



Petrol Powered Wheeled Brush Cutter

User Manual

[Revision 2.0 May 2017]

READ THIS MANUAL CAREFULLY BEFORE USE – FAILURE TO DO SO MAY RESULT IN INJURY, PROPERTY DAMAGE AND MAY VOID WARRANTY. • KEEP THIS MANUAL FOR FUTURE REFERENCE. • Products covered by this manual may vary in appearance, assembly, inclusions, specifications, description and packaging.



Safety

Safety messages are designed to alert you to possible dangers or hazards that could cause death, injury or equipment or property damage if not understood or followed. Safety messages have the following symbols:

	You WILL be KILLED or SERIOUSLY INJURED if you do not follow instructions.		You CAN be KILLED or SERIOUSLY INJURED if you do not follow instructions.		You CAN be INJURED if you do not follow instructions or equipment damage may occur.
<p>It is important that you read and understand the instruction manual before use and keep the manual in a safe place for future reference. Safety information presented here is generic in nature – some advice may not be applicable to every piece of equipment. The term "equipment" refers to your product, be it electrical mains, battery or petrol engine powered.</p> <p>Read all safety warnings and all instructions. When using the equipment, basic safety precautions detailed here must always be followed to reduce the risk of fire, electric shock, personal injury and material damage.</p> <p>IMPORTANT – Handle the equipment safely and carefully.</p> <p>BEFORE USE - If you are not familiar with the safe operation/handling of this equipment, or are in any way unsure of any aspect of suitability or correct use it for your application, you should complete training conducted by a person or organization qualified in safe use and operation of this equipment, including fuel/electrical handling and safety.</p> <p>WARNINGS</p> <ul style="list-style-type: none"> • Read all safety warnings and all instructions. Failure to follow warnings and instructions may result in electric shock, fire and/or serious injury. • Do not operate the equipment in flammable or explosive environments, such as in the presence of flammable liquids, gases or dust. Engines and equipment may create sparks or heat that may ignite vapours, dust etc • Keep clear of moving parts. • Equipment may be a potential source of electric shock or injury if misused. • Do not operate the equipment if it is damaged, malfunctioning or is in an excessively worn state. • Do not allow others to use the equipment unless they have read this manual and are adequately trained. • When using the equipment, basic safety precautions detailed here must always be followed to reduce the risk of fire, electric shock, personal injury and material damage. • When wiring electrically powered equipment, follow all electrical and safety codes. • Ensure all power sources conform to equipment voltage requirements and are disconnected before connecting equipment. 	<p>General Work Area Safety</p> <p>Work areas should be clean and well lit. Do not operate the equipment if bystanders, animals etc are within operating range of the equipment or the general work area.</p> <p>Personal Safety</p> <p>Keep packaging away from children - risk of suffocation! Operators must use the equipment correctly. When using the equipment, consider conditions and pay due care to persons and property.</p> <p>Prevent unintentional starting of the equipment - ensure equipment and power source switches are in the OFF position before connecting or moving the equipment. Do not carry equipment with hands/fingers touching any controls. Remove any tools or other items that are not a part of the equipment from it before starting or switching on.</p> <p>Stay alert and use common sense when operating equipment. Do not overreach. Keep proper footing and balance at all times. Do not use equipment when tired or under the influence of drugs, alcohol or medication. This equipment is not intended for use by persons with reduced physical, sensory or mental capabilities.</p> <p>You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect from serious injury, including eye injury, inhalation of toxic fumes, burns, and hearing loss. Always wear eye protection. Protective equipment such as respirators, non-skid safety shoes, hard hat, hearing protection etc should be used for appropriate conditions. Other people nearby should also wear appropriate personal protective equipment. Do not wear loose clothing or jewellery, which can be caught in moving parts. Keep hair and clothing away from the equipment.</p> <p>If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.</p> <p>General Use and Care</p> <p>Do not force the equipment. Use the correct equipment for your application. The correct equipment will perform better and be safer within its design parameters.</p> <p>Do not use the equipment if the ON/OFF switch malfunctions – any equipment that cannot be controlled with the ON/OFF switch is dangerous and must be repaired.</p>	<p>Use the equipment and accessories etc. in accordance with these instructions, considering working conditions and the work to be performed. Using the equipment for operations different from those intended could result in hazardous situations.</p> <p>Before use, inspect the equipment for misalignment or binding of moving parts, loose components, damage or any other condition that may affect its operation. If damaged, have the equipment repaired by an authorized service centre or technician before use.</p> <p>Always keep the equipment and accessories (cutting tools, nozzles, bits etc) properly maintained. Keep the equipment, controls and handles dry and free from dirt, oil and grease.</p> <p>Store the equipment out of reach of children or untrained persons. To avoid burns or fire hazards, let the equipment cool completely before transporting or storing. Never place the equipment in places where there are flammable materials, combustible gases or combustible liquids etc.</p> <p>The equipment is not weatherproof, and should not be stored in direct sunlight, at high ambient temperatures or locations that are damp or very humid.</p> <p>Brush Cutter Use and Care</p> <ul style="list-style-type: none"> • The equipment is for domestic use only. • Always check that the blades or cutting accessories are undamaged, safe to use and are properly and securely fastened to the machine. • Do NOT use cutting equipment that is cracked, bent, chipped or damaged in any way. Replace damaged parts. • Always wear substantial footwear, such as boots, and long trousers when operating the product. Do NOT wear open shoes and shorts. • Check the work area before using the equipment and remove any objects (stones etc) that may be thrown by the equipment or may otherwise damage it. • Do not use the equipment in wet or slippery conditions or in weather (strong winds, lightning etc) that may make using the equipment unsafe. • Do not use the equipment for purposes it is not designed for, such as shredding leaves or wood chipping. • Use caution when reversing or pulling the equipment towards you, and changing direction. 			



