

**STIHL RM 248, RM 248 T
RM 253, RM 253 T**

STIHL



DE Gebrauchsanleitung
EN Instruction manual
FR Manuel d'utilisation
NL Gebruiksaanwijzing
IT Istruzioni per l'uso
ES Manual de instrucciones
PT Manual de utilização
NO Bruksanvisning
SV Bruksanvisning
FI Käyttöopas
DA Betjeningsvejledning
SK Návod na obsluhu
CS Návod k použití
EL Οδηγίες χρήσης

RM 248.0

RM 248.0 T

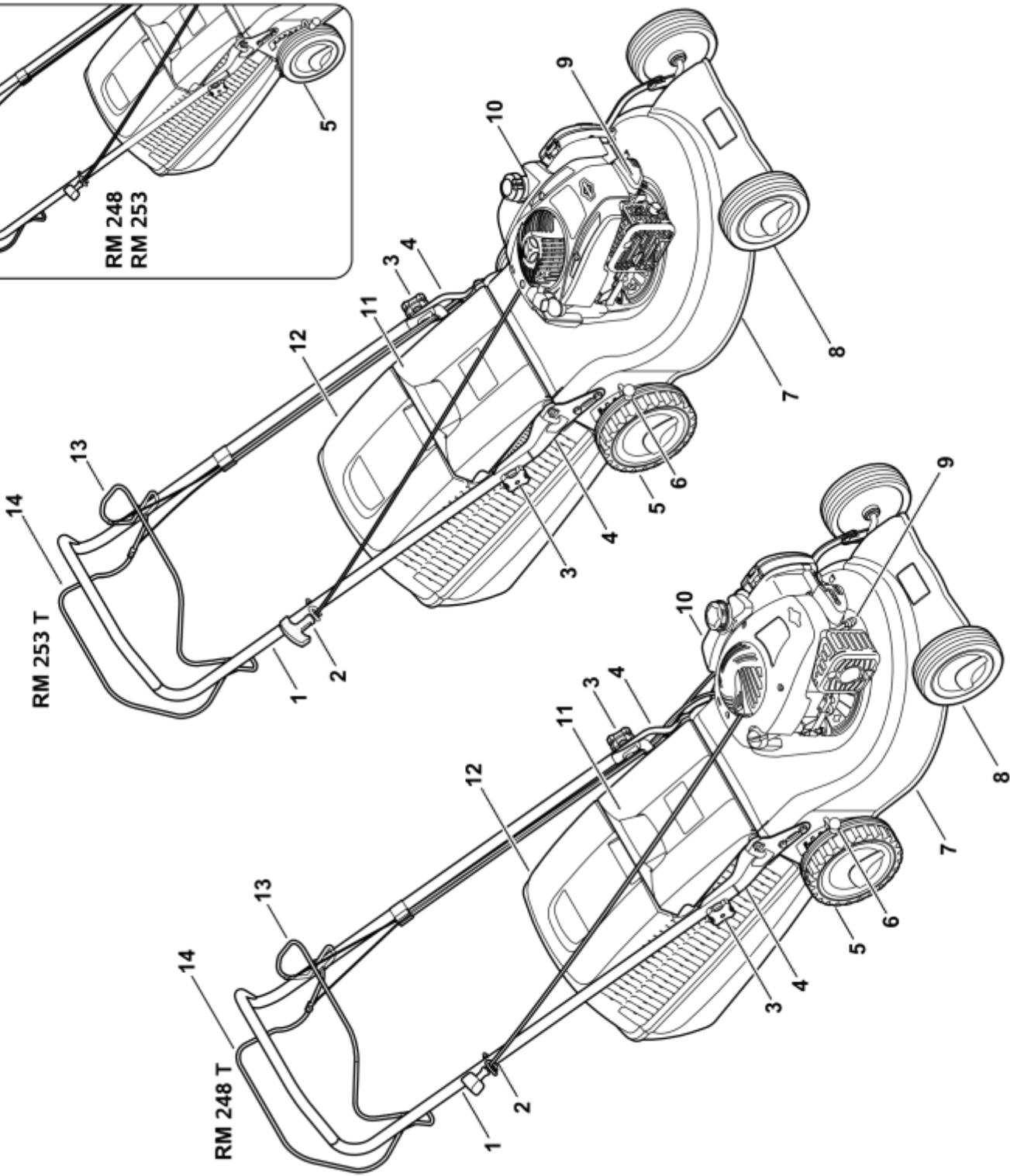
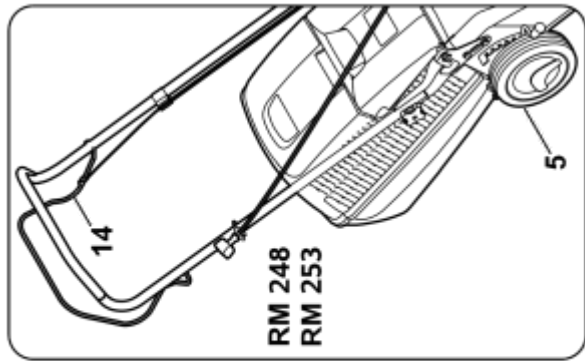
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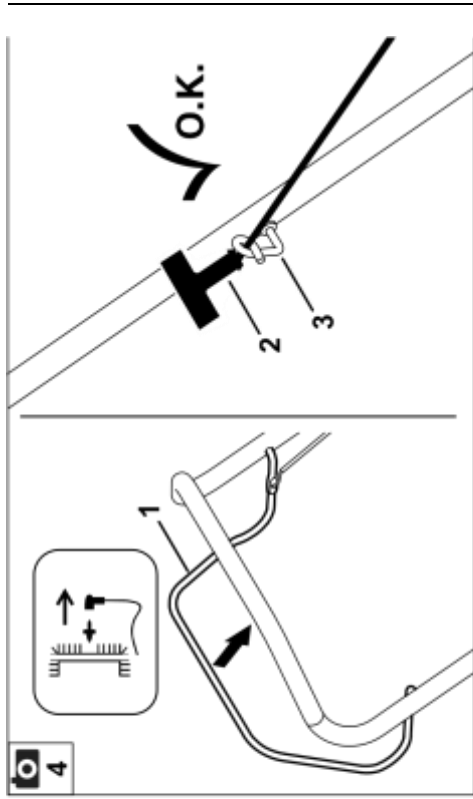
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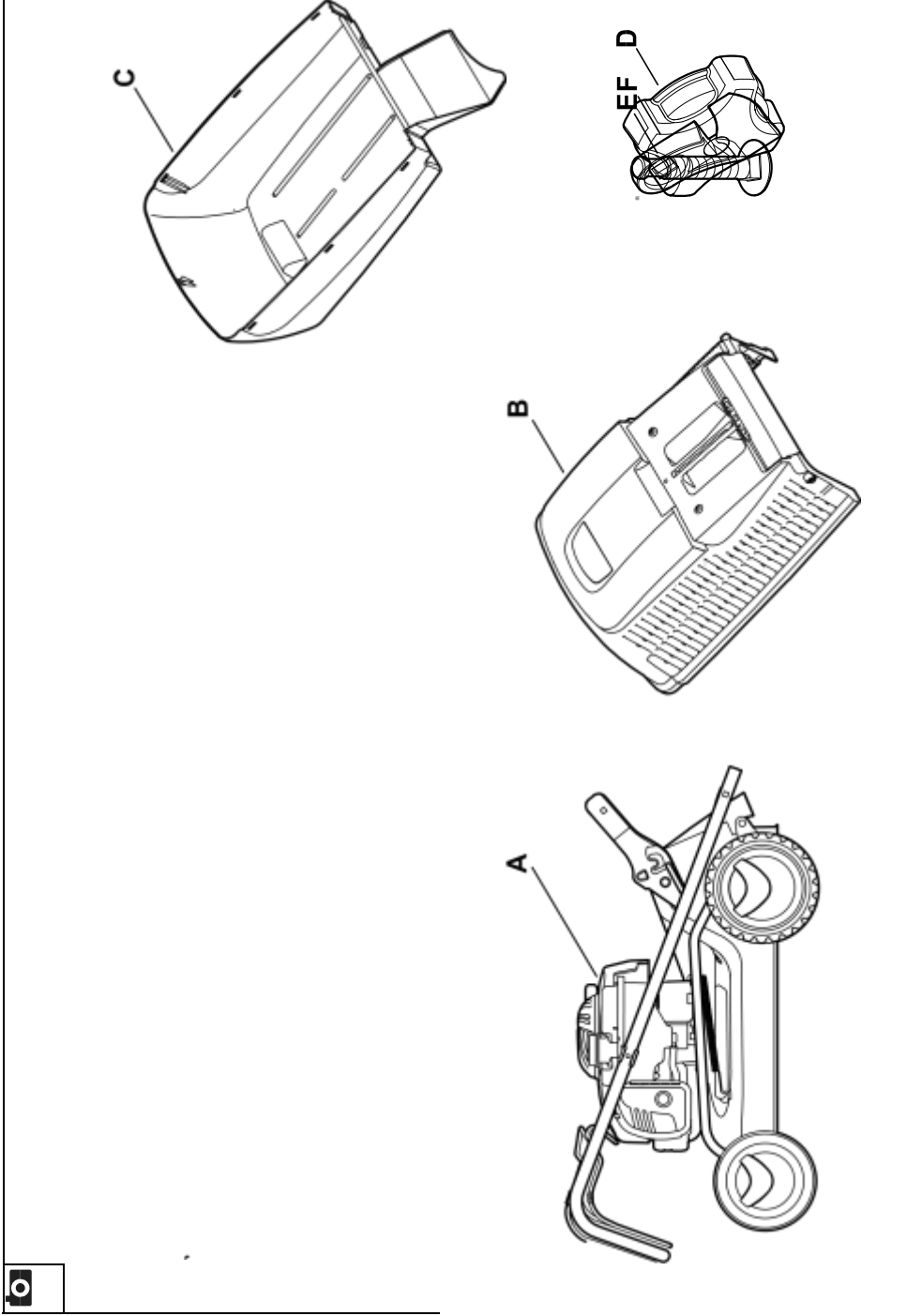
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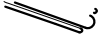




