Storing the KombiTool

- ▶ Switch off the KombiMotor.
- ▶ Fit the transport guard.
- ▶ Check the following points when storing the KombiTool:
 - KombiTool is out of the reach of children.
 - KombiTool is clean and dry.

12 Cleaning

12.1 Cleaning the KombiTool

- ▶ Switch off the KombiMotor.
- ▶ Allow gear housing to cool down.
- ▶ Clean the KombiTool with a damp cloth.

12.2 Cleaning the Blades

- ▶ Switch off the KombiMotor.
- ▶ Spray the blades with STIHL resin solvent.
- ▶ Switch on the KombiMotor for 5 seconds.
The blades run. STIHL resin solvent is distributed evenly.

13 Maintenance

13.1 Maintenance Intervals

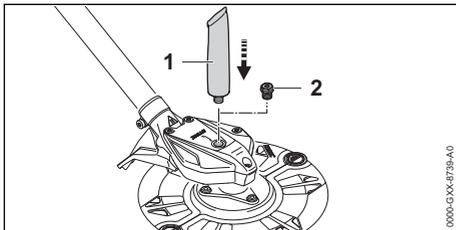
The maintenance intervals are dependent on the environmental and operating conditions. STIHL recommends the following maintenance intervals:

After every 25 hours of operation

- ▶ Lubricate the gearbox.

13.2 Lubricating the Gearbox

- ▶ Switch off the KombiMotor.



- ▶ Remove the screw plug (2).

- ▶ If no grease can be seen on the end of the screw plug (2):
 - ▶ Screw the tube (1) of STIHL gear grease into the filler hole.
 - ▶ Pump 10 g of STIHL gear grease into the gear housing.
 - ▶ Unscrew the tube (1) of STIHL gear grease.
 - ▶ Refit and tighten down the screw plug (2) firmly.
 - ▶ Run the KombiMotor for 1 minute.
STIHL gear grease is distributed evenly.

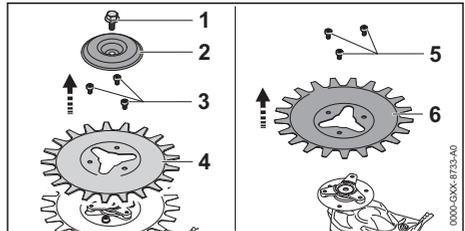
13.3 Removing and Attaching the Blade

13.3.1 Removing the Blades



- The cutting edges of the blades are sharp. There is a risk of cut injuries.
 - ▶ Wear work gloves made of durable material.

- ▶ Switch off the KombiMotor.



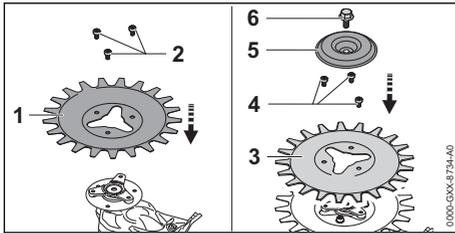
- ▶ Remove screw (1) clockwise.
- ▶ Remove the rider plate (2).
- ▶ Remove screws (3) counterclockwise.
- ▶ Remove the blade (4).
- ▶ Remove screws (5) counterclockwise.
- ▶ Remove the blade (6).

13.3.2 Mounting the Blades



- The cutting edges of the blades are sharp. There is a risk of cut injuries.
 - ▶ Wear work gloves made of durable material.

- ▶ Switch off the KombiMotor.

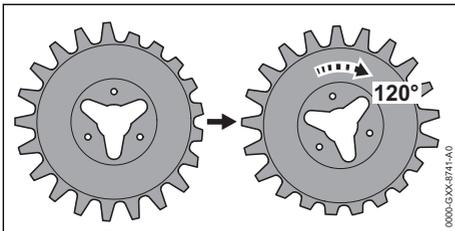


- ▶ Fit the blade (1).
- ▶ Insert the screws (2) clockwise and tighten them down firmly.
- ▶ Fit the blade (3).
- ▶ Insert the screws (4) clockwise and tighten them down firmly.
- ▶ Fit the rider plate (5).
- ▶ Fit the screw (6) and tighten it down firmly counterclockwise.

13.4 Offsetting the Blades

! WARNING

- The cutting edges of the blades are sharp. There is a risk of cut injuries.
 - ▶ Wear work gloves made of durable material.
- ▶ Switch off the KombiMotor.
- ▶ Remove the blades.

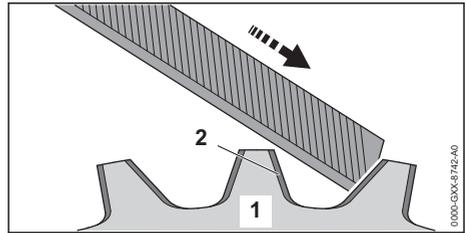


- ▶ Mount the blades 120° offset.
- ▶ If the blades have already been offset twice: Replace the blades.
- ▶ If you have any queries: Contact a STIHL servicing dealer for assistance.

13.5 Sharpening the Blades

! WARNING

- The cutting edges of the blades are sharp. There is a risk of cut injuries.
 - ▶ Wear work gloves made of durable material.
- ▶ Switch off the KombiMotor.
- ▶ Remove the blades.



- ▶ Use a STIHL flat crosscut file to sharpen the cutting edge (2). The file only sharpens on the forward stroke. Maintain the specified sharpening angle,  15.2.
- ▶ Sharpen the other cutting edges.
- ▶ Mount the blades.
- ▶ If you have any queries: Contact a STIHL servicing dealer for assistance.