General Fuel Safety

-  Petrol/fuel/gasoline is extremely flammable – keep clear of naked flames or other ignition sources.
- Do not spill fuel. If you spill fuel, wipe it from equipment immediately – if fuel gets on your clothing, change them immediately
- Do not smoke near fuel.
- Always shut off the engine before refuelling.
- Do not refuel a hot engine.
- Open the fuel cap carefully to allow any pressure build-up in the tank to release slowly.
- Always refuel in well ventilated areas.
- Always check for fuel leakage. If fuel leakage is found, do not start or run the engine until all leaks are fixed.

General Service Information

- Have the equipment serviced or repaired at authorized service centres by qualified personnel only.
- Replacement parts must be original equipment manufacturer (OEM) to help ensure that equipment safety is maintained.
- Do not attempt any maintenance or repair work not described in this instruction manual.
- After use, the equipment and components may still be hot – allow the equipment to cool and disconnect spark plugs and/or electrical power sources and/or batteries from it before making adjustments, changing accessories or performing repair or maintenance.
- Do not make adjustments while the equipment is running.
- Perform all service related activities under suitable conditions, such as a workshop etc.
- Replace any worn, damaged or missing warning labels immediately.
- Do not clean equipment with solvents, flammable liquids or harsh abrasives.

Brush Cutter Use and Care

- After stopping the engine, always allow all moving components (blades etc) to stop moving before moving, lifting etc.
- Stop the engine if the equipment requires tilting or moving.

DANGER

Running combustion engines in confined areas CAN KILL IN MINUTES. Engine exhaust fumes contain carbon-monoxide – a deadly gas that you cannot smell or see.



NEVER run a combustion engine in confined areas EVEN IF windows and doors are open. ONLY run petrol engines OUTDOORS and away from doors, windows and vents.

Do not operate the equipment in hazardous locations, such as where there may be a risk of fire or explosions from flammable liquids, gases or dust.

Do not operate the equipment in confined areas where exhaust gases, smoke or fumes could reach dangerous concentrations.

Do not refuel a combustion engine while it is running, on or hot.

Never smoke while refuelling combustion engines or handling flammable substances.

For generators, the electrical output is potentially lethal and must only be connected to a fixed electrical installation by an appropriately licensed person.

Be aware that the equipment may include hazardous components, such as blades, hot surfaces and moving parts.

Handle any flammable substance with extreme caution.



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Parts Identification



No.	Name	No.	Name
1	Engine / Frame / Handle Assembly	8	Brush Saw
2	Wheel (2)	9	Fuel Bottle
3	Drive Tube / Attachment Head	10	Tools / Fasteners / Accessories:
4	Guard		4 / 5 mm Allen Key
5	Guard Clamp		8 / 10mm Spanner
6	Grass Cutting "Bump" Head		Flat-Blade Screwdriver
7	Brush Cutter		Spark Plug Tool / Screwdriver
			1 M6x25 Screw
			Spark Plug (spare, may be included)
			Cable Ties (may be included)

Engine and Machine Components



No.	Name	No.	Name
1	Handle	9	Fuel Primer
2	Throttle Bar	10	Fuel Tank
3	Engine Stop Button	11	Drive Tube
4	Starter Cord	12	Attachment Head
5	Exhaust	13	Guard
6	Spark Plug Cover (spark plug inside)	14	Throttle Cable
7	Air Filter Assembly (air filter inside)	15	Frame
8	Choke Lever	16	Drive Tube Collar

Before Use Checklist



Ensure that you carry out all procedures below before starting the engine or operating the equipment. **Failure to follow the checklist and carry out the procedures correctly may result in making the product warranty void.**

Assembly

Prior to assembly, unpack all components and check that all items have been received.

1. Remove the handle attachment nuts, screws and washers (1) from the frame (2).
2. Place the flattened sections of the handle (3) tubes over the machine frame tubes so the mounting holes are aligned. It may be necessary to pull the handle tubes apart slightly to fit it over the frame tubes. Ensure that the handle is oriented so the throttle control (A) faces forward.
3. Secure the handle to the frame using the previously removed fasteners (1). Place a washer between the screw head and handle tube. Insert the screws so the nuts will be on the inside of the frame. Firmly tighten the fasteners using the supplied spanner and Allen key.
4. Once the handle is secure, check that all cable/wires are properly routed, without kinks etc, and are secured to the handle with any supplied clips and cable ties.
5. Tilt the machine on its side, then remove the acorn nut (4) from the axle (B). Place a wheel (5), with the recessed part of the wheel hub facing outwards, onto the axle. Secure the wheel using the previously removed acorn nut. Tighten the nut using the supplied spanner, however, not to the point where the wheel binds and cannot easily rotate. Repeat for the other wheel.



