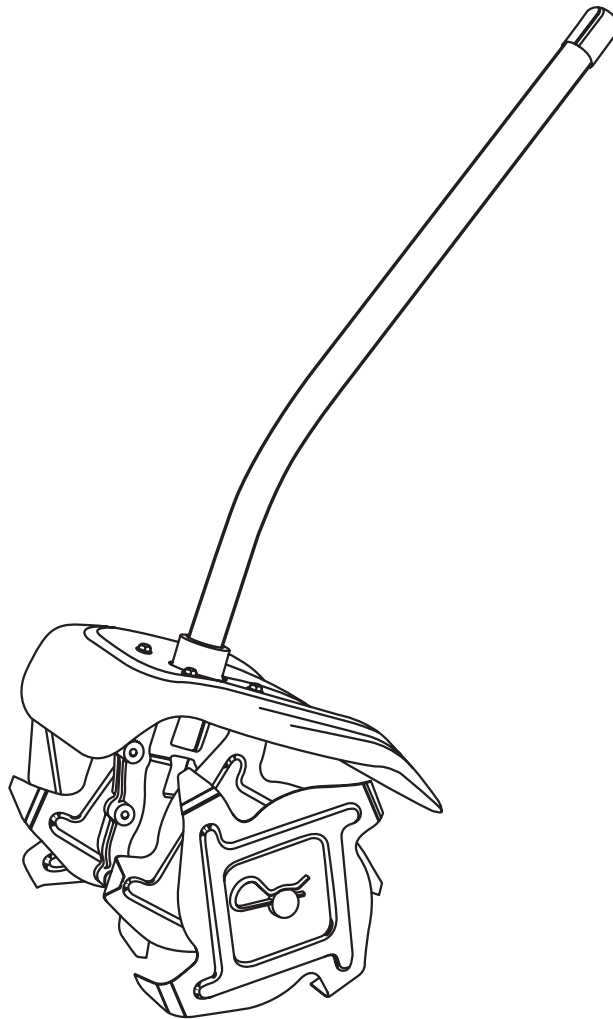


# OPERATOR'S MANUAL

Expand-it™

Tiller Attachment

UT15550B



Your Expand-it™ Tiller Attachment has been engineered and manufactured to a high standard for dependability, ease of operation, and operator safety. When 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 before using this product.

Thank you for buying an Expand-it™ product.

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**SAVE THIS MANUAL FOR FUTURE REFERENCE**

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# INTRODUCTION

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This product has many features for making its use more pleasant and enjoyable. Safety, performance, and dependability have been given top priority in the design of this product making it easy to maintain and operate.

# GENERAL SAFETY RULES



## WARNING:

**Read and understand all instructions.** Failure to follow all instructions listed below, may result in electric shock, fire, and/or serious personal injury.

## SAVE THESE INSTRUCTIONS

- Read these instructions and the instructions for the power head thoroughly before using tiller.
- Know the tool. Read and understand the operator's manual and observe the warnings and instruction labels affixed to the tool.
- Do not allow children or untrained individuals to use this unit.
- Wear safety glasses or goggles that are marked to comply with ANSI Z87.1 standards and hearing and head protection when operating this unit.
- Wear heavy long pants, boots, and gloves. Do not wear loose fitting clothing, short pants, jewelry of any kind, or go barefoot.
- Secure long hair so it is above shoulder level to prevent entanglement in any moving parts.
- Keep all bystanders, children, and pets at least 50 ft. away.
- Stay alert, watch what you are doing, and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.
- Do not operate in poor lighting.
- Do not overreach. Keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.
- Keep all parts of your body away from any moving part.
- When using the attachment on a power head with a gasoline engine, do not touch areas around the muffler or cylinder of the power head. These parts get hot from operation. Failure to heed this warning could result in possible serious personal injury.
- Always stop the engine and remove the spark plug wire or disconnect from power supply before making any adjustments or repairs except for carburetor adjustments.

- Inspect unit before each use for loose fasteners and damaged or missing parts. Correct before using the tiller attachment. Failure to do so can cause serious injury.
- Use only original manufacturer's replacement parts. Failure to do so may cause poor performance, possible injury, and will void your warranty.
- Do not, under any circumstance, use any attachment or accessory on this product, which was not provided with the product, or identified as appropriate for use with this product in the operator's manual.
- Avoid dangerous environments. Do not use the attachment in damp or wet locations.
- Do not use in rain.
- Use the right attachment. Do not use attachment for any job except that for which it is intended.

## SAFETY RULES WHEN ATTACHMENT IS ATTACHED TO AN ELECTRIC POWER HEAD

- When this attachment is being used with the recommended electric power unit, refer to Electrical Safety Rules in the electric power unit's Operator's Manual, in addition to items contained in this manual.
- Make sure the cord is located so that it will not be stepped on, tripped over, or otherwise subjected to damage or stress. Keep cord clear of the working area.
- Do not abuse the power cord. Never carry the product by the cord. Never yank the plug out of the receptacle. Keep the cord away from heat, oil, and sharp edges.
- Inspect extension cords for deterioration, cuts, or cracks in the insulation. Repair or replace the cords if any defects appear.
- Keep the extension cord clear of the working area. Position the cord so that it will not come in contact with the tiller attachment when in use. Failure to do so can result in serious personal injury.
- Check extension cords before each use. If damaged replace them immediately. Touching the damaged area could cause serious injury due to electrical shock.






