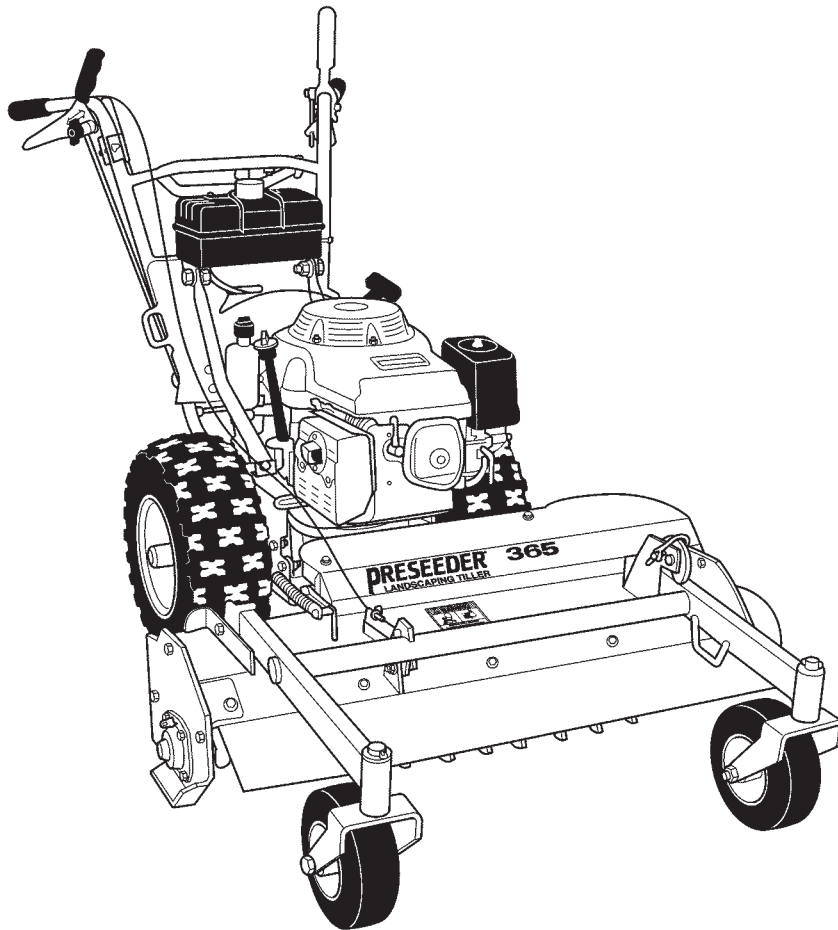


PRESEEDER[®] LANDSCAPING TILLER

OPERATORS MANUAL FOR MODEL 365



ATI 
CORPORATION

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DISCLAIMER

THE INFORMATION IN THIS MANUAL IS PROVIDED TO PROMOTE THE SAFE USE OF, AND ASSIST THE OPERATOR IN ACHIEVING THE BEST PERFORMANCE FROM, MODEL 365 Preseeder[®] Landscaping Tillers DESCRIBED HEREIN, FOR THEIR INTENDED APPLICATIONS.

Preseeder[®] is a registered trademark of ATI Corporation.

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INTRODUCTION

This manual is furnished to you, the owner/operator, as a guide to get the greatest benefit from your Preseeder tiller. ATI Corporation wants you to be able to get the most use out of your tiller through safe and efficient operation.

Before attempting to operate the tiller, carefully read all sections of this manual. Be sure that you thoroughly understand all of the safety information and operating procedures.

Pay special attention to the **Safety Precautions** and particularly all **DANGER, WARNING, and CAUTION** notices included in this manual. These items combined form the guidelines for promoting a safe and efficient operating environment, along with continuous, reliable service and minimum down time.

NOTE: *References made to left, right, front, and rear are those directions viewed when facing the unit from the rear.*

NOTE: *Some equipment depicted in illustrations may not reflect exact production model configurations.*

NOTE: *All safety, operating, and servicing information reflects current production models at the time of publication of this manual.*

NOTE: *ATI Corporation reserves the right to discontinue models at any time, change specifications, and improve design without notice and without incurring obligation on goods previously purchased and to discontinue supplying any part listed, when the demand does not warrant production.*

WARRANTY

This Preseeder tiller is designed and manufactured to high quality standards. ATI Corporation, therefore, guarantees this tiller to be free from defect in workmanship and materials for one year from purchase date. **If the machine is used for rental purposes, the warranty is limited to ninety (90) days.**

Rotor teeth and normal wear are not covered by this warranty.

Misuse, abuse, misapplication, and unauthorized alterations will void this warranty.


SAFETY PRECAUTIONS


THE BEST OPERATOR IS A CAREFUL OPERATOR.


By using common sense, observing general safety rules, and adhering to the precautions specific to the Preseeder tiller, you, the operator, can promote safe equipment operation. Read and be sure you understand all precautions in this section before operating your tiller. The machine must only be operated by properly trained and authorized operators.

