

# RYOBI®

RPHD430

## OPERATOR'S MANUAL POST HOLE DIGGER



## **Important!**

It is essential that you read the instructions in this manual before assembling, operating and maintaining this product.

Subject to technical modification.

## PRODUCT DESCRIPTION

Figure 1

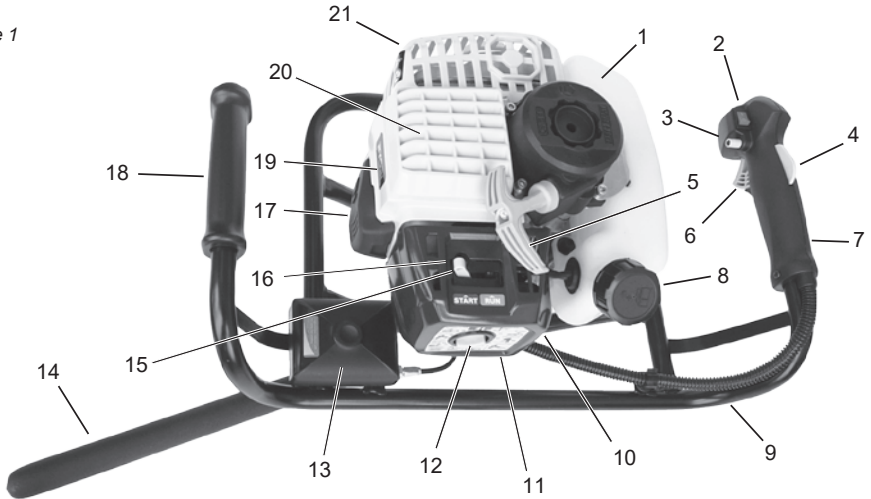
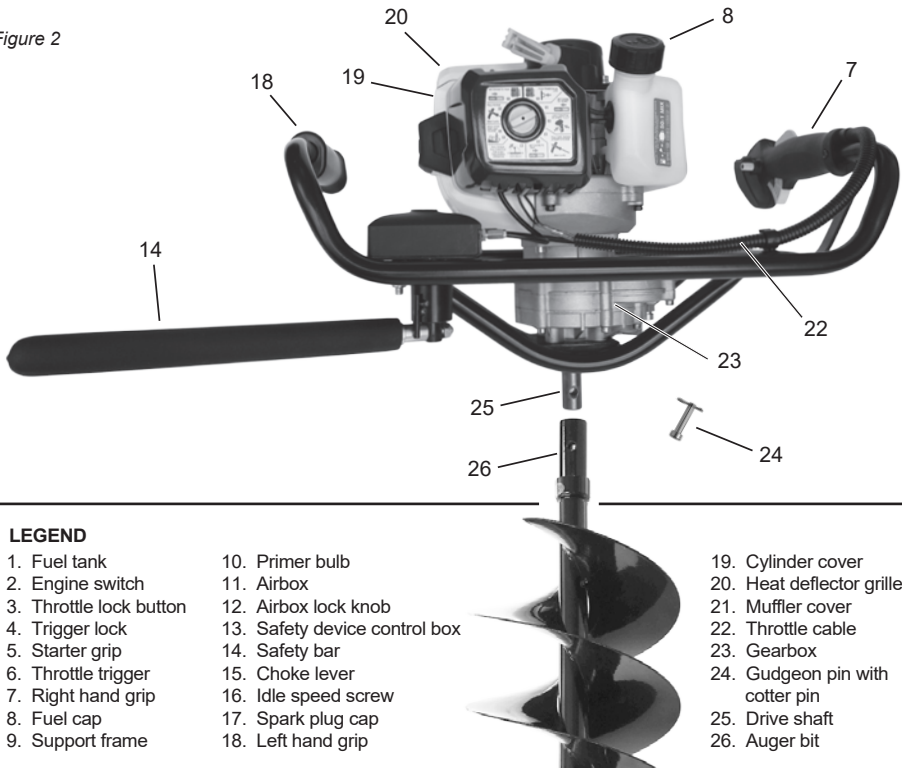


Figure 2



### LEGEND

- |                         |                               |                                 |
|-------------------------|-------------------------------|---------------------------------|
| 1. Fuel tank            | 10. Primer bulb               | 19. Cylinder cover              |
| 2. Engine switch        | 11. Airbox                    | 20. Heat deflector grille       |
| 3. Throttle lock button | 12. Airbox lock knob          | 21. Muffler cover               |
| 4. Trigger lock         | 13. Safety device control box | 22. Throttle cable              |
| 5. Starter grip         | 14. Safety bar                | 23. Gearbox                     |
| 6. Throttle trigger     | 15. Choke lever               | 24. Gudgeon pin with cotter pin |
| 7. Right hand grip      | 16. Idle speed screw          | 25. Drive shaft                 |
| 8. Fuel cap             | 17. Spark plug cap            | 26. Auger bit                   |
| 9. Support frame        | 18. Left hand grip            |                                 |

# ASSEMBLY

## MOUNTING THE SAFETY BAR

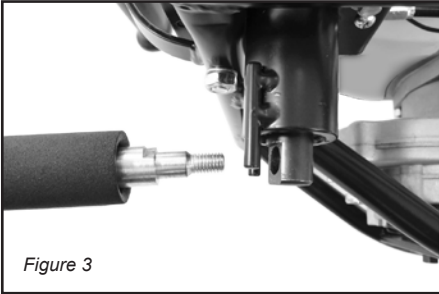


Figure 3

Align the safety bar into the the seat on the safety device spindle.



