

FEIDER

MACHINES



PETROL SWEEPER

FBAE200-2/FBAE200ES-2

USER GUIDE

CAUTION: Read this manual before using this machine!

CONTENTS

1. SAFETY INSTRUCTIONS.....	3
2. MAIN COMPONENTS.....	8
3. PACKAGE CONTENTS.....	9
4. ASSEMBLY.....	9
5. OPERATION.....	11
6. CHANGE ATTACHMENTS.....	15
7. SERVICE & REPAIR - GENERAL.....	16
8. STORAGE.....	17
9. TROUBLESHOOTING.....	17
10. MAINTENANCE.....	17
11. TECHNICAL DATA.....	22
12. DECLARATION OF CONFORMITY.....	23
13. WARRANTY.....	24
14. PRODUCT FAILURE.....	25
15. WARRANTY EXCLUSIONS.....	26

1. SAFETY INSTRUCTIONS



Please read this entire manual prior to operating the equipment. It instructs you how to safely and easily set up, operate and maintain your machine. Please be sure that you, and any other persons who will operate the machine, carefully follow the recommended safety practices at all times. Failure to do so could result in personal injury or property damage.

Function of Sweeper

This sweeper is designed solely for the use in clean up, maintenance and similar. And please pay more attention that NOT for small stone cleaning, to avoid the injury.

Use in any other way is considered contrary to the intended use. Compliance with and strict adherence to operation, service and repair conditions, as specified by the manufacturer, are also essential elements of the intended use.

Terms used in Manual

Right-hand, left-hand, front and rear are determined from actual operating position.

SAFETY STATEMENTS

DANGER

THIS STATEMENT IS USED WHERE SERIOUS INJURY OR DEATH WILL RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.

WARNING

THIS STATEMENT IS USED WHERE SERIOUS INJURY OR DEATH COULD RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.

CAUTION

THIS STATEMENT IS USED WHERE MINOR INJURY COULD RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.

NOTICE

THIS STATEMENT IS USED WHERE EQUIPMENT OR PROPERTY DAMAGE COULD RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.

THIS SYMBOL BY ITSELF OR USED WITH A SAFETY SIGNAL WORD THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY OR THE SAFETY OF OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH.

GENERAL SAFETY PRECAUTIONS



WARNING

READ MANUAL PRIOR TO INSTALL

Improper installation, operation, or maintenance of this equipment could result in serious injury or death. Operators and maintenance personnel should read this manual as well as all manuals related to this equipment and the prime mover thoroughly before beginning installation, operation, or maintenance. Follow all Safety instructions in this manual.



WARNING

READ AND UNDERSTAND ALL SAFETY STATEMENTS

Read all safety decals and safety statements in all manuals prior to operating or working on this equipment. Know and obey all regulations, local laws and other professional guidelines for your operation. Know and follow good work practices when assembling, maintaining, repairing, mounting, removing or operating this equipment.



WARNING

KNOW YOUR EQUIPMENT

Know your equipment's capabilities, dimensions and operations before operating. Visually inspect your equipment before you start, and never operate equipment that is not in proper working order with all safety devices intact. Check all hardware to assure it is tight. Make certain that all locking pins, latches, and connection devices are properly installed and secured. Remove and replace any damaged, fatigued or excessively worn parts. Make certain all safety decals are in place and are legible. Keep decals clean, and replace them if they become worn and hard to read.



WARNING

PROTECT AGAINST FLYING DEBRIS

Always wear proper safety glasses, goggles or a face shield when driving pins in or out or when operation causes dust, flying debris, or any other hazardous material.



WARNING

LOWER OR SUPPORT RAISED EQUIPMENT

Do not work under raised booms without supporting them. Do not use support material made of concrete blocks, logs, buckets, barrels or any other material that could suddenly collapse or shift positions. Make sure support material is solid, not decayed, warped, twisted, or tapered. Lower booms to ground level or onto blocks. Lower booms and attachments to the ground before leaving the cab or operator's station.



WARNING

DO NOT MODIFY MACHINE OR ATTACHMENTS

Modifications may weaken the integrity of the attachment and may impair the function, safety, life and performance of the attachment. When making repairs, use only the manufacturer's genuine parts, following authorized instructions. Other parts may be substandard in fit and quality. Never modify any RoPS (Roll over Protection System) equipment or device. Any modifications must be authorized in writing by the manufacturer.



WARNING

SAFELY MAINTAIN AND REPAIR EQUIPMENT

- Do not wear loose clothing, or any accessories that can catch in moving parts. If you have long hair, cover or secure it so that it does not become entangled in the equipment.
- Work on a level surface in a well-lit area.
- Use properly grounded electrical outlets and tools.
- Use the correct tool for the job at hand. Make sure they are in good condition for the task required.
- Wear the protective clothing equipment specified by the tool manufacturer.



WARNING

SAFELY OPERATE EQUIPMENT

Do not operate equipment until you are completely trained by a qualified operator in how to use the controls, know its capabilities, dimensions, and all safety requirements.

- Keep all step plates; grab bars, pedals, and controls free of dirt, grease, debris, and oil.
- Never allow anyone to be around the equipment when it is operating.
- Do not allow riders on the attachment or the prime mover.
- Do not operate the equipment from anywhere other than the correct operators position.
- Never leave equipment unattended with the engine running or with this attachment in a raise position.
- Do not alter or remove any safety feature from the prime mover or this attachment.
- Know your work site safety rules as well as traffic rules and flow. When in doubt on any safety issue, contact your supervisor or safety coordinator for an explanation.



WARNING

FALL HAZARD - DO NOT OPERATE NEAR UNGUARDED EDGES.

- This sweeper is NOT intended for roof top use.
- When operating sweeper, adhere to all government rules, local laws and other professional guidelines for your sweeping application.
 - Road surface cleaning shall only be operated by specially trained personnel. The user must know how to assemble, handle, operate and maintain this machine. People not trained must have a formation given by a professional.
 - Always transport the tool by the handles. Do not lift the tool and do not use any device to transport it.
 - Always wear protective equipment, which shall include at least eye protection, hearing protection, helmet, trousers, and protective shoes.
 - If blockage is likely to occur, stop the machine; let the machine cool down. Inspect the machine and remove the blockage. If machine is damaged do not use it and bring it to specially trained personnel. for inspection and reparation.
 - Maintenance work in hydraulic system is only to be carried out by specially trained personnel.

Safe operation practices for pedestrian-controlled snow throwers

General

This machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury.

Training

- a) Read, understand and follow all instructions on the machine and in the manual(s) before operating this unit. Be thoroughly familiar with the controls and the proper use of the machine. Know how to stop the unit and disengage the controls quickly.
- b) Never allow children to operate the machine. Never allow adults to operate the machine without proper instruction.
- c) Keep the area of operation clear of all persons, particularly small children.
- d) Exercise caution to avoid slipping or falling, especially when operating the machine in reverse.

Preparation

- a) Thoroughly inspect the area where the machine is to be used and remove all doormats, sleds, boards, wires and other foreign objects.
- b) Disengage all clutches and shift into neutral before starting the engine (motor).

- c) Do not operate the machine without wearing adequate winter garments. Avoid loose fitting clothing that can get caught in moving parts. Wear footwear that will improve footing on slippery surfaces.
- d) Always wear safety glasses or eye shields during operation or while performing an adjustment or repair to protect eyes from foreign objects that may be thrown from the machine.
- e) Handle fuel with care; it is highly flammable:
 - 1) Use an approved fuel container.
 - 2) Never add fuel to a running engine or hot engine.
 - 3) Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors.
 - 4) Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground, away from your vehicle, before filling.
 - 5) When practical, remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment on a trailer with a portable container, rather than from a gasoline dispenser nozzle.
 - 6) Keep the nozzle in contact with the rim of the fuel tank or container opening at all times, until refueling is complete. Do not use a nozzle lock-open device.
 - 7) Replace gasoline cap securely and wipe up spilled fuel.
 - 8) If fuel is spilled on clothing, change clothing immediately.
- f) Use extension cords and receptacles as specified by the manufacturer for all units with electric starting motors.
- g) Adjust the collector housing height to clear gravel or crushed rock surface.
- h) Never attempt to make any adjustments while the engine (motor) is running (except when specifically recommended by manufacturer).

Operation

- a) Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
- b) Exercise extreme caution when operating on or crossing gravel drives or walks. Stay alert for hidden hazards or operating near public roads.
- c) After striking a foreign object, stop the engine (motor), remove the wire from the spark plug, disconnect the cord on electric motors, thoroughly inspect the snow thrower for any damage, and repair the damage before restarting and operating the snow thrower.
- d) If the machine should start to vibrate abnormally, stop the engine (motor) and check immediately for the cause. Vibration is generally a warning of trouble.
- e) Stop the engine (motor) whenever you leave the operating position, before unclogging the collector/ impeller housing or discharge chute, and when making any repairs, adjustments or inspections.
- f) Do not run the engine indoors, except when starting the engine and for transporting the snow thrower in or out of the building. Open the outside doors; exhaust fumes are dangerous.
- g) Exercise extreme caution when operating on slopes.
- h) Never operate the machine without proper guards and other safety protective devices in place and working.
- i) Never direct the discharge toward people or areas where property damage can occur. Keep children and others away.
- j) Do not overload the machine capacity by attempting to clear snow at too fast a rate.