# SPECIFIC SAFETY RULES

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- Rotating tines can cause severe injury, keep all body parts away from rotating tines.
- Use extreme caution when reversing or pulling the machine towards you.
- Always be sure of your footing; keep a firm hold on the handles and walk; never run.
- If the tiller should start to vibrate abnormally or become noisy, stop the motor and check immediately for the cause. Abnormal noise is generally a warning of trouble.
- Keep all fasteners tight to be sure the tiller is in safe working condition.
- Check that the hitch pins are fully inserted on the tine shaft before each use.
- Do not operate power equipment after it has been dropped or damaged. Return it to your nearest authorized servicing dealer for inspection and repair.
- Stop the engine whenever you leave the tiller, or when making any repairs or inspections.
- Make sure all proper guards and other safety devices are properly and securely attached before using this product.
- Be extremely careful when tilling in hard ground. The tines could catch in the ground and propel the tiller forward.
- Do not overload the capacity of the machine by attempting to till too deep at too fast a speed.
- Inspect the area where the equipment is to be used and remove all foreign objects.
- Keep hands, feet, and other body parts away from rotating parts.
- Always stop the engine and remove the spark plug wire or disconnect from power supply before installing attachments or making any adjustments.
- Before storing the unit, allow the engine to cool.
- When not in use, store the tiller in a dry place which is inaccessible to children.
- Save these instructions. Refer to them frequently and use them to instruct others who may use this tool. If you loan someone this tool, loan them these instructions also to prevent misuse of the product and possible injury.

# SYMBOLS

Some of the following symbols may be used on this 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	Precautions that involve your safety.
	Read The Operator's Manual	To reduce the risk of injury, user must read and understand operator's manual before using this product.
	Eye and Hearing Protection	Wear eye and hearing protection when operating this equipment.
	Keep Bystanders Away	Keep all bystanders at least 50 ft. away.
	Rotating Tines	Danger — Keep hands and feet away from rotating tines. Rotating tines will cause injury.

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

SYMBOL	SIGNAL	MEANING
	<b>DANGER:</b>	Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.
	<b>WARNING:</b>	Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.
	<b>CAUTION:</b>	Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.
	<b>CAUTION:</b>	(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 **AUTHORIZED SERVICE CENTER** 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. If you do not understand the warnings and instructions in the operator's manual, do not use this product. Call Expand-it customer service for assistance.

### **WARNING:**



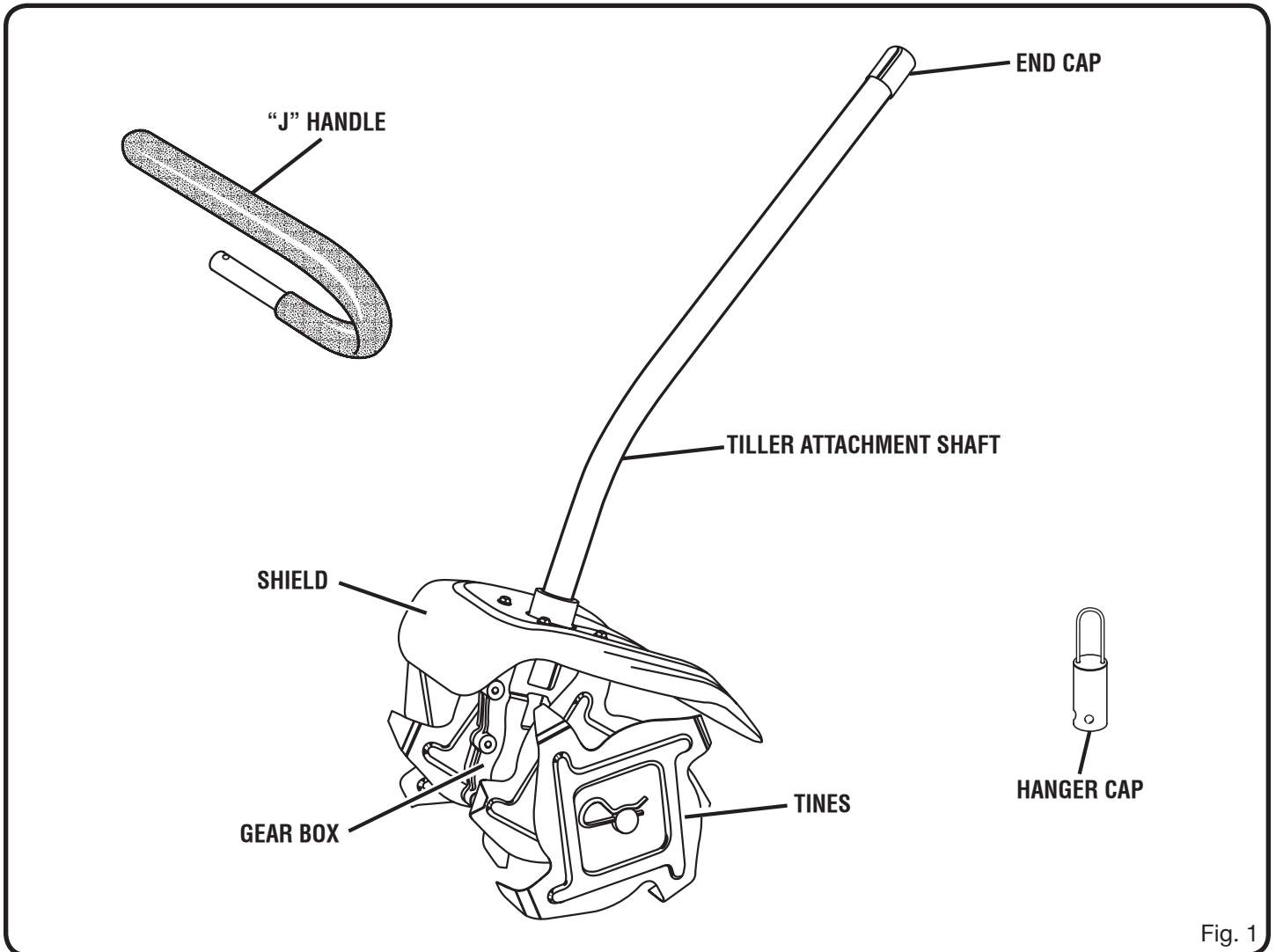
The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, always wear safety goggles or safety glasses with side shields and, when needed, a full face shield. We recommend Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields. Always use eye protection which is marked to comply with ANSI Z87.1.

