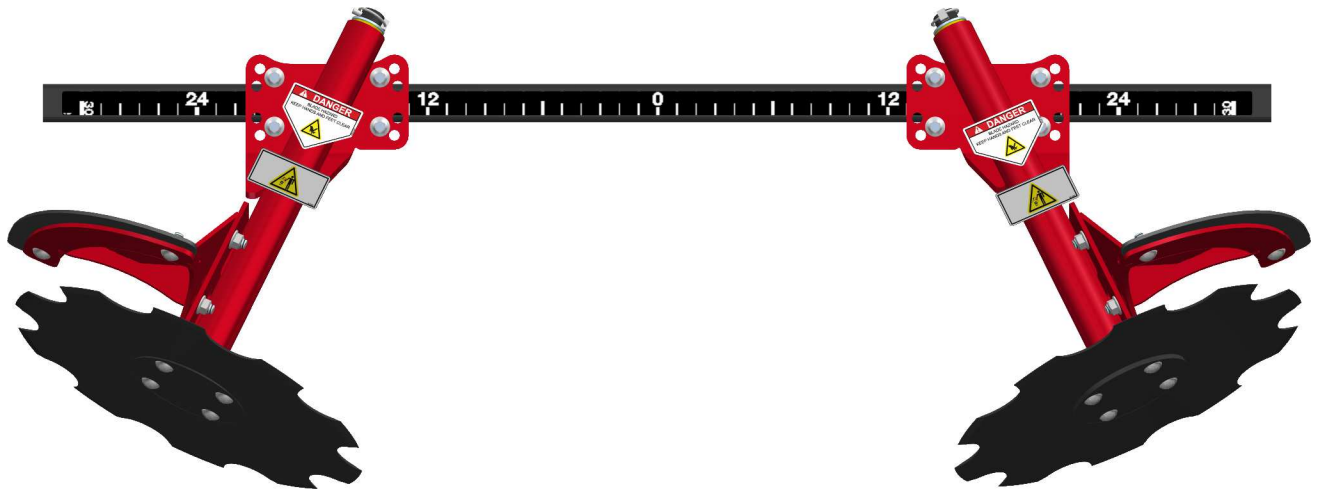




OPERATORS MANUAL

PLASTIC LIFTER



Manufactured by
Tilmor LLC.
Made in the USA
Dalton, Ohio 44618

Original Operator's Manual

12-10001 Rev.02

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INTRODUCTION



Tilmor LLC. is pleased to provide you with your new plastic lifter!

Please visit our website, www.tilmor.com for a complete list of available Tilmor products, and resources.

Product Description

The plastic lifters are designed using two 20" notched blades that gently cut underneath and slightly lift the plastic. Each blade has an integrated adjustable and removable debris removal plate to reduce soil and residue buildup on the cutting disc. Additionally each cutting disc has a guard for your safety while working around the plastic lifter. The plastic lifting system mounting brackets provide a variety of holes for mounting the u-bolt to a 2" toolbar. This allows for the plastic lifters to be mounted at the correct angle to perform the ideal cut and lift for specific conditions and plastic sizes. The plastic lifter is designed to be used on a variety of tractors.

Why Do I Need an Operator's Manual?

This manual has been created to help you gain the important knowledge of what is needed to safely operate, maintain, and service your machine. It is divided into sections for convenient reference of the appropriate section.

You must read and understand the operator's manual for each piece of Tilmor equipment you own. Reading the operator's manual will help you become familiar with each specific piece of equipment. Understanding the operator's manual will help you, as well as others, avoid personal injury and/or damage to the equipment. Keep this manual with the machine at all times. The manual should remain with the machine even if it is sold. If this manual becomes damaged or unreadable, it should be replaced immediately. This manual is available on our website at www.tilmor.com

When using a Tilmor attachment, be sure to read and follow the safety and operating instructions of both the power unit and the attachment being used to ensure the safest operation possible.

The information in this manual provides the operator with the safest procedures to operate the machine while getting the maximum use out of the unit. Failure to follow the safety precautions listed in this manual may result in personal injury and/or damage to the equipment.

INTRODUCTION

Using Your Manual

Throughout this manual, you will encounter special messages and symbols that identify potential safety concerns to help you as well as others avoid personal injury or damage to the equipment.

SYMBOL DEFINITIONS



ATTENTION

This symbol identifies potential health and safety hazards. It marks safety precautions. Your safety and the safety of others is involved.

There are three signal words that describe the level of safety concern: Danger, Warning, and Caution. Safety should always be the #1 priority when working on or operating equipment. Accidents are more likely to occur when proper operating procedures are not followed or inexperienced operators are involved. Note: Right-Hand and Left-Hand orientations may be referred to at different places throughout this manual. Right-Hand and Left-Hand is determined as if facing forward from the operator station.

