

STIHL MH 445 R MH 560, MH 585, MH 685

STIHL



EN	Instruction manual
NO	Bruksanvisning
SV	Bruksanvisning
FI	Käyttöopas
DA	Betjeningsvejledning
SL	Navodila za uporabo
SK	Návod na obsluhu
TR	Kullanım kılavuzu
HU	Használati útmutató
SR	Uputstvo za upotrebu
HR	Upute za uporabu
BG	Инструкция за експлоатация
UK	Посібник з експлуатації
ET	Kasutusjuhend
МК	Упатство за употреба
КК	Пайдаланушының нұсқаулығы

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MH 445.1 R

MH 560.0

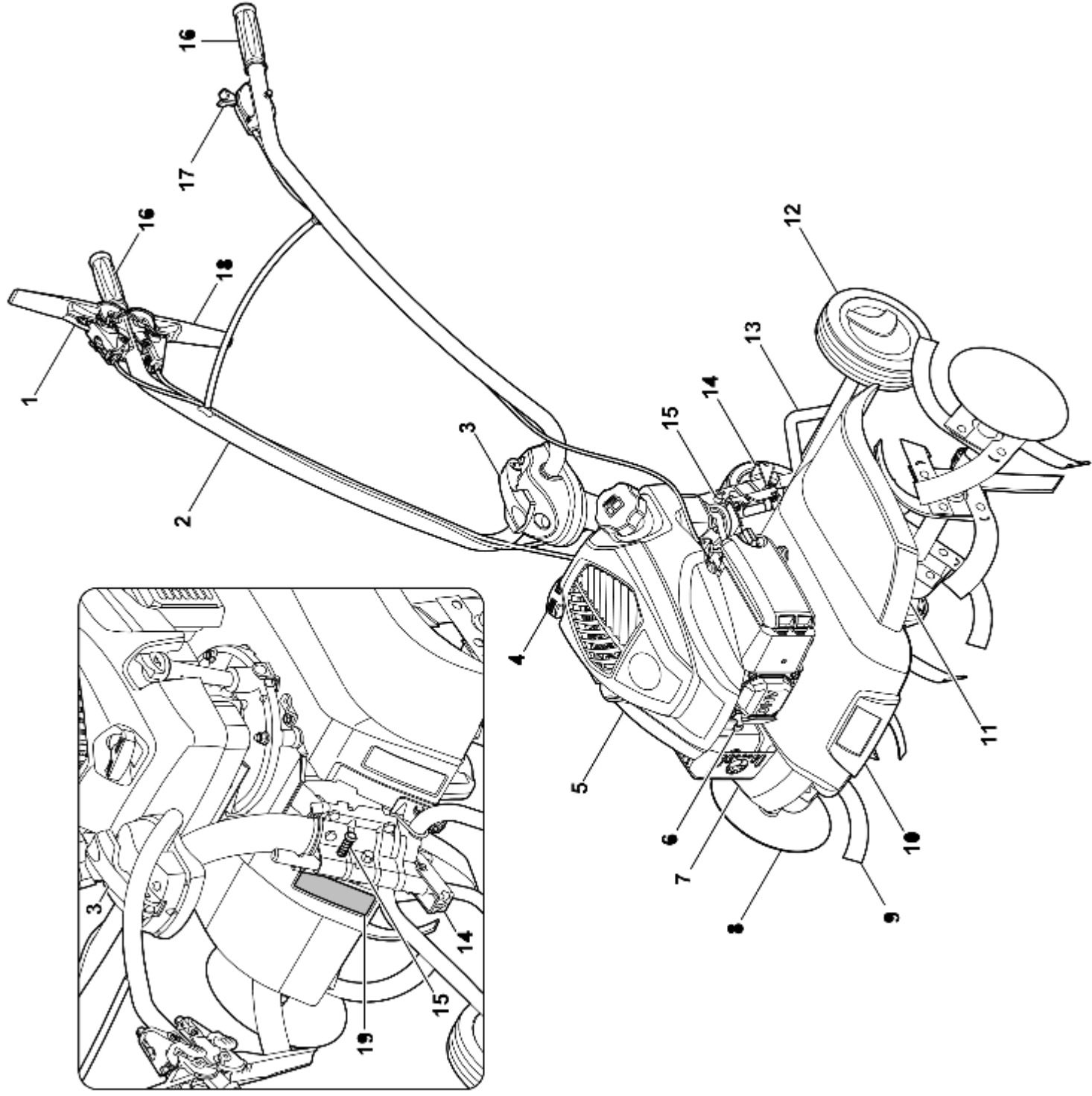
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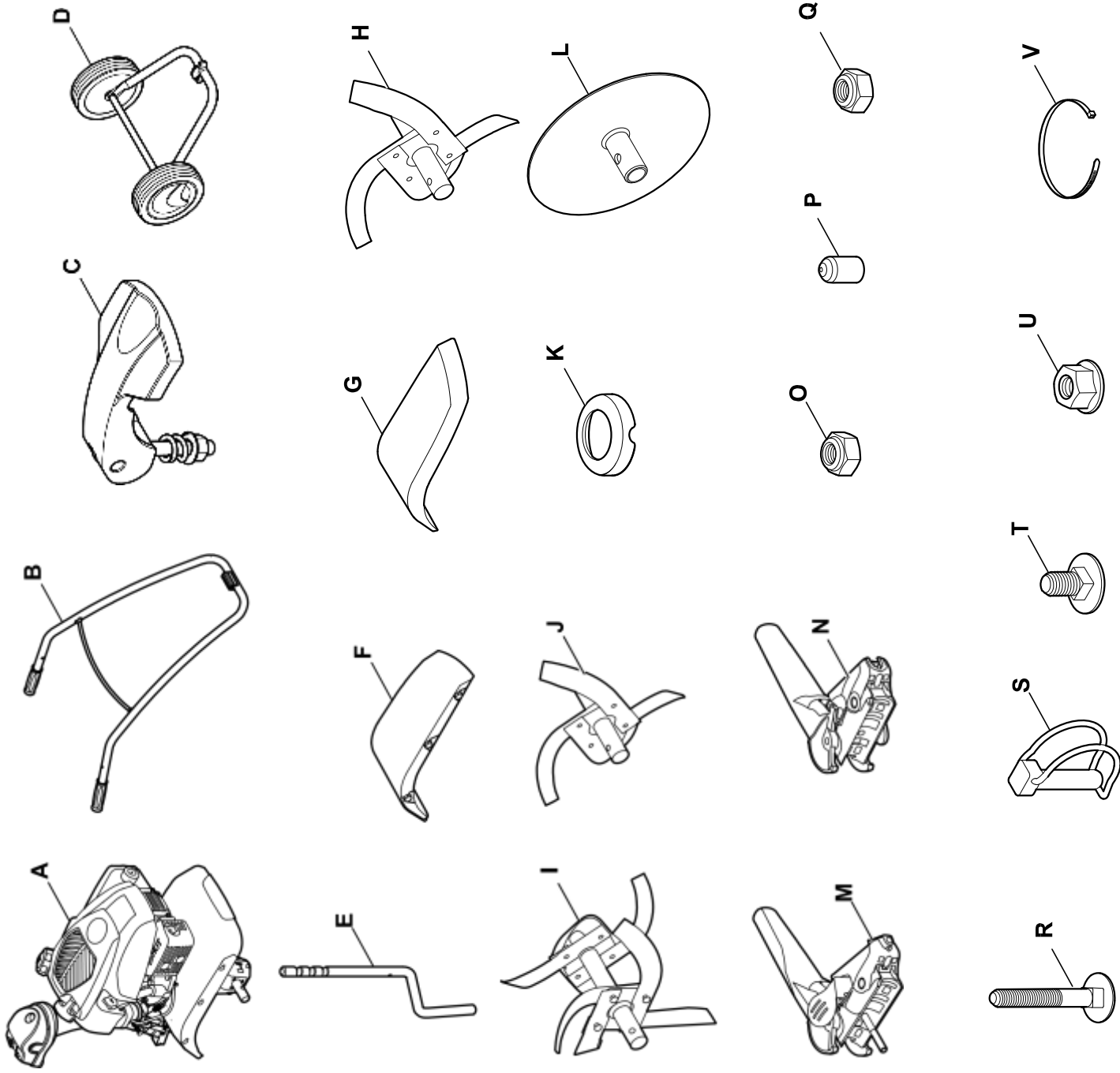
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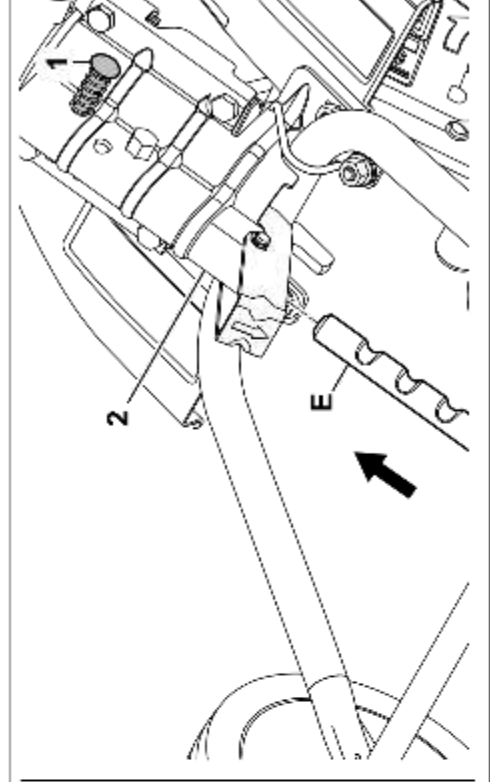
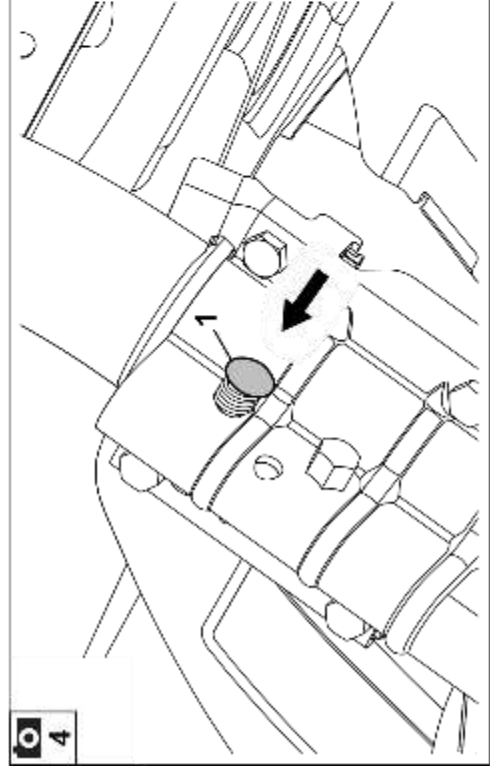
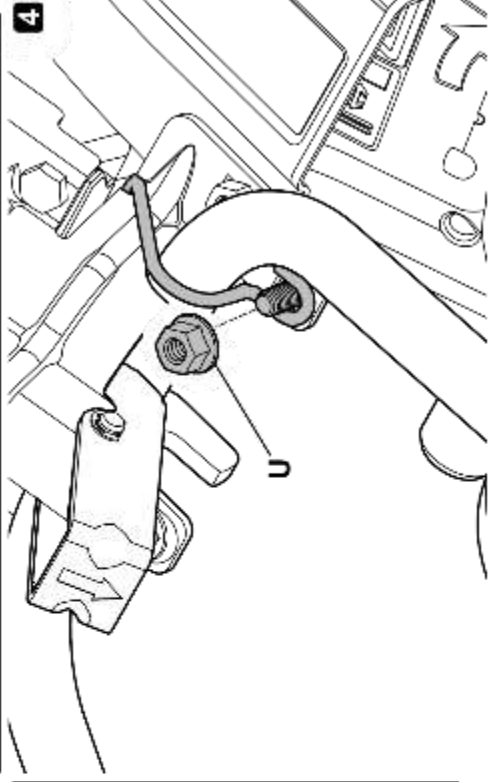
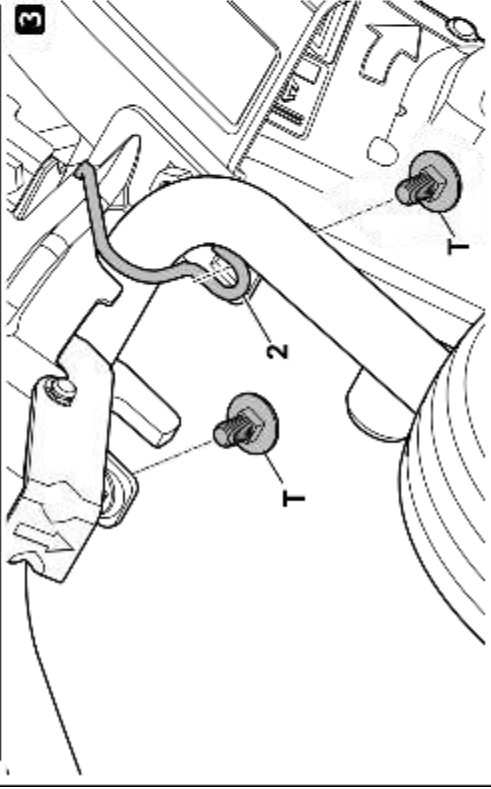
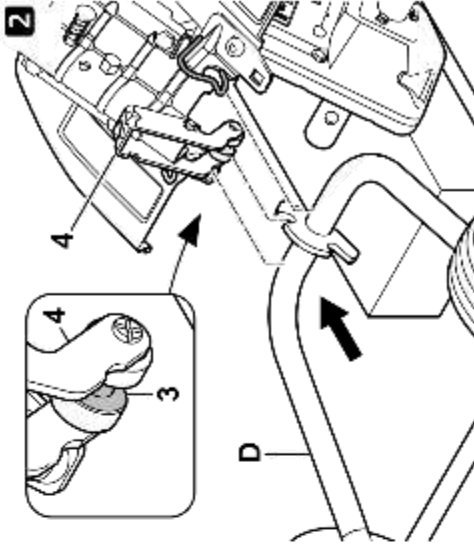
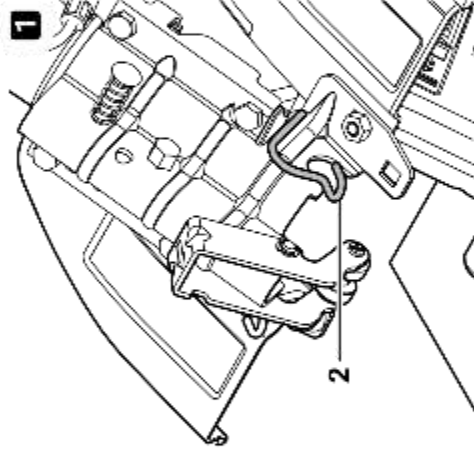
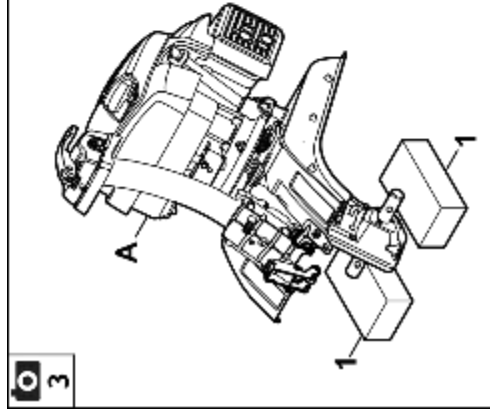
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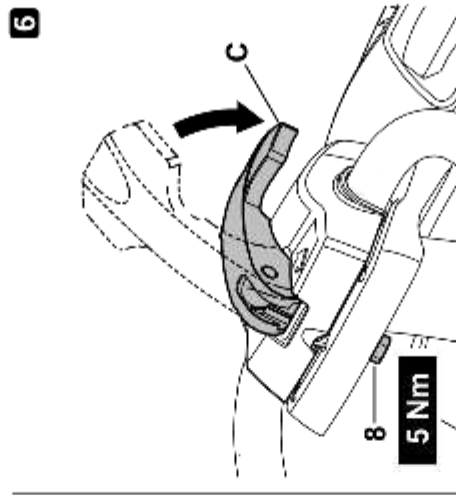
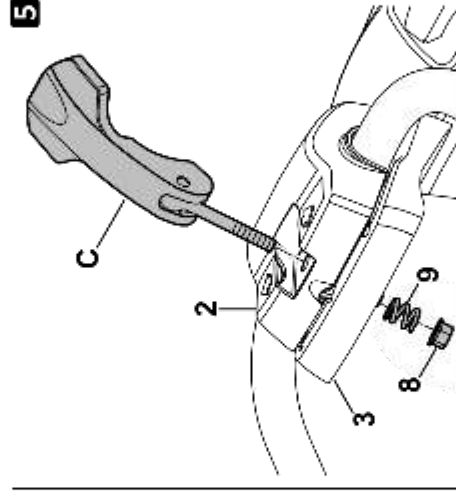
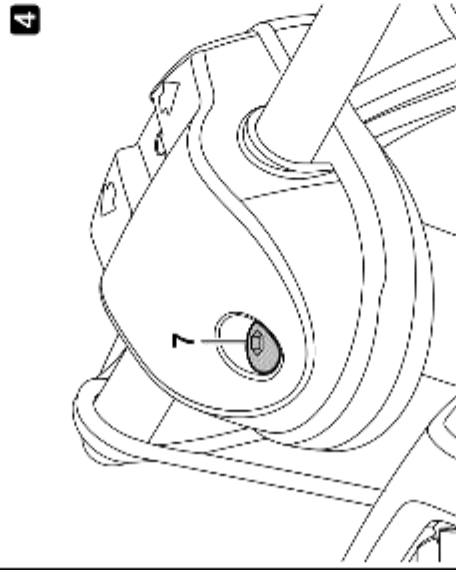
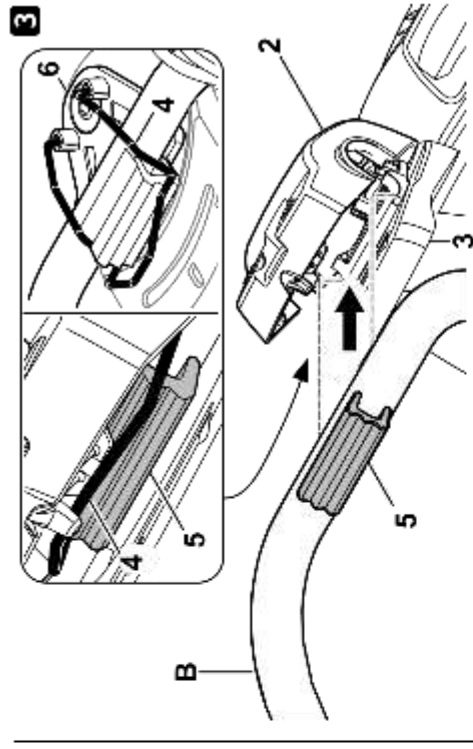
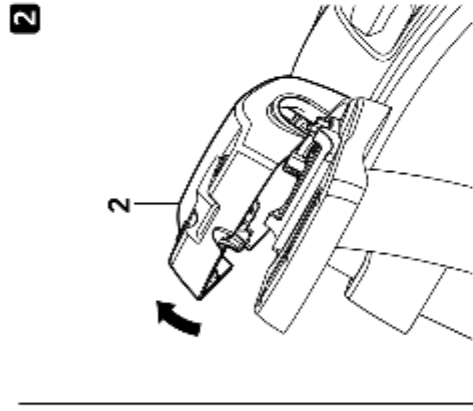
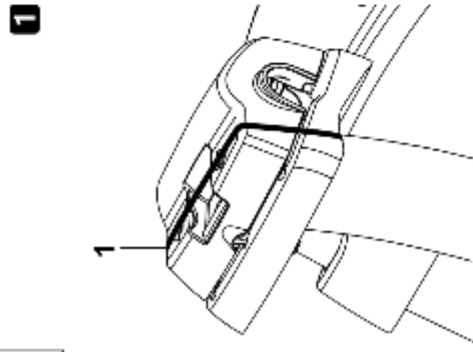




