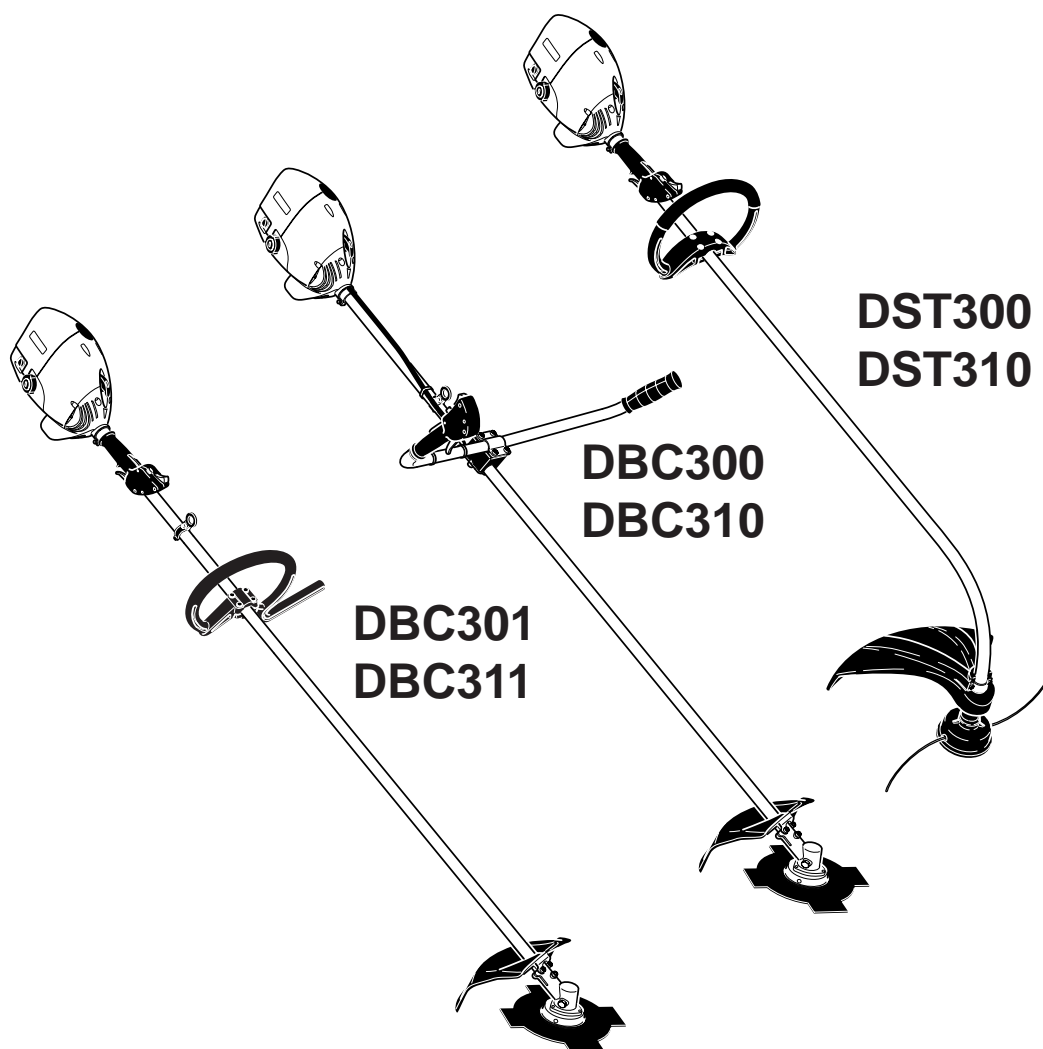




## Instruction Manual



### Important:

Read this instruction manual carefully before putting the brushcutter into operation and strictly observe the safety regulations!

Keep this Instruction Manual!

## Thank you for choosing a MAKITA product!

We trust that you will be a satisfied customer. By choosing a MAKITA you have chosen one of the most advanced brushcutters.

With their two-stroke gasoline engines the DST 300, DBC 301 and DBC 300 brushcutters can be used anywhere, and with their fuel pump (primer) they are unusually easy to start. They cut grass, weeds, brush - anything that needs to be cut off at ground level. They're ideal for yardwork and greens keeping and especially suitable for occasional use. They offer the latest technology, ergonomic design and high ease of use at a reasonable price.

Your new brushcutter features a MAKITA engine with Nikasil 6-channel cylinder with computerised timing and maintenance-free electronic ignition. This ensures optimum fuel use and very low pollutant emissions, and meets the strict future US exhaust standards. A new silencer design and complete encapsulation of the entire engine provide maximum noise reduction.

The following industrial property rights apply: US 512606, EP 0696414, GBM 9412925.

To ensure your own safety and to get the maximum performance out of your MAKITA brushcutter, we urge you to

**read this instruction manual carefully before putting the brushcutter into operation and to strictly observe all of the safety regulations! Failure to observe these precautions can lead to severe injury or death!**



## EU Conformity Declaration

The undersigned, Shigeharu Kominami and Rainer Bergfeld, as authorized by DOLMAR GmbH, declare that the MAKITA machines,

**Type: (369) DBC300, 301, 310, 311, DST300, 310**

manufactured by DOLMAR GmbH, Jenfelder Str. 38, 22045 Hamburg, Germany, conforms to the basic safety and health requirements of the applicable EU guidelines:

EU Machine guideline 98/37/ EG,

EU EMC guideline 89/336/ EWG (modified by 91/263/ EWG, 92/31/ EWG and 93/68/ EWG),

Noise emission 2000/14/EG.

The most important standards applied to properly meet the requirements of the above EU guidelines were:

EN 11806, EN 14982, EN 55011.

The conformity assessment procedure 2000/14/EG was performed per Annex V. DST300, 310: The measured sound power level (Lwa) is 107 dB(A). The guaranteed sound power level (Ld) is 108 dB(A). DBC300, 301, 310, 311: The measured sound power level (Lwa) is 103 dB(A). The guaranteed sound power level (Ld) is 104 dB(A).

Hamburg, 29.9. 2004

For DOLMAR GmbH

Shigeharu Kominami  
Managing Director

Rainer Bergfeld  
Managing Director

## Table of contents

Page

EC declaration of conformity .....	2
Packing .....	2
Delivery inventory .....	3
Explanation of symbols .....	3

## SAFETY PRECAUTIONS

General precautions .....	4
Personal protective equipment .....	4
Handling fuels / Refuelling .....	4-5
Putting into operation .....	5
Kickback .....	6
Working behavior / Method of working .....	6
Applications for cutting tools .....	6
Transport and Storage .....	6-7
Maintenance .....	7
First Aid .....	7

Technical data .....	8
Components .....	8

## PUTTING INTO OPERATION

Handle installation, DBC300, 310 .....	9
Handle installation, DBC301, 311 .....	9
Handle installation, DST300, 310 .....	9
Mounting the cutter guard .....	10
Mounting the 4-tooth star blade or 8-tooth eddy blade (DBC300, 301, 310, 311) .....	11
Installing the trimmer head (DBC300, 301, 310, 311) ..	11
Installing the line cutter (DBC3300, 301, 310, 311, DST300, 310) .....	12
Lengthening the line .....	12
Replacing the line .....	12
Installing the trimmer head (DST300, 310) .....	13
Lengthening the line .....	13
Replacing the line .....	13
Fuel mixture / Refuelling .....	14
Putting on the harness .....	15
Balancing the brushcutter .....	15
Start engine .....	16
Idle adjustment .....	16

## REPAIR AND MAINTENANCE WORK

Instructions for maintenance .....	17
Sharpening of cutting tools .....	17
Cleaning the air filter .....	18
Replacing and Inspecting the spark plug .....	18
Lubricating the gear box .....	19
Service and maintenance .....	19

## Trouble shooting .....

## Extract from the spare part list .....

## Service, spare parts and guarantee .....

## Notes .....

## Service centres (see enclosure)

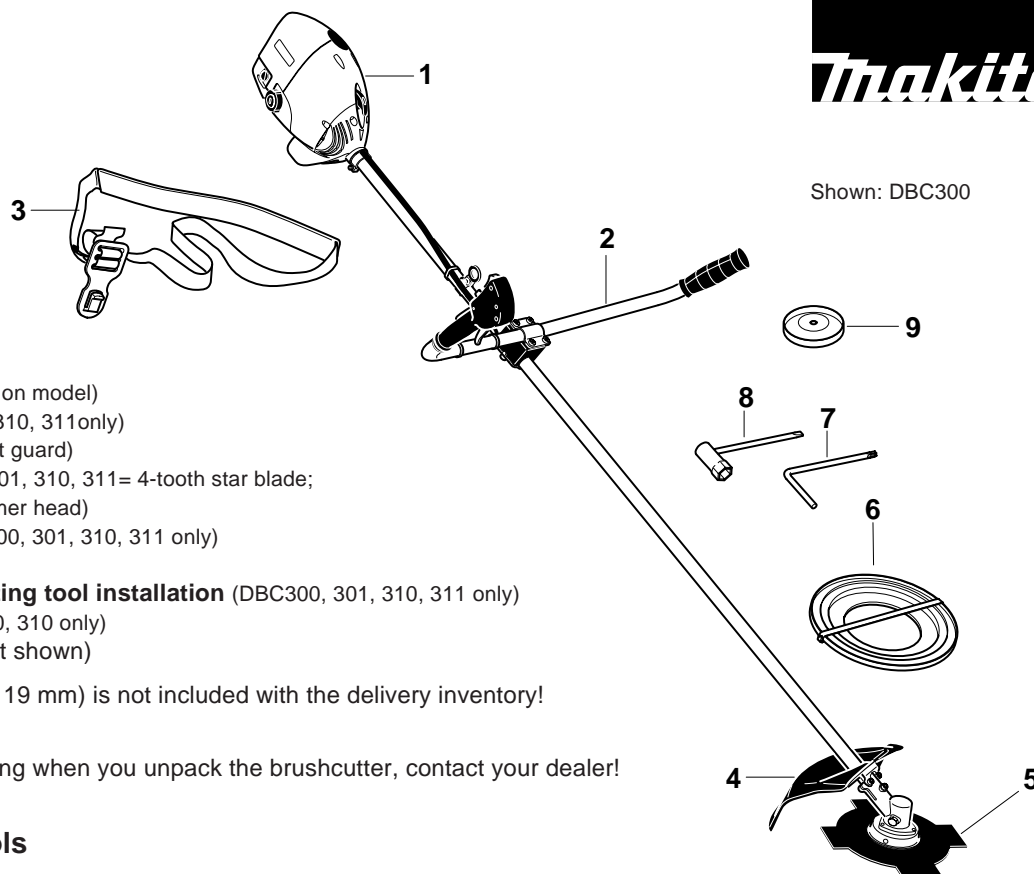
## Packing

Your MAKITA brushcutter comes in a cardboard box to protect it from shipping damage.

Cardboard is a raw material. We encourage you to re-use the box or recycle it (waste paper).



Shown: DBC300



1. **Brushcutter**
2. **Handle** (version depends on model)
3. **Harness** (DBC300, 301, 310, 311 only)
4. **Guard** (cutting attachment guard)
5. **Cutting tool** (DBC300, 301, 310, 311 = 4-tooth star blade; DST300, 310 = 2-line trimmer head)
6. **Tool protection** (DBC 300, 301, 310, 311 only)
7. **Offset screwdriver**
8. **17 mm wrench for cutting tool installation** (DBC300, 301, 310, 311 only)
9. **Winding guard** (DST300, 310 only)
10. **Instruction Manual** (not shown)

The spark plug tool (wrench 19 mm) is not included with the delivery inventory!  
Order no. see Accessoires.

If one of these parts is missing when you unpack the brushcutter, contact your dealer!

## Explanation of symbols

You will notice the following symbols on the brushcutter and in the instruction manual.

