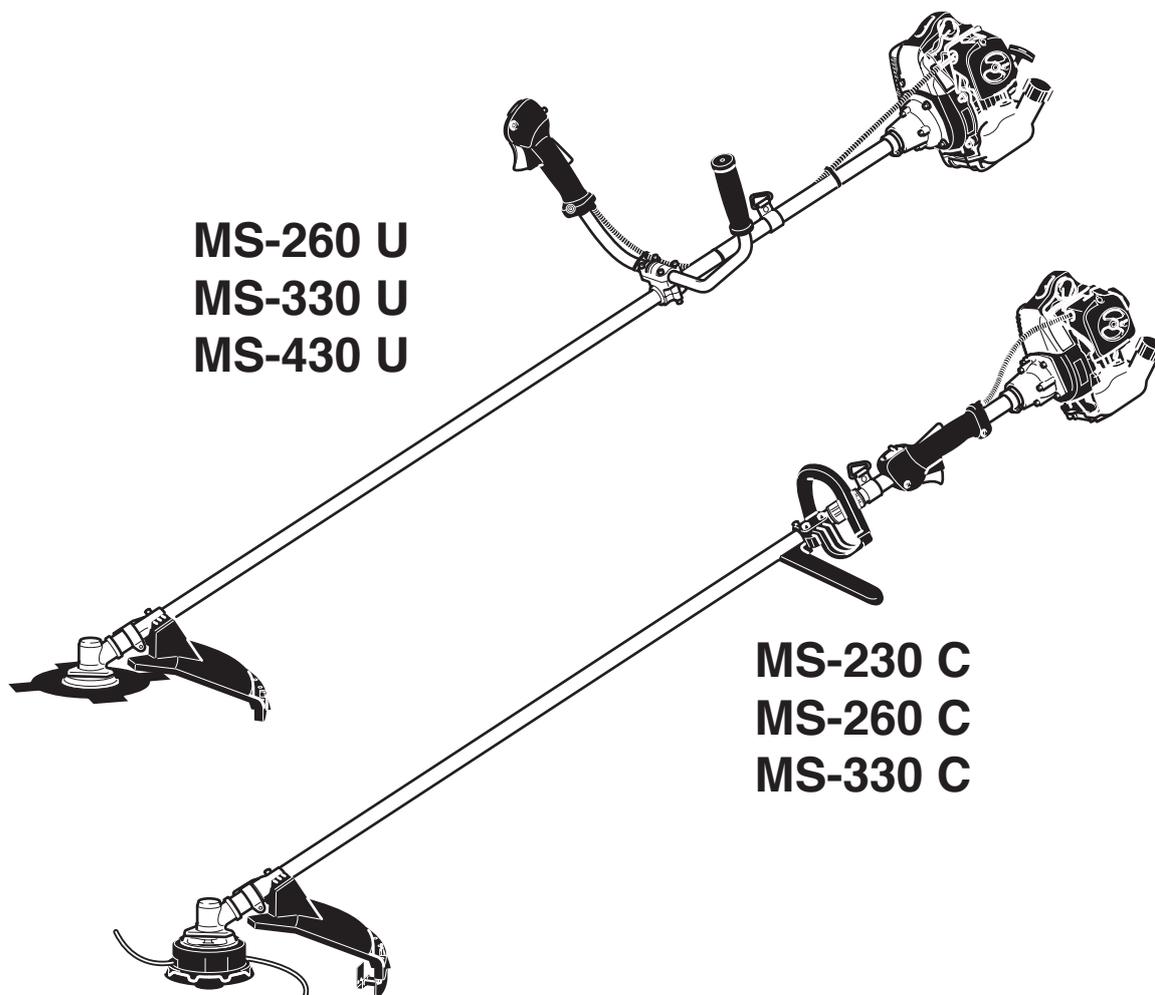


Instruction Manual

Important:

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

Keep this Instruction Manual!



MS-260 U
MS-330 U
MS-430 U

MS-230 C
MS-260 C
MS-330 C

<http://www.dolmar.com>

DOLMAR



Thank you for choosing a DOLMAR product!

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

With their two-stroke gasoline engines the brushcutters can be used anywhere, and with their fuel pump (primer) they are unusually easy to start. 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.

To ensure your own safety and to get the maximum performance out of your DOLMAR 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 DOLMAR machines,

**Type: MS-230 C (351), 260 C (352), 330 C (353),
MS-260 U (352), 330 U (353), 430 U (354)**

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

EU Machinery Directive 98/37/ EG,

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

Outdoor Noise Directive 2000/14/EG.

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

EN 11806, EN 14982, EN 61000-4-2, EN 61000-4-3.

The conformity assessment procedure 2000/14/EG was performed per Annex V.

MS-230 C: The measured sound power level is 110 db(A), the guaranteed sound power level is 112 db(A).

MS-260 C: The measured sound power level is 110.7 db(A), the guaranteed sound power level is 112 db(A).

MS-260 U: The measured sound power level is 102.8 db(A), the guaranteed sound power level is 105 db(A).

MS-330 C: The measured sound power level is 112.3 db(A), the guaranteed sound power level is 115 db(A).

MS-330 U: The measured sound power level is 103.6 db(A), the guaranteed sound power level is 105 db(A).

MS-430 U: The measured sound power level is 104.7 db(A), the guaranteed sound power level is 107 db(A).

Hamburg, 22.2. 2005

For DOLMAR GmbH


Shigeharu Kominami
Managing Director


Rainer Bergfeld
Managing Director

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Packing

Your DOLMAR 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).

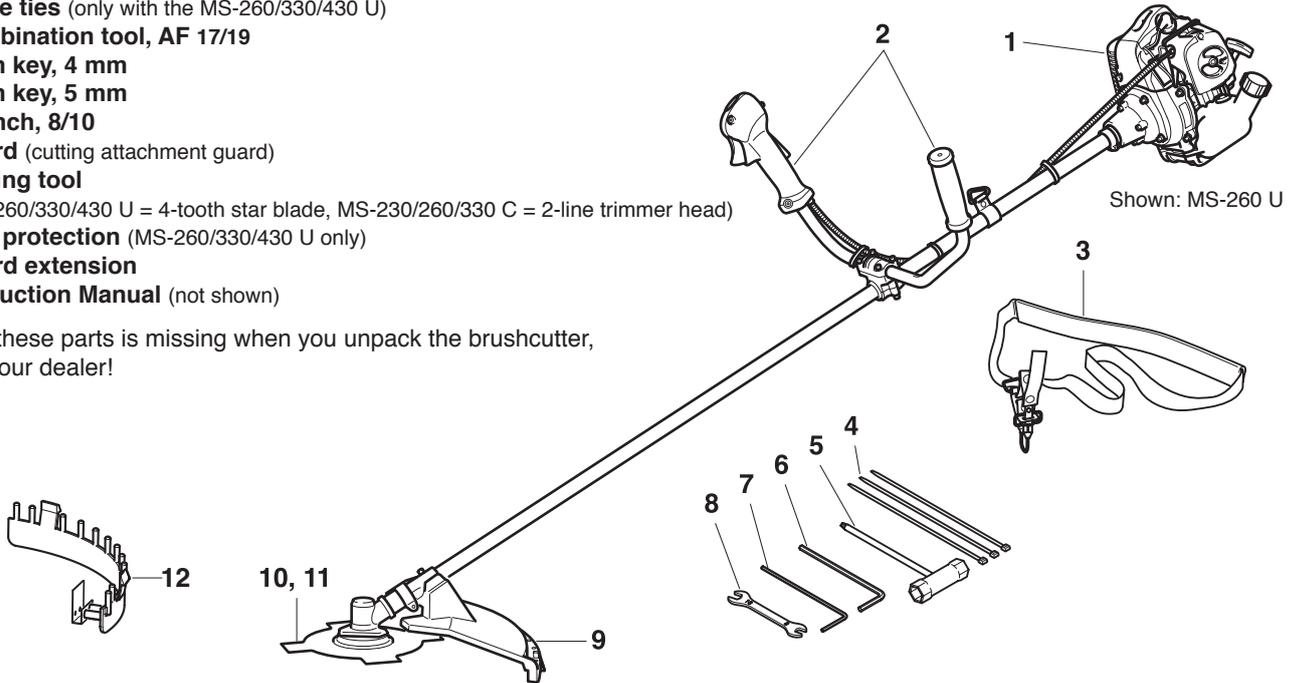


Delivery inventory

DOLMAR

1. **Brushcutter**
2. **Handle** (version depends on model)
3. **Harness**
4. **Cable ties** (only with the MS-260/330/430 U)
5. **Combination tool, AF 17/19**
6. **Allen key, 4 mm**
7. **Allen key, 5 mm**
8. **Wrench, 8/10**
9. **Guard** (cutting attachment guard)
10. **Cutting tool**
(MS-260/330/430 U = 4-tooth star blade, MS-230/260/330 C = 2-line trimmer head)
11. **Tool protection** (MS-260/330/430 U only)
12. **Guard extension**
- **Instruction Manual** (not shown)

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.