6. Slide the drive tube (6) into the drive tube collar (C). Ensure that the locating screw (D) in the collar and the corresponding hole (E) in the drive tube are aligned before assembling.
7. Screw in the M5 locating screw using the supplied Allen key until firm – this screw does not have to be extremely tight. Then, firmly tighten the M6 clamp screw (F) using the supplied Allen key.



8. Remove the M5 locating screw (**G**) from the attachment head (**H**). Place the guard clamp (**7**) in position on top of the drive tube so the locating hole (**I**) aligns with the locating screw hole. Secure the parts together using the previously removed screw. Tighten firmly using the supplied Allen key.
9. Bring the guard (**8**) into position and hook the slot (**J**) in the guard over the guard clamp tab (**K**). Secure the guard to the guard clamp using the M6 screw (**9**) and tighten firmly using the supplied Allen key.



Air Filter

The air filter is used to prevent dirt and other particles from possibly entering the engine and causing internal damage to it. The air filter requires regular maintenance.

Always check the air filter before starting the engine. See [Checking, Cleaning and Replacing the Air Filter](#).

Fuel



Petrol/fuel/gasoline is extremely flammable – keep clear of naked flames or other ignition sources. • The engine must be cool before refuelling.

Adequately fill the fuel tank with the correct fuel type.

- Use non-ethanol unleaded mixed at a 25:1 ratio with 2-stroke engine oil (higher RON values and good quality 2-stroke oil will provide best engine performance). Do not use old or contaminated fuel/oil. Fuel/oil mix ratio examples are shown below.

Petrol (Litre)	1	2	5	10	Gas (US Gal)	0.5	1	2	3
Oil (Millilitre)	40	80	200	400	Oil (Fl. Oz)	2.56	5.12	10.24	15.36

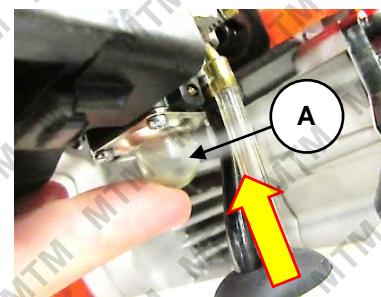
To fill or top up fuel:

1. Place the machine in an upright position on a flat and level surface.
2. Clean the machine around the fuel filler so that no dirt or other material enters the engine when the cap is removed.
3. Remove (rotate left) the fuel filler cap.
4. Using a funnel, carefully fill the tank with fuel. Do not fill above the top of the strainer (if equipped) or otherwise overfill the tank.
5. When finished, reinstall (rotate right) the fuel filler cap until firm. Wipe away any residual fuel from the machine. If fuel has been spilt, move the pump away from the spillage before starting the engine.

Priming the Fuel System

When an engine is new, or has completely run out of fuel it may be necessary to "prime" the fuel system before attempting to start the engine. This means removing any air from the fuel line. To prime:

1. Ensure the fuel tank is filled with fuel.
2. Press the fuel primer (A) bulb repeatedly until you feel resistance or pressure in the bulb – this indicates that it is full of fuel.



Loading the Grass Cutting "Bump" Head



Do NOT attach or detach cutting tools when the engine is running. • Ensure that parts are cool enough to touch before attaching or detaching cutting tools. • Do NOT use cutting equipment that is cracked, bent, chipped or damaged in any way. Replace damaged parts. • Use 3mm / 1/8" plastic cutting line only – smaller diameter lines will not be held properly in the grass cutting head. Non-plastic cutting line may not function properly and may damage the machine. • If the grass cutting head is dirty, [clean it](#).

Video Tutorial:

[Loading a Grass Cutting "Bump" Head](#)



To load the grass cutting head with cutting line:

1. Remove the grass cutting head from the drive shaft. The thread on the drive shaft is "left-hand". This means that you must rotate the grass cutting head to the right (clockwise) to unscrew it. To prevent the drive shaft from rotating as you loosen the grass cutting head, [see here](#).
2. Place the grass cutting head (A) on a solid surface, then press down and rotate the "bumper" (B) to the right (clockwise) until the cutting line holes are aligned (X) and you can see through the head.

Note: If there is still some cutting line in the head, press down and rotate the "bumper" to the left (anti-clockwise) one step, then pull the cutting line out from either side of the head. Repeat until you can pull the line out completely from the grass cutting head.

3. Insert the new line (C) through the grass cutting head so that the lengths of line on each side of the head are the same (in other words, the head is at the centre of the length of cutting line).
4. Hold the grass cutting head firmly, then rotate the "bumper" to the right (clockwise) to wind in the cutting line. Stop winding when there is approximately 50mm (2") of cutting line outside of the head.
5. [Install the grass cutting head](#).



