RYKOV Libčany, s.r.o.
Libčany 14
50322 Libčany
Czech Republic
T/F +420 495 585 422
rykov@rykov.cz
www.rykov.cz

RYKOV
ENGINEERING AND PRODUCTION

OPERATOR INSTRUCTION

SWEEPER SW 110

(CONNECTION TO LAWN TRACTOR)

09/2023

Content

1 Content

Dear customer and user!
Thank you for the trust you have shown us by purchasing our product.
This sweeping brush is designed in combination with an lawn tractor for sweeping roads, sidewalks, parking lots and factory halls. In winter, the snow height must not exceed 10 cm of powder snow and 5 cm of heavy wet snow.

Please read this user guide carefully.

1.1 Basic notice

The user is obliged to familiarize himself with this instruction manual and to observe all instructions for operating the machine in order to avoid endangering the health and property of the user as well as other persons.

The safety instructions given in this manual do not describe all possibilities, conditions and situations that may occur in practice. Safety factors such as common sense, caution and care are not part of this manual, but are assumed to be possessed by every person who handles or performs maintenance on the machine.

Only mentally and physically healthy persons may work with this machine. In the case of professional use of this machine, the owner of the machine is obliged to ensure that the operators who will use the machine receive training on work safety and conduct an instruction on how to operate this machine and keep records of these trainings. They must also carry out the so-called categorization of works according to the relevant national legislation.

If you do not understand some of the information in the manual, contact your dealer or the machine manufacturer directly.

The instructions for use with which this machine is equipped are an integral part of the machine. They must be available at all times, stored in an accessible place where there is no risk of their destruction. When selling the machine to another person, the user manuals must be handed over to the new owner.

The manufacturer is not responsible for risks, dangers, accidents and injuries arising from the operation of the machine, if the above conditions are not met. The manufacturer is not responsible for damage caused by unauthorized use, improper operation of the machine and for damage caused by any modification of the machine without the manufacturer's consent.

When working, it is especially necessary to follow the safety regulations in order to avoid the risk of injury to yourself, people in the vicinity or causing damage to property.

Any unauthorized modification of the machine will void the warranty.

	**If you see this symbol in the manual, please read the following message carefully!**
	**This international safety symbol indicates important safety-related messages. When you see this symbol, be alert to the possibility of injury to yourself or others and read the following message carefully.**

Tab. 1: *Symbols*

The manufacturer reserves the right to technical changes and innovations that do not affect the function and safety of the machine. These changes may not be reflected in this user manual. Typographical errors reserved.

2 Safety of operation

The machine is designed to protect the operator from flying parts as much as possible. Do not remove any passive or active safety feature. This puts you at risk of injury.

2.1 Safety regulations

⚠ The operator of the machine must be over 18 years old. She is required to familiarize herself with the instructions for using the machine and to be aware of the general principles of occupational safety.

⚠ Always switch off the engine and wait for the sweeping rollers to stop before doing any work in the vicinity of the machine! Always switch off the engine before leaving the machine!

⚠ Before each use of the machine, check whether any part (especially the working mechanism or covers) is not damaged or loose. Detected defects must be removed immediately. Use only original spare parts for repairs.

⚠ Before using the machine, the work area must be free of solid objects (such as stones, wires, loose building debris, etc.) that could be thrown or could damage the machine. If they cannot be removed, avoid these places.

⚠ The machine is equipped with a rotating working tool. Therefore, make sure that other people move at a safe distance when this machine is working (possibility of swept dirt or thrown solid objects flying away)!

⚠ When working, use work tools approved according to EN 166 or EN 1731.

⚠ Do not start the engine in enclosed spaces! Take extra care when handling the machine. After the engine is turned off, the engine muffler will remain hot. When refueling, make sure that it does not leak and that the engine parts are not smeared. Otherwise, dry the stained parts or wait for the gasoline to evaporate.

⚠ When working with the machine, all other people (especially children) and animals must be outside the working area of the machine. The operator can continue working only after they have been sent to a safe distance.

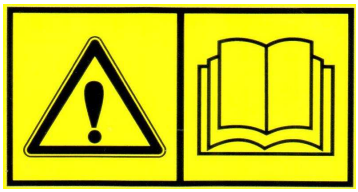
⚠ It is forbidden to remove all protective devices and covers from the machines.

⚠ The maximum tilt of the engine during work is 20° long-term, 30° short-term.

⚠ Carry out all repairs, adjustments, lubrication and cleaning of the machine when the machine is at rest with the spark plug cable disconnected.

2.2 Safety pictograms

The user is obliged to keep the pictograms on the machine in a legible state and, in case of damage, to ensure their replacement.



Pic. 1: *Read the user manual before using the machine.*

Pic. 2: *Danger of being hit by flying fragments, cuttings, thrown objects, etc. Other people and animals - keep a safe distance from the machine.*

Pic. 3: : *Do not reach into the working area of the rotary cylinder with your hands or step on your feet - risk of cuts.*

3 Basic information

3.1 Machine use

The sweeping brush SW 110 is designed and manufactured according to the latest standards in the field of small garden and agricultural technology. It stands out for its easy handling, quiet, powerful and economical HONDA engine and trouble-free maintenance.

This sweeping brush is intended for cleaning roads, sidewalks, parking lots and factory halls. There must be no fixed objects in the vegetation or major terrain irregularities on the surfaces.

⚠ **Use for a purpose other than the one specified must therefore be considered as use for an unspecified purpose!**

The sweeping brush can work in all inclined positions specified by the motor manufacturer and the machine manufacturer to which it is connected.

The protective devices meet the requirements of EN 12733 and EN 12733. These standards primarily take into account the safety of the operator, who during normal driving cannot be hit by stones or other objects thrown by the rotating system of the machine. Therefore, the operator must always be in the normal steering position, i.e. behind the machine.

⚠ **It is forbidden to remove all protective devices and covers from the machines.**

3.1.1 Technical data

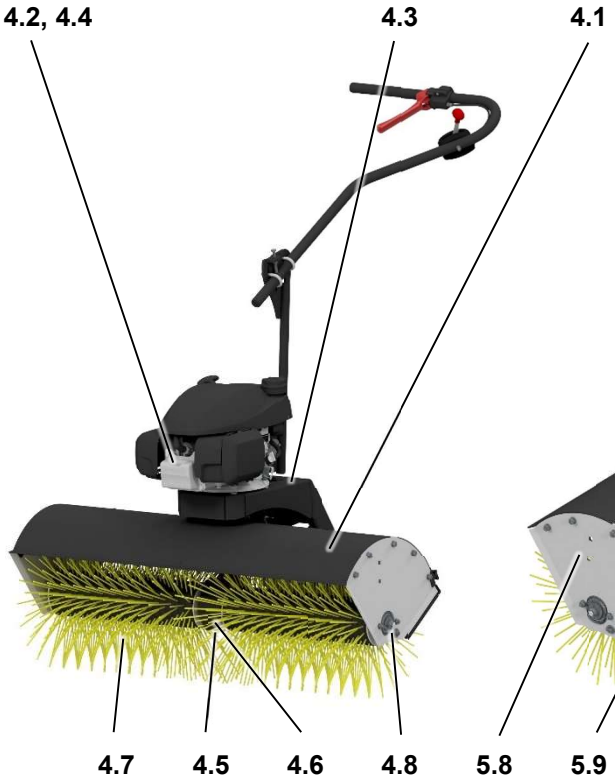
SW 110	Value	Unit
Lenght	1235	mm
Width	1106	mm
Height	1240	mm
Work range	1100	mm
Weight	67	kg
Roller RPM	240	min^{-1}

Tab. 2: *Technical data SW 110*

3.1.2 Engine information

Engine	Value	Unit
Type	-	HONDA GCV 200
Displacement	cm^3	201
Bore x Stroke	mm	66 x 59
Net power	kW / ($ot.min^{-1}$)	4,2 / 3600
Cont. rated power	kW / ($ot.min^{-1}$)	2,8 / (3000)
Max. net torque	Nm / ($ot.min^{-1}$)	12,7 / (2500)
Fuel cons. At cont. rated power	l (litr)/hod	1,4
Fuel tank capacity	l (litr)	0,91
Fuel	-	Gasoline, oct. rat. 91 or higher
Engine oil capacity	l (litr)	0,4
Maximum motor tilt (permanent)	∠	20°
Maximum engine tilt (short term)	∠	30°
Oil quality	-	SAE 10W30
Spark plug	-	BPR5ES (NGK)

Tab. 3: *Engine information*



Pic. 4: *Machine description view A*

Pic. 5: *Machine description view B*

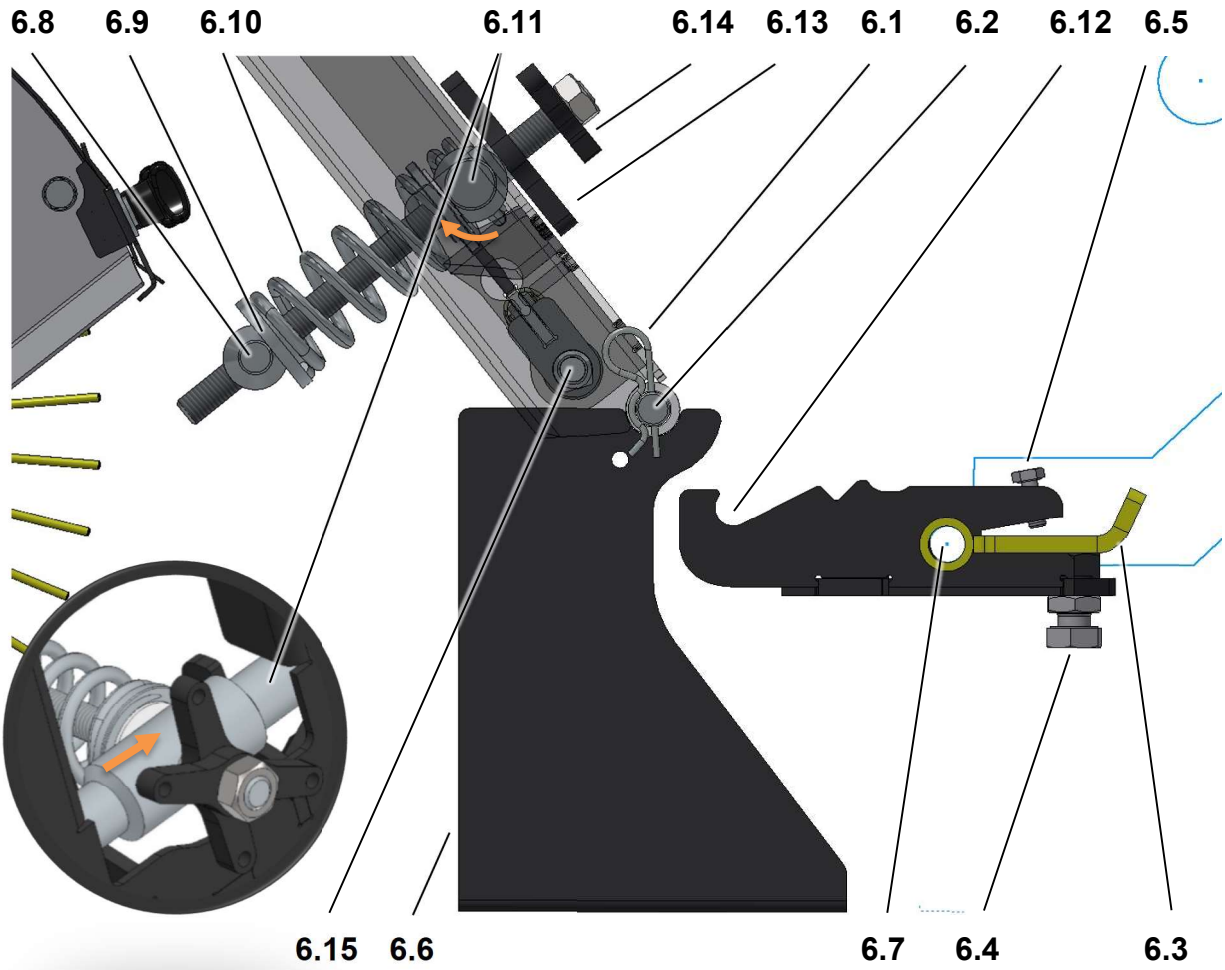
The main part of the sweeping brush SW 110 is a welded steel cover (4.1). The motor (4.2) is housed in a frame with a flange (4.3) in the middle to balance the machine. Power is transmitted from the engine using a centrifugal clutch (4.4) to the worm drive (4.5), which is protected by a cover (4.6). The centrifugal clutch will confirm engagement at the working engine speed. Sweeping rollers (4.7) and retracted threaded rods (4.8) are attached to the gearbox. They are stored in the sides using the bearings of the sweeper rollers. The throttle lever of the motor (5.1) and the lever for unlocking the raised position of the brush (5.2) are attached to the rotation and lifting lever (5.3). Turning the brushes to the sides is done with the brush raised by tilting the lever (5.3) forward and then moving it to the side. A connecting frame (5.4) is used for copying the terrain. Lifting the brush is facilitated by a spring element (5.5), this element also enables the height adjustment of the machine during sweeping. The counterpart for the spring element is the cradle (5.6), which is located on the garden tractor adapter. The wheel brackets can be mounted on the sides of the brush (5.8). When parked, the sweeping device is placed on a stand and folded out support legs (5.9). When working with the sweeping device, secure the support legs with a screw with a plastic head (5.10)