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

SAFETY PRECAUTIONS

General precautions

Proper use: These power brushcutters are intended for cutting grass or heavy weeds, with the appropriate and permissible cutting tools. A brushcutter may be operated only by one person, and only out of doors!

Improper use:

The cutting tools permissible for this brushcutter must not be used to cut heavier material such as shrubs, bushes, heavy growth, or thickets.

Impermissible users:

Persons who are unfamiliar with this Instruction Manual, minors, and persons under the influence of alcohol, drugs or medication must not operate this tool.

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

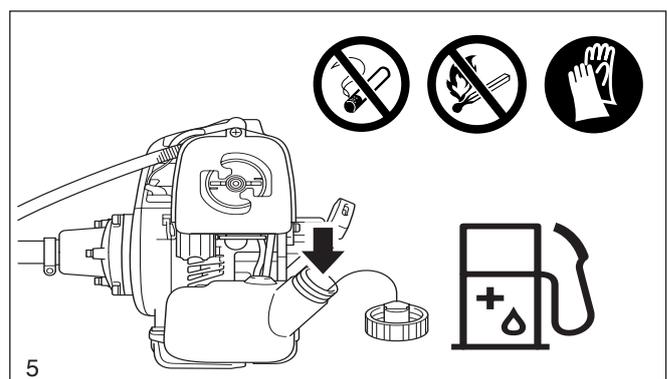
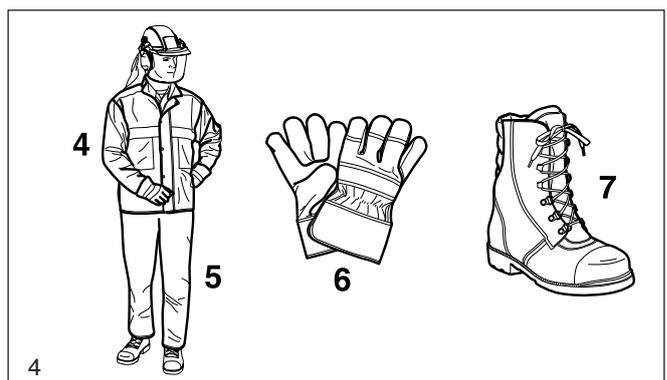
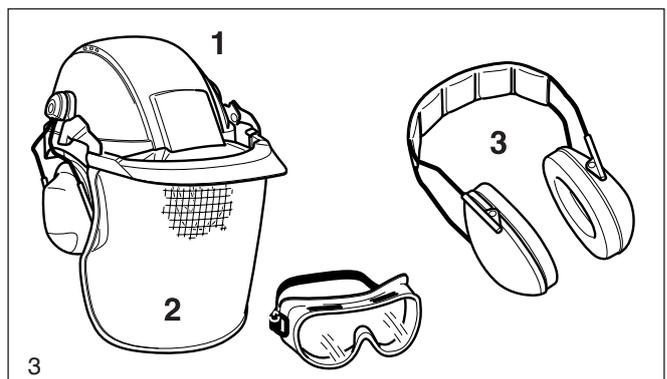
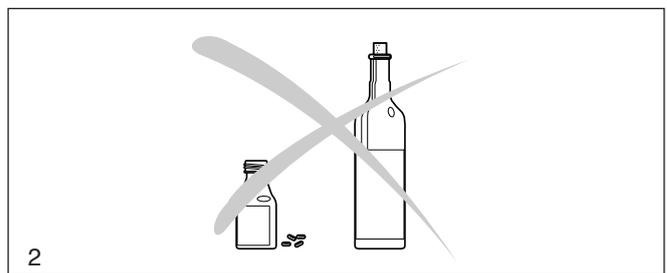
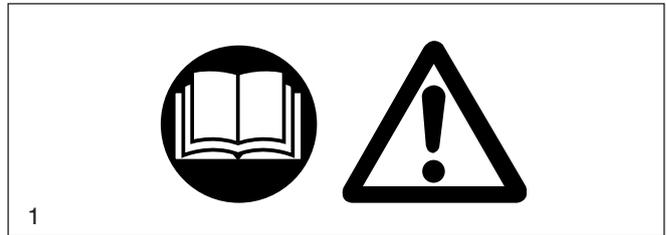
- The clothing worn should be functional and appropriate, i.e. it should be tight-fitting but not cause hindrance. Do not wear either jewellery or clothing which could become entangled with bushes or shrubs. Secure hair so it is above shoulder level. If you have long hair, always wear a hair net!
- **In 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

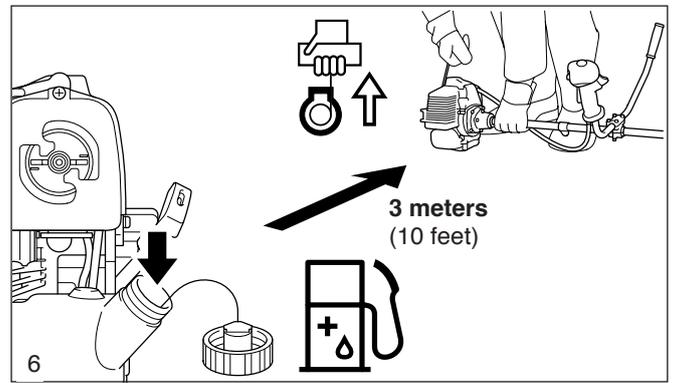
- Stop the engine before refuelling.
- Keep away from open flame or sparks and do not smoke while refuelling or mixing fuel.
- Let the engine cool down before refuelling.
- Fuel may contain substances similar to solvents. Eyes and skin

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.

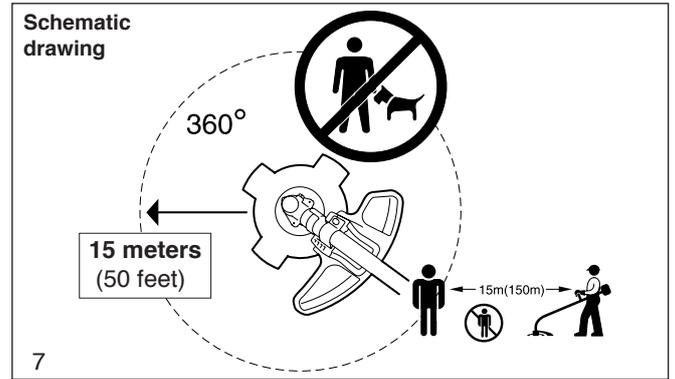


- Ensure that no fuel or chain oil oozes into the soil (environmental protection). Use an appropriate base.
- Refuelling is not allowed in closed rooms. Fuel vapors will accumulate near the floor (explosion hazard).
- Carefully tighten the locking screw of the fuel tank and inspect the fuel cap at regular intervals.
- Change the place before starting the engine (at least 3 meters 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.