Figure 4

Fasten the nylock nut using the spanner supplied.

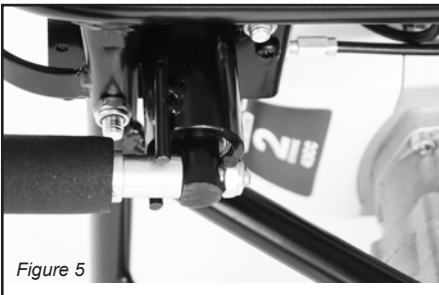


Figure 5

Secure as shown.

## ADDING THE TOOL

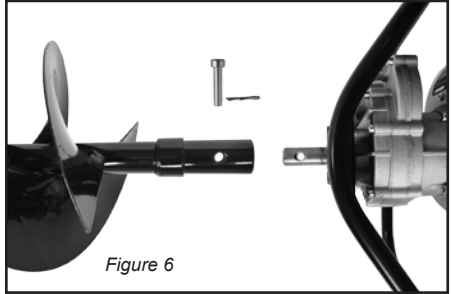


Figure 6

Align the engine drive shaft into the seat on the auger bit.

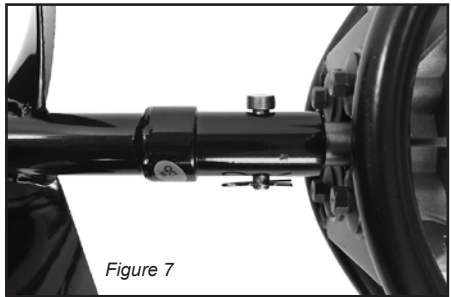


Figure 7

Secure using the gudgeon pin and cotter pin supplied.

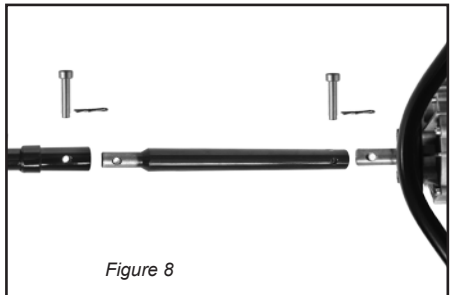
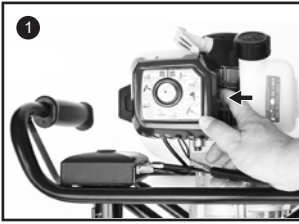


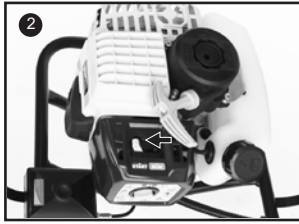
Figure 8

Your post hole digger is supplied with a 300mm extension shaft to be used for deeper hole digging.  
**DO NOT** start digging a hole with the extension shaft attached.

# STARTING INSTRUCTIONS



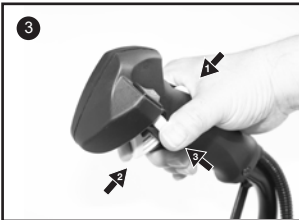
1 Push primer bulb x 10.



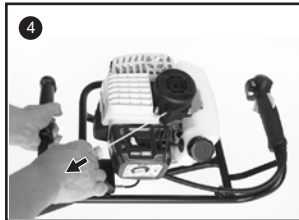
2 Move choke lever to "START" position.

## FUEL MIX RATIO

50 : 1



3 Lock throttle by steps "1, 2, 3".



4 Pull until engine attempts to start (Max 6 pulls).



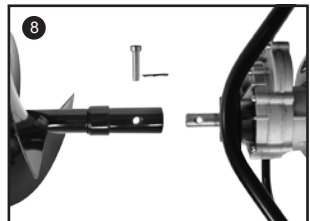
5 Move choke lever to "RUN" position.



6 Pull to start (Max 2 pulls) then full throttle run for 5-20 seconds.



7 Hold "STOP" for 2 seconds to stop.



8 Attach the auger bit and lock with pins



9 Pull to run (Max 4 pulls).



10 Run for normal operation.



11 Hold "STOP" for 2 seconds to stop.

Figure 9

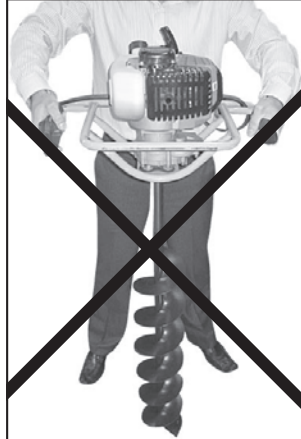
# OPERATION

Figure 10



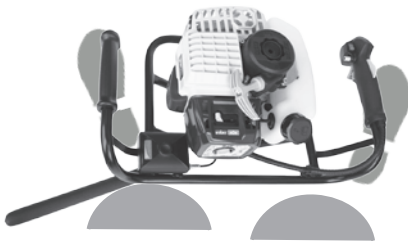
Correct operating position is with the two handles below waist level, which will ensure full control of the digger can be maintained.