- k) Never operate the machine at high transport speeds on slippery surfaces. Look behind and use care when operating in reverse.
- l) Disengage power to the collector/impeller when the machine is transported or not in use.
- m) Use only attachments and accessories approved by the manufacturer of the machine (such as wheel weights, counterweights or cabs).
- n) Never operate the machine without good visibility or light. Always be sure of your footing, and keep a firm hold on the handles. Walk; never run.
- o) Never touch a hot engine or muffler.








Clearing a clogged discharge chute






- a) Hand contact with the rotating impeller inside the discharge chute is the most common cause of injury associated with snow throwers. Never use your hand to clean out the discharge chute.
- b) To clear the chute:
 - 1) SHUT THE ENGINE OFF!
 - 2) Wait 10 s to be sure the impeller blades have stopped rotating.
 - 3) Always use a clean-out tool, not your hands.

Maintenance and storage

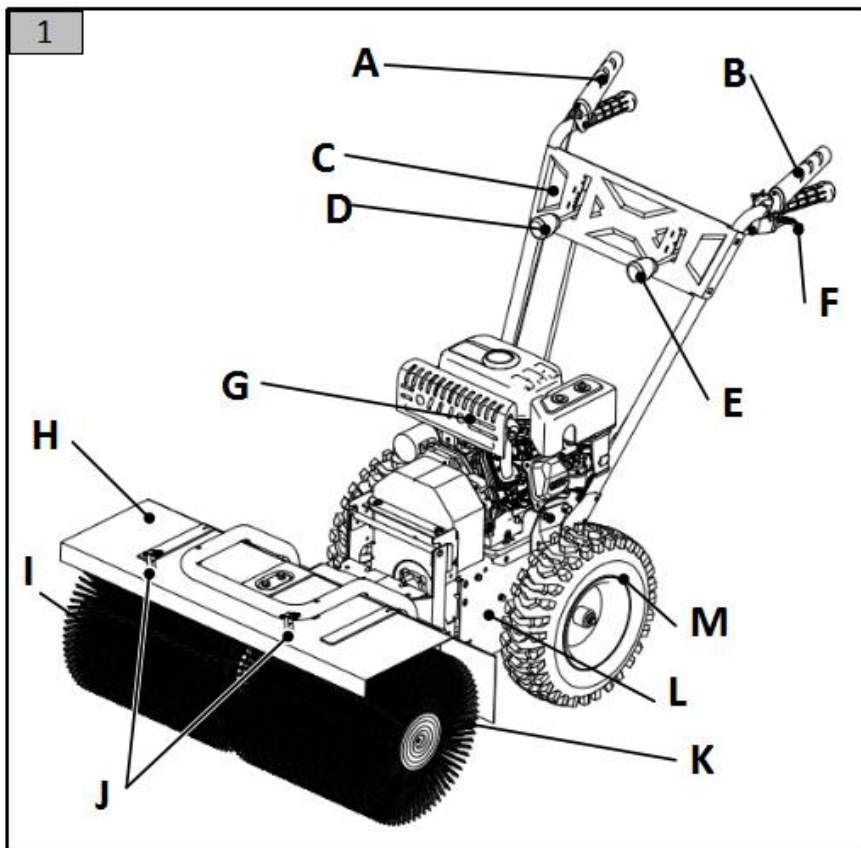
- a) Check shear bolts and other bolts at frequent intervals for proper tightness to be sure the equipment is in safe working condition.
- b) Never store the machine with fuel in the fuel tank inside a building where ignition sources are present such as hot water heaters, space heaters or clothes dryers. Allow the engine to cool before storing in any enclosure.
- c) Always refer to instruction handbook for important details if the snow thrower is to be stored for an extended period.
- d) Maintain or replace safety labels, as necessary.
- e) Run the machine a few minutes after throwing snow to prevent freeze-up of the collector/impeller.

SYMBOLS

	WARNING!
 	WARNING! Read the instructions before operating the machine.
	DANGER! Ejected objects. Do not turn the brush towards onlookers or animals.
	DANGER! Keep people, children and animals away from the work area.
 	Toxic fumes; do not operate inside house.

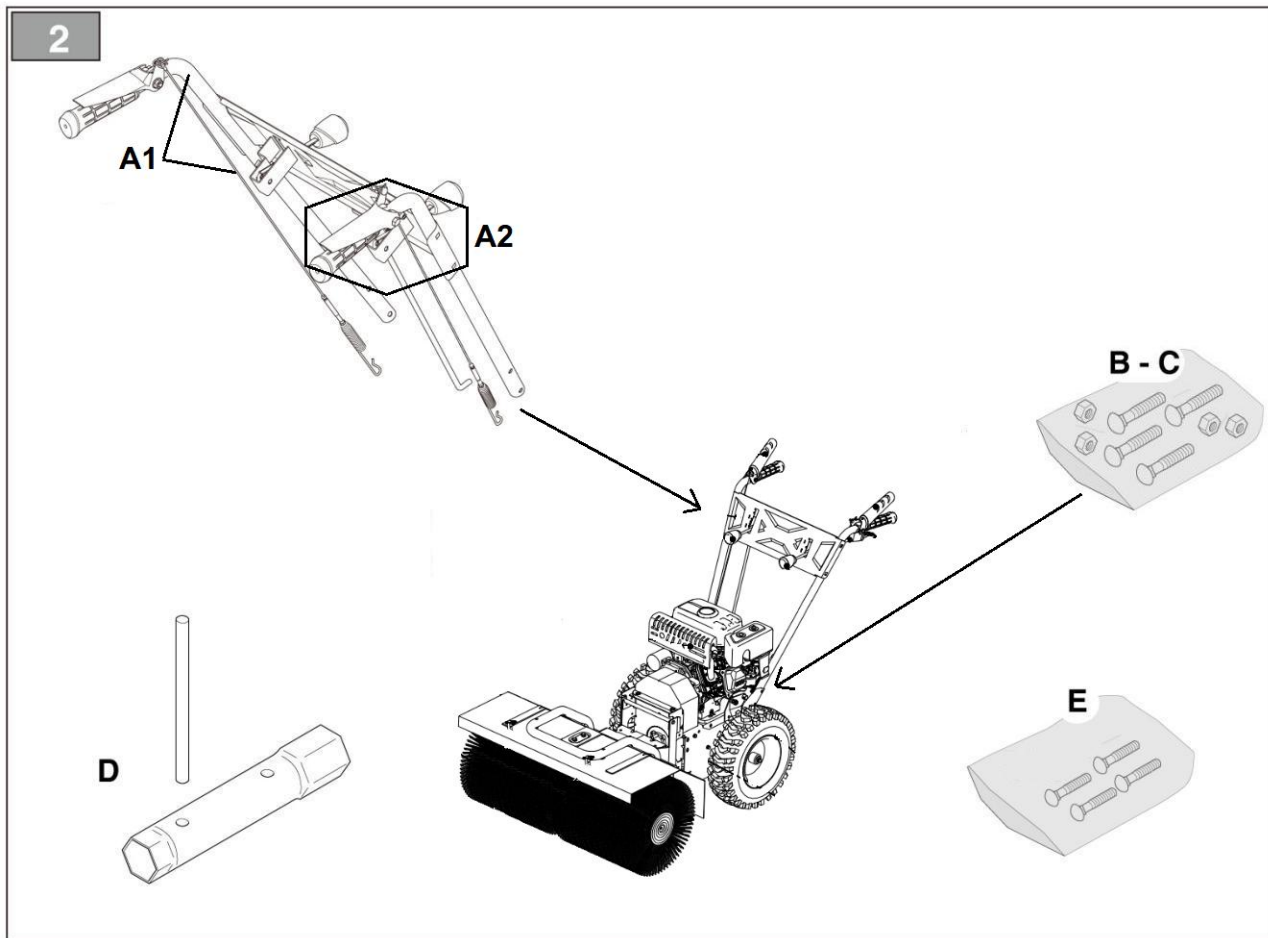
	Wear protective foot wear.
	Wear protective gloves.
	Unplug the spark plug before maintenance and repair. Read the instruction manual.
	DANGER! Always use hearing protectors. Wear ear protection against noise! Always use eye protectors. Wear eye protections.
	Guarantee sound power level.