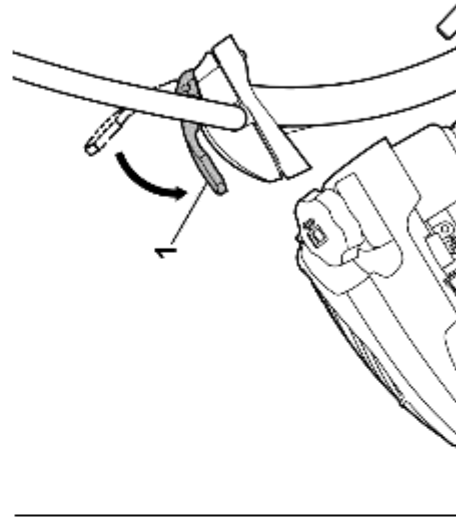
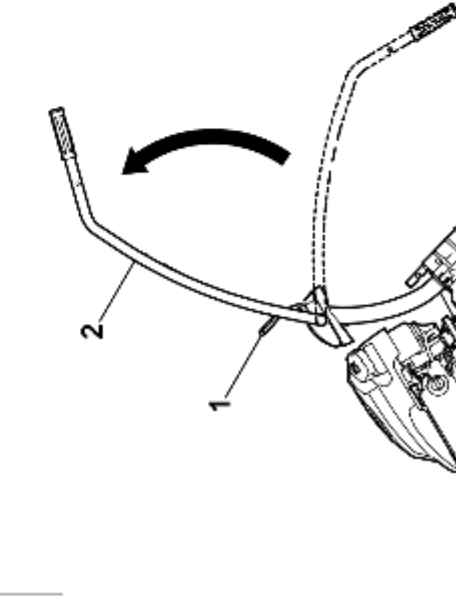


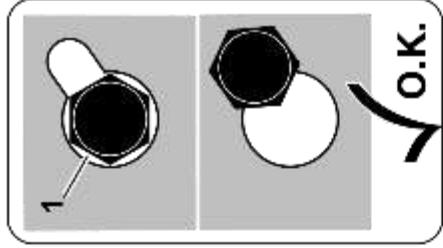


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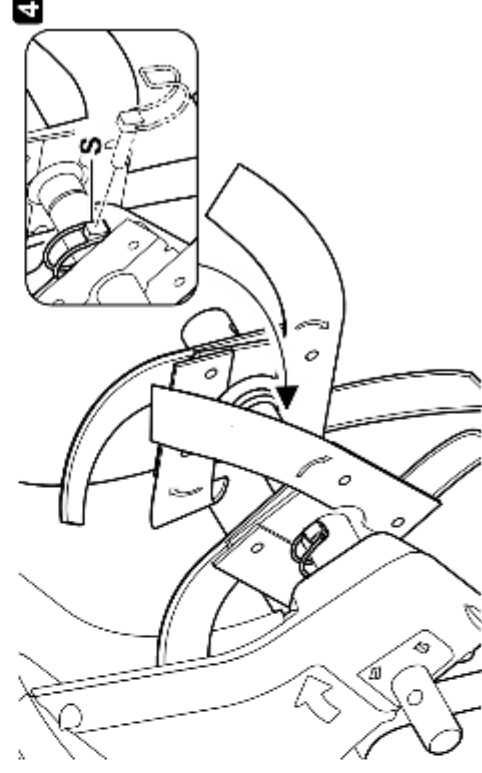
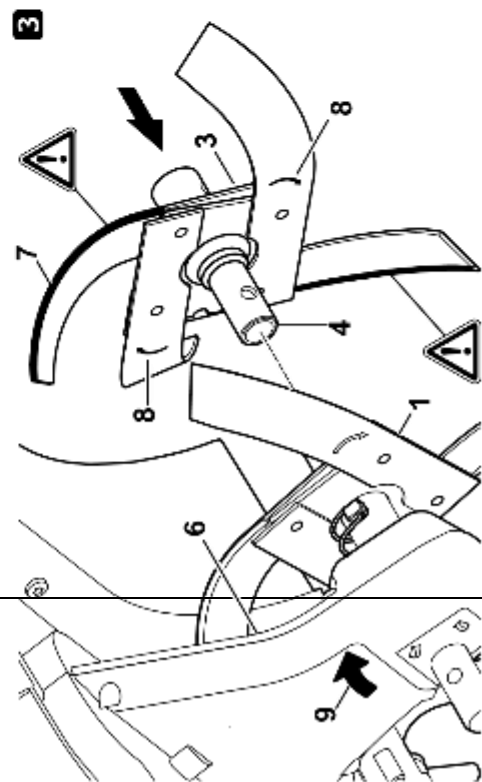
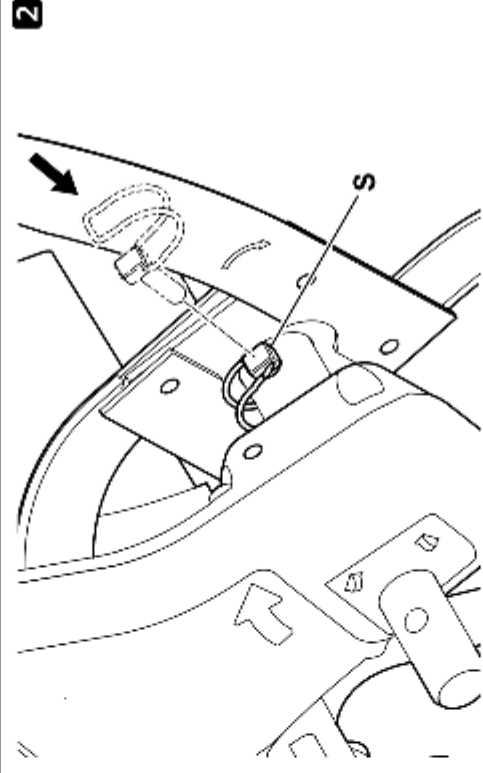
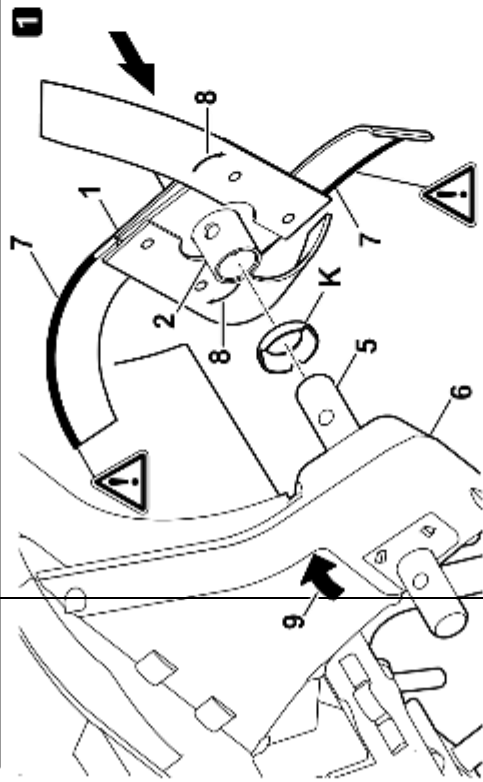
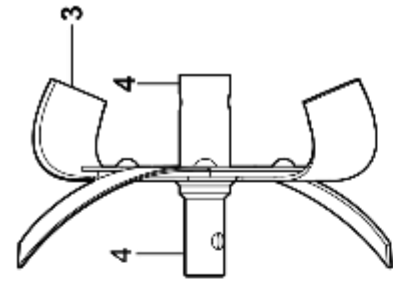
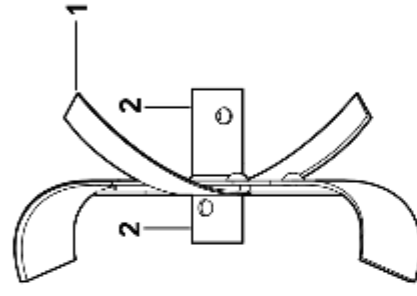
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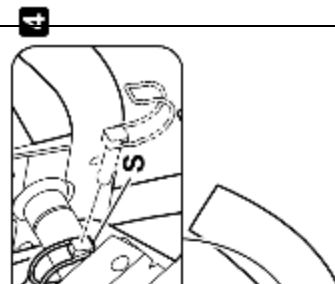
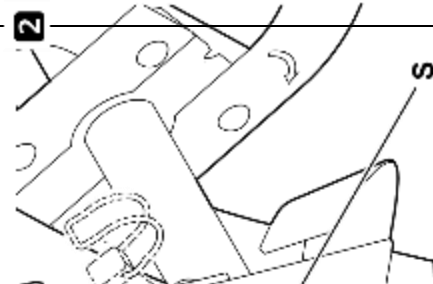
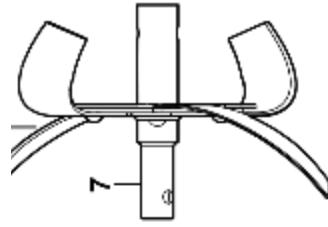