Figure 12



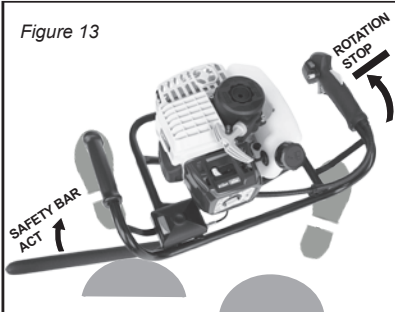
DO NOT operate with either one or two handles above waist level.

Figure 11



Have your left foot slightly further forward than your right foot to enable the frame near the safety bar to rest against your left thigh. Always firmly grip the handles with two hands when operating the unit.

Figure 13



The safety bar is designed to prevent excessive rotation of the auger when the bit is jammed, enabling the user to maintain balance during operation.

# MAINTENANCE

## GEARBOX LUBRICATION

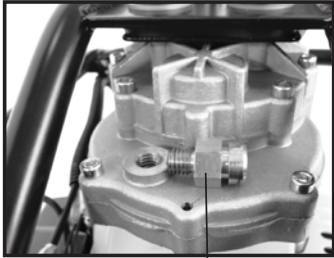


Figure 14 Pressure release screw

## SPARK PLUG



Figure 15 Spark plug

## AIR FILTER

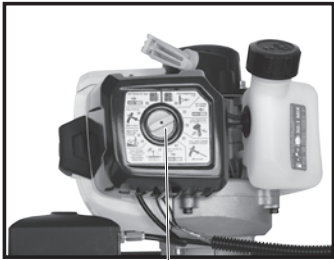


Figure 16 Airbox lock knob

## Air filter retainer

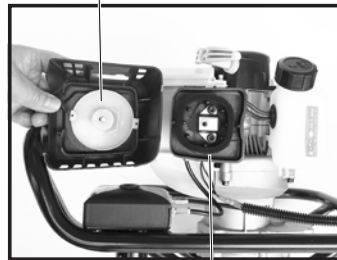


Figure 17 Foam filter element

## SPARK ARRESTOR



Figure 18 Spark arrester

## Thank you for buying a Ryobi post hole digger.

Your new tool has been engineered and manufactured to Ryobi's high standard for dependability, ease of operation and operator safety. If properly cared for, it will give you years of rugged, trouble free performance.



### WARNING!

To reduce the risk of injury, the user must read and understand the operator's manual.

Do not attempt to operate this post hole digger until you have read thoroughly and understand completely all instructions, safety rules etc contained in this manual.

Failure to comply may result in accidents involving fire, electric shock or serious personal injury. Save the operator's manual and review frequently for continuous safe operation and for instructing others who may use this tool.

## GENERAL SAFETY RULES

- For safe operation, read and understand all instructions before using the post hole digger. Follow all safety instructions. Failure to follow all safety instructions listed below, can result in serious personal injury.
- Do not allow children or untrained individuals to use this tool.
- The post hole digger must only be used by adults in good physical condition, with knowledge of the operating instructions.
- Never start or run the engine in a closed or poorly ventilated area; breathing exhaust fumes can kill.
- Clear the work area before each use. Remove all objects such as rocks, broken glass, nails, wire, or string which can be become entangled in the digger.
- Wear protective non-slip safety shoes, gloves, glasses and ear protection while operating the tool.
- Wear heavy long pants. Do not wear loose fitting clothing, short pants, loose jewellery of any kind, or use with bare feet.
- Secure long hair to prevent entanglement in any moving parts.
- Keep all bystanders, children, and pets at least 3m away.
- Do not operate this unit when you are tired, ill, or under the influence of alcohol, drugs or medication.
- Do not operate in poor lighting.
- Keep firm footing and balance. Do not overreach. Overreaching can result in loss of balance or exposure to hot surfaces.
- Keep all parts of your body away from any moving part.
- Do not touch area around the muffler or cylinder of the post hole digger, these parts get hot from operation.
- Always stop the engine and remove the spark plug cap before making any adjustments or repairs.
- Inspect the tool before each use for loose fasteners, damaged components, fuel leaks, etc. Replace any damaged parts before use.



