

POWERED BY

DUCCAR

PROPULSÉ PAR

POWER BRUSH DUEPB24 & DUEPB32



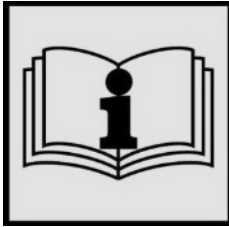
OWNER'S MANUAL

FOR YOUR SAFETY
READ AND UNDERSTAND THE ENTIRE MANUAL
BEFORE OPERATING THIS MACHINE

HAZARD SYMBOLS AND MEANINGS



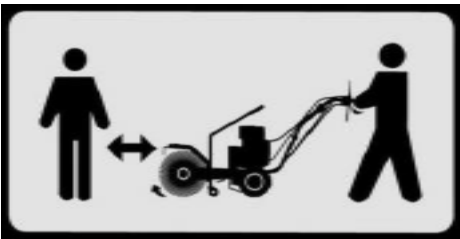
WARNING!



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.



DANGER! Keep hands and feet away from rotating parts.



DANGER! Always use hearing protectors. Wear eye protections.



DANGER! Risk of fire or explosion. Do not smoke, do not use open flames or ignition.

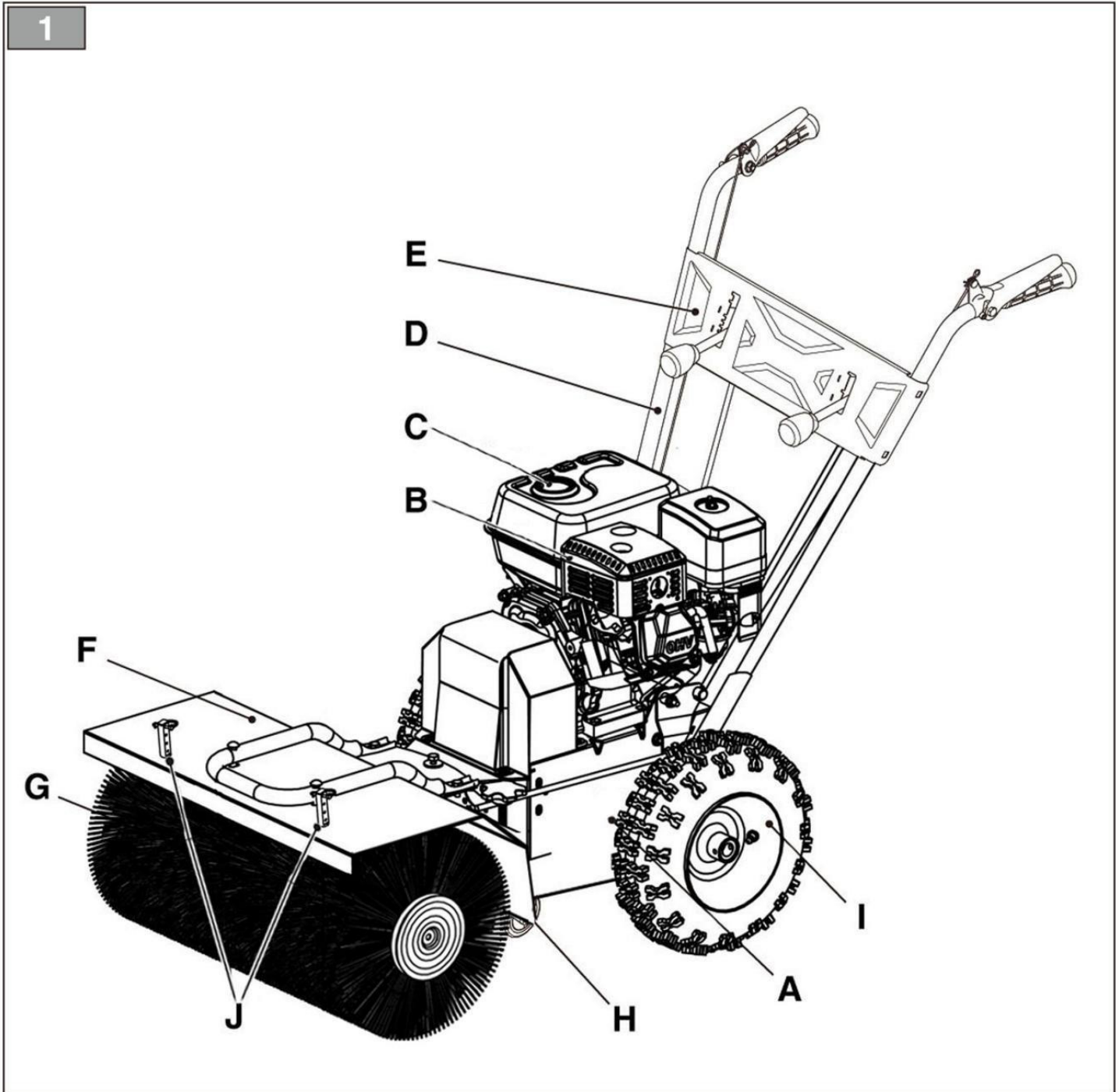
INTRODUCTION



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 the power brush

This power brush is designed solely for the use in clean up, maintenance and similar And please note that it's NOT for small stone cleaning,to avoid the injury.



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 and the prime Movers 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.

GENERAL SAFETY PRECAUTIONS

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. See your prime movers manual for these instructions.

- 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.