4 Instruction of use

4.1 Machine assembly

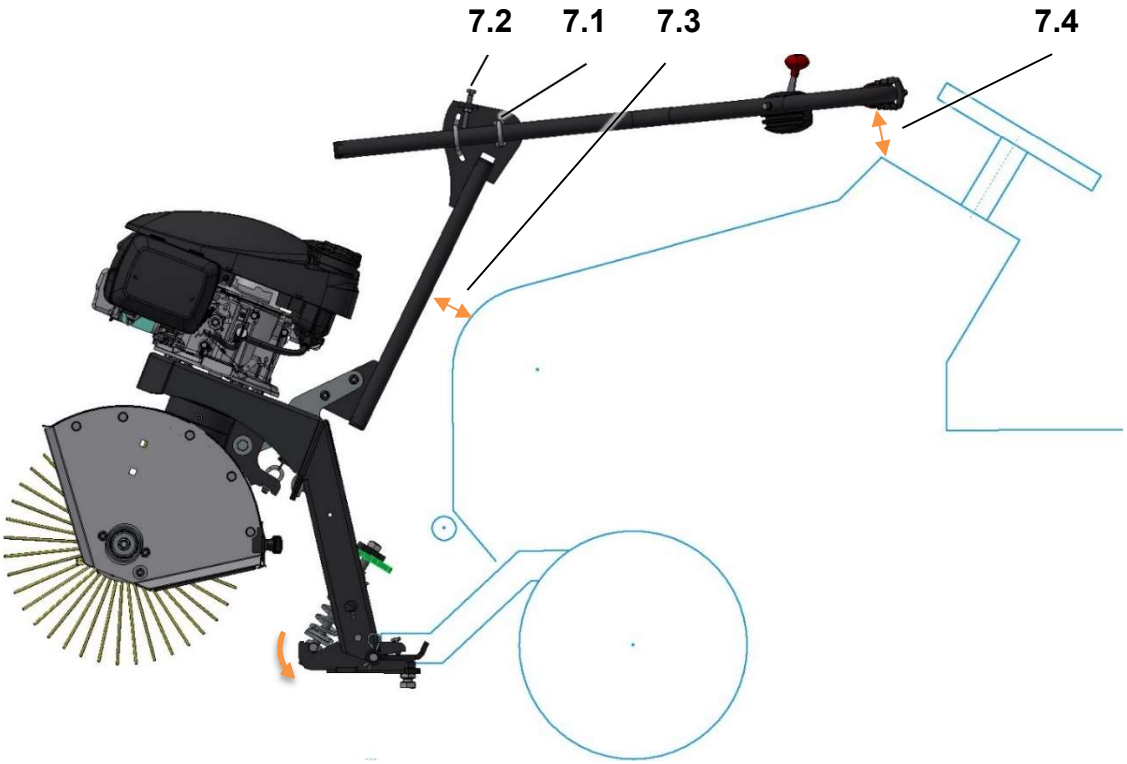
Request machine unpacking and instruction from your dealer as part of the pre-sales service!!

When connecting the sweeping device and while working, it is forbidden to have any part of the body under any part of the sweeping device due to the risk of injury. Otherwise, you work at your own risk.



Pic. 6: *Initial machine settings*

Remove the cotter pin (6.1) and slide the tenon (6.2) out of the bushings. Slide the cradle onto the beam (6.3) of the lawn tractor adapter. For the first adjustment, loosen the screw (6.4) so that the cradle rests on the beam (6.3) with a flat surface and not with the bolt (6.5). Loosen the lock nut on the bolt (6.5) and tighten the bolt so that it almost touches the beam (6.3), then tighten the lock nut. This sets the cradle to the basic position. It is likely that after securing the sweeper in the raised position, the sweeper rollers will be close to the ground. Adjusting this position will be described below in the instructions. Drive the lawn tractor so that the cradle is between the sides of the stand (6.6) and at the same time the bushings of the connecting frame (6.2) are above the bushing (6.7) of the beam. To make the initial seating of the spring element in the cradle as easy as possible, it is necessary to have the lower pin (6.8) of the spring element screwed in contact with the abutment ring of the spring (6.9). The spring (6.10) should be compressed only to the extent that it is possible to turn the spring element in the secured upper position of the sweeping device in the axis of the upper pin (6.11) so that the lower pin (6.8) fits into the cradle (6.12). **Caution:** Prolonged excessive compression of the spring may affect its properties. Compression can be done by holding the lower wing nut (6.13) and loosening the upper wing nut (6.14) or its counter nut M14. If the axis of the lower pin is rotated relative to the cradle, it can be simply turned using the upper wing nut (6.14). You can secure the spring element in a perpendicular position against the connecting frame by grasping the upper wing nut (6.14), turning it in the axis of the upper pin and slightly shifting it to the side by approx. 8 mm. By moving it an even greater distance, if necessary, the spring element can be removed from the connecting frame. Lift the connecting frame and remove the stand (6.6). The connecting frame rests on the cradle, press the lever to unlock the raised position (5.2). This should cause the bushings (6.2 and 6.7) to fit so that the pin can be pushed through them. Secure it with a cotter pin (6.1).



Pic. 7: *Initial machine settings*

Now you do not have the lifting lever set yet, so it is necessary to lift the sweeping device behind the front edge of the cover (4.1) to the position where the locking pin of the upper position (6.15) rests on the cradle. Grasp the spring element by the upper wing nut (6.14) and turn it so that after pressing the lever for unlocking the raised position (5.2), the lower pin (6.8) fits into the cradle (6.12). Now press the lever to unlock the raised position (5.2), this will lower the sweeping device into the working position. Unscrew the lower wing nut (6.13) so that it touches the upper wing nut (6.14) and tighten it slightly by hand to the upper wing nut so that it does not come loose during machine vibrations, but at the same time it loosens again by hand and allows the spring to be secured in a compressed position. Now the spring helps in lifting the sweeper. Next is the adjustment of the rotation and lifting lever. Loosen the nut on the clamps (7.1) and adjust the screw (7.2) and move the lever in the clamps (7.2) so that when the sweeping device is lifted to the maximum with the lever, the lever contacts the hood of the garden tractor (7.3) and (7.4) at the same moment. Tighten the locknut of the screw (7.2) and the nuts of the clamps (7.1). Press the lever to unlock the raised position (5.2) to place the brush in the working position. Loosen the lock nut on the screw (6.5) and loosen this screw so that it does not exceed the surface of the cradle in which it is screwed. Loosen the lock nut of the screw (6.4) and start tightening this screw. This increases the securing position of the sweeper. Verification of the change is reflected when lifting with the lift and pan lever. The ideal position is when the brush is locked just before touching the hood lever of the garden tractor. After locking, the brush will fall a little lower due to its weight and the springing of the material. If the screw is already too tight, the lever touch the hood before it is secured with the pin (6.15) against the cradle. Secure the ideal position by tightening the counter nut (6.4). Then tighten the screw (6.5) so that it almost touches the beam (6.3), at the same time it should be possible to slide the cradle (6.12) out of the beam (6.3) without the need to loosen the screws (6.3 or 6.4). Tighten the lock nut (6.5). With this procedure, the machine is set according to the hood of the lawn tractor.

4.2 Carrier Specifications (lawn tractor)

⚠ **After connecting the sweeping brush to the lawn tractor, the total weight must not be exceeded.**

So we have to take into account the operating weight of the lawn tractor + the weight of the sweeping brush (69 kg) + the weight of the operator.The operating and total weight is given by the lawn tractor manufacturer in the manual.

⚠ **For lawn tractor, after connecting the sweeping brush, stability deteriorates.**

4.3 Machine connection to lawn tractor

This procedure is similar to the initial setting of the machine, but nothing is set anymore:

Remove the cotter pin (6.1) and slide the tenon (6.2) out of the bushings. Slide the cradle onto the beam (6.3) of the lawn tractor adapters. Drive the lawn tractor so that the cradle is between the sides of the stand (6.6) and at the same time the bushings of the connecting frame (6.2) are above the bushing (6.7) of the beam. The spring (6.10) should be compressed only to the extent that it is possible to turn the spring element in the secured upper position of the sweeping device in the axis of the upper pin (6.11) so that the lower pin (6.8) fits into the cradle (6.12). **Caution:** Prolonged excessive compression of the spring may affect its properties. Compression can be done by holding the lower wing nut (6.13) and loosening the upper wing nut (6.14) or its counter nut M14. If the axis of the lower pin is rotated relative to the cradle, it can be simply turned using the upper wing nut (6.14). You can secure the spring element in a perpendicular position against the connecting frame by grasping the upper wing nut (6.14), turning it in the axis of the upper pin and slightly shifting it to the side by approx. 8 mm. By moving it an even greater distance, if necessary, the spring element can be removed from the connecting frame. Lift the connecting frame and remove the stand (6.6). The connecting frame rests on the cradle, press the lever to unlock the raised position (5.2). This should cause the bushings (6.2 and 6.7) to fit so that the pin can be pushed through them. Secure it with a cotter pin (6.1). Use the lever to lift the sweeping device (the spring does not help at this moment of lifting) to the position where the upper position locking pin (6.15) rests against the cradle and the sweeping device remains secured in the upper position. Grasp the spring element by the upper wing nut (6.14) and turn it so that after pressing the lever for unlocking the raised position (5.2), the lower pin (6.8) fits into the cradle (6.12). Now press the lever to unlock the raised position (5.2), this will lower the sweeping device into the working position. Unscrew the lower wing nut (6.13) so that it touches the upper wing nut (6.14) and tighten it slightly by hand to the upper wing nut so that it does not come loose during machine vibrations, but at the same time it loosens again by hand and allows the spring to be secured in a compressed position. Now the spring helps in lifting the sweeper. Raise the support legs (5.9) and secure the plastic head screws (5.10).

