



Petrol lawn mower

PM	PM	PM	PM	PM	PM	PM	PM
4030 P	4650 S	4650 SHW	5165 SHW	5175 S	5175 SHW	5690 SHW	5690 SZT
(DYM161702)	(DYM1666E)	(DYM1626ECQ)	(DYM1660E2Q)	(DYM1668EC)	(DYM1666E3Q)	(DYM1669EQ)	(DYM1679B)

Original Operating Instructions (EN)



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Importer
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66450 Bexbach, Germany
www.mowox.com

You are well versed in your new lawnmower. Because you entirely read this user manual.



Read these operating instructions for your own safety before commissioning the device. Failure to follow the instructions can lead to serious injuries. Familiarize yourself with the device before each use. Keep this operating instruction well so that the information it contains is available at all times. If you pass on the device to third parties, add this operating instruction.

When unpacking the lawn mower, be careful not to twist or bend the cables and not to pull the device on the cables. Otherwise, damage to the device could be caused, which is not covered by the warranty.

1 INTENDED USE

This device may only be used for its intended purpose. Any other type of use is considered abusive. The user, not the manufacturer, is liable for damage or injury caused by misuse.

The petrol lawn mower is intended for private home and garden use.

This refers to an operating life of up to 50 hours per year and to the preservation of small, private lawns and private hobby gardens. Public facilities, sports fields and applications in agriculture and forestry are excluded from this.

Note that this device is not designed for commercial or industrial use. The warranty expires if the device is used for commercial, industrial or similar purposes.

The instructions for use must be followed to ensure proper use and maintenance. The operating instructions contain important information regarding use, maintenance and repair.



Due to the high risk of injury, this lawn mower must not be used to cut bushes, hedges or perennials, green roof surfaces or balcony grass surfaces, to remove (suck up) dirt and debris on sidewalks, or to crush tree or hedge waste. In addition, the lawn mower must also not be used as a milling machine for flattening elevations such as molehills.

For safety reasons, the lawn mower must not be used as a drive for other tools or equipment.

Table of contents

1	Intended use.....	1
2	Safety instructions	3
2.1	Security icons.....	3
2.2	Safe use.....	4
3	Your lawn mower at a glance	8
4	Technical data	9
5	Assembly	11
5.1	Assembly of the lower part of the handle.....	11
5.2	Assembly of the upper part of the handle	12
5.3	Adjustment to the operator's body size.....	13
5.4	Cable guide.....	13
5.5	Grass bag	13
5.6	Starter handle	14
6	Usage	15
6.1	Before commissioning	15
6.2	Adjustment of the cutting height.....	16
6.3	Start of the engine.....	19
6.4	Stopping the engine.....	21
6.5	Walk the lawn mower with a running engine.....	21
6.6	Rear wheel drive.....	22
6.7	Unidirectional drive.....	22
6.8	Achieve optimal results with the lawn mower	23
6.9	Grass basket	23
6.10	Function "3 in 1"	24
7	Maintenance and care	26
7.1	Maintenance plan.....	26
7.2	Cleaning the mower.....	26
7.3	Air filter	27
7.4	Engine oil.....	29
7.5	Blade.....	29
7.6	Spark plug.....	30
7.7	Wheels and moving parts (wire rope hoists).....	31
7.8	Garden hose connection.....	31
7.9	Storage out of season.....	32
7.10	Upright storage	34
8	Troubleshooting.....	35
9	Mowox® Warranty conditions	36
10	Environmentally friendly disposal.....	37
10.1	Packaging.....	37
10.2	Device.....	37
11	EC Declaration of Conformity	38

Never start the engine without oil.

2 SAFETY INSTRUCTIONS

2.1 SECURITY ICONS



1	Read the operating instructions before using the device. The device can cause dangerous situations if used improperly. Read and internalize the operating instructions before using the device.
2	Inherent danger to other persons.
3	Risk of injury to hands and feet.
4	Combustible petrol. Keep away from fire! Do not refill petrol while the engine is running!
5	Toxic fumes. Do not use indoors.
6	High current electric ignition circuit. Disconnect the spark plug for maintenance.
7	Hot engine.
8	Wear safety goggles and ear protection during operation.



The sharp blade can cause serious injuries to limbs.
KEEP HANDS AND FEET AWAY.



This product must not be disposed of with normal household waste at the end of its useful life. Information about recycling can be obtained from your local authority or from your dealer.



Guaranteed sound power level: The noise level of this device is not higher than the stated value.



The device complies with the requirements and regulations of the European Community.



The device complies with strong safety test norms.



Warning for your safety.

You may be dangerously injured, or even possibly killed, if you don't follow the safety instructions.

The safety symbols on the device must always be clean and clearly visible. Replace them if they are missing or unreadable.

2.2 SAFE USE



Always observe the following safety instructions. Failure to follow the warnings may result in electric shock, fire and/or serious injury. Keep all warnings and instructions for later use.

2.2.1 Other people's safety

1. Never let children or people who are not familiar with the instructions use the device. National regulations may limit the minimum age for use.
2. Do not use the device if there are people, especially children, or animals in the area.
3. Store the device outside the distance of children.
4. Please note that the user is liable to persons or property for accidents or dangerous situations.
5. Users of the device must be instructed regarding the use, setting and operation of the device as well as of prohibited actions.

2.2.2 Preparation



Improper maintenance or misuse can cause malfunctions and result in serious or even fatal injuries.

1. Don't mow your lawn in the dark.
2. Check the area you want to mow carefully and remove any items such as stones, toys, sticks and wires that can be whirled up by the device.
3. Always wear hearing protection.
4. The operation of any machine can cause foreign bodies to be thrown into the eyes. Always wear safety glasses during operation, adjustment or repair.
5. Wear sturdy work gloves every time you come into contact with the machine.
6. Do not use the device on dusty or sandy surfaces. If you notice dust being stirred up, interrupt operations and put on mouth-nose respiratory protection.
7. Always wear non-slip, closed shoes and long trousers during operation. Do not wear loose clothing or shoes.
8. All screw and plug-in bindings must be checked for a fixed fit before each

operation. Don't use the machine with any loose or damaged parts.

9. Check the fuel and oil level before operation.
10. Check the air filter before operation, and, if necessary, clean it.#
11. Replace damaged silencers.

Gasoline is highly flammable.



Store gasoline in airtight canisters specifically designed for this purpose.

Refill gasoline only outdoors and do not smoke.

Refill gasoline before turning on the engine. Never remove the fuel cap or refill gasoline while the engine is running or when the engine is still hot.

If gasoline gets spilled or splashed out, do not turn on the engine. The sparks during ignition can cause an explosion. Move the device to another location and avoid the formation of an ignition source until the fumes have evaporated.

Securely seal the covers of the fuel tank and container.

2.2.3 Operation



Engine exhaust gases contain toxic carbon monoxide. Carbon monoxide is toxic. It can cause unconsciousness or even death when inhaled. Do not run the engine without proper ventilation; never turn on the engine indoors.

Do not use the lawn mower during thunderstorms.

The engine and exhaust gases become very hot during operation. Keep flammable material away and do not place objects on the engine while it is running.

1. It is recommended to limit the duration of operation to minimize hazards due to noise and vibration.
2. Be especially careful on slopes, abysses, ditches and embankments.
3. Mow only in daylight.
4. Avoid operating on wet grass.
5. There is a risk of tripping on slopes.
6. Walk slowly, don't run.
7. Mow across slopes and never up or down.
8. Special care should be taken when changing direction on slopes.
9. Do not mow on extremely sloping slopes.

10. Special care should be taken when reversing or pulling the lawn mower towards you.
11. Stop the operation of the knives if the lawn mower needs to be tipped over when crossing soils other than grassy areas and while transporting the lawn mower to or from the place of use.
12. Do not use the lawn mower with defective protective devices, e.g. baffles and/or grass collecting device.