Attaching Cutting Tools



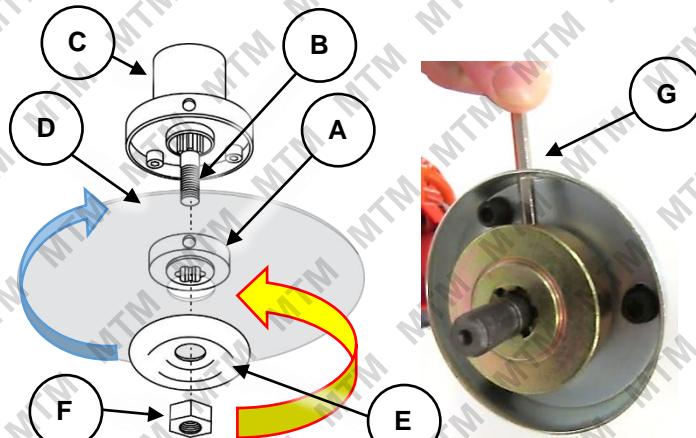
Do NOT attach or detach cutting tools when the engine is running. • Ensure that parts are cool enough to touch before attaching or detaching cutting tools. • Always check that the blades or cutting accessories are undamaged, safe to use and are properly and securely fastened to the machine. • Ensure that brush cutter and brush saw blades are installed so that they rotate in the direction of the cutting edges. • Do NOT use cutting equipment that is cracked, bent, chipped or damaged in any way. Replace damaged parts. • The brush cutter and brush saw blades are not designed to be re-sharpened.

1. Place the drive washer (A) on to the drive shaft (B) protruding from the attachment head (C). Ensure that the grooves in the washer align with the splines on the drive shaft.
2. Place the attachment on to the drive washer:

For the brush cutter and brush saw:

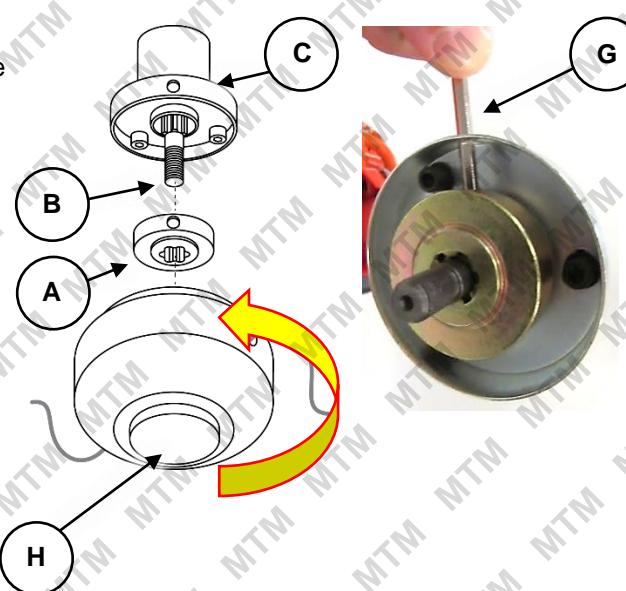
- a. Place the brush cutter or brush saw attachment (D) on to the drive washer. Ensure that direction of the cutting teeth or blades faces the direction shown by the blue arrow. Ensure that the hole in the centre of the attachment sites squarely on the raised portion of the drive washer.
- b. Place the cup washer (E) over the drive shaft, then secure the assembly with the nut (F). The thread on the drive shaft is "left-hand". This means that you must rotate the nut to the left (anti-clockwise) to screw it on as shown by the yellow arrow.

Firmly tighten the nut using the supplied spanner. To prevent the drive shaft from rotating as you tighten the nut, insert a suitable object (G) (Allen key, screwdriver etc) through the hole in the attachment head and into the hole in the drive washer when tightening – you may need to rotate the drive washer until the holes are aligned. Remove the object when the nut is secured.



For the grass cutting head:

- a. Screw the grass cutting head (H) on to the drive shaft. The thread on the drive shaft is "left-hand". This means that you must rotate the grass cutting head to the left (anti-clockwise) to screw it on as shown by the yellow arrow. Firmly tighten the grass cutting head by hand. To prevent the drive shaft from rotating as you tighten the grass cutting head, insert a suitable object (G) (Allen key, screwdriver etc) through the hole in the attachment head and into the hole in the drive washer when tightening – you may need to rotate the drive washer until the holes are aligned. Remove the object when the nut is secured.



Engine Starting and Machine Operation



Before starting the engine, ensure that you have followed all procedures described in the [Before Use Checklist](#). **Failure to follow the checklist and carry out the procedures correctly may result in making the product warranty void.**

Video Tutorial:

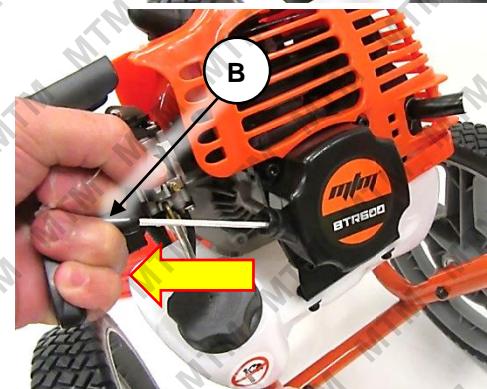
[Starting 2-Stroke Engines](#)