## SAVE THESE INSTRUCTIONS

# FEATURES

## PRODUCT SPECIFICATIONS

Weight ..... 13.5 lbs.



### KNOW YOUR TILLER ATTACHMENT

See Figure 1.

The safe use of this product requires an understanding of the information on the tool 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.

# ASSEMBLY

## UNPACKING

This product has been shipped completely assembled.

- Carefully remove the items from the box. Make sure that all items listed in the packing list are included.
- Inspect the product 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.
- If any parts are damaged or missing, please call 1-800-242-4672 for assistance.

## PACKING LIST

Expand-it™ Tiller Attachment  
J-Handle with Mounting Hardware  
Hanger Cap  
Operator's Manual

### **⚠ WARNING:**

If any parts are damaged or missing, do not operate this tool until the parts are replaced. Failure to heed this warning could result in serious personal 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.

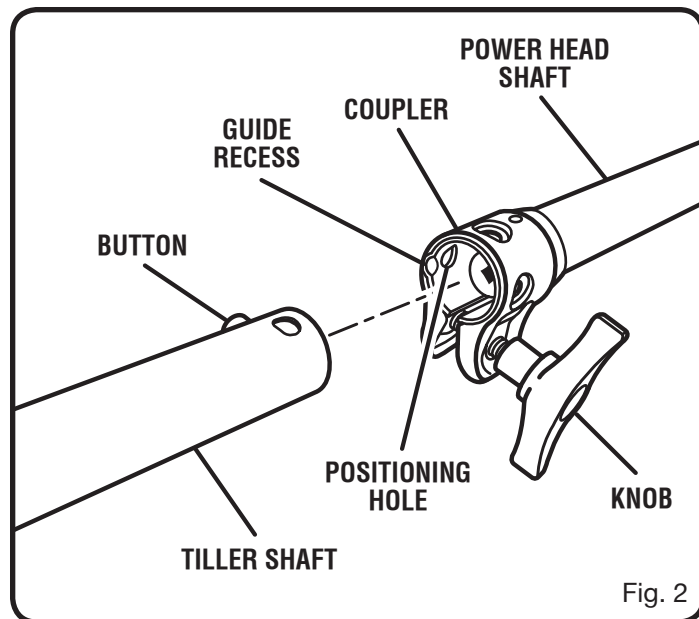
## CONNECTING POWER HEAD TO EXTENSION SHAFT AND TILLER ATTACHMENT

See Figure 2.

The tiller attachment connects to the power head or, for extra reach, to an extension shaft by means of a coupler device.

### **⚠ WARNING:**

Never attach or adjust any attachment while power head is running. Failure to stop the engine and disconnect the spark plug wire or disconnect from power supply may cause serious personal injury.



### To install the attachment:

- Loosen the knob on the coupler of the power head shaft and remove the end cap from the attachment.
- Push in the button located on the shaft of the tiller attachment.
- Align the button with the guide recess on the power head coupler and slide the two shafts together. Rotate attachment shaft until button locks into the positioning hole.  
**NOTE:** If the button does not release completely in the positioning hole, the shaft is not locked into place. Slightly rotate from side to side until the button is locked into place.
- Tighten the knob securely.

### **⚠ WARNING:**

Be certain the knob is fully tightened before operating equipment; check it periodically for tightness during use to avoid serious injury.

### To remove:

- Loosen the knob.
- Push in the button and twist the shafts to remove and separate ends.

# ASSEMBLY

## ATTACHING THE J-HANDLE

See Figure 3.