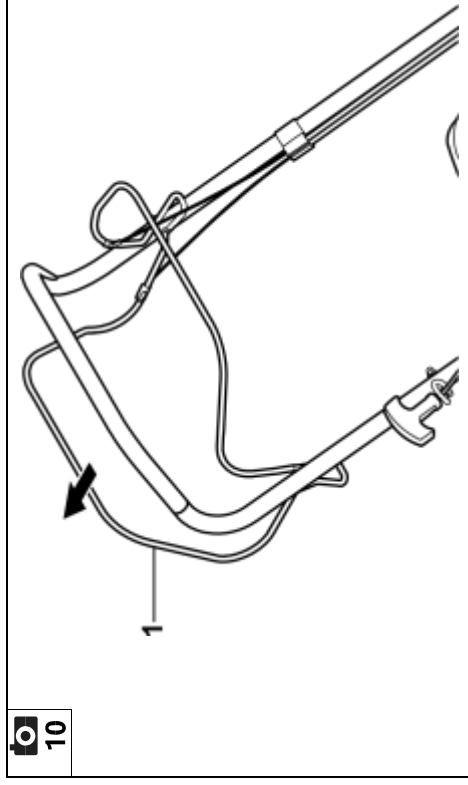


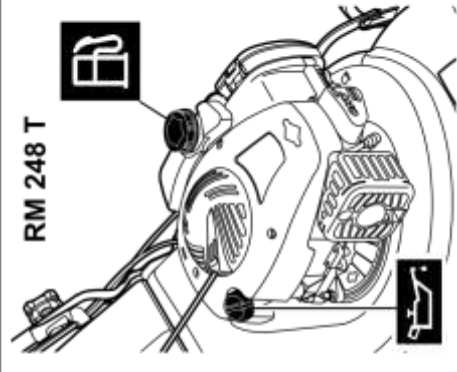
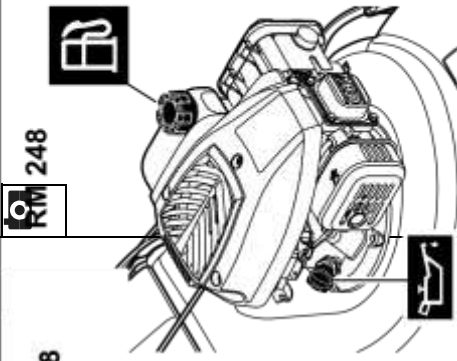




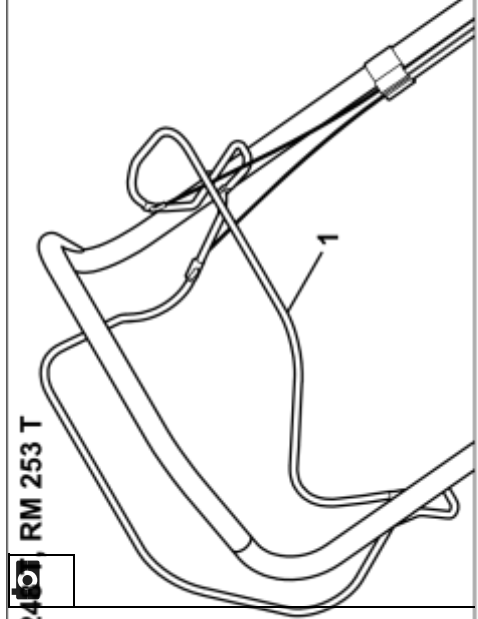
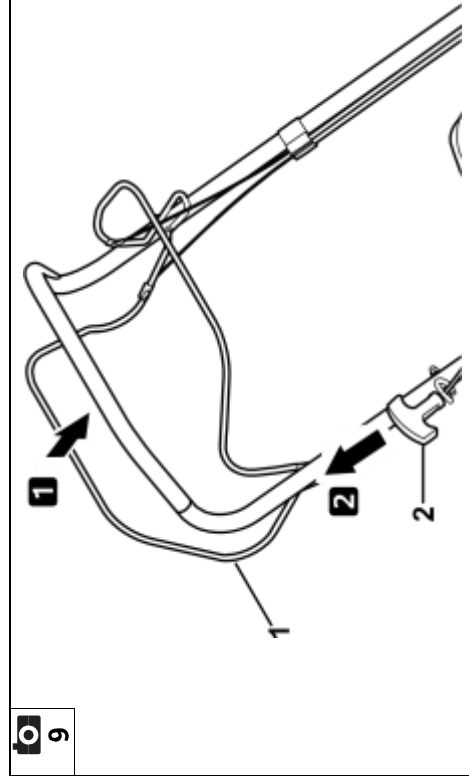




