

# 81096

## POST HOLE DIGGER ENGINE HEAD

### OPERATORS MANUAL



**IMPORTANT!**

IT IS ESSENTIAL THAT YOU READ THE INSTRUCTIONS IN THIS MANUAL  
BEFORE OPERATING THIS MACHINE.

# Thank you for buying a 81096 post hole digger engine head!

Your new tool has been engineered and manufactured to 81096 high standard for dependability, ease of operation, and operator safety. Properly cared for, it will give you years of rugged, trouble-free performance.

For your own safety please read and understand this operator's manual before attempting to operate your post hole digger.



#### **WARNING!**

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



#### **WARNING!**

Do not attempt to operate this post hole digger until you have read thoroughly and understood 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 operator's manual and review frequently for continuing safe operation, and instructing others who may use this tool.



# PLEASE READ ALL INSTRUCTIONS AND FOLLOW WARNINGS

## 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 unit.
- The power drill 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 become entangled in the auger.
- Wear protective non-slip safety shoes, gloves, glasses and ear protection while operating this unit.
- 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 wire before making any adjustments or repairs except for carburetor adjustments.
- Inspect the unit 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 the fingers, usually apparent upon exposure to cold. Hereditary factors, exposure to cold and dampness, diet, smoking and work practices are all thought to contribute to 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 unit.
- Allow the engine to cool; empty the fuel tank and secure the unit from moving before transporting in a vehicle.

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








- 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 unit without the safety clutch in working condition. The safety clutch will engage when the engine is at idle or 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 drill with the handles above waist level. Drilling with the units handles above waist level restricts control and can cause serious chest injuries if a hard object is struck.
- Never carry the power drill with the engine running.
- Carry the power drill with the engine stopped, and with the auger bit removed.







- Never drill in a horizontal angle. This drill should only be operated with the auger at a 90° angle to the ground (see figure 7a).
- 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 power drill 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.




## SYMBOLS

**IMPORTANT:** Some of the following symbols may be used on your tool. 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 operators 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.
	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 equipment.
	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 90 ((R+M)/2) 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.
	stop On Switch	On/stop Switch ON to run

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

SYMBOL	SIGNAL	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 technician. For service we suggest you return the product to your nearest **authorised service centre** for repair. When servicing, use only identical replacement parts.

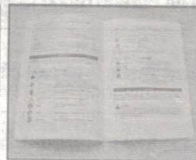
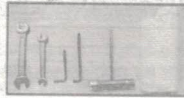


### WARNING!

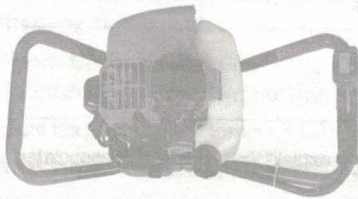
To avoid serious personal injury, do not attempt to use this product until you read thoroughly and understand completely the operator's manual. Save this operator's manual and review frequently for continuing safe operation and instructing others who may use this product.



## PACKING LIST



- 1 x 81096 Engine Assembly
- 2 x Gudgeon Pins with Cotter Pins
- 1 x Spark Plug/Engine Tool
- 2 x Spanners
- 2 x Allen Keys
- 1 x 30:1 Fuel Mixture Bottle
- 1 x Operators Manual



## FEATURES/SPECIFICATIONS

### 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 unit during operation.

#### CHOKE LEVER

The choke lever is used when starting the engine.

#### DRIVESHAFT

The driveshaft is connected to attachments to transfer movement.

#### ENGINE SWITCH

The engine switch is used in combination with the recoil starter grip to start the engine. It is also used to turn the engine off.

#### FUEL TANK

81096 - 950ml

#### GEARBOX

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

#### **GUDGEON PIN LOCATOR HOLE**

The gudgeon pins secure the attachments to the driveshaft via the locator holes.