SIGNAL WORD DEFINITIONS

DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme cases.

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 and/or property damage. It may also be used to alert against unsafe practices.

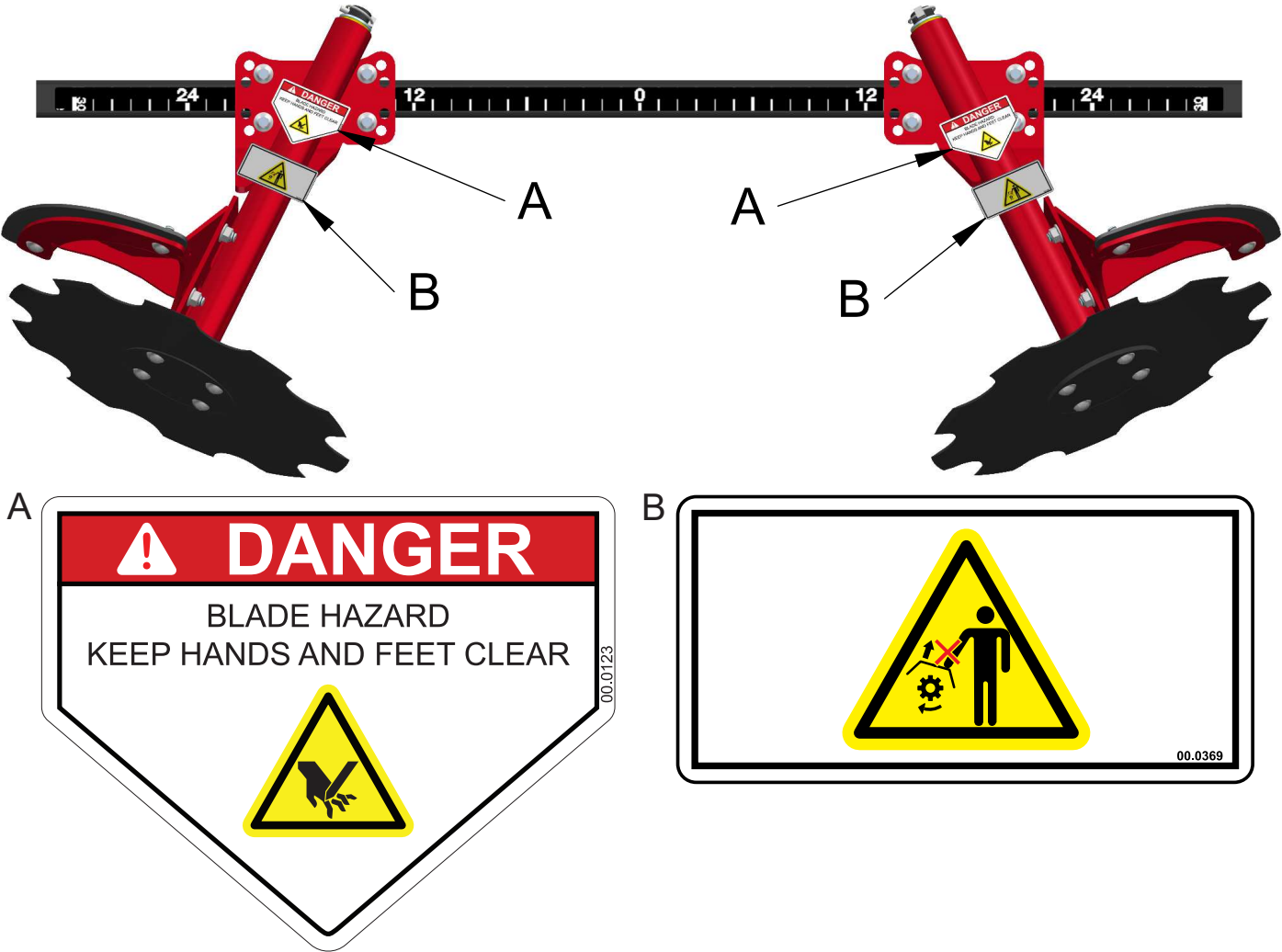
Manual Glossary

Power Unit	A Tilmor tractor or other Tilmor engine powered device that may be operated by itself or with an attachment or accessory.
Implement	A piece of Tilmor equipment that requires a Power Unit for operation.
Accessory	A device that attaches to a Power Unit or Attachment to extend its capabilities.
Machine	Describes any "Attachment" or "Accessory" that is used in conjunction with a power unit.