Disconnect according to the following procedure:

Put down the sweeper in the working position. Screw in the lower wing nut (6.13) only to the extent that it is possible to rotate the spring element in the axis of the upper pin (6.11) in the secured upper position of the sweeping device so that the lower pin (6.8) can be tilted out of the cradle (6.12). This ensures that the spring (6.10) should not be fully compressed. **Caution:** Prolonged excessive compression of the spring may affect its properties. Lift the sweeper to the upper position and perform the steps mentioned above. Press the release lever (5.2) to lower the sweeper. Loosen the support legs screws (5.10) and place the sweeper on the support legs (5.9). Remove the cotter pin (6.1) and slide the tenon (6.2) out of the bushings. The connecting frame (5.4) rests on the cradle (6.12). Lift the connecting frame (5.4) and slide the stand (6.6) under it according to Fig. 6. Reverse the lawn tractor out of the area under the sweeper. Slide the cradle (6.12) out of the lawn tractor adapter.

4.4 Work with machine and operation

Read the motor's user manual thoroughly first! This will prevent possible damage to it.

1. Connect the machine to the lawn tractor,
2. Using the lifting lever, secure the machine in the upper position,
3. Start the engine. Starting the engine is described in detail in the attached engine manual

Do not move away from the machine.

4.4.1 Brushes rotation start

⚠ **Check that all persons, animals, children are at a safe distance from the machine! If not, do not proceed with this activity!**

1. Start the engine,
2. Set the maximum engine speed with the throttle. (If the engine is cold, let it warm up at maximum speed for about 1 minute),
3. Spinning the brushes ensures engagement of the centrifugal clutch.

⚠ **When engaging the machine, the gas lever must be in the position for maximum engine speed! In any other position, there is a risk of the clutch slipping and burning!**

4.4.2 Sweeper stop

1. Move the throttle lever to the **MIN** position.

⚠ **Always switch off the engine and wait for the brushes to stop before doing any work in the vicinity of the machine! Always switch off the engine before leaving the machine!**

4.4.3 Slope/downhill sweeping

⚠ **Do not use the machine on wet and slippery terrain. Do not clean on steep slopes.**

⚠ **The safe slope accessibility of the machine is 10°. Cleaning steeper slopes is your responsibility.**

4.5 Work with machine

4.5.1 Work speed selection

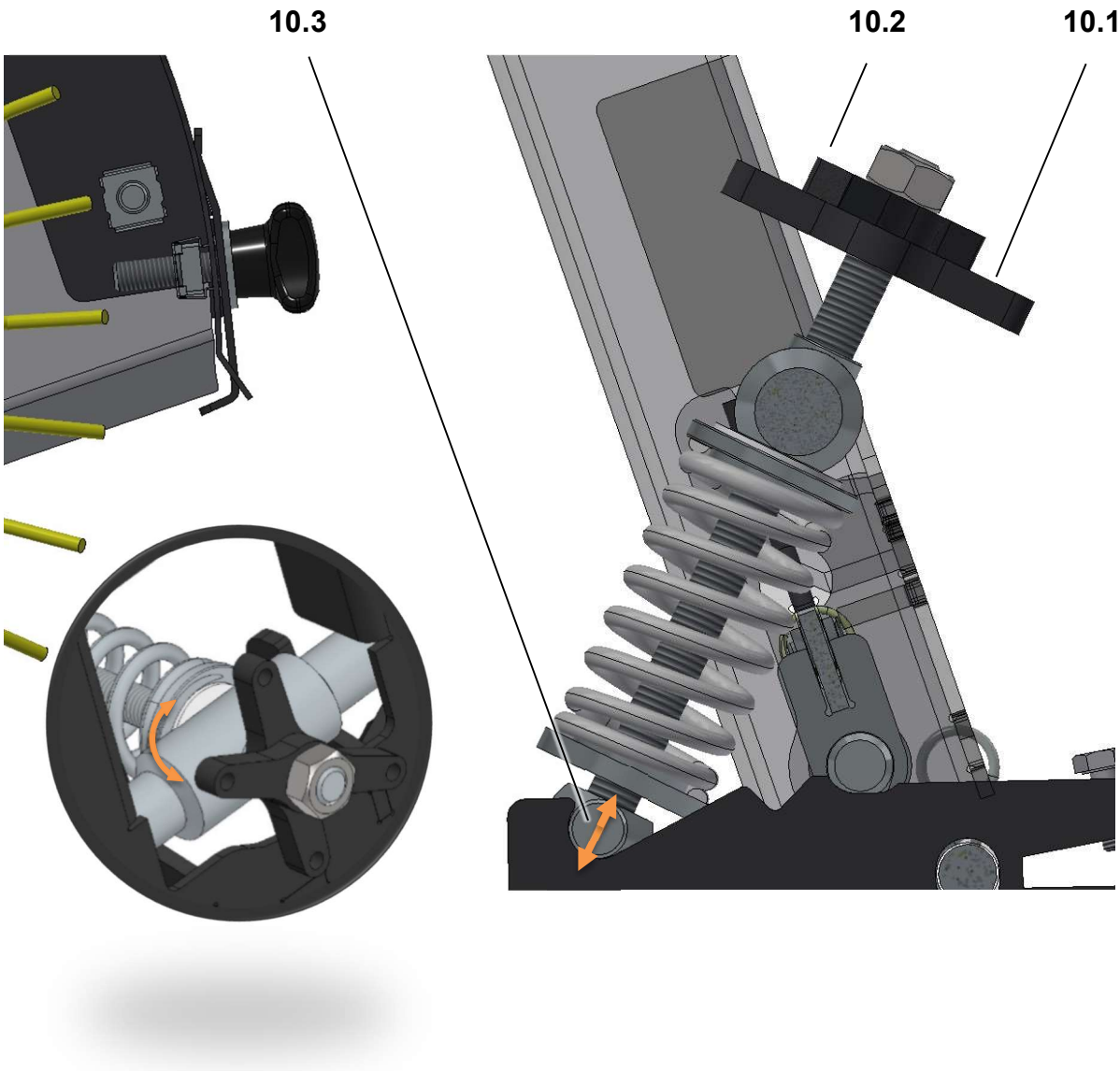
The main principle is that the higher the layer of dirt, the lower the travel speed must be.

Travel speed [km*h^{-1}]	Use
0	Engine start
2	Working speed for a surface extremely covered with dirt
3,5	Working speed for a medium covered surface
5	Maximum working speed for a very lightly covered surface

Tab. 4: *Travel speed*

4.5.2 Work heigh setup

The correct working height is determined by the swept area under the brush when the ATV is stopped. Area swept = brush width x **8 cm**.



Pic. 10: *Working height setting*

You can adjust the pressure level of the sweeping rollers when the sweeping device is connected. Raise the sweeper lever to the upper locked position. Make sure that the lower wing nut (10.1) is unscrewed until it contacts the upper wing nut (10.2). (6.14). You can increase the pressure of the sweeping rollers by turning the upper wing nut (10.2) to the right, decrease the pressure by turning it to the left. By turning, the lower pin (10.3) moves along the threaded rod. The less the spring is, the easier it is to turn the wing nut.

⚠ **The engine must be switched off**

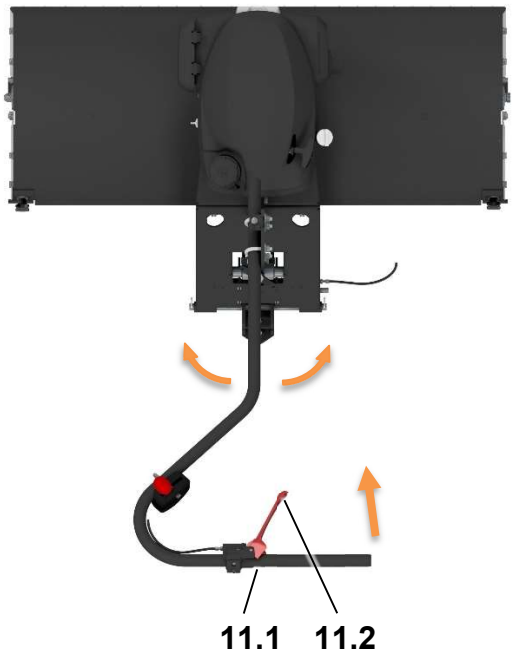
Method:

1. Adjusting the working height using support wheels (optional accessories)

Hold the wheel with the console and remove both pins. Slide the console with the wheel and insert the two pins into the holes located vertically above each other and lock them.

4.5.3 Sweep rollers angle setup

The sweeping rollers are rotated using the lever (11.1) into five positions. When sweeping to the left or right, we recommend using a debris hopper.



Pic. 11: *Sweep rollers angle setup*

Method:

Raise the sweeping device with the lever (11.1) to the upper locked position. Tilt the lever (11.1) forward and then to the side (2 positions to the right, 2 positions to the left and 1 middle position). Pull the lever back to secure the selected position. Press the raised position unlocking lever (11.2) to place the sweeper in the working position.

4.5.4 Method of sweeping

⚠ **Before using the machine, the terrain must be free of solid objects (such as stones, wires, loose building debris, etc.) that could be thrown or could damage the machine. If they cannot be removed, avoid these places.**

Set the engine to maximum speed, let the sweeping rollers with spin at maximum speed, and then drive towards the dirt you want to clean. Dirt is swept in the direction of travel forward or to the sides depending on the rotation of the sweeping brush. When using the debris hopper, dirt is swept directly into it and can then be dumped in a designated place*.*

4.5.4.1 Sweeping trouble shooting

The engine must always be switched off when cleaning the area around the sweeping rollers!

⚠ **Be extra careful when cleaning the area around the sweeping rollers. The roller bristles are sharp. Protect your hands with work gloves when cleaning.**

⚠ **Always wait for the sweeping rollers to stop before continuing any activity on or around the machine.**

1. The sweep rollers lose speed, the engine loses speed but does not go out.
Reduce the travel speed of the ATV.

2. The sweeping rollers stopped, the engine went out.
Stop the ATV. If necessary, clean the area around the sweeping rollers. Start the engine. Add gas and let the sweep rollers spin. You can continue forward.