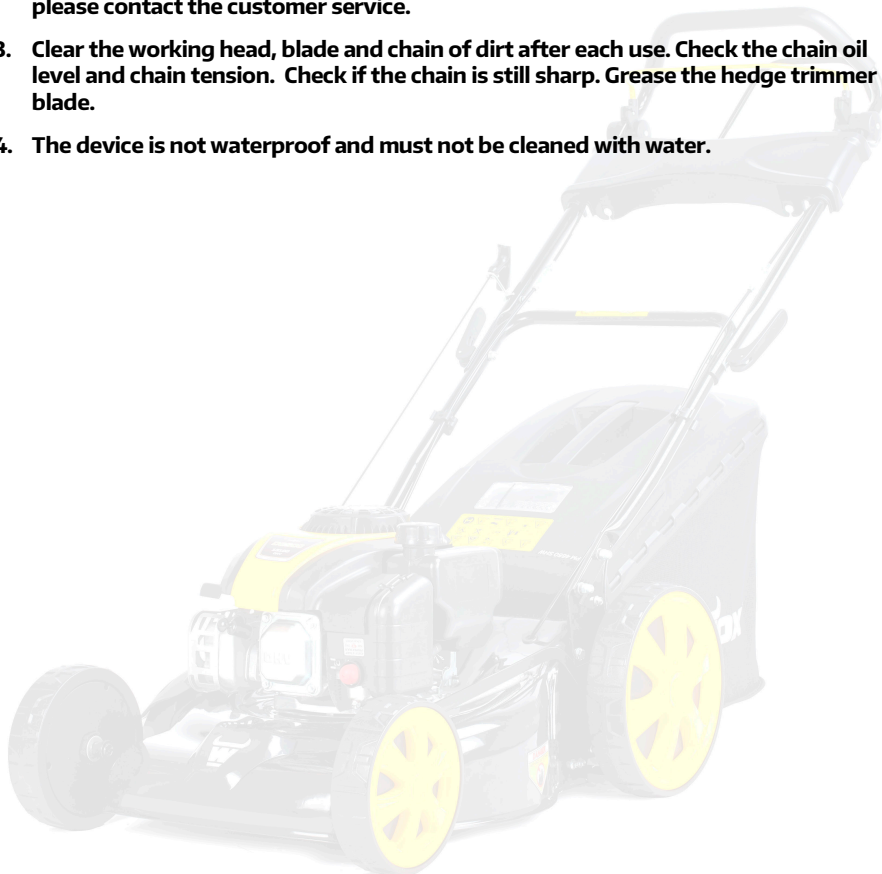
The lawn mower must not be put into operation if the grass trapping device or the self-closing protective device of the outlet opening is not installed.

13. Do not make any adjustments to the engine speed.
14. The safety systems of the lawn mower must not be modified or deactivated.
15. Disable all drive couplings before turning on the engine.
16. Carefully turn on the engine according to the instructions; pay attention to a safe distance between your feet and the knives.
17. Do not tilt the lawn mower when turning on the engine.
18. Keep hands and feet away from rotating parts. Never stand in front of the outlet opening.
19. While the engine is running, the lawn mower must not be lifted or carried.
20. Turn off the engine and unplug the spark plug. Wait until all moving parts have come to a standstill
 - a. before removing blockages or cleaning the ejection opening,
 - b. before checking, cleaning or maintaining the lawnmower,
 - c. after hitting an object with the lawnmower. Check the lawn mower for damage and repair it before the next use,
 - d. if the lawn mower vibrates abnormally (check immediately),
 - e. before refilling petrol.

2.2.4 After use

1. Wear sturdy protective gloves when working on the device.
2. All nuts, bolts and screws must always be tightened to ensure safe operation.
3. Ensure adequate ventilation during operation or maintenance.
4. Do not store the device with gasoline in the tank in a building.
5. Allow the engine to cool before storage. Clean and maintain the lawn mower before storage.
6. To reduce fire hazards, keep the engine, muffler and fuel tank free of grass, leaves and resin.
7. Regularly check the grass collecting device for wear and tear.
8. Replace worn or damaged parts.

9. **If the fuel tank needs to be emptied, do so outdoors and let it cool for at least 15 minutes first.**
10. **Improper maintenance, non-compliant spare parts, or the removal or modification of safety devices can cause damage to the lawn mower and cause serious or even fatal injuries.**
11. **Use only the blades and spare parts recommended by the manufacturer. The use of non-original spare parts can cause damage to the device and injuries. Keep the lawn mower in good working condition.**
12. **If the blade does not come to a stop immediately after switching off the engine, please contact the customer service.**
13. **Clear the working head, blade and chain of dirt after each use. Check the chain oil level and chain tension. Check if the chain is still sharp. Grease the hedge trimmer blade.**
14. **The device is not waterproof and must not be cleaned with water.**



3 YOUR LAWN MOWER AT A GLANCE

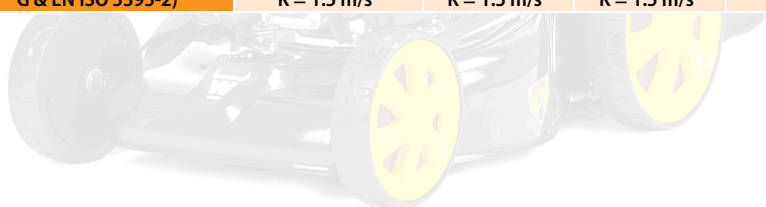


1. Guide bar	2. Brake handle	3. Handle for manual start	4. Quicklock levers	5. Grass bag	6. Height adjustment lever
7. Petrol valve (only 5690 SHW/ -ZT)	8. Oil Filler Neck & Oil Dipstick	9. Mower housing	10. Spark plug connector	11. Filler cap	12. Cable clamp
13. Side ejection (not for 4030 P, 4650 S)	14. Drive handle (not for 4030 P)	15. Air filter box	16. Carburettor	17. Silencer	18. Washing connection (not for 4030 P)
19. Guide bar screws (not for 4030 P)	20. Spark plug wrench	21. Primer pump (only 4030 P, 4650 S/-HW)	22. Mulching wedge (not for 4030 P, 4650 S)	23. Locking device for straight running (only 5690 SZT)	

4 TECHNICAL DATA

Model	PM 4030 P (DYM161702)	PM 4650 S (DYM1666E)	PM 4650 SHW (DYM1626ECQ)	PM 5165 SHW (DYM1660E2Q)
Engine Type	DG 300	DG 500		DG 650
Engine design	4-stroke engine, overhead valve, 1 cylinder			
Displacement; bore × stroke	80 cm ³ ; 52 × 38 mm	135 cm ³ ; 61 × 45 mm		149 cm ³ ; 65 × 45 mm
Maximum power/ 3600 min ⁻¹	1.4 kW (1.9 HP)	2.4 kW (3.2 HP)		2.7 kW (3.6 HP)
Nominal power	1.2 kW (1.6 HP)	1.9 kW (2.6 HP)		2.4 kW (3.2 HP)
Fixed speed	3000 min ⁻¹	2800 min ⁻¹		
Maximal torque	3.6 Nm/000 min ⁻¹	6.6 Nm/2800 min ⁻¹		7.5 Nm/2800 min ⁻¹
Valve clearance (cold)	0.05 – 0.10 mm	0.10 - 0.15 mm		
PTO shaft rotation	counterclockwise	clockwise		
Ignition system	Transistor ignition			
Ignition angle	22° ± 2°	16° ± 2°		
Spark plug type	F7RTC	F6RTC		
Spark plug electrode spacing	0.6 - 0.8 mm			
Lubrication system	Immersion lubrication			
Cooling system	Forced air cooling			
Blade length	400 mm	460 mm		510 mm
Blade part number	DAYE 2105300136	DAYE 2105200263[...], 263002488, 21052003402000A or 2105200115C		DAYE 2105200262[...]
Required engine oil quantity	0.35 l	0.4 l		
Capacity petrol tank	0.6 l	0.9 l		
Grass bag capacity	50 l	60 l		
Net weight	16.0 kg	26.6 kg	30.5 kg	31.4 kg
Cutting height adjustment	25 - 75mm, 6 positions	25 - 75mm, 10 positions		
Measured sound pressure level at the user's position (EN ISO 5395-1 Annex F & EN ISO 5395-2, EN ISO 4871)	84.8 dB(A) K = 3 dB(A)	82.9 dB(A) K = 3 dB(A)	84.3 dB(A) K = 3 dB(A)	86.1 dB(A) K = 3 dB(A)
Measured sound power level L _{WA}	94.3 dB(A) K = 2.08 dB(A)	94.0 dB(A) K = 1.88 dB(A)	94.2 dB(A) K = 2.00 dB(A)	96.4 dB(A) K = 1.83 dB(A)
Guaranteed sound power level L _{WA G} (2000/14/EC)	96 dB(A)	96 dB(A)	96 dB(A)	98 dB(A)
Vibration (EN ISO 5395-1 Annex G & EN ISO 5395-2)	2.50 m/s ² K = 1.5 m/s ²	2.40 m/s ² K = 1.5 m/s ²	5.64 m/s ² K = 1.5 m/s ²	7.60 m/s ² K = 1.5 m/s ²