The J-handle included with the Expand-it™ Tiller Attachment provides a barrier to assist the operator in maintaining a safe distance from the rotating tines. If the power head to which the tiller attachment will be mounted does not have such a handle, install the provided handle.

- Hold the top and bottom clamp snugly in position on the shaft housing so that handle will be located to the operator's left.
- Insert the end of the handle between the clamps.
- Align the bolt holes and push the long bolt (1/4-20 x 1-1/2 in.) through the handle side.
- Place short bolt (1/4-20 x 1 in.) through opposite side of clamp. Install flat washers, lock washers, and hex nuts to hold the assembly in place.
- After assembly is complete, adjust the position of the handle for best balance and comfort.
- Tighten the long bolt first and then the short bolt.

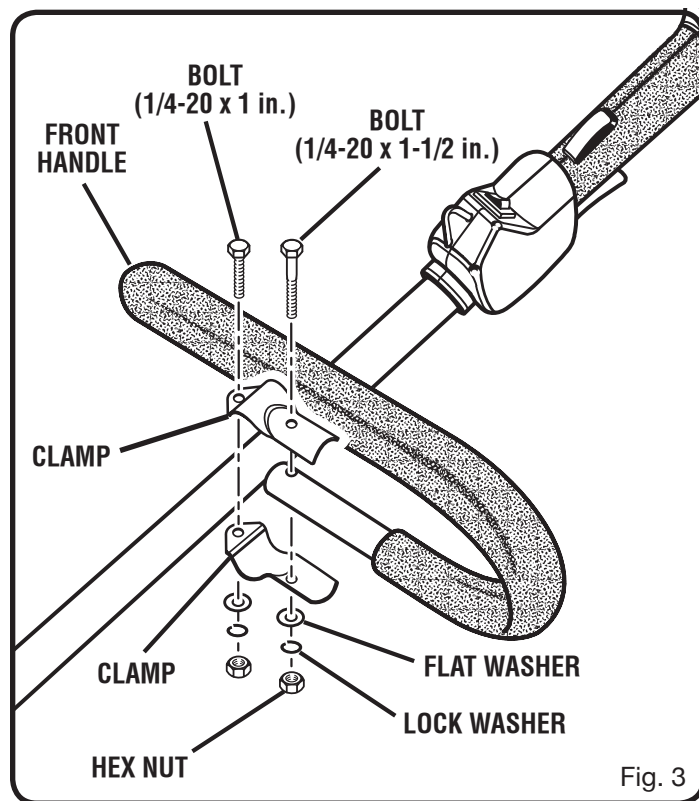


Fig. 3

# 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.

## ⚠ WARNING:

Always wear safety goggles or safety glasses with side shields when operating power tools. 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 of this tool. The use of attachments or accessories not recommended can result in serious personal injury.

## APPLICATIONS

You may use this tool for the purposes listed below:

- Breaking up garden soil to prepare seed beds for planting
- Shallow cultivating to remove weeds

## OPERATING THE TILLER

See Figure 4.

Hold the tiller attachment with your right hand on the rear handle and your left hand on the front handle. Keep a firm grip with both hands while in operation.

In nearly all types of soil, it is not necessary or recommended to operate the tiller attachment at full throttle. Doing so consistently will shorten the life of the engine and drivetrain. Partial throttle will usually be sufficient.



# OPERATION

## **WARNING:**

Keep hands and feet away from the rotating tines. Rotating tines will cause serious personal injury.

**NOTE:** The tines of the tiller may rotate when the engine is started.

- Move the tiller to the work area before starting the engine.
- With the tiller on flat level ground, start the engine of the power head. Refer to the operator's manual of your power head.
- Hold the handles firmly, depress the throttle trigger to increase the engine speed to a moderate speed, then lower the tiller so the tines can make contact with the ground.
- Pull the tiller carefully toward you while it is digging into the soil's surface.

**NOTE:** Pulling the tiller carefully toward you while it is digging into the soil will reduce your effort and make the tilling easier.

## **WARNING:**

To avoid personal injury, never carry the tiller while the engine is running. Move the tiller to the work area before starting the engine.

## **WARNING:**

After extended periods of use, the tiller gearbox may become hot. To avoid burns, do not touch the gearbox until it has had time to cool down.

## TINE POSITION

See Figure 5.

Tine blades are marked with the corresponding letters (A, B, C, and D).

**NOTE:** All four tines on this unit are different and must be installed correctly or the tiller will not function properly. When the tines are properly mounted, the angled portion of the tine blade should enter the soil first, not the straight portions.



Fig. 4

## **CAUTION:**

Wear heavy gloves when installing, removing, or adjusting the tiller tines. With wear, the tiller tines may become sharper.

## **WARNING:**

Stop the engine and disconnect the spark plug wire or disconnect from power supply before adjusting the tiller tines.