	<b>Read the instruction manual and follow all warnings and safety instructions!</b>		<b>Maximum tool rpm</b>
	<b>Particular care and caution!</b>		<b>Choke</b>
	<b>Forbidden!</b>		<b>Start engine</b>
	<b>Wear protective gloves!</b>		<b>Stop engine!</b>
	<b>Wear safety shoes!</b>		<b>No smoking!</b>
	<b>Wear eye, face and hearing protection!</b>		<b>No open flame!</b>
	<b>The distance between the machine and bystanders shall be at least 50 feet!</b>		<b>Fuel and oil mixture</b>
	<b>DANGER: Beware of thrown objects!</b>		<b>First aid</b>
	<b>Do not use metal blades!</b>		<b>Recycling</b>
	<b>Do not use saw blades!</b>		<b>CE-Marking</b>
	<b>CAUTION: Kickback! (blade thrust)</b>		

# SAFETY PRECAUTIONS

## General precautions

To ensure correct operation, the user has to read this instruction manual to make himself familiar with the handling of the brushcutter. Insufficiently informed users will risk danger to themselves as well as others due to improper handling (1).

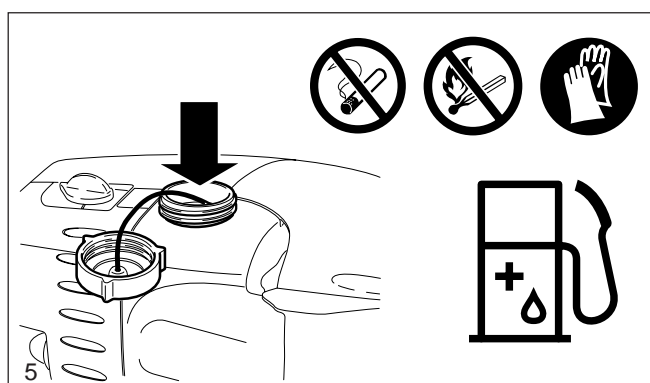
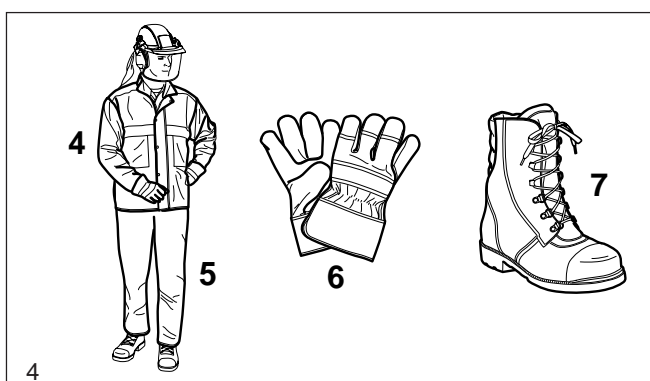
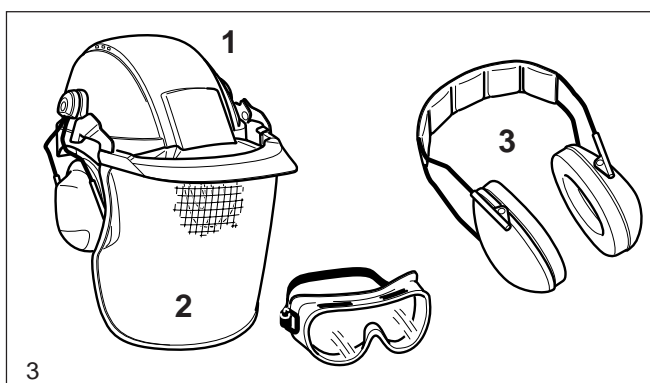
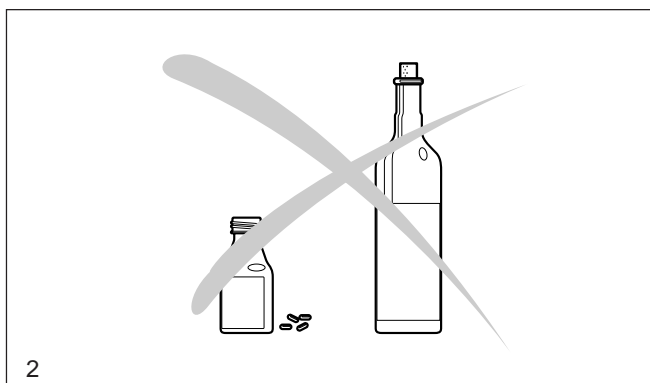
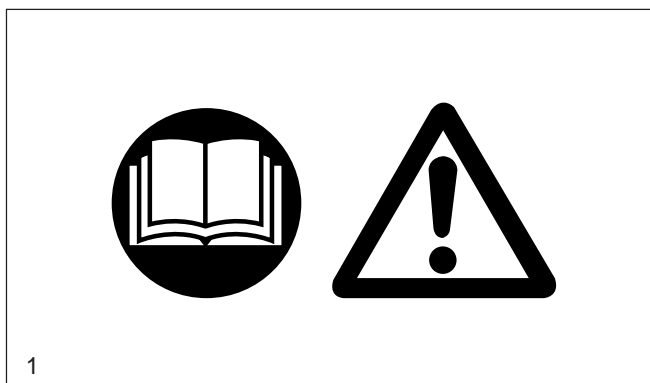
- It is recommended only to lend the brushcutter to people who have experience with brushcutters. When lending the brushcutter to someone else, give him this Instruction Manual as well.
- First-time users should ask their dealer for basic instructions so that they can familiarize themselves with the basic handling of gasoline-powered brushcutting.
- Children and persons under the age of 18 must not be allowed to operate the brushcutter. Exceptions may be made for persons over 16 for training purposes under the supervision of a qualified trainer.
- Always use brushcutters with the utmost care and attention.
- Operate the brushcutter only if you are in good physical condition. Perform all work calmly and carefully. The user must accept liability for others.
- Never use the brushcutter after consumption of alcohol, drugs or medication (2).

## Personal protective equipment

- The clothing worn should be functional and appropriate, i.e. it should be tight-fitting but not cause hindrance. Do not wear either jewellery or clothing which could become entangled with bushes or shrubs. Secure hair so it is above shoulder level. If you have long hair, always wear a hairnet!
- **In order to avoid head-, eye-, hand- or foot injuries as well as to protect your hearing, the following protective equipment and protective clothing must be used during operation of the brushcutter:**
- It is recommended to wear a protective helmet; it is imperative when working in forests. The **protective helmet** (1) should be checked at regular intervals for damage and must be replaced after 5 years at the latest. Use only approved protective helmets.
- The helmet **face shield** (2) protects your face from flying particles from the cut and other objects. To prevent eye injury, wear protective goggles in addition to the face shield.
- Wear adequate **noise protection** equipment to avoid hearing impairment (ear muffs (3), ear plugs etc.). Octave brand analysis upon request.
- The **forestry safety jacket** (4) is equipped with special red coloured shoulder parts. The arms and neck should always be protected by clothing.
- The **protective trousers** (5) are made from a nylon fabric with 22 layers and protects against cuts. We strongly recommend its use. In any case, it is essential that a long pair of trousers made of tough material be worn during operation of the brushcutter.
- **Protective gloves** (6) made of thick leather are part of the prescribed equipment and must always be worn during operation of the brushcutter.
- **Safety shoes or boots** (7) fitted with anti-skid sole, steel toe caps and leg protection must always be used. Safety shoes equipped with a protective layer give protection against cuts and ensure a secure footing.

## Handling fuels / Refuelling

- Stop the engine before refuelling.
- Keep away from open flame or sparks and do not smoke while refuelling or mixing fuel.
- Let the engine cool down before refuelling.
- Fuel may contain substances similar to solvents. Eyes and skin should not come in contact with mineral oil products. Always wear protective gloves when refuelling. Frequently clean and change protective clothes. Do not breathe in fuel vapors. Inhalation of fuel vapours can be hazardous to your health.
- Before refuelling the brushcutter make sure it is on its side in a stable position.
- Do not spill fuel or oil. When you have spilt fuel or oil immediately clean the brushcutter. Fuel should not come in contact with clothes. If your clothes come in contact with fuel, change them at once.



- Ensure that no fuel or chain oil oozes into the soil (environmental protection). Use an appropriate base.
- Refuelling is not allowed in closed rooms. Fuel vapors will accumulate near the floor (explosion hazard).
- Carefully tighten the locking screw of the fuel tank and inspect the fuel cap at regular intervals.
- Change the place before starting the engine (at least 3 m from the place of refuelling) (6).
- Fuel cannot be stored for an unlimited period of time. Buy only as much as will be consumed in the near future.
- Use only approved and marked containers for the transport and storage of fuel. Ensure children have no access to fuel.

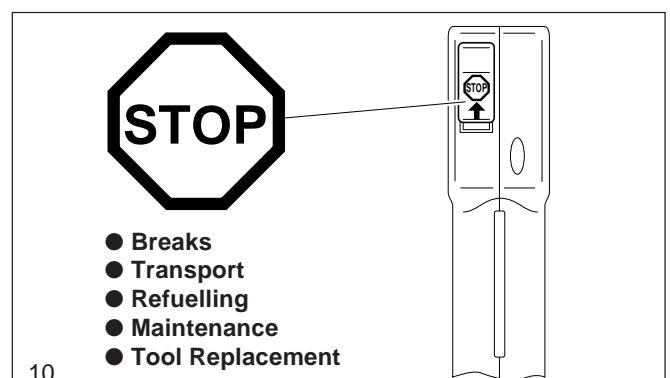
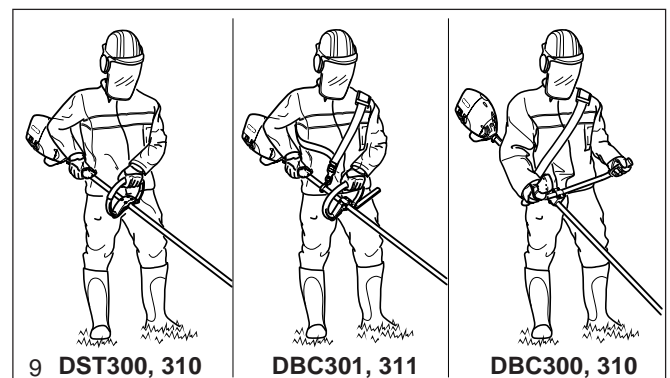
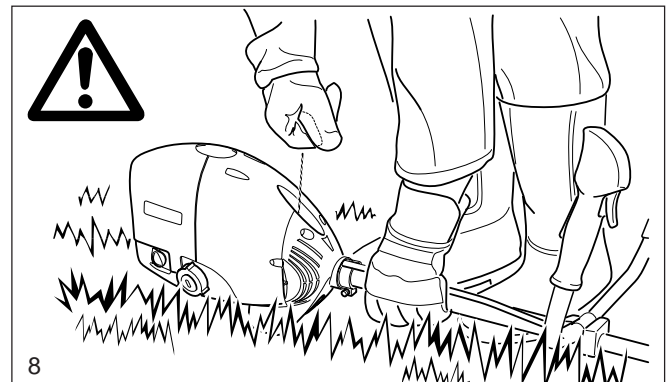
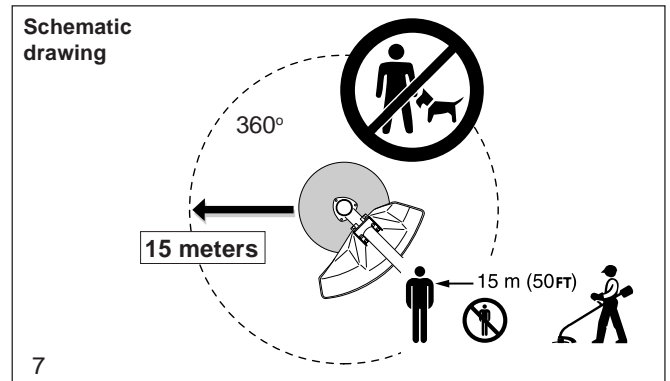
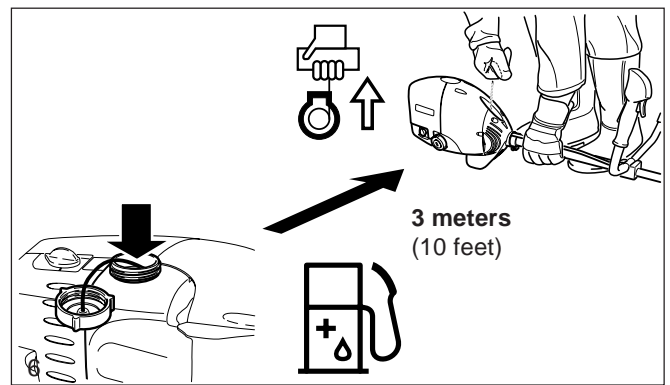
## Putting into operation

- **Do not work alone. Another person must be nearby in case of emergencies (within shouting distance).**
- Children and other persons must remain more than 15 meters (50 feet) from the working area. Keep an eye out for animals as well (7).
- **Before use always check that the brushcutter is safe for operation:**

Make sure the cutting tool is securely installed. The throttle must automatically return to the off position when released, and the throttle lever lock must work properly. The cutting tool must not turn during idling. The handles should be clean and dry. The on/off switch must function properly. The guard must be undamaged and securely installed in the correct position.