Starting

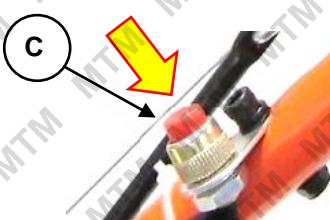
1. **PRIME** – If necessary, “prime” the fuel system.
2. **CHOKE** – If the engine is cold, place the choke (A) in the “COLD” or “CLOSED” position. If the engine is warm or the ambient temperature is high, place the choke in the “RUN” or “OPEN” position.
3. **START** – Slowly pull out the starter cord (B) until you feel it engage with the engine, then pull it out rapidly (use both hands if necessary). The engine should start. Allow the starter cord to rewind slowly – do not let it “snap” back.
4. **WARM-UP** – Allow the engine to warm-up and run smoothly. If choke is being applied, place the choke (A) in the “RUN” or “OPEN” position.

If the engine does not start, repeat step 3 onward. If the engine fails to start after several attempts, refer to [Troubleshooting](#).



Stopping the Engine

1. Release the throttle bar.
2. Press the engine OFF button (C) on the handle.



Environmental Considerations

Altitude

If the engine is being used in altitudes at or above 1500m (approximately 5000'), adjustments to the carburettor may be required. This is because there is less oxygen in the air as altitude increases, which effectively “enriches” the ratio of fuel to air going into the engine and the higher the altitude, the richer the fuel mixture becomes. If the engine is being permanently operated at high altitude, it is recommended to have an authorized service centre make the necessary carburettor adjustments. If the engine is used occasionally at altitude (not extreme altitudes), no adjustments should be required, however, a slight decrease in engine performance can be expected.



Machine Operation

Be aware that when the engine is idling (slowest continuous running speed), the cutting attachment will not rotate. As engine speed increases, the drive clutch will engage and the cutting attachment will rotate:

- Operate the engine at a full speed to provide effective cutting without causing the engine to bog down or stop. This may vary on the work being performed and the density of the cut material etc. Engine speed is controlled using the throttle bar (A). Pull the throttle bar to the handle for maximum engine speed. Release the throttle bar to run the engine at idle speed.
- Standing behind the machine, run the engine at full speed – this provides the most effective cutting and reduces the possibility of the engine stalling – then push the machine into the material to cut. Do not try to move the machine too quickly as this may reduce its effectiveness, instead, push at a speed that allows the machine to cut through the material easily.
- For denser cutting material, long grass etc, it may require several passes to cut down to the required level. Hold the handle down slightly to raise the height of the cutting attachment as required.
- Always use the cutting attachment that is best suited to the material to cut. For grass, use the grass cutting head, for brambles or very thick grass, use the brush cutter, for bushes, vines and saplings, use the brush saw.
- When using the grass cutting head, feed out additional cutting line as required by "bumping" the head. To "bump" the head, with the engine running and the grass cutting head spinning, use the handle to raise the grass cutting head off the ground, then tap it quickly against the ground (there should be no need to use excessive force). This action should allow an amount of line to unwind from the head. It may be necessary to do this more than once to release the required amount of line.



Maintenance



Running combustion engines in confined areas **CAN KILL IN MINUTES**. Engine exhaust fumes contain carbon-monoxide – a deadly gas that you cannot smell or see. NEVER run a combustion engine in confined areas EVEN IF windows and doors are open. ONLY run combustion engines OUTDOORS and away from doors, windows and vents. • Petrol/fuel/gasoline is extremely flammable – keep clear of naked flames or other ignition sources. • Do not have the engine running during inspection and maintenance unless specifically required. • The engine should be cool enough to touch before performing maintenance activities. • Some maintenance activities described may be beyond the scope of some users. For procedures that you are not comfortable with or have the tools or experience for, have the unit serviced by a service centre or qualified technician.

To keep the machine performing at optimal efficiency, regular checks and maintenance is required. Proper care and maintenance ensures best performance and longest service life.

The maintenance schedule below specifies preventative maintenance checks and necessary maintenance tasks and how often they should be performed. The schedule applies to multiple engines; some engines may not include some components, so maintenance on those components is not applicable.



Harsh operating environments such as extreme temperatures, dust etc may necessitate more frequent maintenance. • Maintenance frequencies are based on general factors including a maximum use of approximately 300 hours per year. Apply common-sense when following the maintenance schedule based on your actual use of the product. • Keep reasonable records of maintenance activities for reference. **Failure to follow the maintenance schedule, using incorrect or non-compatible accessories or replacements parts, or general negligence may result in making the product warranty void.**

Maintenance Schedule

Component/Task	Every Use	Frequency – Whichever Comes First			
		First Month or 20 Hours Use	Every 3 Months or 50 Hours Use	Every 6 Months or 100 Hours Use	Every Year or 300 Hours Use
Air Cleaner	Check	Clean and replace as necessary			
Spark Plug			Check	Replace	
Combustion Chamber				De-Coke as necessary	
Idle Speed				Check/adjust as necessary	
Fasteners	Check/tighten as necessary				
Fuel Tank					Flush and clean
Fuel Line		Replace as necessary			
Fuel Filter		Clean and replace as necessary			
Fuel Strainer	Check				

Checking, Cleaning or Replacing the Air Filter



Operating the machine without a functional air filter may cause severe engine damage and will void any warranty. • A dirty or oil saturated air filter will restrict air flow, which can be mistaken as fuel system problems. Check the condition of the air filter before adjusting engine idle speed, where applicable. • If the air filter is damaged (torn, broken, disintegrating), replace it.