2. MAIN COMPONENTS



- A. Brush control lever
- B. Drive control lever
- C. Dashboard
- D. Gear position
- E. Brush direction
- F. Unlock control lever
- G. Fuel tank
- H. Brush safety guard
- I. Brush
- J. Fixing accessories equipment
- K. Caster wheels
- L. Transmission box
- M. Wheel

3. PACKAGE CONTENTS



Pos.	Description	Qty
A1	Handle with pre-installed rods and wires	1
A2	Separate handle with bolts	1
B	Handle fastening screws	4
C	Handle fastening bolts	4
D	Spark plug removal key	1
E	Nuts and bolts	4

NOTES:

1. Cautiously open the packaging, paying attention not to lose components.
2. Consult the documentation in the box, including these instructions.
3. Remove all the unassembled parts from the box.
4. Remove the machine from the box.
5. Dispose of the box and packaging in compliance with local regulations.

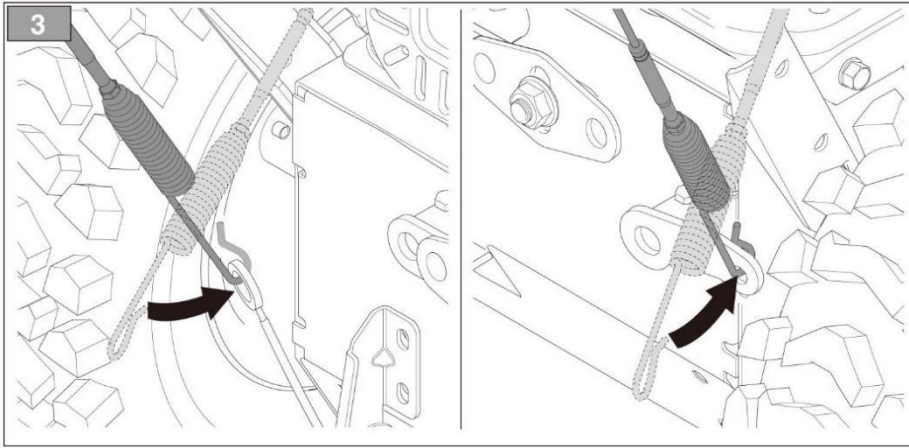
4. ASSEMBLY

Please note that during assembly, maybe you'll need a helper!

1. Forward and brush control cable assembly

Couple the cable eyelet to the specific opening (fig. 3).

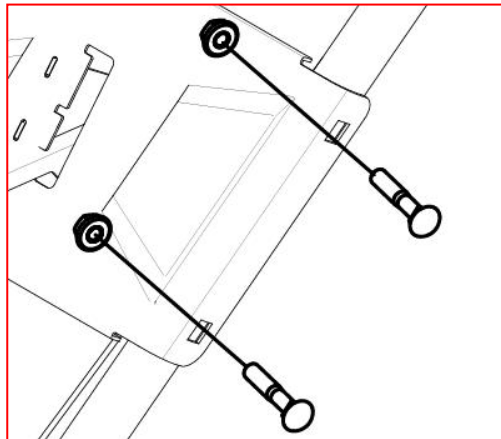
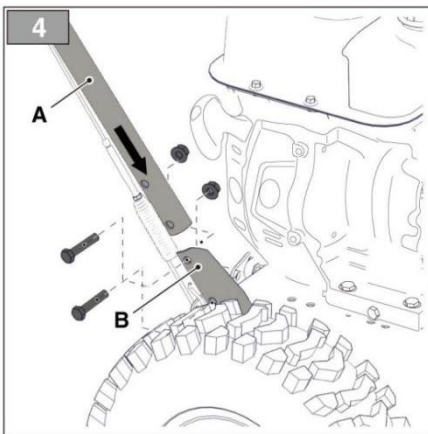
NOTE: *The cables are already pre-assembled on the dashboard.*



2. Handle assembly

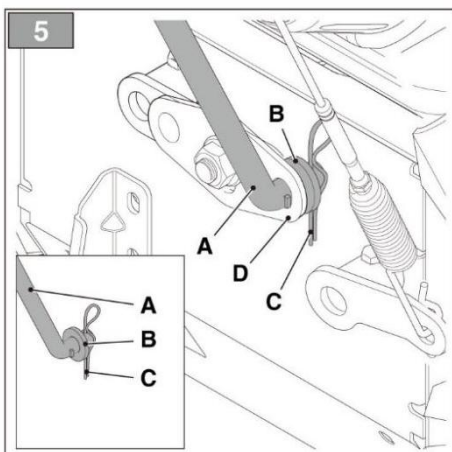
The dashboard is delivered with one handle disassembled. The machine handle assembly screws, gear control fastening screws and nuts and bolts to secure the brush directional control are delivered in a separate package found in the machine packaging. Install as follows:

- a) Install the separate handle to dashboard by fixing two bolts.
- b) Bring the two tubes at the ends of the handle (fig. 4.A) up to the support (fig. 4.B).
- c) Insert the screws in the holes and secure in place with the nuts.



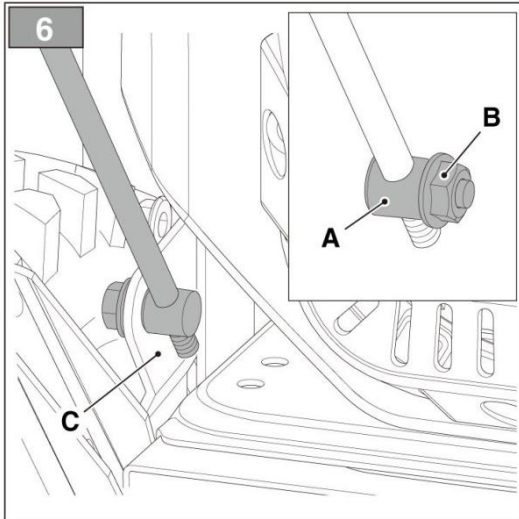
3. Installation of the gear control

- a) Remove the previously assembled articulated joint (fig. 5.A) on the washer gear control (fig. 5.B) and nut (fig. 5.C).
- b) Insert the articulated joint (fig. 5.A) of the gear control in the hole on the lever (fig. 5.D) to connect it to the transmission.
- c) Secure the washer (fig. 5.B) and nut (fig. 5.C).



4. Brush directional control assembly

- a) Remove the previously assembled articulated joint (fig. 6.A) on the brush directional control nut (fig. 6.B).
- b) Insert the articulated joint (fig. 6.A) on the brush directional control in the lever hole (fig. 6.C) to connect it to the drive.
- c) Secure the nut (fig. 6.B).



5. OPERATION

ENGINE OPERATION

NOTICE: THE MOTOR IS DELIVERED WITHOUT OIL AND GASOLINE.

Oil Filling

Place the motor in a horizontal position. Remove the plug and fill with oil right to the edge. (Fig.7)

Fuel

Use lowest available octane unleaded fuel. When filling, place the machine in a horizontal position. Always replace old fuel. Always stop the motor when fueling. Never fill up with fuel on a hot motor. Never use gasoline mixed with oil.

Operation - Start and Stop

Cold Motor

Activate the motor choke. Set the throttle control on full speed. (Figure 8) first, pull the starting rope a couple of times, shortly, until it feels tight. Pull the starting rope slowly to the point where it feels tight, place your left hand on the motor in order to hold back, and pull the starting rope hard once. For electric start, Plug the extension cord into the outlet located on the engine's surface. Plug the other end of extension cord into a 230-volt, grounded, AC outlet in a well-ventilated area. Set the throttle control on full speed (Figure 8). then push start button to start engine. When the motor runs, deactivate the choke.

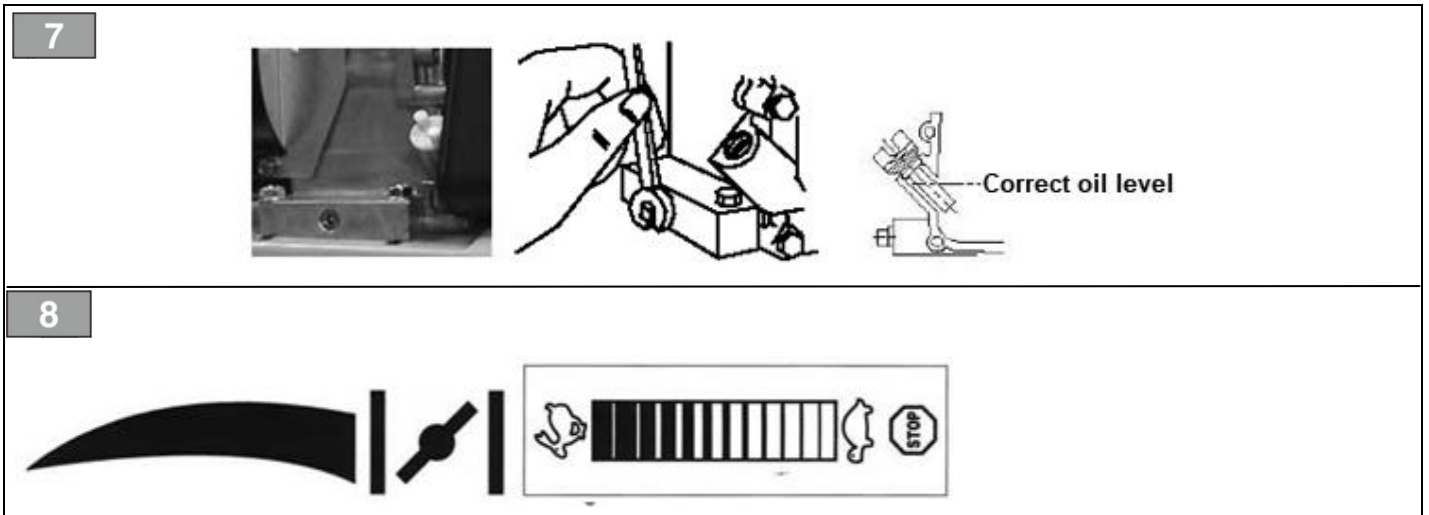
NOTICE: NEVER LET THE STARTING ROPE WIND AGAIN BY ITSELF.