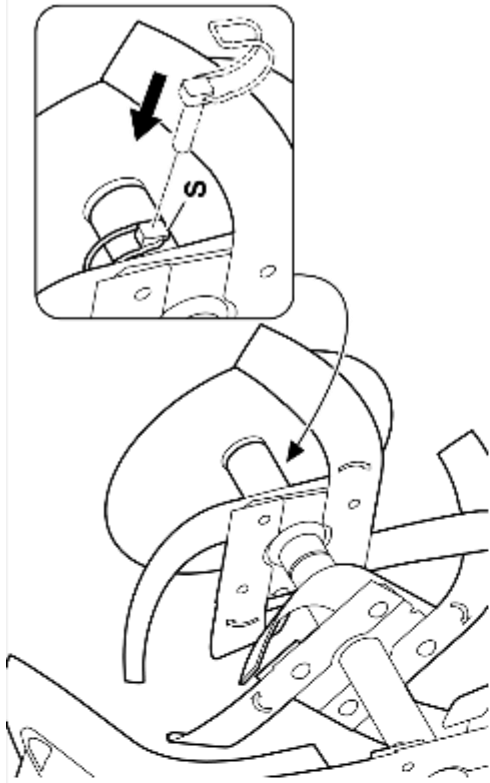
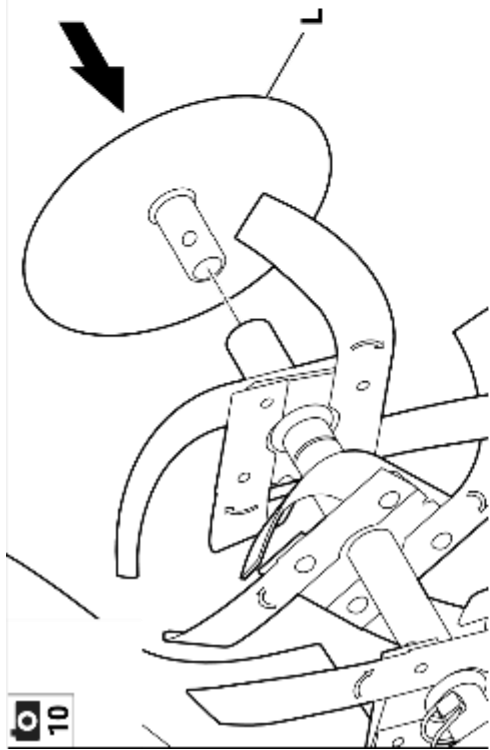


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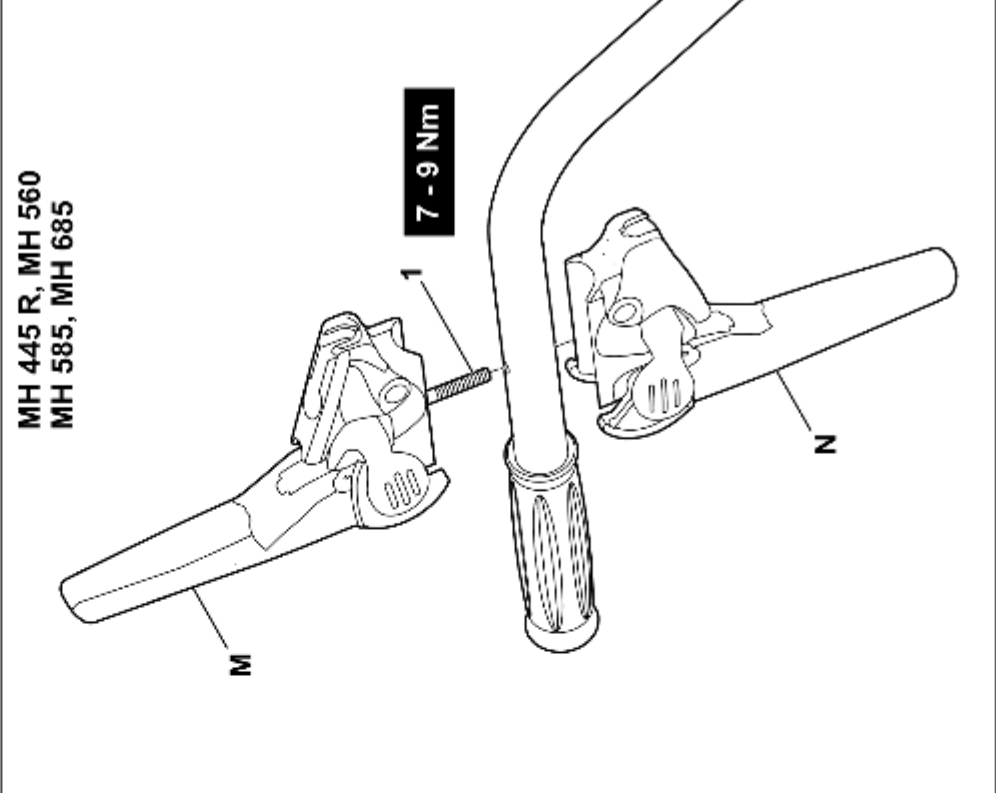
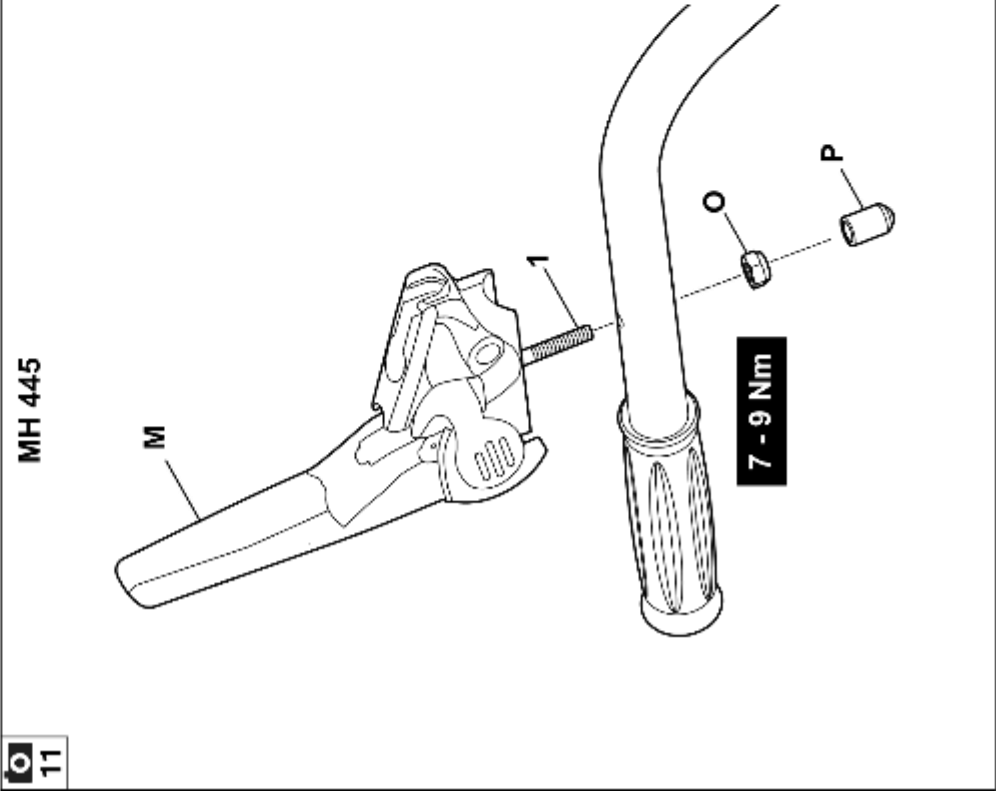
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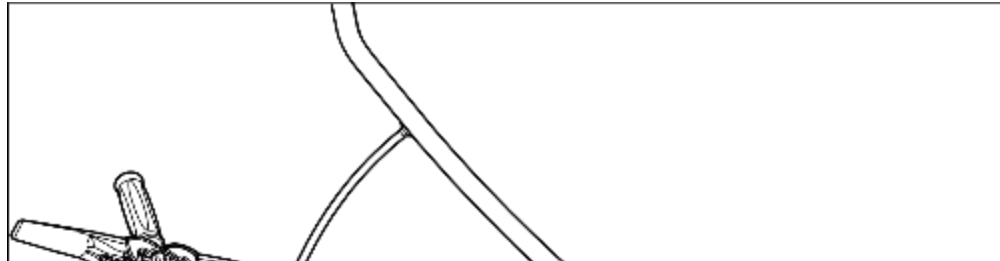


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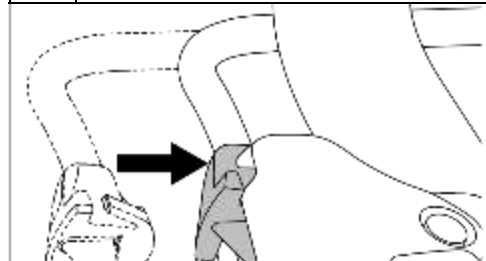
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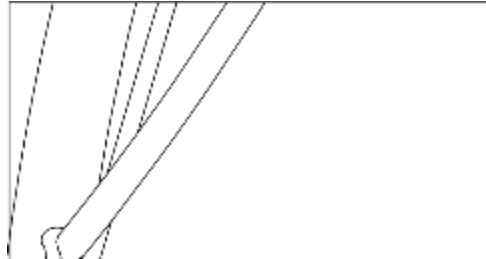


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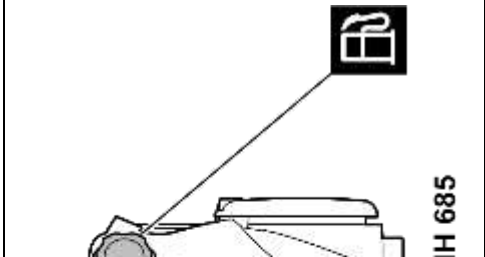






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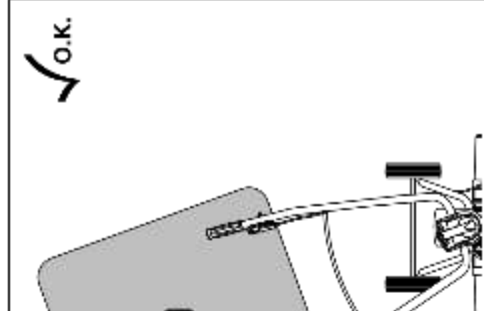
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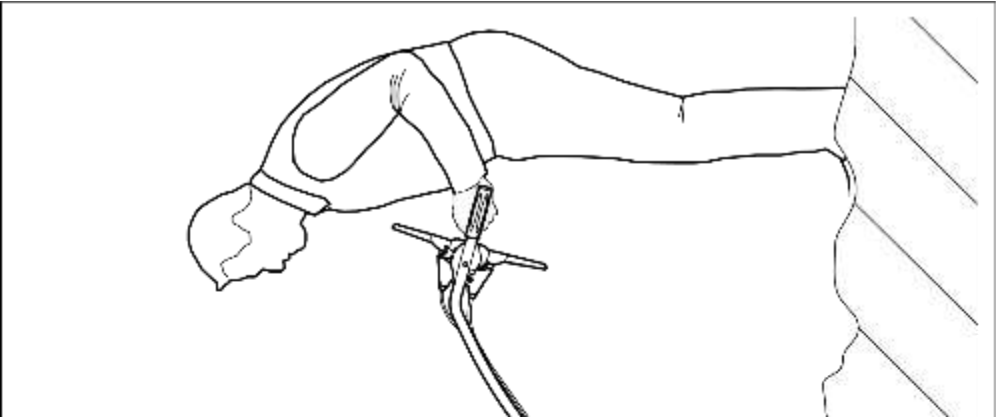


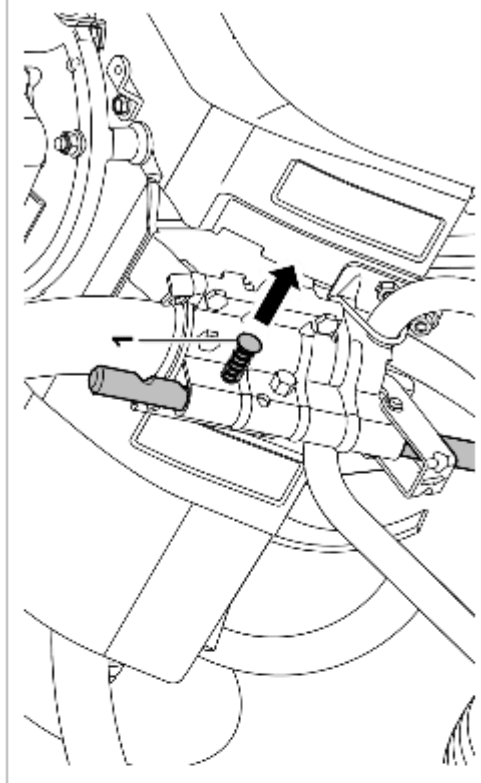
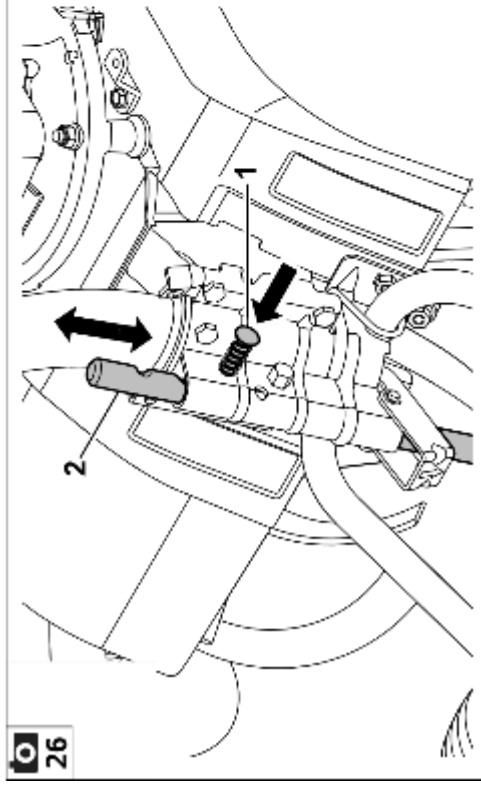
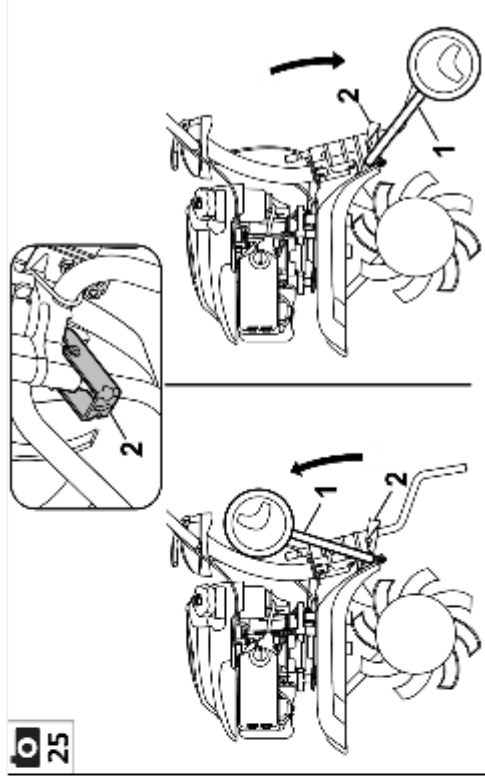
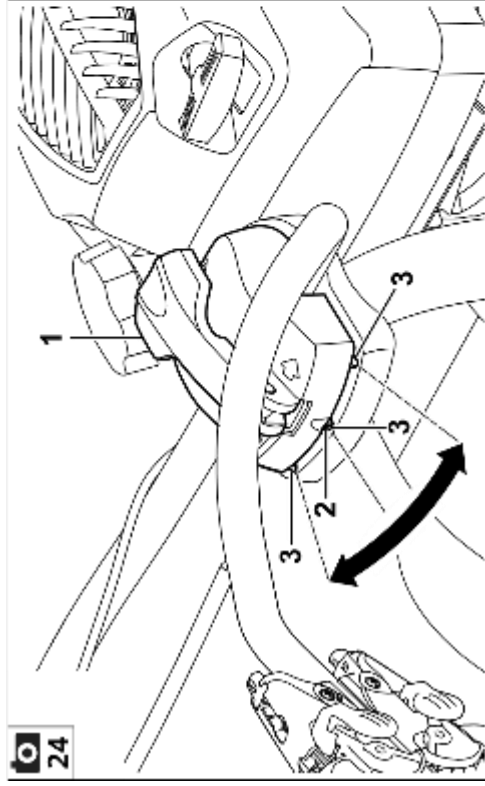
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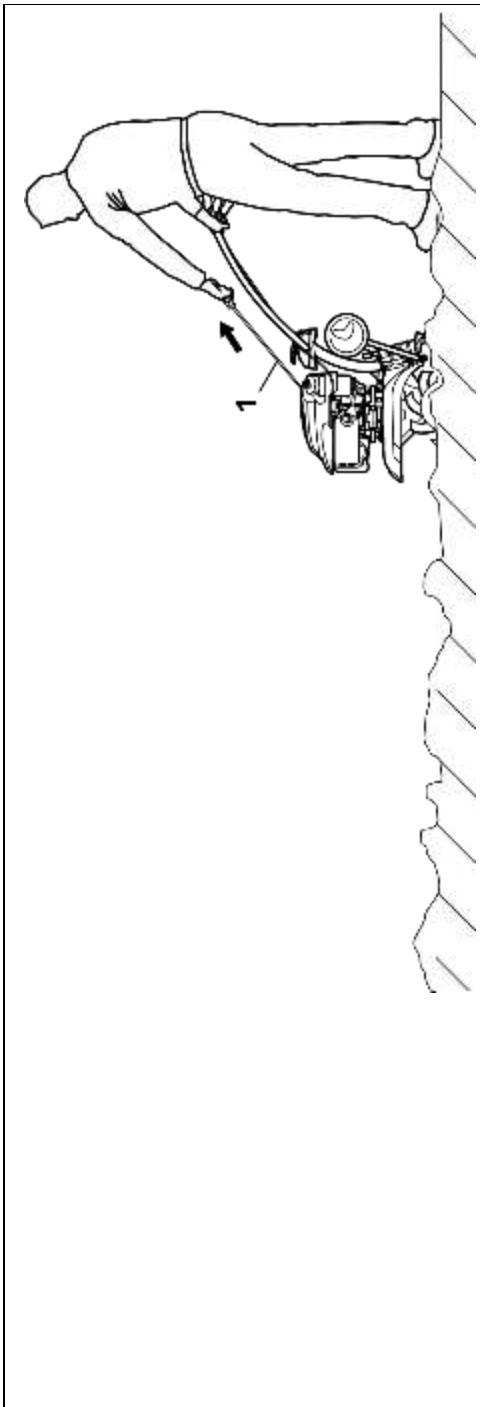