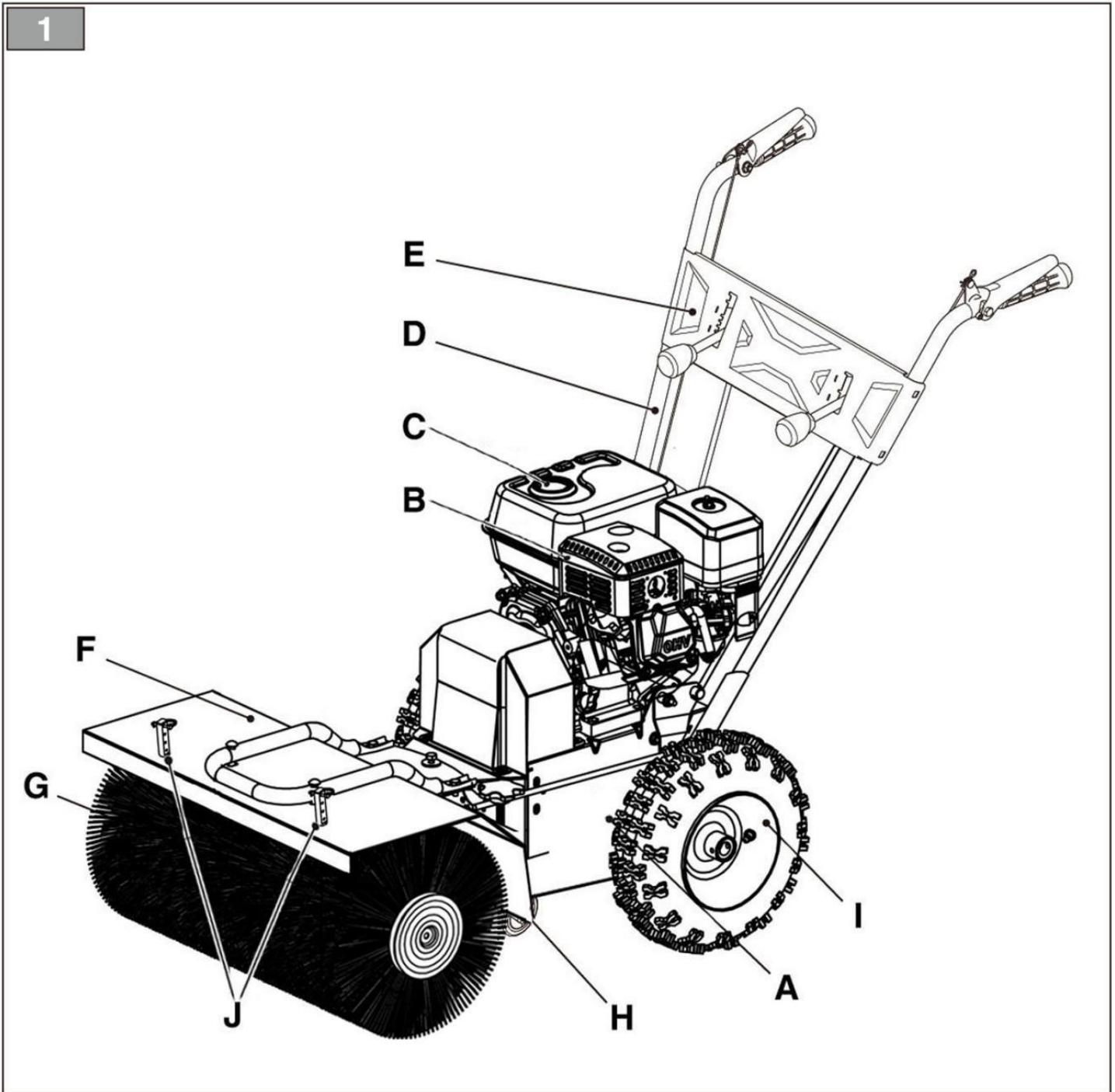


WARNING

FALL HAZARD DO NOT OPERATE NEAR UNGUARDED EDGES.

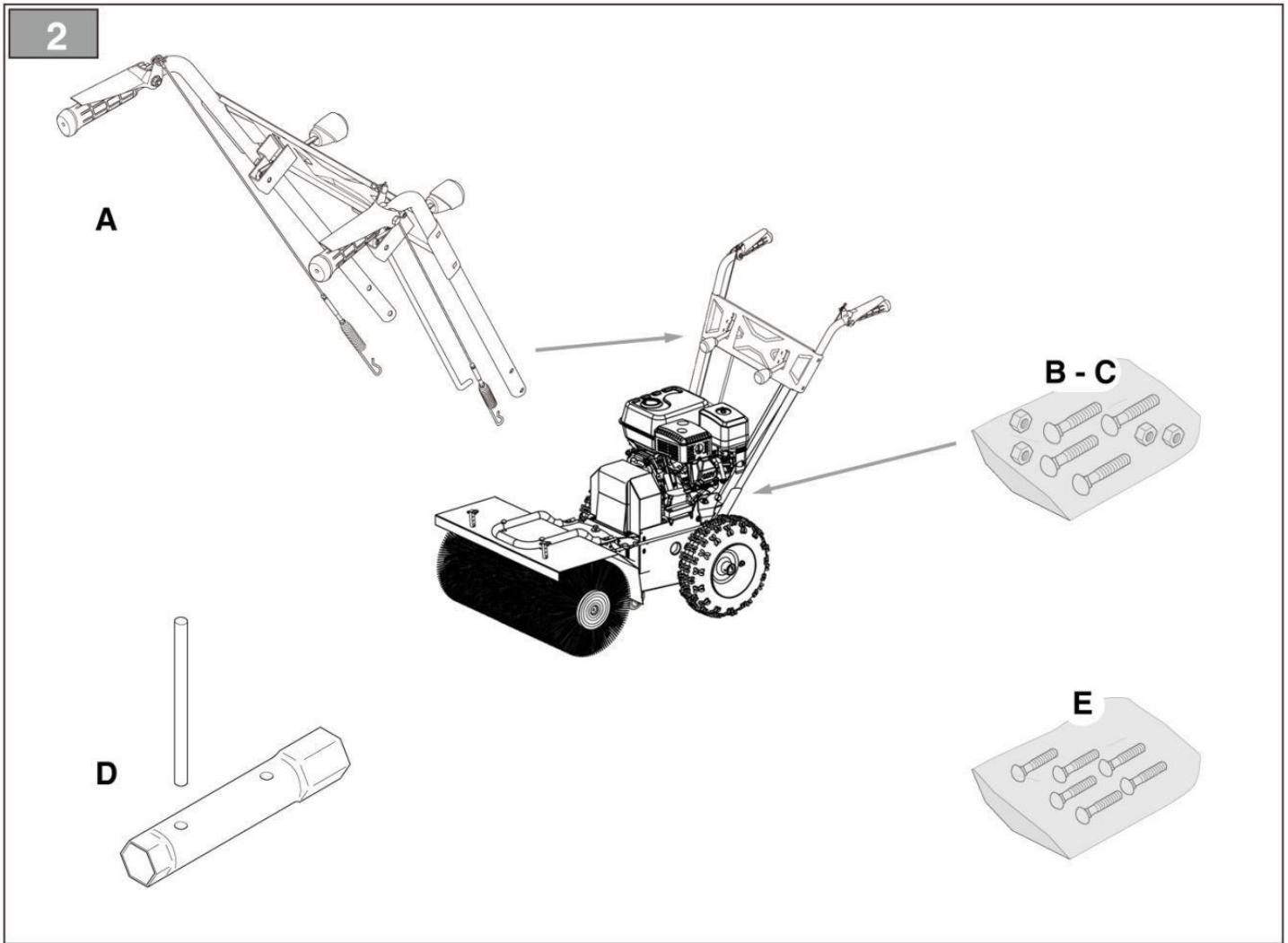
- This power brush is NOT intended for roof top use.
- When operating power brush, adhere to all government rules, local laws and other professional guidelines for your sweeping application.