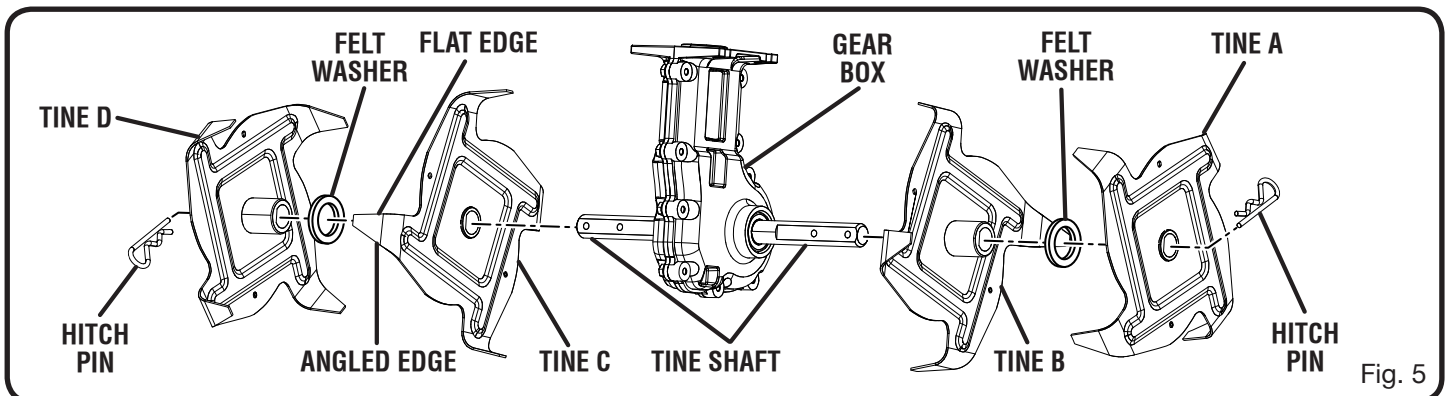


Fig. 5

# OPERATION

## REGULAR TINE PATTERN

See Figure 6.

For most applications, the regular tine pattern will work best. This is the pattern set by the factory.

**NOTE:** Pay attention to the hub position in relationship to the tines.

## NARROW TINE PATTERN

See Figure 7.

When tilling in confined areas or rows, a narrow tine pattern may be required. For a narrow tine pattern:

- Remove hitch pin from each side of the tiller.
- Remove the left and right outer tines (A and D).
- Remove felt washers.
- Replace hitch pin in alternate holes on each side of shaft.

**NOTE:** Do not force the tines on or off the shaft. If you experience difficulties when removing the tines, apply some penetrating oil on the shaft. When reinstalling the tines, make sure to clean and oil the shaft and the tine hubs.

## STONY OR ROCKY SOIL TINE PATTERN

See Figure 8.

If you are tilling in stony or rocky soil and experience continual rock jams, there is an additional tine pattern that will help correct the problem. In the stony soil tine pattern, the center gap is wider than in the regular tine pattern. This will require additional passes to till the area. For a stony soil tine pattern:

- Remove hitch pin from each side of the tiller.
- Remove tines and felt washers from the shaft.
- Reinstall tines B and C on opposite sides of the shaft. When facing the tiller attachment, tine B will now be on the left and tine C will be on the right.
- Reinstall felt washers.
- Reinstall tines A and D. Tines D and B will now be on one side, with tines A and C on the other.
- Replace hitch pins.