SAFETY

Safety Decals

The following safety decals must be maintained on your (AB-9003, AB-9004) Plastic Lifter's. Keep all safety decals legible. Remove all grease, dirt, and debris from safety decals and instructional labels. If any decals are faded, illegible, or missing, visit www.tilmor.com or call 1-844-255-5864 for replacements. When replacement or new components are installed, be sure that current safety decals are affixed to the replacement or new part.



Decal	Description	Part Number	Quantity
A	Danger, Keep Hands & Feet Clear	00-0123	2
B	Do Not Remove Shields	00-0369	2

SAFETY



General Safety Procedures for Tilmor Tractors, Attachments, & Accessories



Training Required

- The owner of this machine is solely responsible for properly training the operators.
- The owner/operator is solely responsible for the operation of this machine and prevention of accidents or injuries occurring to him/herself, other people, or property.
- Do not allow operation or service by children or untrained personnel. Local regulations may restrict the age of the operator.
- Before operating this machine, read the operator's manual and understand its contents.
- If the operator of the machine cannot understand this manual, then it is the responsibility of this machine's owner to fully explain the material within this manual to the operator.
- Learn and understand the use of all of the controls.
- Know how to stop the power unit and all attachments quickly in the event of an emergency.



Personal Protective Equipment Requirements

It is the responsibility of the owner to be sure that the operators use the proper personal protective equipment while operating the machine. Required personal protective equipment includes but is not limited to the following list.



- Wear a certified ear protection device to prevent the loss of hearing.
- Prevent eye injury by wearing safety glasses while operating the machine.
- Closed toe shoes must be worn at all times.
- Long pants must be worn at all times.
- When operating in dusty conditions, it is recommended that a dust mask be worn.

Operation Safety

- Inspect all equipment before operation. Repair or replace any damaged, worn, or missing parts. Be sure all guards and shields are in proper working condition and are secured in place. Make all of the necessary adjustments before operating the machine.
- Some pictures in this manual may show shields or covers opened or removed in order to clearly illustrate any instructions. Under no circumstance should the machine be operated without these devices in place.
- Alterations or modifications to this machine can reduce safety and could cause damage to the machine. Do not alter safety devices or operate with shields or covers removed.
- Before each use, verify that all controls function properly and inspect all safety devices. Do not operate if controls or safety devices are not in proper working condition.
- Check the parking brake function before operating. Repair or adjust the parking brake if necessary.
- Observe and follow all safety decals.
- All controls are to be operated from the operator's station only.
- Always wear a seat belt if the machine has a roll cage/bar installed and in the upright position.
- Ensure all attachments or accessories are locked or fastened securely before operation.
- Ensure that all bystanders are clear of the machine before operation. Stop the machine if someone enters your work area.
- Always be alert to what is happening around you, but do not lose focus to the task you are performing. Always look in the direction the machine is moving.
- Look behind and down before backing up to be sure of a clear path.
- If you hit an object, stop and inspect the machine. Make all necessary repairs before continuing operation of the machine.
- Stop operation immediately at any sign of equipment failure. An unusual noise can be a warning of equipment failure or a sign that maintenance may be required. Make all necessary repairs before continuing operation of the machine again.

SAFETY



General Safety Procedures for Tilmor Tractors, Attachments, & Accessories



Operation Safety (continued)

- If equipped with a high/low range feature, never shift between high and low range while on a slope.
- Do not leave the machine unattended while it is running.
- Always park the machine on level ground.
- Always shut off the engine when connecting the attachment drive belt to the power unit.
- Never leave the operator's station without lowering the attachment to the ground, setting the parking brake, shutting off the engine, and removing the ignition key. Make sure all moving parts have come to a complete stop before dismounting.
- Never leave equipment unattended without lowering the attachment to the ground, setting the parking brake, shutting off the engine, and removing the ignition key.
- Only operate in well-lit conditions.
- Do not operate when there is a risk of lightning.
- Never direct the discharge of any attachment in the direction of people, buildings, animals, vehicles, or other objects of value.
- Never discharge material against a wall or obstruction. Material may ricochet back towards the operator.
- Use extra caution when approaching blind corners, shrubs, trees, or other objects that may obscure vision.
- Do not run the engine in a building without adequate ventilation.
- Do not touch the engine or the muffler while the engine is running or immediately after stopping the engine. These areas may be hot enough to cause a burn.
- Do not change the engine governor settings or over-speed the engine. Operating the engine at excessive speed may increase the hazard of personal injury.
- To reduce the hazard of fire, keep the battery compartment, engine, and muffler areas free of grass, leaves, excessive grease, and other flammable materials.