#### **PRIMER BULB**

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

#### **RECOIL STARTER GRIP**

The recoil starter grip is used (along with the engine switch) to start the engine.

#### **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

### **SPECIFICATIONS**

**Model:** 81096

**Type:** Air cooled 2-stroke engine

**Total displacement:** 55CC

**Fuel mix ratio:** 30:1

**Power:** 1.40kw/7000 rpm

**Gearbox reduction ratio:** 40:1

**Auger speed:** 170 rpm

**Idle speed:** 2800±200 rpm

**Clutch engagement speed:** 3900±200 rpm

**Maximum engine speed:** 8800±200 rpm

**Ignition:** Transistor magneto CDI

**Weight:** 9.5kg

**Fuel tank volume:** 0.95L

Optional accessories as below:

**Auger diameter:** 150mm, 200mm, 250mm, 300mm

**Extension shaft:** 300mm, 500mm

*Specifications are subject to change without notice.*

### **ASSEMBLY**

#### **UNPACKING**

- Carefully remove the tool and any accessories from the box. 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.

### **FITTING THE AUGER BITS**

See figure 3 & 4

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

The hole should always be started with the auger bit only fitted. Once the hole is deep enough and the operator handles are at least 300mm below waist level, you may stop the unit and attach the extension shaft between the power head and the auger (see figure 5a-5b) for added comfort and deeper hole depth.



**WARNING!**

Never use the drill with the handles above waist level (See figure 8).

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



**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. The post hole digger must only be used to drill ground. Do not lock the power drill onto fixed supports. It is forbidden to apply tools or applications other than the ones indicated and approved by the manufacturer.

## OPERATION



### WARNING!

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

## EAR 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 or 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.
- This engine is certified to operate on unleaded petrol intended for automotive use with an octane rating of 90  $([R + M] / 2)$  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 pre-mixed 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 30:1 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.

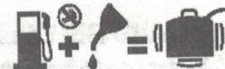
**NOTE:** It is normal for smoke to be emitted from a new engine during and after first use.



#### WARNING!

Always shut 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 + 30 ml	=	
2 Litres + 60 ml	=	
3 Litres + 90 ml	=	30:1 (3%)
4 Litres + 120 ml	=	
5 Litres + 150 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.

**NOTE:** Be sure to return the stop switch to the "ON" position before trying to start unit.

## TO START A COLD ENGINE

See figure 6

- Place the engine switch to the on position.
- **PRIME** – press the primer bulb 10 times slowly.
- **SET** the choke lever to the “START” position.
- Lock on the throttle by pulling the throttle trigger and pressing in the lock button.
- **PULL** the starter rope with a quick firm and consistent upwards motion until the engine fires or starts and runs.
- If the engine fires (pops) but does not continue to run, move the choke lever back to the “RUN” position and continue to start the engine.
- If the engine starts and runs, pull the throttle trigger to release it from the half-throttle position and move to choke lever to the “RUN” position.
- Allow the engine to warm up for 5-20 seconds.

## TO START A WARM ENGINE

- With the engine switch to “on” position **PULL** the starter rope with a quick firm and consistent upward motion until the engine starts.

**NOTE:** Do not use the choke when starting a hot engine.

## TO STOP THE ENGINE

Press the engine switch to the stop position. Wait until the engine stops.

## OPERATING THE POST HOLE DIGGER

See figure 7a-7b

- Grip the power drill firmly with both hands and keep all parts of the body away from the auger bit and muffler.
- Hold the post hole digger in front of you with the right hand firmly gripping on the throttle handle and your left hand firmly gripping the other.
- Always keep a firm grip with both hands while in operation.
- The post hole digger should be held at a comfortable position with the handle height no higher than waist level.
- The throttle trigger helps control the speed of the auger to suit various ground conditions.
- Keep a comfortable distance between yourself and the drill without overreaching.
- Always pay full attention to your operation. Serious injuries may result if contact is made with the rotating auger.

