

AS MOTOR

Operating instructions

Weed remover

AS 30 WeedHex 140



Starting from serial No.: 028717010001

EN – Translation of the original instructions for use

D-74424 Bühlertann

Telephone No. (07973) 9123-0

www.as-motor.de

Contents

EN Operating instructions	4
2 EC declaration of conformity	17
3 EN Attached illustrations	18

EN Basic information

i Request unpacking of the device and training from your dealer as a part of the pre-sale service!

Please, fill in all data concerning your device. When ordering spare parts notify your dealer of the serial numbers of the device and the motor.

EN Type	AS 30 WeedHex 140
EN Motor type	ZONGSHEN XP 140
EN Identification No. ¹	
EN Motor serial No. ²	
EN Date of delivery - sale	
EN Supplier (stamp)	

i We recommend that you make a copy of this page with filled in data concerning the purchase of the device should the original manual get lost or stolen.

An example of a type plate on the device providing information about the type of the device and its technical data.

Actual appearance	Description
<p>1 AS-MOTOR GERMANY GmbH & CO. Eilwanger Straße 15 74424 Bühlertann</p> <p>2 Wildkrautentferner</p> <p>3 AS 30 - 140</p> <p>4 2,1 kW (2,8 PS) / 2800 (1/min)</p> <p>5 35 kg</p> <p>6 2017</p> <p>7 SNR: 028717010001</p> <p>8 </p>	<p>1 Manufacturer's name and address</p> <p>2 Equipment designation</p> <p>3 Type designation</p> <p>4 Power in kW / motor speed</p> <p>5 Weight</p> <p>6 Year of manufacture</p> <p>7 Serial number</p> <p>8 CE marking</p>

¹ Fill in the serial number from the type plate.

² Fill in the serial No. which is stamped on the right on the motor block in front of the oil dipstick.

EN Operating instructions

Contents

EN Operating instructions	4	1.3.7.2.1 Brushing in corners.....	11
1.1 Introduction.....	4	1.3.7.2.2 Open area brushing.....	11
1.1.1 Note well.....	4	1.3.7.3 Manner of device operation.....	11
1.1.2 Safety regulations.....	5	1.3.7.3.1 Brushing in corners.....	11
1.1.2.1 User restrictions.....	5	1.3.7.3.2 Open area brushing.....	11
1.1.2.2 Safe handling of fuel	5	1.4 Maintenance, care, storing.....	12
1.1.2.3 Inspection before use.....	6	1.4.1 Lubrication of the device.....	12
1.1.2.4 Proceed with caution during operation.....	6	1.4.1.1 Changing motor oil.....	12
1.1.2.5 Prior to brushing.....	6	1.4.1.2 Lubrication points.....	12
1.1.2.6 Proceed with caution during brushing.....	6	1.4.2 Brush change.....	12
1.1.2.7 When work is completed.....	7	1.4.3 Adjusting dirt scrapers.....	13
1.1.2.8 Proceed with caution during maintenance and repair.....	7	1.4.4 Maintenance of motor air filter.....	13
1.1.3 Noise and vibrations levels.....	7	1.4.5 Belt transmissions.....	13
1.1.4 Safety labels.....	8	1.4.5.1 Adjusting of tension pulleys.....	13
1.2 Basic information.....	8	1.4.5.1.1 Tension pulley for primary belt.....	13
1.2.1.1 Technical data.....	8	1.4.5.1.2 Tension pulley for secondary belt.....	13
1.2.1.2 Information about motor.....	8	1.4.5.2 V-belt change.....	14
1.2.2 Description of device and its parts.....	8	1.4.6 Spark plug.....	14
1.3 Operating instructions.....	9	1.4.7 Servicing intervals.....	14
1.3.1 Device assembly.....	9	1.4.8 Troubleshooting.....	15
1.3.1.1 Assembly procedure.....	9	1.4.9 Storing	16
1.3.2 Device transport.....	9	1.4.9.1 Spare parts.....	16
1.3.3 Starting the motor.....	9	1.4.9.2 Wear parts.....	16
1.3.4 Activating the brush.....	10	1.4.9.3 Washing and cleaning the device.....	16
1.3.5 Stopping the brush.....	10	1.4.10 Disposal of packaging and the device at the end of its service life.....	16
1.3.6 Adjusting position of the wheels.....	10	1.4.11 Warranty.....	16
1.3.7 Working with the device.....	10	1.5 Accessories.....	16
1.3.7.1 Mounting of the guard.....	10		
1.3.7.2 Selecting the position of the wheels.....	11		

The manufacturer **reserves** the right to implement technical changes and innovations not affecting the operability and safety of the device. These changes must not be present in the actual operating instructions.

Typographical errors reserved.

1.1 Introduction

Dear customer!

Congratulations on your purchase. You have acquired a reliable quality product by "AS-Motor Germany". This product has been manufactured according to up-to-date manufacturing methods and in line with comprehensive quality assurance measures. Only when you are satisfied with your device, we have achieved our goal.

Read these operating instructions carefully so that your device operates smoothly and you and others are safe from any hazards.

If you have questions concerning your device, please contact your dealer or call our customer service

(telephone No. + 49/(0)7973 / 9123-0).

For international partners, please go to our website www.as-motor.de/international.

"AS-Motor Germany" wishes you much joy with your new device.

1.1.1 Note well

The device is exclusively intended for cleaning of paved surfaces and edges covered with moss and weeds.

Only use attachments and tools authorized by "AS-Motor Germany".

Any use exceeding this purpose is inadmissible. The manufacturer is not responsible for any damage resulting from such unauthorized use. Observe the required maintenance and repair measures.

The user of the device is responsible for accidents or injury to other persons or damage to their property!

The device must not be used:

- on public roads.
- as a unit in a system for any type of work tools and tool sets that are not approved by "AS-Motor Germany".
- for sweeping or mowing on unpaved surfaces.

The user **must read through** these operating instructions and follow all device operating instructions in order to prevent any health risks or property damage to the user or other persons.

Safety instructions stated in this manual do not cover all possible conditions and situations which may occur in practice. Safety factors such as a reasonable approach, care and caution are not included in this manual but it is assumed that each person using the device or doing any maintenance work on it is sufficiently endowed with these.

Only mentally and physically fit persons may use this device. Should this device be used commercially, the owner of the device is bound to provide the operators with work safety training and instruct them in operation of the device and keep records of such training. **The owner must also implement the so-called categorization of work according to respective national legislation.**

If any information contained in the manual is unclear to you, please contact **your dealer**³ or directly the **device manufacturer**.

³ Fill in the dealer's address in the table in the heading of this manual (unless already filled in by the dealer).

Operating instructions provided with this device form an integral part of it. They must be available at all times, stored at an accessible place where they cannot get destroyed. In the case the device is sold to another person, the operating instructions must be handed over to the new owner. The manufacturer bears no responsibility for the risks, hazards, accidents or injuries resulting from operation of the device, if the above-mentioned conditions have not been met.

The manufacturer bears no responsibility for the damage caused by unauthorized use, inappropriate operation and for any damage caused by any modification of the device without the manufacturer's approval.

During work it is necessary to follow safety regulations to avoid any injury to yourself or other persons present nearby and to avoid any property damage.

These instructions are marked in the manual by the following warning symbol:



	If you see this symbol in the manual, carefully read the statement following after it!
	This international safety symbol indicates important instructions concerning safety. If you see this symbol be aware that there is a risk of injury to you or other persons and carefully read the statement following after it.

Table 1: Symbols

1.1.2 Safety regulations

For your safety, read these operating instructions with care.

Familiarize yourself with the control elements and the proper use of the device. Share these operating instructions with other users of the device.

Before you use the device for the first time, ask the dealer to instruct you regarding its safe use.

Get familiar with the device in a wide, open and flat terrain first.

When working on or adjacent to public roads, observe the local regulations, if necessary.

1.1.2.1 User restrictions

Never allow children or persons who are not familiar with the operating instructions to use the device.

Persons under 18 years of age may operate the device only under proper supervision. Local regulations determine the minimum age of the operator and the operating times.

The device must not be operated by the persons under the influence of alcohol, drugs or reaction retarding medicines or persons with physical and mental/emotional impairments or tired or sick persons.



People using pace makers must not touch any current carrying parts of the ignition system !

1.1.2.2 Safe handling of fuel



**Fuel is a toxic and highly flammable liquid.
Danger of fire and explosion!**



**Keep the fuel away from ignition sources and do not smoke while handling the device.
Do not inhale fuel vapours; they are harmful to your health.**



Use gloves and avoid contact of the skin with the fuel.

Do not fill the fuel if the motor is still hot! When filling the fuel make sure that no leak occurs and you do not spill the fuel over the motor parts. If it be to the contrary, dry the affected parts or wait until the petrol evaporates.

Fuel up only outdoors and only when the engine is cool and not running. Use a fuel filler or funnel.

Prevent any fuel spilling. Prevent leaked fuel from getting into sewerage or ground water.

Always close the tank cap securely and do not open it while the engine is running or the device is still hot.

Drain the fuel tank only when outdoors. Use a suitable container or run the tank empty.

Keep the fuel away from children and store it in a suitable container in a dark, cool, and dry location.

Never store the device with a full fuel tank especially inside a building where open fire or sparks may appear.

Immediately replace a damaged fuel tank or tank cap (use only original spare parts).

First aid

If you have swallowed fuel or inhaled fuel vapours, do not induce vomiting and immediately seek medical attention.

In the case your skin comes into contact with fuel, immediately wash with water and soap. Change the contaminated clothing as soon as you can.

In the case of fire

In the case of a fire, use foam, dry powder extinguisher, or carbon dioxide (CO₂). Never extinguish with water!

1.1.2.3 Inspection before use

Prior to each use of the device, check tightening of bolts, fastening of the brush on the carrier and all screwed connections of guards, covers and the motor. If you find any deficiency, remove it immediately.

It is forbidden to operate the device without the protective guard and the bottom rubber flap!