14 Repairing

14.1 Repairing the KombiTool

The KombiTool cannot be repaired by the user.

- ▶ If the KombiTool is damaged: Do not use the KombiTool and contact your STIHL servicing dealer for assistance.

15 Specifications

15.1 STIHL RG-KM KombiTool

- Weight with blades: 2.5 kg

15.2 Blades

- Thickness: 1.25 mm
- Minimum width (tooth): 5 mm
- Minimum length (tooth): 10 mm
- Sharpening angle: 45°

15.3 Sound Values and Vibration Values

The K-value for sound pressure levels is 2 dB(A). K-value for sound power levels is 2 dB(A). The K-value for vibration levels is 2 m/s².

RG-KM with KM 94 R

- Sound pressure level L_{peq} measured on reflective surface according to ISO 22868: 93 dB (A)
- Sound power level L_{weq} measured on reflective surface according to ISO 22868: 107 dB(A)
- Vibration level $a_{hv,eq}$ measured according to ISO 22867
 - Control handle: 6.1 m/s²
 - Loop handle: 5.9 m/s²

RG-KM with KM 111 R

- Sound pressure level L_{peq} measured on reflective surface according to ISO 22868: 96 dB(A)
- Sound power level L_{weq} measured on reflective surface according to ISO 22868: 108 dB(A)
- Vibration level $a_{hv,eq}$ measured according to ISO 22867
 - Control handle: 5.4 m/s²
 - Loop handle: 5.8 m/s²

RG-KM with KM 131

- Sound pressure level L_{peq} measured on reflective surface according to ISO 22868: 98 dB(A)
- Sound power level L_{weq} measured on reflective surface according to ISO 22868: 109 dB(A)
- Vibration level $a_{hv,eq}$ measured according to ISO 22867
 - Control handle: 4.5 m/s²
 - Left handle: 5.0 m/s²

RG-KM with KM 131 R

- Sound pressure level L_{peq} measured on reflective surface according to ISO 22868: 98 dB(A)
- Sound power level L_{weq} measured on reflective surface according to ISO 22868: 109 dB(A)
- Vibration level $a_{hv,eq}$ measured according to ISO 22867
 - Control handle: 5.6 m/s²
 - Loop handle: 6.1 m/s²

RG-KM with KMA 130 R

- Sound pressure level L_{peq} measured on reflective surface according to ISO 22868: 84 dB(A)
- Sound power level L_{weq} measured on reflective surface according to ISO 22868: 94 dB(A)
- Vibration level $a_{hv,eq}$ measured according to ISO 22867
 - Control handle: 4.1 m/s²
 - Loop handle: 4.4 m/s²

RG-KM with KMA 135 R

- Sound pressure level L_{peq} measured on reflective surface according to ISO 22868: 80.5 dB(A)
- Sound power level L_{weq} measured on reflective surface according to ISO 22868: 92.8 dB(A)
- Vibration level $a_{hv,eq}$ measured according to ISO 22867
 - Control handle: 3.7 m/s²
 - Loop handle: 4.3 m/s²

For information on compliance with Employers' Vibration Directive 2002/44/EC see www.stihl.com/vib.

15.4 REACH

REACH is an EC regulation and stands for the Registration, Evaluation, Authorisation and Restriction of Chemical substances.

For information on compliance with the REACH regulation see www.stihl.com/reach.

16 Combinations with KombiMotors**16.1 STIHL RG-KM**

The KombiTool may be mounted to the following KombiMotors:

- STIHL KM 94 R
- STIHL KM 111 R
- STIHL KM 131
- STIHL KM 131 R
- STIHL KMA 130 R
- STIHL KMA 135 R

17 Spare Parts and Accessories**17.1 Spare parts and accessories**

STIHL  These symbols indicate original STIHL spare parts and original STIHL accessories.

STIHL recommends the use of original STIHL spare parts and accessories.

Despite ongoing market observation, STIHL is unable to judge the reliability, safety and suitability of other manufacturers' spare parts and accessories; accordingly, STIHL cannot warrant for the use of those parts.

Original STIHL spare parts and original STIHL accessories are available from STIHL dealers.

18 Disposal**18.1 Disposing of KombiTool**

Information on disposal is available from STIHL servicing dealers.

- ▶ Dispose of the KombiTool, blades, accessories and packaging in accordance with local regulations and environmental requirements.

19 EC Declaration of Conformity

19.1 STIHL RG-KM KombiTool

ANDREAS STIHL AG & Co. KG

Badstraße 115

D-71336 Waiblingen

Germany

declare under our sole responsibility that

- Category: Weeder KombiTool
- Manufacturer's brand: STIHL
- Model: RG-KM
- Serial number: 4180

conforms to the relevant provisions of Directive 2006/42/EC and has been developed and manufactured in compliance with the following standards in the versions valid on the date of production:

EN ISO 12100 (in conjunction with the specified KM models).

EN ISO 12100, EN 60335-1, EN 50636-2-91 (in conjunction with the specified KMA models).

The technical documents are stored at ANDREAS STIHL AG & Co. KG Produktzulassung.

The year of manufacture is specified on the KombiTool.

Done at Waiblingen, 03.07.2020

ANDREAS STIHL AG & Co. KG


pp

Dr. Jürgen Hoffmann, Head of Product Data,
Regulations and Licensing

www.stihl.com



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