MAIN COMPONENTS



- A. Chassis
- B. Engine
- C. Fuel Tank
- D. Handle
- E. Dashboard
- F. Brush Safety Guard
- G. Brush
- H. Caster Wheels
- I. Wheel
- J. Fixing accessories equipments

PACKAGE CONTENTS



POS.	Description	Qty
A	Handle with pre-installed rods and wires	1
B	Handle fastening screws	4
C	Handle fastening bolts	4
D	Spark plug removal key	1
E	Nuts and bolts	1

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.

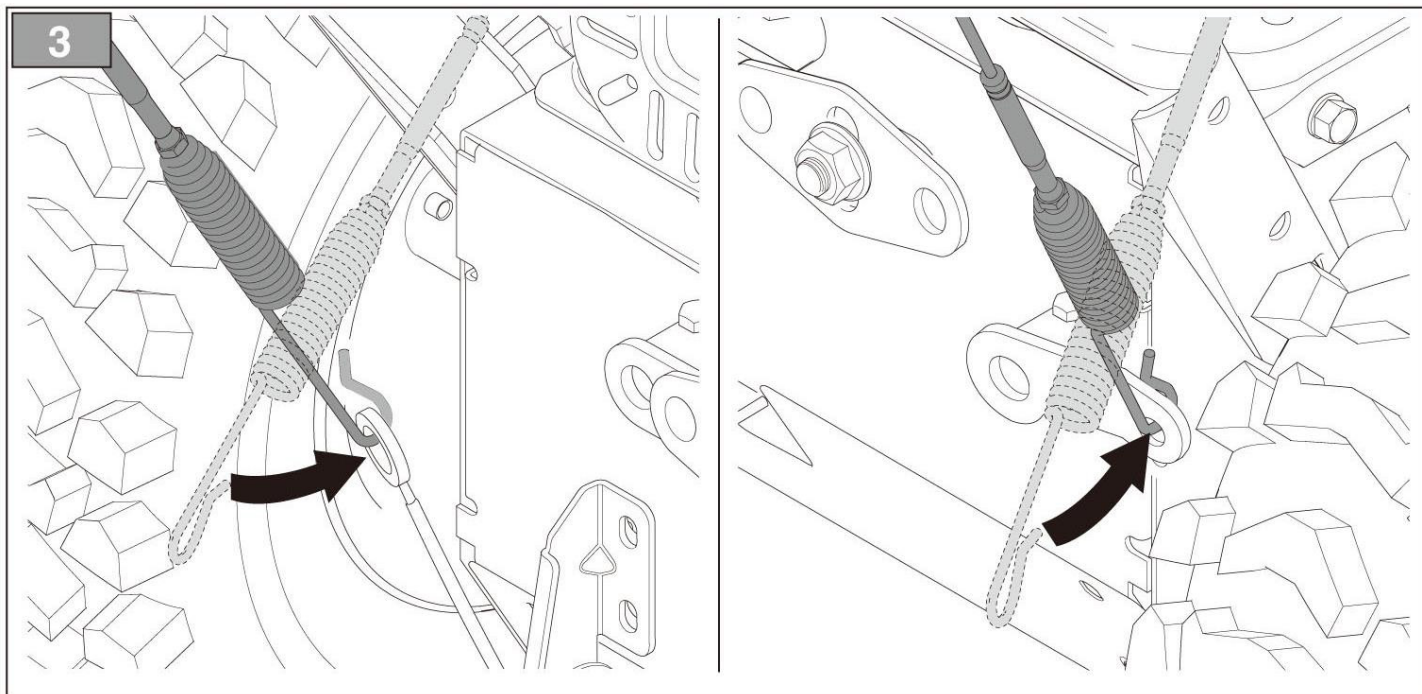
ASSEMBLY

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).