**Otherwise you are in danger of injury!**

- Start the brushcutter only in accordance with the instructions. **Do not use any other methods for starting the engine (8)!**
- Use this brushcutter and its cutting tools only for the uses they are intended for as specified in the documentation.
- **Start the brushcutter only after complete assembly and inspection. Operation of the device is only permitted after all the appropriate accessories are attached!**
- **The cutting tool must be equipped with its appropriate guard. Never run the cutter without this guard!**
- The cutting tool must not turn during idling. If necessary adjust the idling speed.
- Before starting, make sure that the cutting tool has no contact with hard objects such as branches, stones etc.
- The engine must be switched off immediately if there are any noticeable changes in the behaviour of the equipment.
- Should the cutting tool hit stones or other hard objects, immediately switch off the engine and inspect the cutting tool.
- Inspect the cutting tool at frequent intervals for damage (detect hairline cracks by means of tapping - noise test). Hairline cracks can occur in the region of the base of the teeth after long use. **Damaged cutting tools and cutting tools with hairline cracks must not be used any longer under any circumstances.**
- Operate the brushcutter DBC300, 301, 310, 311 only with the shoulder strap attached, which is to be suitably adjusted before putting the brushcutter into operation. It is essential to adjust the shoulder strap according to the user's size to prevent fatigue during use. Never hold the cutter with one hand during use.
- When working with the brushcutter always hold it with both hands (9). **Keep proper footing and balance at all times.**
- Operate the brushcutter in such a manner as to avoid inhalation of the exhaust gases. Do not start or operate the brushcutter in closed rooms (risk of gas poisoning). Carbon monoxide is an odorless gas. Work only in well-ventilated places.
- When taking a break or leaving the brushcutter unattended, turn off the engine (10) and set the brushcutter down in such a way that there is no risk of injury to yourself or others.
- Never put the hot brushcutter onto dry grass or onto any combustible materials.
- Shut off the engine during transport or when moving on to a new location (10).
- Never operate the engine with a faulty exhaust muffler.





## Kickback

When operating the brushcutter, uncontrolled kickback may occur.

This particularly the case when cutting in the area between 12 and 2 (11).

**Never start a cut in this area when cutting hard objects such as brush, bushes etc.**

If you do this, the brushcutter will be thrown to one side at high speed and with great force. **High risk of injury!**

**Never start a cut in the area between 12 and 2 (Fig. 11).**

**Kickback prevention (12):**

- **To avoid kickbacks, observe the following:**
- Always watch what you're doing! Be careful when continuing cuts started previously.
- The cutting tool must be turning at full speed before starting cuts.
- There is a high risk of injury in the area between 12 and 2, especially when using metal cutting blades.
- Cuts in the areas between 11 and 12 and between 2 and 5 should be performed only by trained operators and at their own risk.
- Easy, low-kickback cutting is possible in the area between 8 and 11.

## Working behavior / Method of working

- Use the brushcutter only in good light and visibility. During the winter season beware of slippery or wet areas, ice and snow (risk of slipping). Always ensure a safe footing.
- Never cut above your shoulder height.
- Never stand on a ladder and run the brushcutter.
- Never climb up into trees to perform cutting operations with the brushcutter.
- Never work on unstable surfaces.
- Make sure the cutting area is free of foreign objects such as stones and metal items. Foreign particles can rebound (danger of injury, 13), damage the cutting tool and cause dangerous kickbacks.
- Before commencing cutting, the cutting tool must have reached full working speed.

## Applications for cutting tools

Employ only the correct cutting tool for the job in hand (14)! Do not use tools for jobs they are not designed for.

**2-line trimmer head:**

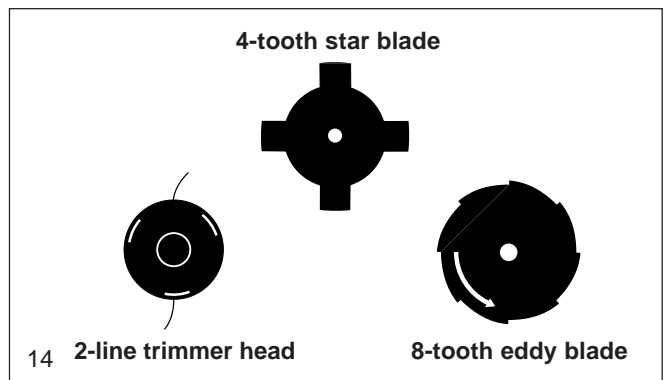
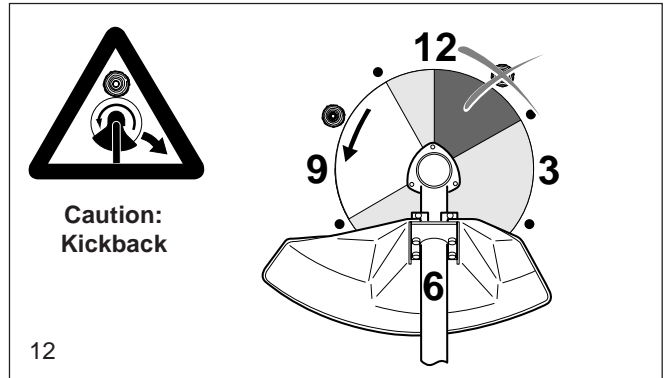
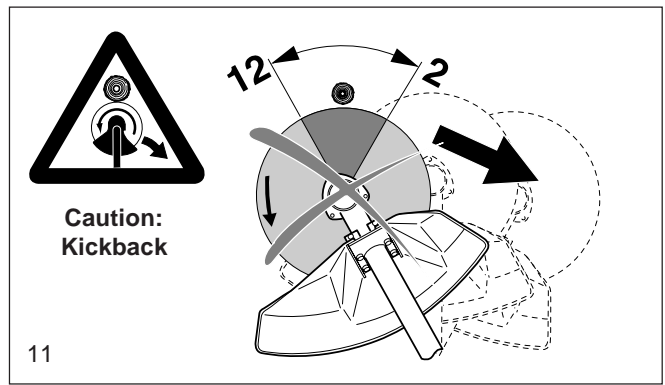
Only for cutting grass next to walls, fences, lawn edges, trees, posts etc.

**8-tooth eddy blade and 4-tooth star blade:**

For cutting thicker materials like weeds, tall grass, bushes, shrubs, mixed growth, thickets, etc. with stems up to 2 cm (3/4") thick. Perform this cutting work by swinging the brush cutter evenly in half-circles from left to right (similar to a scythe).

## Transport

- **When transporting the equipment or moving to another working location, the brushcutter must be switched off in order to avoid unintentionally starting the cutting tool.**
- **Never carry and transport the brushcutter when the cutting tool is in operation!**
- The tool protection included with the equipment must always be used if the brushcutter is transported over longer distances.
- Ensure that the brushcutter is safely secured so that no fuel can run out before transporting it in a vehicle. Empty the fuel tank before transporting the brushcutter.
- Before shipping the brushcutter, completely empty the fuel tank.



## Storage

- The brushcutter must be safely stored in a dry room. Use the tool protection for metal cutting tools. Keep the brushcutter out of reach of children.
- If the brushcutter is stored for a long period of time, it should be given a thorough maintenance check and a complete inspection at an authorized MAKITA service centre.
- If the brushcutter is stored for a long period of time, the fuel tank should be completely emptied and the carburetor run dry. Fuels may only be stored for a limited period of time and could cause deposits to form in the tank or in the carburetor.
- Fuel remains in reserve canisters should be used for other engines or disposed of.

## Maintenance

- Always make sure the brushcutter is in good working order before using it. This includes in particular the cutting tool, guard, harness and fuel system (check for leaks). Particular attention must be paid to the cutting blades, which must be correctly sharpened.

### CAUTION:

**Metal cutting tools must be sharpened only at an authorized service centre!**

**A tool which has been improperly sharpened can cause unbalance and thus considerable danger of injury. Apart from this, the equipment may be damaged due to vibrations.**

- When changing the cutting tool, cleaning the brushcutter and the cutting tool etc., **it is essential to switch off the engine and pull the spark plug cap.**
- Replace cracked, bent, warped, damaged or dull cutting tools immediately. Never straighten or weld damaged cutting tools.
- Operate the brushcutter with as little noise and pollution as possible. In particular check the correct setting of the carburetor.
- Clean the brushcutter at regular intervals and check that all screws and nuts are well tightened.
- Never service or store the brushcutter near open flames (16)!
- Always store the brushcutter in a locked storage area, with the fuel tank completely empty and the carburetor run dry.

**Observe the accident pre-vention instructions issued by the relevant trade associations and insurance companies. Do not make any modifications to the brushcutter - you will only be putting your own safety at risk!**

The performance of maintenance or repair work by the user is limited to those activities described in this instruction manual. All other work must be done by the MAKITA customer service (17).

**Use only original MAKITA spares and accessories.**

The use of non-MAKITA spares, accessories, or cutting tools increases the risk of accident. MAKITA will not accept any liability for accidents or damage caused by the use of non-approved cutting tools and fixing devices of cutting tools, or accessories.

## First Aid

A first-aid kit should always be nearby as a precaution in the event of an accident.

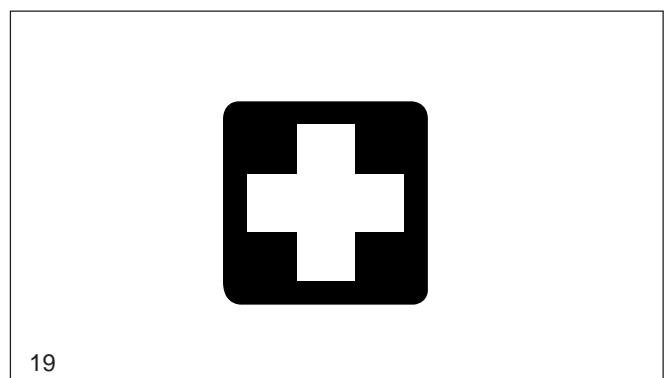
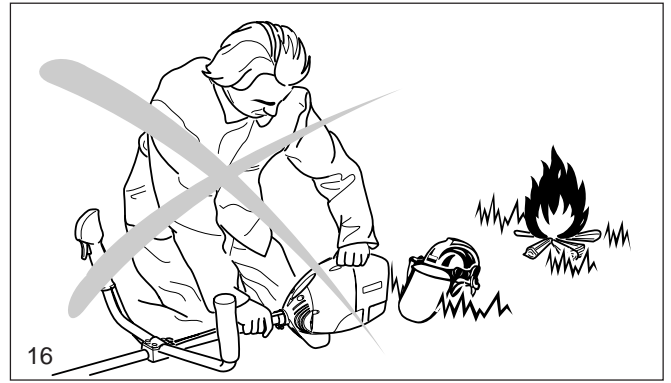
Immediately replace any items taken from the first aid kit.