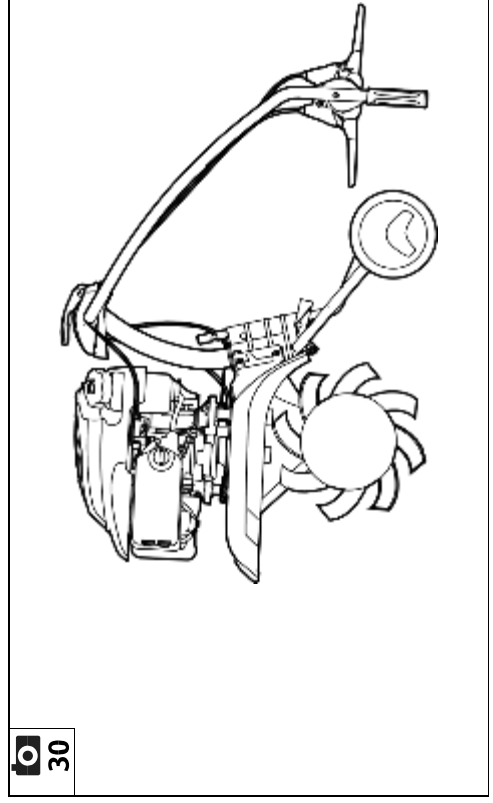


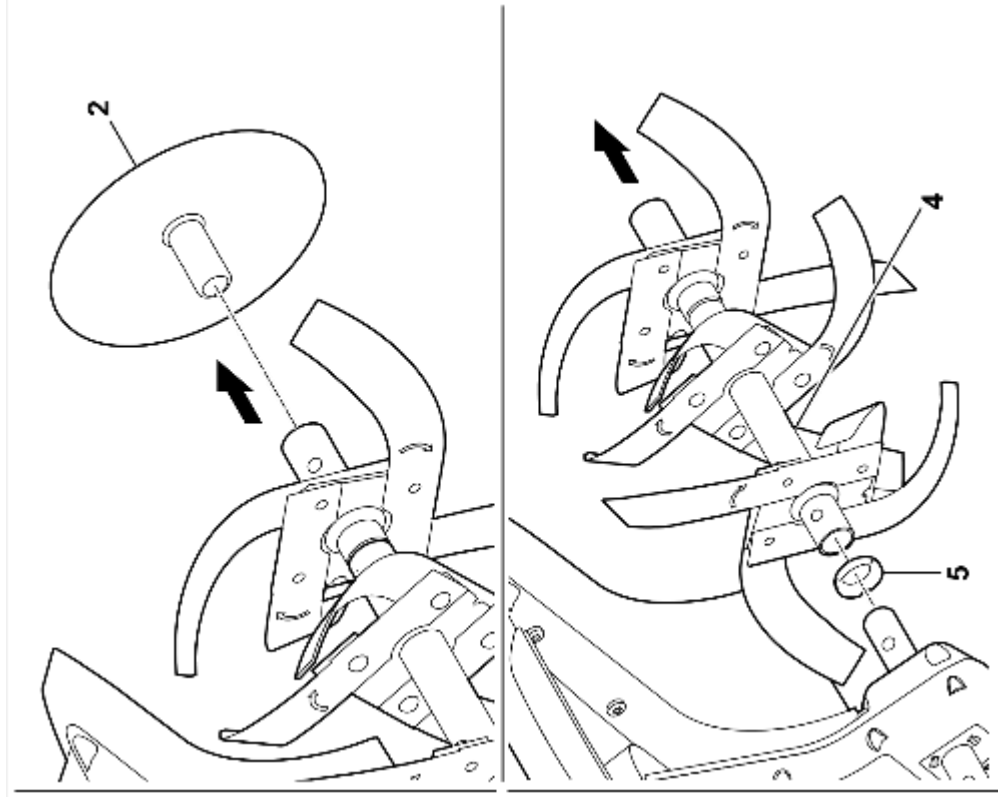
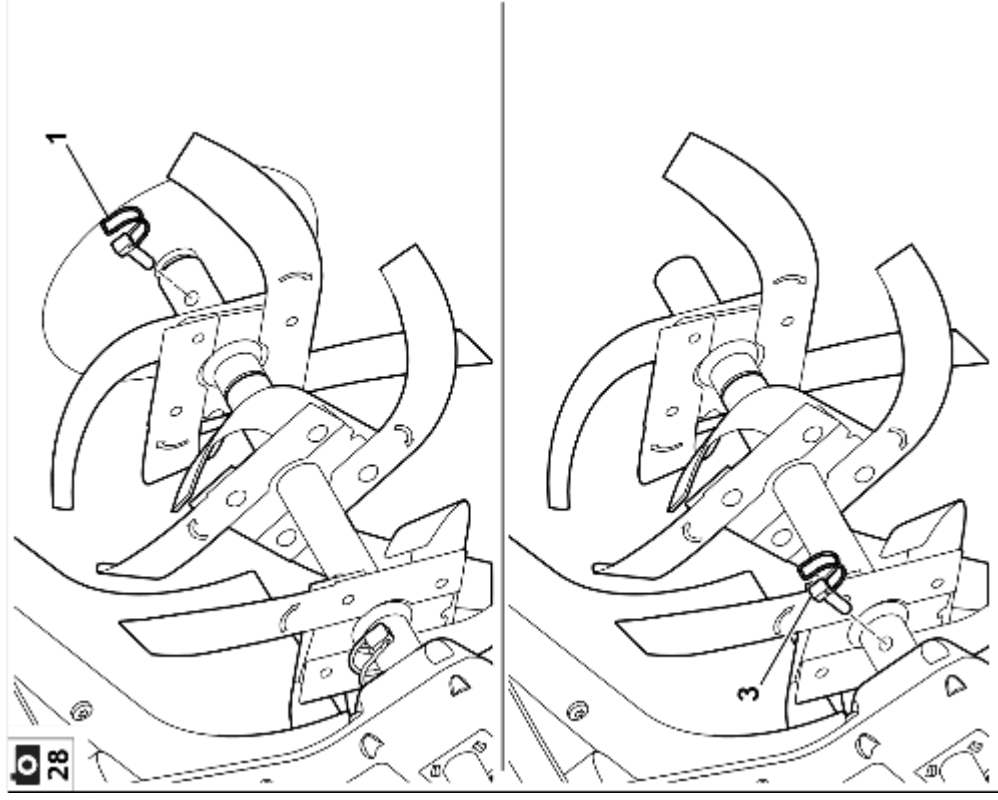