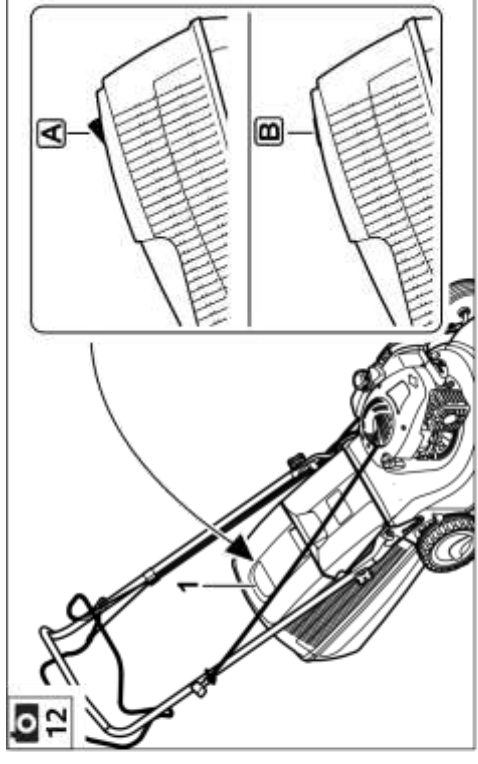




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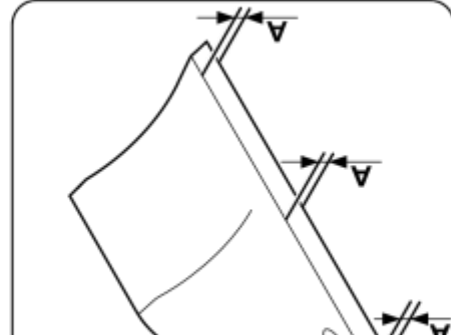
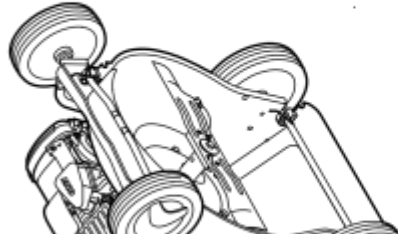
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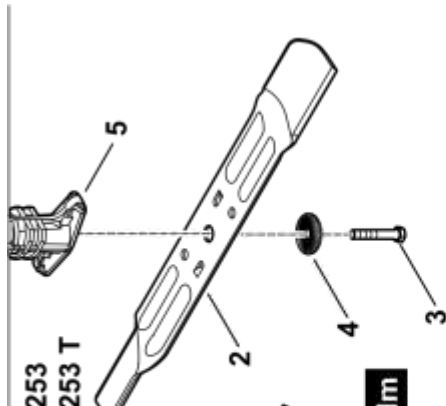
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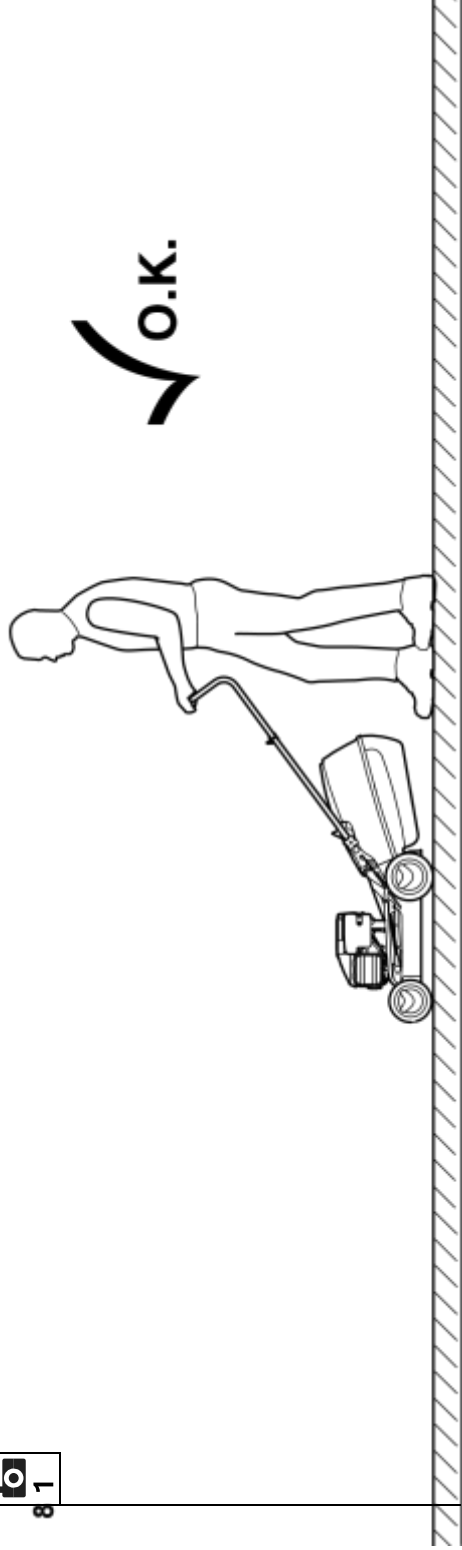


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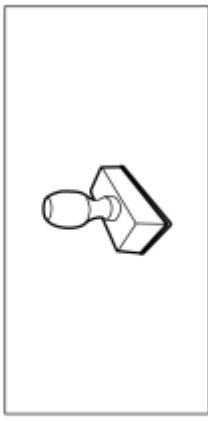


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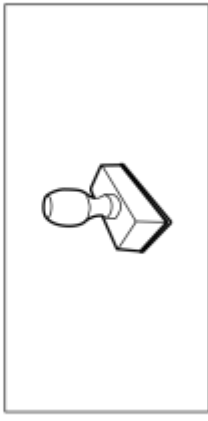


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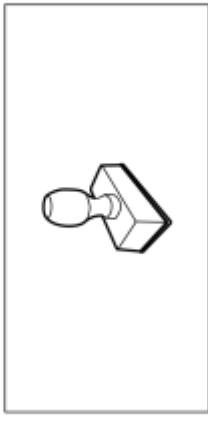
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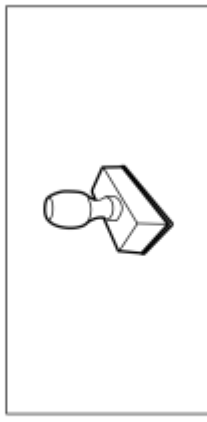
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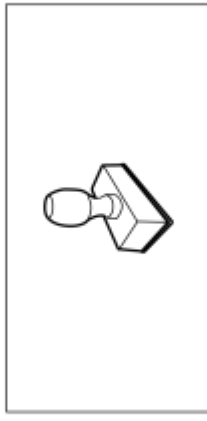
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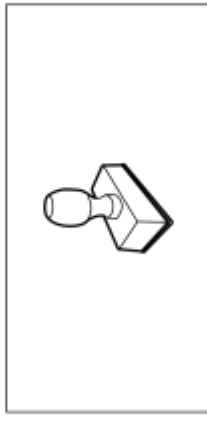
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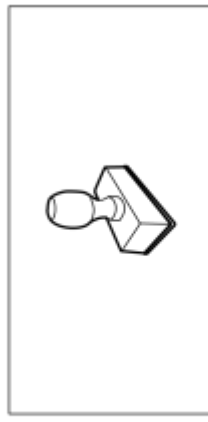
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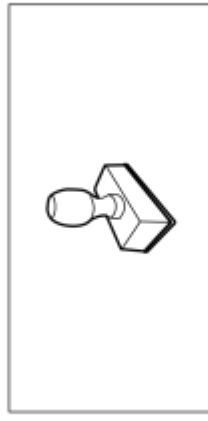
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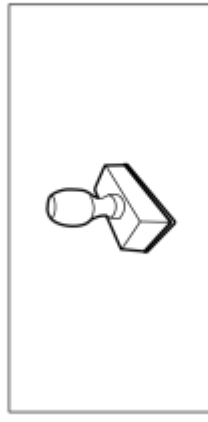
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Dear Customer,

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 specialist dealers guarantee competent advice and instruction as well as comprehensive service support.

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



Dr. Nikolas Stihl

**IMPORTANT: READ BEFORE USE AND
KEEP IN A SAFE PLACE.**

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2. Notes on the instruction manual

2.1 General

This instruction manual constitutes **original manufacturer's instructions** in the sense of EC Directive 2006/42/EC.

STIHL is continually striving to further reserve its range of products; we therefore reserve the right to make alterations to the form, technical specifications and equipment level of our standard equipment.

For this reason, the information and illustrations in this manual are subject to alterations.

This instruction manual may describe models that are not available in all countries.

This instruction manual is protected by copyright. All rights reserved, especially the right of reproduction, translation and processing using electronic systems.

2.2 Instructions for reading the instruction manual

Illustrations and texts describe specific operating steps.

All symbols which are affixed to the machine are explained in this instruction manual.

Viewing direction:

Viewing direction when "**left**" and "**right**" are used in the instruction manual: the user is standing behind the machine and is looking forwards in the direction of travel.

Section reference:

References to relevant sections and subsections for further descriptions are made using arrows. The following example shows a reference to a section: (⇒ 4.)

Designation of text passages:

The instructions described can be identified as in the following examples.

Operating steps which require intervention on the part of the user:

- Release bolt (1) using a screwdriver, operate lever (2)...

General lists:

- Use of the product for sporting or competitive events

Texts with added significance:

Text passages with added significance are identified using the symbols described below in order to especially emphasise them in the instruction manual:

Danger

Risk of accident and severe injury to persons. A certain type of behaviour is necessary or must be avoided.

Warning

Risk of injury to persons. A certain type of behaviour prevents possible or probable injuries.

Caution

Minor injuries or material damage can be prevented by a certain type of behaviour.

Note

Information for better use of the machine and in order to avoid possible operating errors.

Texts relating to illustrations:

Illustrations relating to use of the machine can be found in the front of this instruction manual.

The camera symbol serves to link

the figures on the illustration pages with the corresponding text passages in the instruction manual.