3. The throttle is moved to the MIN position, but the engine does not turn off.
Adjust the throttle cable to the engine.

5 Maintenance, storage

⚠ **During maintenance, lift the machine with a winch to the upper position and support it with support jacks.**

To ensure long-term satisfaction with our product, it is necessary to take proper care of it during maintenance and care. Regular maintenance of this machine will prevent its rapid wear and tear and ensure the proper functioning of all its parts.

Follow all instructions regarding machine maintenance and adjustment intervals. We recommend that you keep a record of the number of working hours of the machine and the conditions under which it worked (for servicing purposes). We recommend entrusting post-season maintenance to one of our authorized services, as well as routine maintenance if you are not confident in your technical abilities.

⚠ **Before each use of the machine, check the tightening of the bolts securing the sweeping rollers.**

5.1 Machine lubrication

⚠ **When working with lubricants, observe the basic rules of hygiene and comply with regulations and laws on environmental protection.**

ⓘ **If you are not sufficiently skilled manually, entrust this activity to a professional service.**

To ensure smooth and easy movement of all mechanical parts, sufficient attention must be paid to lubrication. A few drops of oil (e.g. bicycle oil) are usually sufficient.

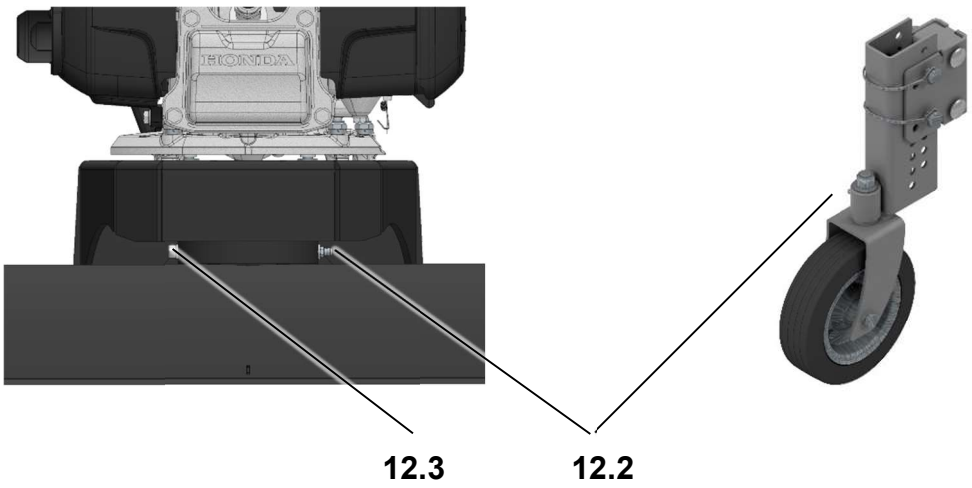
5.1.1 Engine oil exchange

Follow the instructions in the engine manual. Cut the replacement interval in half if you will be working with the machine in a dusty environment.

ⓘ **If you are not sufficiently skilled manually, entrust this activity to a professional service**

5.1.2 Lubrication points

You can get to the lubrication points without removing the covers. From a wide range of oils, any engine or gear oil or spray oil is suitable for lubrication. Of the plastic lubricants (lubricating grease), any lubricant intended for lubricating water pumps is fully sufficient. When using plastic grease with graphite admixture, lubrication intervals can be extended up to 25 hours in the season.



Pic. 12: *Lubrication points*

Lubrication points - description	Interval v sezóně	Po sezóně	Mazivo	Obrázek
12.1 The Bowdens	min 2x (5 kapek)	ano	olej	-
12.2 Grease nipple	-	ano	tuk	Obr. 9

Tab. 5: *Lubrication intervals*

When lubricating the grease nipple under the engine., unscrew the check bolt (12.3). Stop lubrication as soon as the lubricant is forced out through the check bolt. Otherwise, the clutch could be removed and thus damaged. Then ; the control bolt back on.

5.2 Exchange of sweeper rollers

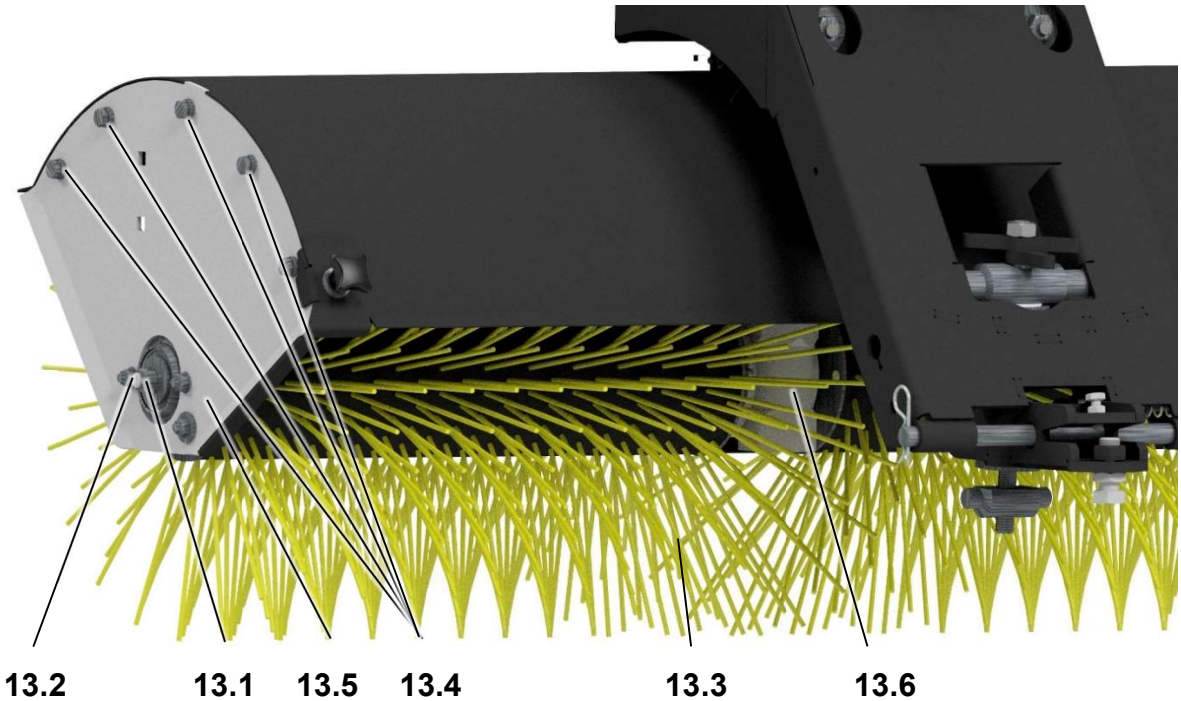
If you are not sufficiently skilled manually, entrust this activity to a professional service.

If the sweeping rollers are worn or damaged and thus cause the machine to vibrate, the rollers must be replaced. In case of any unprofessional repair of cylinders without the use of original spare parts, the manufacturer is not liable for damage caused to the machine or to the machine.

The machine must stand on a firm base and must be secured in such a way as to allow good access to the sweeping rollers and to prevent unexpected spontaneous movement of the machine.

Take extra care when disassembling the cylinders. The roller bristles are sharp. Protect your hands with work gloves.

The engine must be switched off and the end of the cable to the spark plug removed!



Pic. 13: *Replacement of sweeping rollers*

Method:

Using two No. 19 wrenches, unscrew the nut (13.1) on the threaded rod (13.2) that tightens the sweep rollers (13.3). Remove the threaded rod. Use the No. 13 wrench to loosen the nuts (13.4) securing the brush side (13.5) and remove the side. Replace the sweep rollers. Make sure that the hexagon on the gearbox (13.6) fits correctly. Tighten the nuts (13.4). Reinsert the threaded rod and tighten so that the gearbox is not pulled too far by the cylinders (13.3).

⚠ **When tightening the nut on the threaded rod, the metal carriers on the sweeping rollers must not bend.**

5.3 Service intervals

Activity	Before sweeping	In season	Before storage
Checking the oil level in the engine	yes	according to the instructions for the engine	yes
Cleaning the engine air filter	control	every 10 hours	yes
Washing	-	2x	yes
Dirt removal	-	after each sweep	yes
Checking the sweeping rollers and their storage	yes	immediate replacement in case of damage	yes
Checking the tightening of the sweeping rollers	yes	-	yes
Checking the tightening of bolt connections	yes	every 5 hours	yes
Lubrication	status check	Tab. 5	Tab. 5

Tab. 6: *Service intervals*

5.4 Trouble shooting and solutions

Problem	Cause	Solution
Sweeping rollers do not rotate	the engine is not started	start the engine
	The engine does not have a maximum speed	Increase throttle
	another glitch	visit the service center
The engine does not start	there is no gas in the tank	fill up the gas
	the fuel supply is closed	open the fuel supply
	the oil level is low	Add oil
	another glitch	visit the service center
Another glitch		visit the service center

Tab. 7: *Trouble shooting and solutions*

5.5 Storage

Before long-term storage (e.g. after the season), clean the machine of all dirt. Prevent unauthorized persons from accessing the machine. Protect the machine from the elements, but do not use airtight protection due to the possibility of increased corrosion underneath.

ⓘ **Check that the sweeping rollers are intact (replace if damaged).**

⚠ **If the machine is disconnected from the ATV, it must be on stand-by legs.**

We recommend:

1. Remove all dirt from the machine,
2. Repair damaged areas on painted metals,
3. Drain the gasoline from the engine fuel tank and carburetor (further instructions in the engine manual),
4. Carry out post-season lubrication of the machine according to Tab.

5.5.1 Cleaning, washing

⚠ **When cleaning and washing the machine, proceed in such a way as to comply with the applicable regulations and laws on the protection of water courses and other water sources from their pollution or contamination by chemical substances.**

ⓘ **Never wash the engine with a stream of water! The engine's electrical components could malfunction during start-up.**

ⓘ **Do not use pressure washers to wash the machine.**

5.6 Packing or machine disposal after end of lifetime

After unpacking the machine, you are obliged to dispose of the packaging in accordance with national laws and regulations on waste management.

When disposing of the machine at the end of its useful life, we recommend the following procedure:

1. Remove all parts from the machine that can still be used,
2. Drain the oil from the gearbox and engine into a suitable closable container and take it to the collection yard
3. Dismantle plastic and non-ferrous metal parts.,
4. Dispose of the dismantled rest of the machine and dismantled parts in accordance with national laws and regulations on waste management.

5.7 Production tag

The machine is marked with this production label.