Follow it all the way back with your hand. If the motor will not run in spite of several attempts this may be caused by the fact that there is too much fuel in the cylinder/carburetor, and that the spark plug has become moist. Remove the plug and wipe it off.

Stop the Motor

Set the throttle control in position "Stop". Set the throttle lever to idle and let the motor run for 12-20 seconds before the lever is moved to stop. Never leave the sweeper without stopping the motor.

NOTICE: Do not turn off the motor by switching on the choke, as this may result in damage to the motor.



MACHINE OPERATION



CAUTION

A SWEEPER IS A DEMANDING MACHINE.

Only fully trained operators or trainee operators under supervision of a fully trained person should use this machine.

Before operating sweeper:

- Operate sweeper controls in an off-road location.
- Be sure that you are in a safe area, away from traffic or other hazards.
- Check all hardware making sure it is tight.
- Replace any damaged or fatigued hardware with properly rated fasteners.
- Check tire pressure before sweeping.
- Remove from the sweeping area all property that could be damaged by flying debris.
- Be sure all persons not operating the sweeper are clear of the sweeper discharge area protection; and a dust mask.
- Always wear proper apparel such as a long sleeved shirt buttoned at the cuffs; safety glasses goggles or a face shield; ear protection; and a dust mask.

While operating sweeper



DANGER

FALL HAZARD - DO NOT OPERATE NEAR UNGUARDED EDGES.

- This sweeper is not intended for roof top use.
- When operating sweeper, adhere to all government rules, local laws and other professional guidelines for your sweeping application.
- Minimize flying debris - use the slowest rotating speed that will do the job.
- Keep hands, feet, hair and other loose clothing away from all moving parts.
- Before leaving the operator's position for any reason stop engine.

NOTICE: AVOID TRANSMISSION DAMAGE. Do not shift while in motion.



WARNING

Leave the brush hood (shield) and all other shields and safety equipment in place when operating

the sweeper.

- When sweeping on rough terrain, reduce speed to avoid “bouncing” the sweeper. Loss of control can result.
- Never sweep toward people, buildings, vehicles or other objects that can be damaged by flying debris.
- Only operate the controls while the engine is running.
- While you operate the sweeper slowly in an open area, check for proper operation of all controls and all protective devices. Note any repairs needed during operation of the sweeper. Report any needed repairs.

Before each use

Perform daily maintenance as indicated in Maintenance Schedule.

Run the sweeper at a low idle, check for proper brush rotation and drive engagement.



WARNING

AVOID SERIOUS INJURY.

Check for large objects that could harm the operator or others if thrown by the sweeper. Remove these items before operating.

During use

Directing Debris

- Avoid excessive downward pressure on the brush sections to prevent excessive wear. A two to four inch wide pattern is sufficient for most applications.
- Direct debris by angling the brush head in that direction.
- Observe wind direction. Sweeping with the wind makes sweeping more effective and helps keep debris off the operator.
- The terms swing and angle are used interchangeably.

Brush Direction

The brush direction is regulated by a lever (fig. 9B) that tilts it in the required direction. Move the lever forward or rear in one of the 3 available positions to tilt the brush.

- **Lever forward** = 15° to the right.
- **Lever central** = 0° no tilt.
- **Lever rear** = 15° to the left.

Sweeping

To sweep:

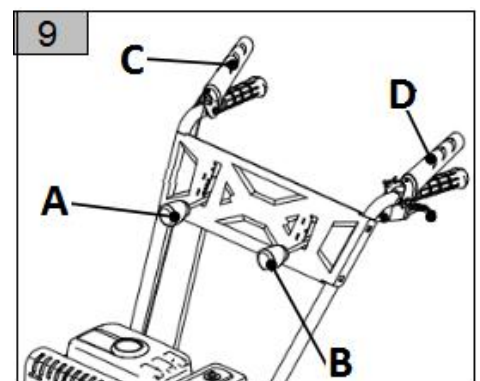
1. Turn the handle (fig. 9A) to control Forward and Rear.
2. Turn the brush directional control (fig. 9 B) to the required position. (See Brush Direction)
3. Set the gear depending on the route and the amount of material to be swept.
4. Engage the brush drive. (fig. 9C)
5. Engage the traction drive. (fig. 9D)

NOTICE: AVOID SWEEPER DAMAGE. Reduce travel speed to avoid hitting immovable objects.

The sweeper is equipped with an instant shutoff, when you release the levers, the brush and machine stop.

Operating Tips

NOTICE: AVOID SWEEPER DAMAGE. Do not ram into piles.



Large areas

- For uneven or dirt surfaces, reduce speed to avoid jogging the brush and damaging it.
- Sweep creating a central passage dividing the area in 2 parts and then sweeping the remaining areas. This reduces the load on the brush.

Snow

- Snow is removed more easily when it is still fresh. Pass back over the already cleared zones to remove snow residue.
- If possible, clear the snow in the direction of the wind. Check the distance and the direction of the removed snow.
- Reduce the engine rotations before stopping it.

Dirt & Gravel

- To reduce the amount of dust lifted when sweeping, work at low brush speed. If possible, also work on damp or cloudy days or after it rains.
- For gravel, adjust the height of the brush to avoid throwing them and causing potential damages.

Heavy Debris

- Reduce forward speed and work without using the entire machine working width.



WARNING

SAFELY OPERATE EQUIPMENT

Do not operate equipment until you are completely trained by a qualified operator in how to use the controls, know its capabilities, dimensions, and all safety requirements.

- Keep all step plates; grab bars, pedals, and controls free of dirt, grease, debris, and oil.
- Never allow anyone to be around the equipment when it is operating.
- Do not allow riders on the attachment or the prime mover.
- Do not operate the equipment from anywhere other than the correct operators position.
- Never leave equipment unattended with the engine running or with this attachment in a raise position.
- Do not alter or remove any safety feature from the prime mover or this attachment.
- Know your work site safety rules as well as traffic rules and flow. When in doubt on any safety issue, contact your supervisor or safety coordinator for an explanation.



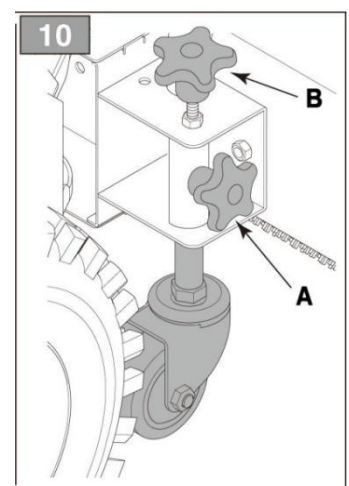
WARNING

IN AN EMERGENCY, RELEASE LEVERS AS QUICKLY AS POSSIBLE AND STOP THE ENGINE.

Height adjustment of Caster Wheels & Brushes

Once the brushes get worn it is necessary to adjust the height of the brushes, i.e. how close they are to the surface to sweep. This adjustment takes place by moving the plastic rings of the brush caster wheels. See as follows:

1. Loosen the side knob (fig. 10.A);
2. Rotate the upper knob (fig. 10.B) in clockwise / anticlockwise to lift / lower the small wheels;
3. Fix the side knob (fig. 10.A);



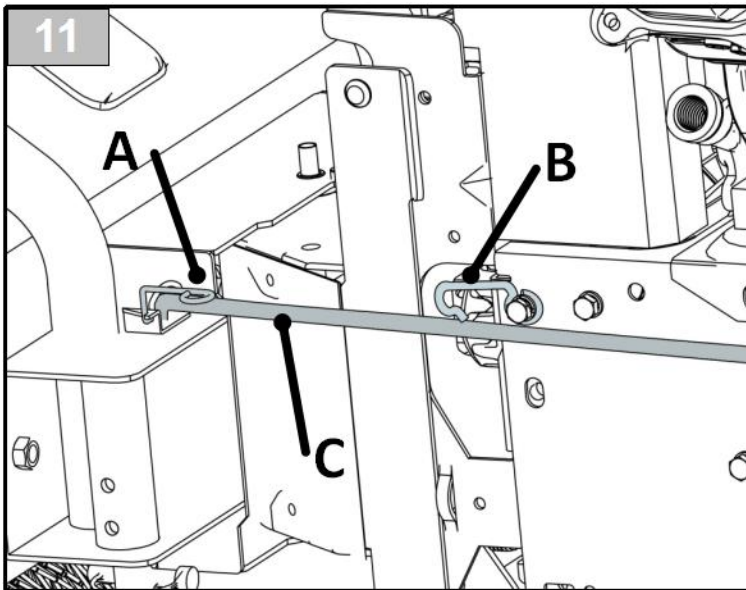
6. CHANGE ATTACHMENTS

If what you bought is multi-function sweeper & snow thrower, you should change the function by yourself. Please check below steps for success assembly work.