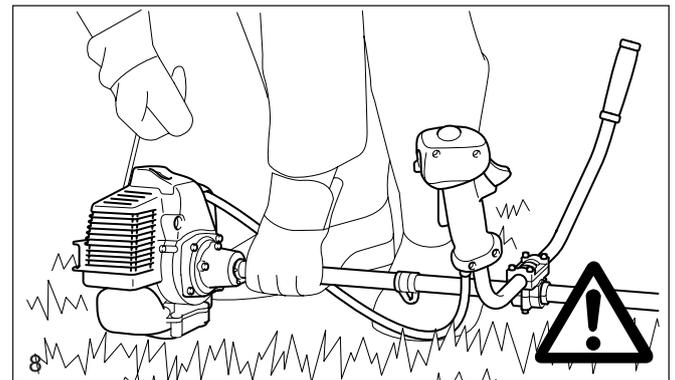


Putting into operation

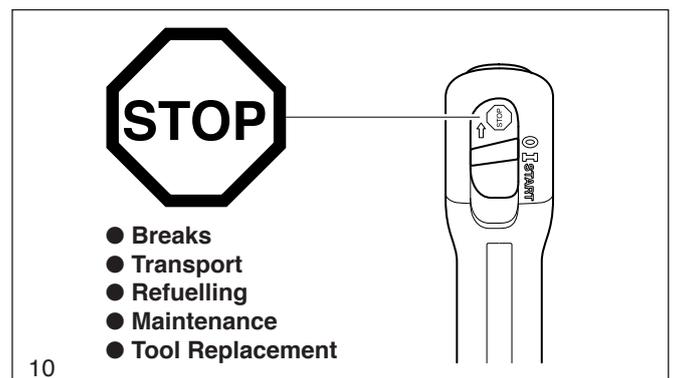
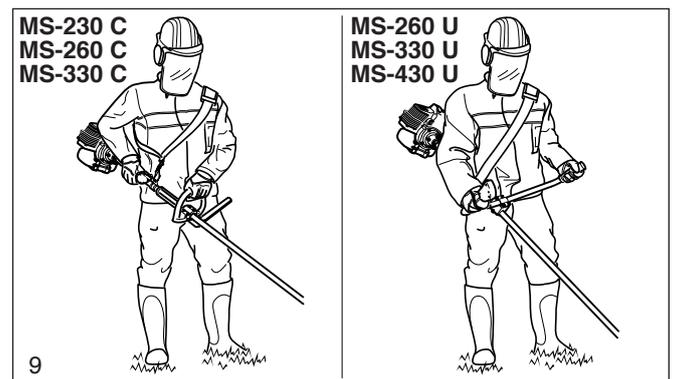
- **Do not work alone. Another person must be nearby in case of emergencies (within shouting distance).**
- Children and other persons must remain more than 15 meters (50 feet) from the working area. Keep an eye out for animals as well (7).
- **Before use always check that the brushcutter is safe for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

During operation the brushcutter can kickback in an uncontrolled manner. This can happen when the cutting blade (4-tooth star blade) comes into contact with hard objects such as stumps, fenceposts, tree trunks, woody brush or large rocks.

This can fling the brushcutter to one side with great force and speed (injury hazard).

To avoid kickback, observe the following:

- Remove foreign objects from the cutting area and be aware of plants and objects in the area.
- The cutting tool must be turning at full speed before starting cuts.
- The danger of kickback is heightened in the darkened area (illustration), especially if using a metal cutting tool!

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, 12), 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! Do not use tools for jobs they are not designed for.

2-line trimmer head (13)

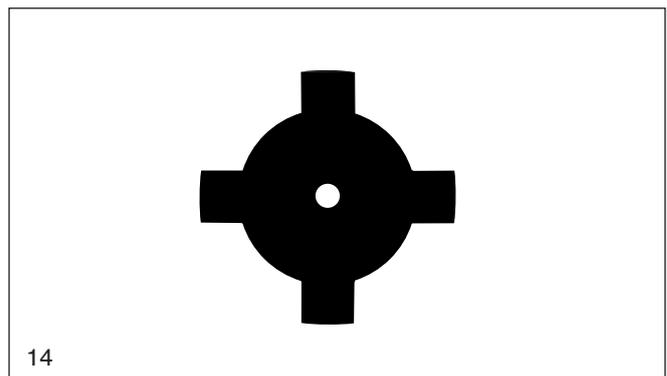
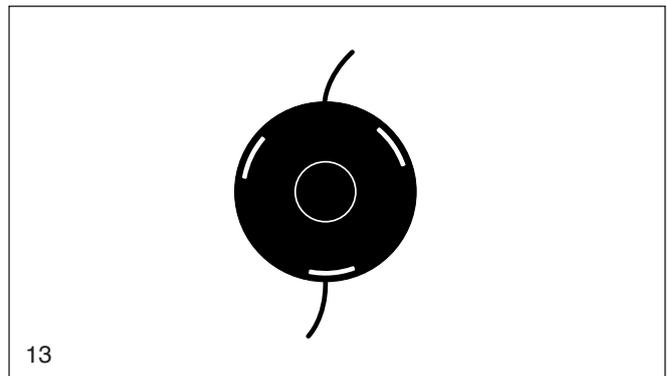
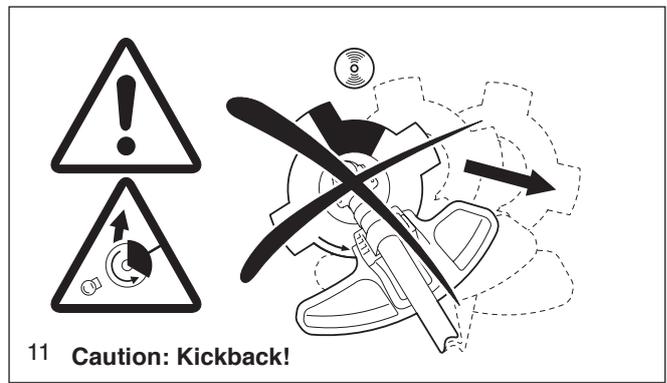
Only for cutting up against walls, fences, trees, posts etc. and at lawn edges (as an adjunct to a lawnmower).

4-tooth star blade (14)

For cutting grass or heavy weeds. Perform this cutting work by swinging the brush cutter evenly in half-circles from left to right (15, 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 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 DOLMAR 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 prevention 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 DOLMAR customer service (17).

Use only original DOLMAR spares and accessories.

The use of non-DOLMAR spares, accessories, or cutting tools increases the risk of accident. DOLMAR 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.

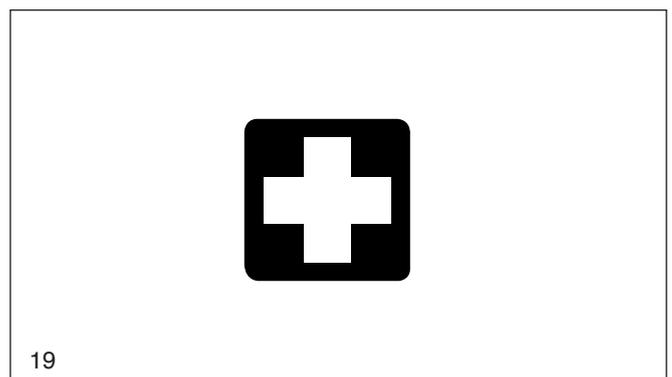
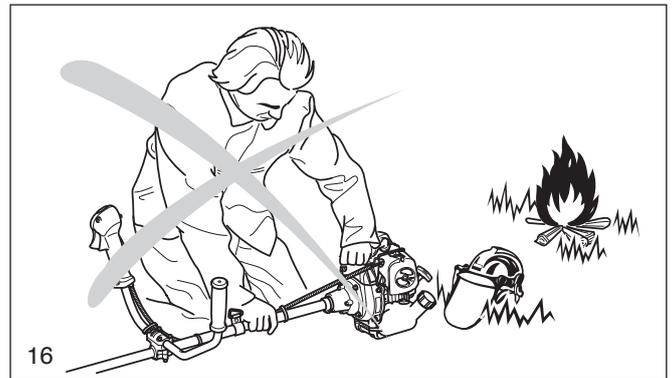
Immediately replace any items taken from the first aid kit.