Model	PM 5175 S (DYM1668EC)	PM 5175 SHW (DYM1666E3Q)	PM 5690 SHW (DYM1669EQ)	PM 5690 SZT (DYM1679B)
Engine Type	DG 750		DG 900	
Engine design	4-stroke engine, overhead valve, 1 cylinder			
Displacement; bore × stroke	171 cm ³ ; 67 × 48 mm		196 cm ³ ; 70 × 51 mm	
Maximum power/ 3600 min ⁻¹	3.0 kW (4.0 HP)		4.0 kW (5.4 HP)	
Nominal power	2.6 kW (3.5 HP)		3.3 kW (4.4 HP)	
Fixed speed	2800 min ⁻¹			
Maximal torque	9.0 Nm/2800 min ⁻¹		10.5 Nm/2800 min ⁻¹	
Valve clearance (cold)	0.10 - 0.15 mm		0.15 - 0.25 mm	
PTO shaft rotation	clockwise			
Ignition system	Transistor ignition			
Ignition angle	16° ± 2°		26.5° ± 2°	
Spark plug type	F6RTC		F7RTC	
Spark plug electrode spacing	0.6 - 0.8 mm			
Lubrication system	Immersion lubrication			
Cooling system	Forced air cooling			
Blade length	510 mm		560 mm	
Blade part number	DAYE 2105200262[...]		DAYE 2105200257[...] or 21052003412000A	
Required engine oil quantity	0.4 l		0.55 l	
Capacity petrol tank	0.9 l		1.8 l	
Gross bag capacity	60 l		70 l	
Net weight	29.5 kg	32.1 kg	38.8 kg	42.2 kg
Cutting height adjustment	25 - 75mm, 10 positions			25 - 75mm, 7 positions
Measured sound pressure level at the user's position (EN ISO 5395-1 Annex F & EN ISO 5395-2, EN ISO 4871)	85.4 dB(A) K = 3 dB(A)	85.4 dB(A) K = 3 dB(A)	85.1 dB(A) K = 3 dB(A)	84.8 dB(A) K = 3 dB(A)
Measured sound power level L _{WA}	96.3 dB(A) K = 1.79 dB(A)	96.3 dB(A) K = 1.79 dB(A)	96.2 dB(A) K = 1.90 dB(A)	95.7 dB(A) K = 2.01 dB(A)
Guaranteed sound power level L _{WA,G} (2000/14/EC)	98 dB(A)	98 dB(A)	98 dB(A)	98 dB(A)
Vibration (EN ISO 5395-1 Annex G & EN ISO 5395-2)	6.93 m/s ² K = 1.5 m/s ²	6.93 m/s ² K = 1.5 m/s ²	3.40 m/s ² K = 1.5 m/s ²	3.76 m/s ² K = 1.5 m/s ²

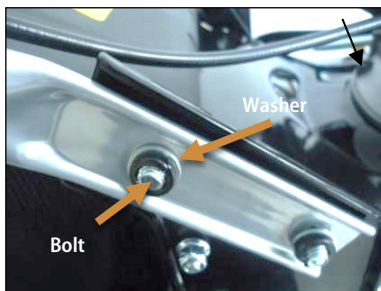


5 ASSEMBLY

5.1 ASSEMBLY OF THE LOWER PART OF THE HANDLE

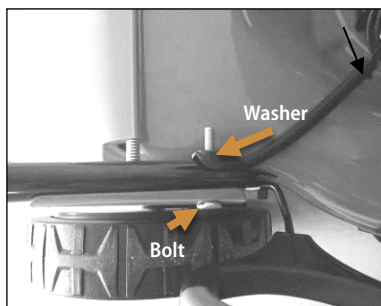
5.1.1 For all models except P 4030 P and 5690 SZT

Fasten the guide bar (1) to the mower housing (9) with the consigned screws (19), washers and bolts.



5.1.2 For model 5690 SZT

Fasten the guide bar (1) to the mower housing (9) with the consigned screws (19), washers and bolts.



5.1.3 For model 4030 P

Turn the quick release levers (4) anticlockwise. Gently pivot the handle to its upright position until it clicks into its position.

Turn the levers (4) clockwise to fix the lower handlebar in its working position.

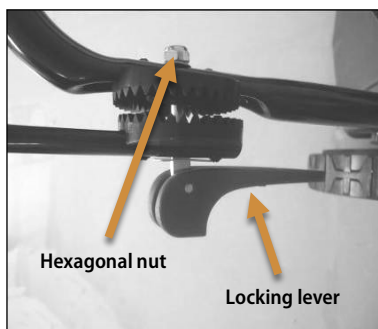


Figure 4

5.2 ASSEMBLY OF THE UPPER PART OF THE HANDLE

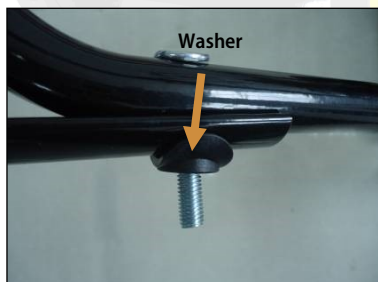
5.2.1 For all models except P 4030 P

Fold the upper handle to its upright position and then close the quick release levers (4). If the levers do not close properly, please tighten the hex nuts on the opposite sides.



5.2.2 For model P 4030 P

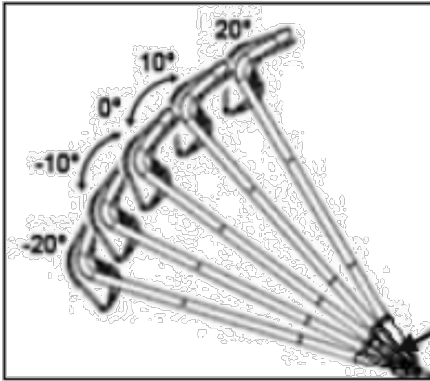
Connect the upper handle and the lower handle with the consigned bolts, washers and flower-shaped knobs.



5.3 ADJUSTMENT TO THE OPERATOR'S BODY SIZE

FOR PM 5690 ONLY

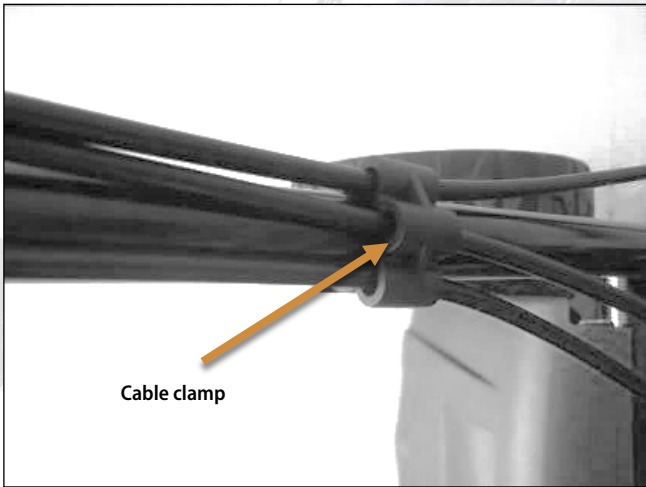
The round plastic parts under the locking levers (4) are folding joints with which you can adjust the angle of inclination of the upper spar part can be set. This allows you to adapt the device to your body size.



Angle adjustment for working height

5.4 CABLE GUIDE

Attach the wire rope hoists at the displayed position with the consigned cable clamps.



5.5 GRASS BAG

Make sure that the net of the grass bag is attached to all edges of the frame.

To hang it on, lift the back cover and attach the grass bag (5) on the rear of the housing (9), right next to the hinges of the rear cover flap.



5.6 STARTER HANDLE

Pull and hold the engine brake handle (2).

Then slowly pull the starter handle (3) carefully from the motor to the rope guide.

The position in the rope guide is the resting position of the starter handle.



Figure 11



Before you start the engine, read chapter 6.

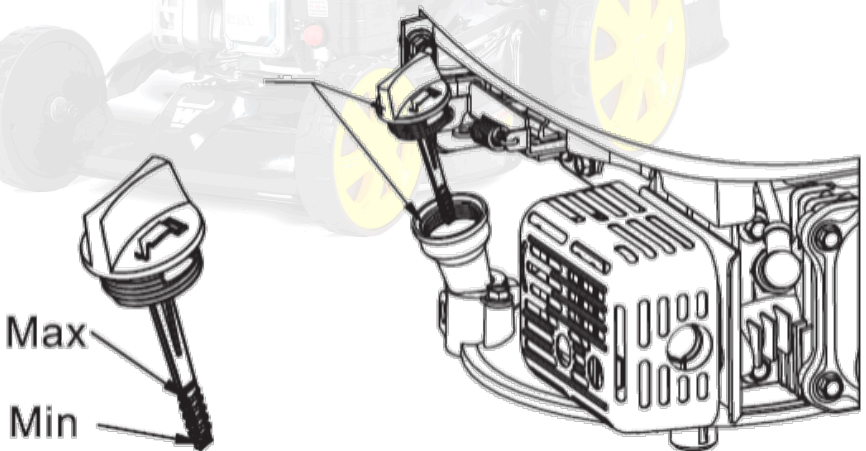
6 USAGE

6.1 BEFORE COMMISSIONING

6.1.1 Fill engine oil

No oil is filled in ex works. The engine will be destroyed if you start it without oil.