Preventing Accidents



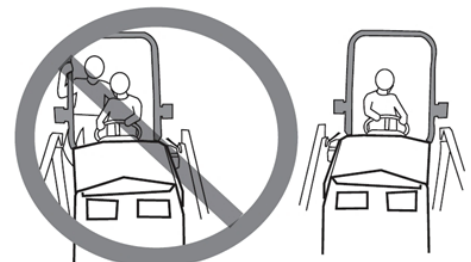
- Clear working area of objects that might be hit or thrown from the machine.
- Keep people and pets out of working areas.
- Know the work area well before operation. Do not operate where traction or stability is questionable.
- Reduce speed when you are operating over rough ground.
- Equipment can cause serious injury and or death when improperly used.
- Before operating understand the operation and safety of the power unit and attachment being used.



- Do not operate the machine if you are not in good physical and mental health, if you will be distracted by personal devices, or are under the influence of any substance that may impair decision, dexterity, or judgement.
- Children are attracted to machine activity. Be aware of children and do not allow them in the working area. Turn off the machine if a child enters the work area.

Keep Riders Off

- Only allow the operator on the power unit. Keep riders off.
- Never allow riders on any attachment or accessory.



SAFETY

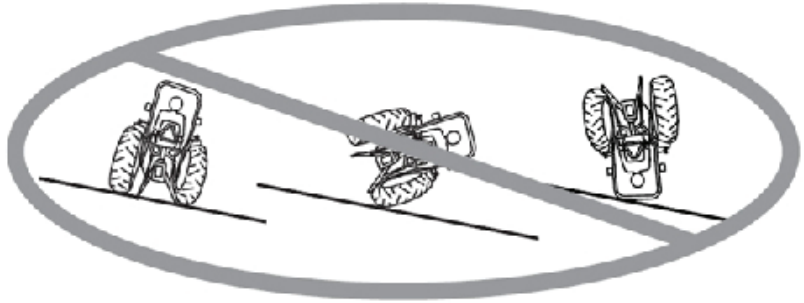


General Safety Procedures for Tilmor Tractors, Attachments, & Accessories



Operating On Slopes

- Slopes can cause loss-of-control and tip-over accidents, which can result in severe injury, or death. Be familiar with the emergency parking brake, along with the power unit controls and their functions.
- If the power unit is equipped with a fold down roll bar, it must be locked in the upright position when operating on a slope.
- Use low range (if equipped) when operating on slopes of greater than 15 degrees.
- Do not stop or start suddenly when operating on slopes.
- Never shift between high and low range while on a slope. Always move the power unit to level ground and engage the parking brake before shifting range or placing the power unit in neutral.
- Variables such as wet surface and loose ground will reduce the degree of safety. Do not drive where the machine could lose traction or tip over.
- Keep alert for hidden hazards in the terrain.
- Stay away from drop-offs, ditches, and embankments.
- Sharp turns should be avoided when operating on slopes.
- Pulling loads on hills decreases safety. It is the responsibility of the owner/operator to determine loads that can safely be controlled on slopes.
- Transport the machine with attachment lowered or close to the ground to improve stability.



Roadway Safety

- Operate with safety lights when operating on or near roadways.
- Obey all state and local laws concerning operation on roadways.

Truck or Trailer Transport

- Use full width ramps for loading the machine into a truck or trailer.
- The parking brake is not sufficient to lock the machine during transport. Always secure the power unit and/or attachment to the transporting vehicle securely using straps, chains, cable, or ropes. Both front and rear straps should be directed down and outward from the machine.
- Shut off fuel supply to the power unit during transport on a truck or trailer.
- If equipped, turn the battery disconnect switch to the Off position to shut off electrical power.