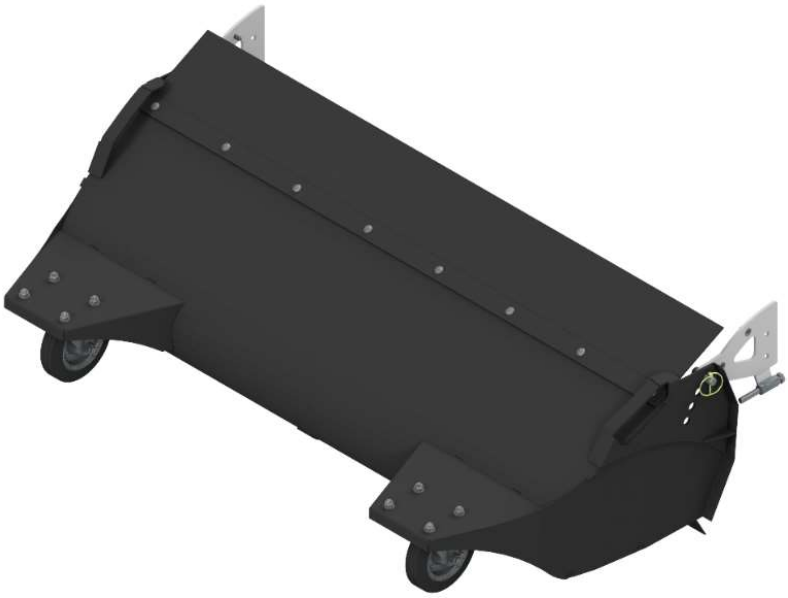
Pic. 14: *Production tag*

6 Accessories

6.1 Splash guard

Pic. 15: *SG-110-01-01*

6.2 Debris hopper

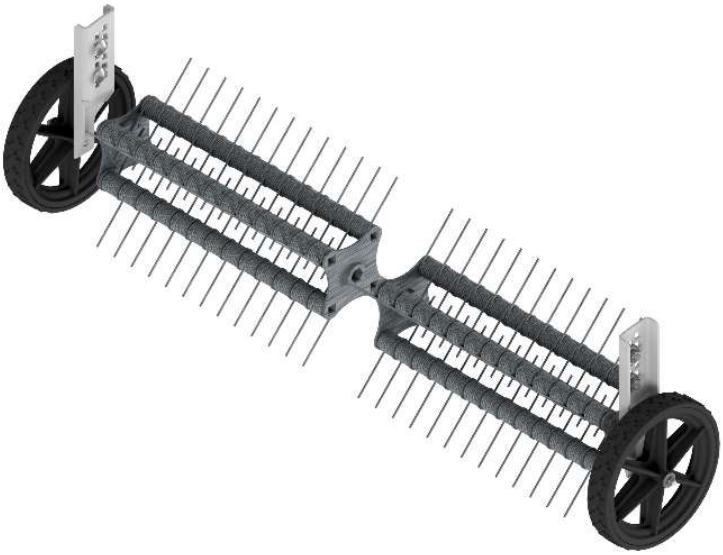


Pic. 16: *DH-110-01-01*

6.3 Side wheels

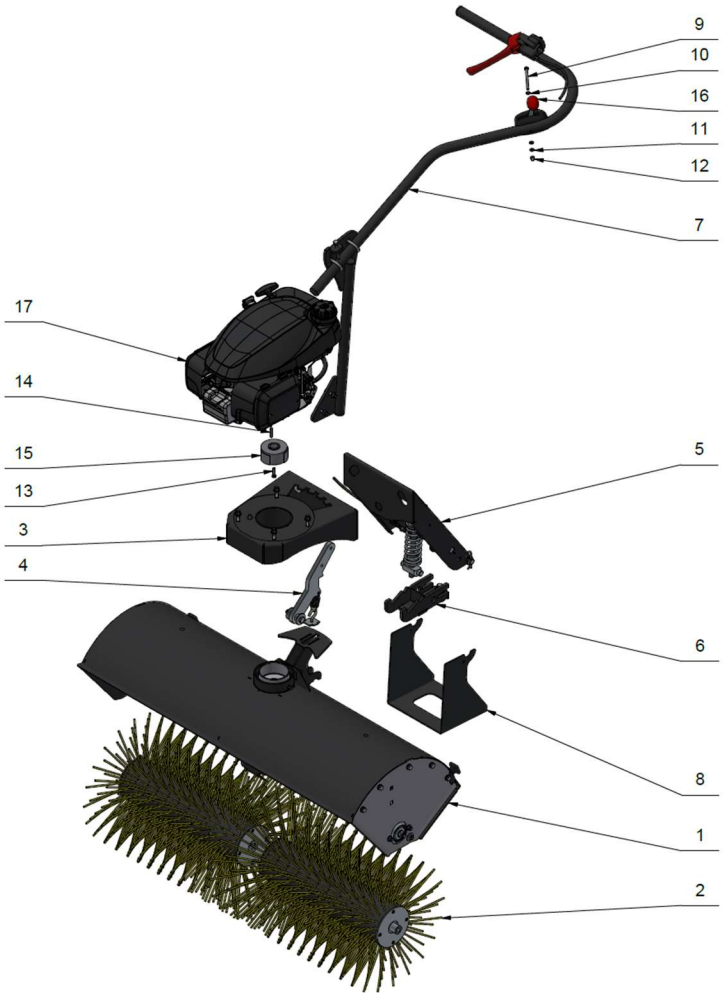
Pic. 17: *WC01-00-000*

6.4 Rotary aerator



Obr. 18: *RA01-00-000*

7 Spare parts list

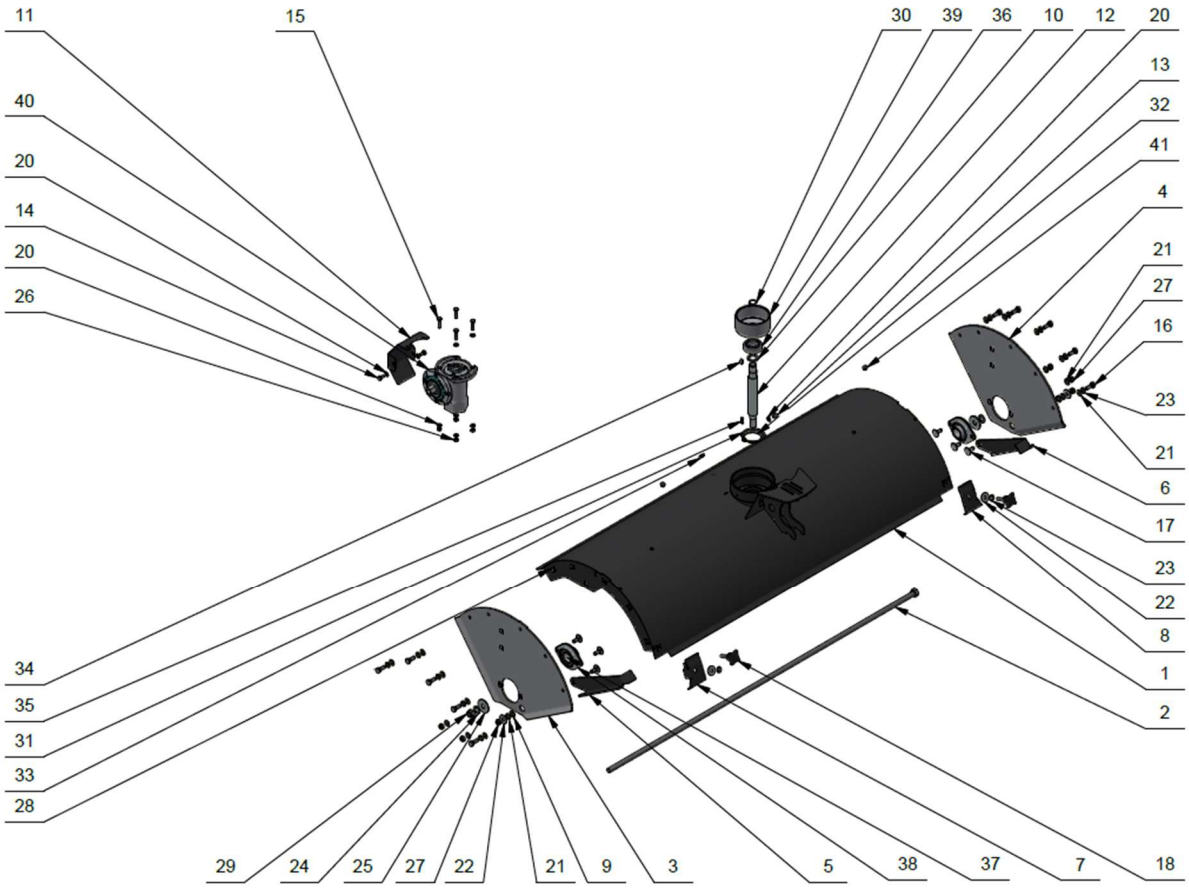


Pic. 19: *Disintegration SW-110-01-01*

POS.	PART NUMBER	PART NAME	NORM	QTY
1	SW02-00-000	SWEEPER BRUSH 02		1
2	SS02-00-000	SWEEPING SET 02		1
3	RP02-00-000	ROTATION POINT 02		1
4	RL03-00-000	ROTATION LATCH 03		1
5	CF06-00-000	CONNECTION FRAME 06		1
6	BM03-00-000	BEAM 03		1
7	LR02-00-000	LEVER 02		1
8	ST01-00-000	STAND 01		1
9	71071	BOLT M6x70	DIN 931	1
10	PRDIN125510	WASHER A6,4	DIN 125	2
11	PRDIN127410	LOCK WASHER A6	DIN 127	1
12	70060	HEXAGON DOMED CAP NUT M6	DIN 1587	1
13	83203	CLUTCH BOLT		1
14	83204	CLUTCH PARALLEL KEY		1
15	83202	CENTRIFUGAL CLUTCH		1
16		ENGINE THROTTLE LEVER		1
17	83112	MOTOR HONDA GCV 200		1