Do not remove, change or override any safety devices or control elements.

Observe the maintenance instructions and replace damaged or worn parts immediately.

1.1.2.4 Proceed with caution during operation

Do not start the engine and do not use the device indoors! Exhaust fumes are poisonous - a risk of death due to poisoning.

Do not start the motor if there are other persons or animals in the vicinity of the device.

Do not start the motor if the fuel is spilt.

Proceed with caution when handling the device. The exhaust silencer is hot during operation. You may get burnt.

Always switch off the engine and wait until the brush comes to a standstill:

- before you start any activity near the device
- before you step away from the device
- before you move the device to use it elsewhere
- before transporting the device
- before you refuel

Always switch off the engine and wait until the brush comes to a standstill, and pull off the spark plug connector:

- before you clean or check the device or carry out work at the device

1.1.2.5 Prior to brushing

Personal protective measures

Due to exceeding of recommended noise and vibration limits observe the following instructions when working with the device:

- protect your hearing using suitable protection aids according to **EN 352-1:2002** (earmuffs) or **EN 352-2:2002** (earplugs). Ask for these aids from you dealer.
- after 20 minutes of work with the device make a break for at least 10 minutes. During these breaks the respective operators must not be exposed to any other source of noise or vibrations.



During work use work aids approved according to **EN 166:2001** or **EN 1731:2006** - close-fitting clothes with long trouser-legs, firm skid resistant shoes, work gloves and safety glasses. Do not use open sandals; do not work barefoot.



Due to the possibility of increased dust development when working with the brush, use aids for respiratory protection (respirators or masks) according to **EN149:2001+A1:2009**. Ask for these aids from you dealer.

Preparing the work area

When checking the area to be brushed remove all large solid objects (such as stones, sticks, wires, plastic packaging and similar municipal waste) that can be propelled away from the device or damage the device.

1.1.2.6 Proceed with caution during brushing

The device is fitted with a rotating tool. The maximum tip speed is **11 m.s⁻¹**.



Make sure that other persons (particularly children and animals) are at a safe distance of at least 15 metres from the running device - possibility of thrown objects!

The area in front of and next to the device is especially dangerous.

Keep a safe distance from the device secured by the position of the handle.

Always hold the handlebars of the device with both hands.

The rotating brush always induces a reaction force with the tendency to steer the device to the left. The more you press on the brush, the greater is the force deviating the machine. In the case of a sudden increase of resistance against the brush (especially when hitting a curb) this force may result in sudden jumping of the handlebars to the left or backwards.

Never fix the control lever of the brush in the activated position. If you lose control over the device, there is a risk of injury to the operator or other persons or damage to property.

Only work during daylight or with adequate artificial lighting. Never work under adverse light condition (rain, fog, etc.).

Never lift or carry the device when the engine is running.

Proceed with caution when handling the device. When the motor is turned off, the exhaust silencer remains hot.

Never run the device for a long period of time at a maximum speed or never leave it idling for too long with deactivated brush drive pulley! Parts of the drive train (V-belt, belt pulley, tension pulley, etc.) may get damaged!

Take regular breaks to rest.

Contact an authorized service centre to check the device:

- if the brush hits into a solid object.
- if the device starts to vibrate unusually severely

Work on steep slopes

Devices fitted with four stroke engines may only be operated on less than 20° slope. Otherwise, the four stroke engine may get damaged due to insufficient oil lubrication.

When working on steep slopes, there is a risk of slipping and tilting!

Only brush on steep slopes if safe operation is assured.

Never use the device on excessively steep slopes.

Sure footing is essential for your safety, always wear skid resistant safety shoes.

Be extremely careful when changing the direction.

The device may roll away when you work downhill. Place the not used device on even surfaces only, prevent inadvertent rolling.

Fire hazard



The brush produces sparks when brushing against hard materials (especially rocks or concrete) which may ignite easily flammable materials (dry grass, etc.).

Proceed with caution when working in extremely hot and dry weather conditions.

Moisten any easily flammable material before you brush over it.

Carry a sufficient amount a suitable extinguishing agent.

If side inclination is too great, fuel may leak from the carburettor or the tank. This poses a fire hazard!

Check the area you just worked on also after the brushing is completed to make sure that no fire breaks out.

Never use the brush in explosive atmosphere.

To prevent fire hazard keep the following components free of dirt, grass, hay, leaking oil, grease, etc.:

- motor ventilator grille (starter)
- exhaust silencer and its cover
- area around the fuel tank

1.1.2.7 When work is completed

When you have completed your work, close the fuel supply to the motor.

Prior to leaving the device, wait until the brush comes to a standstill and pull off the spark plug connector.

After switching the motor off, let the device cool down for at least 20 minutes. Then you may store it in a dry, ventilated room.

Never store the device with a full fuel tank especially inside a building where open fire or sparks may appear.

1.1.2.8 Proceed with caution during maintenance and repair

Any repairs, adjustments, lubrication and cleaning of the device must be carried out when the device is at a standstill and the spark plug connector is disconnected.

Carry out only the service operations described in these operating instructions. Other repairs or adjusting is to be implemented by the manufacturer's or your dealer's authorized service centres.

When handling the steel brush always use work gloves! The steel bristles of the brush are sharp. Slight pieces "splinters" may also be released.

Use only original brushes and spare parts from AS-motor. Unoriginal brushes and spare parts may cause serious injuries.

We would like to emphasize expressly that according to act on product liability we may not be liable for the damage caused by our devices if:

- any worn or damaged parts are not replaced or repaired in time
- the damage has been caused by an improperly implemented repair
- the replaced parts are not our original spare parts approved by us
- the repair has not been performed by an authorized service centre

The same applies to spare parts and accessories

1.1.3 Noise and vibrations levels

Description	Value	Measurement uncertainty
Declared sound pressure level ⁴ A at the place of operation L_{pAd}	82 [dB]	4 [dB]
Guaranteed value of sound power ⁵ A $L_{WA,G}$	96 [dB]	4 [dB]
Declared summary value of vibration acceleration ⁶ transferred to operator's hand/arm a_{hvd}	3,1 m.s ⁻²	1,2 m.s ⁻²

Table 2: Noise and vibrations levels

⁴ Measured according to **EN ISO 11201:April 2010**

⁵ Measured according to **EN ISO 3744:2010**

⁶ Measured according to **EN ISO 20643**

1.1.4 Safety labels

The user is bound to keep the labels on the device in a legible condition and if they are damaged then to replace them.

Position:	Number:	Description:
Combined sticker (Fig. 13), which is attached under the rear plastic cover on the device frame	1	Before using the device, read through the operating instructions.
	2	When doing maintenance on the device, disconnect the spark plug connector.
	3	It is forbidden to place your hands or feet into the operating area of the cutting tool – risk of getting cut.
	4	Hazard of being hit by flying pieces, cuttings, thrown objects, etc. Other persons and animals - keep safe distance from the machine.
	5	During work observe the maximum permissible slope for operation.
	6	Use eye and hearing protection.
Sticker (Fig. 12) attached on the control lever 18 on the right handle 15 (Fig. 1).	-	Starting the working tool drive: 0 = working tool not moving 1 = safety engaged 2 = working tool moving

Table 3: Safety labels


1.2 Basic information

1.2.1.1 Technical data

Description	Unit	Value
Length x width x height – in operation	mm	1190 x 645 x 1160
Length x width x height – in transport	mm	970 x 645 x 665
Weight	kg	35
Maximum working width	cm	35
Safe slope operation	∠	10°
Type of working tool	-	Steel brush
Brush speed ⁷	min ⁻¹	600
Tip speed at the brush end	m.s ⁻¹	11
Operation range (temperature) ⁸	°C	0° - 30°

Table 4: Technical details

1.2.1.2 Information about motor

 Further information about the motor not stated here is available at the motor manufacturer's website.

Description	Unit	Value
Motor	-	Zongshen ⁹ XP140
Maximum (set) speed of the motor	min ⁻¹	2800 ± 50
Maximum (permanent) tilting of the motor	∠	20°
Maximum (short term ¹⁰) tilting of the motor	∠	30°
Fuel tank capacity	l (litre)	0,8
Fuel	petrol (unleaded) ¹¹	oct. No. 91-95
Motor oil filling	l (litre)	0,5
Oil grade	SAE / API	SAE 10W-30 or SAE 30 / SJ or SH
Spark plug	-	LG F6RTC; eq. NGK BPR6ES or CHAMPION QC12YC

Table 5: Technical information about motor

1.2.2 Description of device and its parts

Fig. 1 The device is built on a frame **1** welded of sheet steel. Two wheels **6** are mounted at the back with independent height adjustment. The tubular handlebars **3** are attached to a tubular holder **2** using a steel bolt **12** and a plastic wing nut **13**. The right handle **15** of the handlebars **3** holds the control lever **15** for activation of the brush drive **5**. The lever is fitted with a safety **18** to prevent inadvertent starting. The lever **16** to control the motor speed **4** is placed in the crossbar of the handlebars **3**. The motor **4** with manual starting **19** drives a steel bristle brush **5** using transmissions with V-belts. The device is fitted with a height-adjustable protective guard **10** of plastic fabric and a bottom rubber flap **11**.

⁷ Actual speed of unloaded disc including the loss in the belt transmission.

⁸ When the temperatures drop below 5 °C observe the manufacturer's information regarding the motor oil.

⁹ You can obtain further information about the motor including the spare parts numbers at www.zse.cc

¹⁰ Short term - up to one minute.

¹¹ With regard to the ever increasing ratio of BIO-components in fuel, use fuel stabilizer.

1.3 Operating instructions

1.3.1 Device assembly

i Request unpacking of the device and training from your dealer as a part of the pre-sale service!

1.3.1.1 Assembly procedure

Fig. 2 During assembly proceed as follows. **We recommend that assembly be done by two persons.** Instructions regarding right/left directions are given from the operator's view.