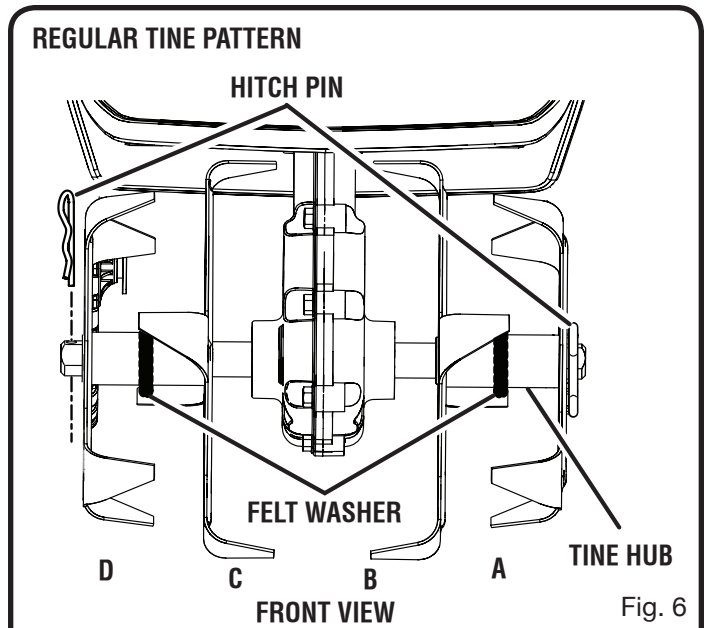


Fig. 6

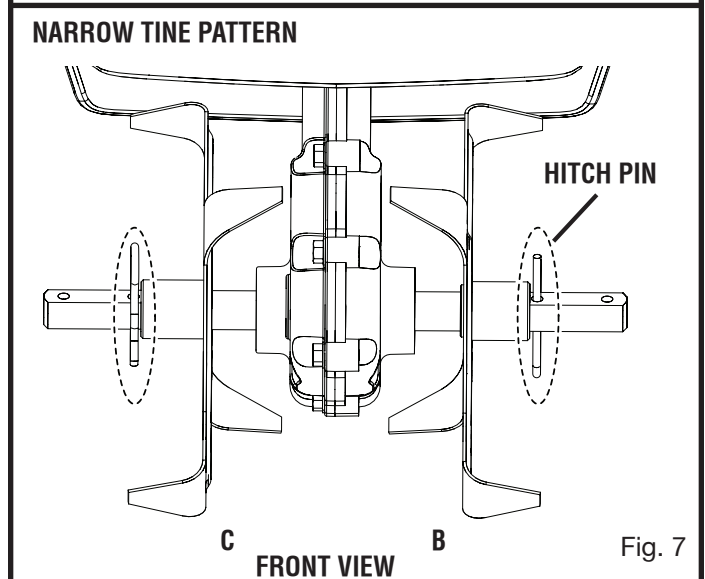


Fig. 7

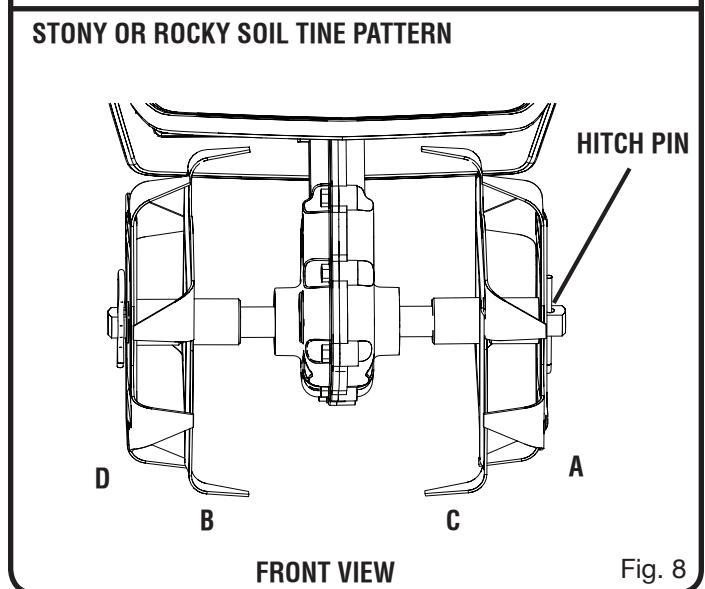


Fig. 8

# MAINTENANCE

## **⚠ WARNING:**

When servicing, use only identical replacement parts. Use of any other parts may create a hazard or cause product damage.

## **⚠ WARNING:**

Always wear safety goggles or safety glasses with side shields during tool operation. If operation is dusty, also wear a dust mask.

## **⚠ WARNING:**

Before inspecting, cleaning, or servicing the machine, shut off engine, wait for all moving parts to stop, and disconnect spark plug wire and move it away from spark plug or disconnect from power supply. Failure to follow these instructions can result in serious personal injury or property damage.

## GENERAL MAINTENANCE

Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use clean cloths to remove dirt, dust, oil, grease, etc.

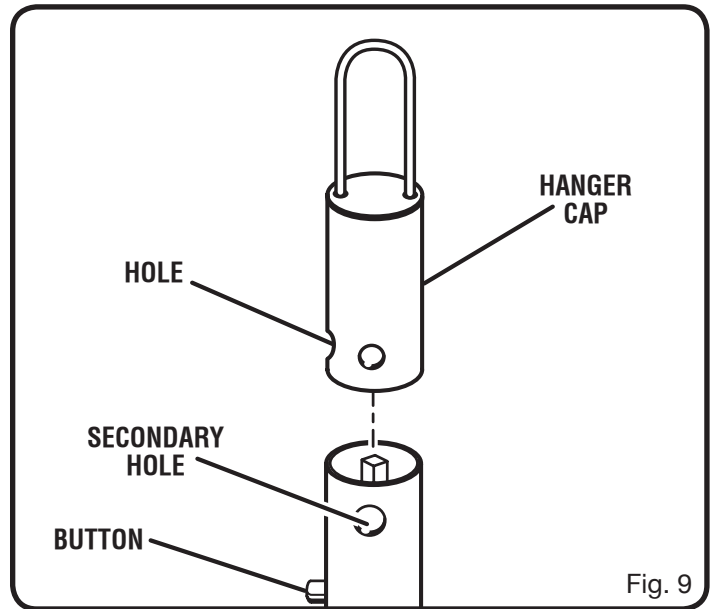
## **⚠ WARNING:**

Do not at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc., come in contact with plastic parts. Chemicals can damage, weaken or destroy plastic which may result in serious personal injury.

You can often make adjustments and repairs described here. For other repairs, have the tool serviced by an authorized service dealer.

## TINE MAINTENANCE

- Occasionally apply a few drops of oil to the shaft to keep the tines free on the shaft.
- If tines are being replaced due to wear, all four tines should be replaced as a set.



## ATTACHING THE STORAGE HANGER

See Figure 9.