The air filter is used to prevent dirt and other particles from possibly entering the engine and causing internal damage to it. The air filter requires regular maintenance as per the maintenance schedule.

Air Filter Inspection and Cleaning

Inspect the air filter for dirtiness and debris, damage etc. Clean or replace the filter element as necessary. To clean air filters:

- For foam filters, wash the filter in warm water and mild detergent, then rinse and allow to dry.
- For paper filters, use compressed air to blow particles from it. The air should be blown from the engine side of the filter.
- Clean all other air filter assembly components using water and mild detergent, then dry them.
- For foam filters, place a few drops of clean engine oil on the filter then squeeze it a few times to spread the oil through the filter material and remove any excess oil.

Air Filter Removal/Installation

To remove the air filter:

1. Place the machine in an upright position on a flat and level surface.
2. Unscrew the air filter cover screw (**B**) (rotate left) until the air filter cover (**A**) can be removed.
3. Pull the air filter element (**C**) from the air intake assembly.

To install the air filter:

1. Insert the air filter element into the air intake assembly.
2. Re-install the air filter cover and secure it with the air filter cover screw (rotate right).



Spark Plug



If the spark plug is damaged (cracked insulator, broken or eroded electrodes etc), replace it. •
Always use spark plugs of the correct "heat range" - see [Specifications](#).

The spark plug is used to ignite the air/fuel mixture inside the engine. The spark plug has electrodes on one end and an electrical terminal on the other. The spark plug requires regular maintenance.

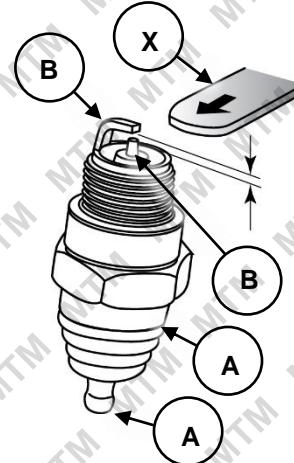
Spark Plug Cleaning and Gap Checking

The spark plug should be checked and cleaned as per the maintenance schedule.

1. Remove any carbon deposits on the spark plug (A) electrodes (B) with a wire brush.
2. Clean the spark plug threads and the electrical terminal (C) on the top.

To check and adjust the spark plug "gap":

1. Use "feeler" or "thickness" gauges (X) to measure the existing gap. The gauge must drag a little when being slid between the electrodes (2) – this means the measurement is fairly accurate.
2. Adjust the gap to within specification (see [Specifications](#)). If the gap needs to be reduced, gently tap the electrode as required. If the gap needs to be increased, use pliers to gently pull the electrode as required.
3. Measure the gap again and ensure it is within the specified range before re-installing the spark plug.



Spark Plug Removal/Installation

1. Pull the electrical lead (A) from the terminal on top of the spark plug (B).
2. Clean the area around the spark plug so that no dirt or other material can enter the engine when the spark plug is removed.
3. Use the spark plug tool (C) to remove the spark plug (rotate left).



To re-install the spark plug:

1. Place the spark plug in its hole and screw it in (rotate right) until "finger tight".
2. Use the spark plug tool to tighten the spark plug approximately one quarter turn (do not over-tighten).
3. Place the electrical lead over the spark plug terminal and push it down so that it connects firmly with the terminal

Checking, Cleaning or Replacing the Fuel Strainer



A dirty or blocked fuel strainer will restrict fuel flow, which can reduce performance and be mistaken as fuel system problems. Check the condition of the fuel strainer before adjusting engine idle speed, where applicable. • If the fuel strainer is no longer serviceable, replace it.

The fuel strainer is used to prevent dirt and other particles from possibly entering the fuel system and engine and causing internal damage to it. The fuel strainer requires regular maintenance as per the maintenance schedule.

Fuel Strainer Inspection and Cleaning

Inspect the fuel strainer for dirtiness and debris etc. Clean or replace the strainer as necessary. To clean fuel strainers:

- Wash the strainer in clean solvent.
- If possible, use compressed air to assist in removing any blockages. Blow air into the strainer from where it connects to the tube.