1. Open the box **1**, remove the flap **5** together with the bag with manuals.
2. Cut the vertical edges of the rear face **3** of the box and place the face on the ground.
3. Remove the plastic strap **10** fixing the handlebar handle to the handlebar holder tube.
4. Turn the handlebars **12** into standard working position and attach to the handlebar tubular holder using a bolt **13** and plastic wing nuts **14**. Use a plain washer **15** under the nut. Lubricate the bolt thread **13** with a bit of plastic lubricant for water pumps or using a few drops of motor oil.
5. Remove the protective guard holder **9** from the cardboard insert **2**. Lift the cardboard insert. Remove the plastic fabric guard **8** from the motor.
6. Back the device out of the box and turn it by 180° so that the handlebars are directed towards the box.
7. Cut the vertical edges of the front face **4** of the box **1**; place the face and the sides on the ground.

i When handling the steel brush always use work gloves! The steel wires are sharp. Slight pieces "splinters" may also be released.

8. Remove the brush **7** from the box **1**.
9. Drive the device onto the dismantled box and tilt the device on its handlebars.
10. Demount two M6 **17** collar screws (spanner No.10) and mount the flap **18** in the holes in the sheet metal bottom cover **16** in the position shown in the figure.

i The following step is to be done by two persons.

11. Mount the steel brush **19** on the carrier **20** so that the projection on the carrier fits into the rectangular recess in the brush body.
12. Using three socket head screws **21** M8x30 with a safety washer **22** screw the steel brush **19** to the carrier **20**. Tighten the screws well.
13. Tilt the device back to its normal position.

i The device is supplied without any motor service fillings!

i First carefully read the instructions ¹² for the use of the motor! You will prevent its contingent damage.

14. Place the plastic fabric guard **23** on a flat surface. Slip the steel holder of the guard **24** with its sharp angle corner into the guard corner with the cross tape.
15. Stretch the guard **23** to the holder **24** as tight as possible. Fold the part of the guard with the Velcro over **25** the guard holder arm and engage the Velcro part well.
16. Slip the guard into the openings **27** in the device frame **28**. Screw the M6x16 screws with plastic heads **26** through the grooves in the frame into the threads in the guard holder.
17. Fill the specified amount and grade of oil and fuel into the motor according to the motor operating instructions.

1.3.2 Device transport

A When you have completed your work, close the fuel supply to the motor. Prior to each transport, let the device cool down for at least 20 minutes.

i It takes two persons to lift the device safely.

1. Loosen the plastic wing nut (**15** in **Fig. 1**) by ca 7 rotations, so that the handlebar becomes loose in the holder.
2. **Fig. 3** Fold the handlebar forwards over the motor. Place a suitable soft pad under the handlebar crossbar (e.g. a piece of old cloth).
3. Places where you can hold the device are marked in **Fig. 3** by arrows.
4. When transporting by vehicle, secure the device against rolling, sliding, tilting, and fuel and oil leakage.

1.3.3 Starting the motor

i First carefully read the instructions ¹³ for the use of the motor! In this way you will prevent contingent damage.

1. Move the accelerator lever to position **4** **CHOKE**¹⁴. The positions **1**=STOP, **2**=MIN, **3**=MAX and **4**=CHOKE of the accelerator lever are displayed and described in **Fig. 4**. Fixing the lever in all four main positions described is achieved using a simple recess-projection shape in the lever body.
2. Start the motor by pulling the cord of the manual starter (**19** in **Fig. 1**)¹⁵.

¹² The original manual is included with the device.

¹³ The original manual is included with the device.

¹⁴ If the motor has an automatic choke, shift the accelerator lever into position MAX. When the motor has warmed up, the maximum speed will be automatically set.

¹⁵ Instructions for starting of the motor are provided in detail in the motor operating instructions.

- Let the new or cold motor run for ca 30 seconds with the choke on (accelerator lever in position **4**), then move the accelerator lever over to position **3**.

⚠ Do not leave the machine unattended!

⚠ When starting the motor the control lever **2 in Fig. 5 must be in the off position (it must not be pressed to the handles)!**

1.3.4 Activating the brush

⚠ Make sure that all persons, animals, children are at a safe distance from the device! Otherwise do not continue with the start-up process!

⚠ Prior to each use of the device, check the tightening of the bolts fastening the brush and all screwed connections of guards, covers and the motor!

- Start the motor¹⁶. Set the maximum speed of the motor using the accelerator lever. (If the motor is cold, leave it at the maximum speed for ca 1 minute to warm up)
- Take the left handle of the handlebars using your left hand (**14** in Fig. 1).
- Use your right hand to lift the pulley control lever (**17** in Fig. 1) upwards (**2** in Fig. 5), until it is fully inserted in the strap with cords.
- Using your thumb depress the button of the safety as indicated by the arrow (position **3** in Fig. 5).
- Using your right hand fluently depress the control lever towards the handle. Hold the safety button until you start moving with the strap using the lever.
- When the brush starts turning press the lever completely to the handle (**4** in Fig. 5) and hold it firmly.

ⓘ Start-up usually results in some initial slippage of the V-belt and respective accompanying effects (rattling, whistling). When the belt has been run in, these effects usually disappear.

Note:

In the case of a new or a cold motor, the motor may stall when the working tool drive is activated first few times. When the motor has warmed up, this will no longer happen. If the motor still stalls after activating the tool even when the motor is warm, check whether any of the defects according to **Table 10** have not occurred.

1.3.5 Stopping the brush

If you want to stop the brush, release the lever (**17** in Fig. 1) on the right handle. The tool stops, the motor is still running, shift the accelerator lever into position **MIN** or **STOP**.

⚠ Before you start any activity in the vicinity of the device, always turn off the motor and wait until the brush stops moving! Before leaving the device, always turn the motor off!

ⓘ Never run the device for a long period of time at a maximum speed or never leave it idling for too long with a deactivated brush drive pulley! Parts of the drive train (V-belt, belt pulley, coupling pulley, etc.) may get damaged!

1.3.6 Adjusting position of the wheels

Fig. 6 The wheels have independent adjustment of height. This allows setting of the brush pressure according to the type of work you do. Wheels are also adjusted if the brush becomes substantially worn to achieve the correct position of the brush in relation to the brushed surface.

Tools: Allen key No. 6, best with extended handle or a T handle

- Loosen and unscrew the central socket head screw of the wheel by ca 3 turns.
- Tilt the device slightly to the opposite wheel. It is recommended that you support the device from below against the frame using a suitable pad (brick, stone, wooden block, etc.).
- Unscrew the central wheel fixing socket head screw and pull it slightly outside.
- Shift the wheel over to the desired position.
- Push the screw into the wheel pin and screw it into the thread in the frame.

ⓘ You may move the wheel arm back and forth to allow easier screwing of the screw into the frame thread.

- Tighten the screw well.

1.3.7 Working with the device

1.3.7.1 Mounting of the guard

⚠ It is forbidden to operate the device without the protective guard!

Fig. 2 and **Fig. 8**

- Place the ends of the guard holder in the holes in the device frame.
- Screw the M6 screws with plastic heads through the grooves in the frame into the threads in the guard holder.

¹⁶ Instructions for starting of the motor are provided in detail in the motor use manual.

3. **Fig. 8** Adjust the guard height according to the wear of the brush bristles. The guard should be ca 5mm above the level of the brushed surface.
4. Tighten both screws (26 in Fig. 2) carefully.

1.3.7.2 Selecting the position of the wheels

1.3.7.2.1 Brushing in corners

In order to make brushing in corners (near curbs, walls, fences, etc.) more effective, it is necessary to increase the pressure on the **left** side of the brush. Set the left wheel higher than the right one – illustration **A** in Fig. 6.

Combination of position on the left (L) + position on the right (P)			
Pressure	New brush	Medium wear	Maximum wear
Medium	2L + 1R	3L + 2R	4L + 3R
Increased	3L + 1R	4L + 2R	

Table 6: Position of the wheels when brushing in corners

1.3.7.2.2 Open area brushing

In order to achieve better cleaning efficiency when brushing in an open area - pavements, etc. - it is necessary to increase pressure on the **front** face of the brush. Set the left and right wheel to the same position – illustration **B** in Fig. 6.

Combination of position on the left (L) + position on the right (P)				
Pressure	New brush	Slight wear	Medium wear	Maximum wear
Medium	1L + 1R	2L + 2R	3L + 3R	4L + 4R
Increased		1L + 1R	2L + 2R	3L + 3R
High			1L + 1R	2L + 2R

Table 7: Position of wheels when working in open areas

1.3.7.3 Manner of device operation

- ⚠** When checking the area to be brushed remove all large solid objects (such as stones, sticks, plastic bottles and similar municipal waste) that can be propelled away from the device or damage the device.
- ⚠** It is forbidden to operate the device without the protective guard!
- ⚠** Always hold the handlebars of the device firmly. In the case of a sudden increase of resistance against the brush (especially when hitting a curb) this force may result in sudden jumping of the handlebars to the left or backwards.
 - i** Due to increased resistance at the tips of the bristles in corners at curbs and walls there may be a momentary slippage of drive belts. If this happens only for a short time or once in a long period, it is not necessary to tension the belt. The belt needs to be tensioned only if the brush stops with only a slightly increased pressure of the brush on the cleaned surface or in the corner near a curb or a wall.

1.3.7.3.1 Brushing in corners

1. Adjust the wheels according to the instructions in **chap.1.3.7.2.1 Brushing in corners** and **Table 6: Position of the wheels when brushing in corners**
2. Start the motor according to the instructions provided in **chap.1.3.3 Starting the motor**
3. Start the brush drive according to **chap.1.3.4 Activating the brush**
4. Move the device so that the left part of the brush is at the brushed area between the curb and the pavement area.
5. By pulling the handlebars upwards increase the pressure of the brush onto the brushed surface.
6. Very slowly move forward along the curb, wall, etc. Allow sufficient time for perfect removal of plants and impurities.

- i** When brushing along curbs or walls, large amount of waste material (earth, sand, stones, etc.) is generated. In order to achieve perfect removal of all plants we recommend that you first remove this waste material (machine or manual sweeping) and then brush the surface clean removing all plants that still are present after first brushing.

