

# TARTER

Working Harder Since 1945

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## TERRATILLER OPERATORS MANUAL

# INTRODUCTION

## TO THE DEALER

Assembly and proper installation of this product is the responsibility of the purchaser. Read manual instructions and safety rules.

## TO THE OWNER

Read this manual before operating your equipment. The information presented will prepare you to do a better and safer job. Keep this manual handy for ready reference. Require all operators to read this manual carefully and become acquainted with all the adjustment and operating procedures before attempting to operate. Replacement manuals can be obtained from your selling dealer.

The equipment you have purchased has been carefully engineered and manufactured to provide dependable and satisfactory use. Like all mechanical products, it will require cleaning and upkeep. Lubricate the unit as specified. Observe all safety information in this manual and safety decals on the equipment.

For service, your authorized Tarter dealer has trained mechanics, genuine Tarter service parts and the necessary tools and equipment to handle your needs.

Use only genuine Tarter service parts. Substitute parts may not meet standards required for safe and satisfactory operation.

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Throughout this manual, the term **IMPORTANT** is used to indicate that failure to observe can cause damage to equipment. The terms **CAUTION**, **WARNING** and **DANGER** are used in conjunction with the Safety-Alert Symbol, (a triangle with an exclamation mark), to indicate the degree of hazard for items of personal safety.



This Safety-Alert Symbol indicates a hazard and means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**



**DANGER**

Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.



**WARNING**

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and indicates hazards that are exposed when guards are removed.



**CAUTION**

Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury.

**IMPORTANT**

Indicates that failure to observe can cause damage to equipment.

**NOTE**

Indicates helpful information.

## GENERAL INFORMATION

The purpose of this manual is to assist you in operating and maintaining your TerraTiller. Read it carefully. It furnishes information and instructions that will help you achieve years of dependable performance.

These instructions have been compiled from field experience and engineering data. Some information may be general in nature, due to unknown and varying operating conditions. However, through experience and these instructions, you should be able to develop procedures suitable to your particular situation.

The illustrations and data used in this manual were current at the time of printing. However, due to possible inline production changes, your machine may vary slightly in detail. We reserve the right to redesign and change machines as may be necessary without notification.

Throughout this manual, references are made to right and left direction. These are determined by standing behind the tractor facing the direction of forward travel.

Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by an operator's single careless act.

In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, judgement and proper training of the personnel involved in the operation, transport, maintenance and storage of equipment.

It has been said "The best safety device is an informed, careful operator." We ask you to be that kind of operator.

## **TRAINING**

Safety instructions are important! Read all attachment and power unit manuals; follow all safety rules and safety decal information. (Replacement manuals are available from selling dealer). Failure to follow instructions or safety rules can result in serious injury or death.

If you do not understand any part of this manual and need assistance, see your dealer.

Operators must be instructed in and be capable of the safe operation of the equipment, its attachments and all controls. Do not allow anyone to operate this equipment without proper instructions.

Never allow children or untrained persons to operate equipment.

Train all new personnel and review instruction's frequently with existing workers. A person who has not read and understood all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes himself and bystanders to possible injury or death.

## **PREPARATION**

Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing and head; and respirator or filter mask where appropriate.

Make sure attachment is properly secured, adjusted and in good operating condition.

## **TRANSPORTATION**

Always comply with all state and local laws governing highway safety and lighting and marking requirements.

Never allow riders on power unit or attachment

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## SAFETY INFORMATION

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Do not operate or transport on steep slopes.

Use extreme care and reduce ground speed on slopes and rough terrain.

Do not operate or transport equipment while under the influence of alcohol or drugs. Consult your doctor about operating this machine while taking prescription medications.

### OPERATION

Never go underneath equipment (lowered to the ground or raised) unless it is properly blocked and secured. Never place any part of your body underneath equipment or between moving parts even when the engine has been turned off.

Always comply with all state and local laws governing highway safety, lighting and marking requirements.

Operate only in daylight or good artificial light.

Keep bystanders away from equipment.

Keep hands, feet, hair and clothing away from equipment while engine is running. Stay clear of all moving parts.

Never allow riders on power unit or attachment.

Always sit in power unit seat when operating controls or starting engine. Securely fasten seat belt, place transmission in neutral, engage brake and ensure all other controls are disengaged before starting power unit engine.

Look down and to the rear and make sure area is clear before operating in reverse.

Use extreme care when working close to fences, ditches, other obstructions or on hillsides.

Do not operate or transport on steep slopes.

Do not stop, start or change directions suddenly on slopes. Always operate down slopes; never across the face.