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		230 C 260 C 330 C	260 U 330 U 430 U
Displacement	cm ³	22.6 25.6 32.6	25.6 32.6 42.7
Bore	mm	31 33 36	33 36 40
Stroke	mm	30 30 32	30 32 34
Rated capacity per ISO 8893	kW	0.7 0.8 0.97	0.8 0.97 1.27
Operating speed	rpm	8,000 8,000 7,500	8,000 7,500 7,500
Maximum engine speed with one-part metal cutting tool ¹⁾	rpm	7,370 7,370 8,100	7,370 8,100 7,370
Maximum spindle speed with one-part metal cutting tool ¹⁾	rpm	10,000	10,000
Idling speed	rpm	3,000 3,000 2,500	3,000 2,500 2,500
Carburetor	Type	diaphragm carburetor	diaphragm carburetor
Ignition system	Type	electronic	electronic
Spark plug	Type	NGK BPMR 8Y	NGK BPMR 8Y
Electrode gap	mm	0.6 - 0.7	0.6 - 0.7
Sound power level L _{WA av} per ISO 10884 ²⁾	dB (A)	106.8 107.8 109	99.5 100.5 102
Sound pressure level L _{pA av} at the workplace per ISO 7917 ²⁾	dB (A)	94.9 95.1 97.1	89.9 92 91.4
Vibration acceleration a _{h,w} per ISO 7916 ²⁾			
- Right handle (idling speed/maximum speed)	m/s ²		5.1 / 5.7 2.1 / 6.2 4.8 / 5.5
- Left handle (idling speed/maximum speed)	m/s ²		4.0 / 6.2 5.0 / 5.3 5.3 / 6.5
- Round handle (idling speed/maximum speed)	m/s ²	7.5 / 6.1 4.6 / 9.5 4.7 / 6.5	
- Handle on shaft (idling speed/maximum speed)	m/s ²	4.8 / 8.1 4.4 / 6.0 6.3 / 7.8	
Fuel consumption per ISO 8893 ³⁾	kg/h	0.35 0.36 0.44	0.36 0.44 0.49
Specific consumption per ISO 8893 ³⁾	g/kWh	500 450 454	450 454 386
Fuel tank capacity	l	0.6 0.6 0.8	0.6 0.8 0.9
Mixture ratio (fuel / DOLMAR two-stroke oil)			
- when using DOLMAR oil		50:1	50:1
- when using other oils		40:1	40:1
Gear ratio		14:19 14:19 17:21	14:19 14:19 14:19
Weight (not including guard, cutting tool and fuel)	kg	5.1 5.1 5.9	5.9 6.7 7.9

¹⁾ The maximum rated speed of the trimmer head is not exceeded when using a DOLMAR trimmer head.

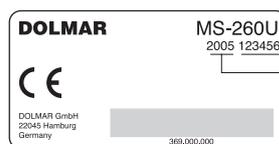
²⁾ Figures derived in equal part from idle and top-speed operation (per EN-ISO 11806).

³⁾ At max. power

Components

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

Type plate (MS-260 U)

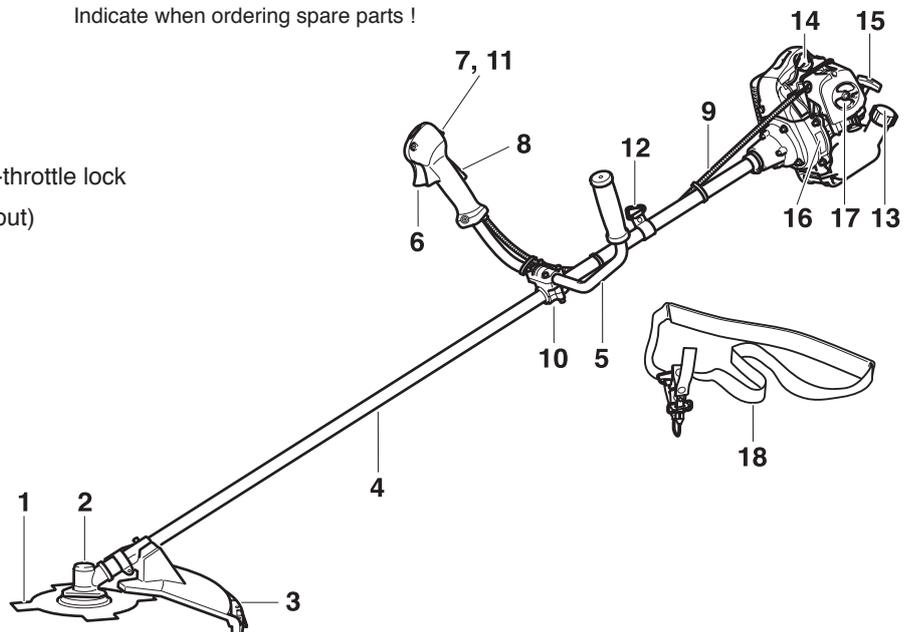


Serial number
Year of manufacture



Shown: MS-260 U

Indicate when ordering spare parts !



PUTTING INTO OPERATION

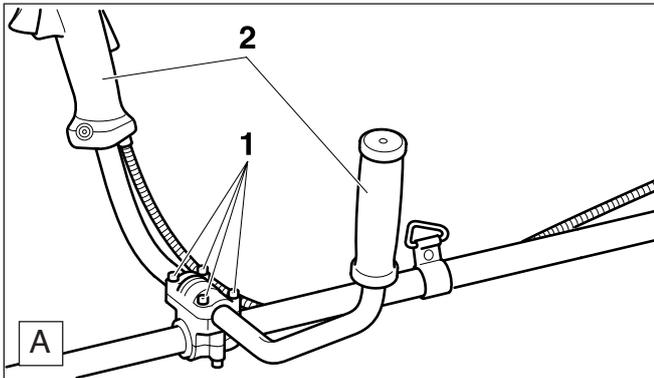


CAUTION: When working on the brushcutter always be absolutely certain to switch off the engine, pull the spark plug cap and wear protective gloves!

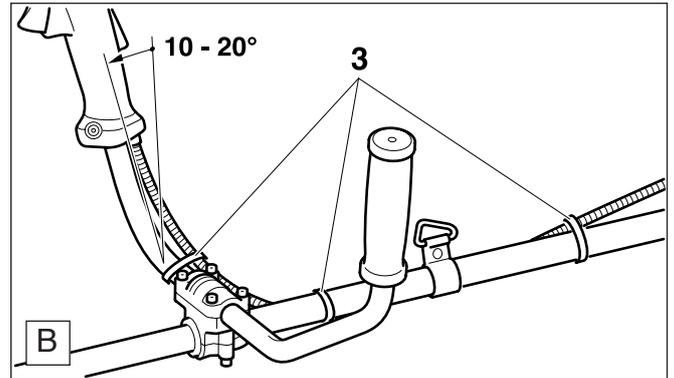
IMPORTANT: Do not start the brushcutter until fully assembled and inspected!

Installing the handle

(MS-260 U, MS-330 U, MS-430 U)



- Loosen screws (A/1) and unscrew about 1-2 mm.
- Push the grips (A/2) into the grip mounting, as shown in the illustration.
- Tighten the screws only enough to hold the grips while leaving them able to be turned for final positioning.



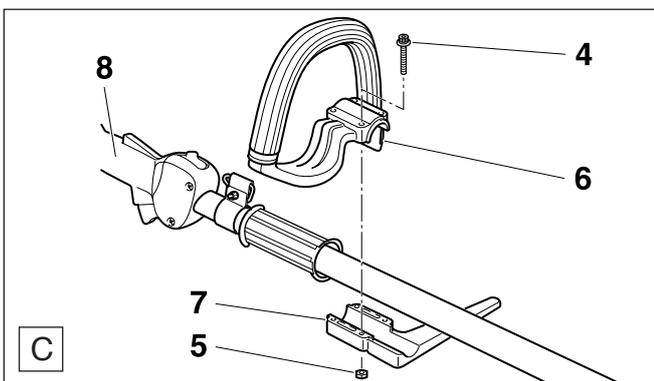
- Push the handle about 10 to 20° forward and tighten the bolts (A/1).
- Attach the bowden cable to the shaft tube using the cable ties (B/3) found in the enclosed pack.

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

(MS-230 C, MS-260 C, MS-330 C)



- Take the bolts and nuts (C/4, 5) and grip bracket (C/7) from the enclosed pack.
- Place grip (C/6) on shaft tube.
- Attach the handle retainer plate (C/7) with bolts (C/4) and nuts (C/5). Set the right distance between the throttle grip (C/8) and hand grip, and tighten screws (C/4).

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!