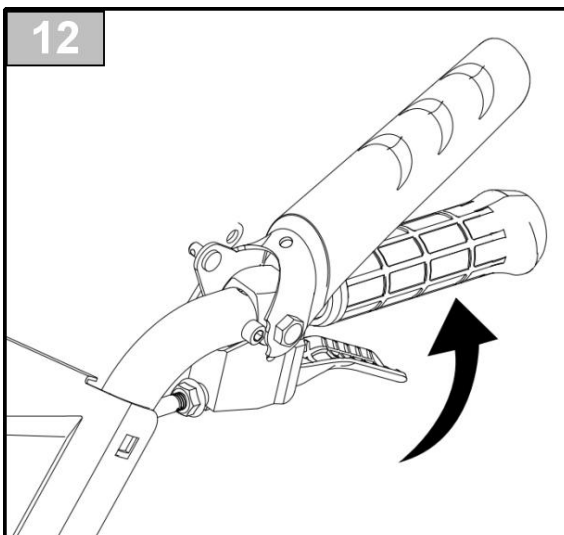
To Separate Engine part and Attachments (Sweeper / Snow thrower head)

1. If the attachment on the machine is sweeper, please do following first:
 - a) Pull the hook (fig.11 A) upward to release the direction bar;
 - b) Pull the direction bar (fig.11 C) out from the hole.
 - c) Click the direction bar (fig.11 C) into hook (fig.11 B) to avoid its moving.

If the attachment on the machine is snow thrower, please skip this step.

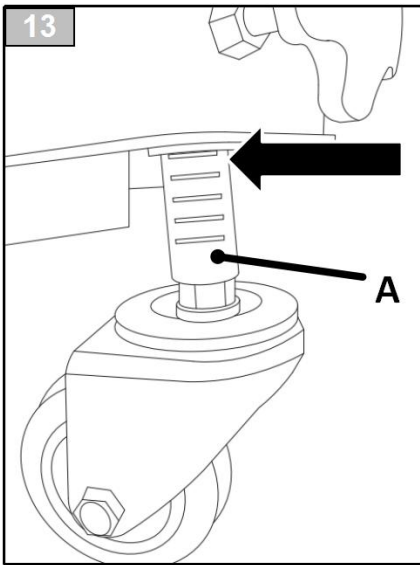


2. Grasp the red lock control lever under left handle. Raise up the engine part to release attachment (fig.12).

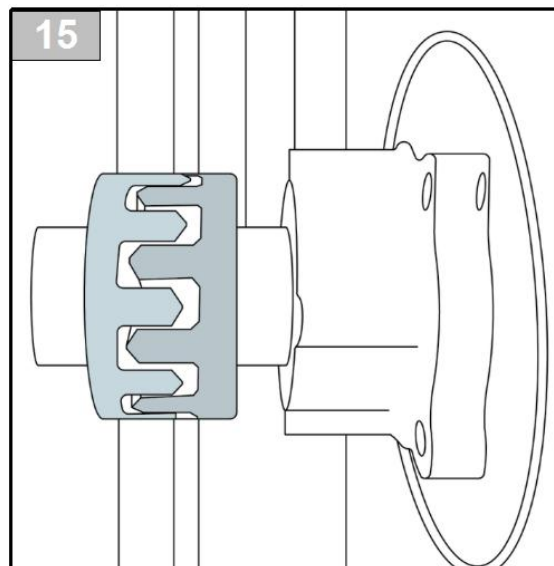
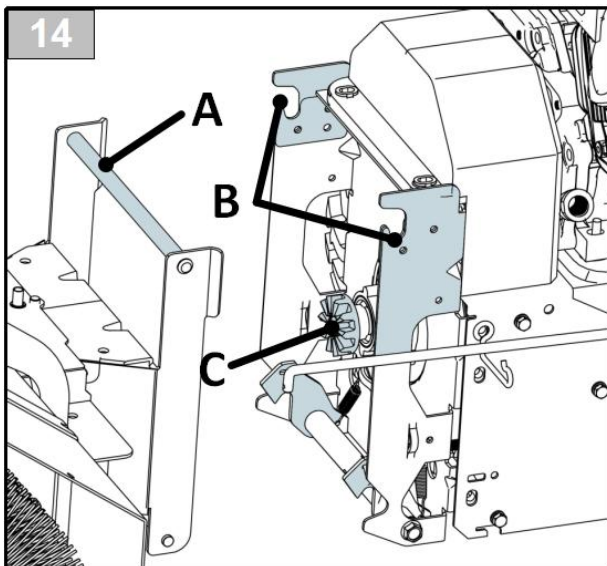


To Connect Engine part with Attachments (Sweeper / Snow thrower head)

1. Put the sweeper / snow thrower head on an open area.
2. If you are going to connect sweeper head, please make sure that both caster wheels (fig.13A) are in fifth groove.



3. Hold the handle of the engine part, and move it towards the attachment.
4. Lower the engine part to make the bar (fig.14A) go into the two hooks (fig.14B) to interlock gears of two parts (fig.14C) as shown in fig.15. Please note that during this period, do not grasp the red lock control lever as shown in fig. 12.



5. If you are connecting snow thrower head, it's OK for working now.
6. If you are connecting sweeper head, you have to continue the following steps:
 - a) Remove the direction bar (fig.11 C) from the hook (fig.11 B).
 - b) Press the direction bar (fig.11 C) to the hole on the sweeper head.
 - c) Press down the hook (fig.11 A) to fix the direction bar (fig.11 C).

Then your sweeper is workable now.

7. SERVICE & REPAIR - GENERAL

- Repair or adjust the sweeper in a safe area, away from traffic and other hazards.
- Before adjusting or servicing remove spark plug wire from spark plug.

8. STORAGE

NOTICE:

- Do not store the sweeper with weight on the brush. Weight will deform the bristles, destroying the sweeping effectiveness.
- Do not store polypropylene brushes in direct sunlight. The material can deteriorate and crumble before the bristles are worn out.
- Keep polypropylene brush material away from intense heat or flame.

9. TROUBLESHOOTING

The engine does not start	Check whether oil has entered into the carburetor.
	Plug out the spark plug cap and check whether it ignites.
	Check whether the oil level is too low.
	Check whether the cylinder pressure is normal.
The engine burns engine oil	Check the oil volume to make sure that the oil level is not above the calibration of the dipstick.
	Check whether the reed valve works normally (whether the reeds fit properly and can reset freely).
	Check whether the piston ring is worn.
The engine stalled suddenly.	Check whether the igniter is damaged or the flameout wire is grounded.
	Check that the fuel inlet is not smooth or there is no fuel.
Insufficient power of the engine	Check whether the engine fuel is normal or not.
	Check whether the rotating speed of the engine is too low.
	Check whether the air valve clearance is correct (the inlet air valve clearance is 0.1-0.15mm. The outlet air valve clearance is 0.15-0.2mm).
	Check the air intake system is for air leakage or air filter blockage.
	Check the piston rings for wear.
The brushes will not rotate	Check whether the belt coupling is adjusted correctly.
	Check whether the v-belt is defective
The machine will not run	Make sure that the belt coupling is adjusted correctly
The machine does not sweep effectively	Check whether the v-belt is defective
	Check whether the brush distance to the surface is set correctly

10. MAINTENANCE

MAINTENANCE SCHEDULE

PROCEDURES	BEFORE EACH USE	25 HOURS	100 HOURS	AFTER EACH USE
Hardware - Inspect & tighten	✓			
Engine & Air Filter - check & clean if necessary	✓			
Oil, engine - check level	✓			
Wash Unit - Remove Grease & Debris				✓

Maintenance

If you need to change the belts, please contact the distributor or local agent. Do not change them by yourself.

Residual risks

Even when the machine is used as prescribed it is not possible to eliminate all residual risk factors. The following hazards may arise in connection with the power tool's construction and design:

1. Damage to lungs if an effective dust mask is not worn.
2. Damage to hearing if effective hearing protection is not worn.
3. Damages to health resulting from vibration emission if the power tool is being used over longer period of time or not adequately managed and properly maintained.

WARNING

This machine produces an electromagnetic field during operation. This field may under some circumstances interfere with active or passive medical implants. To reduce the risk of serious or fatal injury, we recommend persons with medical implants to consult their physician and the medical implant manufacturer before operating this machine.