Fill the engine with four-stroke engine oil before starting. Use clean, high-quality oil in minimum classification API SG or higher and in viscosity SAE30, or better, 15W40.



Please check the required filling quantity in Chapter 4 (Technical data).

6.1.2 Check oil level

1. Check the oil level while the engine is turned off.
2. Remove the oil filler lid/dipstick and wipe it off.
3. Insert the oil filler cap/dipstick into the oil filler neck without tightening it. Pull it out again to read the oil level.
4. If the oil level is equal to or lower than the minimum marking, fill oil of the recommended grade to the top mark. Do not overfill.
5. Then reinstall the oil filler lid/dipstick.

6.1.3 Fill fuel



Gasoline is easily flammable.

Read the SAFETY INSTRUCTIONS (Chapter 2 of this guide) in full.

USE UNLEADED GASOLINE with an octane number of 92 or higher. This engine is designed to run on unleaded petrol. Unleaded gasoline produces less deposits on the engine and spark plug and ensures a longer service life of the exhaust system.

The motor is E10-compatible. However, E15 or E85 may not be used.

Never use a mixture of oil and gasoline. Never use Diesel.

Turn off the engine and keep ignition sources and open fire away. Refill outdoors only. Wipe overfilled gasoline immediately.

Fuel can damage paints or plastic. Do not let gasoline splash during refilling. Damage caused by spilled gasoline is not covered by the warranty. Never use stale or contaminated gasoline. Do not allow dirt or water to enter the tank.

1. Remove the screw cap from the fuel tank.
2. Fill the tank with gasoline up to the level limit on the neck of the tank.
3. Do not overfill. Wipe up spilled gasoline before starting the engine.
4. Turn the cap tightly.

6.2 ADJUSTMENT OF THE CUTTING HEIGHT

The height can be adjusted in, depending on the model, 6, 7 or 10 steps between 25 mm

and 75 mm.

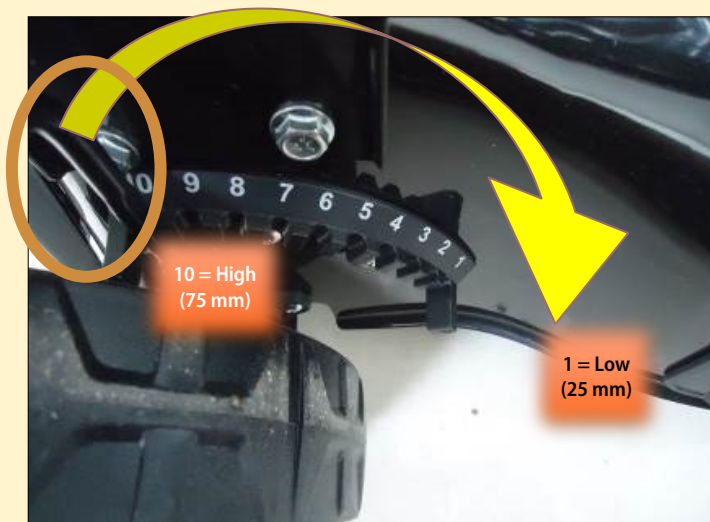
Press the lever (6) on the right rear wheel outwards to release it. Move the lever forward or backward to adjust the cutting height accordingly. This single lever setting applies to all 4 wheels.

PM 4650
SHW

PM 5165
SHW

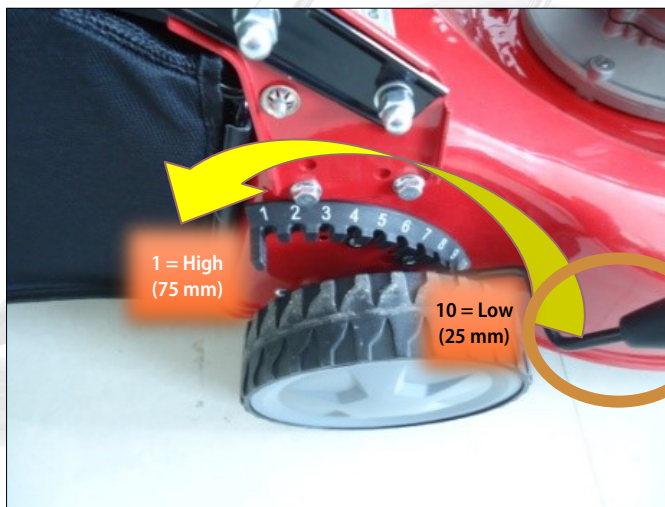
PM 5175
SHW

PM 5690
SHW

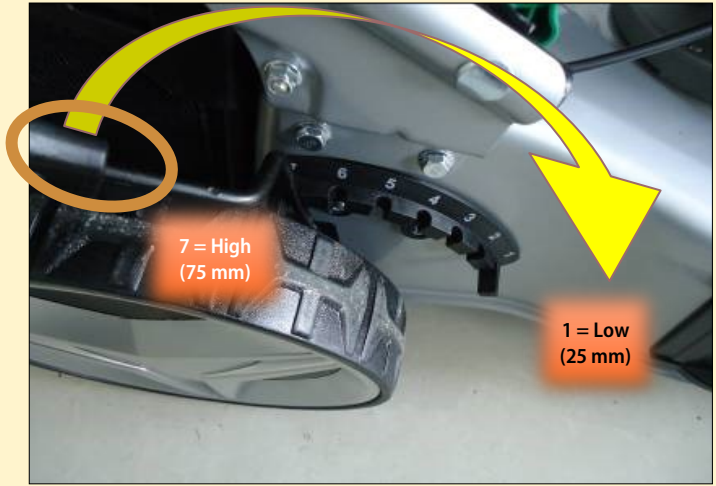


PM 4650 S

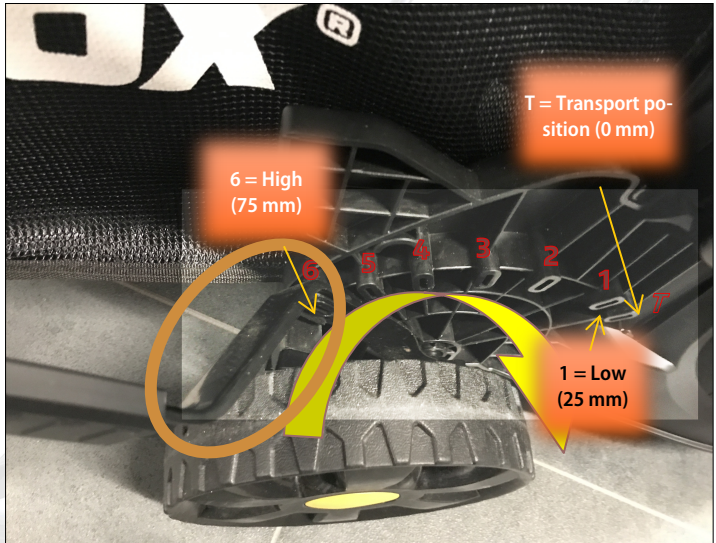
PM 5175 S



PM 5690
SZT



PM 4030 P



The lever position on the far right is only for maximum space-saving storage and transport.

Height means **distance of the blade to the ground**. As a result, more lawn can be cut off when the wheels sink in, for example on moss.

6.3 START OF THE ENGINE



To prevent accidental starting of the lawn mower, the device has an engine brake #2, which must be retracted before switching on the engine. If the brake lever is released, it must return to the starting position; at this time, the motor switches off automatically and the blade comes to an immediate stop. Check the tension of lever #2 before each start. Make sure the wire rope hoist is working smoothly (i.e. it is not tangled or knotted).

Your lawn mower is designed for mowing regular grass (up to 250 mm).

Do not try to mow exceptionally tall dry grass or piles of leaves. Residues could accumulate on the housing or come into contact with the engine exhaust gases, which in turn can cause fire hazards.

Before each attempt to start, make sure that the spark plug plug connector (10) is securely plugged in.

6.3.1 Cold start pump („primer pump“) (engine DG 300, DG 500)

FOR PM 4030 P, 4650 S/ -HW

For a cold start, press the primer pump (21) min. 5x.



Note: With a warm engine (up to 1 minute after stopping the engine), pumping is

usually not required to restart the engine.