**When calling for help, give the following information:**

Place of accident, what happened, number of persons injured, nature of injuries, your name.

### NOTE

Individuals with poor circulation who are exposed to excessive vibration may experience injury to blood vessels or the nervous system. Vibration may cause the following symptoms to occur in the fingers, hands or wrists: "Falling asleep" (numbness), tingling, pain, stabbing sensation, alteration of skin colour or of the skin. **If any of these symptoms occur, see a physician!**



Technical Data		DBC300, 310	DBC301, 311	DST300, 310
Displacement	cm <sup>3</sup>		30	
Bohrung	mm		37	
Stroke	mm		28	
Rated capacity per ISO 8893	kW		1	
Operating speed	1/min		7,500	
Maximum engine speed with one-part metal cutting tool <sup>1)</sup>	1/min		11,200	
Maximum spindle speed with one-part metal cutting tool <sup>1)</sup>	1/min		9,000	
Idling speed	1/min		2,800...3,000	
Clutch engagement speed	1/min		3,850	
Carburetor (diaphragm carburetor)	Type		ZAMA DM4	
Ignition system (electronic)	Type		PHELON	
Spark plug	Type		NGK BPMR 7A	
Electrode gap	mm		0.5 - 0.8	
Sound power level L <sub>WA av</sub> per ISO 10884 <sup>2)</sup> a/b	dB (A)	101 / 108	101 / 108	-- / 108
Sound pressure level L <sub>pA av</sub> at the workplace per ISO 7917 <sup>2)</sup> a/b	dB (A)	91 / 97	91 / 97	-- / 94
Vibration acceleration a <sub>h,w</sub> per ISO 7916 <sup>2)</sup> a/b				
- Right handle (idling speed/maximum speed)	m/s <sup>2</sup>	<sup>a</sup> 6.5/4.4 <sup>b</sup> 4.9/3.9		
- Left handle (idling speed/maximum speed)	m/s <sup>2</sup>	<sup>a</sup> 5.3/4.5 <sup>b</sup> 4.8/4.6		
- Round handle (idling speed/maximum speed)	m/s <sup>2</sup>		<sup>a</sup> 11.1/8.7 <sup>b</sup> 10.7/10.0	<sup>b</sup> 8.8/12.4
- Handle on shaft (idling speed/maximum speed)	m/s <sup>2</sup>		<sup>a</sup> 4.7/7.9 <sup>b</sup> 4.8/6.3	<sup>b</sup> 3.7/5.0
Fuel consumption per ISO 8893 <sup>3)</sup>	kg/h		0.52	
Specific consumption per ISO 8893 <sup>3)</sup>	g/kWh		520	
Fuel tank capacity	l		0.4	
Mixture ratio (fuel / MAKITA two-stroke oil)			50:1	
- when using MAKITA oil			40:1	
- when using other oils				
Gear ratio		1.25:1	1.25:1	--
Dimensions: length / width / height	mm	1,800 / 670 / 400	1,800 / 360 / 270	1,550 / 380 / 360
Weight (not including guard, cutting tool and fuel)	kg	6.2	6.1	5.3

<sup>1)</sup> The maximum rated speed of the trimmer head is not exceeded when using a MAKITA trimmer head.

<sup>2)</sup> Figures derived in equal part from idle and top-speed operation (per EN-ISO 11806).

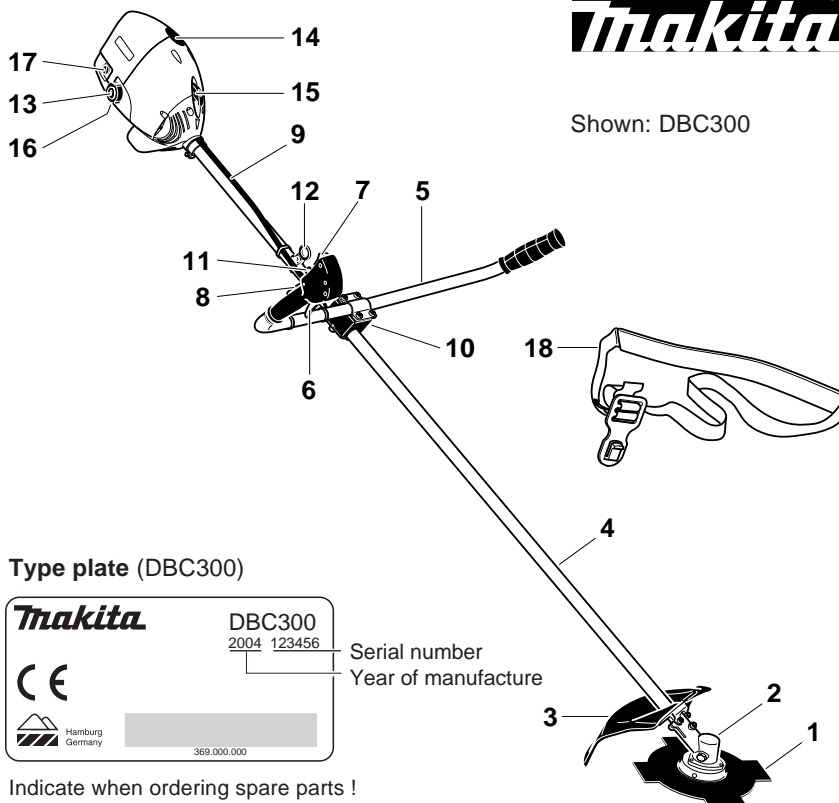
<sup>3)</sup> At max. power

<sup>a)</sup> With one-part metal cutting tool

<sup>b)</sup> With 2-line trimmer head

## Components

- 1 Cutting tool
- 2 Gear box
- 3 Guard (Cutter guard)
- 4 Shaft tube
- 5 Handle
- 6 Throttle (throttle trigger)
- 7 Short-circuit switch (start/stop)
- 8 Safety locking button (throttle trigger lockout)
- 9 Bowden cable guide
- 10 Tube handle holder
- 11 Stop knob for halfway throttle
- 12 Harness eyelet (suspension point, DBC300, 301, 310, 311 only)
- 13 Fuel tank cap
- 14 Spark plug cover
- 15 Starter grip
- 16 Type plate
- 17 Choke lever
- 18 Harness (DBC300, 301, 310, 311 only)



Shown: DBC300



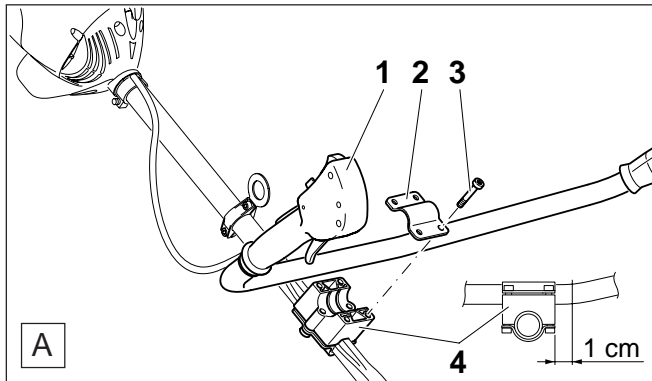
## PUTTING INTO OPERATION



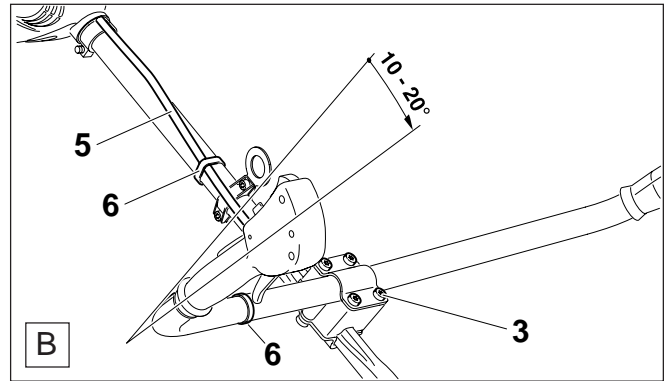
**CAUTION:** When working on the brushcutter always be absolutely certain to switch off the engine, pull the spark plug cap and wear protective gloves!

**IMPORTANT:** Do not start the brushcutter until fully assembled and inspected!

### Installing the handle, DBC300, 310



- The bolts (A/3) are found in the enclosed pack.
- Position the handle (A/1) in the handle mounting (A/4) as shown in the figure. The bend in the handle should be about 1 cm / 3/8" outside the mounting towards the rubber grip.
- Place the handle retainer plate (A/2) over the handle and mounting and bolt it on loosely, screwing the bolts in evenly.

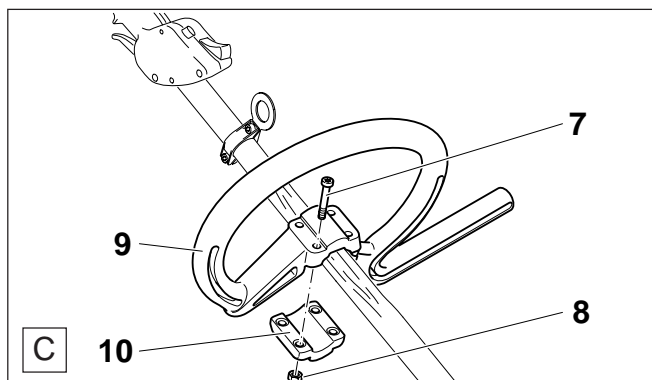


- Push the handle about 10 to 20° forward and tighten the bolts (B/3).
- Attach the bowden cable (B/5) to the shaft tube using the cable ties (B/6) found in the enclosed pack.

#### NOTE:

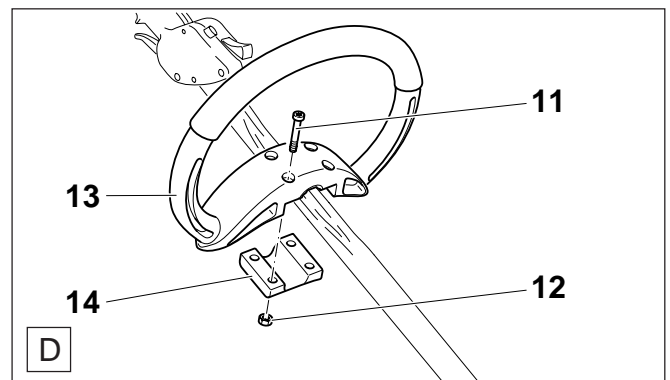
The handle must be tilted to accommodate the operator, so the exact angle will depend on the operator's body size. For easiest operation the elbows should be slightly bent, with the wrists straight.

### Installing the handle, DBC301, 311



- Take the bolts and nuts (C/7, 8) and grip bracket (C/10) from the enclosed pack.
- Place the handle (C/9) in the middle of the profile section on the shaft tube.
- Attach the handle retainer plate (C/10) with bolts (C/7) and nuts (C/8). Set the spacing between the two handles to suit you and then tighten the bolts (C/7).

### Installing the handle, DST300, 310



- Take the bolts and nuts (D/11, 12) and grip bracket (D/14) from the enclosed pack.
- Place the handle (D/13) in the middle of the profile section on the shaft tube.
- Attach the handle retainer plate (D/14) with bolts (D/11) and nuts (D/12). Set the spacing between the two handles to suit you and then tighten the bolts (D/11).