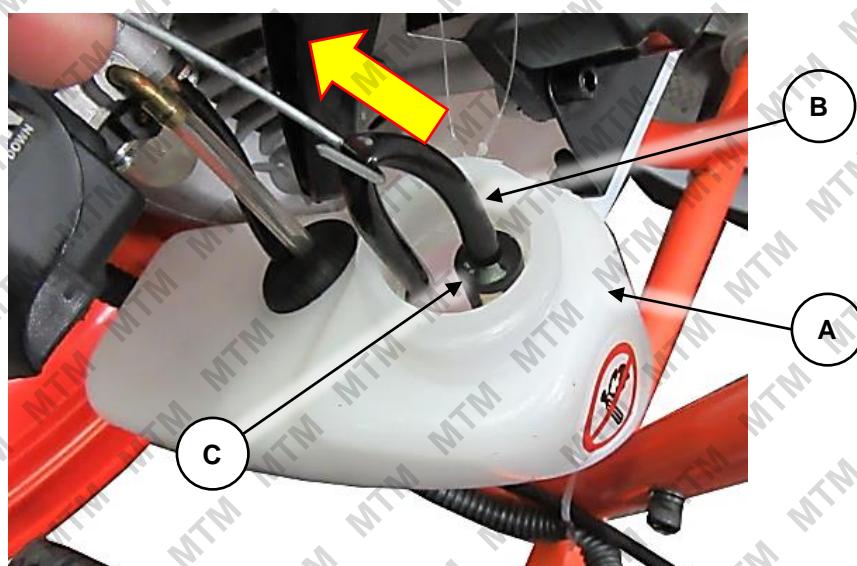
Fuel Strainer Removal/Installation

To remove the fuel strainer:

1. Place the machine in a horizontal position with the fuel filler cap facing up on a flat and level surface.
2. Remove the fuel tank cap (rotate left) and empty the fuel tank (**A**).
3. Use a hooked object to capture the fuel intake tube (**B**) inside the fuel tank and gently pull it from the tank.
4. The fuel strainer (**C**) is installed on the end of the tube – to remove it, twist and pull it from the end of the tube

To install the fuel strainer:

1. Firmly push the fuel strainer onto the fuel intake tube.
2. Place the tube back inside the fuel tank – it should rest along the bottom of the fuel tank.



Cleaning the Grass Cutting "Bump" Head



A dirty grass cutting "bump" head may not feed out cutting line properly or reliably. • If the grass cutting head is no longer serviceable, replace it.

To clean the grass cutting head:

1. Remove the grass cutting head from the drive shaft. The thread on the drive shaft is "left-hand". This means that you must rotate the grass cutting head to the right (clockwise) to unscrew it. To prevent the drive shaft from rotating as you loosen the grass cutting head, [see here](#).
2. Place the grass cutting head (A) on a solid surface, then press in a locking tab (X) on the side of the head until the upper and lower sections of the head can be separated.

Note: If there is cutting line in the head, it may unravel when the head is disassembled. It is recommended to remove the cutting line. [Load the cutting line](#) after cleaning and reassembling the grass cutting head.

3. Thoroughly clean the cover (B), "bumper" (C) and base (D) using a brush or similar to remove all traces of grass, dirt etc from the parts. If desired, wash the parts in warm water and mild detergent, then rinse and dry.
4. To assemble, insert the spring (E) into the base. Place the bumper on top of the spring, then place the cover over the assembly – ensure that the holes in the sides of the cover are aligned with the locking tabs in the base – then press the cover down until it "clips" into place and is securely held by the locking tabs.
5. Check that the bumper can be moved in and out of the head and can be rotated in either direction – if not, the parts are not clean or not assembled correctly. [Install the grass cutting head](#).



Transportation and Storage



Always ensure that the machine is cool enough to touch before transporting or storing. • Petrol/fuel/gasoline is extremely flammable – keep clear of naked flames or other ignition sources. • Drain the fuel tank before transportation or storage.

Preparing for Transport and Storage

- Drain the fuel system by allowing the engine to run until it stops.
- Avoid exposing the equipment to direct sunlight, particularly during transportation.
- Ensure the equipment is secure and upright during transport.
- Store the unit in a dry, well-ventilated area and out of the reach of children.

Long Term Storage

Follow the normal procedures for storage, then:

- Drain the fuel system. It is advised to have the fuel tank as empty as possible before draining.
 - a. Unscrew (rotate left) the carburettor drain plug. Use a suitable container to catch the draining fuel, and allow the fuel to drain. Store the drained fuel in a properly sealed container.
 - b. Re-install (rotate right) the carburettor drain plug and tighten.
- Remove the spark plug and put 30ml of clean engine oil into the cylinder. Pull the starter rope slowly to distribute the oil. Re-install the spark plug.
- Cover the equipment to protect it.



Troubleshooting



Running combustion engines in confined areas **CAN KILL IN MINUTES**. Engine exhaust fumes contain carbon-monoxide – a deadly gas that you cannot smell or see. NEVER run a combustion engine in confined areas EVEN IF windows and doors are open. ONLY run combustion engines OUTDOORS and away from doors, windows and vents. • Petrol/fuel/gasoline is extremely flammable – keep clear of naked flames or other ignition sources. • Do not have the engine running during inspection and maintenance unless specifically required. • The engine should be cool enough to touch before performing maintenance activities. • Some maintenance activities described may be beyond the scope of some users. For procedures that you are not comfortable with or have the tools or experience for, have the unit serviced by a service centre or qualified technician.

The following information may assist in identifying a problem and rectifying it.