■ It has been reported that vibrations from hand-held tools may contribute to a condition called Raynaud's Syndrome in certain individuals. Symptoms may include tingling, numbness and blanching of fingers, usually apparent upon exposure to cold. Hereditary factors, exposure to cold and dampness, diet, smoking and work practices are all thought to contribute the development of these symptoms. It is presently unknown what, if any, vibrations or extent of exposure may contribute to the condition. There are measures that can be taken by the operator to possibly reduce the effects of vibration:

- a) Keep your body warm in cold weather. When operating the unit wear gloves to keep the hands and wrists warm. It is reported that cold weather is a major factor contributing to Raynaud's Syndrome.
- b) After each period of operation, exercise to increase blood circulation.
- c) Take frequent work breaks. Limit the amount of exposure per day.

If you experience any of the symptoms of this condition, immediately discontinue use and see your physician about these symptoms.

- Keep the tool well maintained, fasteners tightened and worn parts replaced.
- Mix and store fuel in a container approved for fuel.
- Mix fuel outdoors where there are no sparks or flames. Wipe up any fuel spillage. Move 9m away from refuelling site before starting engine.
- Stop the engine and allow to cool before refuelling or storing the tool.
- Stop the engine and allow to cool; empty the fuel tank and secure the tool from moving before transporting in a vehicle.







## **SPECIFIC SAFETY RULES FOR POST HOLE DIGGER**








- Replace augers if cracked, bent, or damaged in anyway. Be sure the auger and/or extension shaft is properly installed and securely fastened. Failure to do so can cause serious injury.
- Make sure all guards, straps, deflectors and handles are properly and securely attached.
- Do not start working until you have a clear work area. Do not work near electric cables or underground utilities. It is highly recommended that you check with local authorities before starting to drill.
- If auger turns whilst the engine is idling, stop the engine and immediately adjust the idle settings following the instructions in this manual.
- Use only the manufacturer's replacement augers on this unit. Do not use any other attachments.
- Never operate without the safety bar attached. The safety bar will work for safer operation if a hard object is struck.
- Replace the bit immediately if any cracks or other damage are present.
- Maintain a firm grip on both handles during operation.
- Never use the post hole digger with the handles above waist level. Operating with the handles above waist level restricts control and can cause serious chest injuries if a hard object is struck.
- Never carry the unit with the engine running.
- Carry the post hole digger with the engine stopped, and with the auger bit removed.

- Never operate in a horizontal angle. The post hole digger should only be operated with the auger at a 90° angle to the ground.
- Always keep the handles dry and clean.
- Before starting to drill make sure the bit is not obstructed.
- Always work in a firm-footed and safe position.
- Never touch the auger bit or carry out maintenance with the engine running.
- Grip the post hole digger firmly with both hands and keep all parts of the body away from the auger bit and muffler.
- Never attempt to carry out servicing or repairs that are not part of the routine maintenance. For other repairs, have the post hole digger serviced by an authorised repairer.
- Store the post hole digger off the ground in a vertical position in a dry place and with fuel tank empty.
- If the auger bit jams, stop the engine immediately.
- Always check for fuel leaks before operating the post hole digger. Never operate if a fuel leak is present.




## SYMBOLS

**IMPORTANT:** Some of the following symbols may be used in this manual. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the tool better and safer.

SYMBOL	NAME	EXPLANATION
	Safety alert symbol	Indicates danger, warning or caution. It means attention!!! Your safety is involved.
	Read your Operator's Manual	Your manual contains special messages to bring attention to potential safety concerns as well as operating and servicing information. Please read all the information carefully to ensure satisfaction and safe use.
	Regulatory Compliance Mark (RCM)	This product meets applicable regulatory requirements
	Eye and hearing protection	Wear eye and hearing protection when operating this equipment.
	Keep bystanders away	Keep all bystanders at least 3m away.
	Boots	Wear non-slip safety footwear when using this tool.

SYMBOL	NAME	EXPLANATION
	Gloves	Wear non-slip, heavy-duty gloves.
	No smoking	Do not smoke when mixing fuel or filling fuel tank.
	Petrol	Use unleaded petrol intended for motor vehicle use with an octane rating of 91 or higher.
	Oil	Use synthetic 2-stroke oil for air cooled engines.
	Mix petrol and oil	Mix the fuel mix thoroughly and also each time before refuelling.
	Engine switch	I = ON to run  = STOP to stop

The following signal words and meanings are intended to explain the levels of risk associated with this products.

SYMBOL	NAME	EXPLANATION
	Danger	Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.
	Warning	Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.
	Caution	Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.
		(Without Safety Alert Symbol) Indicates a situation that may result in property damage.

## SERVICE

Servicing requires extreme care and knowledge and should be performed only by a qualified service person. For service we suggest you return the product to your nearest **Authorised Service Centre** for repair. When servicing, use only identical replacement parts.



### WARNING!

To avoid serious personal injury, do not attempt to use this product until you read thoroughly and understand completely the operator's manual. Save this operator's manual and review frequently for continuing safe operation and instructing others who may use this product.