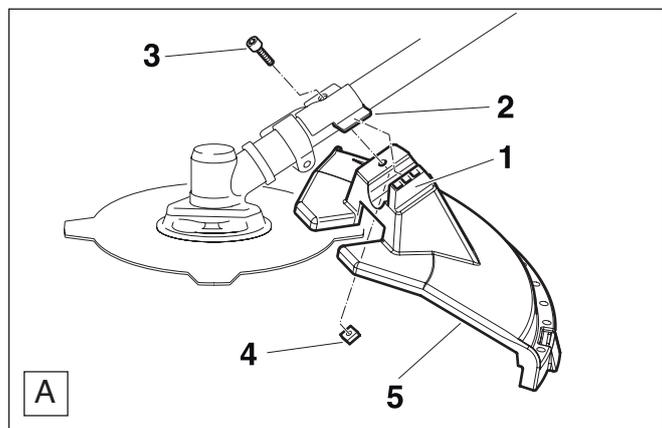
Warning: Use only the cutting tools shown here! It is not permitted to use other cutting tools as this can increase danger of accidents and cause damage to the equipment!

Tool/guard combinations for the MS-260 U / MS-330 U / MS-430 U

Cutting tool		Cutter guard
4-tooth star blade: Part no. 362 224 140 Outside diameter: 230 mm (9"), arbour: 25,4 mm (1")		Part no. 351 504 101
2-line trimmer head Part no. 351 502 030 15 m Part no. 369 224 070 120 m Part no. 369 224 072		Part no. 351 504 101 and Part no. 351 504 102 Install the guard extension

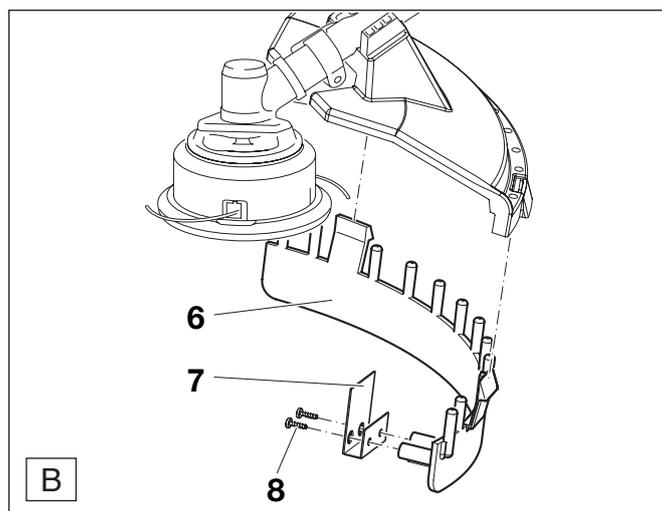
Tool/guard combinations for the MS-230 C / MS-260 C / MS-330 C

Cutting tool		Cutter guard
2-line trimmer head Part no. 351 502 030 15 m Part no. 369 224 070 120 m Part no. 369 224 072		Part no. 351 504 101 and Part no. 351 504 102 Install the guard extension



Mounting the cutter guard

- Hook the hood (A/5) by the cutout (A/1) on the lug (A/2).
- Insert and tighten bolt (A/3) and nut (A/4).



Mounting the guard extension for use with trimmer head.

- See above for installation of the cutter guard.
- Attach the guard extension (B/6) supplied with the brushcutter to the upper part of the cutter guard (A/5), bending it to fit the contour of the guard.
- Attach the trimmer line knife (B/7) to the guard extension (B/8) with the bolt (B/6).

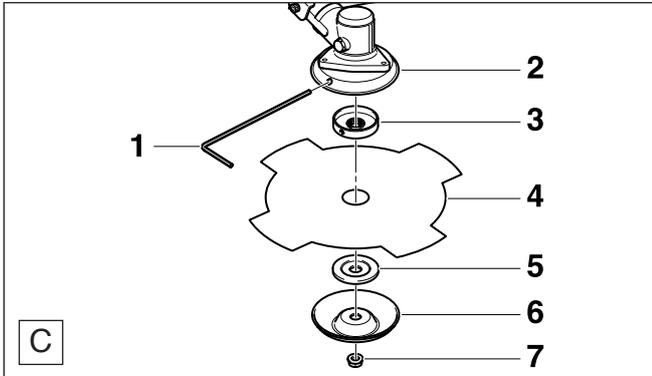
Note: If the trimmer line has been extended (see "Adjusting the line") the trimmer line knife automatically cuts the line ends to the same length during use.

Mounting the 4-tooth star blade

(MS-260 U / MS-330 U / MS-430 U)



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



- Unscrew the locknut (C/7) from the shaft by turning it clockwise. If necessary, block the angle gear (see below).

Note: The locknut is provided with a left-hand thread!

- Remove floating disc (C/6) and thrust washer (C/5).
- Insert the offset screwdriver 4 mm (C/1) through the winding guard and the locking disc into the opening (C/3) in the angular gear (block the winding gear). If necessary turn the mounting disc (C/3) slightly.
- Position the blade (C/4), thrust washer (C/5) and finally the floating disc (C/6) as shown.
- Screw down the locknut (C/7) and tighten it by turning the combination wrench counter-clockwise.

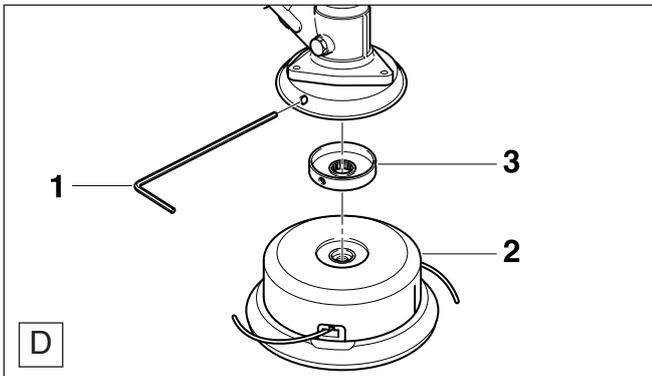
Caution: For safety reasons, after every 10 tool changes the locknut (C/7) must be replaced with a new one. For the order number, see the spare parts list at the end of this manual.

- Remove Allen key and check for freedom of motion of the cutting tool.

Installing the trimmer head

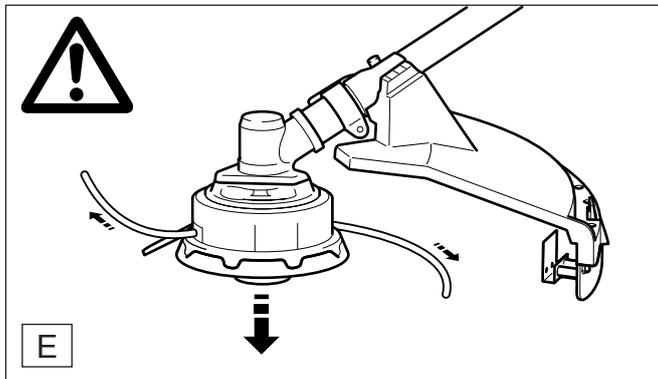
(MS-230 C / MS-260 C / MS-330 C)

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



- Place the mounting disc (D/3) on the shaft.
- Insert the 4 mm Allen key (D/1) through the winding guard and the mounting disc (D/3) into the opening on the angle gear (blocks the angle gear). If necessary turn the mounting disc (D/3) slightly.
- Screw the trimmer head (D/2) onto the shaft by turning it counter-clockwise.
- Now tighten the trimmer head by hand.
- Remove the Allen key and check for freedom of motion of the trimmer head.

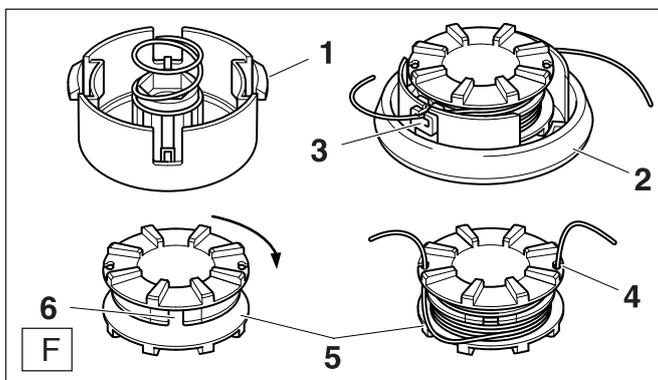
Adjusting the line



- You can adjust the line to the right length at any time by lightly tapping the trimmer head against the ground (direction of arrow). The line cutter automatically cuts off excess line. However, this only works when at least 3 cm of line are visible at each end.
- If the line ends are shorter than 3 cm, it will be necessary to adjust the trimmer line manually.
- To do this, push the button firmly and pull out the line ends forcefully.