Difficulty starting the engine.

Possible Fault	Action
Lack of fuel	Check that there is fuel in the tank and that the fuel system is primed. • To further check if fuel is reaching the carburettor, remove the carburettor drain plug and check if fuel drains.
Carbon build-up on spark plug	Remove the spark plug and clean any carbon from the electrodes before re-installing it.
Spark plug faulty	Remove the spark plug, then reconnect the plug lead to it. Place fuel tap in the "OFF" position and the engine ON/OFF switch in "ON" position. Touch the spark plug electrode to a part of the engine crankcase, away from the spark plug hole, and attempt to start the engine – a spark should be visible across the electrodes as the engine is rotated. If no spark is visible, replace the spark plug.
Engine "flooded" with fuel	Place the choke in "HOT" or "RUN" position. Leave the ON/OFF switch in the "OFF" position. Pull the starter cord several times to assist clearing excess fuel from engine before attempting to start engine.

Engine starts but does not idle.

Possible Fault	Action
Blocked air filter	Check and clean the air filter.
Idle speed requires adjustment	Adjust idle speed until engine runs smoothly and at a reasonable speed when idling.

Difficulty restarting the engine after use or engine stops suddenly during use.

Possible Fault	Action
No fuel	Check fuel level and ensure adequate fuel is available.
Overheating	Allow engine to cool before restarting. If possible, improve engine cooling, such as operating in lower temperatures or in shade etc.
Carbon build-up on spark plug	Remove the spark plug and clean any carbon from the electrodes before re-installing it.
Carburettor blocked	Clean the carburettor.


Reduced engine speed/power during use.

Possible Fault	Action
Blocked air filter	Check and clean air filter.
Carbon build-up in engine and/or entry to exhaust silencer	Remove the engine cylinder head and clean any carbon from the combustion chamber. For the exhaust silencer, remove it and clean any carbon deposits from the exhaust entry port.
Carbon build-up on spark plug	Remove the spark plug and clean any carbon from the electrodes before re-installing it.
Carburettor blocked	Clean the carburettor.

Grass cutting line not feeding out.

Possible Fault	Action
Insufficient cutting line	Load more cutting line.
Grass cutting head dirty	Clean the grass cutting head.

Brush cutter or saw not cutting.

Possible Fault	Action
Worn or blunt	Replace brush cutter or saw.

Cutting attachment not spinning.

Possible Fault	Action
Insufficient engine speed	Use full throttle (pull throttle bar to handle).
Drive shaft broken	Replace.

Specifications

Engine Type	2-stroke, single cylinder
Fuel Type	Non-ethanol unleaded petrol / 2-stroke engine oil. Petrol to oil ratio = 25:1
Spark Plug Type	L7T
Spark Plug Gap	0.7 to 0.8mm (0.028 to 0.032")



Service and Maintenance Record

Use the following tables as a record of machine servicing and maintenance. Keeping accurate records will help ensure better machine service life and may simplify fault diagnosis and any possible warranty claims. Place a tick in the required box for either clean or replace with the date, as required.

	✓	Date								
Replace Spark Plug										
Replace Air Filter										
Replace Fuel Strainer										
Replace Fuel Lines										
Clean Fuel Tank										
Check/Adjust Valve Clearance										
De-Coke Combustion Chamber										
De-Coke Exhaust										

	✓	Date								
Replace Spark Plug										
Replace Air Filter										
Replace Fuel Strainer										
Replace Fuel Lines										
Clean Fuel Tank										
Check/Adjust Valve Clearance										
De-Coke Combustion Chamber										
De-Coke Exhaust										



Some experts believe the incorrect or prolonged use of almost any product could cause serious injury or death. For information that may reduce your risk of serious injury or death, consult the points below and additionally, the information available at www.datastreamserver.com/safety

- Consult all documentation, packaging and product labelling before use. Note that some products feature online documentation which should be printed and kept with the product.
- Check product for loose / broken / damaged / missing parts, wear or leaks (if applicable) before each use. Never use a product with loose / broken / damaged / missing parts, wear or leaks (if applicable).
- Products must be inspected and serviced (if applicable) by a qualified specialist every 6 months assuming average residential use by a person of average weight and strength, above average technical aptitude, on a property matching average metropolitan specification. Intended use outside these guidelines could indicate the product is not suitable for intended use or may require more regular inspection or servicing.
- Ensure all possible users of the product have completed an industry recognized training course before being given access to the product.
- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or your description of the application. Be sure to attain third-party approval for your application from a qualified specialist before use regardless of prior assurances by the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (take an automobile, aircraft, computer or ball point pen for example), there is always a small chance of technical issues that needs to be repaired or may require replacement of the product or a part. If the possibility of such failure and the associated time it takes to rectify could in any situation inconvenience the user, business or employee then the product is not suitable for your requirements. This product is not for use where incorrect operation or a failure of any kind, including but not limited to a condition requiring product return, replacement, service by a technician or replacement of parts could cause a financial loss, loss of employee time or an inconvenience requiring compensation.
- If this item has been purchased in error after considering the points above, simply contact the retailer directly for details of their returns policy, if required.



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