

LawnMaster®

SAFETY AND OPERATING MANUAL



PETROL POST HOLE BORER

LMAG52

TABLE OF CONTENTS

TECHNICAL DATA	3
PREFACE	4
SAFETY PRECAUTIONS	4
PARTS LISTING	7
ASSEMBLY	8
ENGINE OPERATION	8
FUEL & OIL MIXTURE	8
STARTING THE ENGINE	9
STOPPING THE ENGINE	11
MAINTENANCE, CARE & STORAGE	11
TROUBLESHOOTING GUIDE	13
WARRANTY	15



TECHNICAL DATA

Thank you for purchasing the LawnMaster Petrol Post Hole Borer. This manual will explain the functions and use of the Post Hole Borer. Please read this manual carefully before operating the unit.

	MODEL	LMAG52
MAIN UNIT ENGINE	Dimensions	580 x 380 x 41
	Engine Type	Air Cooled 2-Stroke Engine
	Displacement	51.7
	Fuel	91 Unleaded Petrol
	Fuel & Oil Mixture	25:1
	Carburetor	Diaphragm
	Rotation Mode	Centrifugal Clutch
	Ignition	CDI
	Spark Plug	L7T
	Starter	Pull Start
	Fuel Tank Capacity	1L
	Weight	8.5kg
	Idle Speed	2800+150 r/min
	Clutch Speed	4000+200 r/min
Weight	8.5 kg	

Technical Data is subject to change without notice.

PREFACE

Please ensure that you read the manual carefully before attempting to operate the unit. We advise that you keep this manual as a reference for the future.

The information in this manual refers to the model and product specifications available at the time of production. While we ensure all the latest information is included, there maybe slight changes or upgraded specifications that are different to the contents of the manual.

SAFETY FIRST

This manual contains special “attention statements” that are highlighted with triangular attention symbols.

WARNING

A statement preceded by WARNING contains Information that should be acted upon to prevent serious bodily injury.

CAUTION!

A statement preceded by the word “CAUTION” contains information that should be acted upon to prevent machine damage.

Additional statements that are not preceded by the attention symbols are:

IMPORTANT!

A statement preceded by the word “IMPORTANT” is one that possesses significance, the result of an action may lead to damaging the unit.

NOTE!

A statement proceeded by word “NOTE” contains information that is handy to know and may make your job easier.

Please ensure you read and follow the guidelines provided in this manual. Failure to do so could result in serious injury.



Read user manual before use



Wear mask and eye protection



Ear muffs for hearing protection



Warning and Attention



Fire Risk



Hot Surface

SAFETY PRECAUTIONS

Please ensure that you read the manual and follow the instructions when operating the unit.

The post hole borer must only be used by adults in good physical condition with knowledge of the operating instructions.

Do not operate when you're tired / fatigued or under the effect of alcohol and drugs.

All operators of the unit should wear appropriate clothing and protection gear to prevent serious injury. Do not wear loose clothing and or jewellery, which can be caught in moving parts. Use sturdy gloves and non-skid footwear glasses, ear protection and safety helmet.

Keep the area clear of bystanders, children and pets. Never allow children to operate or play with the unit. Do not start working until you have a clear work area. Do not work near electric cables.

Only use in well-ventilated places, do not operate in explosive or flammable atmospheres or in closed environments

Use extra care when handling fuels. They are flammable and the vapours are explosive. The following points should be observed at all times:

- Use only an approved container.
- Never remove the fuel cap or add fuel with the power source running.
- Allow engine and exhaust components to cool down before re-fueling.
- Do not smoke.
- Never re-fuel indoors.
- Never store the post hole borer or fuel container inside where there is an open flame etc.
- If fuel is spilled, do not attempt to start the power source, but move the post hole borer away from the spillage before starting.
- Always replace and securely tighten the fuel cap after refuelling.

- If the fuel tank is drained, this should be done outdoors.

Carry the BORER with the engine stopped, with its bit removed.

Replace the bit immediately if any cracks or other damage are present.

Always keep the handles dry and clean.