Replace Engine Oil in Crankcase

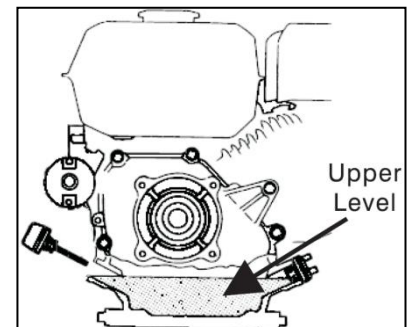
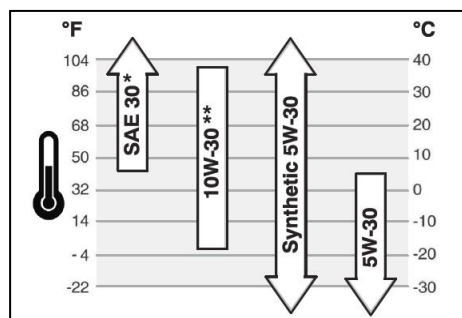
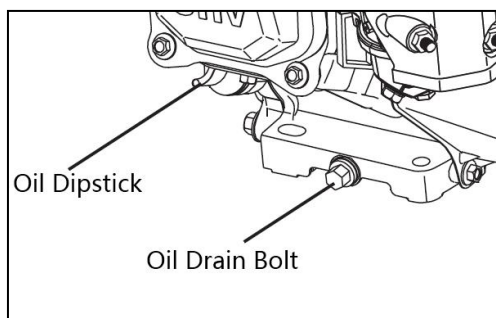
To avoid engine damage, it is important to:

- Check oil level before each use and every five operating hours.
- Change oil after first two operating hours and every 25 operating hours thereafter.

1. Be sure the gas cap is on and is tighten securely.
2. Clean area around oil drain plug.
3. Place approved recyclable oil container under oil drain plug.

Note: Used oil must be disposed of at a proper collection center.

4. Take off the oil filler cap and remove the oil drain bolt and washer.
5. After draining the engine oil, fit on the oil drain bolt and washer and tighten them.
6. Place the engine in level position, refill recommended oil to the upper level (Oil capacities: 0.5L).



7. Reinstall the oil dipstick and tighten.
8. Wipe away any spilled oil.

Maintain Air Cleaner

NOTICE: In the case of no element or element damaged, the dust will be sucked into the engine and result in rapid wear of the engine.

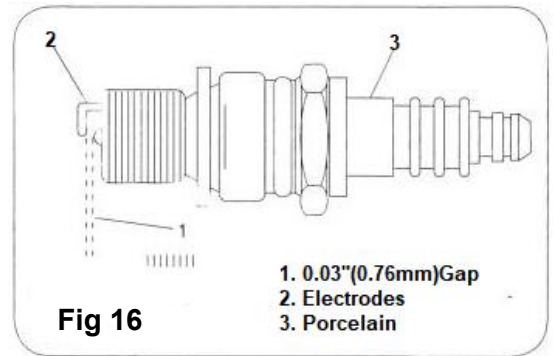
1. Remove the air cleaner cover.
2. Remove element.
3. Check the filter element, clean the filter element and replace the filter element if it's damaged.
4. Clean the air filter base and the air filter cover. Dust should be prevented from entering the intake port leading to the carburetor.

5. Install the foam filter element, and then cover the filter cover over the top.

Checking Spark Plug

Check spark plug yearly or every 100 operating hours

1. Clean area around spark plug.
2. Remove and inspect spark plug.
3. Replace spark plug if porcelain is cracked or if electrodes are pitted, burned or fouled with deposits.
4. Check electrode gap with a feeler gauge and set gap to 0.030(0.76mm)if necessary. see Fig 16.
5. Re-install spark plug and tighten securely



NOTE: A resistor spark plug must be used for replacement. Contact the distributor or local agent for a replacement spark plug.

Carburetor

If you suspect your carburetor needs adjusted, contact the distributor or local agent, engine performance should not be affected at altitudes up to 7000 feet (2134 meters). For operation at higher elevations, contact the distributor or local agent.

Engine Speed

WARNING: Avoid serious injury or death, DO NOT modify engine in any way, Tampering with the governor setting can cause the engine and equipment to operate at unsafe speeds. NEVER tamper with factory setting of engine governor. Running the engine faster than the speed set at the factory is dangerous.

Lubrication



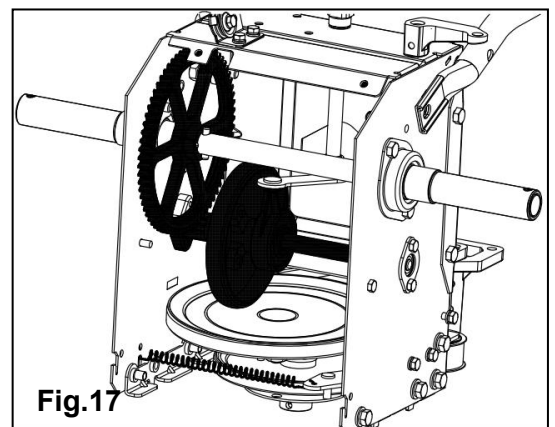
WARNING: Before lubricating, repairing, or inspecting, disengage all controls and stop engine. Wait until all moving parts have come to a complete stop.

Gear Shaft

The gear (hex) shaft should be lubricated at least once a season or after every 25 hours of operation.

1. Remove the lower frame cover by removing the two screws which secure it.
2. Apply a light coating of an all-weather multi-purpose grease to the hex shaft. See Fig 17.

IMPORTANT: Avoid oil spillage on rubber friction



Wheels

At least once a season, remove both wheels. Clean and coat the axles with a multipurpose automotive grease before re-installing wheels.

Gear Case

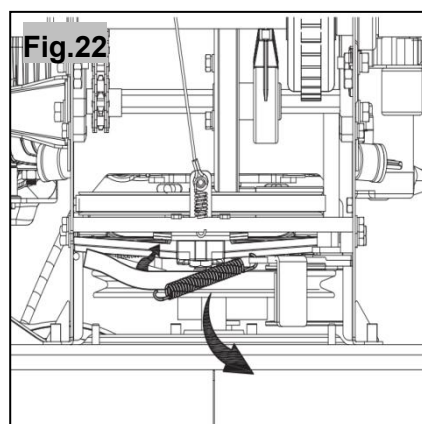
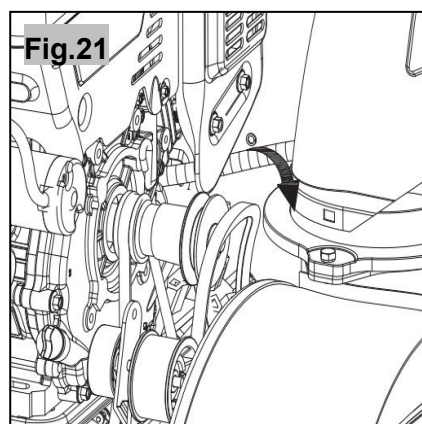
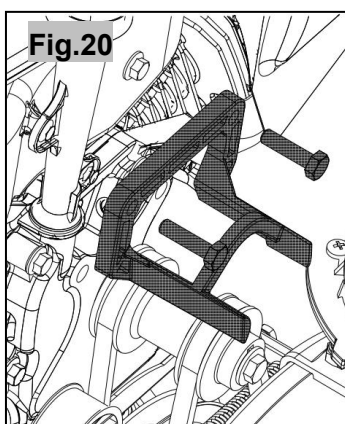
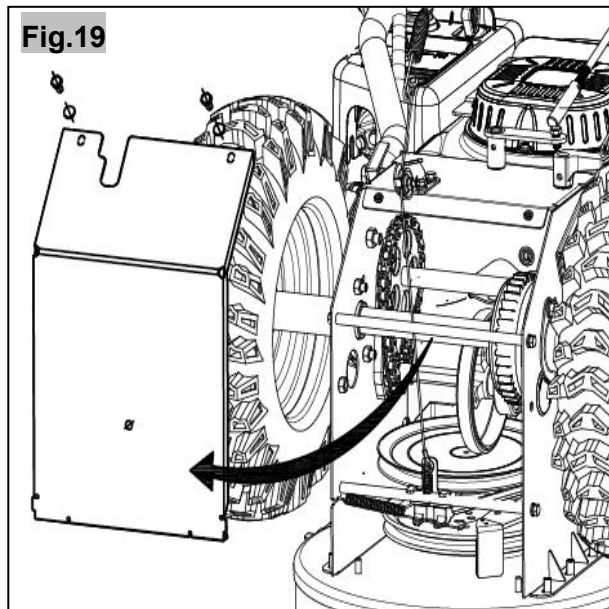
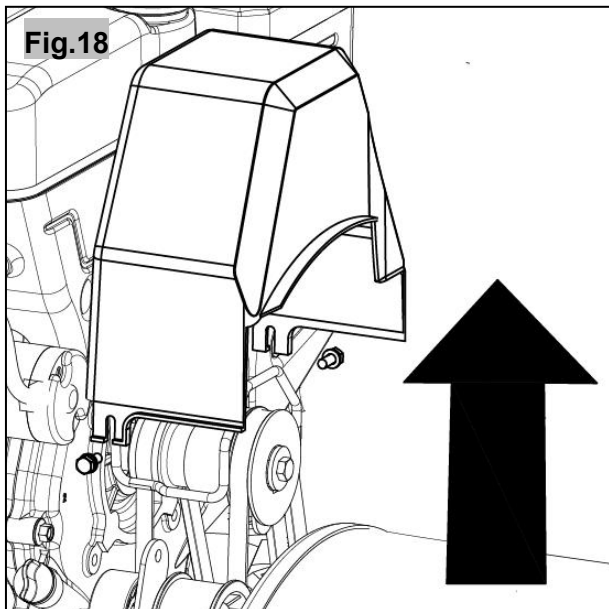
The auger gear case has been filled with grease and sealed at the factory. If disassembled from any reason, lubricate with two ounces of new grease.