3. Machine overview



- 1 Upper handlebar
- 2 Recoil starter rope
- 3 Rotary handle
- 4 Lower handlebar
- 5 Rear wheel
- 6 Cutting height adjustment
- 7 Housing
- 8 Front wheel
- 9 Spark plug socket
- 10 Engine
- 11 Discharge flap
- 12 Grass catcher box
- 13 Self-propulsion lever
- 14 Motorstop lever

4. For your safety

4.1 General



These safety regulations must be observed when working with the machine.



Read the entire instruction manual before using the machine for the first time. Keep the instruction manual in a safe place for future reference.

Observe the operating and maintenance instructions contained in the separate engine instruction manual.

These safety precautions are essential for your safety, however the list is not exhaustive. Always use the machine in a reasonable and responsible manner and be aware that the user is responsible for accidents involving third parties or their property.

Make sure that you are familiar with the controls and use of the machine.

The machine must only be used by persons who have read the instruction manual and are familiar with operation of the machine. The user should seek expert and practical instruction prior to initial operation. The user must receive instruction on safe use of the machine from the vendor or another expert.

During this instruction, the user should be made aware that the utmost care and concentration are required for working with the machine.

Residual risks persist even if you operate this machine according to the instructions.

⚠ Risk of death from suffocation!

Packaging material is not a toy - danger of suffocation! Keep packaging material away from children.

Only give or lend the machine, including any accessories, to persons who are familiar with this model and how to operate

it. The instruction manual forms part of the machine and must always be provided to persons borrowing it.

The machine must only be operated by persons who are well rested and in good physical and mental condition. If your health is impaired, you should consult your doctor to determine whether working with the machine is possible. The machine should not be operated after the consumption of alcohol, drugs or medications which impair reactions.

Make sure that the user is physically, sensorily and mentally capable of operating the machine and working with it. If the user is physically, sensorily or mentally impaired, the machine must only be used under supervision or following instruction by a responsible person.

Make sure that the user is of legal age or being trained under supervision in a profession in accordance with national regulations.

The machine is intended for private use.

Caution – risk of accident!

The lawn mower is only intended for mowing lawns. Its use for other purposes is not permitted and may be dangerous or result in damage to the machine.

Due to the physical danger to the user, the lawn mower must not be used for the following applications (incomplete list):

- For trimming bushes, hedges and shrubs.
- For cutting creepers.
- For tending lawn roofs and balcony boxes.
- For shredding or chopping tree or hedge cuttings.

- For clearing paths (vacuuming, blowing).

- For levelling earth mounds, e.g. mole hills.

- For transporting clippings, except in the grass catcher box intended for this purpose.

For safety reasons, any modification to the machine, except the proper installation of accessories approved by STIHL, is forbidden and results in voiding of the warranty cover. Information regarding approved accessories can be obtained from your STIHL specialist dealer.

In particular, any tampering with the machine which increases the power output or speed of the engine or motor is forbidden.

It is not permitted to transport objects, animals or persons, particularly children, on the machine.

Particular care is required during use in public green spaces, parks, sports fields, along roads and in agricultural and forestry businesses.

⚠ Caution! Danger to health due to vibrations. Excessive exposure to vibrations can result in damage to the

cardiovascular or nervous system, particularly in persons with cardiovascular problems. Please consult a physician if you experience symptoms that may have been caused by vibrational loads.

Symptoms of this kind principally affect the fingers, hands or wrists and include (incomplete list):

- numbness,
- pain,
- muscular weakness,

- skin discolouration,
 - unpleasant tingling sensation.
- Hold the handlebar tightly, but not tensed, with both hands in the designated locations during operation.
- Plan your working times so that more severe physical strains over a longer period are avoided.

4.2 Refilling the tank – handling petrol



Danger to life!

Petrol is poisonous and extremely inflammable.

Petrol must only be stored in appropriate, tested containers (canisters). Always screw on the fuel tank and canister caps properly and tightly. Defective caps must be replaced for safety reasons.

Never use beverage bottles or similar for disposal or storage of fuels and lubricants. Persons, particularly children, could be tempted to drink out of them.



Keep petrol away from sparks, naked flames, pilot lights, heat sources, and other ignition sources. Do not smoke!

Refill the tank out-of-doors and do not smoke during refilling.

Before refilling the tank, stop the engine and allow it to cool.

Refilling with petrol must be performed before the engine is started. When the engine is running or is hot, the tank cap must not be removed and the tank must not be refilled with petrol.

Do not overfill the fuel tank!

To give the fuel room to expand, never fill the fuel tank past the lower edge of the filler neck.

Observe the additional instructions in the engine instruction manual.

If petrol is spilled, the engine must only be started after the petrol-contaminated area has been cleaned. All attempts at starting must be avoided until the petrol fumes have dispersed (wipe dry).

Any spilt fuel must be wiped up immediately.

Clothing must be changed if it comes into contact with petrol.

Never store the machine with petrol in the tank inside a building. The resulting petrol fumes could come into contact with naked flames or sparks and could be ignited.

If it is necessary to drain the tank, this must be done out of doors.

4.3 Clothing and equipment



Always wear sturdy footwear with high-grip soles when working. Never work barefoot or, for example, in sandals.



Also always wear sturdy gloves and tie up and secure long hair (headscarf, cap, etc.) when performing maintenance and cleaning work or when transporting the machine.



Wear suitable safety glasses when sharpening the mowing blade.

Always wear long trousers and tight-fitting clothing when operating the machine.

Never wear loose clothes which may become caught on moving parts (control levers) – do not wear jewellery, ties or scarves.



Noise is produced when working. Noise can damage the hearing.

Wear hearing protection.

4.4 Transporting the machine

Always wear gloves in order to prevent injuries due to sharp-edged and hot components.

Do not transport the machine with the engine running. Switch off the engine, let the blades come to a standstill and remove the spark plug socket prior to transport.

Only transport the machine once the engine has cooled down and with an empty fuel tank.

Use suitable loading aids (loading ramps, lifters).

Secure the machine and any machine components being transported (e.g. grass catcher box) on the load floor using fastening material of adequate size (belts, ropes, etc.).

Avoid contact with the mowing blade when lifting and carrying the machine.

Observe the information in the section "Transport". It describes how to lift and lash the machine. (⇒ 12.)

When transporting the machine, always observe regional legislation, especially regarding load security and the transport of objects on load floors.

4.5 Before operation

- Make sure that only persons who are familiar with the instruction manual are permitted to use the machine.
- Check the fuel system (particularly visible parts such as e.g. tank, tank cap, hose connections) before operating the machine. In the event of any leaks or damage, do not start the engine – **fire hazard!**
- Have the machine repaired by a specialist dealer prior to operation.
- Observe the local regulations regarding permitted operating times for gardening power tools with combustion engines or electric motors.
- Carefully inspect the complete area on which the machine is to be used and remove any stones, sticks, wires, bones and other foreign objects which could be thrown up by the machine. Obstacles (e.g. tree stumps, roots) can be easily overlooked in long grass.
- For this reason, mark all foreign objects (obstacles) which are hidden in the lawn and cannot be removed before commencing work with the machine.
- All faulty, worn or damaged parts must be replaced before using the machine.
- Replace any illegible or damaged danger signs and warnings on the machine. Your STIHL specialist has a supply of replacement stickers and all the other spare parts.
- The machine must only be used in good operating condition. Before each use, check whether:
 - The machine is properly assembled.

- The cutting tool and the entire cutting unit (mowing blade, fastening elements, mowing deck housing) are in good condition. In particular check for secure fastening, damage (notches or cracks) and wear. (⇒ 11.4)
- The tank cap is properly attached.
- The tank and fuel-carrying parts as well as the tank cap are in good condition.
- The safety devices (e.g. motorstop lever, discharge flap, housing, handlebar, protective grille) are in good condition and working properly.
- The grass catcher box is undamaged and correctly installed; a damaged grass catcher box must not be used.
- The oil closure screw is properly attached.

Carry out any necessary work or consult a specialist dealer. STIHL recommends STIHL specialist dealers.

4.6 Working with your machine



Never work when animals or persons, particularly children, are in the danger area.

The switch and safety devices installed in the machine must not be removed or bypassed. In particular, never secure the motorstop lever to the handlebar (e.g. by tying it).



Caution – risk of injury!

Never put hands or feet on or underneath rotating parts.
Never touch the rotating blade.
Always keep away from the discharge opening.

Always observe the safety distance provided by the handlebar. The handlebar must always be installed correctly and must not be modified. Never operate the machine with the handlebar folded down. Never attach any objects to the handlebar (e.g. work clothing).