SAFETY



General Safety Procedures for Tilmor Tractors, Attachments, & Accessories



Maintenance

- Keep all safety decals legible. Remove all grease dirt, and debris from safety decals and instructional labels.
- If any decals are faded, illegible, or missing, contact your dealer promptly for replacements.
- When new components are installed, be sure that current safety decals are affixed to the replacement components.
- If any component requires replacement use only original Tilmor replacement parts.
- Always turn the battery disconnect to the Off position or disconnect the battery before performing any repairs. Disconnect the negative terminal first and the positive terminal last. Reconnect the positive terminal first and the negative terminal last.
- Keep all bolts, nuts screws and other fasteners properly tightened.
- Always lower the attachment to the ground, engage parking brake, shut off engine, and remove the ignition key. Make sure all moving parts have come to a complete stop before cleaning, inspection, adjusting, or repairing.
- Never perform maintenance on the power unit and/or attachment if someone is in the operator's station.
- Always use protective glasses when handling the battery.
- Check all fuel lines for tightness on a regular basis. Tighten or repair them as needed.
- To reduce the hazard of fire, keep the battery compartment, engine, and muffler areas free of grass, leaves and excessive grease.
- Do not touch the engine, the muffler, or other exhaust components while the engine is running or immediately after stopping the engine. These areas may be hot enough to cause a burn.
- Allow the engine to cool before storing and do not store near an open flame.
- Do not change the engine governor settings or over-speed the engine. Operating engine at excessive speed may increase the hazard of personal injury.
- Springs may contain stored energy. Use caution when disengaging or removing springs and/or spring loaded components.
- An obstruction or blockage in a drive system or moving/rotating parts may cause a build up of stored energy. When the obstruction or blockage is removed, the drive system or moving/rotating parts may move suddenly. Do not attempt to remove an obstruction or blockage with your hands. Keep hands, feet, and clothing away from all power driven parts.
- Dispose of all fluids in accordance with local laws.

Fuel Safety

- To avoid personal injury or property damage, use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive.
- Do not refuel the machine while smoking or at a location near flames or sparks.
- Always refuel the machine outdoors.
- Do not store the machine or fuel container indoors where the fuel or fumes can reach an open flame, spark, or pilot light.
- Only store fuel in an approved container. Keep out of reach of children.

SAFETY



General Safety Procedures for Tilmor Tractors, Attachments, & Accessories

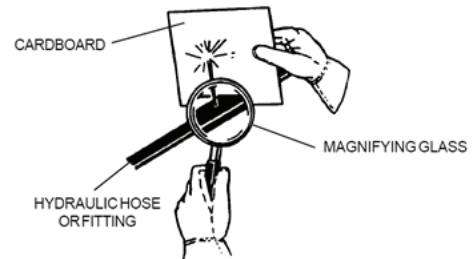


Fuel Safety (continued)

- Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before filling.
- Remove the machine from the truck or trailer and refuel it on the ground. If this is not possible, refuel the machine using a portable container, rather than from a fuel dispenser nozzle.
- Never remove the fuel cap or add fuel with the engine running. Allow the engine to cool before refueling.
- Never remove the fuel cap while on a slope. Only remove when parked on a level surface.
- Replace all fuel tank and container caps securely.
- Do not overfill the fuel tank. Only fill to bottom of fuel neck, do not fill the fuel neck full. Overfilling of the fuel tank could result in engine flooding, fuel leakage from the tank, or damage to the emissions control system.
- If fuel is spilled, do not attempt to start the engine. Move the power unit away from the fuel spill and avoid creating any source of ignition until fuel vapors have dissipated.
- If the fuel tank must be drained, it should be drained outdoors into an approved container.
- Dispose of all fluids in accordance with local laws.
- Check all fuel lines for tightness and wear on a regular basis. Tighten or repair them as needed.
- The fuel system is equipped with a shut-off valve. Shut off the fuel when transporting the machine to and from the job, when parking the machine indoors, or when servicing the fuel system.

Hydraulic Safety

- Make sure all hydraulic connections are tight and all hydraulic hoses and tubes are in good condition. Repair any leaks and replace any damaged or deteriorated hoses or tubes before starting the machine.
- Hydraulic leaks can occur under high pressure. Hydraulic leaks require special care and attention.
- Use a piece of cardboard and a magnifying glass to locate suspected hydraulic leaks.
- Keep body and hands away from pinhole leaks or nozzles that eject high pressure hydraulic fluid. Hydraulic fluid escaping under high pressure can penetrate the skin causing serious injury, leading to severe complications and/or secondary infections if left untreated. If hydraulic fluid is injected into the skin, seek immediate medical attention no matter how minor the injury appears.
- The hydraulic system may contain stored energy. Before performing maintenance or repairs on the hydraulic system, remove attachments, engage parking brake, disengage the weight transfer system (if equipped), shut off the engine, and remove the ignition key. Move the hydraulic control lever before disconnecting hydraulic hoses.
- Dispose of all fluids in accordance with local laws.



SAFETY



Plastic Lifter Safety Procedures



- Do not remove any safety decals.
- Do not remove any safety guards.
- Blade Hazard: Contact with the rotating or stationary cutting blades may cause personal injury. Keep hands and feet away.
- Use gloves when removing, installing, or handling the cutting blades.
- Clear the area of all obstacles, hazards, and personnel.
- Do not make sharp turns with the cutting blade in the ground.