Use extreme care and reduce ground speed on slopes and rough terrain.

Keep alert and watch the front as well as the rear when operating.

Stop power unit and equipment immediately upon striking an obstruction. Turn engine off, remove key, inspect and repair any damage before resuming operation.

Before leaving operator's seat engage brake, stop engine and remove key.

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## **MAINTENANCE**

Always wear relatively tight belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing and head; and respirator or filter mask where appropriate.

Never go underneath equipment (lowered to the ground or raised) unless it is properly blocked and secured. Never place any part of the body underneath equipment or between movable parts even when the engine has been turned off.

Make sure attachment is properly secured adjusted and in good operating condition.

Before leaving operator's seat, engage brake, stop engine, remove key and remove seat belt.

Never perform service or maintenance with engine running.

Keep all persons away from operator control area while performing adjustments, service or maintenance.

Tighten all bolts, nuts and screws to torque chart specifications. Check that the TerraTiller is properly attached to the power source and that the equipment is in a safe condition before putting unit into service.

## **STORAGE**

Store in a safe dry area

Block equipment securely for storage.

Keep children and bystanders away from storage area.

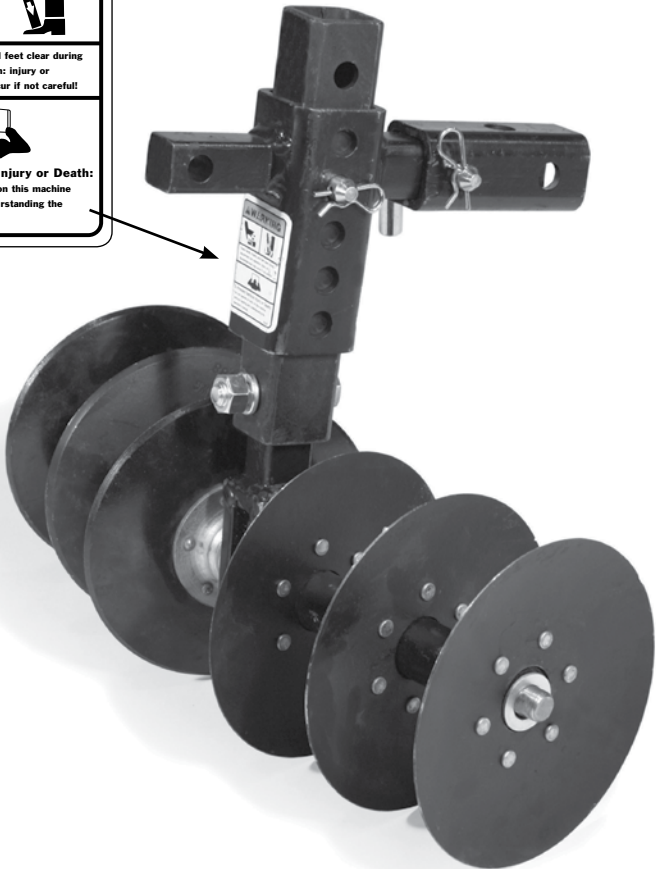


## SAFETY AND INSTRUCTIONAL DECALS

**ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**



Replace Decal Immediately If Damaged!

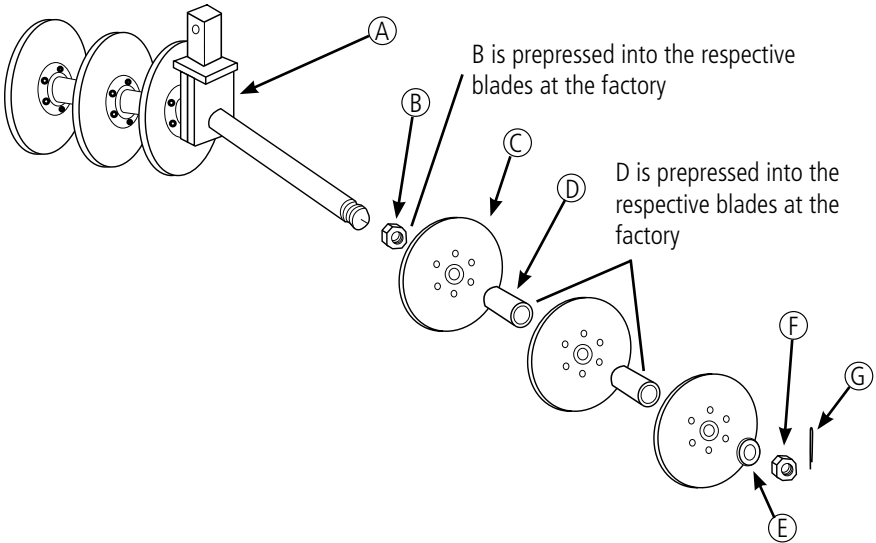




## ASSEMBLY

Spray all parts with a lubricant for smooth assembly. Because of the precision of this unit some parts will not slide on easily.