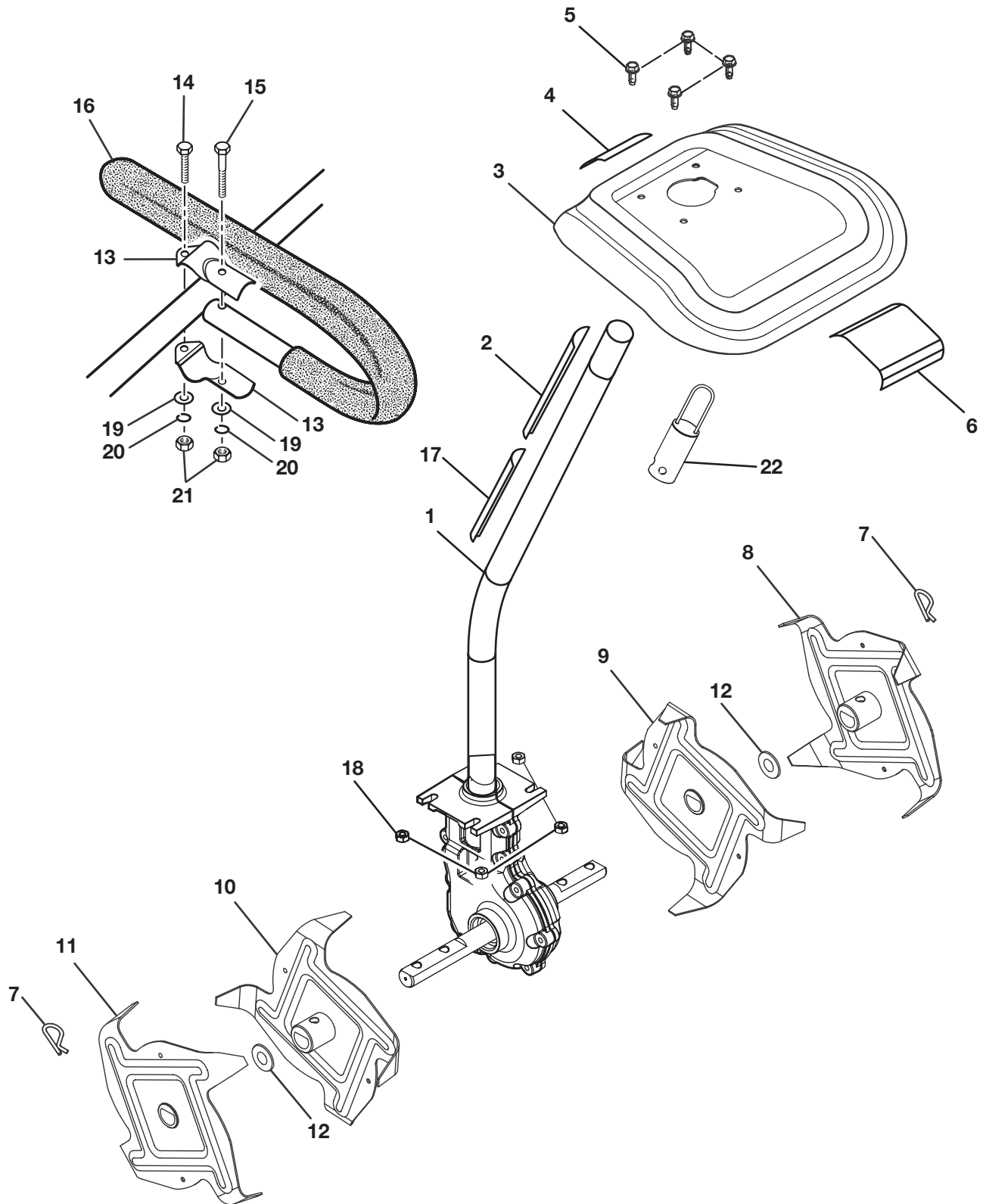
There are two ways to hang the attachment for storage.

- To use the hanger cap, push in the button and place the hanger cap over end of the lower end attachment shaft. Slightly rotate the cap from side to side until the button locks into place.
- The secondary hole in the attachment shaft can be used for hanging purposes as well.

## STORING THE TILLER ATTACHMENT

Store the tiller attachment in a well-ventilated place that is inaccessible to children. Keep away from corrosive agents such as garden chemicals and de-icing salts.

# EXPLODED VIEW AND PARTS LIST



# EXPLODED VIEW AND PARTS LIST

Key No.	Part No.	Description	Qty.
1	220029002	Gear Case and Drive Shaft Assembly (Includes Key Nos. 2 and 17).....	1
2	940657006	Warning Label .....	1
3	308635001	Tine Shield Assembly (Includes Key Nos. 4 and 6).....	1
4	940627034	Expand-it Label.....	1
5	660955001	* Screw (1/4-20 x 5/8 in.).....	4
6	940654015	Warning Label .....	1
7	638001004	* Hitch Pin (3/4 in.).....	2
8	308693004	Tine Assembly D .....	1
9	308693003	Tine Assembly C .....	1
10	308693002	Tine Assembly B .....	1
11	308693001	Tine Assembly A .....	1
12	900755001	Felt Washer .....	2
13	638014001	Handle Bar Clamp.....	2
14	660643002	* Bolt (1/4-20 x 1 in.).....	1
15	660643001	* Bolt (1/4-20 x 1-1/2 in.).....	1
16	308046001	J-Handle and Grip.....	1
17	940654014	Warning Label, UL .....	1
18	678132001	* Lock Nut (1/4-20).....	4
19	678013001	* Washer .....	2
20	678012001	* Lock Washer .....	2
21	678016001	* Hex Nut (1/4-20).....	2
22	518019001	Hanger Cap.....	1
	983000934	Operator's Manual (960994002).....	1
	983000934R	Repair Sheet .....	1