Only work during the day or with good artificial light.

Do not operate the machine in the rain or during thunder storms, particularly when there is a risk of lightning strike.

The risk of accidents is higher if the ground is damp due to increased danger of slipping.

Particular caution should be exercised during working in order to prevent slipping. If possible, avoid using the machine when the ground is damp.

Exhaust gases:



Danger to life through poisoning!

In the case of nausea, headache, impaired vision (e.g. decreasing field of view) hearing disorder, dizziness, decreasing power of concentration, stop working immediately. These symptoms may be caused by excessively high exhaust gas concentrations.



The machine generates poisonous exhaust gases when the engine is running. The gases contain poisonous carbon monoxide, a colourless and odourless gas, as well as other pollutants. The engine must never be operated in closed or poorly ventilated spaces.

Starting:

Exercise care when starting the machine and observe the instructions contained in the section entitled "Operating the machine" (⇒ 10.). Starting the machine in accordance with these instructions reduces the risk of injury.

Risk of injury!

If the starter rope recoils at speed, the hand and arm will be pulled towards the engine faster than the starter rope can be released. This kickback can result in broken bones, crush injuries and sprains.

Keep your feet a safe distance from the cutting tool when starting the machine.

The machine must not be tilted during start-up.

The self-propulsion lever must not be pressed when starting the engine.

Do not start the engine if the discharge chute is not covered by the discharge flap or the grass catcher box.

Working on slopes:

Always work across and back on slopes, never up and down.

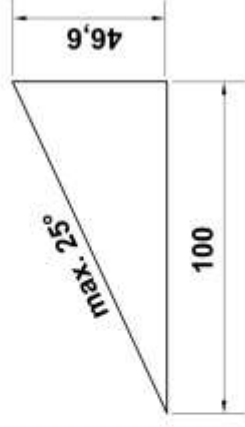
If the user loses control when mowing up and down, there is a risk of being run over by the machine.

Be particularly careful when changing direction on a slope.

Always ensure good stability on slopes and avoid mowing on excessively steep slopes.

For safety reasons, the machine must not be used on slopes with an inclination of more than 25° (46.6%). **Risk of injury!**

A slope inclination of 25° corresponds to a vertical height increase of 46.6 cm for a 100 cm horizontal distance.



In order to ensure an adequate oil supply for the engine, the information in the accompanying engine instruction manual must be additionally observed when using the machine on slopes.

Working:

Risk of injury!

Never place your hands or feet above, underneath or on rotating parts.



Do not attempt to examine the blade while the lawn mower is operating. Never open the discharge flap and/or remove the grass catcher box when the mowing blade is running. Rotating blades can cause injury.

Only operate the machine at walking speed – never run when working with the machine. Working quickly with the machine increases the risk of injury due to stumbling, slipping, etc.

Be particularly careful when turning the machine around or pulling it towards you.

Risk of stumbling!

Use the machine with great care when working near slopes, terraces, ditches and embankments. In particular, ensure that you maintain sufficient distance to such danger areas.

Objects hidden in the turf (lawn sprinkler systems, posts, water valves, foundations, electrical wires, etc.) must be avoided. Never run over any such foreign objects.



Beware of the cutting tool running on for several seconds before coming to a standstill.

STOP

Switch off the engine, allow the work tool to come to a complete standstill and detach the spark plug socket

- before leaving the machine unattended,
- before re-filling the tank. Allow the engine to cool down before filling the tank.

Fire hazard!

- before remedying blockages, including those in the discharge chute,
- before lifting or carrying the machine,
- before transporting the machine,
- before carrying out any work on the mowing blade,
- before checking or cleaning the machine or before carrying out any other work (e.g. folding down the handlebar) on it,
- after hitting a foreign object or if the lawn mower begins to vibrate excessively. In these cases check the machine, in particular the cutting unit (blade, blade shaft, blade fastening), for damage and carry out the necessary repairs before restarting and working with the machine.



Risk of injury!

Strong vibration is normally an indication of a fault.

In particular, the lawn mower must not be operated with a damaged or bent crankshaft or mowing blade. If you do not have the appropriate expertise, have the necessary repairs carried out by a specialist dealer (STIHL recommends STIHL specialist dealers).

Switch off the engine

- When pushing the machine to and from the area to be worked.
- Before pushing the machine onto an area not covered with grass.
- Before opening the discharge flap or removing the grass catcher box.
- When the machine has to be tilted for transportation.
- Before adjusting the cutting height.

4.7 Maintenance and repairs

Before beginning cleaning, adjustment, repair and maintenance operations:

- Park the machine on firm and level ground
- Stop the engine and allow it to cool down
- Detach the spark plug



Caution – risk of injury!

Keep the spark plug socket away from the spark plug; an inadvertent ignition spark can result in fires or electric shocks.

Inadvertent contact between the spark plug and the spark plug socket can result in unwanted starting of the engine.

⚠ Risk of injury due to the mowing blade!

Pulling the recoil starter rope starts the work tool rotating. Always ensure sufficient distance between the mowing blade and your body, particularly your hands and feet, when you pull the recoil starter rope.

Allow the machine to cool down before working on or around the engine, exhaust manifold or muffler in particular.

Temperatures of 80° C and above can be reached. **Danger of burns!**

Direct contact with engine oil can be dangerous. Engine oil must not be spilled. STIHL recommends leaving the task of topping up engine oil or performing engine oil changes to a STIHL specialist dealer.

Cleaning:

The complete machine must be cleaned thoroughly following use. (⇒ 11.2)

Remove accumulated clipping deposits using a stick. Clean the underside of the mower with water and a brush.

Empty the fuel tank (e.g. by running it empty) before placing the machine in the cleaning position.

Never use high-pressure cleaners and do not clean the machine under running water (e.g. using a garden hose).

Do not use aggressive cleaning agents. These can damage plastics and metals, impairing the safe operation of your STIHL machine.

In order to prevent fire hazards, keep the area around the air vents, cooling ribs and the area of the exhaust free from e.g. grass, straw, moss, leaves or escaping grease.

Maintenance operations:

Only maintenance operations described in this instruction manual may be carried out. Have all other work performed by a specialist dealer.

If you do not have the necessary expertise or auxiliary equipment, please **always** contact a specialist dealer.

STIHL recommends that you have maintenance operations and repairs performed exclusively by a STIHL specialist dealer.

STIHL specialist dealers regularly attend training courses and are provided with technical information.

Only use tools, accessories or attachments approved for this machine by STIHL or technically identical parts.

Otherwise, there may be a risk of accidents resulting in personal injury or damage to the machine. If you have any questions, please consult a specialist dealer.

The characteristics of original STIHL tools, accessories and spare parts are optimally adapted to the machine and the user's requirements. Genuine STIHL spare parts can be recognised by the STIHL spare parts number, by the STIHL lettering and, if present, by the STIHL spare parts symbol. On smaller parts, only the symbol may be present.

For safety reasons, fuel-carrying components (fuel line, fuel cock, fuel tank, tank cap, connections, etc.) must be checked regularly for damage and leaks

and replaced by a technician if necessary (STIHL recommends STIHL specialist dealers).

Always keep warning and information stickers clean and readable. Damaged or missing stickers must be replaced by new, original plates from your STIHL specialist dealer. If a component is replaced with a new component, ensure that the new component is provided with the same stickers.

Only perform work on the cutting unit when wearing thick work gloves and exercising extreme care.

Ensure that all nuts, pins and screws (in particular the blade fastening screw) are securely tightened so that the machine is in a safe operating condition.

Check the complete machine and the grass catcher box for wear or damage on a regular basis, particularly before extended periods when the machine is not in use (e.g. over winter). For safety reasons, worn or damaged parts must be replaced immediately to ensure that the machine is always in a safe operating condition.

Never alter the basic setting of the engine or run at excessive engine speeds.

Components or guards that are removed for maintenance operations must be properly reinstalled immediately.

4.8 Storage for prolonged periods without operation

Allow the engine to cool before storing the machine in an enclosed space.

Store the machine with empty fuel tank and the fuel reserve in a lockable and well-ventilated room.

Ensure that the machine is protected from unauthorised use (e.g. by children).

If the tank has to be emptied (e.g. to store the machine before the winter break), this should only be done out of doors (e.g. by running the tank empty).

Thoroughly clean the machine before storage (e.g. winter break).

Only store the machine with the spark plug socket disconnected.