Figure 1



Slide parts onto the axle as shown in Figure 1. The inner bushing (B, Figure 1) is pre-assembled into blade (C) from the factory. Bushing (D) is pre-assembled into the other blades from the factory. Place on the 3/4" castle nut (F) and cinch up blades til snug. Make sure that the spacers seat firmly in the bearing opening. Remove the seat firmly in the bearing opening. Remove the castle nut and slide on a 3/4" flat washer (E). Replace the castle nut and tighten (refer to bolt and torque chart on page 15). Add the hair pin (G) and bend to secure. Repeat for the other side.

When axle assembly is fully tightened the blades may not turn freely until first use.

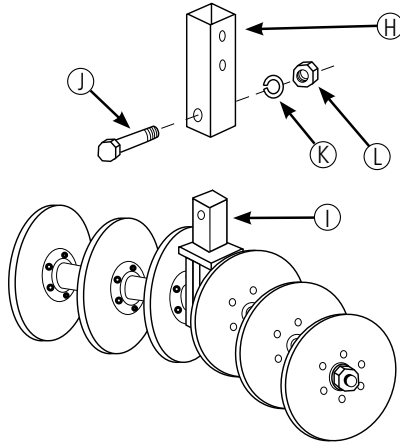
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Slide height adjustment bar (H, Figure 2) onto axle assembly (I) as in Figure 2.

It is important to make sure that 5/8" bolt (J) inserts from the front to the rear. Add 5/8" lock washer (K) and 5/8" nut (L) and tighten (refer to bolt and torque chart on page 15).

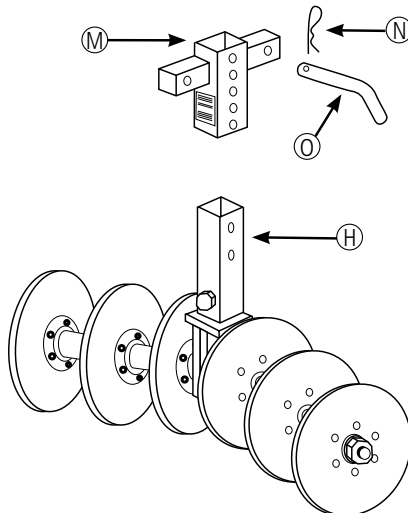
Figure 2



Slide male T assembly (M, Figure 3) onto height adjustment bar (H) as in Figure 3. Insert tractor pin (O) and secure with a cotter pin (N).

The additional parts from your TerraTiller package are designed to make the unit as universal to as many different makes and models of ATVs as possible. The next section will show different ways to use these parts to make your TerraTiller compatible with your ATV.

Figure 3



The following parts can be used in different ways to make your TerraTiller compatible:

## **MALE T CONNECTOR** (Figure 4)

- One side of the plow head fits into a standard 1 1/4" receiver.
- The other side of the plow head fits into your 5" receiver.

**NOTE:** This part can also be turned upside down. This allows the up and down (height adjustment) to be more flexible. One way gives you more length for height adjustment for large ATVs with higher ground clearance. The other way minimizes the height for ATVs with less ground clearance.

## **5 INCH RECEIVER TUBE** (Figure 5)

This part has multiple uses. The application determines the use.

- It can be used as a 5" receiver tube on many ATVs.
- In some applications it can be used as a 2" adapter.
- In a few applications it can be used as a spacer.

Figure 4

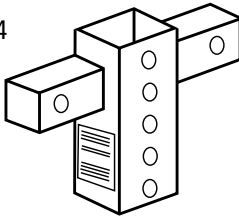
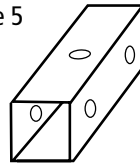


Figure 5



## **ATTACHING TO ATV**

Place TerraTiller plow head into 1 1/4" factory receiver and secure with provided tractor and cotter pin. If ATV is equipped with a 2" receiver then use provided 5" receiver tube. Secure plow with provided tractor and cotter pin.



## OPERATION

Owner should check and tighten all hardware after the first hour of operation. The break in stage of your new TerraTiller can cause minimal loosening of hardware. Please see Bolt Torque Chart (page 15) for proper torque information.