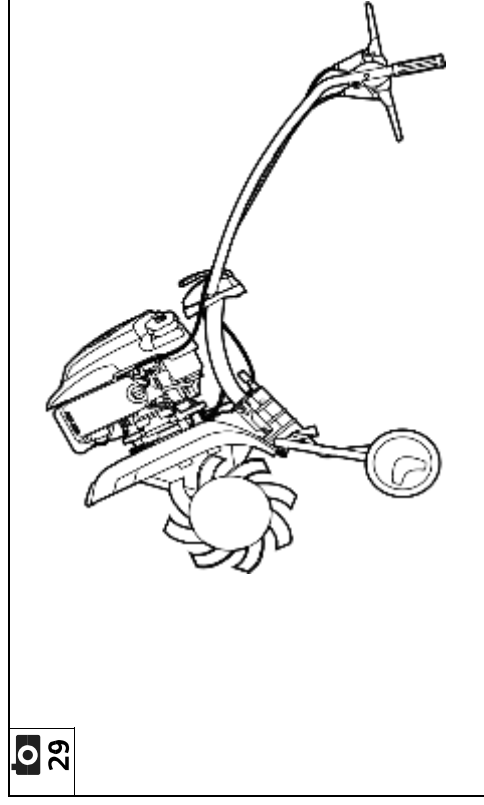




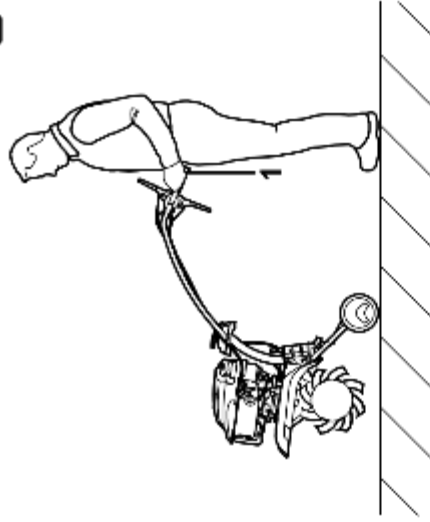




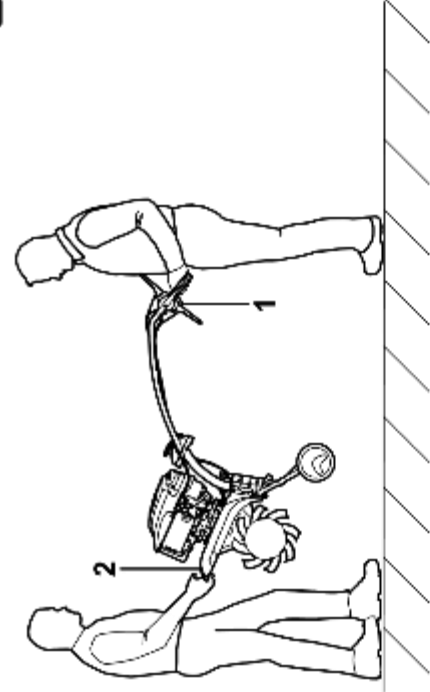
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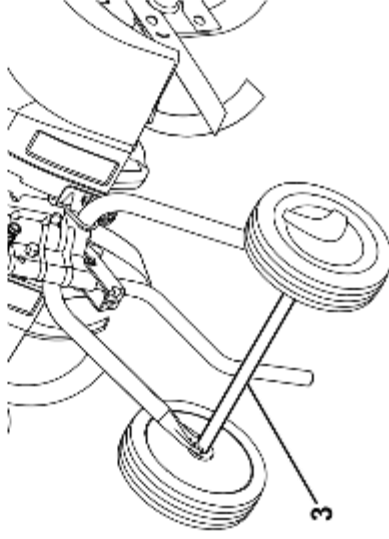
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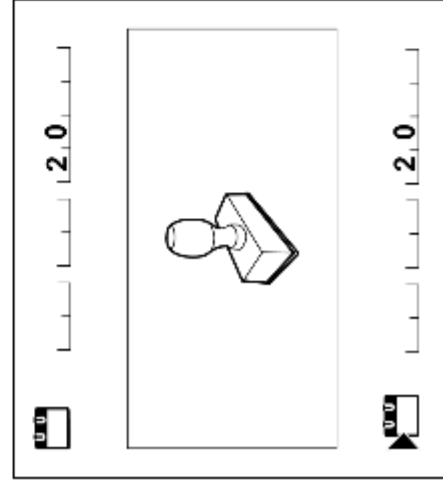
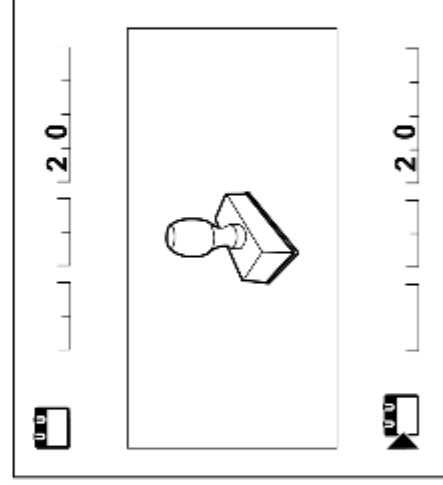
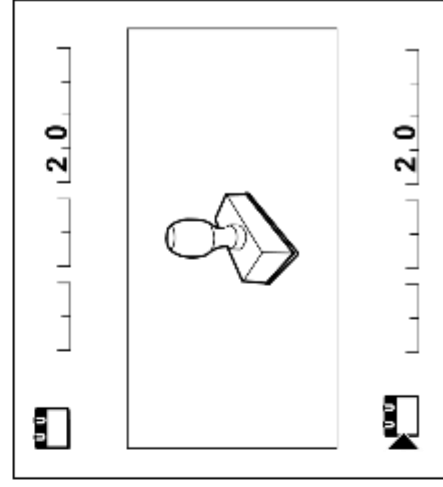
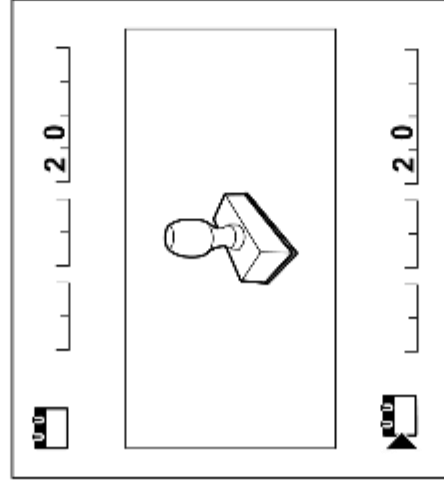
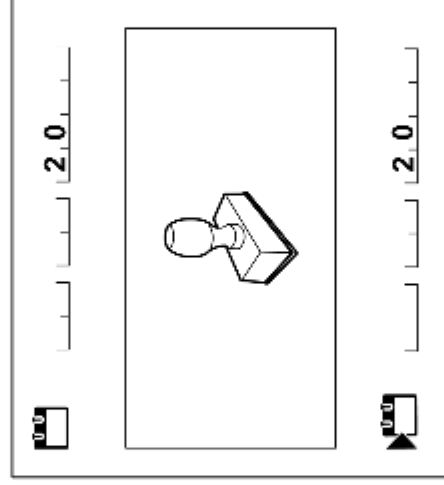
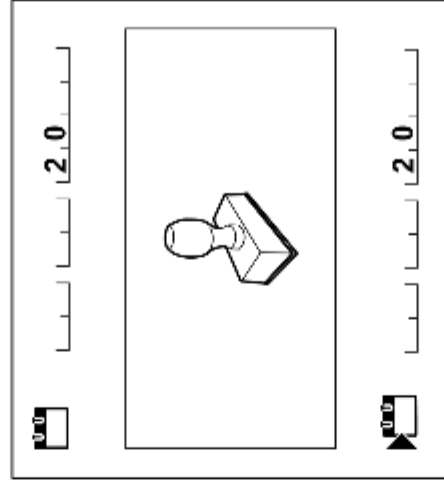
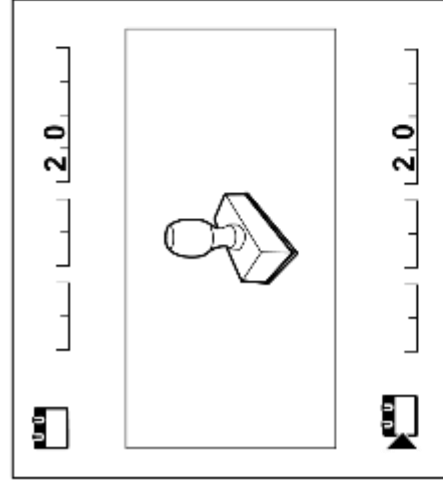
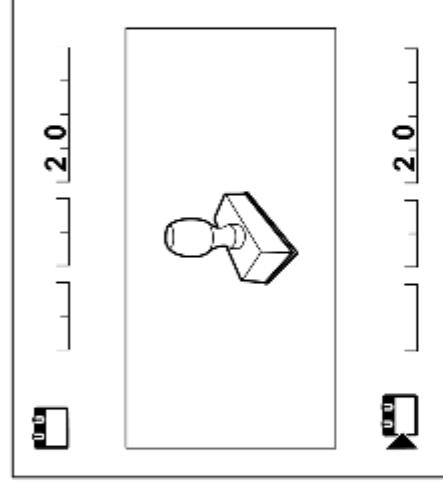
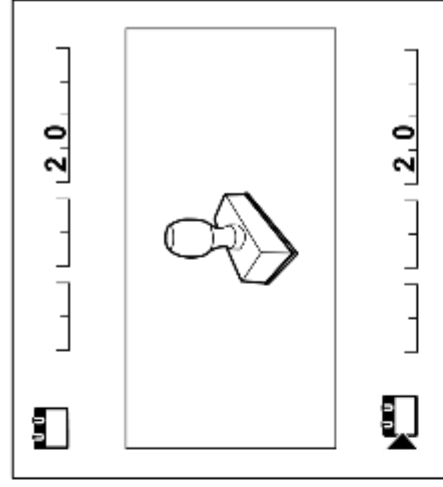


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3





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 is a **translation of the original manufacturer's instructions** in the sense of EC Directive 2006/42/EC.

STIHL is continually striving to further develop 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 Self-propulsion lever (forwards)

2 Upper handlebar

3 Tension lever

4 Recoil starter rope

5 Engine

6 Spark plug socket

7 Impact protector

8 Plant protection disc

9 Hoes

10 Carrying handle

11 Impact protector

12 Transport chassis

13 Brake spur

14 Release lever (transport chassis)

15 Release pin (brake spur)

16 Handle

17 Throttle lever

18 MH 445 R, MH 560, MH 585, MH 685:

Self-propulsion lever (reverse)

19 Rating plate with machine number

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 operation of the machine. In particular, the user must know how the work tools and engine can be stopped quickly.

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.

Caution – risk of accident:

The tiller is only suitable for tilling operations such as the sowing, cultivation or care of plants. It must only be used as described in this instruction manual – improper use is prohibited. Use for other purposes is not permitted and may be dangerous. Such use could result in injury to persons or damage to the machine.

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

- working on lawn roofs and in balcony boxes.

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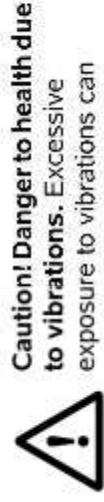
- for shredding or chopping tree or hedge cuttings.

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

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.

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.

When using the tiller, plan for work breaks and avoid using the machine for excessively long periods, as this may be damaging to health due to vibration.

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, close-fitting clothing when working with the machine, e.g. overalls, but not work coats. Do not wear scarves, ties, jewellery, clothing with

dangling straps or cords or other protruding articles of clothing when working with the machine.

Hair, clothing or parts of clothing could become caught or entangled in the rotating parts. This can result in serious injury.

4.4 Transporting the machine

Always wear protective gloves (→ 4.3) in order to prevent injuries due to sharp-edged and hot components.

Do not transport the machine with the engine running. Before transport, switch off the engine, allow the work tool to come to a complete standstill and detach the spark plug socket.

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

Observe the information in the section "Transport". It describes how to lift and lash the machine. (→ 13.)

Always carry the machine with two people – use the appropriate lifting points.

Use suitable loading aids (loading ramps, lifters).

For safety reasons, a tilt angle of 15° must not be exceeded when transporting and loading the machine, especially when using loading ramps.

Secure the machine and any machine components being transported on the load floor using adequately dimensioned fastening material (belts, ropes, etc.). Never transport the machine unsecured.

STIHL recommends transporting the tiller using a suitable trailer or on a suitable load floor and not inside a vehicle (e.g. luggage compartment).

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.

Remove the packaging material and transport locks before using the machine for the first time.

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.

Carefully inspect the complete area on which the machine is to be used and remove any large stones, sticks, wires, bones or other foreign objects which could be thrown up by the machine.

Objects hidden in the ground (lawn sprinkler systems, posts, water valves, foundations, electrical wires, etc.) must be clearly marked before working with the machine and avoided during operation. Never run over any such foreign objects.

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.



Risk of injury!

Worn or damaged parts (e.g. blunt blades) can affect the safety of the machine and result in injury to the user.

Check secure seating of the spark plug socket on the spark plug before using the machine.

The machine must only be used in good operating condition. Before each use, check whether:

- The entire machine is properly assembled.
- The safety devices (e.g. self-propulsion lever, impact protectors, protective covers, handlebar, protective grille) are in good condition and working properly. Never use the machine with missing, damaged or worn safety devices.
- The work tools (hoes), fastening bolts and retaining pins are fitted and are not worn or damaged (notches, cracks). Worn or damaged parts must be replaced.
- The work tools (hoes) are secure and firmly installed.
- The self-propulsion levers are working and are easy to operate.
- The tank cap is properly attached.
- The tank and fuel-carrying parts, as well as the tank cap are in good condition.
- The oil closure screw is properly attached.

- The accessories used are complete and are properly installed on the machine. All the components included in the scope of delivery of the accessory must be installed/used.

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

The left and right impact protectors are adapted to the relevant working width and must always be properly installed. If, on models MH 445 and MH 445 R, the working width is increased using additional hoes (STIHL accessories), the larger impact protectors (supplied in the scope of delivery of the accessories) must also be installed.

Push or pull the machine to the area to be worked with the aid of the transport wheels.

Before operating, remove any foreign objects (tools, cloths, etc.) placed on the machine.

4.6 During operation

Keep other people out of the danger area. Never work when animals or people, particularly children, are in the danger area.

Caution: Objects such as soil, stones, etc. can be thrown up or thrown out sideways during working.

The machine may only be operated by one person. The operator must stay within the working area when the engine is running. (⇒ 10.1)

During operation, the machine must not be lifted, pushed or pulled at the transport handle, guard plate or at other machine

parts except for the handles of the handlebar – and especially not by a second person.

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



Caution – risk of injury!

Never put hands or feet on or underneath rotating parts.

STOP Always observe the safety distance provided by the handlebar. This safety distance

corresponds to the length of the properly installed and folded-out handlebar. Do not modify the handlebar and 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.

Do not operate the machine on tarmac or paved areas, etc. with the hoes attached.

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.

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.

Observe discharge direction of exhaust gases. Never point the exhaust towards persons.

Starting:

Exercise care when starting the machine and observe the instructions contained in the section entitled "Operating the machine" (⇒ 11.). 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. Ensure that you keep your feet far enough away from the work tools.

The machine must not be tilted during start-up.

The self-propulsion levers must not be pressed when starting.

Working on slopes:

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

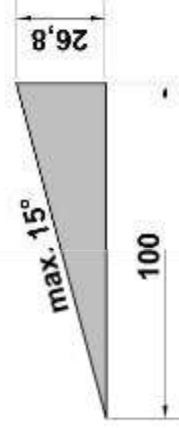
The operator must never stand below the running machine on a slope. If the user loses control, there is a risk of being run over by the machine.

Be particularly careful when changing direction on a slope.

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

The machine can tip over when used on slopes. For safety reasons, the machine must not be used on slopes with an inclination of more than 15° (26.8 %). **Risk of injury!**

A slope inclination of 15° corresponds to a vertical height increase of 26.8 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.

For safety reasons, the machine must always be operated using both hands, which must be kept on the handles of the handlebar at all times during operation. Never work using only one hand.

Only control the working depth by applying pressure to the brake spur.

Use the machine with particular care when operating on difficult (e.g. stony and hard) ground. Reduce the rotational speed of the work tools (fuel control).

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.

Caution – risk of injury!

Exercise particular caution and ensure that there is sufficient distance between the work tools (hoes) and your feet when turning the machine around, pulling it towards you, or using reverse gear.

Caution – Risk of stumbling!

Watch out for obstacles behind the operator when moving the machine backwards.

If the machine becomes stuck, stop the engine and detach the spark plug socket. Lift the machine with the help of a second person and free it.

Stop the engine

- when the machine has to be tilted for transportation
- when pushing or pulling the machine to and from the area to be worked
- when leaving the machine unattended
- before re-filling the tank. Allow the engine to cool down before re-filling the tank. **Fire hazard!**

- when pushing or pulling the machine on an area that is not to be worked.

Stop the engine and detach the spark plug socket:

- before remedying blockages
- before lifting or carrying the machine
- before transporting the machine
- before checking or cleaning the machine or before carrying out any other work (e.g. adjusting the handlebar, folding out the transport chassis) on it
- after hitting a foreign object or if the machine vibrates excessively. In these cases, check the machine, in particular the work tools (hoes, hoe retainers, drive shaft), 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 tiller must not be operated with a damaged or bent drive shaft or with damaged work tools.

If you do not have the appropriate expertise, have the necessary repairs carried out by a specialist dealer (STIHL recommends STIHL specialist dealers).

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 socket.



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.

Set the machine down on its back only for cleaning and maintenance work. If machine is set onto its side or front, this may cause damage to the engine and other machine parts, resulting in expensive repairs.

Allow the machine to cool down before performing maintenance operations on the gearbox, 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.

Check the entire machine 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.

Cleaning:

The complete machine must be cleaned thoroughly following use. (→ 12.2)

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

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

The underside of the machine (everything below the guard plate) can be cleaned using a high-pressure cleaner or steam cleaner. Maintain a distance of at least 1 m and never direct the water jet directly at the bearing points or seals – especially the seal between the gearbox housing and guard plate.

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.

Ensure that all nuts, pins, bolts and screws are securely tightened, so that the machine is 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.

When replacing the work tools (hoes), ensure that the correct hoe type and hoe combination are installed – only those versions approved by STIHL are permitted.

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).

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 the tank has to be emptied (e.g. immobilisation before the winter break), the fuel tank must be emptied out of doors only (empty the tank by running the engine, for example).

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. Read the information in the "Environmental protection" section. (⇒ 14.)

5. Description of symbols

Attention!

Read the instruction manual and follow the safety instructions before initial use.



Attention!

Beware of objects being thrown up - keep a safe distance and keep other people away.



Risk of injury!

Rotating tools: keep your hands and feet away from rotating tools. Only operate with protective covers.



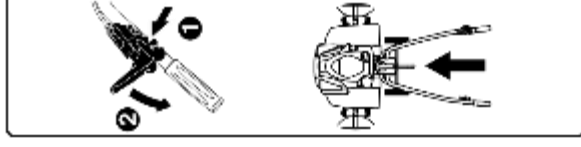
Attention!

Detach the spark plug socket before performing any maintenance and cleaning operations.



MH 445:

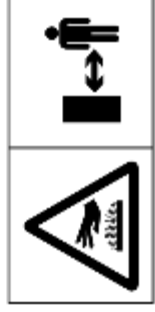
For safety reasons, the release lever must be pressed before actuation of the self-propulsion lever. This prevents inadvertent actuation of the self-propulsion lever.