1.3.7.3.2 Open area brushing

1. Adjust the wheels according to the instructions in **chap.1.3.7.2.2 Open area brushing** and **Table 7: Position of wheels when working in open areas**
2. Start the motor according to the instructions stated in **chap.1.3.3 Starting the motor**
3. Start the brush drive according to **chap.1.3.4 Activating the brush**
4. Move the device over to the brushed surface.
5. By pulling the handlebars upwards increase the pressure of the brush onto the brushed surface.
6. By moving the device back and forth several cm and at the same time from one side to another clean a small part of the whole brushed area. Leave the brush rotating on one small part of the brushed surface until the surface is free of all plants.

7. Slowly move forward on the brushed area. The speed of the movement depends on the resilience and abundance of plants in the given area.

! In order to achieve perfect removal of all plants we recommend that you first remove the waste material generated after first brushing of the area (machine or manual sweeping) and then brush the surface clean removing all plants that still are present after first brushing.

1.4 Maintenance, care, storing

In order to secure long-term satisfaction with our product, it is necessary to provide it with due care and maintenance. By providing regular maintenance you will prevent its rapid wear and you will secure correct operation of all its parts.

Observe all instructions concerning maintenance and adjusting intervals. We recommend that you keep records of operating hours and the conditions under which the device is used (these may be useful for servicing centres). We recommend that you have the post-season maintenance implemented by one of our authorized service centres; the same applies to standard maintenance if you are not certain of your technical capabilities.

! Prior to each use of the device, check the tightening of bolts fastening the brush to the carrier.

1.4.1 Lubrication of the device

! When working with lubricants, observe the basic hygiene regulations and observe the environmental protection regulations and laws.

! If you are not sufficiently manually skilled, have the operations done by an authorized service centre.

In order to secure trouble-free and easy movement of all mechanical parts, it is necessary to pay adequate attention to lubrication. A few drops of oil are usually enough (e.g. oil for bicycles).

1.4.1.1 Changing motor oil

Follow the instructions stated in the motor operating instructions. Shorten the change interval to one half, if you are to use the device in a dusty environment. When pouring the oil out of the motor, tilt the device to the right side, where the oil cap with the dipstick is placed – pos. **21** Fig. 1.

! If you are not sufficiently manually skilled, have the operations done by an authorized service centre.

1.4.1.2 Lubrication points

When selecting from a wide range of oils it is sufficient to select any spray oil. When selecting plastic lubricants (grease) any lubricant intended for water pump lubrication is sufficient. However, its application usually requires that the respective slide assembly be demounted.

Note: If you use plastic lubricant resistant to water, the lubrication intervals may be extended.

Lubrication point - description	Interval within season	After season	Lubricant	Figure	Note
Bowden cables	at least 2x (5 drops)	yes	oil	Fig. 11	Entry of the inner cable into the Bowden cable on the handlebars and in the device frame.
Brush drive pulley case	every 50 hours (2 drops)	yes	spray grease	Fig. 11	After demounting of the brush and bottom sheet metal cover.
Wheel bearings	Every 10 hours	yes	spray grease	Fig. 11	After each washing of the machine
Wheel arm screw	-	yes	copper paste or spray	Fig. 11	
Screwed connections	-	yes	grease	Fig. 11	Handlebars and protective guard fixing threads.

Table 8: Lubrication intervals

1.4.2 Brush change

! If you are not sufficiently manually skilled, have the operations done by an authorized service centre.

The brush needs to be changed if the bristle ends are worn to ca 15 mm from the bristle clips – see **Fig. 8**.

! When changing the brush, use only new brushes - never any used ones.

! Use only the original brushes from AS-motor spare part No. G07323029.

! The device must be placed on a hard horizontal surface and must be secured so that there is good access from below to the brush and no inadvertent device movement occurs.

! When handling the steel brush, always use work gloves! The steel wires on the brush are sharp. Slight pieces "splinters" may also be released.

! There must be no fuel in the tank! The spark plug connector must be disconnected!

Fig. 2

1. Loosen the handlebar bolt **13**, unscrew the plastic wing nut **14** only partially so that the handlebars **12** may be tilted forwards by ca 30°. Tighten the plastic wing nut lightly.
2. By pulling upwards on the protective guard holder **24** tilt the device backwards to lean on the handlebars (top left illustration in **Fig. 8**). Support the end of wheel arms with scrapers, the handlebar holder tube and the handlebars using a suitable soft pad – e.g. a piece of cardboard or old cloth.
 3. Hold the brush to prevent it from spinning and using Allen key No.8 loosen and unscrew three M8x30 screws with safety washers.
 4. Remove the brush from the carrier.
 5. Mount the new brush on the carrier. The rectangular recess in the brush must be against the protrusion on the carrier.
 6. Screw the three M8x30 screws with safety washers back again and tighten them well.
 7. Tilt the device back again. Set the handlebars back to the standard working position.

1.4.3 Adjusting dirt scrapers

Fig. 7 Dirt scrapers are used for removing of earth or plant residues from the wheel tread. The recommended clearance between the wheel tread and the scraper edge is 1 mm. To adjust the clearance use a suitable gauge, e.g. an old credit card. Tighten the M6x16 collar screws fast.

1.4.4 Maintenance of motor air filter

⚠ Cleaning agents pose a fire and explosion hazard. Never clean the air filter using flammable solvents.

Make sure that the air filter is always clean. Contaminated air filter reduces motor power and results in increased motor wear and fuel consumption. Regardless of the operating hours, change the filter at least once a year. Do not operate the device without the air filter.

The foam rubber pre-filter traps coarse impurities. It is possible that in the case of increased dustiness it may be necessary to clean it or change it already after 10 minutes. We recommend that you take with you some clean or new pre-filters and change them at short intervals. Observe the attached motor operating instructions.

1.4.5 Belt transmissions

The device is fitted with modern belts which do not require any particular care. It is only necessary to check them regularly and when there are cracks or tears on the belt surface, change them. Adjusting of tension pulleys must be checked after ca 5 hours of operation when the belt has been run in (it applies to belts in a new machine and to new changed belts), to prevent belt damage due to its elongation and insufficient tension.

1.4.5.1 Adjusting of tension pulleys

⚠ The spark plug connector must be disconnected!

ⓘ If you are not sufficiently manually skilled, have the operations done by an authorized service centre.

1. Cut off the fuel valve, set the motor lever to position **STOP**, remove the spark plug connector.
2. Demount the brush according to art. 1. to 4. in **chap.1.4.2 Brush change** and **Fig. 2**.
3. In order to see both belts according to **Fig. 9** remove the two M6x16 collar screws holding the rubber flap (see **Fig. 2**) and eight M6x16 collar screws holding the bottom sheet metal cover.

1.4.5.1.1 Tension pulley for primary belt

1. Press the control lever on the right handle of the handlebars proceeding according to art. 2. to 4. in **chap.1.3.4 Activating the brush**, secure the lever in its depressed position, e.g. using a plastic binder.
2. **Fig. 10** Check the elongation of the spring at the end of the cable. The correct distance is **45 mm (tolerance +/- 1.5 mm)**.
3. If the value does not correspond to the specification, adjust the cable tension using the set screw at the rear face of the device frame. Loosen both M6 – nuts 2x spanner No.10. By unscrewing the screw you increase the spring tension; by screwing the screw in you decrease the tension.
4. Pull the starting handle several times - the brush carrier must not turn. If the carrier turns, screw the set screw by one turn in and repeat the test.
5. Tighten both nuts.

1.4.5.1.2 Tension pulley for secondary belt

The belt needs tensioning only if the brush stops with only a slightly increased pressure of the brush on the cleaned surface. If the brush is pressed to a curb or wall corner, where increased resistance on bristle tips is developed, short-term drive belt slippage may occur. If this happens only for a short time or once in a long period, it is not necessary to tension the belt.


ⓘ If you are not sufficiently manually skilled, have the operation performed by an authorized service centre equipped with professional fixtures and belt tensioning gauges.

ⓘ When adjusting belt tensioning it is necessary to ask another person for assistance.

Fig. 11

1. Place a flat spanner No. 17 into the rectangular opening in the device. Place the spanner on the head of the pulley screw.
2. Place a large flat screwdriver (tip at least 10x1.6 mm) into the pulley groove and fix it against the nut washer protrusion.
3. Using spanner No. 17 loosen slightly (ca 1/2 turn) the M10 self-locking nut.
4. By applying pressure to the screwdriver handle, tighten the pulley.
5. Tighten the M10 self-locking nut well.

6. Turn the carrier several times and then check the belt tension – there must be only minimal deflection on the belt.

 **To check correct belt tension we recommend that you use OPTIKRIK II mechanical gauge by OPTIBELT. The belt tension force in the traction part is 730N.**

1.4.5.2 V-belt change

A V-belt is to be replaced by a new one¹⁷ always when cracks or tears appear on the belt surface and also in the case when a belt is so worn by operation that it cannot be tensioned any more using the tension pulleys.

 **Have the operation always performed by an authorized service centre equipped with professional fixtures and belt tensioning gauges.**

1.4.6 Spark plug

The ignition system creates an electromagnetic field.



People using pace makers must not touch any current carrying parts of the ignition system !

1.4.7 Servicing intervals

Activity	Prior to each use	Prior to long-term storing
Checking motor oil level	yes, according to motor operating instructions	change
Cleaning of motor air filter	yes, check every 5 hours	change
Washing	as necessary, preferably when work is finished	yes
Removal of dirt	yes	yes
Checking brush tightening	yes	yes
Checking tightening of screwed connections	yes	yes
Lubrication	checking the condition	Table 8
Checking V-belts	after every 20 hours	yes

Table 9: Servicing intervals

¹⁷ Use exclusively the V-belts recommended by the manufacturer. If you use belts from other manufacturers, proper operation of the drive may not be guaranteed.