- Never allow children or untrained persons to operate equipment.
- Keep bystanders away from equipment.
- Never go underneath equipment. Never place any part of the body underneath equipment or between movable parts even when the engine has been turned off.
- Service work does not require going underneath.
- Read manual for service instructions or have service performed by a qualified dealer.
- Stop ATV and implement immediately upon striking an obstruction. Turn engine off, remove key, inspect and repair any damage before resuming operation.
- Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, ears and head.

### OWNER/OPERATOR PRE-OPERATION CHECKLIST

#### **▲ WARNING ▲**

(Owner/Operator's Responsibility)

- Review and follow all safety rules and safety decal instructions on pages 5-8.
- Check equipment and make sure it is properly and securely attached to tractor.
- Check all safety decals and make sure they are installed and in good condition. Replace if damaged.
- Check all hardware and make sure it is properly installed and secured.
- Do not allow riders.

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## **TRANSPORT POSITION**

### **⚠ CAUTION ⚠**

When handling the TerraTiller always be extremely careful. There are sharp edges and moving parts. Failure to use caution may result in serious injury.

Replace the TerraTiller in transport position by:

- Turning off your ATV
- Setting the parking break
- Chocking your wheels
- Removing the tractor pin holding the plow into the plow head
- Sliding the plow all the way into the head
- Replacing the tractor pin
- Removing the tractor pin holding the plow to the receiver tube
- Flipping the plow into transport position (blades up)
- Replacing the tractor pin

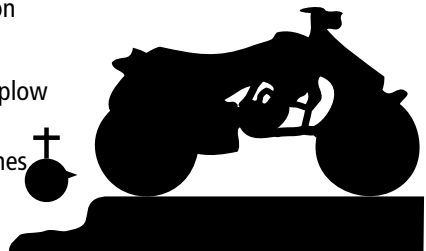
## **PLOWING POSITION**

### **⚠ WARNING ⚠**

When handling the TerraTiller always be extremely careful. There are sharp edges and moving parts. Failure to use caution may result in serious injury.

When you arrive at your food plot put the TerraTiller in plowing position by:

- Parking your ATV in a spot where you can get the rear of the ATV slightly (4-5 inches) higher than the front.
- Turning off your ATV
- Setting the parking break
- Chocking your wheels
- Removing the tractor pin holding the plow to the receiver tube
- Flipping the plow into plowing position
- Replacing the tractor pin
- Removing the tractor pin holding the plow into the plow head
- Dropping the plow down until it touches the ground
- Replacing the tractor pin
- Begin to plow



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## PLOWING WITH THE TERRATILLER

### ▲ WARNING ▲

The operator is responsible for the safe operation of this equipment. The operator must be properly trained. Operators should be familiar with the equipment, the ATV and all safety practices before starting operation. Read the safety rules and safety decals on pages 5-8.

Owner should check and tighten all hardware after the first hour of operation. The break in stage of your new TerraTiller can cause minimal loosening of hardware. Please see Bolt Torque Chart (page 15) for proper torque information.

The TerraTiller optimal plowing speed is approximately 5 mph.

Slow down when making turns with the TerraTiller engaged.

Adjust your TerraTiller to optimal depth for breaking the ground based on soil conditions.

The TerraTiller will plow approximately 4" deep.

Adjust the TerraTiller to a shallow depth to cover seeds.

After the first use, be sure to check the blades for side to side movement. If there is movement from side to side be sure to retighten the 3/4" castle nut and replace the hair pin. You should continue to check this after each use to get the longest life out of your TerraTiller.

## STORING

### ▲ WARNING ▲

When handling the TerraTiller always be extremely careful. There are sharp edges and moving parts. Failure to use caution may result in serious injury.

Store your TerraTiller by:

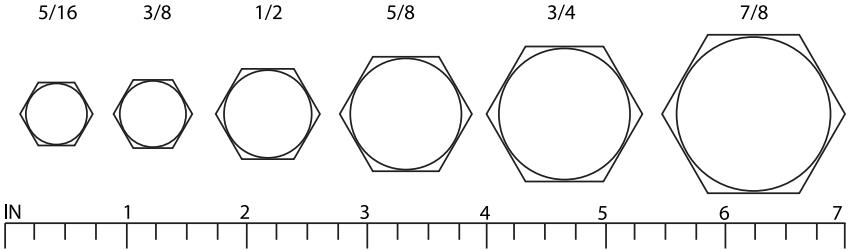
- Removing the plow from your ATV
- Visually inspecting the plow
- Tighten and lubricate if necessary
- Place in a safe storage area

# BOLT SIZE AND BOLT TORQUE CHART

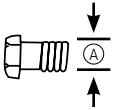
## BOLT SIZE CHART

NOTE: Chart shows bolt thread sizes and corresponding head (wrench) sizes for standard SAE and metric bolts.