Tab. 8: *Disintegration SW-110-01-01*

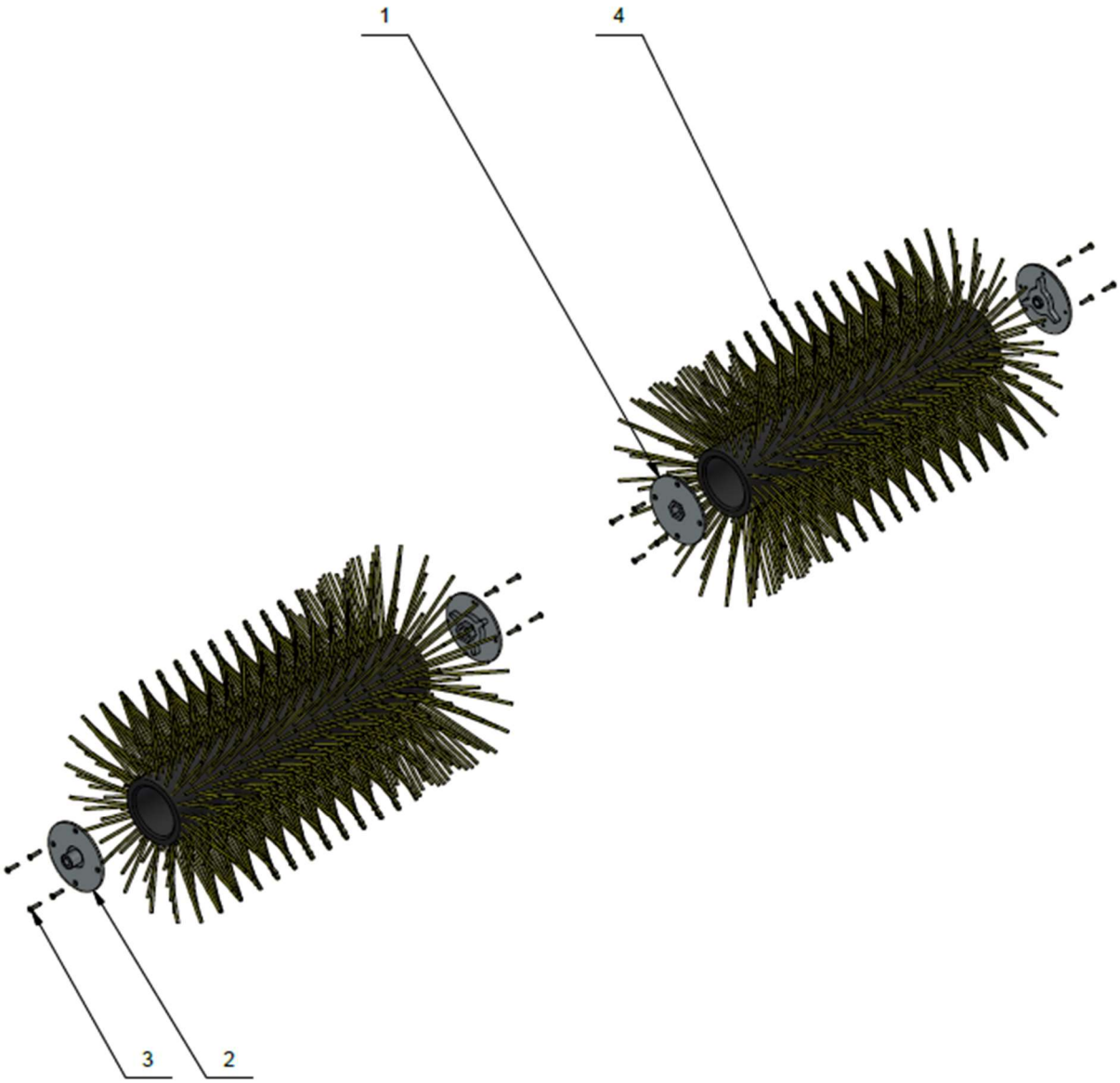
i



Pic. 20: *Disintegration SW02-00-000*

POS.	PART NUMBER	PART NAME	NORM	QTY
1	SW02-10-000	SKELETON		1
2	SW02-20-000	SWEEPER THREADED ROD		1
3	SW01-00-001	LEFT SIDE	CNC CUT	1
4	SW01-00-002	RIGHT SIDE	CNC CUT	1
5	SW01-00-003	LEFT SUPPORT LEG	CNC CUT	1
6	SW01-00-004	RIGHT SUPPORT LEG	CNC CUT	1
7	SW01-00-005	LEFT SUPPORT LEG LOCKING	CNC CUT	1
8	SW01-00-006	RIGHT SUPPORT LEG LOCKING	CNC CUT	1
9	SW01-00-007	SUPPORT LEG WASHER	CNC CUT	2
10	SW01-00-008	CLUTCH WASHER	Ø30x6 - 3	1
11	SW01-00-009	GEARBOX COVER	CNC CUT	1
12	SW01-00-011	GEARBOX SHAFT	Ø22 - 194	1
13	71023	BOLT M6x6	DIN 912	1
14	71060	BOLT M6x12	DIN 933	2
15	04000236	BOLT M6x25	DIN 933	4
16	PRDIN933131	BOLT M8x20	DIN 933	10
17	04000539	CUP HEAD SQUARE NECK BOLT M8x20	DIN 603	6
18	60919	HAND SCREW M8	KRG1A 32 M8x30	2
19	PRDIN125510	WAHSER A6,4	DIN 125	3
20	PRDIN127410	LOCK WASHER A6	DIN 127	7
21	PRDIN125520	WASHER A8,4	DIN 125	16
22	PRDIN9021003	WASHER 8,4	DIN 9021	4
23	PRDIN127420	LOCK WASHER A8	DIN 127	12
24	PRDIN127440	LOCK WASHER A12	DIN 127	2
25	PRDIN125542	WASHER 13	DIN 9021	2
26	70063	NUT M6	DIN 934	4
27	PRDIN985231	MATICE POJISTNÁ M8	DIN 985	6
28	70080	CAGE NUT M8 / 1,8-3,2 (12,3)	KLECOVÁ MATICE	12
29	PRDIN985252	LOCK NUT M12	DIN 985	1
30	69017	RETAINING RINGS 17	DIN 471	1
31	69055	RETAINING RINGS 55	DIN 471	1
32	69047	RETAINING RINGS 47	DIN 472	1
33	PRGA000163	GREASE NIPPLE M6 - TYP A	DIN 71412	1
34	73701	PARALLEL KEY A 5x5x14	DIN 6885	1
35	73700	PARALLEL KEY 5x5x18	DIN 6885	1
36	68204	BEARING 6204 2RS	DIN 625	1
37	68701	BEARING YAT 205		2
38	68702	BEARING HOUSING PFL 205		2
39	83201	CLUTCH DISC		1
40	81106	TRANSMISION MRT40A_2023- 12,5 LEFT	MRT 40 A	1
41	07001291	PLASTIC CAP B 13_9_6,4 BLACK		2

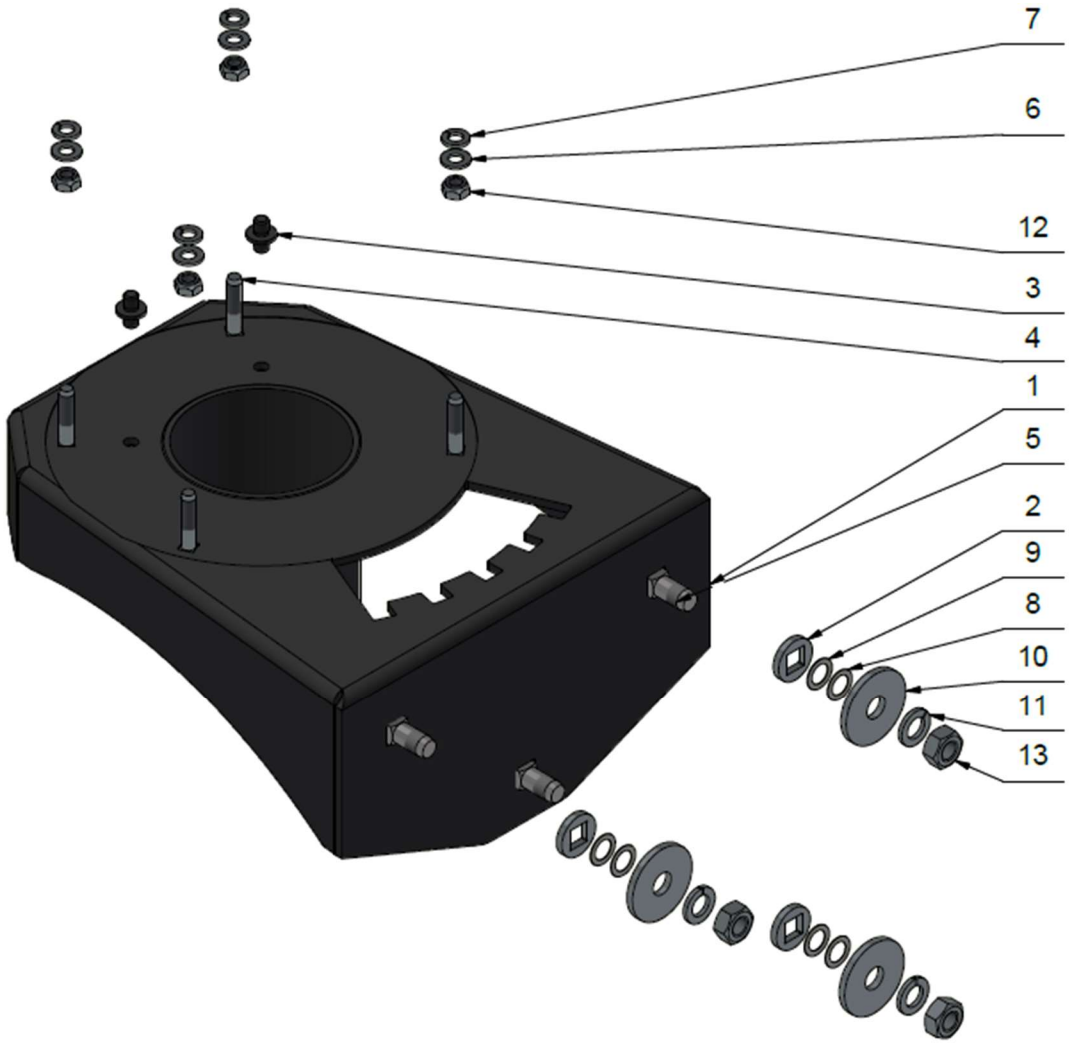
Tab. 9: *Disintegration SW02-00-0000*



Pic. 21: *Disintegration SS-02-000*

POS.	PART NUMBER	PART NAME	NORM	QTY
1	SS01-10-000	BRUSH INNER FLANGE		2
2	SS01-20-000	BRUSH OUTER FLANGE		2
3	71041	SCREW - 4,5x25		16
4	83001	SWEEPING ROLLER 460x400		2