The hole should always be started with the auger bit only fitted.

Once the hole is deep enough and the operator handles are at least 300mm below waist level,



you may stop the unit and attach the extension shaft between the power head and the auger for added comfort and deeper hole depth.



**WARNING!**

See figure 8

Never use the drill with the handles above waist level.

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

## 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.

- 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 9a-9b

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 lubrication condition and level; Remove the screw under the reduction gearbox.

### 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.

## CLEANING AIR FILTER

See figure 10a-10b

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 air filter cover by turning the fixing screw counter clockwise.
- Remove the airbox cover and the air filter.
- 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 fixing screw 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**.

## SPARK PLUG REPLACEMENT

See figure 11

This engine uses an NGK BPMR6A or Champion RCJ6Y spark plug with 0.50 mm electrode gap. Use an exact replacement and replace annually.

## IDLE SPEED ADJUSTMENT

See figure 12a-12b

If the auger attachment turns at idle, the idle speed screw needs adjusting on the engine. Turn the idle speed screw counterclockwise to reduce the idle RPM and stop the auger attachment movement. If the auger attachment still moves at idle speed, contact a service dealer for adjustment and discontinue use until the repair is made.



### **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**

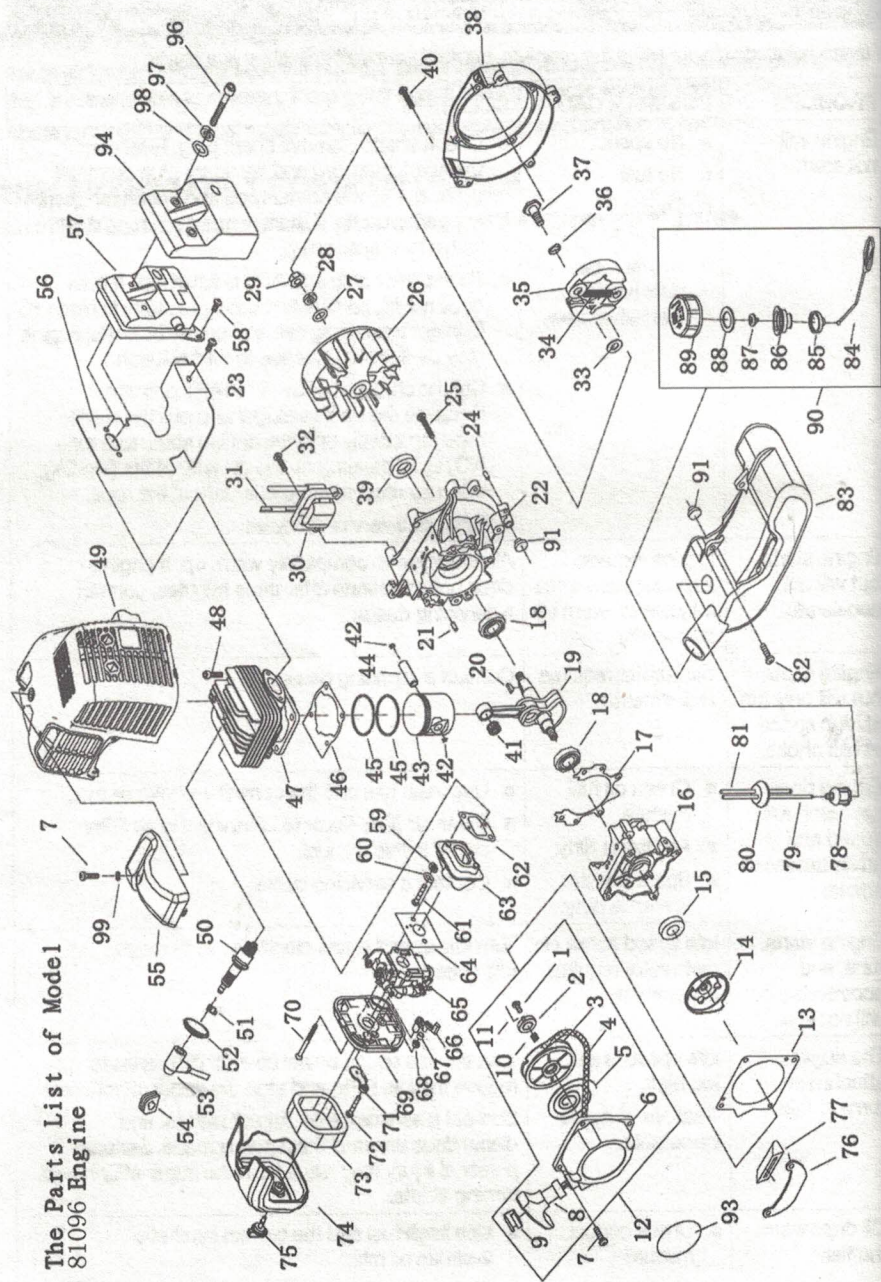
Drain all fuel from tank into a container approved for petrol. Run engine until it stops.