1.4.8 Troubleshooting

Problem	Cause	Solution
The motor will not start.	No fuel in the tank.	Fuel up.
	The fuel valve is closed.	Open the fuel valve.
	The device has been tilted - oil got into the air filter.	Change the air filter, unscrew the spark plug and pull the motor starter several times with the fuel valve closed. Dry the spark plug and screw it back in.
	The motor has been flooded due to too many start attempts.	Unscrew the spark plug and pull the motor starter several times with the fuel valve closed. Dry the spark plug and screw it back in.
	The spark plug cable is disconnected.	Observe safety regulations! Mount back the spark plug cable.
	The air filter is contaminated.	Keep the air filter clean (see also maintenance and cleaning).
	The spark plug is fouled with carbon black, damaged or the distance between the electrodes is not right.	Clean the spark plug and check the distance between the electrodes (see also maintenance and cleaning instructions). Change if necessary.
	Poor quality, contaminated or old fuel.	Clean the fuel system (authorized service centre). Always use fresh fuel.
	Other defects.	Visit an authorized centre.
The motor does not start well; irregular motor run.	The air filter is contaminated.	Keep the air filter clean (see also maintenance and cleaning).
	Poor quality, contaminated or old fuel.	Clean the fuel system (authorized service centre). Always use fresh fuel.
	The spark plug is fouled with carbon black, damaged or the distance between the electrodes is not right.	Clean the spark plug and check the distance between the electrodes (see also maintenance and cleaning instructions). Change if necessary.
The brush is not turning.	The motor is not started.	Start the motor.
	The control lever is not depressed.	Press the control lever.
	Insufficient belt tension.	Adjust the tension pulley.
	Torn belt.	Visit an authorized centre.
	The belt has come off.	Mount the belt back.
	Other defects.	Visit an authorized centre.
The brush will not stop.	The tension pulley does not return back to its position.	Lubricate.
	The belt is behind the guide pins.	The belt must be replaced by a new one – the belt fibres might have been damaged; the device to be inspected in a service centre – deformation of parts.
Jerky movement of the brush with the brush pulley deactivated.	The primary belt is too tight.	Screw the set screw of the handlebar Bowden cable 1 turn in. Check whether the brush is still turning. Repeat the adjustment if necessary.
	Other defects.	Visit an authorized centre.
Strong vibrations during operation.	Unbalanced brush due to uneven wear.	Change the brush immediately.
	Bent drive shaft of the brush due to a collision with a fixed object.	Visit an authorized centre.
	Motor mounting is loose.	Visit an authorized centre.
Irregular noise	Exhaust silencer loose.	Visit an authorized centre.
Smoke from the motor	Air filter contaminated or containing oil.	Change the air filter (see also maintenance and cleaning).
	Oil level too high.	Removing oil to achieve the correct level according to the dipstick - needs to be performed by an authorized service centre.
The motor is too hot.	The vent grill is clogged.	Clean the starter vent grill.
	Oil level is too low.	Top up the oil according to the instructions stated in the motor operating instructions.
	Motor cooling is contaminated.	The cooling system may be cleaned only by an authorized service centre.
The control levers do not return back.	The inner Bowden cable is stiff; bent Bowden cable.	Lubricate or replace the Bowden cable.
	Broken return spring.	Replace it by a new one.
	Other defects.	Visit an authorized centre.
Another defect		Visit an authorized centre.

Table 10: Troubleshooting

1.4.9 Storing

⚠ After switching the motor off, let the device cool down for at least 20 minutes. Then you may store it in a dry and ventilated room.

Always eliminate all problems of the device before you store it so that the device is always in a safe-to-operate state.

Prior to long-term storing (e.g. at the end of a season) remove all impurities and plant residues from the device. Prevent unauthorized persons (particularly children) from access to the device. Protect the device against climatic conditions but do not use impermeable protection to prevent excessive corrosion it may cause.

We strongly recommend the following steps:

- Remove all impurities and plant residues from the device.
- Repair any paint damage.
- Drain the fuel from the fuel tank and carburettor (further instructions in the motor operating instructions).
- Implement post-season device lubrication **Table 8**.

1.4.9.1 Spare parts

The reliable and safe operation of the device also depends on the quality of the spare parts used. Only use original spare parts and accessories that were approved by AS-Motor Germany. When unoriginal parts are installed, the warranty and guarantee shall be void for the unoriginal parts and for the device and for any resulting damage.

Inform your authorized service centre about the device type and serial number of your device when you order spare parts.

1.4.9.2 Wear parts

Some parts are wear parts. They wear during use and must be replaced. The warranty does not cover the following parts: Brush, Bowden cables, V-belts, starter rope, protective guard, rubber flap, wheels.

1.4.9.3 Washing and cleaning the device

⚠ When washing and cleaning the device proceed so as to observe valid provisions and laws regarding protection of water courses and other water resources against pollution or contamination by chemical agents.

- ⓘ **Never wash the motor by water jet! During starting the electric system of the motor could malfunction.**
- ⓘ **You may use pressure washing with the remaining parts of the device. It is necessary to lubricate moving parts according to **Table 8**.**

1.4.10 Disposal of packaging and the device at the end of its service life

When you unpack the device you are bound to dispose of the packaging material according to national laws and decrees concerning waste disposal. When disposing of the device at the end of its service life we recommend you proceed as follows:

- Demount from the device all parts that may still be used.
- Drain oil from the motor into a suitable closing container and dispose it in a waste collection centre¹⁸.
- Demount plastic parts and non-ferrous metal parts.
- The remaining device and demounted parts are to be disposed of according to national laws and decrees concerning waste disposal.

1.4.11 Warranty

The conditions of the warranty can be found on the reverse side of your warranty card. Send the filled-out warranty card immediately after the purchase of your device to "AS-Motor Germany" or the supplier. Otherwise, the warranty is no longer valid. Preserve the proof of purchase or the warranty card that was filled out by the vendor.

1.5 Accessories

The recommended accessories **are not** included with this device. You may purchase the accessories from your dealer.

Operating hour counter, part number G06927008 (E10740)

Allen key No. 6 with extended handle

¹⁸ The respective local authority will inform you of the disposal centre location.

2 EC declaration of conformity



AS-Motor Germany GmbH & Co. KG
 Ellwanger Straße 15
 D-74424 Bühlertann
 www.as-motor.de

EC declaration of conformity

Manufacturer:¹⁹ AS-MOTOR GERMANY GmbH & Co. KG
Address: Ellwanger Straße 15; D-74424 Bühlertann
Product (machine) – type: AS 30 WeedHex 140
Serial No.: starting from 028717010001
Description:

Machine type	Motor	Power	Operation width
Weed remover	ZONGSHEN XP 140	1.8 kW/2800 min ⁻¹	35 cm

The weed remover is intended exclusively for effective removal of weed, moss or other impurities from paved areas especially in tight spots at walls or curbs.

All respective provisions which the product meets: Government Decree No. 176/2008 Coll. (Machinery Directive 2006/42/EC)
 Government Decree No. 117/2016 Coll. (Electromagnetic Compatibility Directive 2014/30/EC)

Harmonized technical standards used for assessment of conformity: EN ISO 12100:2010

Other technical standards and specifications used for assessment of conformity: -

We declare that the equipment specified above is in conformity with the requirements of the above-mentioned directives.

Note: All regulations have been used as amended at the moment of issuing of this declaration without expressly specifying the amendments.

Place of issue: Bühlertann

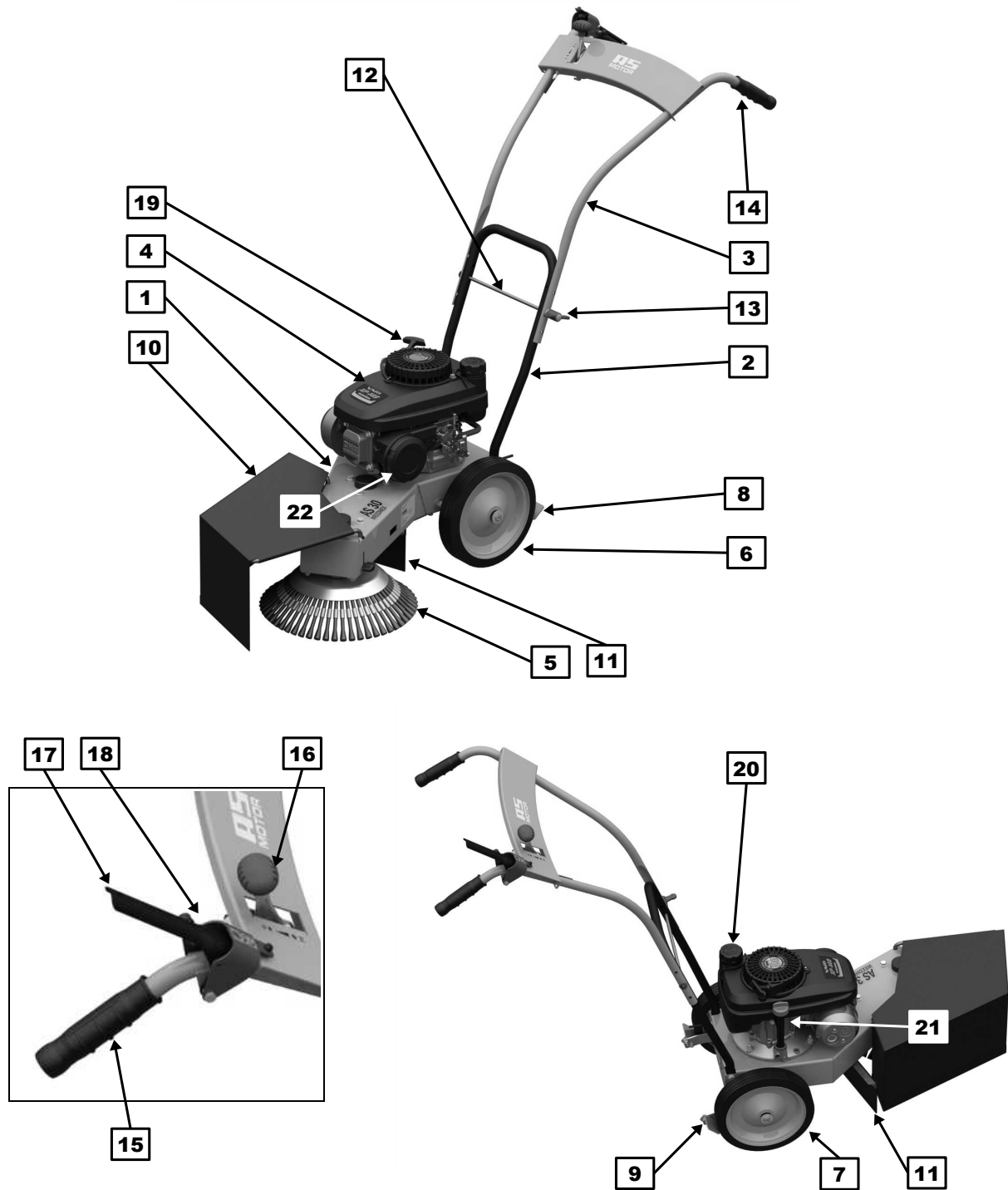
Date of issue: 15.3.2017

Person authorized to sign on behalf of the manufacturer:

Name:	Position:	Signature:
Eberhard Lange	Company Director	
Frank Einsiedler	Development Manager	

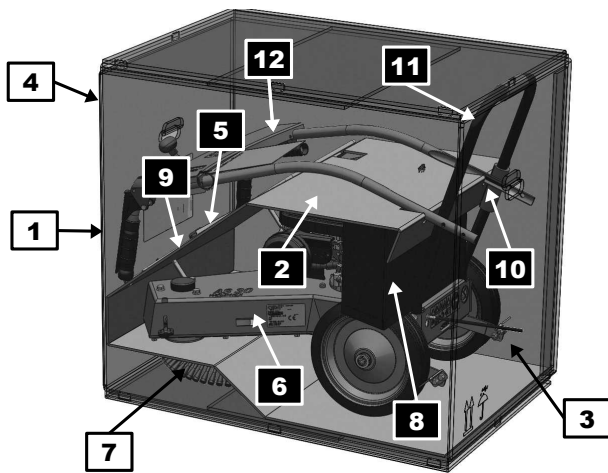
¹⁹ The manufacturer also prepares and archives all technical documents regarding all directives relevant to the present EC declaration of conformity

3 **EN** Attached illustrations

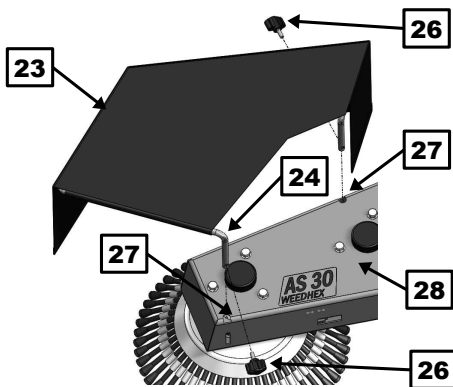
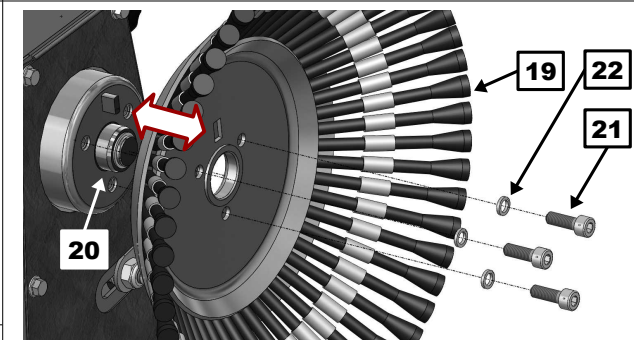
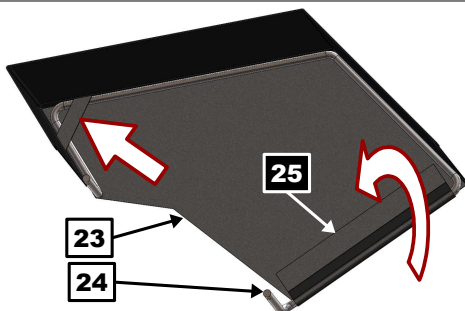
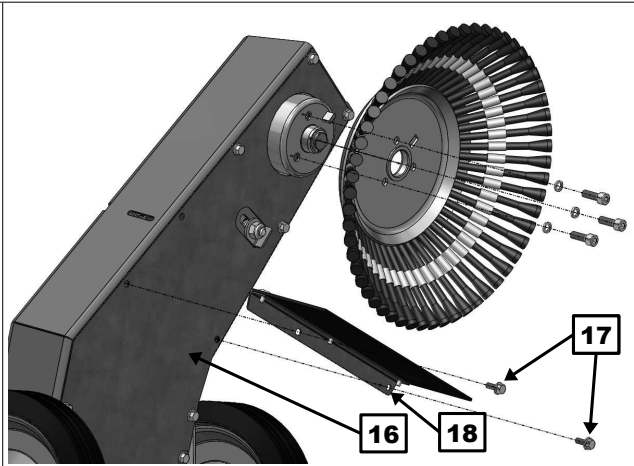
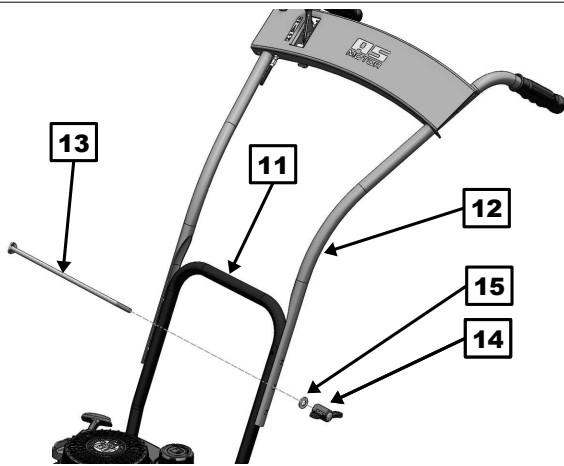


- | | | |
|--------------------------------|-------------------------------------|--------------------------------------|
| 1 Device frame | 9 Right wheel scraper | 17 Brush pulley control lever |
| 2 Handlebar holder tube | 10 Protective guard | 18 Strap with a safety |
| 3 Handlebars | 11 Rubber flap | 19 Starter handle |
| 4 Motor | 12 Bolt | 20 Fuel tank cap |
| 5 Brush | 13 Plastic wing nut | 21 Oil dipstick |
| 6 Left wheel | 14 Left handle | |
| 7 Right wheel | 15 Right handle | |
| 8 Left wheel scraper | 16 Motor speed control lever | |

Fig. 1: Basic components of the device



- 1** Cardboard box
- 2** Cardboard insert
- 3** Rear face of the box
- 4** Front face of the box
- 5** Rubber flap and bag with manuals
- 6** Device
- 7** Brush
- 8** Protective guard
- 9** Protective guard holder
- 10** Plastic binding tape fixing the handlebar handle to the handlebar holder
- 11** Handlebar holder tube
- 12** Handlebars



- 13** Bolt
- 14** Plastic wing nut
- 15** Flat washer 10.5 mm
- 16** Bottom sheet metal cover
- 17** M6x16 collar screw (2x)
- 18** Rubber flap
- 19** Brush
- 20** Brush carrier
- 21** M8x30 socket screw (3x)
- 22** Safety washer 10 (3x)
- 23** Protective guard
- 24** Protective guard holder
- 25** Protective guard hem with Velcro
- 26** M6x16 plastic head screw (2x)
- 27** Holes for protective guard holder
- 28** Device frame