## PACKING LIST



- 1 x 200x740mm Auger Bit
- 1 x 300mm Extension Shaft
- 1 x 500ml Fuel Mixture Bottle
- 1 x Spark Plug Spanner
- 2 x Allen Keys
- 2 x Open Ended Spanners
- 1 x 76ml 2-Stroke Synthetic Oil
- 3 x Gudgeon Pins with Cotter Pins
- 1 x Operator's Manual
- 1 x Safety bar
- 1 x RPHD430 Engine Assembly

## FEATURES

### KNOW YOUR POST HOLE DIGGER

See *figure 1 & 2*

The safe use of this product requires an understanding of the information on the product and in this operator's manual as well as a knowledge of the project you are attempting. Before use of this product, familiarize yourself with all operating features and safety rules.

### AIRBOX

The airbox cover houses the air filter which helps to limit the amount of dirt and dust drawn into the engine during operation.

### CHOKE LEVER

The choke lever is used when starting the engine.

### PRIMER BULB

The primer bulb is used to prime the carburetor prior to cold starting or if the unit has not been used for a while.

### GEARBOX

The gearbox transfers the engines RPM to a slower high torque output.

### DRIVE SHAFT

The drive shaft is connected to attachments to transfer movement.

### GUDGEON PIN AND COTTER PIN

The gudgeon pins and cotter pins secure the attachments to the drive shaft.

### RECOIL STARTER GRIP

The recoil start grip is used (along with the engine switch) to start the engine. This product is Easy Start capable so you can start this with the One+ Easy Starter tool (sold separately), rather than by using the pull cord. Refer to page 11 for further information.

## ENGINE SWITCH

This post hole digger is built with a lock-on engine switch which is used in combination with the recoil starter grip to start the engine. It is also used to turn the engine off.

## THROTTLE LOCK

The throttle lock is used to help the engine on cold starts.

## THROTTLE TRIGGER

The throttle trigger helps the operator control the speed of the auger to suit various ground conditions.

## TRIGGER LOCK

The trigger lock prevents the operator from accidentally activating the throttle trigger. The trigger lock must be depressed before applying the throttle.

## SAFETY DEVICE CONTROL BOX AND SAFETY BAR

The patent safety device control box & safety bar prevent the engine head assembly from excessive backward rotation in the case of jammed drill, which may cause the operator serious injury.

## ONE+ EASY STARTER

This post hole digger can be started with the push of a button through the use of the One+ Easy Starter (sold separately). Please refer to the included Quick Start Guide for detailed starting procedure.

# ASSEMBLY

## UNPACKING

- Carefully remove the tool and any accessories from the carton. Make sure that all items listed in the packing list are included.
- Inspect the tool carefully to make sure no breakage or damage occurred during shipping.
- Do not discard the packing material until you have carefully inspected and satisfactorily operated the tool.



### WARNING!

If any parts are missing, do not operate this tool until the missing parts are replaced. Failure to do so could result in possible serious injury.



### WARNING!

Do not attempt to modify this tool or create accessories not recommended for use with this tool. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious personal injury.

## MOUNTING THE SAFETY BAR

See *figure 3, 4 & 5*

Remove the nylon lock nut on the safety bar, align the bar shaft into the seat on the safety device control box spindle, fasten the nylon lock nut using the supplied spanner.

## FITTING THE AUGER BITS

See *figure 6 & 7*

Align the engine drive shaft into the seat on the auger bit and secure it using the appropriate gudgeon pin and cotter pin provided.

- **NOTE: Your post hole digger is supplied with a 300mm extension shaft to be used for deeper hole digging. DO NOT start digging a hole with the extension attached.**

The hole should always be started with the auger bit only fitted. Once the hole is deep enough and the support frame is at least 300mm below waist level, you may stop the engine and attach the extension shaft between the engine assembly and the auger bit for added comfort and deeper hole depth. (see *figure 8*)

## OPERATION

### OPERATION RULES



#### WARNING!

Always follow the safety rules. The post hole digger must only be used to drill ground. Do not lock the digger onto fixed supports. Do not use the tool for other applications other than what is intended by the manufacturer.



#### WARNING!

Do not allow familiarity with tools to make you careless. Remember that a careless fraction of second is sufficient to inflict serious injury.

### EYE PROTECTION



#### WARNING!

Always wear safety goggles or safety glasses with side shields when operating this tool. Failure to do so could result in objects being thrown into your eyes resulting in possible serious injury.



#### WARNING!

Do not use any attachments or accessories not recommended by the manufacturer for this tool. The use of attachments or accessories not recommended can result in personal injury.



**NOTE: Read the operators manual and follow all warnings and safety instructions.**



**NOTE: Keep all bystanders, especially children and pets, at least 3m from the operating area.**

## FUEL AND REFUELING SAFETY

- Always handle fuel with care, it is highly flammable.
- Always refuel outdoors where there are no sparks and flames. Do not inhale fuel vapours.
- 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, see a doctor immediately.
- Clean up spilled petrol immediately.