\* STANDARD HARDWARE ITEM — MAY BE PURCHASED LOCALLY



# WARRANTY

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## LIMITED WARRANTY STATEMENT

Techtronic Industries North America, Inc., warrants to the original retail purchaser that this EXPAND-IT brand product is free from defect in material and workmanship and agrees to repair or replace, at Techtronic Industries North America, Inc.'s discretion, any defective product free of charge within these time periods from the date of purchase.

- One year for the following units: all Yard Broom, Trimlite, and Bandit models;
- Two years if the product is used for personal, family or household use;
- 90 days if used for any other purpose, such as commercial or rental.

This warranty extends to the original retail purchaser only and commences on the date of the original retail purchase.

Any part of the product found in the reasonable judgment of Techtronic Industries North America, Inc., to be defective in material or workmanship will be repaired or replaced without charge for parts and labor by an Expand-it authorized service center.

The product, including any defective part, must be returned to an Expand-it authorized service center within the warranty period. The expense of delivering the product to the service center for warranty work and the expense of returning it back to the owner after repair or replacement will be paid by the owner. Techtronic Industries North America, Inc.'s responsibility in respect to claims is limited to making the required repairs or replacements and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any EXPAND-IT brand product. Proof of purchase will be required by the dealer to substantiate any warranty claim. All warranty work must be performed by an Expand-it authorized service center.

This warranty is limited to ninety (90) days from the date of original retail purchase for any EXPAND-IT brand product that is used for rental or commercial purposes, or any other income-producing purpose.

This warranty does not cover any product that has been subject to misuse, neglect, negligence, or accident, or that has been operated in any way contrary to the operating instructions as specified in this operator's manual. This warranty does not apply to any damage to the product that is the result of improper maintenance or to any product that has been altered or modified. The warranty does not extend to repairs made necessary by normal wear or by the use of parts or accessories which are either incompatible with the EXPAND-IT brand product or adversely affect its operation, performance, or durability.

In addition, this warranty does not cover:

- A. Tune-ups – Spark Plugs, Carburetor, Carburetor Adjustments, Ignition, Filters
- B. Wear items – Bump Knobs, Outer Spools, Cutting Lines, Inner Reels, Starter Pulleys, Starter Ropes, Drive Belts, Tines, Felt Washers, Hitch Pins, Mulching Blades, Blower Fans, Blower and Vacuum Tubes, Vacuum Bags and Straps, Guide Bars, Saw Chains

Techtronic Industries North America, Inc., reserves the right to change or improve the design of any EXPAND-IT brand product without assuming any obligation to modify any product previously manufactured.

ALL IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE STATED WARRANTY PERIOD. ACCORDINGLY, ANY SUCH IMPLIED WARRANTIES INCLUDING MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE, ARE DISCLAIMED IN THEIR ENTIRETY AFTER THE EXPIRATION OF THE APPROPRIATE TWO-YEAR, ONE-YEAR, OR NINETY-DAY WARRANTY PERIOD. TECHTRONIC INDUSTRIES NORTH AMERICA, INC.'S OBLIGATION UNDER THIS WARRANTY IS STRICTLY AND EXCLUSIVELY LIMITED TO THE REPAIR OR REPLACEMENT OF DEFECTIVE PARTS AND TECHTRONIC INDUSTRIES NORTH AMERICA, INC., DOES NOT ASSUME OR AUTHORIZE ANYONE TO ASSUME FOR THEM ANY OTHER OBLIGATION. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. TECHTRONIC INDUSTRIES NORTH AMERICA, INC., ASSUMES NO RESPONSIBILITY FOR INCIDENTAL, CONSEQUENTIAL, OR OTHER DAMAGES INCLUDING, BUT NOT LIMITED TO, EXPENSE OF RETURNING THE PRODUCT TO AN EXPAND-IT AUTHORIZED SERVICE CENTER AND EXPENSE OF DELIVERING IT BACK TO THE OWNER, MECHANIC'S TRAVEL TIME, TELEPHONE OR TELEGRAM CHARGES, RENTAL OF A LIKE PRODUCT DURING THE TIME WARRANTY SERVICE IS BEING PERFORMED, TRAVEL, LOSS OR DAMAGE TO PERSONAL PROPERTY, LOSS OF REVENUE, LOSS OF USE OF THE PRODUCT, LOSS OF TIME, OR INCONVENIENCE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

This warranty applies to all EXPAND-IT brand products manufactured by or for Techtronic Industries North America, Inc., and sold in the United States and Canada.

To locate your nearest Expand-it authorized service center, dial 1-800-242-4672.