MH 445 R, MH 560,

MH 585, MH 685:

For safety reasons, the relevant release lever must be pressed before actuation of the self-propulsion lever. This prevents inadvertent actuation of a self-propulsion lever. The black self-propulsion lever is for the forward gear and the red self-propulsion lever is for the reverse gear.



Danger of burns!

Do not touch hot surfaces. Gearbox housing becomes extremely hot.

6. Standard equipment



Item	Designation	Qty.
A	Basic unit	1
B	Handlebar	1
C	Tension lever	1
D	Transport chassis	1
E	Brake spur	1
F	Left impact protector	1
G	Right impact protector	1
H	MH 445, MH 445 R:	
I	Hoe	4
	MH 560, MH 585, MH 685:	
J	Dual hoe	2
	MH 585, MH 685:	
K	Single hoe	2
L	Protection ring	2
M	Plant protection disc	2
	Self-propulsion lever (forwards) black	1
N	MH 445 R, MH 560, MH 585, MH 685:	
	Self-propulsion lever (reverse) red	1
O	MH 445:	
	Lock nut M6	1
P	MH 445:	1
	Cover	
Q	Lock nut M6	1
R	Flat head bolt M6	1

Item	Designation	Qty.
S	MH 445, MH 445 R, MH 585, MH 685:	
	Folding retainer 10x40	6
	MH 560:	
	Folding retainer 10x40	4
T	Flat head bolt M8	2
U	Hexagon nut M8	2
V	Cable tie	2
	Instruction manual	1
	Instruction manual	1
	Engine	1
	MH 560, MH 585, MH 685:	
	Spark plug wrench	1

7. Preparing the machine for operation

7.1 Installation instructions



Risk of injury!

Observe the safety instructions in the "For your safety" section. (→ 4.) In particular, detach the spark plug socket and always wear thick gloves when carrying out any work on the hoes.

Observe the specified torque.

Only route and attach drive cables and throttle cable as described. Incorrectly installed cables (e.g. incorrect routing or attaching to the wrong self-propulsion lever) may cause malfunctions.

- Perform all the operations described on a clean, flat, level and firm surface.
- Observe installation position – always ensure that the machine is standing stably and securely.

- Strictly observe instructions for cable installation. In particular, fasten all cables to the handlebar using **cable ties** in order to prevent damage to the machine (e.g. when folding down the handlebar) or possible malfunctions.

Self-propulsion levers, drive cables

MH 445:

- Black self-propulsion lever on the upper side of the handlebar.
- One drive cable (forwards).
- MH 445 R, MH 560, MH 585, MH 685:
- Black self-propulsion lever on the upper side of the handlebar.
- Red self-propulsion lever on the underside of the handlebar.
- One drive cable (forwards). The cable is fitted with a **black cap** and must be attached to the black self-propulsion lever.
- One drive cable (reverse). The cable is fitted with a **red cap** and must be attached to the red self-propulsion lever.

7.2 Attaching the chassis



- Installation position:
Tilt basic unit (A) forwards as shown and support at both drive shafts using suitable wooden blocks (1) (height 50 - 60 mm, width/length approx. 100 mm).
- **1** Press retaining clasp (2) upwards and hold.
- **2** Insert transport chassis (D) into recess (3) in the pin of release lever (4).

- Press transport chassis (D) upwards to the stop and hold.
- **3** Press retaining clasp (2) downwards. Insert bolts (T) on both sides from below.
- **4** Secure retaining clasp (2) by tightening both nuts (U).

7.3 Installing the brake spur



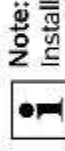
- Installation position: see "Attaching the chassis" (⇒ 7.2)
- Press release pin (1) and hold.
- Insert brake spur (E) into adapter (2) from below and push upwards to the stop.
- Release the pressure on release pin (1) and pull brake spur (E) downwards until it engages.
- Check that brake spur (E) is seated securely.

7.4 Assembling the handlebar



- **1** Installation position: see "Attaching the chassis" (⇒ 7.2)
- Remove rubber band (1).
- **2** Lift up console (2) and hold.
- **3** Insert handlebar (B) centrally between console (2) and lower handlebar (3) to the stop and hold. The legs of spring (4) must run along notched adjustment mechanism (5) as shown.
Check the illustrated position of spring (4) in adjustment element (6), attach the spring if necessary.

- **4** Tighten screw (7).
- **5** Unscrew nut (8) at tension lever (C) and remove together with spring (9).
- Push tension lever (C) with integrated bolt from above through console (2) and lower handlebar (3). Push spring (9) onto tension lever (C). Screw on nut (8) one to two turns.



Note:
Install tension lever (C) so that it must be pressed forwards towards the engine to apply tension.

- **6** Move upper handlebar (3) to the central position. (⇒ 11.3)
- Press tension lever (C) forwards with the hand.
- Screw on nut (8) to 5 Nm (not to the stop).
- Check clamping:
Tension lever (C) is correctly installed if it can be operated with the hand while the handlebar is securely attached to the basic unit.

- Adjusting the tensioning force:
If the handlebar is not sufficiently clamped or if the tension lever cannot be operated with the hand, loosen the tension lever and adjust the tensioning force by tightening or loosening nut (8). Then press the tension lever forwards again.



Risk of injury!

The machine must only be pushed or pulled with a handlebar securely attached to the basic unit (handlebar must not be loose under tension).

7.5 Folding up the handlebar



- Pull tension lever (1) upwards. Fold up upper handlebar (2) in the direction of the arrow.
- Press tension lever (1) forwards to the stop.
- Adjust the height of the handlebar. (⇒ 11.2)

7.6 Installing impact protectors



- Check pre-installed screws (1) in impact protectors (F, G) – do not fully unscrew.
- Place the tiller in the cleaning position. (⇒ 12.2)
- Insert the three pre-installed screws (1) of left impact protector (F) into the three bores (2) in the cover plate.
- Push impact protector (F) forwards and hold.
- Screw in screws (1) and tighten to 10 – 12 Nm.

- Check for secure seating of impact protector (F) and then install right impact protector (G) in the same way.

7.7 Mounting the hoes MH 445, MH 445 R



- Place the tiller in the cleaning position. (⇒ 12.2)



Strictly observe the assembly instructions. In particular, observe the installation sequence and install protection rings, hoes and folding retainers completely as described. When installing the folding retainer, strictly observe the correct direction of insertion and positioning of the securing clip, as shown. In the case of incorrect or rotated installation, the folding retainer may come loose and be lost.

For good working results, the cutting edges of the hoes must point forwards (not towards the handlebar) – observe arrow markings.

Definition of hoes:

- Hoe (1): same sized outer diameter of shaft mount (2).
- Hoe (3): different outer diameters of shaft mount (4).

1

- Push protection ring (K) as far as it will go onto drive shaft (5). The recesses in the protection ring must engage on the three locating lugs of the gearbox housing (6).
- Position hoe (1) so that the **shorter** shaft mount (2) faces the gearbox housing and cutting edges (7) point forwards. Arrows (8) on the hoe and arrow (9) on gearbox housing (6) must point in the same direction.
- Push hoe (1) onto drive shaft (5).
- Turn hoe (1) so that the bores in the shaft mount and the drive shaft align.

2

- Insert folding retainer (S) through the bores and close the securing clip.

3

- Position hoe (3) so that the **smaller** outer diameter of shaft mount (4) faces the already mounted hoe (1) and cutting edges (7) point forwards. Arrows (8) on the hoe and arrow (9) on gearbox housing (6) must point in the same direction.
- Push hoe (3) into the already mounted hoe (1).
- Turn hoe (3) so that the bores in both hoes align.

4

- Insert folding retainer (S) through the bores and close the securing clip.
- Install the plant protection disc if necessary. (→ 7.9)
- Repeat the hoe mounting procedure on the other side.

7.8 Mounting the hoes MH 445, MH 585, MH 685

- Place the tiller in the cleaning position. (→ 12.2)



9



Strictly observe the assembly instructions. In particular, observe the installation sequence and install protection rings, hoes and folding retainers completely as described. When installing the folding retainer, strictly observe the correct direction of insertion and positioning of the securing clip, as shown. In the case of incorrect or rotated installation, the folding retainer may come loose and be lost.

For good working results, the cutting edges of the hoes must point forwards (not towards the handlebar) – observe arrow markings.

Definition of hoes:

- Hoe (I): dual-row hoe.
- Hoe (J): single-row hoe.

1 MH 560, MH 585, MH 685

- Push protection ring (K) as far as it will go onto drive shaft (1). The recesses in the protection ring must engage on the three locating lugs of gearbox housing (2).
- Position hoe (I) so that the **shorter** shaft mount (3) faces the gearbox housing and cutting edges (4) point forwards. Arrows (5) on the hoe and arrow (6) on gearbox housing (2) must point in the same direction.
- Push hoe (I) onto drive shaft (1).
- Turn hoe (I) so that the bores in the shaft mount and the drive shaft align.

2 MH 560, MH 585, MH 685

- Insert folding retainer (S) through the bores and close the securing clip.

3 MH 585, MH 685

- Position hoe (J) so that the **smaller** outer diameter of shaft mount (7) faces the already mounted hoe (I) and cutting edges (4) point forwards. Arrows (5) on the hoe and arrow (6) on gearbox housing (2) must point in the same direction.

- Push hoe (J) into the already mounted hoe (I).
- Turn hoe (J) so that the bores in both hoes align.

4 MH 585, MH 685

- Insert folding retainer (S) through the bores and close the securing clip.

MH 560, MH 585, MH 685

- Install the plant protection disc if necessary. (→ 7.9)
- Repeat the hoe mounting procedure on the other side.

7.9 Installing the plant protection disc



10

When installing the folding retainer, strictly observe the correct direction of insertion and positioning of the securing clip, as shown. In the case of incorrect or rotated installation, the folding retainer may come loose and be lost.

- Install plant protection disc (L) on the outer hoe. Turn the plant protection disc so that the bores in the disc and the hoe align.
- Insert folding retainer (S) through the bores and close the securing clip.

- Repeat this procedure on the other side.

7.10 Installing the self-propulsion levers



11

- Observe the installation instructions. (→ 7.1)
- Insert black self-propulsion lever (M) with integrated bolt (1) from above into the bore in the upper handlebar.
- MH 445:
Screw on lock nut (O) and tighten to 7 - 9 Nm. Fit cover (P).
- MH 445 R, MH 560, MH 585, MH 685:
Position red self-propulsion lever (N) so that the bolt of the black lever can be screwed into the nut integrated in the red lever.
Press red self-propulsion lever (N) upwards against the handlebar. Screw in bolt (1) and tighten to 7 - 9 Nm.

7.11 Routing the drive cables



12

- Observe the installation instructions. (→ 7.1)
- 1** Unwind drive cable (forwards) (1) and engage in holder (2).
- 2** Tighten nut (3) to 2 - 4 Nm.
- Route drive cable (forwards) (1) upwards as follows:
A Guide drive cable (forwards) (1) along upper handlebar (4).
B Route drive cable (forwards) (1) under crossbar (5) of the upper handlebar.

- MH 445 R, MH 560, MH 585, MH 685:
Route drive cable (reverse) (6) on the right side of engine below relay lever (7). Guide the cable upwards along the handlebar as with the drive cable (forwards).

7.12 Attaching the drive cables



13

- Observe the installation instructions. (→ 7.1)

Drive cable (forwards):

- Insert toggle (1) of the drive cable with black cap (2) into black self-propulsion lever (M).
- Guide toggle (1) through opening (3) of lever (4). Use suitable pliers if necessary.
- Using suitable pliers, pull toggle (1) and engage it in lever (4) as shown.
- Press cap (2) onto self-propulsion lever (4) and allow it to engage.

Operation checks:

- Actuate the self-propulsion lever. (→ 8.2)
The self-propulsion lever must be easy to operate.

Drive cable (reverse)

MH 445 R, MH 560, MH 585, MH 685:

- Insert the toggle of the drive cable with the red cap into the red self-propulsion lever.
- Further installation is identical to that of the drive cable (forwards).

7.13 Routing and installing the throttle cable



- Observe the installation instructions. (⇒ 7.1)
- Unwind throttle cable (1) and route as follows:
 - A** Guide the throttle cable along upper handlebar (2).
 - B** Route the throttle cable under crossbar (3) of the upper handlebar.
- Insert bolt (7) into bore (4) of the throttle cable housing. Fit the throttle cable with inserted bolt onto the upper handlebar from the inside and hold. Screw on lock nut (U) and tighten to 7 - 9 Nm.

7.14 Fastening the cables to the handlebar



- Observe the installation instructions. (⇒ 7.1)
- MH 445:
 - Fasten drive cable (1) to the right side of the upper handlebar using a cable tie (V).
- MH 445 R, MH 560, MH 585, MH 685:
 - Fasten both drive cables (1, 2) to the right side of the upper handlebar using a cable tie (V).
- Fasten throttle cable (3) to the left side of the upper handlebar using a cable tie (V).
- Check for secure seating of the cable ties. Cut off the excess length of the cable ties.

7.15 Fuel and engine oil



- ! Avoid damage to the machine**
Top up engine oil before starting for the first time. Use a suitable filling aid when topping up the engine oil and when refuelling (e.g. funnel).

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. Screw on the oil tank cap properly before operating the engine.

Fuel:

Recommendation:
Fresh good quality fuels, unleaded petrol.
Please consult the engine instruction manual for details on the fuel quality (octane rating).



8. Controls



8.1 Throttle lever

The engine speed can be controlled via throttle lever (1).

Start position:

- Pull throttle lever (1) **back** to the stop.
- The engine can be started. (⇒ 11.6)

Stop position:



- Push throttle lever (1) **forwards** to the stop (note detent).
- The engine stops after a few seconds.

Engine speed control:

- Move throttle lever (1) when the engine is running.

Engine speed:

Fast



Slow



8.2 Self-propulsion levers



The drive is engaged or disengaged by actuation of a self-propulsion lever (1, 3) when the engine is running – the drive shaft begins to rotate or is stopped.

When the **black** self-propulsion lever (forwards) (1) is actuated and with the hoes installed, the tiller moves **forwards** upon contact with the ground.

When the **red** self-propulsion lever (reverse) (3) is actuated and with the hoes installed, the tiller moves **backwards** upon contact with the ground.

The self-propulsion levers are mechanically locked for safety reasons. This prevents inadvertent actuation. (⇒ 9.1)

Furthermore, on models MH 445 R, MH 560, MH 585, MH 685, only one self-propulsion lever can be depressed at a time due to a mechanical locking device – either the self-propulsion lever (forwards) or the self-propulsion lever (reverse).



Avoid damage to the machine!

Actuation of the self-propulsion lever should be performed quickly and promptly. Do not dwell in the half-pressed position – prevent excessive wear to the V-belt.

Actuating self-propulsion lever (forwards):



- 1 Press and hold release lever (2) to the stop against self-propulsion lever (forwards) (1).
- 2 Press self-propulsion lever (forwards) (1) quickly to the stop and hold.

- Release release lever (2). The drive is engaged and the drive shaft rotates.