## MIXING THE FUEL

- This product is powered by a 2-stroke engine and requires pre-mixing of petrol and 2-stroke oil. Pre-mix unleaded petrol and 2-stroke engine oil in a clean container approved for petrol.
- The engine is certified to operate on unleaded petrol intended for automotive use with an octane rating of 91 or higher.
- Do not use Ethanol fuels or fuels containing Ethanol. The use of Ethanol fuels may void your warranty.
- Do not use any type of pre-mixed petrol / oil from fuel service stations, this includes the premixed petrol / oil intended for use in mopeds, motorcycles, etc.
- Use synthetic 2-stroke oil only. Do not use automotive oil or 2-stroke outboard oil.
- Mix 2% synthetic 2-stroke oil into the petrol. This is a 50:1 ratio.
- Mix the fuel thoroughly and also each time before fuelling.
- Mix in small quantities. Do not mix quantities larger than usable in a 30 day period. Synthetic 2-stroke oil containing a fuel stabilizer is recommended.

## FILLING THE TANK



- Clean surface around fuel cap to prevent contamination.
- Loosen fuel cap slowly to release pressure and to keep fuel from escaping around the cap.
- Carefully pour fuel mixture into the tank. Avoid spillage.
- Prior to replacing the fuel cap, clean and inspect the gasket.
- Immediately replace fuel cap and hand tighten.
- Wipe up any fuel spillage. Move 9m away from refuelling site before starting engine.

**NOTE: It is normal for smoke to be emitted from a new engine during and after first use.**



### WARNING!

Always turn off engine before fuelling. Never add fuel to a machine with a running or hot engine. Move at least 9m from refuelling site before starting engine.

Do not smoke!

- 1 Litre + 20 ml =
- 2 Litres + 40 ml =
- 3 Litres + 60 ml = 50:1 (2%)
- 4 Litres + 80 ml =
- 5 Litres + 100 ml =



## STARTING AND STOPPING



### WARNING!

Never start or run the engine inside a closed or poorly ventilated area; Breathing exhaust fumes can kill.



### WARNING!

Do not have the auger bit attached when starting a cold engine. The auger bit may rotate when the engine starts with the throttle lock engaged. Start the engine following the procedure below. Allow the engine to warm up. With the engine warm, you may stop the engine, fit the auger bit and re-start the engine following the warm start procedure.

## TO START A COLD ENGINE

See figure 9

1. **Remove** auger bit (if attached).
2. **PRIME** – press the primer bulb **10 times** slowly.
3. **SET** the the choke lever to the **“START”** position.
4. **Lock the throttle** by squeezing throttle trigger and trigger lock together and pressing in the lock button.
5. **PULL** the starter rope with a quick firm and consistent motion **until the engine fires or starts to fire** (Max 6 pulls).
6. If the engine fires (pops) but does not continue to run, move the choke lever to the **“RUN”** position and continue to start the engine (Max 2 pulls).
7. If the engine starts and runs, pull the throttle trigger to release it from the throttle lock position and move choke lever to the **“RUN”** position.
8. Allow the engine to warm up for 5-20 seconds. If the engine does not start, repeat from step 2.

## TO START A WARM ENGINE

**PULL** the starter rope with a quick firm and consistent motion until the engine starts (Max 4 pulls).

**NOTE:** Do not use the choke when starting a hot engine, make sure the choke lever is in the **“RUN”** position. If the engine does not start, return to step 2 under **“TO START A COLD ENGINE”**.

## TO STOP THE ENGINE

Press the engine switch to the **“STOP”** position and hold for 2 seconds, until the engine stops.

## OPERATING THE POST HOLE DIGGER

See figure 10 & 11

**NOTE:** Always test the safety device before operating the auger bit.

- Hold the post hole digger in front of you firmly with the right hand gripping the throttle handle and your left hand gripping the other.



- Stand comfortably with both feet of firm ground having the left foot slightly forward of the right foot. Lean the frame of the engine in front of the safety bar on your left thigh.
- Always keep a firm grip with both hands while in operation.
- The post hole digger should be held at a comfortable position with the left and right handles no higher than waist level.
- The throttle trigger helps control the speed of the auger to suit various ground conditions.
- Always pay full attention to your operation. Serious injuries may result if contact is made with the rotating auger.

**NOTE: Your post hole digger is supplied with a 300mm extension shaft to be used for deeper hole digging. DO NOT start digging a hole with the extension attached.**

The hole should always be started with the auger bit only fitted. Once the hole is deep enough and the handles are at least 300mm below waist level, stop the engine, attach the extension shaft between the power head and the auger to enable deeper hole digging.

**WARNING!**



See *figure 12*

Never use the post hole digger with the handles above waist level.

Operating with the handles above waist level restricts control and can cause serious chest injuries if a hard object is struck.

**HOW THE SAFETY DEVICE WORKS**

See *figure 13*

Your post post hole digger is built with a safety device which can prevent excessive backwards rotation in the case of jammed drill.

When the post hole digger is operated normally, the auger bit is driven into soil in a clockwise direction. If the bit contacts large roots or rocks which stops rotation, the inertia of the rotating engine will be in the opposite direction (anticlockwise).