## 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 rope pulls harder now than when new.</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>■ Set the choke lever to the START position. Squeeze the throttle trigger and pull the starter rope repeatedly until the engine starts and runs. NOTE: Depending on the severity of the flooding, this may require numerous pulls of the rope.</li> <li>■ Contact a servicing dealer.</li> </ul>
Engine starts but will not accelerate.	Engine requires approximately three minutes to warm up sufficiently.	Allow engine to completely warm up. If engine does not accelerate after three minutes, contact a servicing dealer.
Engine starts but will only run at high speed at half choke.	Carburetor requires adjustment.	Contact a servicing dealer.
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 <i>Cleaning the Air Filter</i> 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.
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>





The Parts List of Model  
81096 Engine

## 81096 ENGINE

NO.	Part No.	Part Name	Qty.	NO.	Part No.	Part Name	Qty.
1	1E36FE.9-3	Screw	1	26	HA46.2.1.1	MAGNETO ROTOR COMP.	1
2	1E36FE.9-4	Ratchet	1	27	GB/T859	Washer 8	1
3	1E36FE.9-1	Starter Rope Reel	1	28	GB/T97.1	Washer 8	1
4	1E36FE.9-5	Starter Rope	1	29	GB6170	Nut M8	1
5	1E36FE.9-7	Recoil Spring	1	30	1E40F-E.3.1-2	IGNITION COIL COMP.	1
6	1E36FE.9-8	Starter Cover Ass'y	1	31	1E36F-2.3.1	Cord Comp.	1
7	GB9074.4	Screw M5 × 20	5	32	GB9074.13	Bolt M5 × 20	2
8	1E40FP-3Z.4-2	Start Handle	1	33	1E36F-3	WasherB	2
9	1E40FP-3Z.4-10	Ring	1	34	1E36F-E.6A-1	Spring	1
10	1E36FE.9-6	Spring	1	35	1E36F-2C.4.1	Expander	2
11	1E36FE.9-2	Start pole	2	36	1E40F-5-11	Washer	2
12	1E36FE.9	Starter	1	37	1E40F-5-12	Screw Pin	2
13	1E40F-5-10	Gasket	1	38	1E40F-5-9	Fan Cover	1
14	1E36FE.7	Start Reel	1	39	1E40F-5.9	Oil-seal	1
15	1E36F.2	Oil-seal	1	40	GB9074.13	Screw M5 × 25	4
16	1E40F-E.6-2	Crank Case	1	41	1E44F-2A.2-3	Bearing	1
17	1E40F-5.8-4	Gasket	1	42	P40.6-4	Ring	2
18	GB/T276	Bearing 6202/P6	2	43	1E44F-E.3-1	Piston	1
19	1E40F-E.4.1A	Crank Shaft	1	44	1E44F-2A.2-2	Piston Pin	1
20	GB1099	Key 3x5x13	1	45	1E44F-2A.2-4	Piston Ring	2
21	GB119	Pin B5 × 12	2	46	1E40F-5-6	Gasket	1
22	1E40F-E.6-1	Crank Case	1	47	1E44F-E-1	Cylinder	1
23	GB9074.4	Screw M4 × 8	1	48	GB/T70.1	Screw M5 × 20	4
24	GB119	Pin B4 × 10	2	49	1E44FL-E.1A	Guide Cover Ass'y	4
25	GB9074.4	Screw M5 × 30	4	50	L8RTC	Spark Plug	1