Before starting make sure the bit is not obstructed.

Always work in firm-footed and safe position.

Never touch the bit or carry out maintenance while the engine is running.

Make sure that the bit does not turn when the engine is idling.

Grip the BORER firmly with both hands; keep all parts of the body away from the bit and muffler. **BEST PRACTICE, TWO PERSON OPERATION.**

Never attempt to carry out servicing or repairs that are not part of the routine maintenance. Call specialised and authorised workshops only. When replacing parts, please use the tools specified by our company.

Store the BORER off the ground in a vertical position in a dry place and with fuel tank empty.

Check the BORER each day to ensure that each device, whether for safety or otherwise, is functional.

Never use a damaged ,modified, or im-
properly repaired or assembled BORER.
Do not remove, damage or deactivate any
of the safety devices. Only use bit of the
type indicated in the table.

Never touch the spark plug cover or wire
while the engine is in operation. Doing so
could result in electrical shock.

Do not use until you have completely un-
derstood the specific operating methods.
Always follow the manufacturer's instruc-
tion for the maintenance operations.

After the engine starts or before it stops,
allow it to run for 2-3 minutes at a low
speed without any load. Avoid to run at a
full throttle without any load. Never stop
the engine suddenly at high speed.

After engine starts,never touch the muffler
and the cylinder. Doing so could result in
serious burns.

If no longer usable, disposed of it properly
without damaging the environment by
handing it in to your local Dealer who will
arrange for its correct disposal.

Only loan to a expert user who are com-
pletely familiar with operation and correct
use. Give other users the manual with
operating instruction, which they should
read before using.

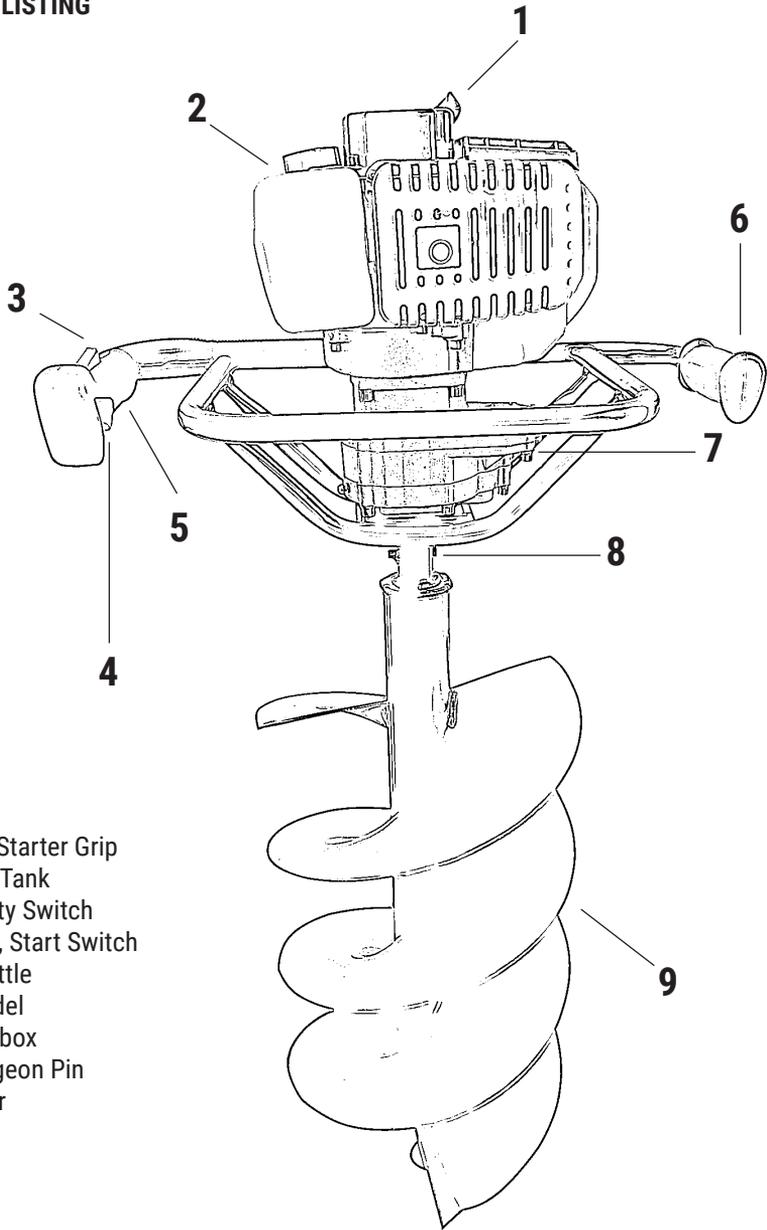
All saw service, other than the operations
shown in the present manual, should be
performed by competent personnel.