- 3 Disengaging the drive:

Release self-propulsion lever (forwards) (1).

Actuating self-propulsion lever

(reverse) (MH 445 R, MH 560, MH 585, MH 685):



- 1 Press and hold release lever (4) to the stop against self-propulsion lever (reverse) (3).
- 2 Press self-propulsion lever (reverse) (3) quickly to the stop and hold.
- Release release lever (4). The drive is engaged and the drive shaft rotates.
- 3 Disengaging the drive: Release self-propulsion lever (reverse) (3).

9. Safety devices

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



Risk of injury!

Safety devices must not be removed, bypassed, modified or damaged. If a safety device is found to be defective, the machine must not be operated. Consult a specialist dealer; STIHL specialist recommends STIHL specialist dealers.

9.1 Self-propulsion lever lock

The self-propulsion levers are mechanically locked for safety reasons. This prevents inadvertent actuation.

The relevant release lever must be pressed before the self-propulsion lever can be actuated. (⇒ 8.2)

9.2 Safety devices

The tiller is equipped with safety devices, which prevent inadvertent contact with the work tools and protect against objects thrown up by the machine. These include the side impact protectors, guard plate and correctly-installed handlebar.

10. Notes on working with the machine

10.1 Working area for operator



- For safety reasons, the operator must stay within the working area (grey area 1) for the entire operating period (when the engine is running).
- The tiller must only be operated by one person. Other persons must keep out of the danger area. (⇒ 4.)

10.2 Working position of the machine



- The tiller must only be operated when it is standing on the ground (engine at the top). The tiller must be kept as horizontal as possible during the entire operating period. Avoid excessive tilting or tipping.

10.3 Hoe combinations



Always mount the same number of hoes on the left and right drive shafts.

The plant protection disc can be installed in conjunction with all the hoe combinations described. This protects the surrounding plants – when tilling in a narrow bed, for example.

Possible combinations

MH 445, MH 445 R:

- 2 hoes: one single-row hoe per drive shaft

- 4 hoes:
two single-row hoes per drive shaft

Possible combinations MH 560:

- 2 hoes:
one dual-row hoe per drive shaft

Possible combinations MH 585, MH 685:

- 2 hoes:
one dual-row hoe per drive shaft
- 4 hoes:
one dual-row hoe and one single-row hoe per drive shaft

10.4 Ideal body position when working



The ideal body position helps to reduce fatigue during working.

For this purpose, the machine settings (handlebar height adjustment, brake spur adjustment) should be selected so that a straight posture (back) can be maintained during the entire operating period.

Ideal body position:

- straight back
- straight legs
- lower arms bent slightly downwards

11. Operating the machine

11.1 Preparatory measures



Risk of injury!

Please observe the safety instructions in the "For your safety" section (→ 4.) and familiarise yourself with the controls of the tiller. (→ 8.)

- Check engine oil level and refill tank. (→ 7.15)

11.2 Height adjustment of the upper handlebar



The height of the upper handlebar can be adjusted.

- Fold out the transport chassis. (→ 11.4)
- Firmly grasp upper handlebar (1) at handle (2) with one hand and hold.
- With the other hand, pull tension lever (3) towards the rear and hold.
- Set upper handlebar (1) to the required position.
- Press tension lever (3) forwards and ensure that the upper handlebar is fully engaged and fastened.
- Fold in the transport chassis if necessary. (→ 11.4)

11.3 Lateral adjustment of the handlebar



The handlebar can be adjusted laterally to three positions.

- Fold out the transport chassis. (→ 11.4)

- Hold the upper handlebar at a handle with one hand.
- Pull tension lever (1) upwards with the hand.
- Move the handlebar into the required position. Ensure that retaining lug (2) is located above one of the three holes (3).
- Press tension lever (1) forwards with the hand and clamp the handlebar.
- Check the handlebar for secure seating.
- Fold in the transport chassis if necessary. (→ 11.4)

11.4 Folding the transport chassis in and out



With the aid of the transport chassis, the tiller can be transported by pushing or pulling.



Risk of injury!

If the transport chassis is in the working position (folded upwards) and the release lever is pushed, the transport chassis can automatically drop into the transport position.

Folding out the transport chassis – transport position:

- Raise transport chassis (1) slightly with one hand and hold.
- Press release lever (2).
- Fold transport chassis (1) downwards to the stop and release the pressure on release lever (2). The transport chassis engages and is locked in place.

Folding in the transport chassis – working position:

- Hold transport chassis (1) with the hand and relieve the weight by lifting slightly.
- Press release lever (2) and fold the transport chassis upwards.
- Release the pressure on release lever (2) and fold the transport chassis upwards to the stop. The transport chassis engages and is locked in place in the working position.

11.5 Adjusting the brake spur



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The brake spur is used to regulate the resistance and consequently the speed of propulsion during tilling. The brake spur can be adjusted in three stages for better control.

Adjusting the brake spur:

- Fold out the transport chassis into the transport position. (⇒ 11.4)
Ensure that the machine is standing stably and securely.
- Press release pin (1) and hold.
- Move brake spur (2) to the desired position.
- Release the pressure on release pin (1) and ensure that the brake spur engages.

11.6 Starting the engine



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- Set the throttle lever to the start position. (⇒ 8.1)
- Grasp the handle of recoil starter rope (1) firmly with one hand and hold.

- Slowly pull out recoil starter rope (1) to the point of compression resistance.
Then pull forcefully with one swift tug to arm's length. Slowly return recoil starter rope (1) so that it is rolled up again.
Repeat the procedure until the engine starts.

11.7 Stopping the engine

- In order to stop the engine, move the throttle lever to the Stop position.
(⇒ 8.1)
The engine comes to a stop after a short run-down time.

11.8 Engaging and disengaging self-propulsion (forwards)

Engaging self-propulsion (forwards):

- Move the tiller to the area to be tilled with the engine stopped. (⇒ 13.)
- Start the engine. (⇒ 11.6)
- Hold the tiller firmly at the handles with both hands.
- Actuate and hold the **black** self-propulsion lever (forwards). (⇒ 8.2)
The drive shaft with the installed work tools begins to rotate and the tiller moves forwards.

Disengaging self-propulsion (forwards):

- Release self-propulsion lever (forwards). (⇒ 8.2)
The drive shaft with the installed work tools stops.

11.9 Engaging and disengaging self-propulsion (reverse) (MH 445 R, MH 560, MH 585, MH 685)

The MH 445 R, MH 560, MH 585, MH 685 tillers are equipped with a reverse gear.

During tilling, the reverse gear serves exclusively to free the tiller more easily when it has become stuck. Reverse gear is not intended for tilling purposes.



Risk of injury!

Ensure sufficient space between the operator's body and the handlebar before engaging self-propulsion (reverse).

Engaging self-propulsion (reverse):

- Move the tiller to the area to be tilled with the engine stopped. (⇒ 13.1)
- Start the engine. (⇒ 11.6)
- Hold the tiller firmly at the handles with both hands.
- Actuate and hold the **red** self-propulsion lever (reverse). (⇒ 8.2)
The drive shaft with the installed work tools begins to rotate and the tiller moves backwards.

Disengaging self-propulsion (reverse):

- Release self-propulsion lever (reverse). (⇒ 8.2)
The drive shaft with the installed work tools stops.

11.10 Tilling

During tilling, rotating hoes are used to loosen the soil and prepare it for the sowing, cultivation or care of plants.



Risk of injury!

Only work in a forward direction.
Beware of obstacles (e.g. stone slabs of paths), which must not be run over.

- Move the tiller to the area to be tilled with the engine stopped. (⇒ 13.1)
- Fold in the transport chassis. (⇒ 11.4)
- Start the engine. (⇒ 11.6)
- Hold the tiller firmly at the handles with both hands and maintain a secure footing – note working area for operator. (⇒ 10.1)
- Actuate and hold self-propulsion lever (forwards). (⇒ 11.8)
The hoes start to rotate and tilling can begin.
- After work is completed, disengage self-propulsion (⇒ 11.8), stop the engine (⇒ 11.7) and clean the machine (⇒ 12.2).

12. Maintenance



Risk of injury!

Always wear protective gloves.

Do not touch the blades

until they have come to a standstill.

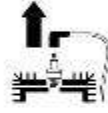
If you do not have the necessary expertise or auxiliary equipment, please always contact a specialist dealer.

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

STIHL recommends the use of original STIHL spare parts.

Risk of injury!

Carefully read the section "For your safety" (⇒ 4.), particularly the subsection "Maintenance and repairs" (⇒ 4.7), and follow all safety instructions exactly before performing any maintenance or cleaning operations on the machine.



Detach the spark plug socket before performing any maintenance or cleaning operations.

12.1 Removing the hoes



The complete hoe set together with the plant protection disc can be removed from the drive shaft by removing the folding retainer next to the gearbox housing. For assembly work on the hoes, follow the instructions in the "Mounting the hoes" (⇒ 7.7), (⇒ 7.8) and "Hoe combinations" (⇒ 10.3) sections.

- Allow the machine (engine, gearbox) to cool down completely.
- Place the tiller in the cleaning position. (⇒ 12.2)
- Removing the plant protection discs:
Fold open the securing clip of folding retainer (1) and remove the folding retainer. Remove plant protection disc (2).
- Removing the hoes:
Fold open the securing clip of folding retainer (3) and remove the folding retainer. Remove the hoe assembly (4).
- Remove the protection rings (5) and store safely – do not lose!

12.2 Cleaning the machine



Maintenance interval:

After each use

- Clean the entire machine thoroughly after each use. Care of the machine will protect it against damage and extend its service life.

- Before cleaning, allow the machine to cool down completely, detach the spark plug socket and wear long sleeves and thick gloves during cleaning work on the gearbox and hoes.

Cleaning position:



Avoid damage to the machine!

Only place the tiller in the illustrated position for short periods (cleaning and maintenance operations). Place the machine in the upright position during storage.

- Fold out the transport chassis. (⇒ 11.4)
- Move the upper handlebar to the uppermost position. (⇒ 11.2)
- Move the tiller onto firm and level ground.
- Tip the machine backwards until the handlebar rests on the ground.

Notes on cleaning:

- Remove the dirt and accumulated deposits using a brush, a damp cloth or a stick – do not use aggressive cleaning agents. STIHL recommends the use of a special cleaner (e.g. STIHL special cleaner).
- Never spray water onto the handlebar, engine components, seals or bearing points. This would result in expensive repairs.
- **Engine:**
Remove dirt from the cooling ribs, fan wheel, area around the air filter, exhaust, etc. to ensure that the engine is adequately cooled.
- **Gearbox housing, chassis and hoes**
can be cleaned using a water jet or high-pressure cleaner.



Avoid damage to the machine!

When using a high-pressure cleaner, maintain a distance of at least 1 m and never direct the water jet directly at bearing points, drive shaft or seals – especially the seal between the gearbox housing and guard plate.

12.3 Combustion engine

Maintenance interval:

Before each use

- Check the engine oil level (see engine instruction manual).
- Observe the operating and maintenance instructions contained in the attached engine instruction manual.

12.4 Service intervals



Avoid damage to the machine!

Always have the gearbox maintained by a specialist dealer.

Maintenance by the specialist dealer:

For private use, annually

Maintenance of the tiller should be performed by a specialist dealer. STIHL recommends STIHL specialist dealers.

Maintenance by the user:

- **Before each use**
Check the engine oil level (see engine instruction manual)
- **After each use**
Clean the machine. (⇒ 12.2)

12.5 Storage and periods of inoperation (winter break)

Store the tiller in the normal position (transport chassis folded out). For space-saving storage, fold the handlebar downwards as shown.



Danger of tipping over!

The tiller can tip over forwards if the hoes are poorly positioned. For that reason, always check that the tiller is stable.

If necessary, turn the hoes slightly to reduce the top-heaviness. Alternatively support the tiller in the area of the carrying handle during storage.

Store the machine in a dry, locked, dust-free room. Make sure that it is out of the reach of children.

Any faults must always be remedied prior to storage. The machine must always be in a safe operating condition. Keep all nuts, pins and screws tightly fastened, replace danger signs and warnings on the machine that have become illegible and check the entire machine for wear and damage. Replace all worn and damaged parts.

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

- Clean all external parts of the machine with care.
- Empty the fuel tank and carburettor.
- Thoroughly lubricate/grease all moving parts.

- 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).
- Cover the engine and store the machine in the normal position.

13. Transport

13.1 Transporting the tiller



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Risk of injury!

Observe the safety instructions in the "For your safety" section (⇒ 4.), especially the "Transport" section (⇒ 4.4).

Prior to transporting, stop the engine, detach the spark plug socket and put on suitable safety clothing (safety shoes, gloves, overall covering hands and legs).

Take weight into account! (⇒ 18.)

1 Pulling or pushing the tiller:

- Set the brake spur to the highest position. (⇒ 11.5)
- Fold out the transport chassis. (⇒ 11.4)

- Hold the tiller at both handles (1) and tilt backwards until the machine is standing on the transport wheels.

- Push or pull the tiller slowly (walking pace).

On firm and level ground, push the machine. On rough and uneven ground, it is advisable to pull the machine.



Risk of injury!

Due to the heavy weight of the machine, particular care must be taken at steps, kerbs, sloping ramps and other raised areas.

The user must always stand higher than the machine, in order to avoid being run over by the machine in the case of loss of control – i.e. push the machine down or pull the machine up steps and slopes. Do not push or pull the machine over more than two or three steps. Where there are more steps, carry the tiller with the help of a second person.

2 Lifting or carrying the tiller:

- Check that the upper handlebar is seated securely.
- Lift and carry the tiller with at least two persons and always maintain a sufficient distance from the hoers.

Lifting points:

Handles (1) and carrying handle (2)

3 Transporting the tiller on a load floor:

- Always transport the tiller in the **upright** position – on the transport chassis and hoers. Never place the machine on its side.
- To ensure stability, fold out the transport chassis (⇒ 11.4) and mount the hoers (⇒ 7.7), (⇒ 7.8).

- Secure the tiller on the load floor using ropes or straps to prevent it from slipping.

Lashing points:

Transport chassis axle (3) and hoe axle (4).

14. Environmental protection



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, recyclable waste can be re-used. For this reason, the machine should be disposed of for recycling at the end of its useful life. Improper disposal may be harmful to health and pollute the environment.

14.1 Disposal

Waste products such as used oil (engine oil, gearbox oil) and fuel must always be disposed of properly.

Render the engine unusable prior to disposal. In particular, remove the ignition lead, empty the fuel tank and drain the engine oil.

Risk of injury from the hoers!

Always store an old tiller in a safe place prior to scrapping. Make sure that the machine and the hoers are kept out of the reach of children.

15. Minimising wear and preventing damage

Important information on maintenance and care of the product group

petrol tillers (STIHL MH)

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:

- V-belt
- Hoe
- Brake spur

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:

- Improper use of the product.

- Use of fuel and lubricants not approved by STIHL (lubricants, petrol and engine oil, see engine instruction manual).