CAUTION: Before cleaning the trimmer head, replacing the trimmer line, or manually adjusting it, make absolutely certain to switch off the engine and pull the spark-plug cap!

Replacing the line



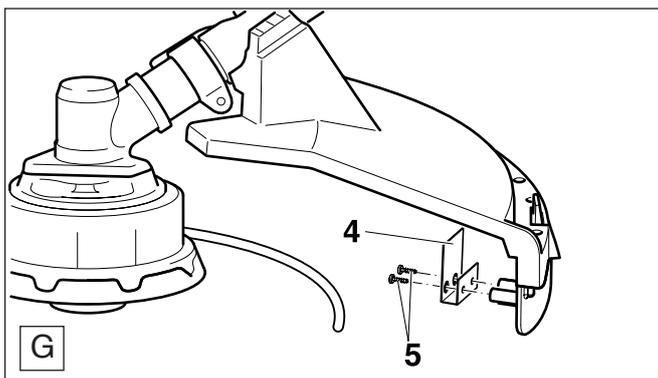
- Engage the nylon line in the cutout (F/6) so that one end of the line is about 80 mm longer than the other. Then wind both ends tightly about the spool in the direction of the arrow.
- After winding the line, temporarily insert the ends in the cutouts (F/4). Leave about 100 mm protruding on each end.
- Place the spool (F/5) in the housing cover (F/2). Remove the line ends from the cutouts (F/4) and pull them through the metal eyelets (F/3) in the housing cover.
- Line the housing tabs (F/1) up with the housing cover (F/2) and push together firmly until both tabs click into position audibly.

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

- Push the housing tabs (F/1) inward to remove the housing cover (F/2).
- Remove the spool (F/5) from the housing cover (F/2) remove all line and line fragments.
- Cut line (diam. 2.4 mm) to 7.5 m length.

Replacing the line knife

(MS-230 C / MS-260 C / MS-330 C)



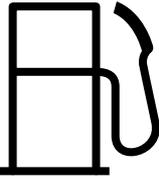
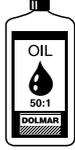
Before installing a new line knife, make absolutely certain to switch off the engine, disconnect the spark plug cap, and wear protective gloves!

- Unscrew the screws (G/5) and remove the old line knife.
- Mount the new line knife (G/4) as shown (towards the trimmer head) with screws (G/5).

NOTE: Do not overtighten the screws. The protective hood is made of plastic, and overtightening can strip the threads. If this has happened and it is not possible to mount the line knife firmly, the protective hood must be replaced.

Fuel mixture



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

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 DOLMAR, with a mixture ratio of 50:1. This will ensure long engine life and reliable operation with low exhaust emissions.

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

1 liter	part no. 980 008 107
100 ml	part no. 980 008 106

In case DOLMAR 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 DOLMAR 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.

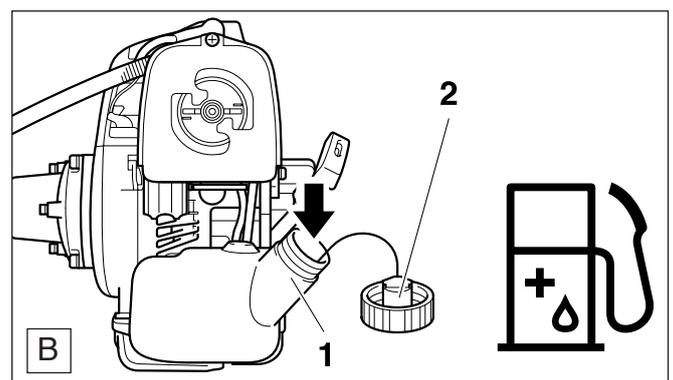
Refuelling



FOLLOW THE SAFETY PRECAUTIONS!

Be careful and cautious when handling fuels.

The engine must be switched off!



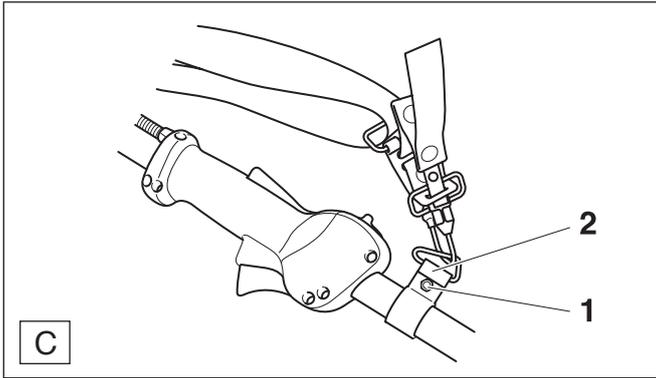
- Thoroughly clean around the tank cap (B/1) so that no dirt can enter the fuel tank.
- Before refuelling the brushcutter make sure it is on its side in a stabile position.
- Unscrew the tank cap (B/2) and carefully fill in the fuel mixture up to the lower edge of the filler neck. Fill the tank carefully,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

Clean screw cap and tank after refuelling.

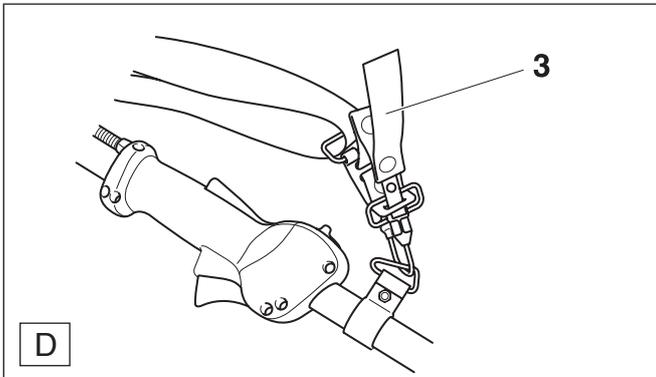
Putting on the harness



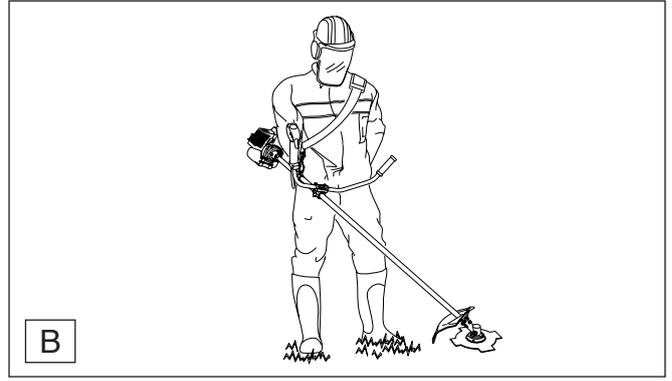
- Put on the harness as shown in figure A.
- Adjust it so that the clip is about a hand-width above your hipbone.



Quick-release buckle



Balancing the brushcutter



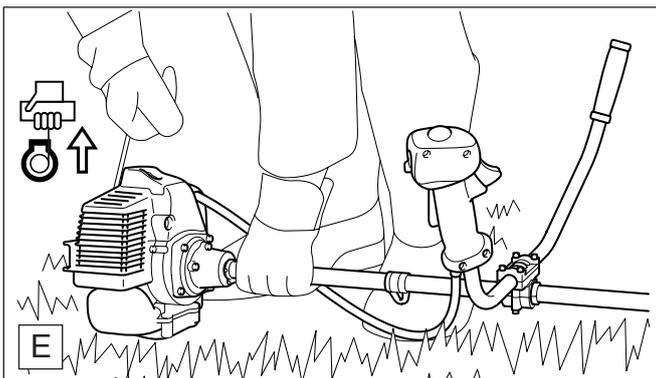
- Correctly balancing the brushcutter reduces strain on the arms while working.
- When using the trimmer head on a level terrain, the trimmer head should touch the ground lightly without the user having to hold the unit.
- In difficult terrain or when using the steel bush cutter the brushcutter should balance about 20 cm above the ground without the user having to hold the unit.
- Fuel the brushcutter and clip it into the harness.
- To balance the brushcutter, loosen the bolt (C/1). Push the eyelet (C/2) 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 (C/1).

- In an emergency, pulling the red tab (D/3) will instantly detach the brushcutter from the operator.

CAUTION:

When putting on the shoulder harness, make sure that the red release tab is not on the inside towards the operator's body, but on the outside, easily visible and easy to reach!