## Installing the cutter guard

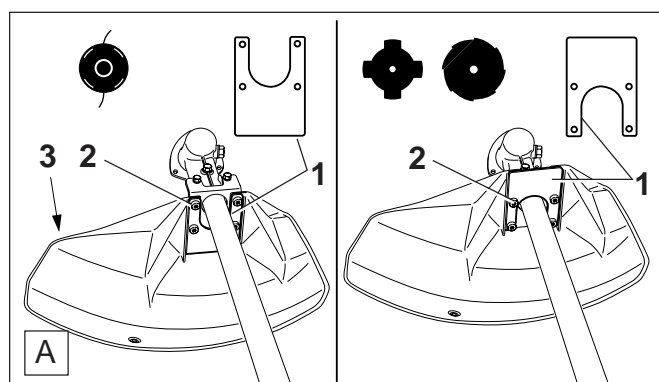


**Important:** Safety regulations and your own safety make it imperative to use the right cutter guard with a given cutting tool! Use only the combinations shown here, and when switching to a different cutting tool always change the cutter guard as well!

**Warning:** Use only the cutting tools shown here! It is not permitted to use other cutting tools as this can increase danger of accidents and cause damage to the equipment!

## Tool/guard combinations for the DBC300, 301, 310, 311

Cutting tool		Cutter guard	
<b>4-tooth star blade</b> part no. 372 224 140 Outside diameter: 200 mm (8"), arbour: 20.0 mm (4/5")		Part no. 010 341 202	
<b>8-tooth eddy blade</b> part no. 380 224 180 Outside diameter: 200 mm (8"), arbour: 20.0 mm (4/5")		Part no. 010 341 202	
<b>2-line trimmer head</b> part no. 369 224 201 Cutting range: $\varnothing$ 380 mm (15 ") / Use only 2.0 mm (.080") replacement cutting line! 15 m part no. 369 224 660 120 m part no. 369 224 662		Part no. 010 341 202 * Line cutter Install part no. 957 341 010!	



Mounting position A

Mounting position B

The position of the mounting plate (A/1) will depend on the type of cutting tool in use (trimmer head or metal blade).

The position of the mounting plate determines whether the guard will be positioned higher or lower.

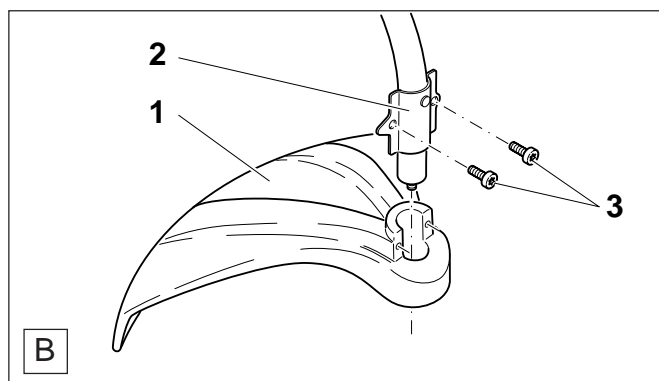
When using a trimmer (line) head apply the mounting position as shown in fig. A. Always install the line cutter (A/3).

The mounting position as shown in fig. B is required for use with the following tools:

- 4-tooth star blade
- 8-tooth eddy blade
- For installation place the protective hood onto the holder on the angular gear, secure the protective hood with the mounting plate, all depending on the tool you have chosen (A or B), and tighten the fastening screws (A/2) with the offset screwdriver (maintenance tool).

## Tool/guard combination for the DST300, 310

Cutting tool		Cutter guard	
<b>2-line trimmer head</b> part no. 369 224 101 Cutting range: $\varnothing$ 450 mm / Use only 2.0 mm replacement cutting line! 15 m part no. 369 224 660 120 m part no. 369 224 662		Part no. 369 341 100	

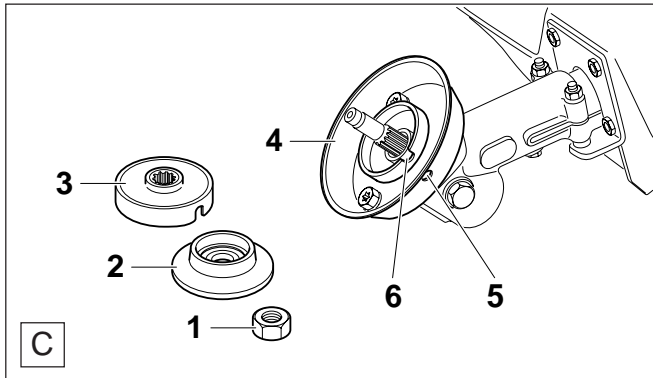


- Push the guard (B/1) onto the shaft until the holes of the mounting plate (B/2) are flush with the holes on the guard.
- Insert the bolts (B/3) and tighten.

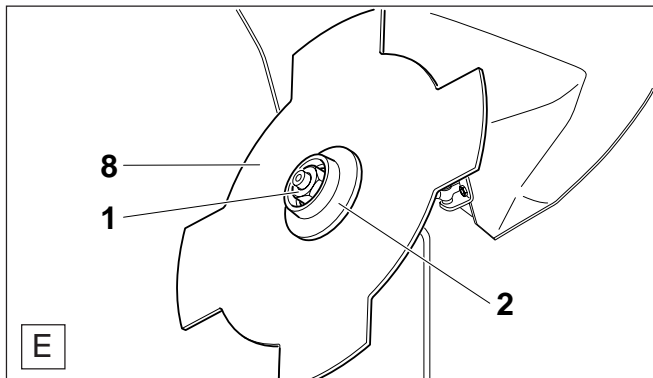
## Mounting the 4-tooth star blade or the 8-tooth eddy blade

(only DBC300, 301, 310, 311)

When using the blade cutting tools mentioned on the preceding page, install the cutter guard with the mounting plate in position **B** (see "Installing the cutter guard").



- Unscrew the locknut (**C/1**) from the shaft by turning it clockwise.
- Note: The locknut is provided with a left-hand thread!**
- Remove the pressure disk (**C/2**) and the locking disk (**C/3**).
- Mount the winding guard (**C/4**) (see illustration) and arrange the hole (**C/5**) so that it is aligned with the opening (**C/6**) of the angular gear.



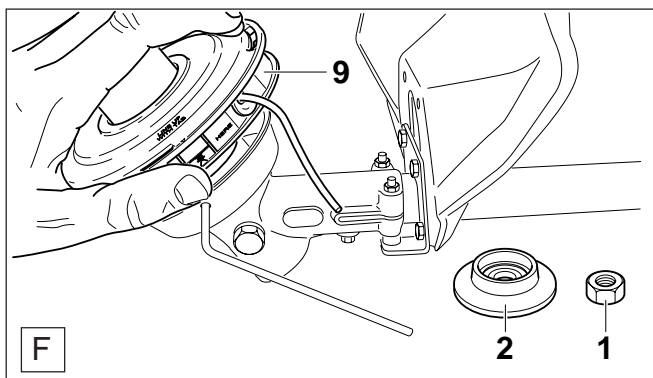
## Installing the trimmer head

(only DBC300, 301, 310, 311)

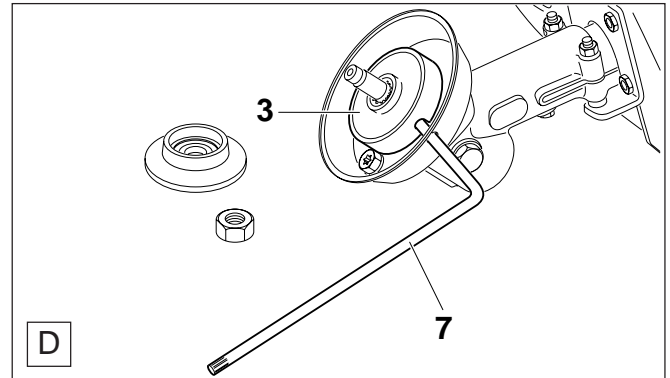
**Always switch off the engine and disconnect the spark plug cap before mounting the trimmer head!**



When using the trimmer head install the cutter guard with the mounting plate in position **A** (see "Installing the cutter guard").  
**Always install the line cutter** (see below, "Installing the line cutter")!



**Always switch off the engine and disconnect the spark plug cap before mounting metal cutter blades! Wear protective gloves!**



- Put the locking disk (**D/3**) back on.
- Insert the offset screwdriver (**D/7**, the short end) through the winding guard and the locking disc into the opening (**C/6**) in the angular gear (block the winding gear).

- Put on the cutting tool (**E/8**) and finally the pressure disk (**E/2**) as shown in the picture.
- Screw down the locknut (**E/1**) and tighten it by turning the combination wrench counter-clockwise.

**Note! The illustration shows the 4-tooth star blade. When installing the 8-tooth eddy blade make sure to observe the direction of rotation arrows on blade and on cutter guard!**

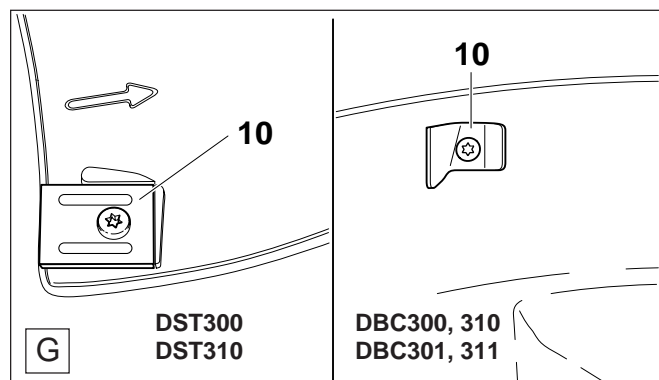
**Caution:** The locknut (**E/1**) is self-locking and if it becomes noticeably loose must be immediately replaced by a new locknut for reasons of safety. In any event it must be replaced after changing the tool 10 times (order no. 387 228 040)!

- Remove the offset screwdriver and check that the cutting tool can turn freely.

- Unscrew the locknut (**F/1**) from the shaft by turning it clockwise. Remove the pressure disc (**F/2**). Keep the locknut and the pressure disc in the same place as the maintenance tools.
- The winding guard must be mounted if necessary (see figure **C**).
- Screw the trimmer head (**F/9**) onto the shaft by turning it counter-clockwise.
- Insert the offset screwdriver into the hole on the winding guard (see too figure **D**) and rotate the trimmer head counter-clockwise until the offset screwdriver blocks the shaft.
- Now tighten the trimmer head by hand.
- Remove the offset screwdriver and check to make sure that the trimmer head can turn freely.

## Installing the line cutter

(DBC300, 301, 310, 311,  
DST300, 310)



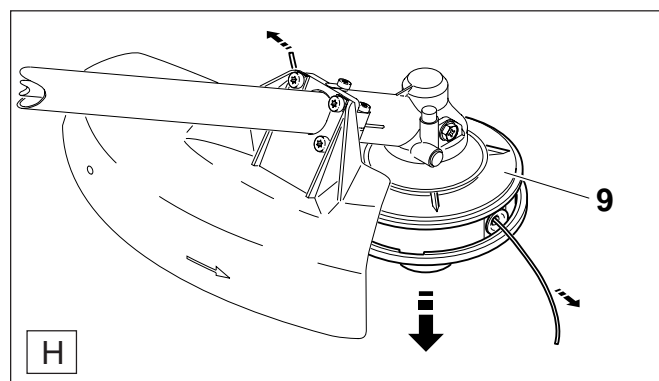
The line cutter and its mounting screw are included in the accessory pack.

- The picture shows the line cutter (**G/10**) mounted on the cutter guard with the mounting screw.