NO.	Part No.	Part Name	Qty.	NO.	Part No.	Part Name	Qty.
51	1E40F-3A.8-2	Spring	1	76	1E36F-E-5	Stand	1
52	1E34F.5-3	Plug Cap	1	77	1E40F-5A-2	Rubber Cover	1
53	1E34F.5-2	Cap	1	78	P40.12.2-3A	Cleaner Cover	1
54	1E40F-5.3-1	Plug	1	79	CG420.1.3.2-2	Fuel Pipe 3 × 1.5 × 145	1
55	1E40F-E-4	Cover	1	80	EB-415.4.2-2	Plug	1
56	1E40F-E-2	Gasket	1	81	EB-415.4.2-4	Fuel Pipe 2.5 × 1.25 × 80	1
57	1E40F-2E-DZ.2A	Muffler	1	82	GB/T9074.4	Screw M5 × 16	2
58	GB9074.4	Screw M5 × 12	2	83	1E40F-HS.5.1	Fuel Tank	1
59	GB/T93	Washer 5	2	84	1E32FL.6.2-4	Chain	1
60	GB/T97.1	Washer 5	2	85	1E32FL.6.2-3	End Cover	1
61	GB/T70.1	Screw M5 × 25	2	86	1E32FL.6.2-2	Inside Cover	1
62	1E40F-5-2	Gasket	1	87	EB-415.4.1.1-1	Inlet	1
63	HA46.9	Admitting Pipe	1	88	CG420.1.3.1-2	Gasket	1
64	1E40F-5A-1	Gasket	1	89	1E32FL.6.2-1	Fuel Tank Lid	1
65	1E40F-2E.1A	Carburetor	1	90	1E32FL.6.2	Lid Ass'y	1
66	1E34F.1-2	Choker Handle	1	91	1E40F-5A-3	Rubber washer	2
67	1E34F.1-7	Stop ring	1				
68	GB/T6170	Nut M4	1	93	1E36F-2-10	Label	1
69	1E34F.1.1	Cleaner inside cover	1	94	1E40F-2E-DZ-1	Cover	1
70	GB/T9074.4	Screw M5x50	2				
71	1E34F.1-3	Choker	1	96	GB/T70.1	Screw M6 × 60	2
72	GB/T845	Screw ST4.2X12	1	97	GB/T93	Washer 6	2
73	1E34F.1-1	Filter Net	1	98	GB/T97.1	Washer 6	2
74	1E36F-E.7-1	Cleaner Outside Cover	1	99	1E36F-2C-1	Gasket	1



# 81096

## POST HOLE DIGGER ENGINE HEAD

### PRODUCT DESCRIPTION

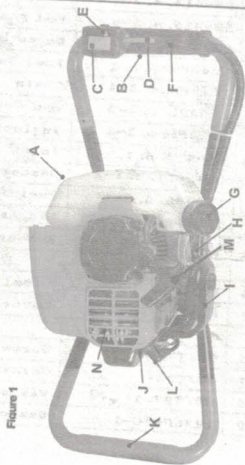


Figure 1

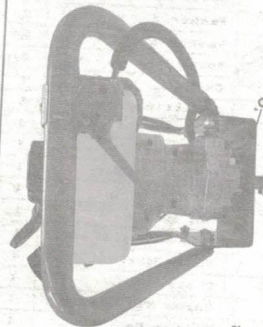


Figure 2

#### LEGEND

- A Fuel tank
- B Throttle trigger
- C Engine switch
- D Airlock cover
- E Trigger lock
- F Right hand grip
- G Gearbox