NOTE: Do not over fill the gear case. Damage to the seals could result. Be sure the vent plug is free of grease in order to relieve pressure

Brush Belt Replacement

To remove and replace your snow sweeper's brush belt, proceed as follows:

1. Remove the belt cover on the front of the engine by removing the two self-tapping screws. See Fig.18.
NOTE: Drain the gasoline from the snow sweeper, or place of plastic under the gas cap.
2. Carefully pivot the snow sweeper up and forward so that it rests on the auger housing. Remove the frame cover from the underside of the snow sweeper by removing four self-tapping screws which secure it. See Fig.19.
3. Loosen and remove the shoulder screw which acts as a belt keeper. See Fig.20.
4. a. Roll the brush belt off the engine pulley. See Fig.21.
b. Unhook the support bracket spring from the frame. See Fig.22.
5. Remove the belt from around the auger pulley, and slip the belt between the support bracket and the auger pulley. Reassemble brush belt by following instructions in reverse order.
NOTE: Do NOT forget to re-install the shoulder screw and reconnect the spring to the frame after installing a replacement brush belt.



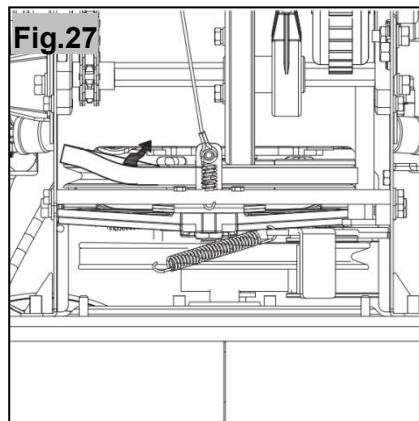
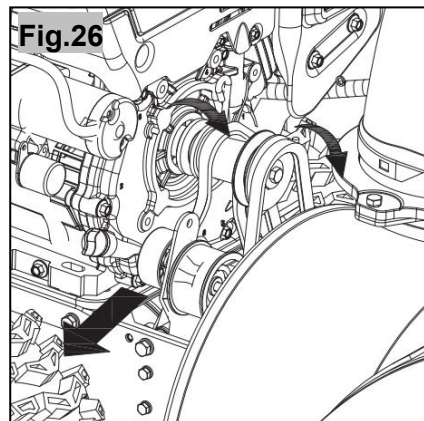
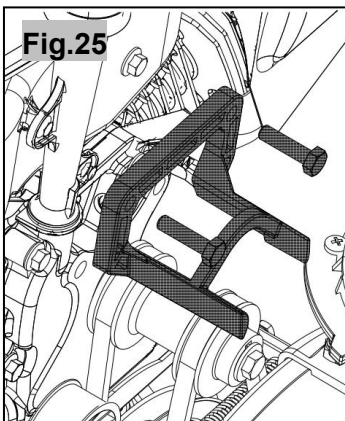
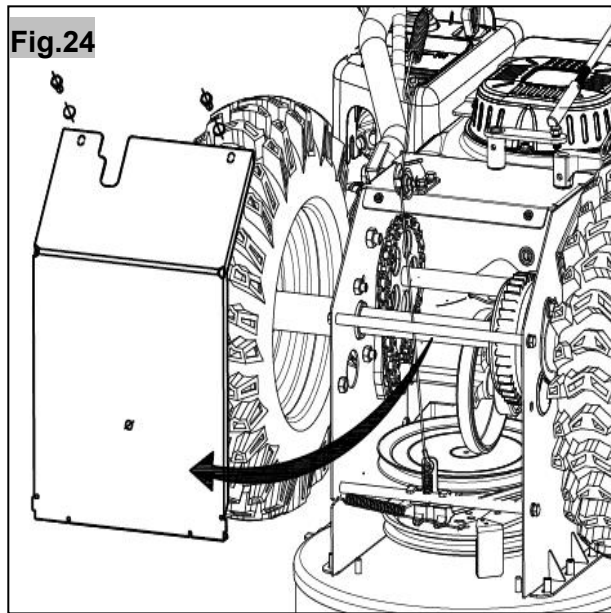
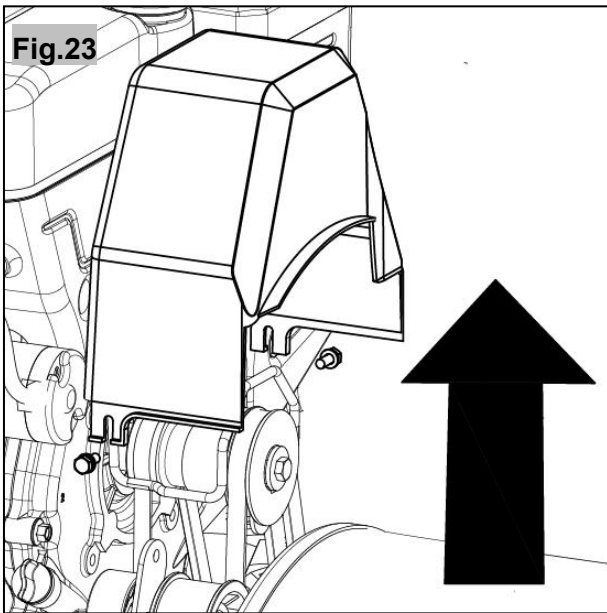
Drive Belt Replacement

To remove and replace your snow sweeper's brush belt, proceed as follows:

1. Remove the belt cover in the front of the engine by removing the two self-tapping screws. See Fig. 23.

NOTE: Drain the gasoline from the snow sweeper or place a piece of plastic under the gas cap.

2. Carefully pivot the snow sweeper up and forward so that it rests on the auger housing. Remove the frame cover from the underside of the snow sweeper by removing four self-tapping screws which secure it. See Fig.24.
3. Loosen and remove the shoulder screw which acts as a belt keeper. See Fig.25.
4. a. Grasp the idler pulley and pivot it toward the right.
b. Roll the brush belt off the engine pulley.
c. Lift the drive belt off engine pulley. See Fig.26.
5. Slip the drive belt off the pulley and between friction wheel and friction wheel disc. See Fig. 27.
6. **Replace belt in the reverse order.**



Friction Wheel Removal

If the snow sweeper fails to drive with the drive control engaged, and performing the drive control cable adjustment fails to correct the problem, the friction wheel may need to be replaced, Follow the instructions below.

1. Examine the friction wheel for signs of wear or cracking and replace if necessary.
 - Place the shift lever in third Forward (F3) position.
 - Drain the gasoline from the snow sweeper, or place a piece of plastic under the gas cap.
 - Carefully pivot the snow sweeper up and forward so that it rests on the auger housing.
2. Remove the frame cover from the underside of the snow sweeper by removing two self-tapping

screws which secure it .

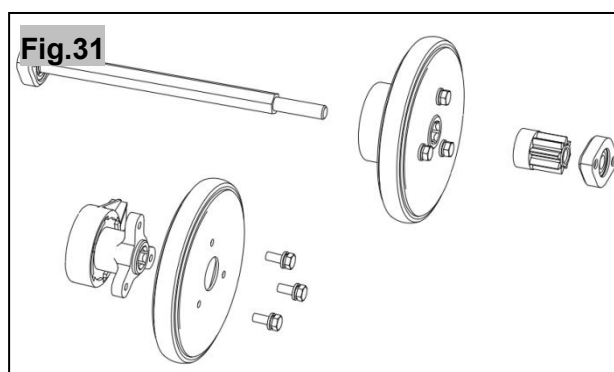
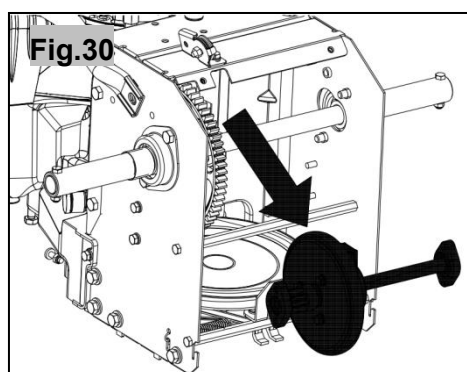
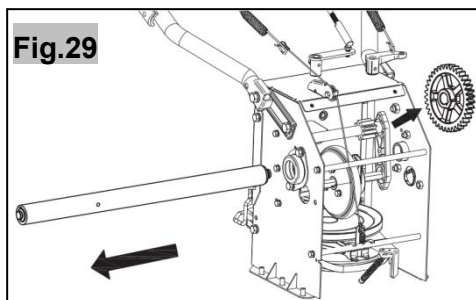
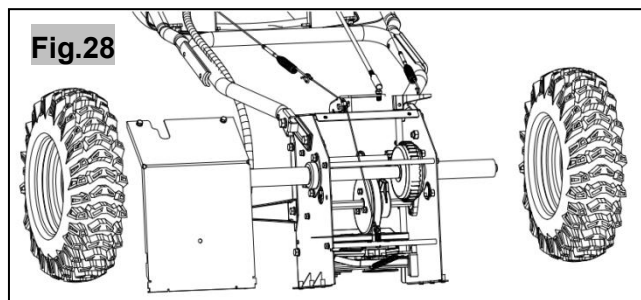
Remove the left and right wheels by removing the snap joints on side of wheels . See Fig.28.