6.3.2 Fuel valve (engine DG 900)

FOR PM 5690 SHW, SZT

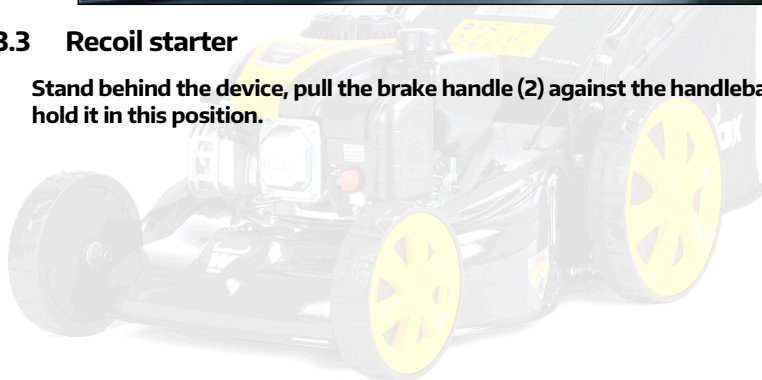
The models PM 5690 SHW and -ZT have got a fuel valve (7) on the hose between the tank and the carburettor.

Prior to starting, open this valve.



6.3.3 Recoil starter

1. Stand behind the device, pull the brake handle (2) against the handlebar (1) and hold it in this position.



2. Slowly pull out the starter handle (3) until you feel resistance on the rope. Then pull the rope out completely with a steady swing. When the motor is running, let the rope slowly return to the rope guide.



Do not let the starter handle (3) snap back against the engine. Slowly lower the handle into the retaining clip on the guide rail to avoid damaging the starter.

Do not jerk the handle in quick succession, as this can cause damage. Don't apply hard force to the starter unit.

A steady and soft movement of the starter handle will both appropriately saturate the gas/air mixture and prevent damages.

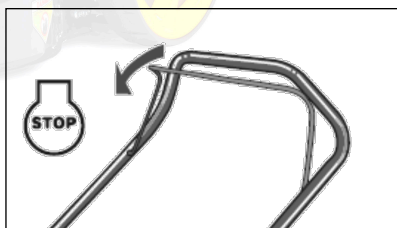
6.4 STOPPING THE ENGINE

Let go the brake handle (2) to stop the engine and the blade.

6.5 WALK THE LAWN MOWER WITH A RUNNING ENGINE

Hold the brake lever (2) with both hands during operation.

Slide the lawn mower across the lawn in parallel lanes. If the engine speed drops audibly quickly, stop and take a narrower strip of lawn into the mower.



6.6 REAR WHEEL DRIVE

FOR ALL MODELS EXCEPT PM 4030 P

Pull the drive handle (14) forward. The lawn mower then travels at a speed of approx. 4 km/h independently forward. The speed is not variable.

Release lever 14 to turn off the traction.

Do not work against the rear wheel traction to avoid excessive wear on the drive unit. When you change direction, release handle 14.

6.7 UNIDIRECTIONAL DRIVE

The mower will run straight if you don't lift the front wheels.

This doesn't necessarily apply to the "zero-turn" model PM 5690 SZT.

FOR PM 5690 SZT ONLY

The front wheels can rotate freely by 360°.

You are able to fix them in a straight forward position.

1. Switch the knob #23 to "🔓" position to allow the front wheel to rotate by 360°.
2. Switch the locking handle to "🔒" position to fix the wheel in a straight position.

1



2



6.8 ACHIEVE OPTIMAL RESULTS WITH THE LAWN MOWER

Remove stones, branches, wires and other foreign objects from the lawn, as these are ejected in different directions by the lawn mower and could cause serious injury or property damage to surrounding objects or to the equipment itself. Do not cut wet grass. Wet grass residues usually clog the ejection opening at the bottom of the housing. Shorten grass by a maximum of 1/3 of its length. If you are mowing tall grass, shorten it in two passes and lower the blade by another third in the second pass. In the second pass, mow in a different pattern. By overlapping the cut marks on each track, you can eliminate grass residues. Clean the bottom of the case after each use to remove lumps of grass, as these could hinder mulching. If you're mowing leaves, make sure it's dry and hasn't been collected into too large piles. Don't wait to mow leaves until all the leaves have fallen off the trees.

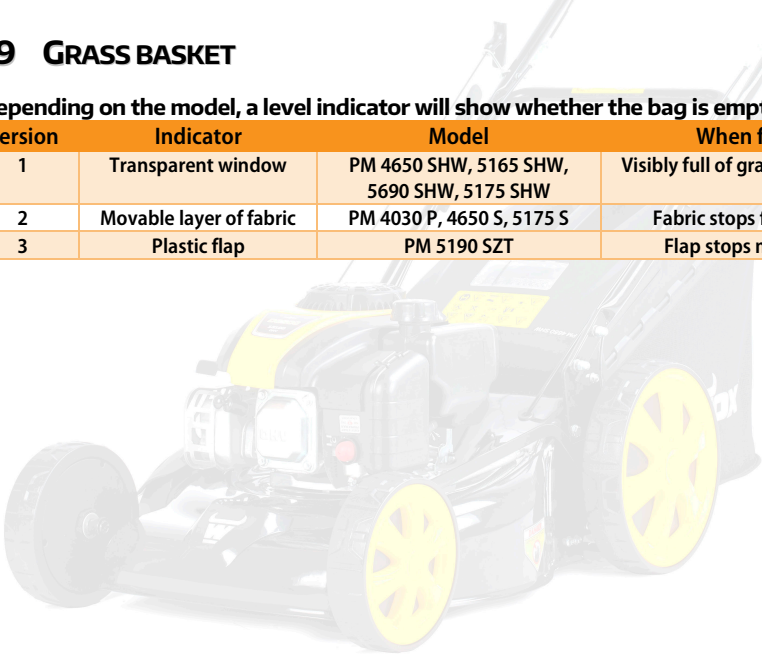


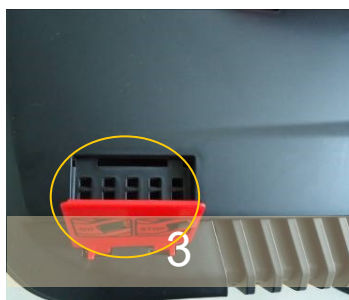
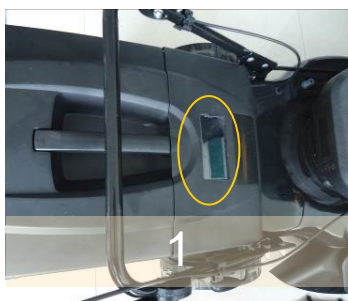
If you hit an object, stop the engine. Disconnect the spark plug, check the lawn mower thoroughly for damage, and repair any damage before the next use. Excessive vibration during operation is a sign of damage. In such a case, the device must be checked and repaired immediately.

6.9 GRASS BASKET

Depending on the model, a level indicator will show whether the bag is empty or full.

Version	Indicator	Model	When full
1	Transparent window	PM 4650 SHW, 5165 SHW, 5690 SHW, 5175 SHW	Visibly full of grass clippings
2	Movable layer of fabric	PM 4030 P, 4650 S, 5175 S	Fabric stops flapping
3	Plastic flap	PM 5190 SZT	Flap stops moving





Turn off the lawn mower and empty the grass bag.

Check the ejection opening in the chassis (9) for blockages. Remove those if necessary.

6.10 FUNCTION “3 IN 1”

NOT FOR PM 4030 P, 4650 S

Your lawn mower has accessories that can be attached to the device depending on the application:

Normal function	Grass bag	Part 5
Lateral ejection	Wedge for lateral ejection	Part 13
Mulching	Mulch wedge	Part 22



Before each conversion between the three functions, release the handle #2 and stop the device.

6.10.1 Use as a mulch mower

WHAT IS MULCHING?

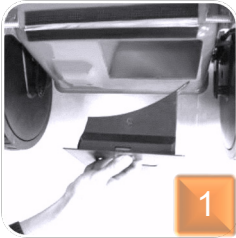
When mulching, the grass is cut and at the same time finely chopped and thrown back onto the lawn for fertilization. If the grass is not too high, be sure to use this feature, leave out the grass basket. Your lawn will thank you and be happy about the natural nutrients.

INSTRUCTIONS FOR MULCHING

- Cut back by a maximum of 2 cm (e.g. from 6 cm to 4 cm lawn height).
- Use a sharp blade.

- Do not mow wet grass.
- Regularly clean the mulch insert, the inside of the case and the knife.

1. Lift the rear cover and remove the grass collection bag #5.
2. Slide the mulching insert #22 into the housing #9. Lock the mulching insert in the opening of the mower housing with the button.
3. Carefully lower the rear cover.



6.10.2 Use with lateral ejection

Using the lateral ejection opening is the fastest of all ways of cutting grass. The grass clippings are neither collected nor processed into mulch.

1. Unlock the side flap #13.
2. Attach the ejector wedge to the rotary axis of the cover.
3. Carefully lower the rear cover.