Keep this manual on hand and consult it
before each use of tool

Check, adjust, repair and clean the
machine regularly. When replacing parts,
please use the tools specified by our
company.

It is forbidden to hitch tools or applica-
tions to the P.T.O. that are not specified by
the manufacturer.

PARTS LISTING

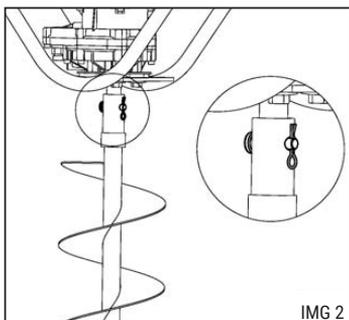
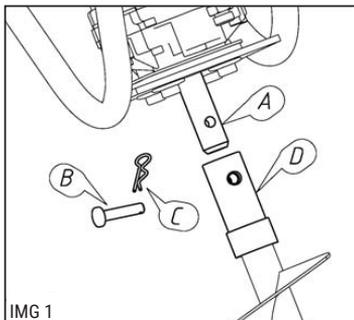


- 1. Pull Starter Grip
- 2. Fuel Tank
- 3. Safety Switch
- 4. Stop, Start Switch
- 5. Throttle
- 6. Handel
- 7. Gearbox
- 8. Gudgeon Pin
- 9. Augur

ASSEMBLY

FITTING BITS

Fit the output shaft A (IMG 1) into the seat on the bit (D) and secure it using the appropriate gudgeon pin (B,C).



WARNING

Do not change the ratio of the reduction gearbox. The characteristics of the machine could change and unforeseen reactions could occur.

WORKING RULES

WARNING

Always follow the safety rules. Do not lock the BORER onto fixed supports. It is forbidden to apply tools or applications other than the ones indicated by the manufacturer onto the p.t.o. of the BORER.



ENGINE OPERATION

BEFORE STARTING THE ENGINE

WARNING

Be sure to read the fuel handling information in the safety instructions section of this manual before you begin.



If you do not understand the fuel handling information, do not attempt to fuel your unit. Seek help from someone that does understand the information.

FUEL & OIL MIXTURE

WARNING

Always turn off engine before refueling. Never add fuel to the machine with a running or hot engine. Move at least 3m from the refueling site before starting the engine. Fuel used for this model is a mixture of unleaded petrol and approved engine lubricant.

DO NOT SMOKE. Failure to follow this warning can result in personal injury.

SAFETY TIPS

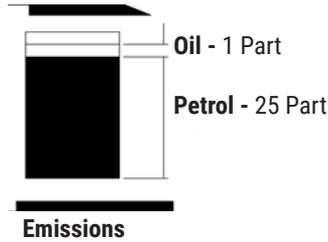
- Always handle fuel with care. It is highly flammable.
- Always refuel outdoors where there are no sparks and flames. Do not inhale fuel vapors.
- Do not let petrol or oil come in contact with your skin.
- Keep petrol and oil away from the eyes. If petrol or oil comes in contact with the eyes, wash them immediately with clean water. If irritation is still present. Seek immediate medical help.
- Clean up spilled fuel immediately.



WARNING

When mixing petrol with two-cycle engine oil, use only petrol that DOES NOT contain ETHANOL or METHANOL (types of alcohols).