Start engine



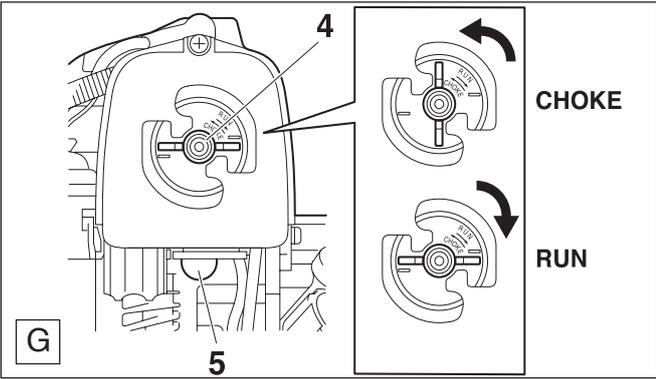
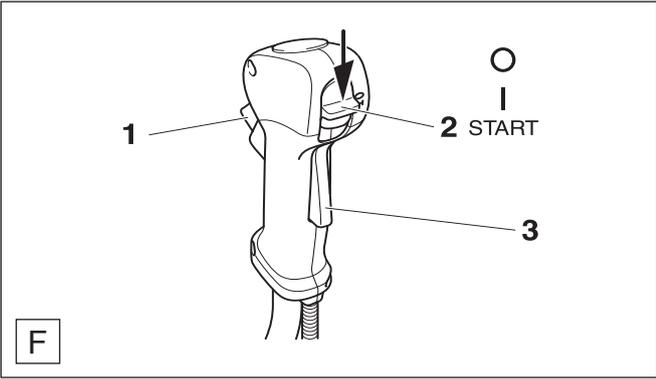
Observe accident-prevention regulations!

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 (**G/5**) by pressing it several times until you can see fuel in the pump.
- Actuate the half-throttle lock by depressing the safety lock (**F/3**), pressing in the throttle (**F/1**) and moving the combination switch (**F/2**) into the **START** position. Then release throttle (**F/1**) and then the combination switch (**F/2**).
- Turn the choke lever (**G/4**) to the **CHOKE** (closed) position.
- Hold the brushcutter with one hand as shown in Fig. E on page 14.
- 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** (the engine will start briefly).
- 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 (**G/4**) to the **RUN** (open) position and pull the starting handle again until the engine runs.
- Once the engine has started, press the throttle (**F/1**) all the way and release it again immediately. The half-throttle catch will come out and the engine will idle.

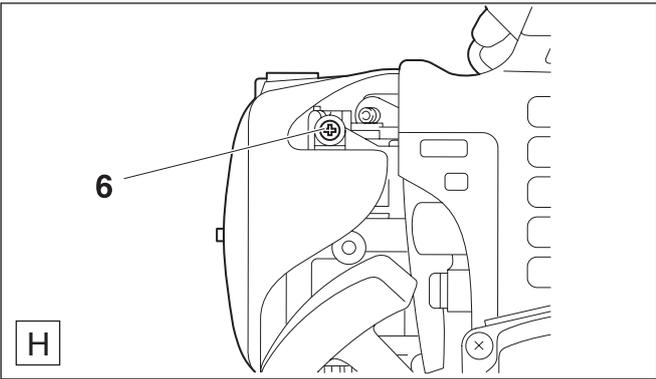
Warmstart

- If the engine is warmed up do not prime the fuel pump.
- Move the combination switch (**F/2**) to the “I” position.
- Do **not** turn the choke switch to the **CHOKE** (closed) position, but to **RUN**.

Stop engine 

Move the combination switch (**F/2**) to the “O” position.

Idle adjustment



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

- The appropriate cutting tool must be mounted.
- Make sure the air filter is clean.
- Let the engine run warm.
- Do not operate the throttle (**F/1**).
- Unscrew the adjustment screw (**H/6**) no more than 1/8 turn (counter-clockwise).
- Repeat the procedure if the cutting tool still rotates during idling.

If the cutting tool does not stop, do NOT work with the brushcutter. Take it to a DOLMAR service centre!

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

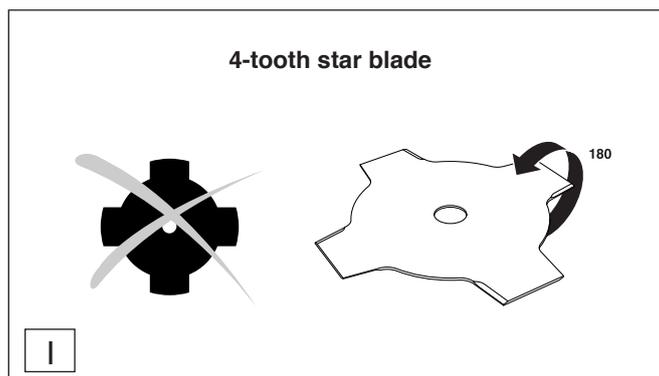
For long life and trouble-free operation of your brushcutter the maintenance work listed below must be carried out regularly. Failure to perform this maintenance work in a correct and timely fashion will void the guarantee. Failure to perform the prescribed maintenance work can lead to accidents!

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

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

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

Sharpening of cutting tools



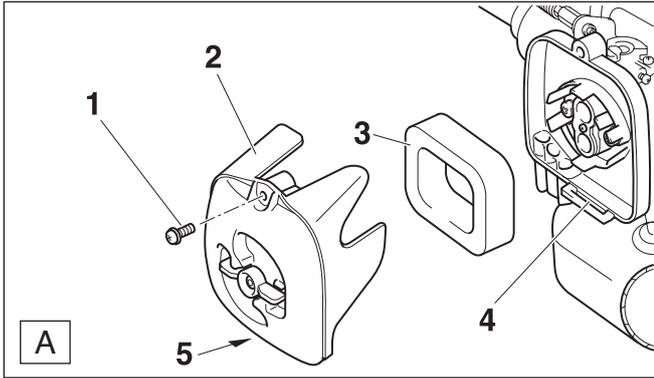
Note: The cutting tools below should be sharpened only at a qualified workshop! Manual resharpening will result in an imbalance of the cutting tool, causing vibrations and engine damage.

• **4-tooth star blade**

Expert sharpening can be obtained from a DOLMAR 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



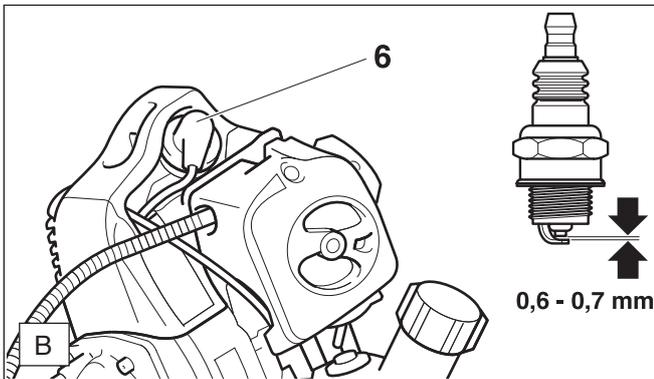
- Loosen the screws (A/1) and remove the air filter cover (A/2).
- Take the foam filter out of the cover.

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

- Very dirty filters can be cleaned out using regular dishwashing 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.
- First insert the air filter cover (A/2) in the groove (A/4) and then affix with the screw (A/1).

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.

- Pull the spark plug cap (B/6) off the plug. Remove the spark plug with a spark plug wrench (19 mm size).

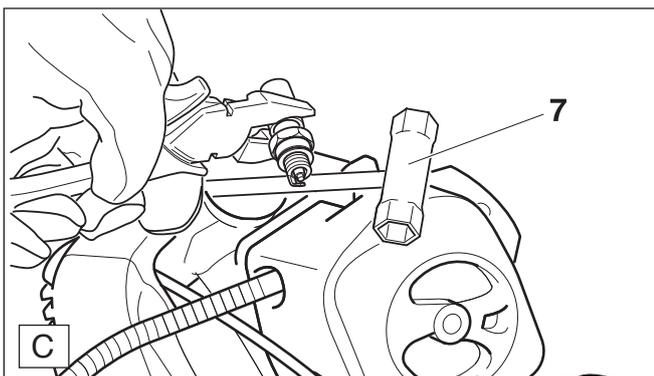
Note:

Replace only with **NGK BPMR8Y** spark plugs!