### Note:

If you adjust the length of the trimmer line (see „Lengthening the line“), the line cutter will automatically cut the lines to identical length during operation

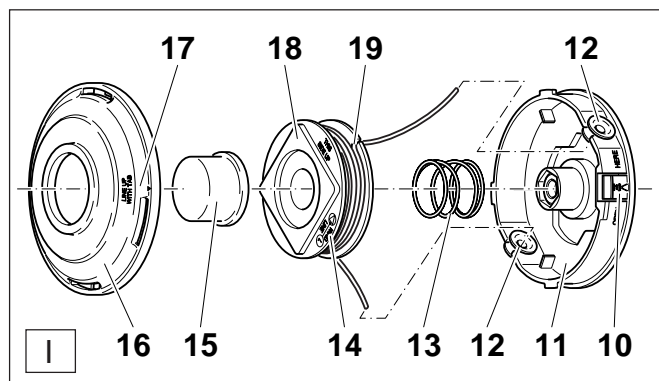
## Adjusting the line



- You can adjust the line to the right length at any time by lightly tapping the trimmer head (**H/9**) against the ground (direction of arrow). The line cutter automatically cuts off excess line.

**CAUTION:** Always switch off the engine and disconnect the spark plug cap before cleaning the trimmer head or replacing the line!

## Replacing the line



**Always switch off the engine and disconnect the spark plug cap before replacing the line!**

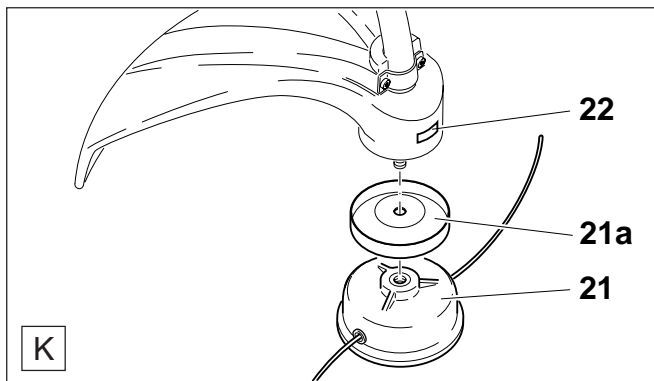
- Press locking device (**I/10**) and turn housing cover (**I/16**) clockwise as far as it will go.
- Remove housing cover (**I/16**) and push button (**I/15**) from housing (**I/11**). Take spool (**I/18**) out of housing and remove remaining bits of line. Leave spring (**I/13**) and line sleeves (**I/12**) in the housing.

- Cut line (diam. 2.0 mm x 15 m, order no.: 369 224 660) to 5 m length.
- Pull the line through the line opening on the spool (hole on winding member) until both ends are the same length. Wind both lines tightly around the spool in the direction shown by the arrow (marked on the spool (**I/14**)) until the ends are about 10 cm long.
- Press one line end into the holding slot (**I/19**); then wind the other line end a half turn and press it into the other holding slot.
- Lay the spool in the housing, taking the lines through the line sleeves. Press spool into the housing and pull on both line ends so that they come out of the holding slot.
- Replace push button (**I/15**) and housing cover (**I/16**) (align marking on cover (**I/17**) centrally with locking device (**I/10**)).
- Press on housing and turn anti-clockwise as far as it will go.

**Warning:** check that the cover is firmly in place by turning it back and forth.

## Installing the trimmer head

(only DST300, 310)



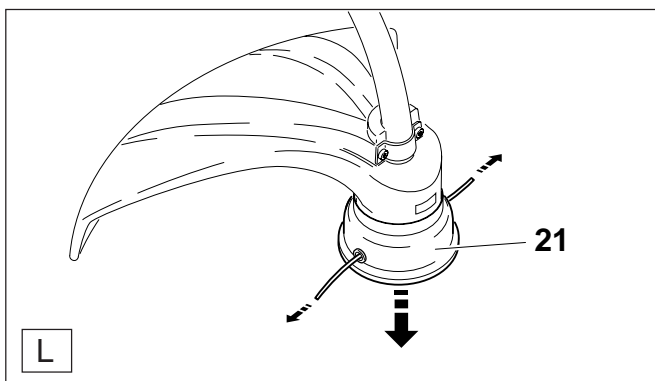
**CAUTION:** Always switch off the engine and disconnect the spark plug cap before mounting the trimmer head!

- Position the winding guard (K/21a) and screw the trimmer head (K/21) clockwise onto the shaft by hand.

### Note:

To remove the trimmer head, block the inner shaft of the shaft tube (K/22) with a 13 mm open wrench (available in the Accessoires) and unscrew the trimmer head counter-clockwise.

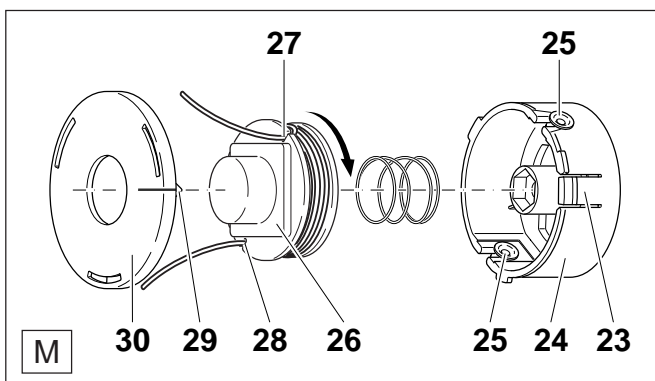
## Adjusting the line



- You can adjust the line to the right length at any time by lightly tapping the trimmer head (L/21) against the ground (direction of arrow). The line cutter automatically cuts off excess line.

**CAUTION:** Always switch off the engine and disconnect the spark plug cap before cleaning the trimmer head or replacing the line!

## Replacing the line



**Always switch off the engine and disconnect the spark plug cap before replacing the line!**

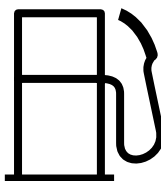
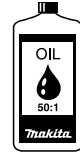
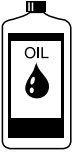
- Press in the tab (M/23) and turn the housing cover (M/30) as far as it will go (lug on cover (M/29) centred on tab).
- Take the housing cover (M/30) off the housing (M/24). Take the spool (M/26) out of the housing and remove remaining bits of line.

- Cut line (dia. 2.0 mm x 15 m, order no. 369 224 660) to 3.6 m / 12".
- Pull the line through the hole on the spool hub until the ends are equal in length. Wind the lines tightly around the spool in the direction shown by the arrow until the ends are about 10 cm / 4" long.
- Press one line end into the holding slot (M/27) on the rim. Wind the other line end a half-turn and then press it into the other holding slot (M/28).
- Lay the spool in the housing, making sure to position the lines at the line holes in the housing. Press the spool all the way in and lead the line ends through the line holes (M/25). Pull each line end so it comes out of the holding slot.
- Place the housing cover (M/30) (lug on cover (M/29) centred on tab (M/23)), press it on lightly and turn clockwise until you hear it click.



## Fuel mixture



Fuel	50:1	40:1
		
1000 cm <sup>3</sup> (1 litre)	20 cm <sup>3</sup>	25 cm <sup>3</sup>
5000 cm <sup>3</sup> (5 litres)	100 cm <sup>3</sup>	125 cm <sup>3</sup>
10000 cm <sup>3</sup> (10 litres)	200 cm <sup>3</sup>	250 cm <sup>3</sup>

The brushcutter is powered by a high-performance two-stroke engine. The engine runs on a mixture of gasoline and two-stroke engine oil.

The engine was designed for regular lead-free gasoline with an octane number of at least 91 ROZ. If this is not available, higher-octane gasoline may be used. This will not damage the engine, but may impair engine performance.

A similar situation will arise from the use of leaded fuel. **To obtain optimum engine operation and to protect your health and the environment, only unleaded fuel should be used!**

For engine lubrication use a two-stroke engine oil (JASO FC or ISO EGD quality grade). Add it to the fuel during refuelling. The engine was designed for use with a high performance two-stroke oil sold by MAKITA, with a mixture ratio of 50:1. This will ensure long engine life and reliable operation with low exhaust emissions.

MAKITA high-performance two-stroke engine oil is available in two different sizes:

1 liter	part no. 980 008 607
100 ml	part no. 980 008 606

In case MAKITA high-performance two-stroke engine oil is not available, it is urgently recommended to use a mixture ratio of 40:1 with other two-stroke engine oils, as otherwise optimum operation of the engine cannot be guaranteed.

**Caution: Do not use ready-mixed fuel from petrol stations.**

### Preparation of the correct mixture ratio:

- 50:1** When using MAKITA high-performance two-stroke oil, i.e. 50 parts gasoline / 1 part oil.
- 40:1** When using other brands, i.e. 40 parts gasoline / 1 part oil.

### Note:

When preparing the fuel mixture, always first mix the entire oil quantity with half of the gasoline, and then add the rest of the gasoline. Shake the mixture well before putting in the fuel tank. It is not wise to add more oil to the mixture than specified, even if this may seem safer for the engine. More oil only leads to increased combustion residues, which not only pollute the environment, but are also bad for the cylinder exhaust channel and the muffler. Furthermore fuel consumption will increase and performance will fall.

## AVOID SKIN AND EYE CONTACT!

Utmost care is required when handling fuel. Fuel may contain substances similar to solvents. Refuel either in a well ventilated room or outdoors. Do not inhale fuel vapours. Fuel vapours are poisonous and can be hazardous to your health. Avoid eye and skin contact with fuels and mineral oils. Mineral oil products degrease your skin. If your skin comes in contact with these substances repeatedly and for an extended period of time, it will desiccate. Various skin diseases may result. In addition, allergic reactions are known to occur. Eyes can be irritated by contact with oil. If oil comes into your eyes, immediately wash them with clear water.

**If your eyes are still irritated, see a doctor immediately!**

### The Storage of Fuel

Fuels have a limited storage life. Fuel and fuel mixtures age. Therefore fuel and fuel mixtures, which have been stored for too long, can cause starting problems. Purchase only that amount of fuel, which will be consumed over the next few months.

**Store fuel safely in a dry place in approved containers only.**

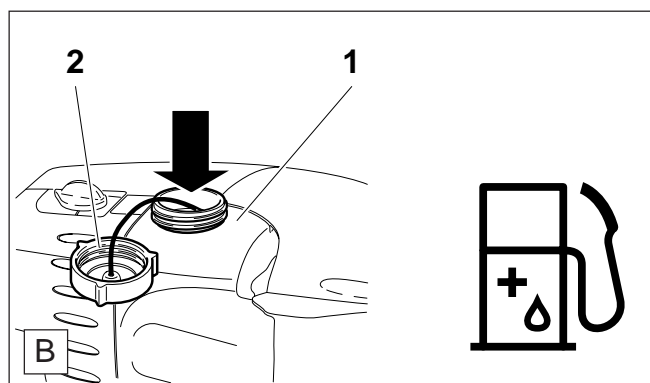
### Refuelling



### FOLLOW THE SAFETY PRECAUTIONS!

**Be careful and cautious when handling fuels.**

**The engine must be switched off!**



- Thoroughly clean around the tank cap (B/1) so that no dirt can enter the fuel tank.
- Before refuelling the brushcutter make sure it is on its side in a stable position.
- Unscrew the tank cap (B/2) and carefully fill in the fuel mixture up to the lower edge of the filler neck. Fill the tank carefully, making sure not to spill any fuel.
- Tightly screw on the cap.

**Clean screw cap and tank after refuelling.**

## Putting on the harness

(only DBC300, 301, 310, 311)



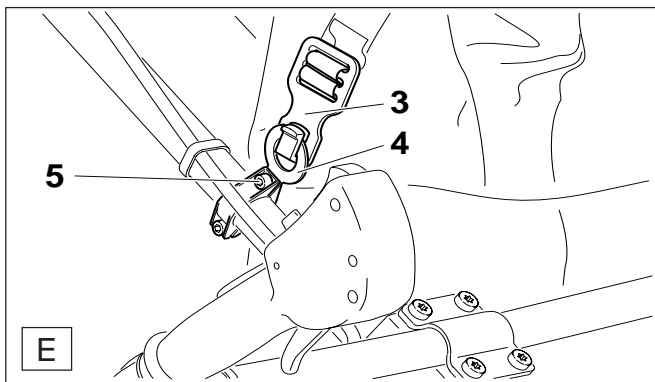
- Put on the harness as shown in figure **C**.
- Adjust it so that the clip is about a hand-width above your hipbone.