Use 91 unleaded petrol to fuel the unit. This will help avoid possible damage to the engine fuel lines and other engine parts.



Petrol	2-Stroke Oil
1 Litre	25 ml
2 Litre	50 ml
5 Litre	125 ml

The engine uses two-stroke fuel. If you have emission requirements, the mixture ratio of the fuel to oil should be 40:1.

Be careful, a wrong mixture of the fuel will cause machine failure.

PETROL

Use 91 Unleaded Petrol.

STORING FUEL

The tank to store the fuel should be clean, anti-static, high-temperature-resistant, fire prevention and safe.

IMPORTANT

Two-stroke fuel may separate. Shake fuel container thoroughly before every use. Do not mix more fuel than you expect to use within a month

STARTING THE ENGINE

WARNING

Do not operate the machine in a closed or poorly ventilated areas as the exhaust gas contains poisonous substances. Keep hands, feet, hair and clothing away from all the moving parts of the machine.

The exhaust and other parts of the machine will become hot during use.

STARTING A COLD ENGINE (OR WARM ENGINE AFTER RUNNING OUT OF FUEL)

1. Put START/STOP switch to the START position.
2. Set the choke control in the  close position.
3. Slowly press primer bulb 5 times.
4. Pull starter grip 5 times, until engine tries to run.
5. Push Choke to open  position
6. Pull the starter rope sharply until the engine fires. Allow engine to run for 1-2 minutes to warm up.

STARTING A WARM ENGINE

1. If fuel tank was not run dry, pull starter 1-3 times and engine should start.
2. If fuel tank was run dry, Follow cold starting procedure

NOTE:

If the engine does not stop, closing the choke lever will force it to stop.

When the engine is hard to start due to excess fuel, remove the spark plug and dry it before restarting it.

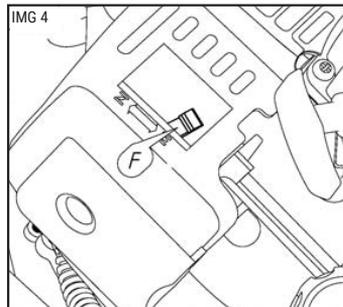
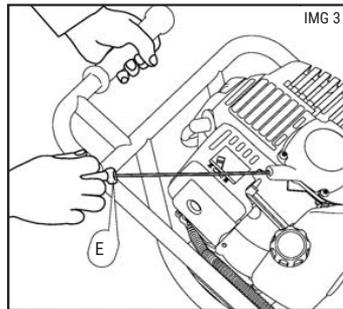
WARNING

If the bit jams, stop the engine immediately.

NOTE

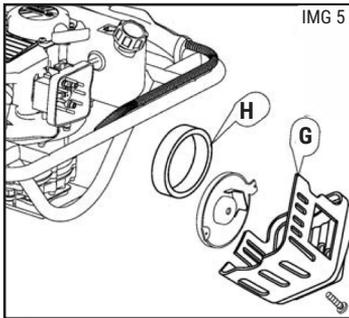
When pulling the starting rope:

1. Do not let the starter grip snap back
2. Do not pull the starter rope out all the way as it might break. (E IMG 3)
3. Guide it slowly back into the housing so that the starter rope can rewind properly.



STOPPING THE ENGINE

1. Bring the throttle to the idle position and run it for 2 - 3 minutes at a low speed until the engine cools.
2. Switch off the engine by putting the stop switch in the "STOP" position.
3. Remove the bit, clean the machine.



IMPORTANT

Avoid stopping the engine suddenly when it runs in high speed. Doing so could cause damage to the machine.

MAINTENANCE

AIR FILTER

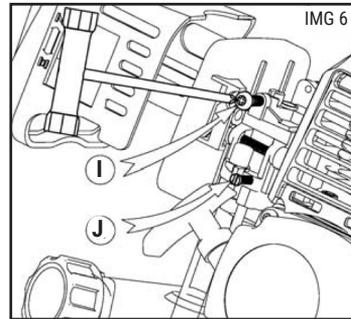
Every 25 hours, remove the cover G (IMG 5) and the filter H (IMG 5). The filter should be washed with petrol and dried before refitting.