Before inserting the lateral ejection piece, perform the steps described in 6.10.1: Insert the mulch add-on (22) into the rear opening.



7 MAINTENANCE AND CARE

Good maintenance is essential for safe, economical and trouble-free operation. It is also necessary to maintain the low emission level of the engine.



Keep hands and feet away from rotating parts. Do not tilt the lawn mower after take-off. When you turn on the lawnmower, it must be on a flat surface and there must be no tall grass or obstacles.

For all work on the blade, the oil and gasoline circuit as well as the knife, remove the spark plug conector (# 10) in beforehand.

Place the lawn mower on its side so that the air filter is directed upwards. If the air filter is directed downwards, fuel and oil may leak or engine oil may clog the carburetor and air filter.

7.1 MAINTENANCE PLAN

Maintenance task	Interval
Clean the mower.	After each use.
Check all screws and the blade for tightness.	After each use.
Lubricate all moving parts (wheels, wire rope hoists).	At least once a year.
Check oil level and refill if needed.	After each use.
Clean the air filter.	After each 25 hours of use, at least once a year.
Exchange the engine oil.	
Exchange the spark plug.	After each 100 hours of use, at least once in 2 years.
Sharpen or replace the blade.	Once the blade is blunt.
Apply grease onto the blade and all moving parts (wheels & pull cable hoists).	Before winter storage.
Drain the fuel tank.	Before winter storage.

The intervals must be shortened if the lawn mower is used in dry and dusty conditions.

7.2 CLEANING THE MOWER



Do not spray the engine with water. Water can damage the engine and contaminate the gasoline circuit.

The bottom of the housing must be cleaned after each use to remove grass residue, leaves and dirt. Such residues contain active organic substances that can cause rust and corrosion. Clean the housing by tilting the lawn mower and brushing it coarsely from below with a brush.

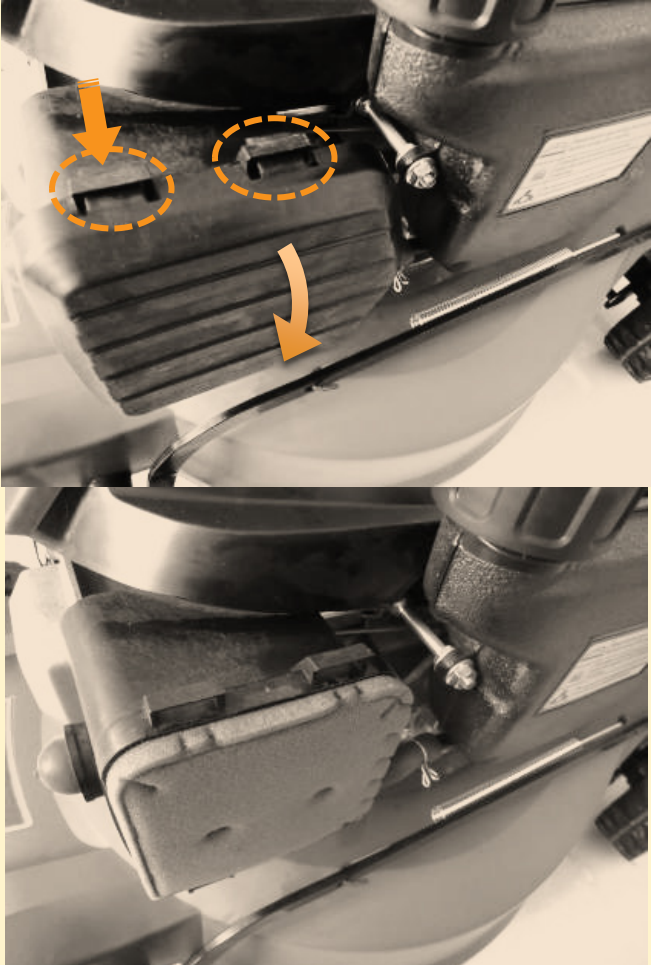
7.3 AIR FILTER

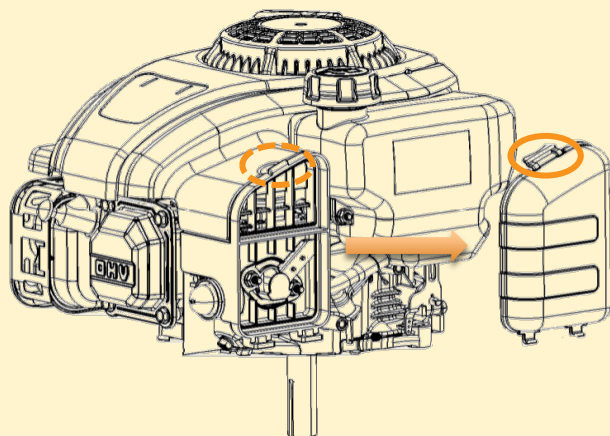
The air filter must be cleaned regularly; otherwise, the engine can be started only with difficulty or not at all.

Depending on the model, the air filter is either made of foam or paper.

Any air filter must not be cleaned with gasoline.

A paper filter must not be cleaned with any liquid.

Engine	How to open & remove the air filter	Mode of cleaning of the air filter
DG 300		Clean the filter elements in a detergent solution. Allow the filter element to air dry for at least 12 hours.



DG 500
DG 650
DG 750



Clean both filter elements 1 and 2 in a detergent solution. Allow the filter elements to air dry for at least 12 hours.

DG 900



Knock out the paper filter against the direction of flow of the sucked-in air, carefully vacuum it with a vacuum cleaner or blow it out with compressed air.



Replace the filter if it is frayed, torn or damaged.

7.4 ENGINE OIL

The oil drain screw from the engine is hidden by the housing of the lawnmower. Therefore, place the lawn mower with the wheels on an elevation, such as a pallet or pavement slabs, remove the oil dipstick and tilt it to the side so that the air filter faces upwards. Simply let the oil run out laterally into a half-sliced old canister or tub.

Please also refer to the notes in sections 6.1.1, 6.1.2 and 10.2.

7.5 BLADE



All nuts and bolts must be checked regularly for correct torque. Regularly check the blade and the blade support for cracks, especially after you have grazed an object with the device. Replace it if necessary.

After prolonged use, especially in sandy environments, the knife wears out. It should then either be reground or replaced.



Protect your hands with work gloves before touching the blade.

7.5.1 Loosening of the blade

Tilt the lawn mower to the side so that the air filter is at the top. Then jam the knife with a wooden slat so that it cannot turn with the knife screw. Then remove this hexagonal screw and washer that attach the knife and knife adapter to the crankshaft of the engine. You may need a torque wrench to do so.

7.5.2 Sharpening of the blade

You can sharpen the knife by removing it and then sanding or filing the blade while retaining the original bevel as much as possible. It is very important that all sides of the blade are ground evenly to avoid imbalances. An unbalanced knife can cause excessive vibration and consequently damage the engine and lawnmower. Test the knife by balancing it on a screwdriver handle. Continue sanding the heavier side until it is evenly balanced.

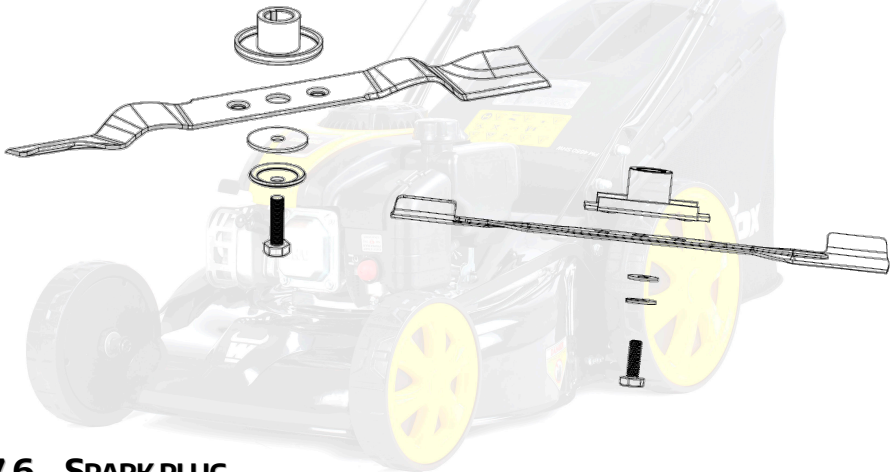
7.5.3 Replacement of the blade

Replace it only with a knife recommended by the manufacturer. The manufacturer is not liable for possible damage due to an asymmetrical knife or low material strength.