Electrode gap

The electrode gap must be 0.6 - 0.7 mm.

Inspecting the spark plug



- Insert the wrench (C/7) between the housing and the cylinder, only as shown in the illustration.

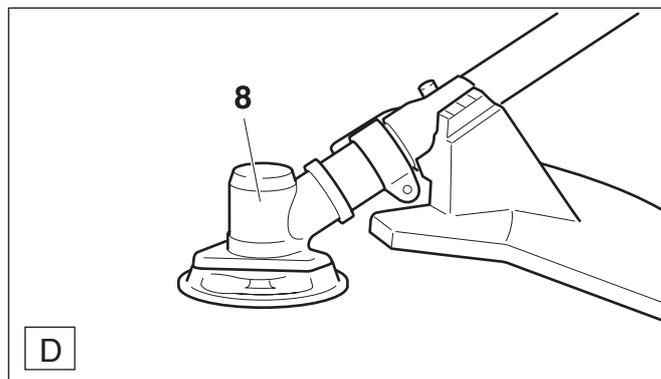
CAUTION!

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 combination switch (I/O) to the "I" position.
- Pull the starter cable hard.

A spark should be visible at the electrode gap.

Lubricating the gear box



After about 50 operating hours the gear box (**D/8**) should be checked by a OLMAR service centre, and if necessary re-grease.

The service centre will add the exact amount of grease, as excessive grease will lead to overheating of the gearbox.

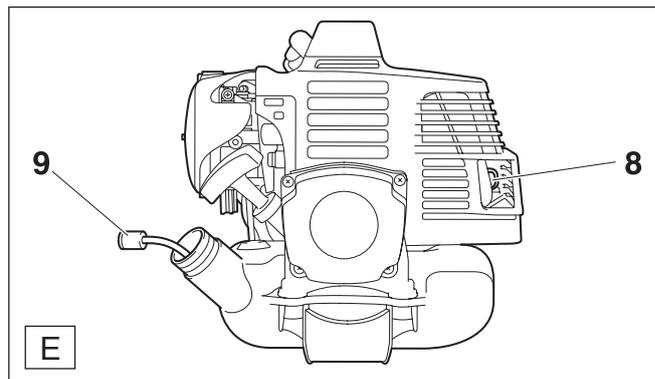
Servicing and maintenance



After about 50 tankfuls, have the brushcutter thoroughly inspected at a DOLMAR service centre.

No maintenance and adjustment work not described in this manual may be performed by the user. All such work must be performed only by a DOLMAR service centre.

Suction head in the fuel tank



The felt filter (**E/9**) of the suction head is used to filter the fuel taken in by the carburetor.

A periodical visual inspection of the felt filter should be conducted. For this purpose open the tank cap, and use a wire hook to pull out the suction head through the tank opening. If the filter has hardened or is dirty or clogged, replace it.

Insufficient fuel supply can result in the admissible maximum speed being exceeded. It is therefore important to replace the felt filter at least every three months to ensure a good fuel supply to the carburetor.

Cleaning the muffler opening

Regularly inspect the muffler opening (**E/8**). When it becomes clogged with carbon residues, carefully scrape them out with the suitable tool.

Trouble shooting

Fault	System	Observation	Cause
Engine will not start or starts only with difficulty	Ignition system	Ignition spark OK	Fault in fuel supply or compression system, mechanical defect
		No ignition spark	
	Fuel supply	Fuel tank full	Incorrect choke position, carburetor defective, suction head dirty, fuel supply line bent or interrupted
	Compression system	Inside of engine	Cylinder bottom gasket defective, crankshaft seals damaged, cylinder or piston rings worn
	Mechanical fault	Outside of engine	Poor sealing of spark plug
		Starter not engaging	Broken starter spring, broken parts inside engine
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

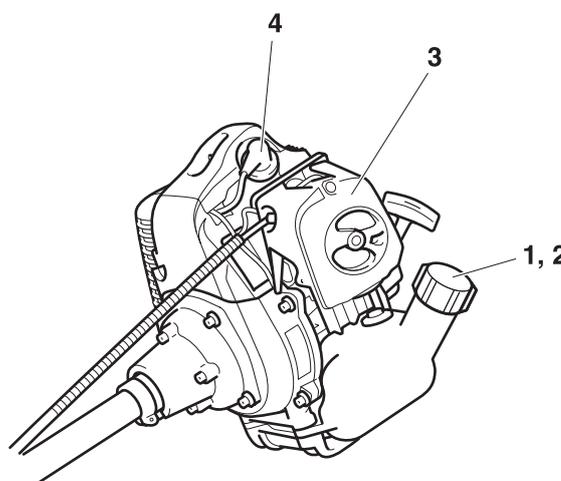
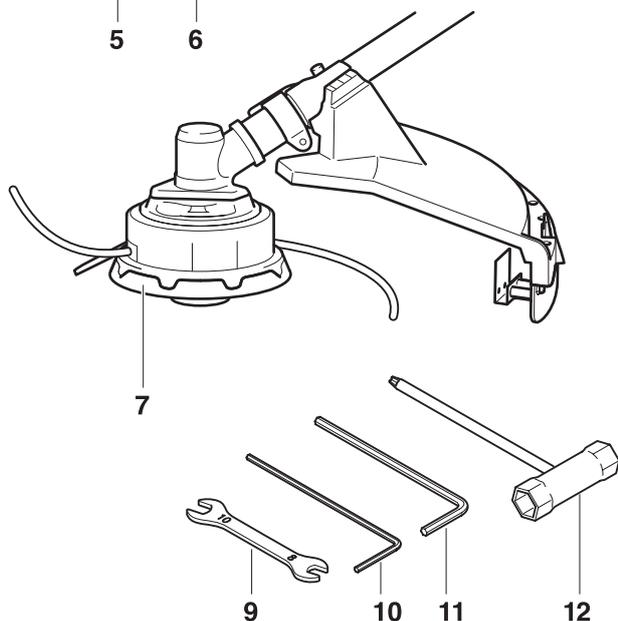
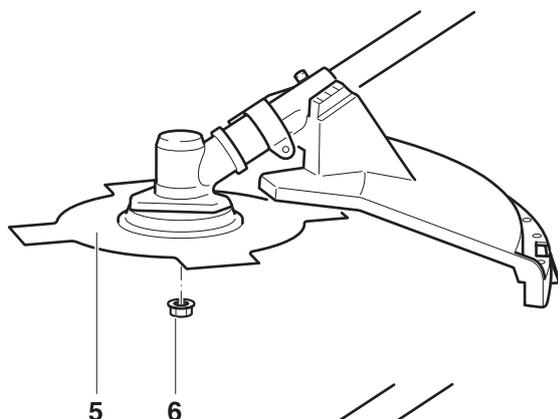
Extract from the spare parts list

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

MS-260/330/430 U
MS-230/260/330 C



Pos.	DOLMAR-No.	Qty	Description
1	351 050 230	1	Tank cap cpl.
2	352 400 040	1	Suction head
3	351 400 800	1	Air filter
4	351 410 110	1	Spark plug NGK BPMR 8Y
5	362 224 140	1	4-tooth star blade
6	351 510 013	1	Locknut (for MS-260 U, 330 U)
6	351 510 023	1	Locknut (for MS-430 U)
7	351 502 030	1	2-line trimmer head, cpl.
9	351 010 154	1	Open wrench 8/10
10	351 010 151	1	Allen key, 4 mm
11	351 010 152	1	Allen key, 5 mm
12	351 010 153	1	Combination tool, AF 17/19
-	369 224 070	1	Trimmer line, 2.4 mm dia. x 15 metres
-	369 224 072	1	Trimmer line, 2.4 mm dia. x 120 metres



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.

Any maintenance or adjustment work not described in this Instruction Manual may be done only by an authorised DOLMAR service centre.

The DOLMAR 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.

Repair attempts by third parties or unauthorised persons will void the warranty.

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 DOLMAR 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. To find your local distributor, please visit www.dolmar.com

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

Guarantee

DOLMAR 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 DOLMAR 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 DOLMAR service centre.

To find your local distributor,
please visit www.dolmar.com

DOLMAR



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Specifications subject to change without notice

Form: 995 703 482 (10.06 GB)