Fig. 2: Device assembly

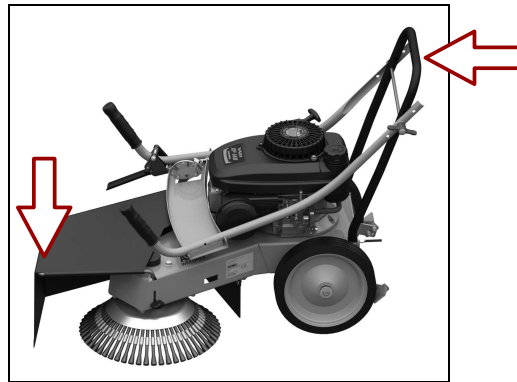


Fig. 3: Device position for transport



STOP - turn motor off



MIN - motor idling speed



MAX - maximum motor speed

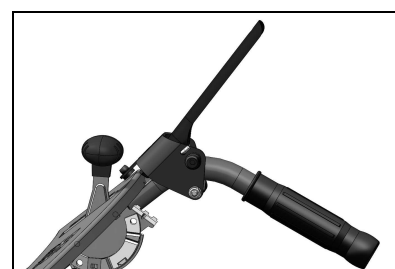


CHOKE - open choke
use only when the motor is cold

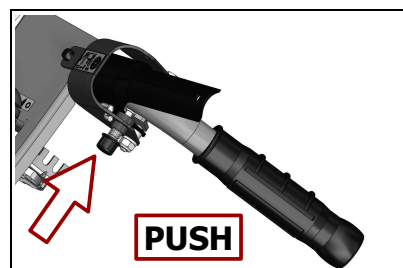
Fig. 4: Throttle lever positions



1



2

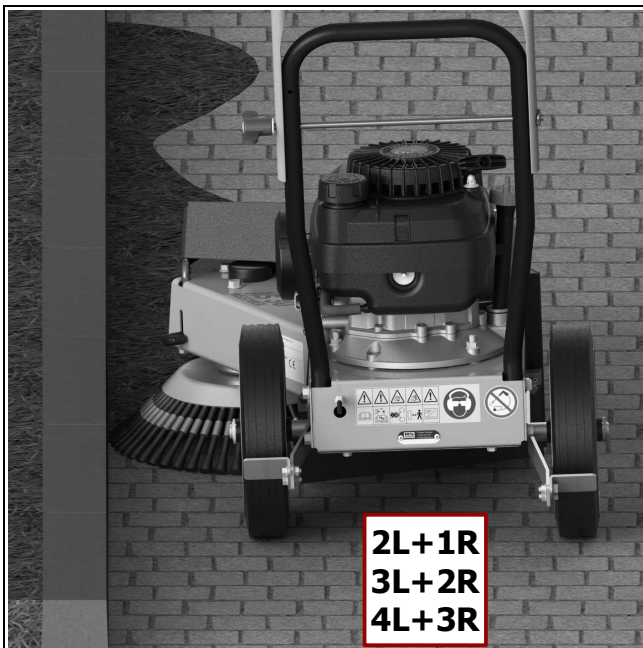
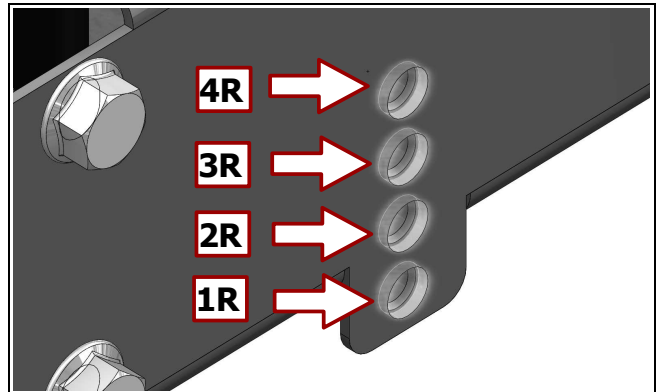
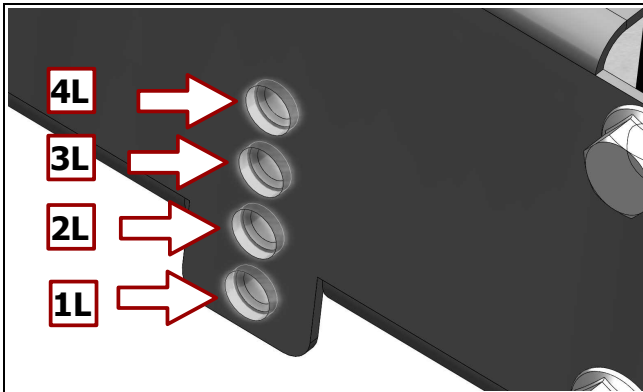
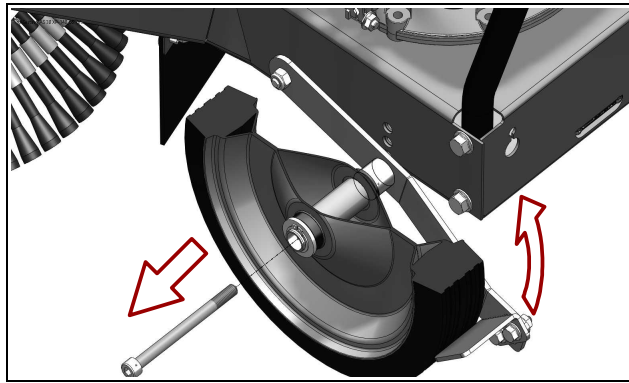


3

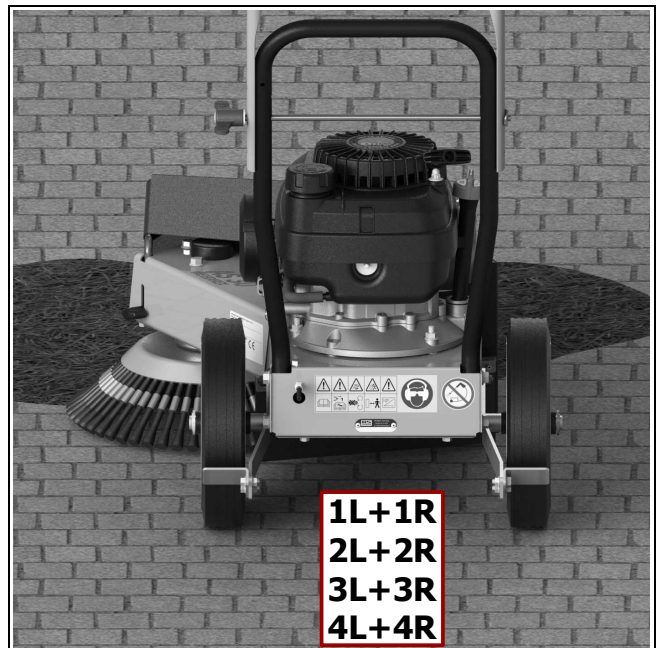


4

Fig. 5: Pulley control lever positions



A



B

Fig. 6: Adjusting position of the wheels

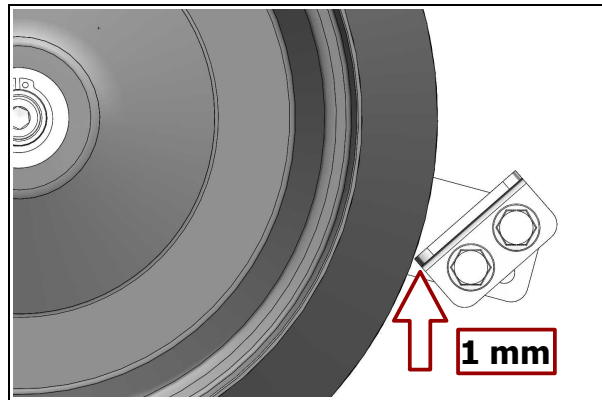


Fig. 7: Dirt scraper - adjusting the clearance

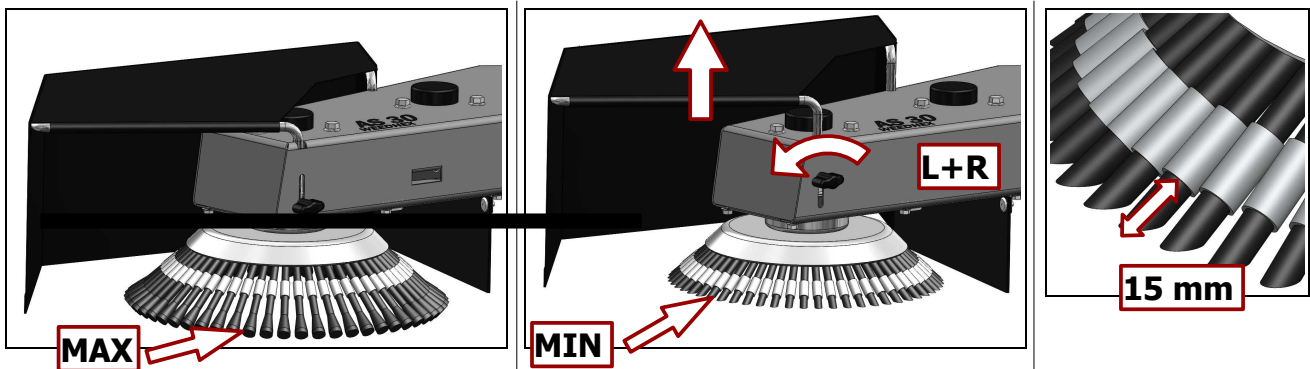


Fig. 8: Brush wear and setting of the protective guard

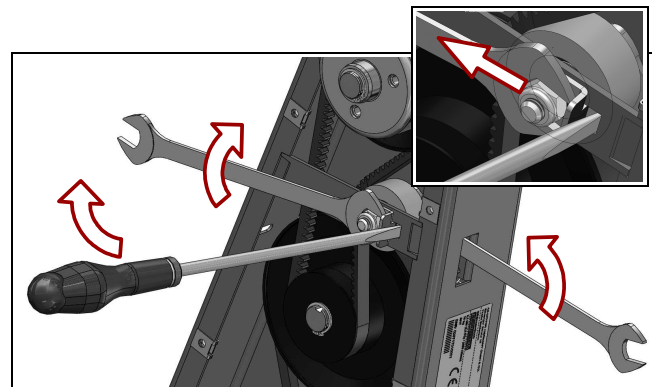
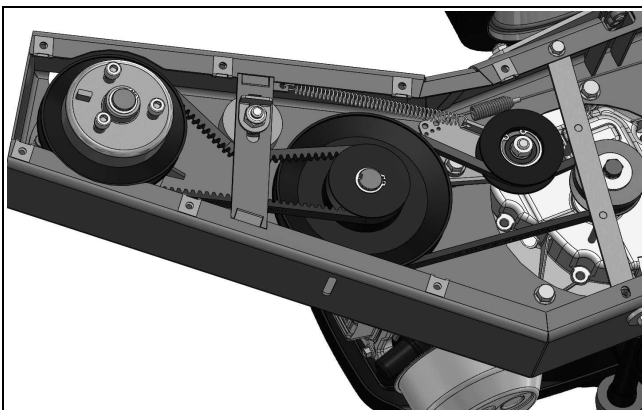
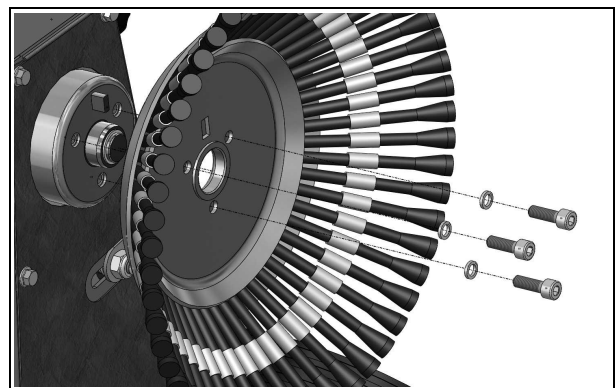
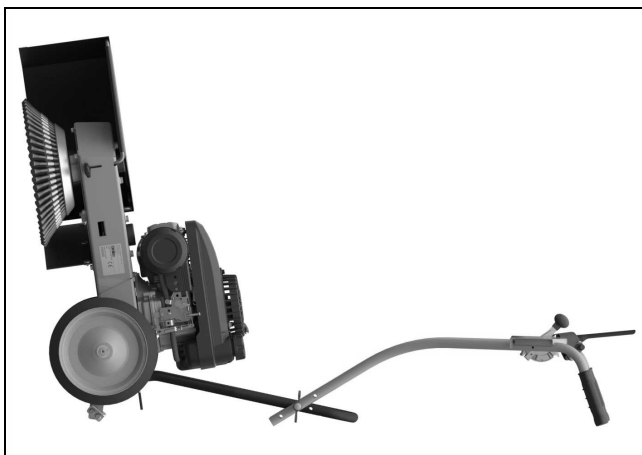