The rotating inertia of the engine will result in the safety bar contacting the user's left thigh. The change in the angle of the safety bar will be detected by the mechanism inside the safety device control box which will operate and reduce the engine speed. As a result, the post hole digger will not rotate anticlockwise any further.

**NOTE: Always test the safety device before operating the auger bit.**

**MAINTENANCE**



**WARNING!**

Use only original manufacturer's replacement parts, accessories and attachments. Failure to do so can cause possible injury, poor performance and may void your warranty.

- Stop the engine and allow it to cool before making adjustments or completing any maintenance.
- You may make adjustments and repairs described here. For other repairs, have the post hole digger serviced by an authorised service agent.
- Consequences of improper maintenance may include excess carbon deposits resulting in loss of performance and discharge of black oily residue dripping from the muffler.
- Make sure all guards, deflectors and handles are properly and securely attached to avoid the risk of personal injury.

## ENGINE

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

## REDUCTION GEARBOX

See *figure 14*

Every 100 working hours change the grease in the reduction gearbox.

## LUBRICANT FOR REDUCTION GEARBOX

The post hole digger is supplied with TAMOIL TAMLITH GREASE 2 grease in the reduction gearbox. The lubrication in the reduction gearbox should be checked periodically. To check the lubricant condition and level, remove the pressure release screw under the reduction gearbox.

The manual specifies "TAMOIL TAMLITH GREASE 2"

This is a Lithium soap based grease with a temperature range of -30 to 130 °C.

Castrol L/EPO is a suitable substitute (or equivalent in other brands).

It's a Lithium based semi fluid grease suited to gearboxes and being semi liquid is self-levelling.

## SPARK PLUG REPLACEMENT

See *figure 15*

This engine uses an NGK BPMR6A or Champion RCJ6Y spark plug with 0.60 (+/- 0.1)mm electrode gap. Use an exact replacement and replace annually. Make sure new spark plug is secured in place with a torque up to 12N.m.

## CLEANING AIR FILTER

See *figure 16 & 17*

A dirty air filter will cause starting difficulty, loss of performance, and shorten the life span of the engine. Check the air filter monthly. For best performance, replace the air filter at least once a year.

- Loosen the airbox cover by turning the lock knob counter clockwise.
- Remove the airbox cover, air filter retainer and the air filter element.
- Clean the foam filter element with warm soapy water. Rinse and let dry.

**NOTE: If the foam filter element is damaged, it should be replaced.**

- Apply a light coat of engine oil to the foam filter element, then squeeze it out.
- Reinstall the air filter.

**NOTE: Make sure the filter is seated properly inside the cover. Installing the filter incorrectly will allow dirt to enter the engine, causing rapid engine wear.**

- Reinstall the airbox cover and tighten lock knob to secure.

## FUEL TANK



### **WARNING!**

A leaking fuel cap is a fire hazard and must be replaced immediately.

The fuel cap contains a sealing gasket and a check valve to ventilate built up fuel gasses. A clogged check valve will cause poor engine performance. If performance improves when the fuel cap is loosened, the check valve may be faulty. Replace fuel cap if required.

The fuel supplied to the engine is passed through a filter to remove any contaminants from entering the engine. Contaminants in the fuel can cause poor performance and damage to the engine.

The fuel filter is a non-serviceable item and if needed should be replaced by an Authorised Service Centre.

## CLEANING THE EXHAUST PORT AND MUFFLER

Depending on the type of fuel used, the type and amount of oil used, and/or your operating conditions, the exhaust port and muffler may become blocked with carbon deposits. If you notice a power loss with your petrol powered tool, a qualified service technician will need to remove these deposits to restore performance.

## SPARK ARRESTOR REPLACEMENT

See *figure 18*

This machine is fitted with a spark arrestor to help prevent fires. The spark arrestor is fitted at the muffler discharging port. To ensure proper performance of your product, the spark arrestor must be cleaned or replaced every 25 hours or each year. Please contact your nearest service dealer for a new spark arrestor.

## STORING THE PRODUCT

- Clean all foreign material from the product. Store idle unit indoors in a dry, well-ventilated area that is inaccessible to children. Keep away from corrosive agents such as garden chemicals.
- Abide by all ISO and local regulations for the safe storage and handling of petrol.

## WHEN STORING FOR 1 MONTH OR LONGER

Drain all fuel from tank into a container approved for petrol. Run engine until it stops.