- Product modifications not approved by STIHL.

- The use of attaching parts, attachments or cutting tools not approved by STIHL.

- 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.

16. Standard spare parts

Folding retainer (hoes):

9396 021 3785

MH 445, MH 445 R

Complete hoe set, inside left:

6241 710 0200

Complete hoe set, inside right:

6241 710 0205

Complete hoe set, outside left:

6241 710 0210

Complete hoe set, outside right:

6241 710 0215

MH 560, MH 585, MH 685

Complete hoe set, inside left:

6241 710 0220

Complete hoe set, inside right:

6241 710 0225

MH 585, MH 685

Complete hoe set, outside left:

6242 710 0210

Complete hoe set, outside right:

6242 710 0215

17. Declaration of conformity

17.1 EU declaration of conformity –

STIHL MH 445.1, MH 445.1 R, MH 560.0, MH 585.0, MH 685.0 tiller

STIHL Tirol GmbH
Hans Peter Stihl-Strasse 5
6336 Langkampfen
Austria

declares under our sole responsibility that

- design: Tiller
- manufacturer's brand: STIHL
- type: MH 445.1, MH 445.1 R, MH 560.0, MH 585.0, MH 685.0
- nominal output:
MH 445.1, MH 445.1 R: 2.2 kW
MH 560.0, MH 585.0: 2.3 kW
MH 685.0: 2.9 kW
- serial number: 6241

complies with the relevant provisions of Directives 2000/14/EC, 2006/42/EC, 2014/30/EU and 2011/65/EU and has been developed and manufactured in accordance with the versions of the following standards valid on the date of manufacture: EN 709 and EN ISO 14982.

Name and address of the notified body involved:

TÜV Rheinland LGA Products GmbH
Tillystrasse 2
D-90431 Nuremberg

The measured and guaranteed sound power levels were determined in accordance with Directive 2000/14/EC, Appendix VIII.

MH 445.1, MH 445.1 R

- Measured sound power level:
92.0 dB(A)
- Guaranteed sound power level:
93 dB(A)

MH 560.0, MH 585.0

- Measured sound power level:
91.3 dB(A)

- Guaranteed sound power level:
93 dB(A)

MH 685.0

- Measured sound power level:
92.4 dB(A)

- Guaranteed sound power level:
93 dB(A)

The technical documents are stored at STIHL Tirol GmbH.

The year of manufacture and machine number are indicated on the tiller.

Langkampfen, 29.04.2024

STIHL Tirol GmbH

p.p. V.



Matthias Fleischer, Head of Research and Development

p.p.



Sven Zimmermann, Head of Quality Department

17.2 UKCA-Declaration of Conformity STIHL MH 445.1, MH 445.1 R, MH 585.0 Tiller

STIHL Tirol GmbH
Hans Peter Stihl-Strasse 5
6336 Langkampfen
Austria

declares under our sole responsibility that

- design: tiller
- manufacturer's brand: STIHL
- type: MH 445.1, MH 445.1 R, MH 585.0
- nominal output:
MH 445.1, MH 445.1 R: 2.2 kW
MH 585.0: 2.3 kW
- serial number: 6241

complies with the relevant provisions of UK Regulations Noise Emission in the Environment by Equipment for use Outdoors Regulations 2001, Supply of Machinery (Safety) Regulations 2008, Electromagnetic Compatibility Regulations 2016 and The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 and has been developed and manufactured in accordance with the versions of the following standards valid on the date of manufacture: EN 709 and EN ISO 14982.

The measured and guaranteed sound power levels were determined in accordance with the Noise Emission in the Environment by Equipment for use Outdoors Regulations 2001, Schedule 11.

Approved Body involved:
TUV Rheinland UK LTD
1011 Stratford Road
Solihull, B90 4BN

MH 445.1, MH 445.1 R

- Measured sound power level:
92,0 dB(A)
- Guaranteed sound power level:
93 dB(A)

MH 585.0

- Measured sound power level:
91,3 dB(A)
- Guaranteed sound power level:
93 dB(A)

The technical documents are stored at
STIHL Tirol GmbH.

The year of manufacture and machine
number are indicated on the tiller.

Langkampfen, 29.04.2024

STIHL Tirol GmbH

p.p.



Matthias Fleischer, Vice President Product
Development

p.p.



Sven Zimmermann, Head of Quality
Division

18. Technical specifications

MH 445.1 / MH 445.1 R / MH 560.0 /

MH 585.0 / MH 685.0

Serial number 6241
Engine, design 4-stroke com-
bustion engine
Starter Rope start

MH 445.1 / MH 445.1 R

Engine type STIHL EVC
200.3 C

Displacement 139 ccm
Nominal output at
nominal speed 2,25 | 3100
kW | rpm
Fuel tank 0,9 l

Tool 4 hoe elements,
2 plant protec-
tion discs

Hoe set diameter 30 cm

Hoe set working
speed at nominal
speed 124 rpm

Nominal speed 3100 rpm
Measurement in accordance with EN 709:

Sound pressure level
at workplace L_{pA} 80 dB(A)
Uncertainty K_{pA} 2 dB(A)
Measurement in accordance with EN 709,
EN 20643:

Measured value a_{hw} 5,50 m/s²
Uncertainty K_{hw} 2,20 m/s²
Measurement in accordance with
2000/14/EC / S.I. 2001/1701:

Guaranteed sound
power level L_{wAd} 93 dB(A)
Uncertainty K_{wA} 1,4 dB(A)
Drive MH 445.1 1 forward gear

MH 445.1 / MH 445.1 R

Drive MH 445.1 R 1 forward gear
1 reverse gear

Weight 36 kg / 37 kg

MH 560.0/ MH 585.0

Engine type Kohler HD675
Displacement 149 ccm
Nominal output at
nominal speed 2,3 | 3000
kW | rpm
Fuel tank 1,4 l

Tool MH 560.0 2 hoe elements,
2 plant protec-
tion discs

Tool MH 585.0 4 hoe elements,
2 plant protec-
tion discs

Hoe set diameter 32 cm

Hoe set working
speed at nominal
speed 120 rpm

Nominal speed 3000 rpm
Measurement in accordance with EN 709:
Sound pressure level
at workplace L_{pA} 79 dB(A)

Uncertainty K_{pA} 2 dB(A)
Measurement in accordance with EN 709,
EN 20643:

Measured value a_{hw} 5,00 m/s²
Uncertainty K_{hw} 2,50 m/s²
Measurement in accordance with
2000/14/EC / S.I. 2001/1701:

Guaranteed sound
power level L_{wAd} 93 dB(A)
Uncertainty K_{wA} 1,2 dB(A)
Drive 1 forward gear
1 reverse gear

Weight 41 kg / 44 kg

EN

NO

SV

FI

DA

SL

SK

TR

HU

SR

HR

BG

UK

ET

MK

MH 685.0

Engine type	Kohler HD775
Displacement	173 cc
Nominal output at nominal speed	2,9 3200 kW rpm
Fuel tank	1,4 l
Tool	4 hoe elements, 2 plant protection discs
Hoe set diameter	32 cm
Hoe set working speed at nominal speed	128 rpm

Nominal speed	3200 rpm
Measurement in accordance with EN 709:	
Sound pressure level at workplace L_{pA}	80 dB(A)
Uncertainty K_{pA}	2 dB(A)
Measurement in accordance with EN 709, EN 20643:	

Measured value a_{hw} 6,00 m/s²

Uncertainty K_{hw} 2,40 m/s²

Measurement in accordance with 2000/14/EC / S.I. 2001/1701:

Guaranteed sound power level L_{WA} 93 dB(A)

Uncertainty K_{WA} 1,0 dB(A)

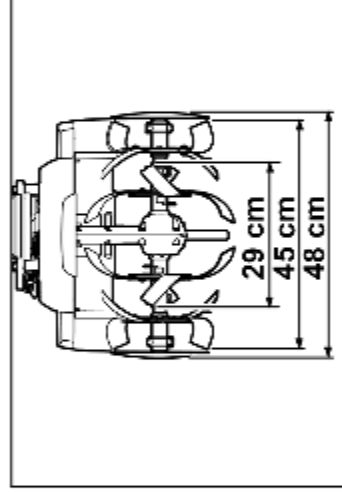
Drive 1 forward gear

1 reverse gear

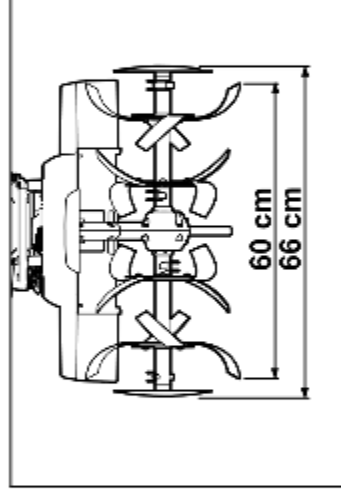
Weight

46 kg

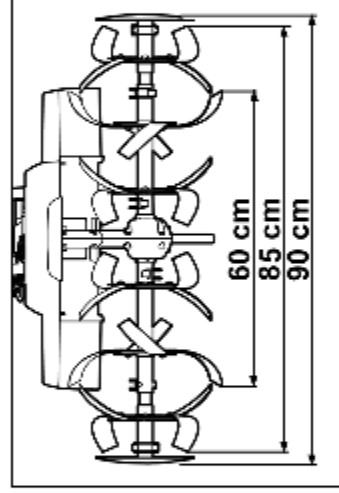
MH 445.1, MH 445.1 R:



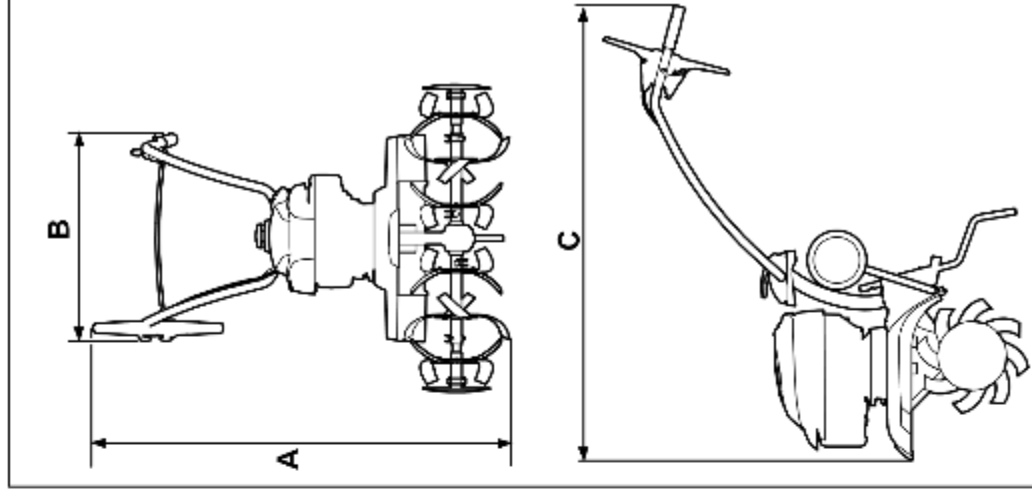
MH 560.0:



MH 585.0, MH 685.0:



MH 445.1, MH 445.1 R, MH 560.0, MH 585.0, MH 685.0:



MH 445.1, MH 445.1 R:

A = 118 cm

B = 57 cm

C = 122 cm

MH 560.0, MH 585.0, MH 685.0:

A = 119 cm

B = 57 cm

C = 122 cm

18.1 REACH

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

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

19. Troubleshooting

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

🔧 See engine instruction manual.

Fault:

Engine does not start

Possible cause:

- Throttle lever in Stop position
 - No fuel in tank; fuel line blocked
 - Inferior, dirty or old fuel in tank
 - Spark plug socket detached from spark plug; ignition lead not properly fastened to socket
 - Spark plug dirty or damaged; incorrect electrode gap
 - Dirty air filter
 - Engine is flooded due to several starting attempts.
- Remedy:**
- Set throttle lever to Start position (⇒ 8.1)
 - Fill fuel tank (⇒ 7.15);
Clean fuel lines (✖)
 - Use fresh, good quality fuel, unleaded petrol (⇒ 7.15);
clean carburettor (✖)

- Connect spark plug socket (🔧);
check connection between ignition lead and socket (✖)
- Clean/replace spark plug (🔧), (✖);
Adjust electrode gap (✖)
- Clean/replace air filter (✖)
- Remove spark plug and dry, set throttle lever to Stop position and pull recoil starter rope repeatedly with the spark plug removed (🔧)

Fault:

Starting problems or deteriorating engine power

Possible cause:

- Water in fuel tank and carburettor; carburettor blocked
- Contaminated fuel tank
- Dirty air filter
- Dirty spark plug

Remedy:

- Empty fuel tank, clean fuel line and carburettor (✖)
- Clean fuel tank (✖)
- Clean/replace air filter (🔧), (✖)
- Clean/replace spark plug (🔧), (✖)

Fault:

Engine overheating

Possible cause:

- Dirty cooling ribs
- Oil level in engine too low
- Surface of engine covered with earth

Remedy:

- Clean cooling ribs (⇒ 12.2)
- Top up engine oil (⇒ 7.15)
- Remove earth from the engine

Fault:

Engine running roughly

Possible cause:

- Dirty air filter

Remedy:

- Clean/replace air filter (🔧), (✖)

Fault:

Heavy smoke formation

Possible cause:

- Oil level is too high
- Dirty air filter

Remedy:

- Adapt oil quantity (🔧)
- Clean/replace air filter (🔧), (✖)

Fault:

Excessive vibration during operation

Possible cause:

- Loose engine mounting

Remedy:

- Tighten engine mounting bolts (✖)

Fault:

Reduced tilling performance

Possible cause:

- Hoes incorrectly mounted
- Worn hoes
- Brake spur incorrectly adjusted

Remedy:

- Mount hoes correctly (⇒ 7.7), (⇒ 7.8)
- Replace hoes (✖)
- Adjust brake spur (⇒ 11.5)

Fault:

No tilling performance

Possible cause:

- No folding retainer in drive shaft

Remedy:

- Check attachment of hoes to drive shaft (⇒ 7.7), (⇒ 7.8)

Fault:

Loud gearbox noise

Possible cause:

- Incorrect gearbox oil level

Remedy:

- Check gearbox oil level (✕)

Fault:

Drive shaft does not rotate when self-propulsion lever is actuated

Possible cause:

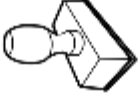
- Cable defective
- Worn drive belt

Remedy:

- Check/replace cable (✕)
- Replace drive belt (✕)

20. Service schedule

20.1 Handover confirmation

Model: _____
Serial number:
Date: _____

Next service _____
Date: _____

20.2 Service confirmation



Please hand this instruction manual to your STIHL specialist dealer in the case of maintenance operations. He will confirm the service operations performed in the pre-printed boxes.

 Service performed on _____

 Next service date _____