CARBURETOR

IMPORTANT

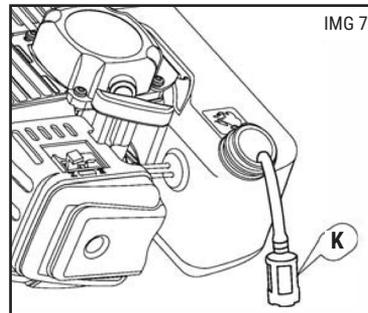
Weather conditions and altitude may affect carburation.

Screw J (IMG 6) must be adjusted so that the engine promptly responds to sharp accelerations and gives good idle operation and maximum power during the cutting phase. Idle screw I (IMG 6) is adjusted in order to ensure a good safety margin between idle turning and clutch engagement.



FUEL FILTER

Check the fuel filter K (IMG 7) periodically. Replace it if too dirty. A dirty filter can cause difficult starting and lower engine performance.



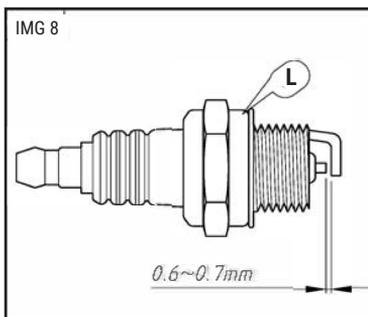
ENGINE

Clean the cylinder fins with compressed air or a brush periodically. Dangerous overheating of engine may occur due to impurities on the cylinder.

SPARK PLUG

Remove the spark plug cover, unscrew the spark plug

Clean the spark plug if carbon deposit is found. Polish the electrode with abrasive paper and adjust the electrode gap to 0.6-0.7mm (L IMG 8).

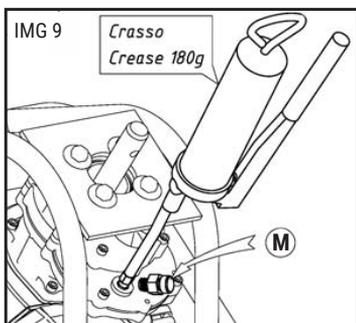


DRILL

Always check the drill bit. Sharpen or replace it if necessary.

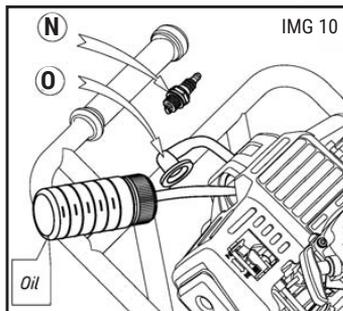
REDUCTION GEAR BOX

Every 100 working hours change the grease in the reduction gearbox (M IMG 9)



STORAGE

- Follow all the maintenance procedures described previously.
- If storing for a long period of time, clean the BORER completely and grease the metallic part.
- Remove, clean, and oil the bit to prevent rusting.
- Empty the fuel tank and put the cap back on.
- Remove the spark plug and pour a small amount of oil into the cylinder (IMG 10 - N & O).
- Pull the starting rope several times, rotate the crankshaft to distribute the oil. Put the spark plug back in.
- Wrap the engine in a plastic sheet.
- Store the BORER in a dry place, preferably off the ground and away from heat sources.