## TROUBLESHOOTING

*If these solutions do not solve the problem, contact your authorised service dealer.*

PROBLEM	POSSIBLE CAUSE	SOLUTION
Engine will not start.	<ul style="list-style-type: none"> <li>■ No spark.</li>   <li>■ No fuel.</li>   <li>■ Engine is flooded.</li>   <li>■ Starter cord is hard to pull.</li>   <li>■ Old fuel.</li> </ul>	<ul style="list-style-type: none"> <li>■ Check spark: remove spark plug, reattach the spark plug cap and lay spark plug on metal cylinder. Pull the starter rope and watch for spark at spark plug tip. If there is no spark, repeat test with a new spark plug.</li>   <li>■ Push primer bulb until bulb is full of fuel. If bulb does not fill, primary fuel delivery system is blocked, contact a servicing dealer. If primer bulb fills, engine may be flooded, proceed to next solution.</li>   <li>■ Completely remove the spark plug from the engine and spark plug boot, then turn the product so the spark plug hole is aimed at the ground.</li> <li>■ Set the choke lever to RUN position and pull starter cord 10-15 times, this will clear excessive fuel from the engine.</li> <li>■ Remove any expelled fuel from the product.</li> <li>■ Clean and reinstall the spark plug.</li> <li>■ Clean up any spilled fuel and move at least 9m away before restarting.</li> <li>■ Pull starter cord 3 times with the choke lever at <b>RUN</b> position.</li> <li>■ If the engine does not start, set the choke lever to <b>START</b> position and repeat the normal starting procedure.</li>   <li>■ Contact a servicing dealer.</li>   <li>■ Replace with fresh fuel.</li> </ul>
Engine does not reach full speed and emits excessive smoke.	<ul style="list-style-type: none"> <li>■ Check oil fuel mixture.</li> <li>■ Air filter is dirty.</li> <li>■ Spark arrestor screen is dirty.</li> </ul>	<ul style="list-style-type: none"> <li>■ Use fresh fuel and the correct 2-stroke oil mix.</li>   <li>■ Clean air filter. Refer to Cleaning the Air Filter earlier in this manual.</li>   <li>■ Contact a servicing dealer.</li> </ul>
Engine starts, runs, and accelerates but will not idle.	Idle speed screw on carburetor requires adjustment.	Turn idle speed screw clockwise to increase idle speed.

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
The auger attachment turns at idle.	<ul style="list-style-type: none"> <li>■ Idle speed is set too high.</li> <li>■ Gearbox clutch is inoperable.</li> </ul>	<ul style="list-style-type: none"> <li>■ Turn the idle speed screw counter clockwise to reduce the idle RPM and stop the auger attachment.</li> <li>■ Contact a service dealer for adjustment and discontinue use until the repair is made. Serious personal injury may result from the auger attachment turning at idle.</li> </ul>
Oil drips from muffler.	<ul style="list-style-type: none"> <li>■ Check oil / fuel mixture.</li> <li>■ Air filter dirty.</li> </ul>	<ul style="list-style-type: none"> <li>■ Use fresh fuel and the correct synthetic 2-stroke oil mix.</li> <li>■ Clean per instruction in Maintenance Section.</li> </ul>

## SPECIFICATIONS

<b>Model:</b>	RPHD430	<b>Vibration, right grip:</b>	Idling 12.6 m/s <sup>2</sup>
<b>Engine type:</b>	Air cooled 2-stroke		Racing 5.0 m/s <sup>2</sup>
<b>Engine displacement:</b>	43 cc		Uncertainty 1.5 m/s <sup>2</sup>
<b>Max Engine power:</b>	1.25 kw / 6500 rpm	<b>Vibration, left grip:</b>	Idling 14.1 m/s <sup>2</sup>
<b>Gearbox reduction ratio:</b>	40:1		Racing 5.8 m/s <sup>2</sup>
<b>Idle speed:</b>	2800±280 rpm		Uncertainty 1.5 m/s <sup>2</sup>
<b>Clutch engagement speed:</b>	4200±350 rpm	<b>Sound pressure level:</b>	Idling 78.1 dB(A)
<b>Maximum engine speed:</b>	9000±350 rpm		Racing 98.0 dB(A)
<b>Auger speed:</b>	200 - 230 rpm		Uncertainty 3 dB(A)
<b>Auger diameter:</b>	200 mm	<b>Sound power level:</b>	Idling 89.2 dB(A)
<b>Auger length:</b>	740 mm		Racing 109.1 dB(A)
<b>Extension shaft:</b>	300 mm		Uncertainty 3 dB(A)
<b>Fuel mix ratio:</b>	50:1		
<b>Fuel tank volume:</b>	950ml		
<b>Weight:</b>	18 kg		
<b>Fuel consumption:</b>	610g/h		
<b>Specified fuel consumption:</b>	488g/(kw-h)		

*Note: Fuel consumptions - tested in accordance with 2012/46/EU at max engine power.*

*Vibrations - tested in accordance with ISO22867.*

*Sound levels - tested in accordance with ISO22868 at operator's position.*



### **WARNING!**

The declared vibration value has been measured with a standard test method and may be used to compare one tool with another. The declared vibration value may be used in a preliminary assessment of exposure. The vibration emission during actual use can differ from the declared total value depending on the ways in which the tool is used. Identify safety measures to protect yourself based on an estimation of exposure in the actual conditions of use, taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time.





**Techtronic Industries (Australia) Pty. Ltd.**  
31 Gilby Road, Mt Waverley  
VIC 3149, Australia

**Techtronic Industries New Zealand Ltd.**  
2 Landing Drive, Auckland Airport,  
Mangere, New Zealand 2022