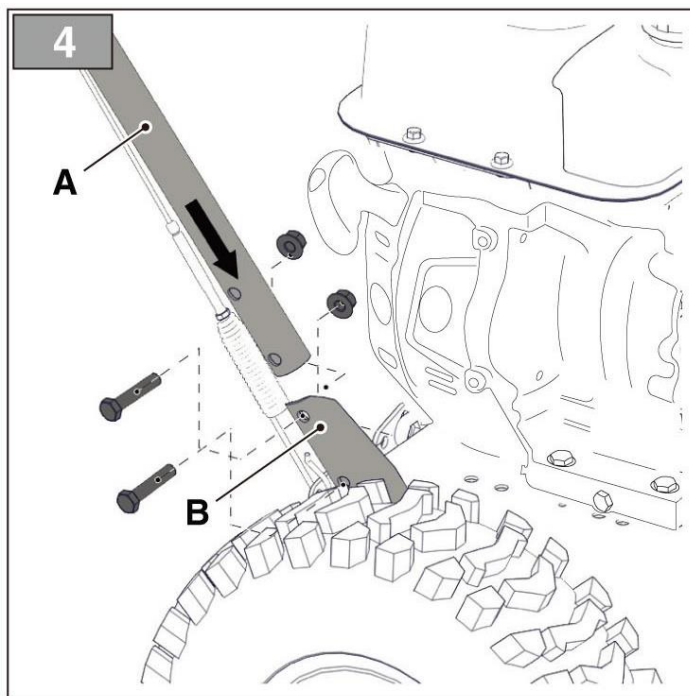
NOTE: The cables are already pre-assembled on the dashboard.



2. Handle assembly

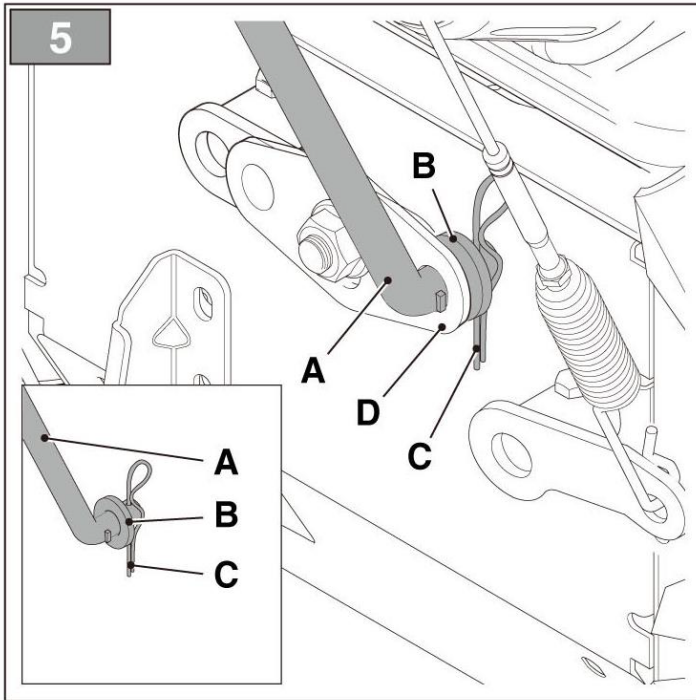
The handle is delivered with the dashboard already assembled. The machine handle assembly screws, gear control fastening screws and nuts and bolts to secure the brush directional control are delivered in a separate package found in the machine packaging. Install as follows:

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



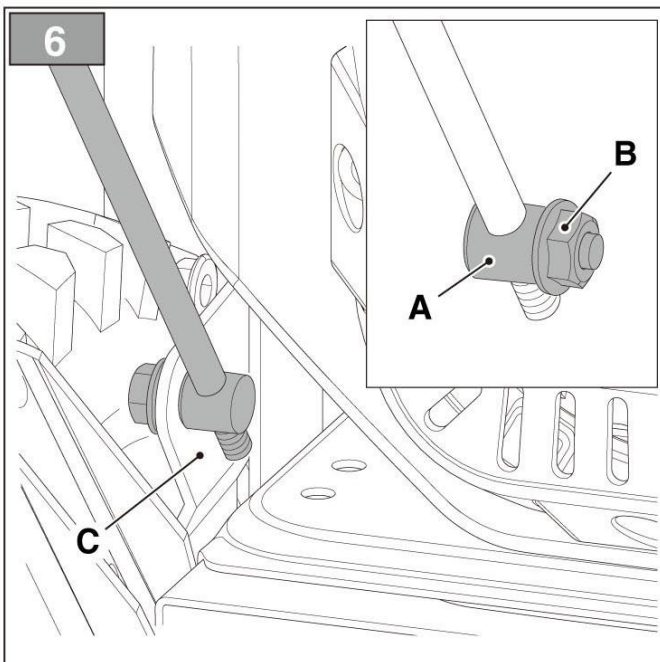
3. Installation of the gear control

- 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).



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. (Figure 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. when the motor runs, deactivate the choke.

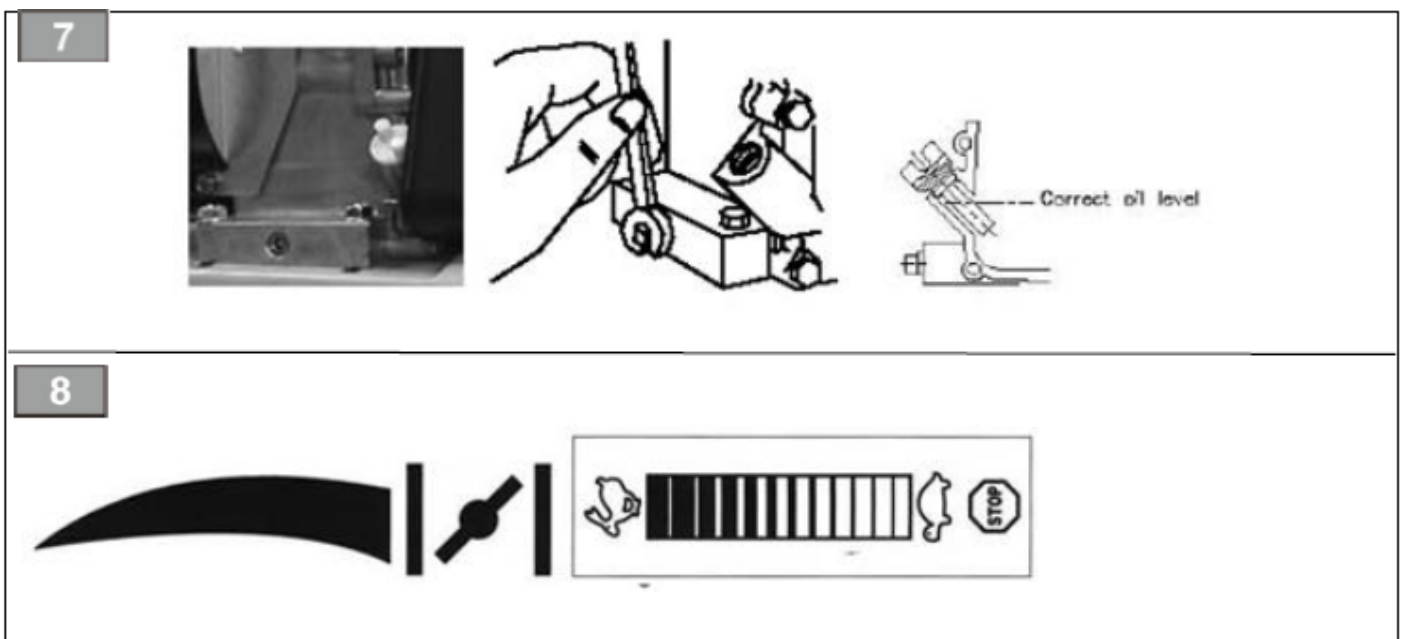
NOTICE: NEVER LET THE STARTING ROPE WIND AGAIN BY ITSELF.