Fig. 9: Tensioning belt pulleys

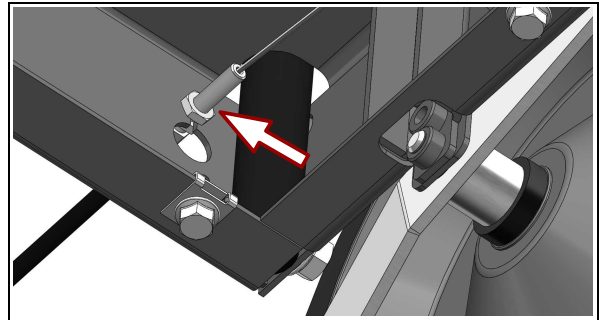
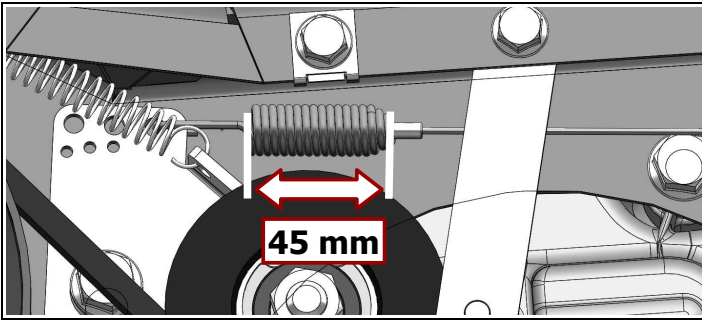


Fig. 10: Tensioning pulley spring

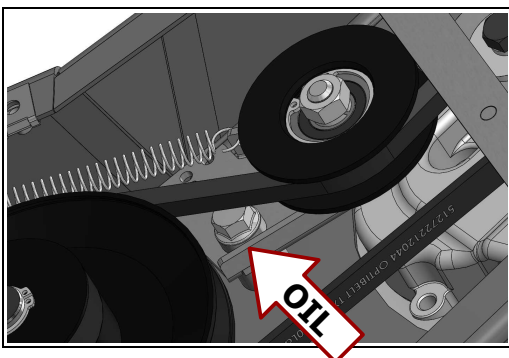
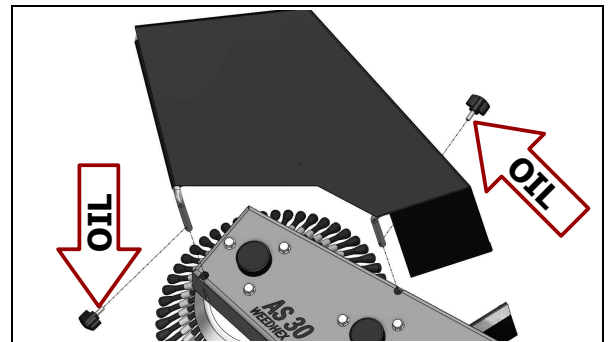
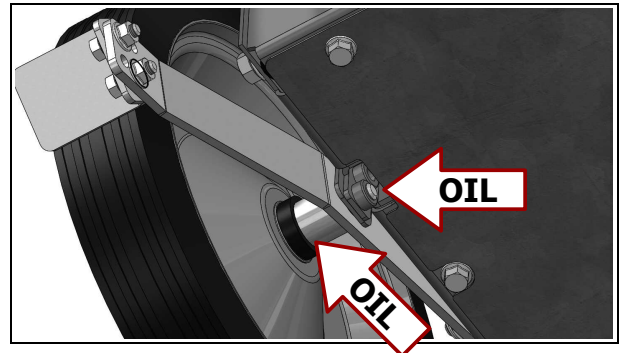
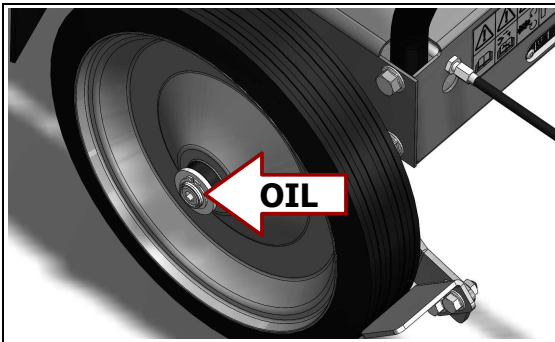
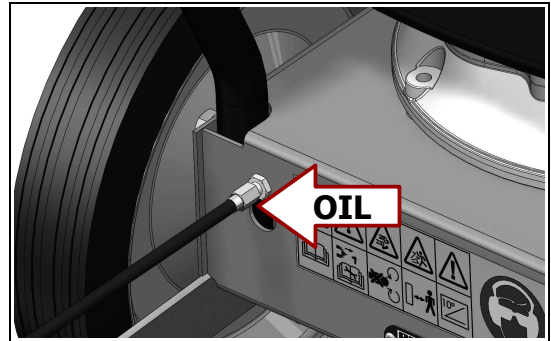
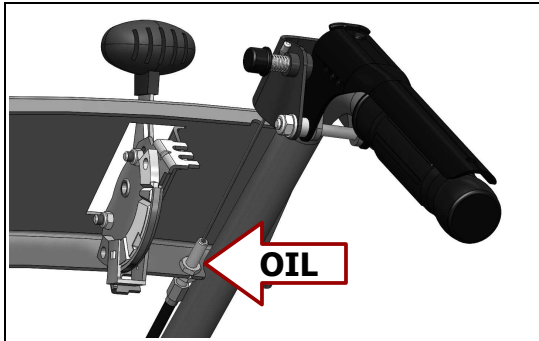


Fig. 11: Lubrication points

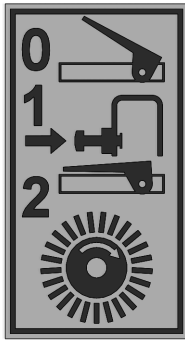
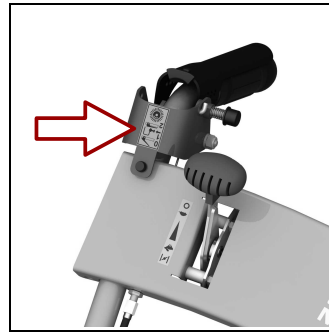


Fig. 12: Safety labels - control lever



Position on the machine

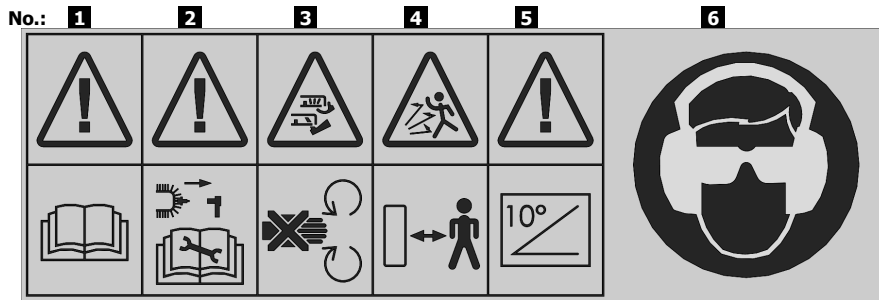
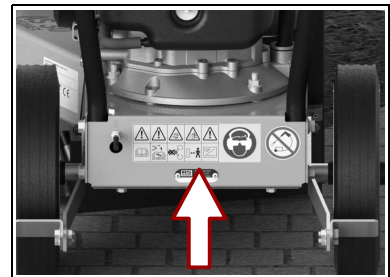
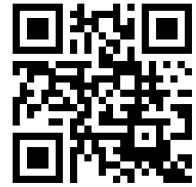


Fig. 13: Safety labels – combined sticker



Position on the machine



Professional Equipment for the Garden and Countryside

Allmäher®

Advanced meadow mowers for extensive law maintenance. They reliably grind meter high grass, bushes, and weeds, even on steep slopes and in difficult terrain. The mowed grass remains as fertilizer on the surface, eliminating any uncomfortable raking.

Allmäher® Mulching Tractor Mowers

Ease of operation and high area capacity combine in your compact lawn tractor mower. Its lower centre of gravity, optimum weight distribution, and wide track, give you the maximum climbing ability and headroom for grinding high stand. They are also available in an all-wheel drive version, which increases traction in during challenging deployments and safety while working on a slope.

Mowers with Rear Discharge

Professional mowers with rear discharge. With travel and continuous speed adjustment, which ensures excellent mowing results and collection in every situation.

Drum Mowers

An economical alternative to the bar mowers. Also ideal for feed production. They divert non-crushed grass to the sides of the line.

Flail Mowers

Freely mounted flail knives avoid rocks and obstacles and crush the cut material several times. The 3-mm thick cutting mechanism steel cover offers the highest protection against thrown objects. It securely captures them.

Mowers with Side Discharge

Robust versatile mowers with side discharge, driving gear, and 3-mm thick plastic-coated steel cover. Also available as an all-wheel drive model with continuous speed adjustment (Variomatic).

WeedHex

It gently, quickly, and without any chemistry removes weeds: On road areas, walls, curb edges, and between interlocking paving tiles.