INSTALLATION

Plastic Lifter Installation on Toolbar

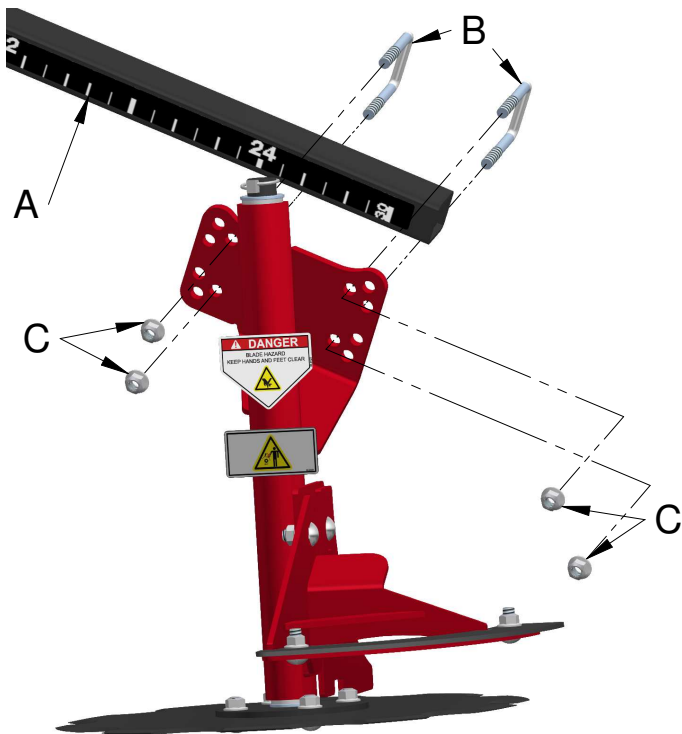
The plastic Lifters are designed to be mounted on a 2" toolbar. There are multiple mounting holes on the plastic lifter mounting bracket. These holes allow the lateral angle of the cutting disc to be adjusted. The vertical angle of the cutting disc can also be adjusted by adjusting the top link.



Attention

NOTE: The best position of the plastic lifters for use in normal conditions is shown below.

1. Ensure that the tool bar is installed level and square on the power unit.
2. Determine the needed location of the plastic lifter on the tool bar.



3. Place the u-bolts (B) around the toolbar (A) and through the plastic lifter mounting holes. Secure the u-bolts in place using 1/2" locking flange nuts (C). Torque the flange nuts to 57 ft-lbs (102 Nm).

GENERAL OPERATION

Daily Inspection

WARNING

Always set the parking brake, shut off power unit engine, remove the ignition key, and ensure all moving parts have come to a complete stop before inspecting components, or attempting any repair or adjustment.

1. Park the power unit on a level surface, with the engine shut off and all fluids cold.
2. Refer to the power unit operator's manual. Check the power unit's engine oil, hydraulic oil, cooling system, tire pressure, and fuel level. Add fluid or service as required.
3. Perform a visual inspection of both the power unit and the plastic lifter. Look for loose or missing hardware, damaged components, or signs of wear.
4. Ensure that the plastic cutter blades rotate freely.

Operating Procedure

1. Before operation, perform a daily inspection and confirm that the plastic lifters are in a good operating condition.
2. Align the power unit with the row of plastic to be removed.
3. Lower the toolbar to verify that the position of the plastic lifters is aligned with the edge of the plastic. The position of the plastic lifter should allow for the cutting disc to extend 3 to 4 inches under the plastic. If the plastic lifter position must be adjusted, shut off the power unit and set the parking brake before adjusting the plastic lifters. Refer to the plastic lifter installation on toolbar section in this manual as needed.

CAUTION

Do not use down pressure from the tractor. Adjust the lifters as required for the specific application. Using down pressure from the tractor can cause damage to the plastic lifters. If weight is added to the toolbar no more than 80 lbs. should be added. A gauge wheel can be added to help control the depth of the plastic lifters. The depth should be no greater than 5 inches.

4. With the plastic lifters correctly positioned and the toolbar lowered, the power unit may be driven forward.
5. Ensure the plastic lifters are functioning as desired. Speed will be variable depending on the condition of the plastic and the amount of vegetation growing around the plastic, and the condition of the soil. Adjust the plastic lifters as needed for the best results.

SERVICE

Cleaning and General Maintenance

WARNING

Always set the parking brake, shut off power unit engine, remove the ignition key, and ensure all moving parts have come to a complete stop before inspecting components, or attempting any repair or adjustment.



Attention

If any component requires replacement, use only original Tilmor replacement parts.

For best results, and to maintain the finish of the plastic lifters, clean or wash the plastic lifters to remove dirt and other debris.