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 power brush 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.



OPERATION



CAUTION

A POWER BRUSH IS A DEMANDING MACHINE.

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

Before operating the power brush:

Operate power brush 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 power brush are clear of the power brush 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 the power brush



DANGER

FALL HAZARD DO NOT OPERATE NEAR UNGUARDED EDGES.

- This power brush is Not intended for roof top use.
- When operating power brush, 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 Do not shift while in motion.



WARNING

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

- When sweeping on rough terrain, reduce speed to avoid "bouncing" the power brush. 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 power brush slowly in an open area, check for proper operation of all controls and all protective devices. Note any repairs needed during operation of the power brush. Report any needed repairs.

OPERATION

Before each use

Perform daily maintenance as indicated in Maintenance Schedule.

Run the power brush 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 power brush. 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 brush directional control (fig. 9 B) to the required position. (See Brush Direction)
2. Set the gear depending on the route and the amount of material to be swept.
3. Engage the brush drive. (fig. 9C)
4. Engage the traction drive. fig. 9D

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

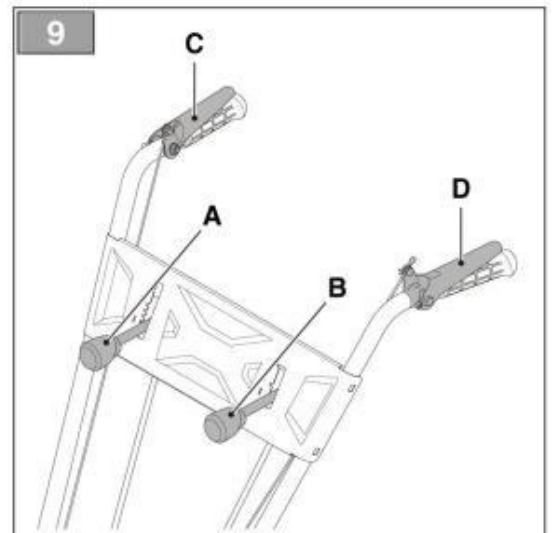
The power brush is equipped with an instant shutoff, when you release the levers, the brush and machine stop.

Operating Tips

NOTICE: AVOID POWER BRUSH 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.



OPERATION

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

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- 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

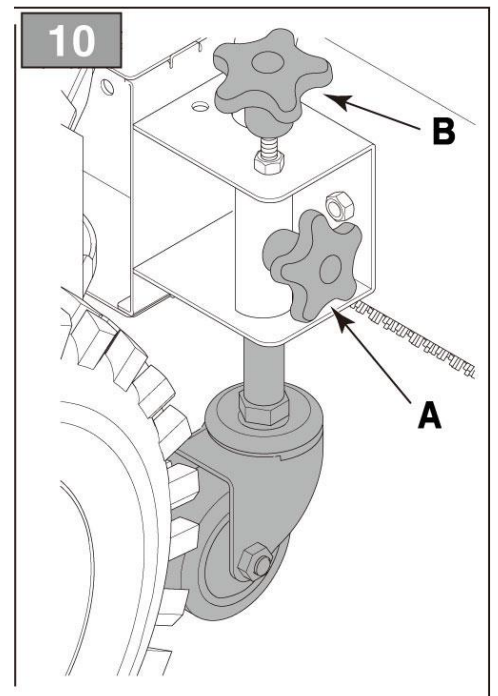
IN AN EMERGENCY, RELEASE LEVERS AS QUICKLY AS POSSIBLE AND STOP THE ENGINE.

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);



SERVICE & REPAIR - GENERAL

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

STORAGE

NOTICE:

- Do not store the power brush 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.

TROUBLESHOOTING

The engine does not start	Ensure that the spark plug is not defective
	Ensure that the spark plug cap is fitted correctly
The engine runs irregularly	Ensure that the choke is deactivated
	Ensure that there are no impurities in the fuel
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

MAINTENANCE

MAINTENANCE SCHEDULE

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

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.