Model	Blade type
PM 4030 P	DAYE 2105300136[...]
PM 4650 S/ -HW	DAYE 2105200263[...], 263002488, 21052003402000A or 2105200115C
PM 5175 S/ -HW	DAYE 2105200262[...]
PM 5690 SHW/ SZT	DAYE 2105200257[...] or 21052003412000A

7.5.4 Installation of the blade

Before reinstalling the knife and knife adapter in the device, lubricate the crankshaft of the engine and the inner surface of the knife adapter with light oil. Position the knife so that the marking embossed in the metal is visible downwards. Align the washer above the knife and install the hexagonal screw. Pull the hexagonal screw with 50 Nm Fixed torque.



7.6 SPARK PLUG

Use only original replacement spark plugs from the manufacturer. For best results, you should replace the spark plug every 100 hours of operation.

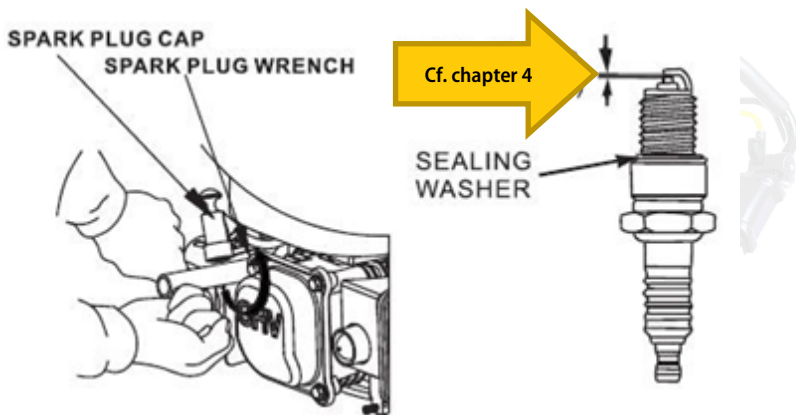
Recommended spark plug ► See chapter "Technical data".



Incorrect spark plugs can damage the engine.

To ensure good performance, the spark plug must have an appropriate electrode spacing and be clean.

1. Disconnect the cap (part 10) from the spark plug.
2. Remove the spark plug with the spark plug key (20).
3. Clean the electrodes and the contact with a hard brush.
4. Check the spark plug. Replace the spark plug if it is damaged or rusted, the sealing ring is in poor condition, or the electrode is worn.
5. Measure the electrode spacing with a suitable measuring tool. See table of technical data. If settings are required, correct the distance by carefully bending the electrode.



6. Carefully turn the spark plug in.
7. Tighten the spark plug with the spark plug key (20):
 - a. If you are installing a new spark plug, turn it manually onto the washer and then with the spark plug key by $\frac{1}{2}$ revolution.
 - b. If you reinstall the original spark plug, turn it manually onto the washer and then with the spark plug key by $\frac{1}{4}$ revolution.



A loose spark plug can get very hot and cause damage to the engine. If you tighten the spark plug too tightly, the thread on the cylinder head can be damaged.

8. Attach the spark plug connector to the spark plug.

7.7 WHEELS AND MOVING PARTS (WIRE ROPE HOISTS)

Lubricate all moving parts at least once a season with a light oil.

On this occasion, also tighten all screws and nuts, especially in the area of wire rope hoists.

The metal surface of the mower should be coated with spray oil or silicone spray to prevent rust.

7.8 GARDEN HOSE CONNECTION

NOT FOR MODEL PM 4030 P.

You can also clean the bottom of the device using a water hose with a standard adapter

connection.

Remove grass residues from the chassis #9 before cleaning.

1. Connect the water hose to the hose connection #18 on the housing.



2. Connect the other end of the hose to the faucet.
3. Turn on the engine. The automatic cleaning now takes place. Turn off the engine after a maximum of 5 minutes.
4. After cleaning, remove the hose and store it in a clean, safe place.
5. Wipe water off the case and knife surface. Oil the knife lightly to avoid rust and corrosion.

7.9 STORAGE OUT OF SEASON

Proper preparation for storage is necessary to ensure a fault-free and perfect condition of the engine. The following steps prevent rust and corrosion from affecting the function and exterior of the engine, and also allow for easy switching on of the engine after storage.



The engine must cool down completely before storage.

Prepare the lawn mower for wintering using the following procedure.

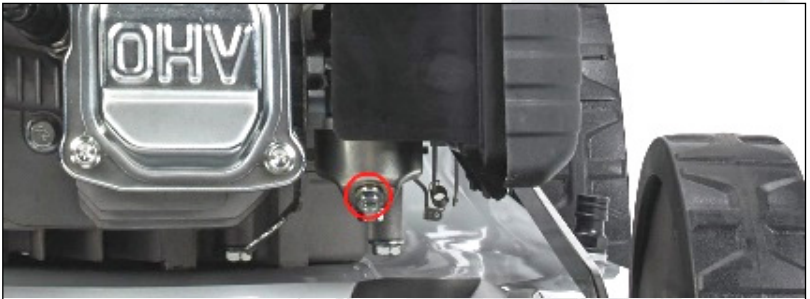
1. Empty the fuel tank after the last use of the season. Gasoline oxidizes and decays during storage. Spoiled gasoline makes for a very difficult start and causes rubber-like residue that clogs the fuel system. If the gasoline in the engine has expired during storage, you may need to have the carburetor and other components of the fuel system serviced or replaced. The length of time for which gasoline can be left in the tank and carburetor without causing functional disturbances depends on factors such as gasoline mixture, storage temperature and whether the tank is half or full. The air in a partially filled tank supports decay. High storage temperatures accelerate this process. Gasoline problems can occur within a few months or in an even shorter time if the gasoline was no longer fresh during the filling into the tank. Damage to the fuel system or engine performance problems

due to negligent storage and preparation are not covered by the warranty. Empty the fuel tank with a suction pump or using the hose between the tank and the carburetor.



Do not empty the tank indoors, near open flames, or the like. Do not smoke! Gasoline fumes can cause explosions or fires. Gasoline is extremely flammable and explosive. They can cause serious burns or injuries while handling gasoline. Turn off the engine and keep heat sources, sparks and open fire away. Refill petrol only outdoors. Wipe up spilled gasoline immediately.

- a. Place an approved gasoline tank under the carburetor (16) and use a funnel to avoid running out of the gasoline.
- b. Remove the drain plug and then turn on the fuel valve (7).
- c. After the gasoline has run into the container, reinstall the drain plug and washer. Tighten the drain plug securely.



2. Turn on the engine and let it run until all fuel residue is used up.
3. Close the fuel valve #7.
4. Remove the spark plug. Use an oil jug and pour about 20 ml of oil into the combustion chamber. Pull on the starter cable hoist to distribute the oil evenly in the combustion chamber. Then reinstall the spark plug.
5. Clean the fuel filter.
 - a. Remove the fuel strainer from the tank and fuel line.
 - b. Clean the fuel filter (remove dirt on the grid and check the grid for damage and cracks).
 - c. Install the fuel filter and gasoline line.
6. Carefully clean and oil the lawnmower in accordance with the steps set out in section 7.7.
7. Lubricate the blade lightly to avoid rusting.
8. Store the lawnmower in a dry, clean and frost-proof place that is inaccessible to unauthorized persons.

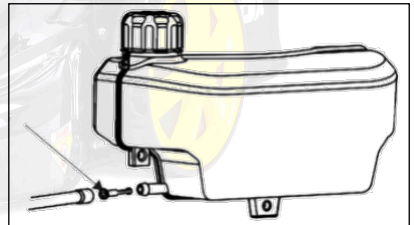


Figure 33

If you store power equipment in an unventilated storage room or a garden shed, the device must be protected from rust.

Store the machine on its wheels, not tilted or transported upside down; otherwise, oil

will leak.

Be careful not to bend or bend the cables.

7.10 UPRIGHT STORAGE

FOR PM 4030 P ONLY (ENGINE DG 300)

The mower can be stored vertically against a wall, thus occupying less space.

To do this, proceed in reverse as described in chapter 5.1.3.

The operating fluids may remain in the engine, even if this is not recommended for a longer storage period (see chapter 7.9).

The other models must not be stored vertically.