3. Pull out drive shaft. See Fig.29

4. Pull the hex shaft by force, remove the hex shaft and transition shaft assembly off. See Fig. 30.

5. Remove the three screws which secure the friction wheel's side plates together,change the rubber ring only. See Fig.31.

6. Slide the friction wheel assembly back onto the hex shaft and follow the steps above in reverse order to reassemble components.



11. TECHNICAL DATA

Model	FBAE200-2	FBAE200ES-2
Measured sound power level	98.01 dB(A) K= 2,1 dB(A)	98.01 dB(A) K= 2,1 dB(A)
Measured sound pressure level	87,6 dB(A) K= 3 dB(A)	87,6 dB(A) K= 3 dB(A)
Guarantee noise level	100 dB(A)	100 dB(A)
Vibration at the operator position	3.9/4,8m/s ² K=1,5 m/s ²	3.9/4,8m/s ² K=1,5 m/s ²
Net Weight	66 kg	68 kg
Engine power	4,1 kW	4,1 kW
Working width	80 cm (32")	80 cm (32")

Measurement of the noise emission was made according to requirements of the Directive Machine 2006/42/EC and Noise Emission Directive 2000/14/EC amended by 2005/88/EC.

12. DECLARATION OF CONFORMITY



BUILDER SAS

32 rue Aristide Bergès - Z.I. du Casque - 31270 Cugnaux - France

Tel: +33 (0) 5.34.508.508 Fax: +33 (0) 5.34.508.509

Declare that the machine designated below

PETROL SWEEPER

FBAE200-2 / FBAE200ES-2

Serial number: **20230448588-20230448605 (FBAE200-2)**
20230448606-20230448623 (FBAE200ES-2)

Conforms to the provisions of the Machinery Directive 2006/42/EC and the national regulations transposing it;

Electromagnetic Compatibility 2014/30/EU

Emission directive (EU) 2016/1628

Noise Emission Directive 2000/14/EC amended by 2005/88/EC

Measured sound power level: 98.01 dB(A) K= 2,1 dB(A)
--

Guarantee noise level: 100 dB(A)

Also complies with European standards, national standards and the following technical provisions:

EN ISO 12100:2010

EN ISO8437-1:2021; EN ISO8437-2: 2021; EN ISO8437-4: 2021

EN 61000-6-1:2007

EN 55012 :2007+A1

Responsible of technical file: Olivier Patriarca

Cugnaux, 08/03/2023

Philippe MARIE / PDG

13. WARRANTY



WARRANTY

The manufacturer guarantees the product against defects in material and workmanship for a period of 2 years from the date of the original purchase. The warranty only applies if the product is for household use. The warranty does not cover breakdowns due to normal wear and tear.

The manufacturer agrees to replace parts identified as defective by the designated distributor. The manufacturer does not accept responsibility for the replacement of the machine, in whole or in part, and/or ensuing damage.

The warranty does not cover breakdowns due to:

- insufficient maintenance.
- abnormal assembly, adjustment or operations of the product.
- parts subject to normal wear and tear.

The warranty does not extend to:

- shipping and packaging costs.
- using the tool for a purpose other than that for which it was designed.
- the use and maintenance of the machine done in a manner not described in the user manual.

Due to our policy of continuous product improvement, we reserve the right to alter or change specifications without notice. Consequently, the product may be different from the information contained therein, but a modification will be undertaken without notice if it is recognized as an improvement of the preceding characteristic.

READ THE MANUAL CAREFULLY BEFORE USING THE MACHINE.

When ordering spare parts, please indicate the part number or code, you can find this in the spare parts list in this manual. Keep the purchase receipt; without it, the warranty is invalid. To help you with your product, we invite you to contact us by phone or via our website:

- **+33 (0)9.70.75.30.30**
- **<https://services.swap-europe.com/contact>**

You must create a "ticket" via the web platform.

- Register or create your account.
- Indicate the reference of the tool.
- Choose the subject of your request.
- Describe your problem.
- Attach these files: invoice or sales receipt, photo of the identification plate (serial number), photo of the part you need (for example: pins on the transformer plug which are broken).



14. PRODUCT FAILURE

WHAT TO DO IF MY MACHINE BREAKS DOWN?

If you bought your product in a store:

a) Empty the fuel tank if your product has one.

b) Make sure that your machine is complete with all accessories supplied, and clean! If this is not the case, the repairer will refuse the machine.

Go to the store with the complete machine and with the receipt or invoice.

If you bought your product on a website:

a) Empty the fuel tank if your product has one.

b) Make sure that your machine is complete with all accessories supplied, and clean! If this is not the case, the repairer will refuse the machine.

c) Create a SWAP-Europe service ticket on the site: <https://services.swap-europe.com> When making the request on SWAP-Europe, you must attach the invoice and the photo of the nameplate (serial number).

d) Contact the repair station to make sure it is available before dropping of the machine.

Go to the repair station with the complete machine packed, accompanied by the purchase invoice and the station support sheet downloadable after the service request is completed on the SWAP-Europe site

For machines with engine failure from manufacturers BRIGGS & STRATTON, HONDA and RATO, please refer to the following instructions.

Repairs will be done by approved engine manufacturers of these manufacturers, see their site:

- <http://www.briggsandstratton.com/eu/fr>
- <http://www.honda-engines-eu.com/fr/service-network-page;jsessionid=5EE8456CF39CD572AA2AEEDFD290CDAE>
- <https://www.rato-europe.com/it/service-network>

Please keep your original packaging to allow for after-sales service returns or pack your machine with a similar cardboard box of the same dimensions.

For any question concerning our after-sales service you can make a request on our website <https://services.swap-europe.com>

Our hotline remains available at +33 (9) 70 75 30 30.



15. WARRANTY EXCLUSIONS

THE WARRANTY DOES NOT COVER:

- Start-up and setting up of the product.
- Damage resulting from normal wear and tear of the product.
- Damage resulting from improper use of the product.
- Damage resulting from assembly or start-up not in accordance with the user manual.
- Breakdowns related to carburetion beyond 90 days and fouling of carburetors.
- Periodic and standard maintenance events.
- Actions of modification and dismantling that directly void the warranty.
- Products whose original authentication marking (brand, serial number) has been degraded, altered or withdrawn.
- Replacement of consumables.
- The use of non-original parts.
- Breakage of parts following impacts or projections.
- Accessories breakdowns.
- Defects and their consequences linked to any external cause.
- Loss of components and loss due to insufficient screwing.
- Cutting components and any damage related to the loosening of parts.
- Overload or overheating.
- Poor power supply quality: faulty voltage, voltage error, etc.
- Damages resulting from the deprivation of enjoyment of the product during the time necessary for repairs and more generally the costs related to the immobilization of the product.
- The costs of a second opinion established by a third party following an estimate by a SWAP-Europe repair station
- The use of a product which would show a defect or a breakage which was not the subject of an immediate report and/or repair with the services of SWAP-Europe.
- Deterioration linked to transport and storage*.
- Launchers beyond 90 days.
- Oil, petrol, grease.
- Damages related to the use of non-compliant fuels or lubricants.

* In accordance with transport legislation, damage related to transport must be declared to carriers within 48 hours maximum after observation by registered letter with acknowledgement of receipt.

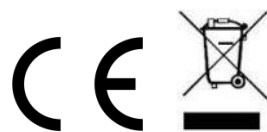
This document is a supplement to your notice, a non-exhaustive list.

Attention: all orders must be checked in the presence of the delivery person. In case of refusal by the delivery person, it you must simply refuse the delivery and notify your refusal.

Reminder: the reserves do not exclude the notification by registered letter with acknowledgement within 72 hours.

Information:

Thermal devices must be wintered each season (service available on the SWAP-Europe site). Batteries must be charged before being stored.



BUILDER SAS

32 rue Aristide Bergès - Z.I. du Casque - 31270 Cugnaux - France

Made in PRC