Attention

NOTE: If high pressure water is used to clean the plastic lifters, or the plastic lifter shaft is exposed to water, it is necessary to disassemble the plastic cutter and dry the shaft and housing thoroughly. The shaft and housing are both bare steel and will rust when exposed to wet environments.

Lubrication

The plastic lifters do not require lubrication.



Attention

NOTE: Do not apply any lubricant to the shaft or bushings of the plastic lifter. Applying a lubricant to the shaft or bushings will cause dirt and debris to gather on the lubricated areas, causing excessive wear to the bushings.

Storage

Preparing the plastic lifters for storage

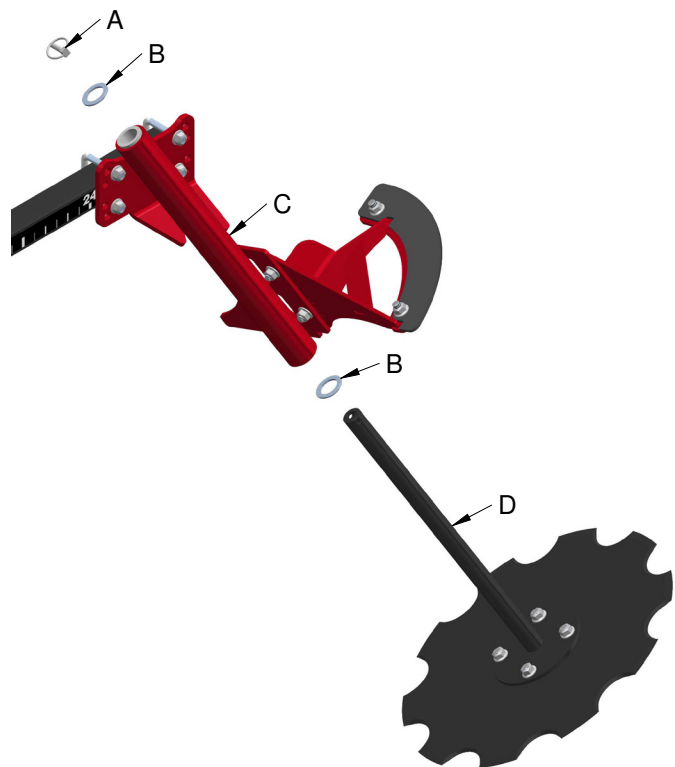
1. Clean or wash the plastic lifters to remove dirt and other debris.



Attention

NOTE: If high pressure water is used to clean the plastic lifters, or the plastic lifter shaft is exposed to water, it is necessary to disassemble the plastic lifter and dry the shaft and housing thoroughly. The shaft and housing are both bare steel and will rust when exposed to wet environments.

2. Apply a rust preventative lubricant to any exposed metal on the plastic cutter blades.
3. To disassemble the plastic lifter. Remove the lynchpin (A) to remove plastic lifter shaft (D) from the plastic lifter housing (C). Retain the washers (B) for re-assembly. Thoroughly dry the shaft (D) and ensure the housing (C) is dry.



4. Install one washer (B) over the shaft.
5. Install the shaft (D) into the plastic lifter housing (C).
6. Place another washer (B) over the end of the shaft (D).
7. Secure the shaft in place with the lynchpin (A).

SERVICE

Removing the plastic lifter from storage

1. Inspect the plastic lifters for any damage.
2. Ensure that the plastic lifter cutting disc rotates freely.
3. Inspect the plastic lifter safety decals and replace as needed.

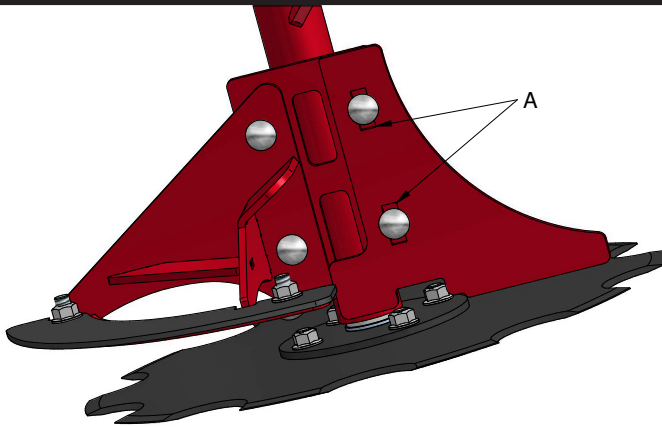
Debris Removal Plate Adjustment

1. Loosen the two locking flange nuts.
2. Adjust the debris removal plate up or down within the adjustment slots (A) as required.