8 TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	REMEDY
Engine does not start.	Engine brake cable loose.	Check the cable tension against the lever and adjust the wire tension if necessary.
	Gas-air mixture too lean.	Press the primer pump (21) several times before re-starting.
	Wire rope hoist blocked or torn off.	Damage occurs due to excessive mechanical influences. Order and replace spare parts.
	Air filter element dirty.	Clean air filter element.
	Spark plug loose.	Tighten the spark plug.
	Ignition cable loose or not connected with spark plug.	Attach the ignition cable to the spark plug.
	Electrode spacing incorrect.	Adjust the distance between electrodes.
	Spark plug defective.	Install new spark plug with correct electrode spacing.
	Carburetor flooded.	Remove the air filter element and continuously pull on the starter rope until the carburetor has cleaned itself; then install the air filter element.
Engine starts only with difficulty or switches off.	Ignition module defective.	Contact customer service.
	Dirt or water in the fuel tank	Empty and clean the fuel tank, then fill it with clean, fresh gasoline.
	Ventilation opening in the fuel tank lid clogged.	Clean or replace the fuel cap.
	Air filter element dirty.	Clean or replace the air filter element.
Engine runs unevenly.	Carburetor clogged. Gasoline is dirty or of the wrong kind.	Remove the spark plug. Empty the fuel tank. Clean the spark plug and carburetor.
	Spark plug defective.	Install a new spark plug with proper electrode spacing.
Motor stops at high speed.	Spark plug spacing not correct.	Set the electrode spacing correctly.
	Air filter element dirty.	Clean air filter element.
	Distance between electrodes of the spark plug too small.	Set electrode spacing.
Engine overheated.	Ventilation slots blocked.	Remove dirt from the vents in the engine housing.
	Wrong spark plug.	Install an original spark plug.
Lawn mower vibrates abnormally.	Knife loose.	Tighten the knife.
	Knife with imbalance.	Replace the knife.

9 MOWOX® WARRANTY CONDITIONS

Thank you for purchasing a Mowox®-quality product!

You have decided for a gardening tool on the state of the art of engineering, which suits the toughest quality standards. All Mowox® products are produced according to the norms ISO 9001, ISO 14001, OHSAS 18001 and BSCI.

24 months warranty on gardening machines!

Any material or manufacturing defects in the device will be eliminated at our discretion by repair or replacement. This product is backed by a 24-month warranty from the date of first sale. This warranty covers all defects in materials or workmanship. The following are not covered by the warranty:

- **Wear parts such as**
 - Blades
 - Grass bags
 - Wheels, hubcaps and wheel bearings
 - Drive belts, cables
 - Air filters, spark plugs, carburettors
- **Damage and defects due to improper operation, external influences or modifications**
- **Defects after commercial use**

For Honda or Briggs & Stratton engines, the Honda or Briggs & Stratton warranty terms apply, which are included separately with the device.

12 months warranty on batteries!

Any material or manufacturing defects in the battery will be eliminated according to our choice by repair or replacement. This product is backed by a 12-month warranty from the date of first sale.

The Mowox® battery pack is a high-tech product. It contains battery cells with lithium-ion technology. This ensures high battery capacity and range with low weight. The infamous "memory effect" is excluded with this technology.

Like all batteries, the Mowox® battery pack is subject to wear and tear due to use. In order to be able to use your battery pack for a long time, please note the following instructions:

Do not expose the battery pack to moisture, heat or extreme cold. A storage temperature of 10° to 15°C in a dry environment is ideal. Before a longer storage period, e.g. before winter, you should charge the battery once. The accumulator is subject to a natural self-discharge and should be recharged every three months. Towards the end of the battery's service life, the runtime decreases after a full charge. This natural use-related wear does not constitute a warranty claim.

Please acknowledge that a robotic mower needs, due to its functioning and dependant on its programming, several charge cycles each day. Therefore, it is normal that the lifetime of the battery elapses after one year.

What to do in case of warranty?

Importantly, the proof of sale must be kept as proof of the date of sale. For an eventual repair please also store the original package carton. In a warranty case, please contact our customer service with this warranty sheet and a copy of your proof of purchase. We reserve the right to reject claims if the purchase cannot be substantiated or the product is obviously not properly serviced.

This guarantee does not affect the buyer's legal warranty claims against the seller.

10 ENVIRONMENTALLY FRIENDLY DISPOSAL

Local, state or national guidelines prohibit disposal via normal household waste.

For disposal, the regulations applicable in your country or municipality must be complied with. Contact your local waste management company about available recycling and disposal procedures.

10.1 PACKAGING

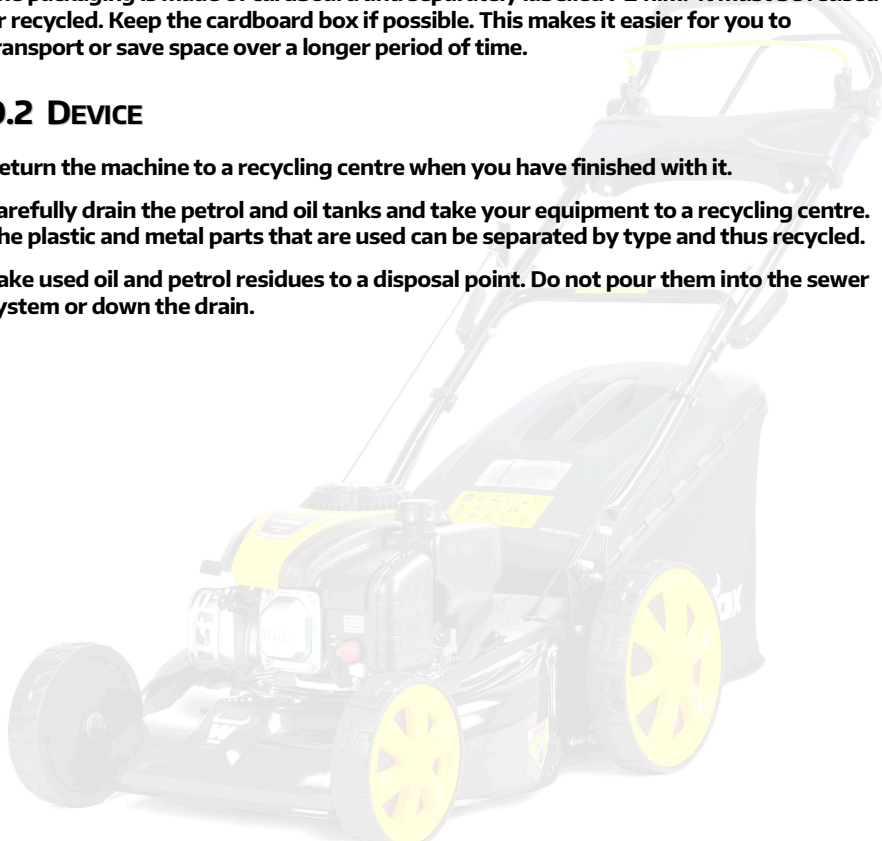
The packaging is made of cardboard and separately labelled PE film. It must be reused or recycled. Keep the cardboard box if possible. This makes it easier for you to transport or save space over a longer period of time.

10.2 DEVICE

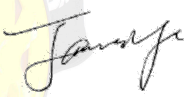
Return the machine to a recycling centre when you have finished with it.

Carefully drain the petrol and oil tanks and take your equipment to a recycling centre. The plastic and metal parts that are used can be separated by type and thus recycled.

Take used oil and petrol residues to a disposal point. Do not pour them into the sewer system or down the drain.



11 EC DECLARATION OF CONFORMITY

We herewith declare	Ningbo Daye Garden Machinery Co., Ltd. No.58 Jinfeng Road, Yuyao, Zhejiang 315403, China							
The following machine, in design and type as sold by us, complies with the corresponding essential health and safety requirements of the EC directives.								
In the case of modifications that have not been approved by us, the validity of this declaration expires.								
Product	Petrol lawn mower							
Machine type: DYM...	161702	1666E	1626EQ	1660E2Q	1668EC	1666E3Q	1669EQ	1679B
EC Directive 2000/14, notified body	0036: TÜV Süd Industrie-Service GmbH Westendstrasse 199 • 80686 Munich • Germany							
Measured sound power level L_{WA} / dB(A)	94.3 K = 2.08	94.0 K = 1.88	94.2 K = 2.00	96.4 K = 1.83	96.3 K = 1.79	96.3 K = 1.79	96.2 K = 1.90	95.7 K = 2.01
Guaranteed sound power level $L_{WA,G}$ / dB(A)	96	96	96	98	98	98	98	98
Applicable EC Directives	EC Machinery Directive: 2006/42/EC EC Directive on Electromagnetic Compatibility: 2014/30/EU EC Noise Emission Directive: 2000/14/EC EC Directive on the Restriction of Certain Hazardous Substances (RoHS) 2011/65/EU EU regulation 2016/1628 on emission limits for internal combustion engines for non-road mobile machinery							
Applicable harmonised standards	EN ISO 5395-1:2013/A1:2018 EN ISO 5395-2:2013/A1:2016+A2:2017 EN ISO 14982:2009							
Legally binding signature/ date/ place	Ningbo Daye Garden Machinery Co., Ltd. No. 58 Jinfeng Road Yuyao, Zhejiang 315403 China 15/11/22							
Name & title of the signatory	James Ye, Manager							
Name and address of the documentation representative	Daye Europe GmbH • Parkstraße 1a • 66450 Bexbach • Germany							