- M Starter grip
- N Muffler
- O Gearbox pin
- P Drive shaft
- Q Gearbox

### ADDING THE TOOL



Figure 3

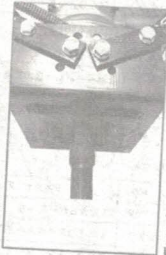


Figure 4

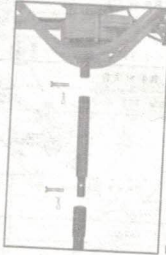


Figure 5a



Figure 5b

### STARTING INSTRUCTIONS



1



2



3



4



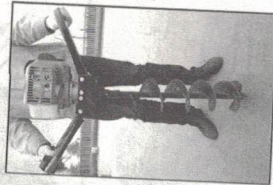
5

Figure 6

# 81096

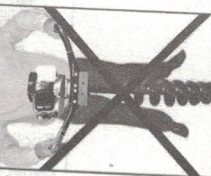
## POST HOLE DIGGER ENGINE HEAD

### OPERATION



↑  
CORRECT OPERATING POSITION IS WITH DRILL HANDLES BELOW WAIST LEVEL

Figure 7a



DO NOT DRILL WITH HANDLES ABOVE WAIST LEVEL

Figure 7b

### GEARBOX LUBRICATION

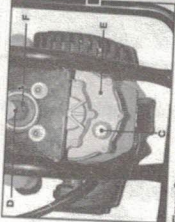


Figure 9a

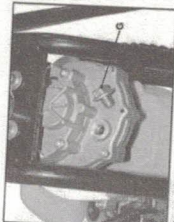


Figure 9b

### AIR FILTER



Figure 10a



Figure 10b

### IDLE ADJUST



Figure 12a



Figure 12b

### HANDLE ADJUSTABLE



### FUEL RATIO

30:1



### SPARK PLUG



Figure 11

- LEGEND**
- A. Fuel cover
  - B. Spark plug
  - C. Oil level
  - D. Drive shaft
  - E. Gearbox oil
  - F. Gearbox oil
  - G. Oil
  - H. Air filter
  - I. Air filter
  - J. Air filter
  - K. Spark plug
  - L. Idle speed screw








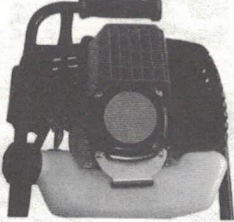
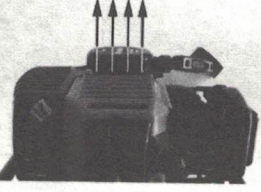
## Engine Heat Deflector

Thank you for buying a 81096 post hole digger!

For added comfort during warmer conditions you may choose to attach the supplied heat deflector grille. The heat deflector grille is designed to direct the warm air flow away from the user during use in warmer conditions.

Please follow the instructions for correct mounting.

**Note: Once the heat deflector is correctly fitted it can not be removed.**

<p><b>Step 1</b> Please find the heat deflector grille included in the accessory contents</p> 	<p><b>Step 2</b> Lay the engine assembly on a flat surface as shown</p> 	<p><b>Step 3</b> Insert one end of the grille as per the arrow indicated</p> 
	<p><b>Step 4</b> Hold down the inserted end and push down on the opposite end until the grille clicks in position</p> 	<p><b>Step 5</b> Mounting is complete as shown</p> 
<p><b>Working Principle</b></p>	<p>Cooling air direction without the deflector grille fitted</p> 	<p>Cooling air direction with heat deflector grille fitted</p> 