Store the machine in good operational condition.

Allow the machine to cool down completely before covering it.

4.9 Disposal

Waste products such as used engine oil or fuel, used lubricants, filters, batteries and similar wearing parts can be harmful to people, animals and the environment, and must consequently be disposed of properly.

Consult your recycling centre or your specialist dealer for information on the proper disposal of waste products. STIHL recommends STIHL specialist dealers.

Ensure that old machines are properly disposed of. Render the machine unusable prior to disposal. In order to prevent accidents, remove the ignition lead, empty the fuel tank and drain the engine oil in particular.

Risk of injury due to the mowing blade!

Always store an old lawn mower in a safe place prior to scrapping. Ensure that the machine and particularly the mowing blade are kept out of the reach of children.

5. Description of symbols



Caution!

Read the instruction manual before initial use.



Risk of injury!

Keep other persons out of the danger area.



Risk of injury!

Detach the spark plug socket before performing work on the cutting tool or maintenance and cleaning work.



Risk of injury!

Keep your hands and feet away from the blades.

Cutting tool runs on for several seconds after switching off (engine/blade brake).

RM 248 T, RM 253 T:



Switch on self-propulsion.



Start the engine.



Stop the engine.

6. Standard equipment



Item	Designation	Qty.
A	Basic unit	1
B	Upper part of grass catcher box	1
C	Lower part of grass catcher box	1
D	Rotary handle	2
E	Flat head bolt	2
F	Cable guide	1
	Instruction manual	1
	Engine instruction manual	1

7. Preparing the machine for operation

7.1 General



Risk of injury! Observe the safety instructions in the section "For your safety" (⇒ 4.).

- Place the machine on level and firm ground when performing all the operations described.

7.2 Assembling the handlebar



Danger of pinching!

Hold upper handlebar (1) with one hand at its highest point when screwing in two rotary handles (D).

- Insert flat head bolt (E) through cable guide (F).
- Attach cable guide (F) to motorstop cable (2).
- RM 248 T, RM 253 T:** Also attach cable guide (F) to self-propulsion cable (3).
- Fit upper handlebar (1) onto the outside of lower handlebar sections (4) as shown.
- Insert flat head bolts (E) – on left with cable guide (F), on right without – through bores from the inside and tighten with rotary handles (D).

7.3 Attaching and detaching the recoil starter rope



Attaching:

- Detach the spark plug socket from the engine.
- Press motorstop lever (1) to the handlebar and hold.
- Slowly pull out recoil starter rope (2) and attach it to rope guide (3).
- Slowly release recoil starter rope (2) and motorstop lever (1).
- Connect the spark plug socket.

Detaching:

- Detach the spark plug socket from the engine.

- Press motorstop lever (1) to the handlebar and hold.
- Slowly pull out recoil starter rope (2) and detach it from rope guide (3).
- Slowly return recoil starter rope (2) and release motorstop lever (1).
- Connect the spark plug socket.

7.4 Folding down the upper handlebar



The upper handlebar (1) can be folded down for space-saving transport and storage of the mower.



Risk of injury!

Stop the engine before folding down the upper handlebar and detach the spark plug socket. No additional loads must be placed on the upper handlebar (1) (e.g. hanging work clothing over the upper handlebar).

Danger of pinching!

The upper handlebar (1) can fold down on its own when the two rotary handles (3) are released. Therefore hold the upper handlebar (1) at its highest point before releasing the two rotary handles (3).

- Detach the recoil starter rope. (⇒ 7.3)
- Release the rotary handle (3) on each side (by turning anti-clockwise).
- Slowly fold the upper handlebar (1) forwards.

7.5 Assembling grass catcher box



- Fit upper part of grass catcher box (B) onto lower part of grass catcher box (C).
- Check for correct seating:
 - The tabs (1) must be located exactly over the openings (2).
 - All tabs (1) and guide lugs (3) must be located on the inside.
 - The upper part of the grass catcher box (B) must completely surround the lower part of the grass catcher box (C) on the outside.
- Starting from the rear centre, press tabs (1) into openings (2) in the lower part of the grass catcher box from the outside, using slight pressure.

7.6 Removing and attaching the grass catcher box



Risk of injury!

The engine must be stopped before attaching or removing the grass catcher box.

Attaching:

- Open the discharge flap (1) and hold it open.
- Attach grass catcher box (2) to mountings (4) on rear of machine by means of locating lugs (3). Ensure that flap (5) is properly closed.
- Release the discharge flap (1).

Detaching:

- Open the discharge flap (1) and hold it open.

- Lift grass catcher box (2) and remove rearwards.
- Slowly close the discharge flap (1).

7.7 Central cutting height adjustment



Risk of injury!

Stop the engine before adjusting the cutting height.

Seven different cutting heights between 25 mm and 75 mm can be set.

Cutting level 1:

Lowest cutting height

Cutting level 7:

Highest cutting height

- Press the cutting height adjustment lever (1) to the rear wheel (2) with one hand and hold in position.
- Set the cutting height adjustment lever (1) to the required position.
- Slowly release the cutting height adjustment lever (1) again and allow it to engage.

7.8 Fuel and engine oil



Risk of injury!

Note the warnings in the section "For your safety". (⇒ 4.)



Avoid damage to the machine!

Top up the engine oil before starting for the first time (see engine instruction manual). STIHL recommends using a suitable filling aid when topping up the engine oil (e.g. funnel). The filling aid is not included in the standard equipment.

Engine oil:

Please consult the engine instruction manual for the type of engine oil to be used and the oil capacity. Check the oil filling level at regular intervals (see engine instruction manual). Avoid exceeding or falling below the correct oil level.

Fuel:

Recommendation:

Fresh good quality fuel.

Please consult the engine instruction manual for details on the fuel quality (octane rating).

- Unleaded petrol

A funnel should be used when filling the tank with fuel (not included in standard equipment).

8. Safety devices

The machine is equipped with several safety devices for safe operation and for the prevention of improper use.



Risk of injury!

If a safety device is found to be defective, the machine must not be operated. Consult a specialist dealer; STIHL recommends STIHL specialist dealers.

8.1 Safety devices

The lawn mower is equipped with safety devices, which prevent inadvertent contact with the mowing blade and with ejected clippings. These include the housing, discharge flap, grass catcher box and correctly installed handlebar.

8.2 Motorstop lever

The lawn mower is equipped with a motorstop device.

The engine stops when the motorstop lever is released during running operation. The engine and blade come to a standstill within 3 seconds.



Risk of injury!

If the run-on time of the blade exceeds this delay, stop using the machine and take it to your specialist dealer.

Measuring the run-on time

Following engine start-up, the blade rotates and a wind noise is audible. The run-on time corresponds to the duration of the wind noise after the engine stops. This can be measured using a stopwatch.

9. Notes on working with the machine

A perfect, thick lawn is achieved by

- Mowing at low driving speeds.
- Mowing regularly and keeping the grass short.
- Not cutting the lawn too short in hot, dry conditions as it will be burnt by the sun and become unsightly.
- Using a sharp mowing blade – mowing blade should therefore be sharpened regularly (specialist dealer).
- Changing the cutting direction regularly.

9.1 Working area for operator

- For safety reasons, the operator must stay within the working area behind the handlebar when starting the engine and when the engine is running. Always observe the safety distance provided by the handlebar.
- The lawn mower must only be operated by one person. Other persons must keep out of the danger area. (⇒ 4.)

10. Operating the machine

10.1 Starting the engine



Avoid damage to the machine!

Do not start the engine in tall grass or at the lowest cutting height. This makes starting difficult.

Thanks to the fixed throttle setting, the engine always operates at the optimum working speed after starting.

- Press motorstop lever (1) to the handlebar and hold.
- Slowly pull out recoil starter rope (2) to the point of compression resistance. Then pull vigorously and quickly to arm's length. Slowly return recoil starter rope (2) again so that it is rolled up again. Repeat the procedure until the engine starts.

10.2 Stopping the engine



To stop the engine, release motorstop lever (1). Engine and mowing blade come to a stop after a short run-down time.



10.3 Self-propulsion lever (RM 248 T, RM 253 T)

Switching on self-propulsion:

- Start the engine. (⇒ 10.1)
- Pull self-propulsion lever (1) to the handlebar and hold. Self-propulsion is switched on and the lawn mower moves forwards.

Switching off self-propulsion:

- Release self-propulsion lever (1). Self-propulsion is switched off and the lawn mower comes to a standstill. The engine continues to run.