Attention

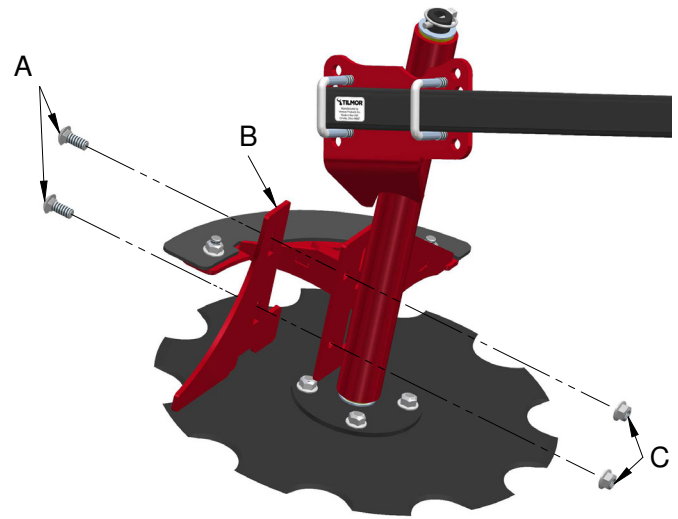
NOTE: The debris removal plate should not be touching the cutting disc. The debris removal plate may need to be removed in some conditions.



3. Tighten the locking flange nuts and torque to 50 ft-lbs (68 Nm).

Debris Removal Plate Removal

1. Remove the two locking flange nuts (C).



2. Remove the two carriage bolts (A).
3. Remove the debris removal plate (B).

SPECIFICATIONS

Dimensions Per Plastic Lifter

Overall Height24 inches
Overall Length21 inches
Overall Width21 inches
Weight	54 pounds

NOTE: Overall dimensions may vary depending on the mounted orientation of the plastic lifter.

Features

1. Each plastic lifter mounting bracket has multiple mounting holes for attaching the plastic lifter to a 2" tool bar using u-bolts. This allows the blades to be mounted at the correct angle to perform the ideal cut and lift based on plastic conditions and sizes.
2. The two 20" notched blades gently cut underneath the plastic and slightly lift the plastic even when weeds or vines can traditionally make it difficult.
3. Integrated adjustable/removable debris removal plates keep soil and residue from building up on the blades.
4. Guards are mounted on the top edges of the blades for safety while operating and working around the plastic lifter.
5. The plastic lifter is designed to be used with the plastic winder on some mid mount tractors to accomplish two tasks in one pass. However, the plastic lifter and winder are independent and can be used on a wide variety of tractors.

WARRANTY



Return Policy & Procedure

All new and unused products may be returned within 30 days of the ship date for a refund. If returning an item, first contact a Tilmor customer support representative at 1-844-255-5864 to obtain a return merchandise authorization (RMA) prior to shipping the item to Tilmor. Shipping costs for returns will be incurred by the customer. Refunds may be subject to a 10% restocking fee.

Warranty

Contact a Tilmor customer support representative at 1-844-255-5864 immediately if a product purchased on tilmor.com should fail during the defined warranty period. Items purchased on tilmor.com may be manufactured by Tilmor LLC or one of our trusted partners. For all products not branded by Tilmor, the original equipment manufacturer's warranty statement will define period, policy and procedure.

Tilmor Warranty Period

Non-serialized Product - 1 Year

Unless otherwise stated, all non-serialized Tilmor products are protected against defects in materials and workmanship, under ordinary and normal use, for a period of one year from the shipping date. Warranties on non-serialized Tilmor products are not transferable.

Serialized Product - 2 Year or 1000 hours

Unless otherwise stated, all serialized Tilmor products are protected against defects in materials and workmanship, under ordinary and normal use, for a period of two years from the shipping date or 1000 hours on tractor hour meter (whichever comes first). Warranties on serialized Tilmor products are transferable.

Tilmor Warranty Policy

Tilmor LLC may opt to repair, replace, or issue a refund for Tilmor products that are defective or have sustained damage in shipping. The following actions and damages are excluded from warranty:

- deterioration due to normal wear and tear,
- damage caused by an act of nature (fire, flood, wind, etc.),
- damage caused by accident, improper usage or negligence.

Tilmor LLC reserves the right to approve warranty repair time, decide whether to send new parts and/or request old parts for review. Our intention is to be fair to all parties (i.e. customer, repair shop and Tilmor).

Tilmor Warranty Procedure

Contact a Tilmor representative immediately if a Tilmor product should fail during the defined warranty period. The representative will initiate a claim and determine the quickest method to resolve the issue. Tilmor does not have local dealerships and will work directly with the customer to resolve the problem. If the customer prefers, we will work with a technician of the customer's choice to perform the repair.