TROUBLESHOOTING GUIDE

STARTING FAILURE

Problem		Possible Cause	Solution
The Spark Plug Does Not Spark	Spark Plug	Spark Plug Electrode Is Wet	Dry The Electrode
		Covered With Carbon	Clean Or Replace The Spark Plug
		Damaged Insulation	Replace Spark Plug
		Spark Gap Incorrect	Adjust To 0.6-0.7mm
		Spark Plug Electrode Burnt	Replace Spark Plug
	Magneto	Damaged Ht Cable	Repair Or Replace
		Bad Coil Insulation	Replace Coil
		Damage To The Wire Coil	Replace Coil
The Electronic Firing Unit Is Defective		Replace The Defective Unit	
The Spark Plug Is Functioning Correctly	Compression Ratio Ok And Fueling Well	Too Much Fuel In The Cylinder	Drain Excess Fuel
		Water Or Dirt In The Fuel, Stale Fuel	Replace With Fresh Fuel
	Fueling Well But The Compression Ratio Is Poor	The Cylinder Piston Ring Is Worn Or Damaged	Replace Worn Or Damaged Items
		The Spark Plug Is Loose	Tighten Spark Plug
	Carburettor Not Fueling	No Fuel In The Tank	Add Fuel - May Require Priming
		Filter Gauze Clogged	Clean Filter Gauze Or Replace
		Tank Air Hole Clogged	Clean Tank Air Hole

ENGINE STOPS WHILE RUNNING

Problem	Possible Cause	Solution
Engine Stops Suddenly	The Plug Or Plug Wire Is Loose	Firmly Replace If Loose
	Piston Seized	Change The Piston
	Spark Plug Covered In Carbon	Clean Or Replace The Spark Plug
	The Engine Has Run Out Of Petrol	Refill Tank With Fuel
Engine Stops Slowly	Carburettor Clogged	Clean The Carburettor
	The Air Hole In The Tank Is Clogged	Clean The Air Hole
	Water In The Fuel	Drain And Replace With Fresh Fuel

ENGINE HARD TO STOP

Problem	Possible Cause	Solution
Engine	Cylinder and piston overheat conduce to self ignition	Clean Carbon
Correlative Circuit	Plug Pole Overheats	Adjust The Carburettor
	Stop Button is Bad	Clean & Remedy

LACK OF POWER

Problem	Possible Cause	Solution
The Compression Ratio Is Ok	Filter Clogged	Clean Filter
	Air Is Able To Pass Through	Tighten Fuel Lines To Prevent Air From Penetrating
	Air Is Able To Pass Through The Carburettor Connection	Tighten Up
	Engine Is Overheating	Stop The Engine And Let It Cool.
	Water In The Fuel	Upon Restart, Avoid Long Periods Of Sustained Load.
	Carbon Clogged Exhaust	Drain And Replace The Fuel
Engine Overheating	Fuel Mixture Too Lean	Adjust The Carburettor
	A Cylinder Covered With Carbon	Clean The Cylinder

OTHER

Problem	Possible Cause	Solution
Engine Works But Bit Wont Not Turn	Clutch Damaged	Replace
	Interference Fit Failure Between Gear-shaft And Output Shaft	Replace The Relative Part
Knocking Or Making A Noise	Gear Worn	Replace The Relative Part
	Bad Lubricant	Clean & Grease
	Impurity In The Gearbox	Clean & Grease

IMPORTANT

Maintenance procedures that are not reported in this manual must only be carried out by a authorised service dealer. Only use ORIGINAL SPARE PARTS

WARRANTY

LIMITED WARRANTY

The manufacturer, acting through the sales and technical assistance network, shall replace free of charge any parts proven defective in material, machining or manufacturing. The warranty does not affect the purchaser's right as established under legislation governing the consequences of defects in the machine.

The warranty period starts on the date of purchase.

To make any claim under the warranty, this certificate of warranty, fully complied, bearing the dealer's stamp, and accompanied by the invoice or receipt showing the date of purchase, must be displayed to the personnel authorised to approve work.

The warranty shall be null and void if:

- The machine has evidently not been serviced correctly.
- The machine has been used for improper purposes or has been modified in any way.
- Unsuitable lubricants and fuels have been used.
- Non-original spare parts and accessories have been fitted.
- Work has been done on the machine by unauthorised personnel.
- Parts subject to normal wear
- Damage incurred during transport must be immediately brought to the attention of the carrier; the warranty shall be null and void if failure to do so.

- Having no invoice, warranty certificate or the part number on the warranty certificate does not conform to the real object.

If you have any questions regarding your LMAG52 Post Hole Borer, contact your local LawnMaster Service Dealership or contact Steelfort.

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SCAN TO VIEW THE
LAWNMASTER RANGE