## Balancing the brushcutter

(only DBC300, 301, 310, 311)

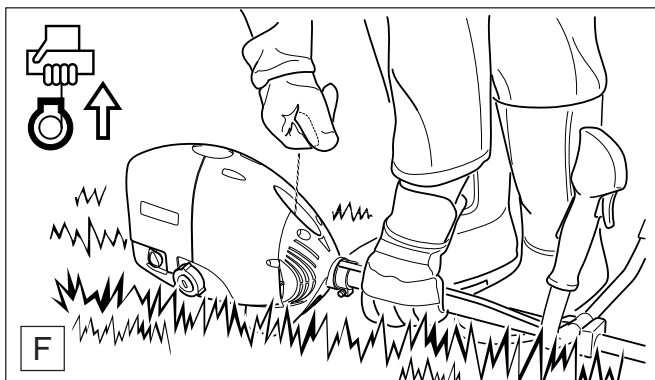


- The ground clearance will depend on the kind of cutting tool selected.
- When using the trimmer head on a level terrain, the trimmer head should touch the ground lightly without the user having to hold the unit.
- In difficult terrain or when using the steel bush cutter or 8-tooth eddy blades the brushcutter should balance about 20 cm above the ground without the user having to hold the unit.



- Fuel the brushcutter and clip it into the harness (**E/3**).
- To balance the brushcutter, loosen the bolt (**E/5**). Push the eyelet (**E/4**) forward to move the centre of gravity back towards the engine, or back to move the centre of gravity forward towards the tool.
- When you are satisfied with the balance tighten the bolt (**E/5**).

## Start engine



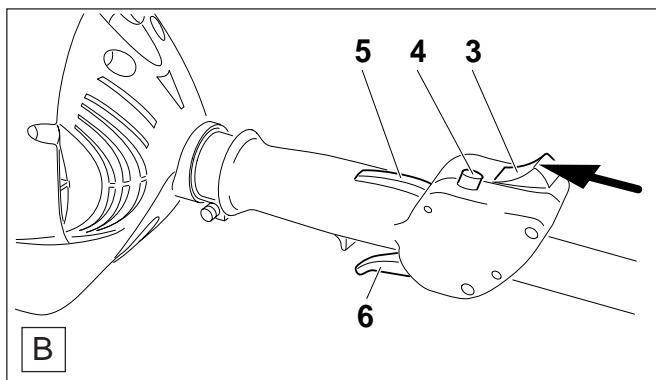
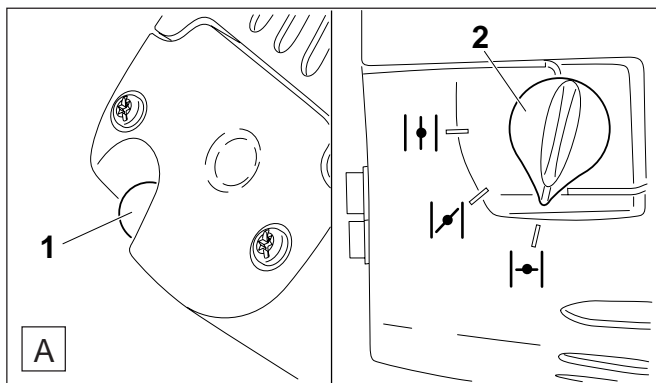
### Observe accident-prevention regulations!

**Do not start the brushcutter until fully assembled and inspected!**

### Starting the engine

- Move at least 3 meters (10 feet) away from where you filled the fuel tank.
- Make sure you have a good footing, and lay the brushcutter on the ground in such a way that the cutting tool is not touching the ground or anything else.

## Cold start




- Prime the fuel pump (**A/1**) by pressing it several times until you can see fuel in the pump.
- Move the switch (**B/3**) in the direction of the arrow.
- Set the half-throttle catch and press the throttle (**B/6**) with the throttle trigger lockout pressed (**B/5**) and then press the catch (**B/4**). Release the throttle (**B/6**) and then the throttle trigger lockout (**B/5**).
- Turn the choke lever (**A/2**) to position **H** (closed).
- Hold the brushcutter with one hand as shown in Fig. F on page 15.
- Pull the starter cable slowly until you feel resistance (piston is just before top dead centre).
- Now pull quickly and forcefully until you hear the first audible ignition.
- Do not pull out the whole starter cable to its full extent and do not let the starter handle jump back, but let it slowly automatically rewind itself.
- Turn the choke lever (**A/2**) to position **1/2** (half-open) and pull the starter cable again until the engine is running.
- Once the engine has started, press the throttle (**B/6**) all the way and release it again immediately. The half-throttle catch will come out and the engine will idle.
- After a short period of running turn the choke lever (**A/2**) to position **I** (open).

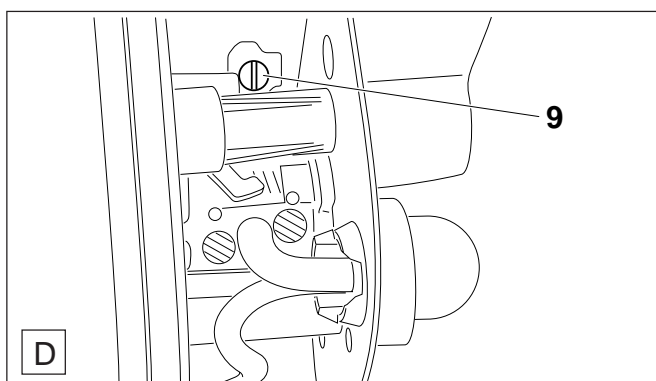
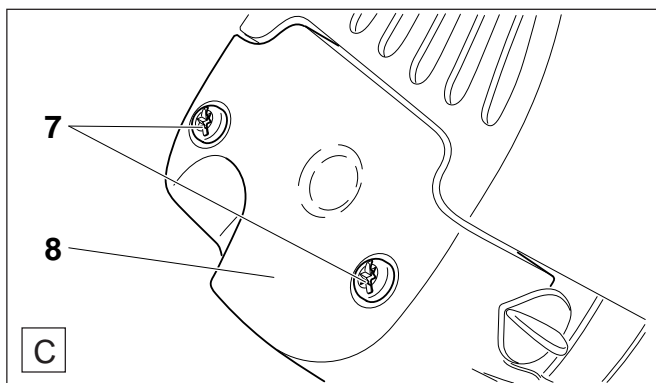
## Warm start

- If the engine is warmed up do not prime the fuel pump.
- Do not turn the choke to position **H** (closed).

## Stop engine

Move switch (**B/3**) to the position .

## Idle adjustment



**Important:** The cutting tool must not rotate when the engine is idling! If it does, adjust the idle speed.

- Loosen the screws (**C/7**) and remove the air filter cover (**C/8**).
  - Unscrew the adjustment screw (**D/9**) no more than 1/8 turn (counter-clockwise).
  - Put the air filter cover (**C/8**) back on and tighten the screws.
- CAUTION:** The air filter cover (**C/8**) must be on when you check the idle speed!
- Repeat the procedure if the cutting tool still rotates during idling.

## REPAIR AND MAINTENANCE WORK

**CAUTION:** Before doing any work on the brushcutter, always switch off the motor and pull the plug cap off the spark plug . Always wear protective gloves!

**CAUTION:** Start the brushcutter only after complete assembly and inspection!



### Instructions for maintenance

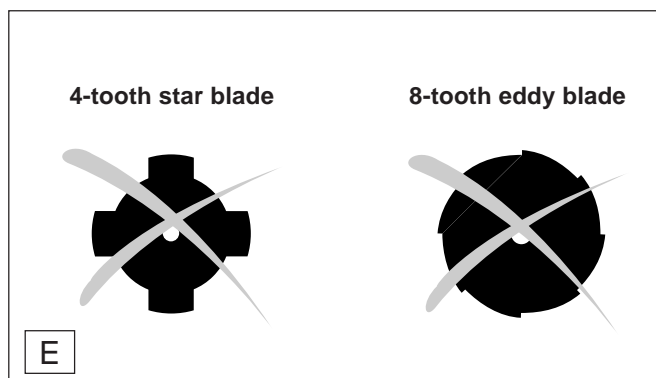
For long life and trouble-free operation of your brushcutter the maintenance work listed below must be carried out regularly. Failure to perform this maintenance work in a correct and timely fashion will void the guarantee. Failure to perform the prescribed maintenance work can lead to accidents!

Do not do any maintenance or servicing work not described in this Instruction Manual. All such work may be done only by a MAKITA service station.

After refuelling the brushcutter 50 times, it should be given a thorough maintenance check and a complete inspection at a MAKITA service centre.

			Page
<b>General</b>	The brushcutter as a whole	Clean exterior, check for damage. In case of damage, have repaired by a qualified service centre immediately	
<b>Before each start</b>	Cutting tool	Check for any signs of damage, that the tool is sharp and that it is firmly secured.	
	Guards	Check for correct position, firm attachment and good condition.	10
	Screws and nuts	Check their condition and that they are firmly secured.	
	OFF switch, Safety locking button, Throttle lever	Functional check	16
	Fuel tank cap and fuel system Idling speed	Check for tightness Check, the cutting tool must not turn when the engine is idling.	16
<b>Every time after the brushcutter is switched off</b>	Air filter	Clean	18
	Cooling slit	Clean, check for any signs of damage.	
<b>Every 6 months</b>	Spark plug	Check and replace if necessary	18
	Suction head	Have checked by a qualified workshop	
	Fuel tank	Clean	
	Starter cable	Check for any signs of damage.	
<b>Annually</b>	The brushcutter as a whole	Check at an authorized service centre	
<b>If the brushcutter is not to be used for a long period of time</b>	The brushcutter as a whole	Have a maintenance check carried out at a MAKITA service centre. Store safely in a dry room.	
	Fuel tank	Empty and clean	
	Carburetor	Run empty	
	Metal cutting tools	Clean and lubricate lightly Use the tool protection	

### Sharpening of cutting tools



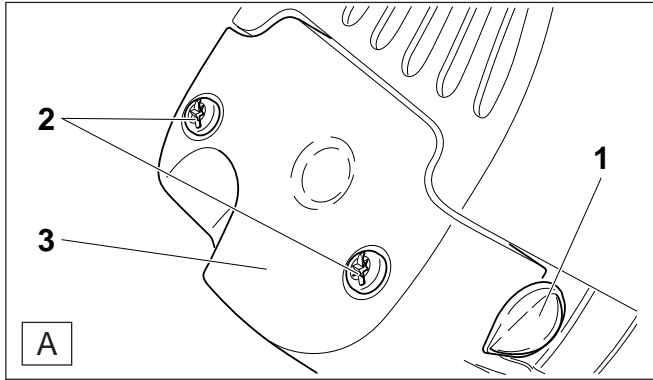
**Note:** The cutting tools below should be sharpened only at a qualified workshop! Manual resharpener will result in an imbalance of the cutting tool, causing vibrations and engine damage.

- 4-tooth star blade
- 8-tooth eddy blade

Expert sharpening can be obtained from a MAKITA service station.

**Note:** To prolong its useful lifetime, the 4-tooth star blade can be turned once until both cutting sides are blunt.

## Cleaning the air filter



- Turn the choke (A/1) to position (closed).
- Loosen the screws (A/2) and remove the air filter cover (A/3).
- Take the foam filter out of the cover.