10.4 Level indicator



The flow of air generated by the blade raises level indicator (1). The flow of air stops when the grass catcher box is full. If the flow of air is too low, level indicator (1) returns to its resting state. This is a prompt to empty the grass catcher box.

The functionality of the level indicator is restricted if the flow of air is impaired. External influences such as wet, dense or high grass, low cutting levels, contamination or the like can impair the flow of air and the functionality of the level indicator.

A Grass catcher box is being filled

B Grass catcher box is filled

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- Empty the filled grass catcher box (⇒ 10.5).

10.5 Emptying the grass catcher box



Risk of injury!

The engine must be stopped for safety reasons before removing the grass catcher box.



- Detach the grass catcher box. (⇒ 7.6)
- Hold the grass catcher box by the handles (1) and (2) and empty it of clippings.
- Ensure that flap (3) is properly closed. Attach the grass catcher box. (⇒ 7.6)

11. Maintenance

11.1 General



Risk of injury!
Observe the safety instructions in the section "For your safety" (⇒ 4.).

Annual service by the specialist dealer:

The lawn mower should be inspected once annually by a specialist dealer. STIHL recommends STIHL specialist dealers.



11.2 Cleaning the machine

Maintenance interval:

After each use



Risk of injury!

Stop the engine and remove the spark plug socket.

Empty the fuel tank (run empty) before placing the machine in the cleaning position.

Cleaning position:

- Select cutting level 1. (⇒ 7.7)
- Release the upper handlebar (1) by unscrewing the two rotary handles (2).
- Open the discharge flap and hold it open.
- Place the machine in the cleaning position until it stands on its own.

11.3 Engine

Maintenance interval:

See engine instruction manual.

General information:

Observe the operating and maintenance instructions contained in the attached engine instruction manual.

To achieve a long service life, it is always particularly important to maintain a sufficient level of oil and to change the oil and air filter regularly.

The recommended oil change intervals as well as information on engine oil and oil capacities can also be found in the engine instruction manual.

The cooling ribs must always be kept clean to ensure that the engine is adequately cooled.

11.4 Checking the mowing blade wear limit



Risk of injury!

Observe the safety instructions in the "For your safety" section. (⇒ 4.)

Maintenance interval:

Before each use.



Risk of injury!

A worn mowing blade may break off and cause serious injuries. The instructions for blade maintenance must therefore always be observed.

Mowing blades are subject to differing degrees of wear depending on the location and duration of use. If you use the machine on sandy ground or use it frequently under dry conditions, the mowing blade will be subjected to greater loads and will wear more quickly than the average.

Check procedure:

The mowing blade (1) must be cleaned thoroughly before each check procedure.

- Place the machine in the cleaning position. (⇒ 11.2)

Mowing blade thickness:

The blade thickness (A) must be ensured at all points on the mowing blade. The most important points are marked in the illustration. (Check using slide calliper.)

A = 2 mm

Wear limit of the cutting edges:

The cutting edges must not be ground back by more than distance (B) during sharpening. When checking, place a ruler (2) against the front blade edge (3) and check for wear.

B = 5 mm

11.5 Maintaining the mowing blade



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Risk of injury!

Observe the safety instructions in the section "For your safety". (⇒ 4.) We recommend that you have the mowing blade sharpened by a specialist dealer.

Removing the mowing blade:

For removal, use a wooden block (1) (approx. 60 x 60 mm) to counterhold the mowing blade (2).

- Loosen and unscrew the blade fastening screw (3). Remove the blade fastening screw (3), washer (4) and mowing blade (2).

Sharpening the mowing blade:



Risk of injury!

Always wear safety glasses and gloves when sharpening.

- Cool the mowing blade when sharpening, e.g. with water. The blade must not be allowed to display blue colouring, as this would reduce its cutting quality.

- Sharpen blades evenly to prevent vibration due to imbalance.

- The cutting angle of **30°** must be observed.

- Observe the wear limits when sharpening.



Risk of injury!

The mowing blade must be replaced if notches or cracks are detected or if a wear limit is reached (⇒ 11.4).

Installing the mowing blade:

For installation, use a wooden block (1) to counterhold the mowing blade (2).



The tabs on the underside of the blade prevent incorrect installation.

- Secure the blade fastening screw (3) with **Loctite 243**.
- Fit the mowing blade (2) with the curved edges pointing upwards onto the blade bushing (5).
- Fit the retaining washer (4) and tighten with the blade fastening screw (3) to **60 - 65 Nm**.

Risk of injury!

The prescribed tightening torque for the blade fastening screw must be observed.

The retaining washer (4) must be replaced each time the blade is installed.

The blade fastening screw (3) must be replaced each time the blade is replaced.

11.6 Storage (winter break)

Note the following points when storing the machine for long periods (winter break):

- Clean all external parts of the machine with care.
- Thoroughly lubricate/grease all moving parts.

- Empty the fuel tank and carburettor (e.g. by running empty).
- Unscrew the spark plug (see engine instruction manual) and pour approx. 3 cm³ of engine oil into the engine via the spark plug hole. Turn the engine several times with the spark plug removed (pull the recoil starter rope).



Fire hazard!

Keep the spark plug socket away from the spark plug hole due to the danger of ignition.

- Screw the spark plug back in (see engine instruction manual).
- Perform an oil change (see engine instruction manual).
- Store the machine in a dry and locked place that is generally free of dust. Make sure that it is out of the reach of children.

12. Transport

12.1 Transporting



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Risk of injury!

Observe the section "For your safety" before transporting. (⇒ 4.)

Carry the machine only with the help of a second person. Always wear suitable safety clothing (safety shoes, thick gloves). Detach the spark plug socket before lifting or transporting.

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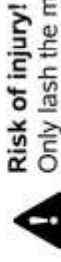
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Lifting or carrying the machine:

- Only lift or carry the machine at the lifting point (1) and the upper handlebar (2) or, when the upper handlebar is folded, by the two lower handlebar sections (3) (see illustration **A**).

Transporting the machine:



Risk of injury!

Only lash the machine when it is standing on all four wheels. In this position the mowing blade is not exposed and no engine oil or fuel can escape (see illustration **B**).

When transporting the machine on a load floor (trailer, car, etc.), always use suitable fastening material of an adequate size to prevent it from slipping. Attach ropes or straps at the following points on the machine:

- Front wheel, rear wheel
- Lower handlebars

13. Minimising wear and preventing damage

Important information on maintenance and care of the product group

petrol lawn mowers (STIHL RM)

STIHL assumes no liability for material or personal damage caused by the non-observance of information contained in the operating instructions, in particular with regard to safety, operation and maintenance, or which arise through the use of unauthorised attachment or spare parts.

Please always observe the following important information for the prevention of damage or excessive wear to your STIHL machine:

1. Wearing parts

Some parts of the STIHL machine are subject to normal wear even when used properly and must be replaced in due time depending on type and duration of use.

These include:

- Blades
- Grass catcher box
- V-belt (RM 248 T, RM 253 T)

2. Compliance with the information in this instruction manual

The STIHL machine must be used, maintained and stored with the care described in this instruction manual. Any damage caused by non-compliance with the safety, operating and maintenance instructions is the sole responsibility of the user.

This applies in particular to:

- Product modifications not approved by STIHL.
- Use of fuel and lubricants not approved by STIHL (lubricants, petrol and engine oil, see engine manufacturer's specifications).
- The use of tools or accessories which are not approved or suitable for the machine, or are of inferior quality.
- Improper use of the product.
- Use of the product for sporting or competitive events.
- Resultant damage due to continued use of the product with defective components.

3. Maintenance operations

All operations listed in the section "Maintenance" must be performed regularly.

If these maintenance operations cannot be carried out by the user, a specialist dealer must be commissioned to perform them.

STIHL recommends that you have maintenance operations and repairs performed exclusively by a STIHL specialist dealer.

STIHL specialist dealers regularly attend training courses and are provided with technical information.

If these operations are neglected, faults may arise which are the responsibility of the user.

These include:

- Corrosive and other resultant damage caused by incorrect storage.
- Damage to the machine through the use of inferior-quality spare parts.
- Damage due to untimely or inadequate maintenance or damage due to maintenance or repair work not performed in the workshops of specialist dealers.

14. Environmental protection



Lawn clippings should be composted and not disposed of in household waste.