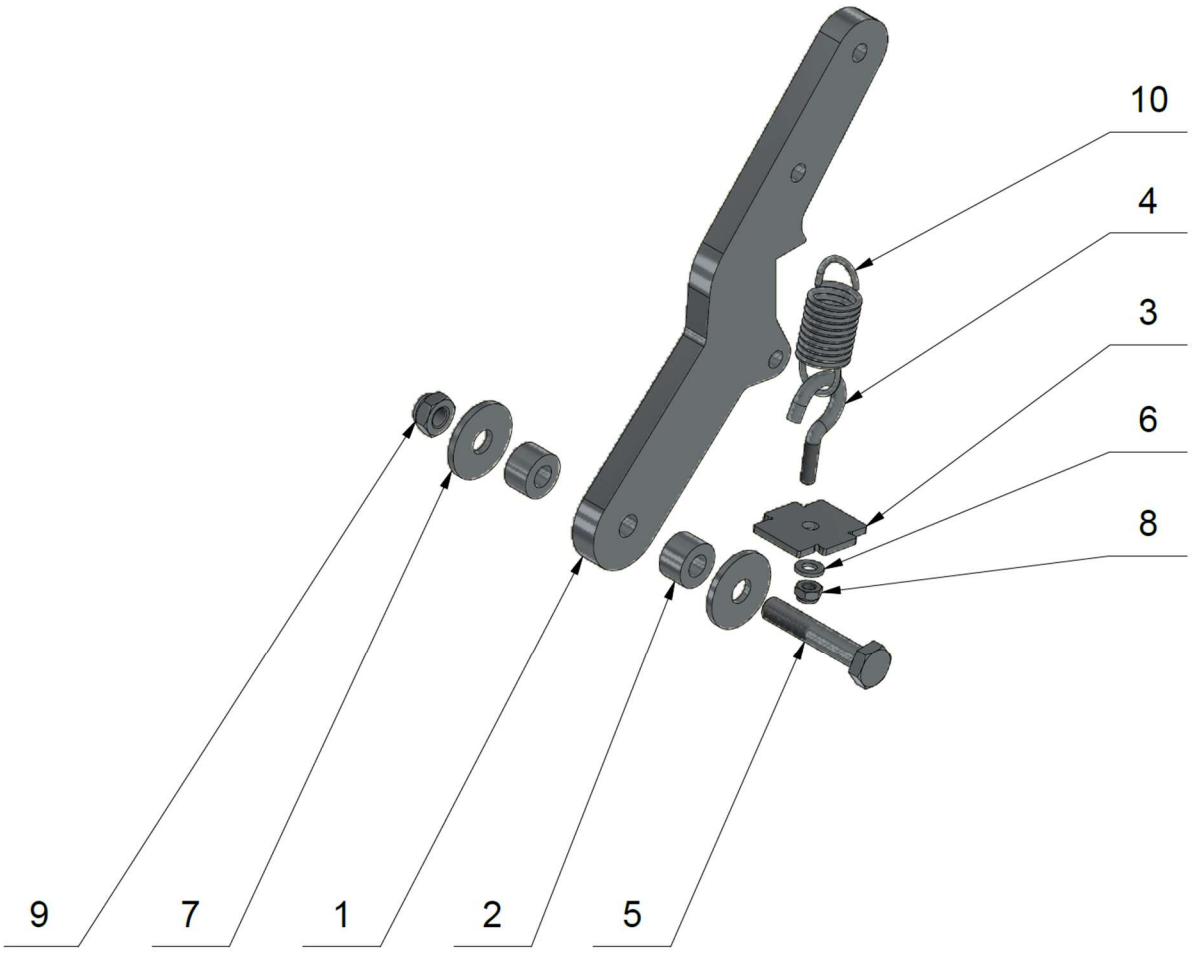
Tab. 10: *Disintegration SS-02-000*



Pic. 22: *Disintegration RP02-00-000*

POS.	PART NUMBER	PART NAME	NORM	QTY
1	RP02-10-000	FLANGE		1
2	RP02-00-002	ROTATION POINT WASHER 1	CNC CUT	3
3	RP02-00-003	CENTERING PIN	Ø16 - 20	2
4	72323	CUP HEAD SQUARE NECK BOLT M8x40	DIN 603	4
5	71233	CUP HEAD SQUARE NECK BOLT M12x30	DIN 603	3
6	PRDIN125520	WASHER A8,4	DIN 125	4
7	PRDIN127420	LOCK WASHER A8	DIN 127	4
8	73125	WASHER - 12 x 18 x 0,5	DIN 988	3
9	73122	WASHER - 12 x 18 x 0,3	DIN 988	3
10	73126	WASHER M12	DIN 440R	3
11	PRDIN127440	LOCK WASHER A12	DIN 127	3
12	PRDIN985231	LOCK NUT M8	DIN 985	4
13	PRDIN985252	LOCK NUT M12	DIN 985	3

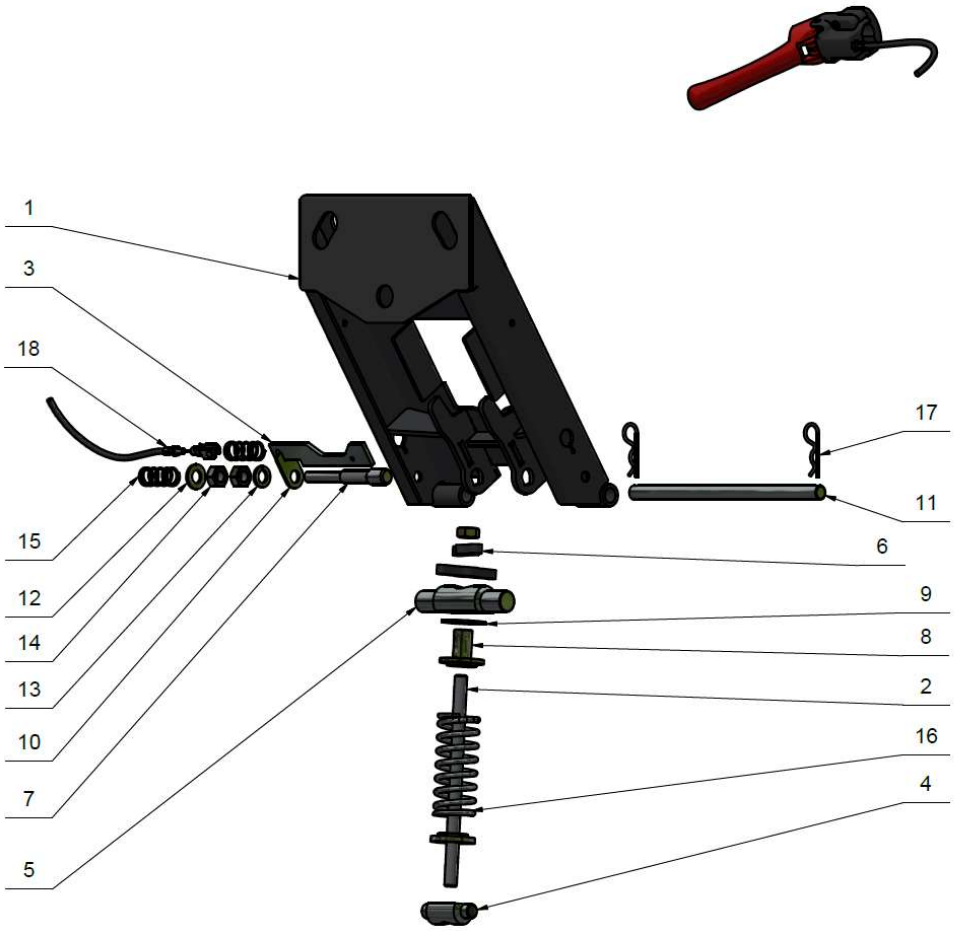
Tab. 11: *Disintegration RP02-00-000*



Pic. 23: *Disintegration RL03-00-000*

POS.	PART NUMBER	PART NAME	NORM	QTY
1	RL03-00-001	ROTATION LATCH	CNC CUT	1
2	RL03-00-002	BOUNDARY RING	Ø20x5 - 12	2
3	RL03-00-003	SPRING HOOK WASHER	CNC CUT	1
4	73345	HOOK BOLT 6x50		1
5	4000394	BOLT M10x55	DIN 931	1
6	PRDIN125510	WASHER A6,4	DIN 125	1
7	73107	WASHER 11	DIN 440R	2
8	PRDIN985221	LOCK NUT M6	DIN 985	1
9	PRDIN985241	LOCK NUT M10	DIN 985	1
10	80425	EXTENSION SPRING 22,5x2,5x57		1

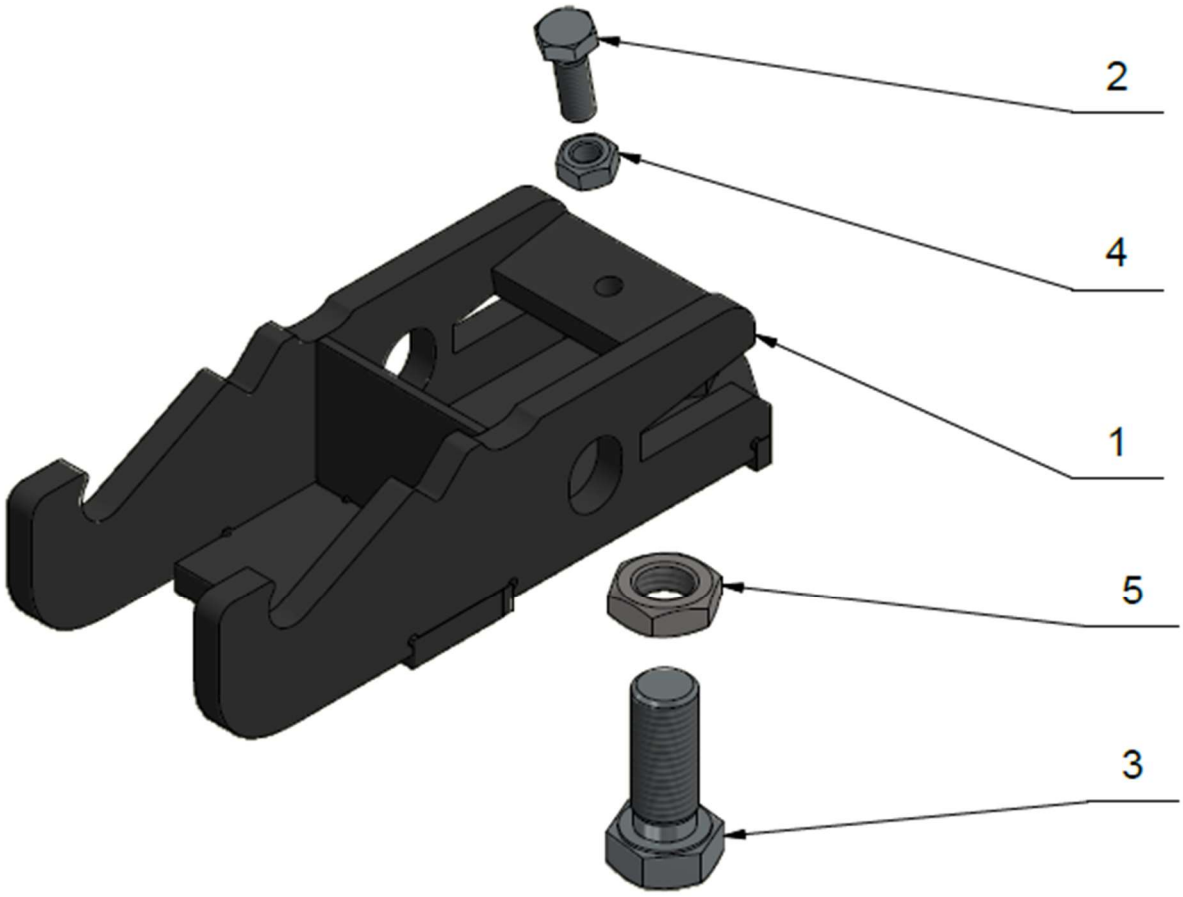
Tab. 12: *Disintegration RL03-00-000*



Pic. 24: *Disintegration CF06-00-000*

POS.	PART NUMBER	PART NAME	NORM	QTY
1	CF06-10-000	CONNECTION FRAME		1
2	CF06-20-000	SWEEPER THREADED ROD		1
3	CF06-00-001	STOP PLATE	CNC CUT	1
4	CF06-00-002	SPRING LOWER PIN	Ø30 - 74	1
5	CF06-00-003	SPRING UPPER PIN	Ø35 - 136	1
6	CF06-00-004	WING NUT	CNC CUT	2
7	CF06-00-005	SECURITY PIN	Ø18 - 128	1
8	CF06-00-006	DISTANCE RING	Ø50 - 31	1
9	CF06-00-008	STOP PLATE 2	CNC CUT	1
10	003220400001	PLASTIC WASHER 23	23,2 x 38 x 1,7	1
11	CF01-00-001	CONNECTION FRAME PIN	Ø16 - 300	1
12	PRDIN125549	WASHER A15	DIN 125	1
13	PRDIN127445	LOCK WASHER A14	DIN 127	1
14	04001266	NUT M14	DIN 934	3
15	04001834	COMPRESSION SPRING	2x21x45x6	2
16	80404	COMPRESSION SPRING 6x48x120		1
17	PRGA000223	SPLIT PIN 3E		2
18			C = 17, L = 2000	1