### SAE Bolt Thread Sizes



## SAE SERIES TORQUE CHART



SAE Bolt Head Identification



**SAE Grade 2**  
No Dashes

**SAE Grade 5**  
(3 Radial Dashes)

**SAE Grade 8**  
(6 Radial Dashes)

Ⓐ Diameter (inches)	Wrench Size	MARKING ON HEAD					
		SAE 2		SAE 5		SAE 8	
		lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m
1/4"	7/16"	6	8	10	13	14	18
5/16"	1/2"	12	17	19	26	27	37
3/8"	9/16"	23	31	35	47	49	67
7/16"	5/8"	36	48	55	75	78	106
1/2"	3/4"	55	75	85	115	120	163
9/16"	13/16"	78	106	121	164	171	232
5/8"	15/16"	110	149	170	230	240	325
3/4"	1-1/8"	192	261	297	403	420	569
7/8"	1-5/16"	306	416	474	642	669	907
1"	1-1/2"	467	634	722	979	1020	1383

## SPECIFICATIONS

-----  
Cutting Width – 21”  
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Shipping Weight – 40 lbs.  
-----

Height – 20”  
-----

Length – 12”  
-----

8” hi-strength 1060 grade disc blades  
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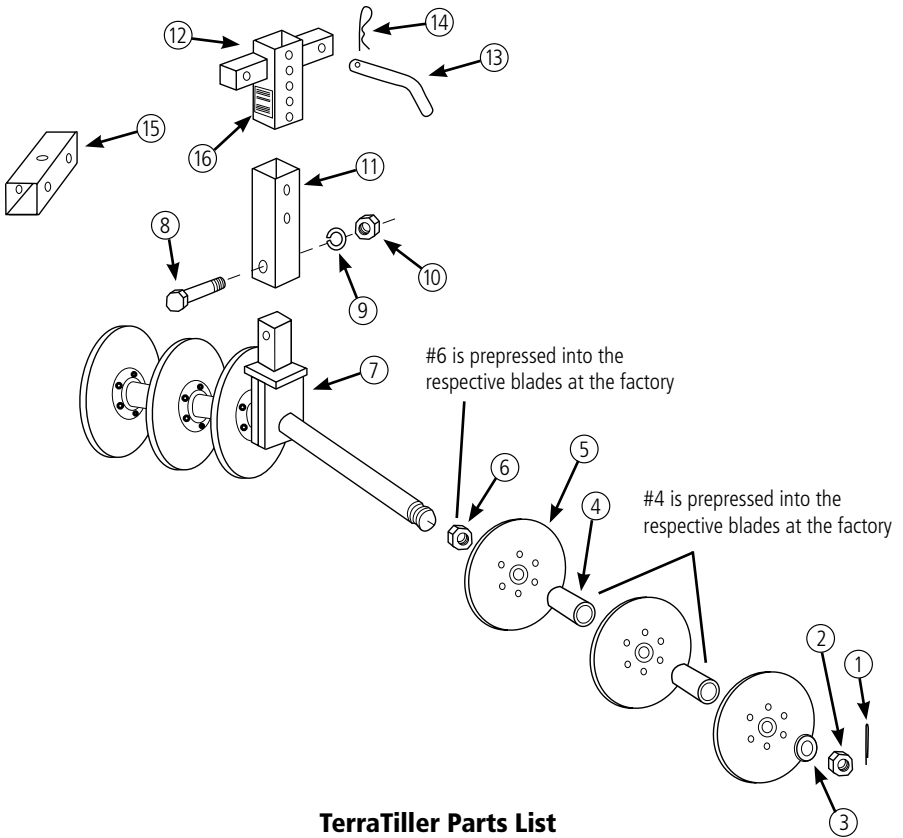
3/4” stress proof steel round disc axle  
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3/4” tapered roller bearings  
-----

Heavy 2” steel tube adjustable frame  
-----

Universal mount system  
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**TerraTiller Parts List**

Item Number	Description
1	Hair Pin
2	3/4" Castle Nut
3	3/4" Flat Washer
4	3" Outer Spacer
5	8" Plain Blade w/bearing
6	Inner Spacer
7	Axle Assembly
8	5/8" x 3" Hex Head Bolt
9	5/8" Lock Washer
10	5/8" Hex Head Nut
11	10 1/2" Adjustment Tube
12	Male Hitch
13	Tractor Pin
14	Cotter Pin
15	5" Receiver Tube
16	Safety Label
17	Owners Manual (not shown)