The machine, its packaging and accessories are all produced from recyclable materials and must be disposed of accordingly.

By disposing of materials separately, and in an environmentally friendly manner, valuable resources can be re-used. For this reason, the machine should be disposed of for recycling at the end of its useful life. Pay particular attention to the information in the "Disposal" section during disposal (⇒ 4.9).

Consult your recycling centre or your specialist dealer for information on the proper disposal of waste products.

15. Standard spare parts

Mowing blade RM 248, RM 248 T

6350 702 0103

Mowing blade RM 253, RM 253 T


6371 702 0102

Blade fastening screw

9008 319 9028

Retaining washer

0000 702 6600

 The fastening elements for the mowing blade (e.g. blade fastening screw) must be replaced when replacing the blade, i.e. when installing the blade. Spare parts are available from a STIHL specialist dealer.

16. EU - Declaration of conformity

16.1 Petrol lawn mowers (STIHL RM)

STIHL Tirol GmbH

Hans Peter Stihl-Strasse 5
6336 Langkampfen
Austria

declares under our sole responsibility that the machine

manually operated lawn mower with engine (STIHL RM)

manufacturer's STIHL

brand:

type: RM 248.0

RM 248.0 T

serial number: 6350

type: RM 253.0

RM 253.0 T

serial number: 6371

conforms to the following EC directives: 2011/65/EU, 2000/14/EC, 2014/30/EU, 2006/42/EC

The product has been developed in conformity with the following standards: EN ISO 5395-1, EN ISO 5395-2, EN 14982

The versions of the standards valid on the production date apply to development and production of the products.

Applicable conformity assessment procedure:

Appendix VIII (2000/14/EC)

Name and address of relevant, named location:

TÜV Rheinland LGA Products GmbH
Tillystraße 2
D-90431 Nürnberg

Compilation and storage of technical documentation:

Sven Zimmermann
STIHL Tirol GmbH

The year of manufacture and machine number appear on the rating plate of the machine.

Measured sound power level:

RM 248.0: 95,2 dB(A)

RM 248.0 T: 95,2 dB(A)

RM 253.0: 97,0 dB(A)

RM 253.0 T: 97,0 dB(A)

Guaranteed sound power level:

RM 248.0: 96 dB(A)

RM 248.0 T: 96 dB(A)

RM 253.0: 98 dB(A)

RM 253.0 T: 98 dB(A)

Langkampfen,

2020-01-02 (YYYY-MM-DD)

STIHL Tirol GmbH

p.p.



Matthias Fleischer, Research and Development Division Manager

p.p.



Sven Zimmermann, Quality Division Manager

17. Technical specifications

RM 248.0 / RM 248.0 T,

RM 253.0 / RM 253.0 T:

Engine, design: 4-stroke combustion engine

Type of cutting utilities:

Cutter bars

Safety device:

Motorstop

Starter:

Rope start

Self-propulsion, rear wheels (RM 248.0 T/ RM 253.0 T)

1 forward gear

Wheel dimensions, front:

180 mm

Wheel dimensions, rear:

200 mm

Cutting height:

25-75 mm

Grass catcher box capacity:

55 l

RM 248.0 / RM 248.0 T:

Serial number:

6350

Cutting width:

46 cm

L/W/H:

155/52/106 cm

Tightening torque for blade fastening screw:

60-65 Nm

RM 248.0:

Engine type:

STIHL EVC 200

Nominal output at nominal speed:

2,1-2900 kW-rpm

RM 248.0:

Displacement:

139 ccm

Fuel tank:

0,9 l

Speed of cutting utilities:

2900 rpm

Engine output speed:

2900 rpm

In accordance with Directive

2000/14/EC:

Guaranteed sound power level L_{WAd}

96 dB(A)

In accordance with Directive

2006/42/EC:

Sound pressure level at workplace L_{pA}

83 dB(A)

Uncertainty K_{pA}

2 dB(A)

Specified vibration characteristic in accordance with EN 12096:

Measured value a_{hw}

4,00 m/sec²

Uncertainty K_{hw}

2,00 m/sec²

Measurement in accordance with EN 20643

Weight:

26 kg

RM 248.0 T:

Engine type: B&S Series 550 EX OHV RS

Nominal output at nominal speed:

2,1-2800 kW-rpm

Displacement:

140 ccm

Fuel tank:

0,8 l

Speed of cutting utilities:

2800 rpm

Engine output speed:

2800 rpm

RM 248.0 T:

In accordance with Directive

2000/14/EC:

Guaranteed sound power level L_{WAd}

96 dB(A)

In accordance with Directive

2006/42/EC:

Sound pressure level at workplace L_{pA}

82 dB(A)

Uncertainty K_{pA}

2 dB(A)

Specified vibration characteristic in accordance with EN 12096:

Measured value a_{hw}

4,85 m/sec²

Uncertainty K_{hw}

2,43 m/sec²

Measurement in accordance with EN 20643

Weight:

27 kg

RM 253.0 / RM 253.0 T:

Serial number:

6371

Cutting width:

51 cm

L/W/H:

160/55/106 cm

Tightening torque for blade fastening screw:

60-65 Nm

RM 253.0:

Engine type:

B&S Series 625

Nominal output at nominal speed:

2,2-2800 kW-rpm

Displacement:

150 ccm

Fuel tank:

0,8 l

Speed of cutting utilities:

2800 rpm

Engine output speed:

2800 rpm

RM 253.0:

In accordance with Directive 2000/14/EC: Guaranteed sound power level L_{WAd} 98 dB(A)

In accordance with Directive 2006/42/EC: Sound pressure level at workplace L_{pA} 85 dB(A)

Uncertainty K_{pA} 2 dB(A)

Specified vibration characteristic in accordance with EN 12096: Measured value a_{hw} 5,00 m/sec²

Uncertainty K_{hw} 2,50 m/sec²

Measurement in accordance with EN 20643 Weight: 26 kg

RM 253.0 T:

Engine type: B&S Series 625

Nominal output at nominal speed: 2,2-2800 kW-rpm

Displacement: 150 ccm

Fuel tank: 0,8 l

Speed of cutting utilities: 2800 rpm

Engine output speed: 2800 rpm

In accordance with Directive 2000/14/EC: Guaranteed sound power level L_{WAd} 98 dB(A)

RM 253.0 T:

In accordance with Directive 2006/42/EC: Sound pressure level at workplace L_{pA} 85 dB(A)

Uncertainty K_{pA} 2 dB(A)

Specified vibration characteristic in accordance with EN 12096: Measured value a_{hw} 5,00 m/sec²

Uncertainty K_{hw} 2,50 m/sec²

Measurement in accordance with EN 20643 Weight: 28 kg

17.1 REACH

REACH is an EC Directive for the registration, evaluation, authorisation and restriction of chemicals.

Information on compliance with the REACH Directive (EC) No. 1907/2006 is available from www.stihl.com/reach.

18. Troubleshooting

✘ If necessary, contact a specialist dealer; STIHL recommends STIHL specialist dealers.

📖 See engine instruction manual.

Fault:

Engine not starting

Possible cause:

- Motorstop lever not pressed.
- No fuel in tank; fuel line blocked.

- Inferior, dirty or old fuel in tank.
- Air filter dirty.
- Spark plug socket detached from spark plug; ignition lead not properly fastened to socket.
- Spark plug dirty or damaged; incorrect electrode gap.

Remedy:

- Press motorstop lever to handlebar and hold. (⇒ 10.1)
- Top up fuel; clean fuel line. ✘
- Always use fresh, good quality fuel, unleaded petrol; clean carburettor. ✘
- Clean air filter. ✘
- Connect spark plug socket; check connection between ignition lead and socket. ✘
- Clean or replace spark plug; adjust electrode gap. ✘

Fault:

Starting problems or deteriorating engine power.

Possible cause:

- Lawn mower housing blocked.
- Mowing at an excessively low cutting height or propulsion speed is too high in relation to the cutting height.
- Water in fuel tank and carburettor; carburettor blocked.
- Fuel tank contaminated.
- Air filter dirty.
- Spark plug dirty.

Remedy:

- Clean lawn mower housing (detach spark plug socket!). (⇒ 11.2)
- Select a higher cutting height or reduce the pushing speed. (⇒ 7.7)
- Empty fuel tank, clean fuel line and carburettor. ✘
- Clean fuel tank. ✘
- Clean air filter. ✘
- Clean spark plug. ✘

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