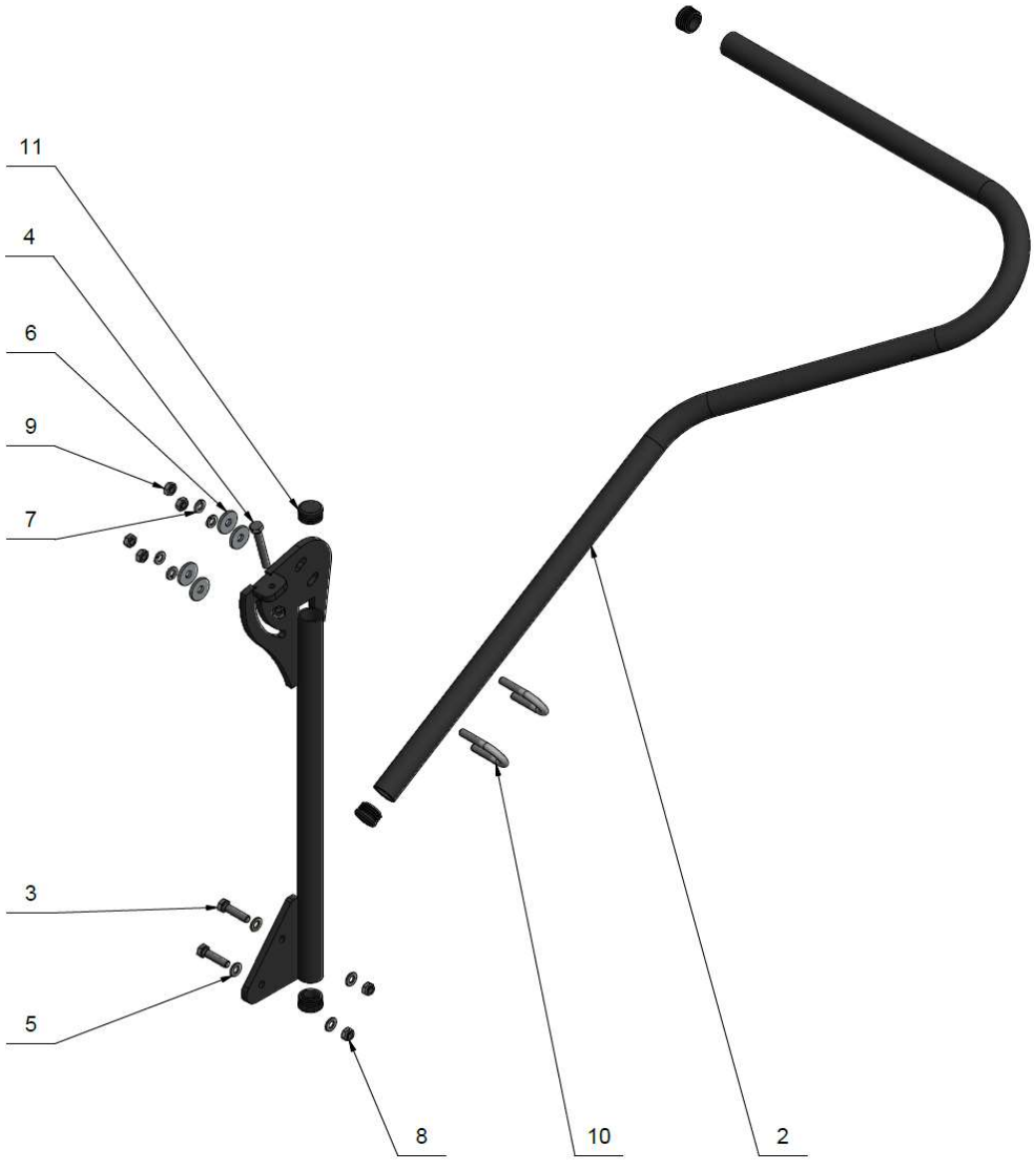
Tab. 13: *Disintegration CF06-00-000*



Pic. 25: *Disintegration BM03-00-000*

POS.	PART NUMBER	PART NAME	NORM	QTY
1	BM03-10-000	BEAM		1
2	04000313	BOLT M8x22	DIN 933	1
3	71646	BOLT M16x40 10.9	DIN 933	1
4	PRDIN934230	NUT M8	DIN 934	1
5	04000119	THIN NUT M16	ISO 4035	1

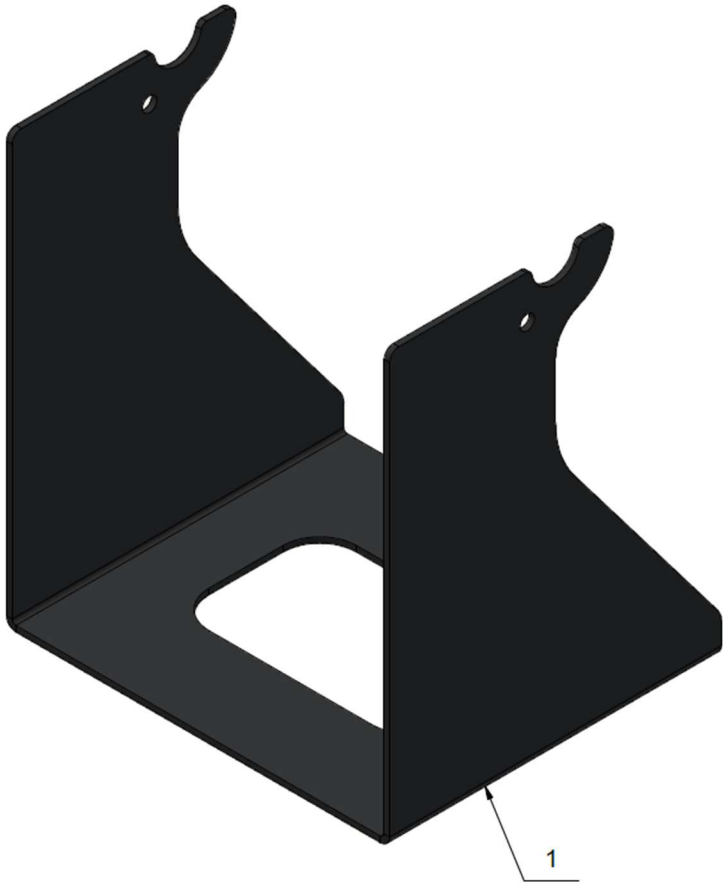
Tab. 14: *Disintegration BM03-00-000*



Pic. 26: *Disintegration LR02-00-000*

POS.	PART NUMBER	PART NAME	NORM	QTY
1	LR02-10-000	LEVER LAWN TRACTOR		1
2	LR02-00-001	LEVER	TUBE Ø28x2,6 - 1480	1
3	04000532	BOLT M8x35	DIN 933	2
4	71090	BOLT M8x60	DIN 933	1
5	PRDIN125520	WASHER A8,4	DIN 125	4
6	73079	WASHER 8	DIN 440R	4
7	PRDIN127420	LOCK WASHER A8	DIN 127	4
8	PRDIN985231	LOCK NUT M8	DIN 985	2
9	PRDIN934230	NUT M8	DIN 934	5
10	70260	U-BOLT FISHER ETR 20 - 27 3/4"	Objímka	2
11	77165	PLUG GL27 1-3		4

Tab. 15: *Disintegration LR02-00-000*



Pic. 27: *Disintegration ST01-00-000*

POS.	PART NUMBER	PART NAME	NORM	QTY
1	ST01-00-001	STAND	CNC CUT	1

Tab. 16: *Disintegration ST01-00-000*

ES PROHLÁŠENÍ O SHODĚ (originál)

EC declaration of conformity (the original)

Výrobce / *Manufacturer*:	**RYKOV Libčany, s.r.o.**
Adresa / *Address*:	Libčany 14, 50322 Libčany, ČR
IČ / *ID*:	27502805
Jméno a adresa osoby pověřené sestavením technické dokumentace (podle 2006/42/ES, NV č. 176/2008 Sb.) / *Name and address of the person authorised to compile the technical file (according to 2006/42/EC)*:	**RYKOV Libčany, s.r.o.**, Libčany 14, 50322 Libčany, ČR
Výrobek (stroj) – typ / *Product (Machine) – Type*:	**Zametací kartáč typ SW 110**
Výrobní číslo / *Serial number*:	001/110-01
Popis / *Description*:	Zametací kartáč je určen k zametání zpevněných ploch, výrobních prostor -a k odklízení sněhu Šířka záběru: 1100mm. Otáčky zametacího ústrojí: 240min^{-1}. Výkon motoru:4 kW/3600min^{-1}. Rozměry: (1106x1235x1240)mm. Hmotnost: 69 kg.
Prohlašujeme, že strojní zařízení splňuje všechna příslušná ustanovení uvedených směrnic (NV) / *We declare that the machinery fulfils all the relevant provisions of the mentioned Directives (Government Provisions)*:	Strojní zařízení – směrnice 2006/42/ES, NV č. 176/2008 Sb. / *the Machinery Directive 2006/42/EC,* Elektromagnetická kompatibilita – směrnice 2004/108/ES, NV č. 616/2006 Sb. / *the Electromagnetic Compatibility (EMC) Directive 2004/108/EC,*
Harmonizované technické normy a technické normy použité k posouzení shody / *The harmonized technical standards and the technical standards applied to the conformity assessment*:	ČSN EN ISO 12100, ČSN EN ISO 55012, ČSN EN ISO 11202, ČSN EN ISO 3746, ČSN EN 55014-2, ČSN EN 55014-2:1997.
Posouzení shody provedla / *The conformity assessment carried out by*:	Strojírenský zkušební ústav, s.p., Brno, Česká republika *Engineering Test Institute, Public Enterprise, Brno, CzechRepublic*
	Závěrečná zpráva č. / *The Final Report No.*: **31-8771/M**

Poznámka: Veškeré předpisy byly použity ve znění jejich změn a doplňků platných v době vydání tohoto prohlášení bez jejich citování. /
Note: All regulations were applied in wording of later amendments and modifications valid at the time of this declaration issue without any citation of them.

Místo a datum vydání / Libčany 01.03.2024
Place and date of issue:

Osoba zmocněná k podpisu za výrobce /
Signed by the person entitled to deal in the name of producer:

Jméno / Jan Rychtera
Name:

Funkce / jednatel
Grade:

Podpis /
Signature:

RYKOV RYKOV Libčany, s.r.o.
503 22 Libčany 14
tel./fax: 00420 495 585 477, tel.: 00420 495 585 422
IČO: 27502805, DIČ: CZ27502805
www.rykov.cz, e-mail: rykov@rykov.cz