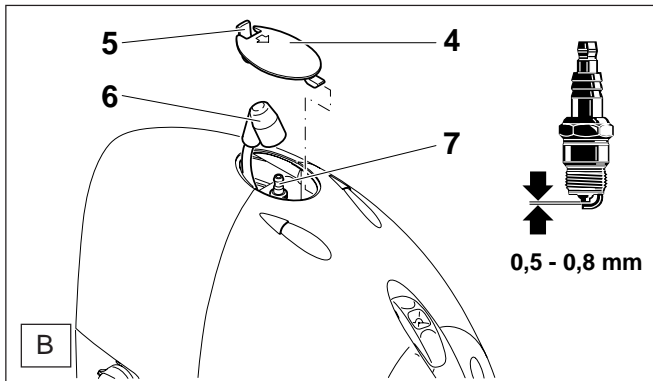
**Caution: To prevent eye injuries, do not blow out dirt particles!**

- Very dirty filters can be cleaned out using regular dish-washing liquid in lukewarm water.
- If it is very dirty clean it more often. Only a clean filter ensures full engine power!
- Before reinstalling the air filter check the choke valve for dirt particles, and if necessary clean it out with a brush.
- **Carefully dry** the air filter and reinstall it.

**Important:**

**If the air filter is damaged replace it immediately! Torn-off fabric pieces and large dirt particles can destroy the engine!**

## Replacing the spark plug



**CAUTION!**

**NEVER touch the spark plug or spark plug cap while the engine is running (high voltage)!**

**Never do maintenance work with the engine running!**

**A hot engine can cause severe burns. Wear protective gloves!**

The spark plug must be replaced if the insulator is damaged or if the electrodes are severely eroded or dirty or oily.

- Remove the spark plug cover (B/4) by pressing the clip (B/5) in the direction of the arrow and lifting off the cover.
- Pull the spark plug cap (B/6) off the plug. Remove the spark plug with a spark plug wrench (19 mm size, available in the Accessoires).

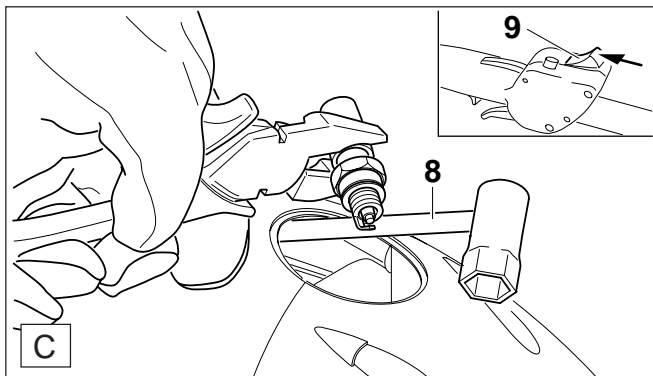
**Note:**

Replace only with **BOSCH WSR-6F**, **CHAMPION RCJ-6Y** or **NGK BPMR7A** spark plugs!

**Electrode gap**

The electrode gap must be 0.5 - 0.8 mm.

## Inspecting the spark plug



- Insert the wrench (C/8) between the housing and the cylinder, only as shown in the illustration.

**CAUTION!**

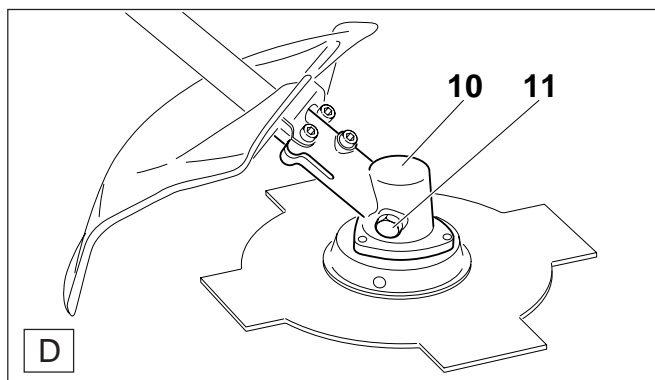
**Do not insert the wrench into the spark plug hole. Make contact only with the cylinder** (otherwise you may damage the engine).

- Firmly connect the spark plug cap to the spark plug (removed from the engine) and hold it against the wrench using insulated pliers (away from the spark plug hole!).
- Move the switch (C/9) as shown by the arrow.
- Pull the starter cable hard.

A spark should be visible at the electrode gap.



## Lubricating the gear box (DBC300, 301, 310, 311 only)



Before extended periods of storage grease must be pressed into the gear box (**D/10**) in order to prevent water from condensing inside and causing damage.

- Unscrew screw (**D/11**).
- Press grease into the gear box with a grease gun.
- Insert screw (**D/11**) and tighten.

If a large amount of grease comes out of the gear box contact a MAKITA service centre.

### Available as accessories:

Grease gun (order no. 944 350 000)

Multipurpose grease (order no. 944 360 000)

## Servicing and maintenance



We recommend that a comprehensive maintenance and inspection be performed at regular intervals. **Any maintenance or adjustment work not described in this manual may be performed only by a MAKITA service station.**

## Trouble shooting

Fault	System	Observation	Cause
Engine will not start or starts only with difficulty	Ignition system	Ignition spark OK No ignition spark	Fault in fuel supply or compression system, mechanical defect STOP switch is depressed, wiring fault or short circuit, spark plug or connector defective, ignition module faulty Incorrect choke position, carburetor defective, suction head dirty, fuel supply line bent or interrupted Cylinder bottom gasket defective, crankshaft seals damaged, cylinder or piston rings worn Poor sealing of spark plug Broken starter spring, broken parts inside engine
	Fuel supply	Fuel tank full	
	Compression system	Inside of engine	
	Mechanical fault	Outside of engine Starter not engaging	
Warm start problems	Carburetor	Tank filled Ignition spark OK	Incorrect carburetor setting
Engine starts but dies immediately	Fuel supply	Tank full	Incorrect idle speed, suction head or carburetor dirty
			Fuel tank vent defective, fuel supply line interrupted, cable or STOP switch faulty
Insufficient power	Several systems may be affected simultaneously	Engine idling	Air filter dirty, carburetor adjustment incorrect, muffler clogged, exhaust duct in the cylinder clogged

## Extract from the spare parts list

Use only original MAKITA spare parts. For repairs and replacement of other parts see your MAKITA service station.

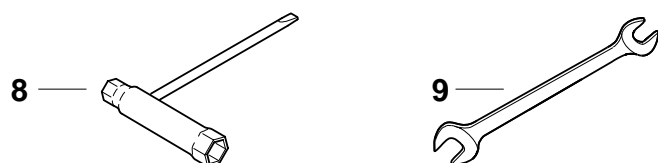
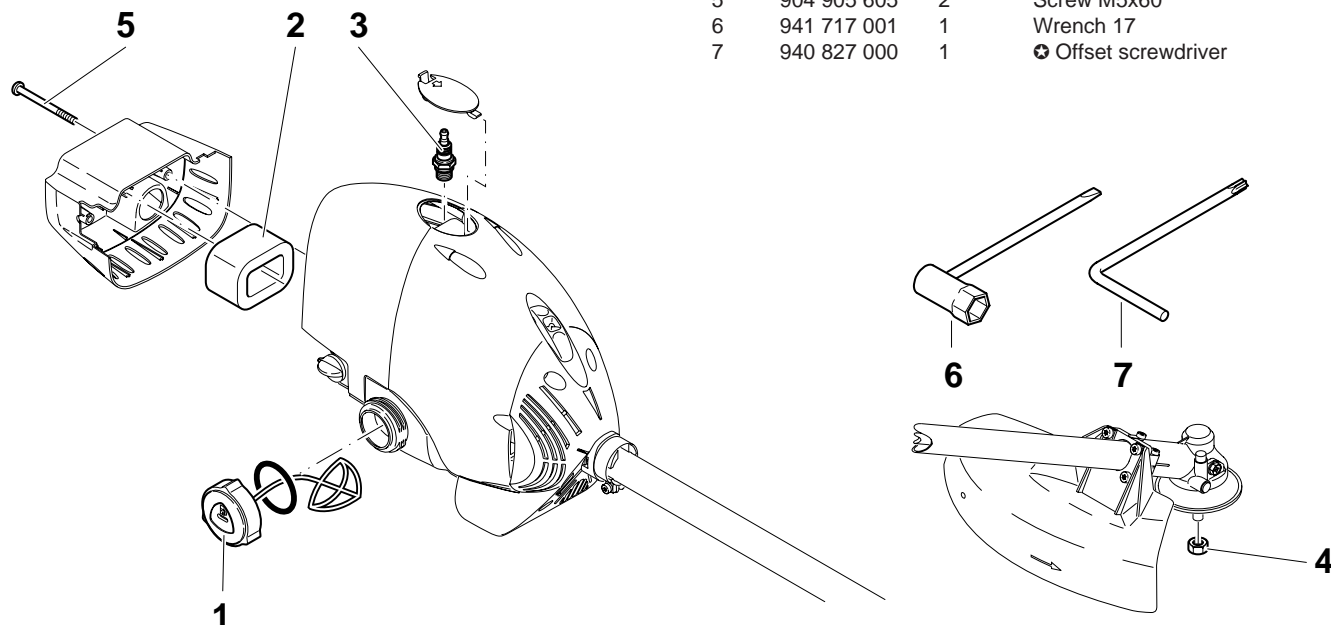
DBC300, 310

DBC301, 311

DST300, 310



Pos.	MAKITA-No.	Qty.	Description
1	010 114 049	1	Tank cap cpl.
2	369 173 050	1	Air filter
3	965 603 021	1	Spark plug
4	387 228 040	1	Locknut
5	904 905 605	2	Screw M5x60
6	941 717 001	1	Wrench 17
7	940 827 000	1	✱ Offset screwdriver



Accessoires (not included with the delivery inventory)

Pos.	MAKITA-No.	Qty.	Description
8	941 713 191	1	Spark plug tool SW 13/19
9	944 500 800	1	Open wrench SW 10/13

## Service, spare parts and guarantee


### Maintenance and repair

The maintenance and repair modern brushcutters and safety-related components and assemblies requires qualified technical training and a workshop equipped with special tools and testing devices.

We therefore recommend that you consult a MAKITA service centre for all work not described in this instruction manual. The MAKITA service centres have all the necessary equipment and skilled and experienced personnel, who can work out cost-effective solutions and advise you in all matters.

Please contact your nearest service centre (list enclosed).

### Spare parts

Reliable long-term operation, as well as the safety of your brushcutter, depend among other things on the quality of the spare parts used. Use only original MAKITA parts, marked 

Only original spare parts and accessories guarantee the highest quality in material, dimensions, functioning and safety.

Original spare parts and accessories can be obtained from your local dealer. He will also have the spare part lists to determine the required spare part numbers, and will be constantly informed about the latest improvements and spare part innovations.

Please bear in mind that if parts other than original MAKITA spare parts are used, this will automatically invalidate the MAKITA product guarantee.

## Guarantee

MAKITA guarantees the highest quality and will therefore reimburse all costs for repair by replacement of damaged parts resulting from material or production faults occurring within the guarantee period after purchase. Please note that in some countries particular guarantee conditions may exist. If you have any questions, please contact your salesman, who is responsible for the guarantee of the product.

Please note that we cannot accept any responsibility for damage caused by:

- Disregard of the instruction manual.
- Non-performance of the required maintenance and cleaning.
- Exceeding of the maximum admissible speed due to incorrect carburetor adjustment.
- Incorrect carburetor adjustment.
- Normal wear and tear.
- Obvious overloading due to permanent exceeding of the upper performance limits.
- Use of force, improper use, misuse or accidents.
- Overheating due to dirt in the coolant-air intake system including air filter.
- Work on the brushcutter by unskilled persons or inappropriate repairs.
- Use of unsuitable spare parts or parts which are not original MAKITA parts, insofar as they have caused the damage.
- Use of unsuitable or old oil.
- Damage related to conditions arising from lease or rent contracts.
- Damages caused by disregarding loose outer bolted connections.

Cleaning, servicing and adjustment work is not covered by the guarantee. All repairs covered by the guarantee must be performed by a MAKITA service centre.



## Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



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Specifications subject to change without notice

Form: 995 704 121 (1.05 GB)