SAFETY PRECAUTION DEFINITIONS

Dangers, Warnings, Cautions, and Notes are strategically placed throughout this manual to further emphasize the importance of personal safety, qualifications of operating personnel, and proper use of the tiller in its intended application. These precautions supplement and/or complement the safety information decals affixed to the unit and include headings that are defined as follows:

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

 **WARNING** *Indicates a potentially hazardous situation or practice which, if not avoided, could result in death or serious injury.*


 **CAUTION** *Indicates a potentially hazardous situation or practice which, if not avoided, will result in damage to equipment and/or minor injury.*

NOTE: *Indicates an operating procedure, practice, etc., or portion thereof, which is essential to highlight.*

The tiller must only be operated by qualified persons who are familiar with all information in the operator's manual. Do not attempt to operate the tiller in areas with steep inclines, ditches, large rocks, stumps, or holes which may endanger the operator by upsetting the tractor or cause damage to the tiller.

THE PRESEEDER TILLER


1. Read this manual carefully to become familiar with your tiller. Lack of operating knowledge can be dangerous and lead to accidents.
2. Keep all shields in place and properly tighten all mounting hardware.

 **WARNING** *Stay clear of drive belt and chain. Do not operate without drive chain cover and drive belt shield in place and in good condition. Failure to heed these warnings can result in personal injury or death.*

3. Periodically inspect all parts for wear and replace with factory-authorized parts if excessive wear is present.
4. Keep safety decals clean and readable. Replace if missing, damaged, or illegible.
5. Do not modify, alter or permit anyone to modify or alter this equipment or any of its components without written approval from ATI Corporation.

OPERATING THE PRESEEDER TILLER

1. Do not stand or allow others to stand near the tiller while it is operating.
2. Never wear loose clothing when operating rotating equipment.
3. Never clean, adjust, or repair the tiller with the tractor engine running.

 **WARNING** *Keep hands and feet from under Preseeder tiller at all times. Make certain everyone is clear of the machine before operating.*

SAFETY PRECAUTIONS

SAFETY DECALS

The safety decals appearing in Figure 1 are a sampling of those affixed to the tiller. These examples are not meant to represent all decals, but do illustrate typical precautionary and informational signage relating to tiller operation and use.

IMPORTANT: It is the responsibility of the operator to locate, read, and adhere to all information provided on all decals affixed to the unit being operated.

SAFETY PRECAUTIONS

PRESEEDER[®]

LANDSCAPING TILLER

WARNING

- Review operator's manual before operating machine.
- Secure all guards and shields **BEFORE** starting power source.
- Keep hands, feet, clothing and hair away from moving parts.
- Never adjust, lubricate, clean or unplug machine with engine running. Wait for all movement to stop.
- **DO NOT** leave machine with engine running.
- **DO NOT** stand or climb on machine is running. Clear working area of bystanders.

Failure to comply could result in death or serious injury.

WARNING

AVOID INJURY FROM ROTATING TEETH

Keep hands, feet, and clothing away.

WARNING

MOVING PART HAZARD

To prevent serious injury or death from moving parts:

- Close and secure guards and shields before starting.
- Keep hand, feet, hair and clothing away from moving parts.
- Disconnect and lockout power source before adjusting or servicing.
- Do not stand or climb on machine when operating.

SUNWEST SCREEN GRAPHICS SW 404

CHOKE

RUN

IDLE

STOP

10-0441

TRANS
DISENGAGED

TRANS
ENGAGED

FORWARD TRAVEL DIRECTION REVERSE

ENGAGE BLADE CONTROL OFF

365

SLOW TRAVEL SPEED FAST

TURF TEQ, LLC

Serial# SW

SWING RELEASE

MANUFACTURED BY **ATI CORPORATION** New Holland PA 17157

MODEL SERIAL

Model **1305**

DIFF-LOCK

10-0885

FIGURE 1 Decals

SERIAL NUMBER LOCATIONS

TRACTOR SERIAL NUMBER LOCATION

The serial number is located below the fuel tank as shown (See Figure 2).

The serial number will be require when ordering parts.

For easy reference, enter Model and serial number on these lines:

Model _____

Serial Number _____

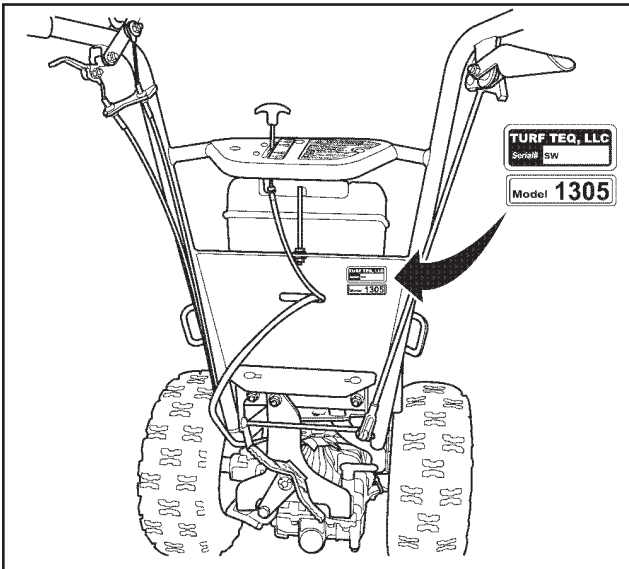


FIGURE 2 Tractor Serial Number Location

PRESEEDER SERIAL NUMBER LOCATION

The serial number is located on the right side of the attachment channel as shown (See Figure 3).

The serial number will be require when ordering parts.

For easy reference, enter serial number on this line:

Serial Number _____

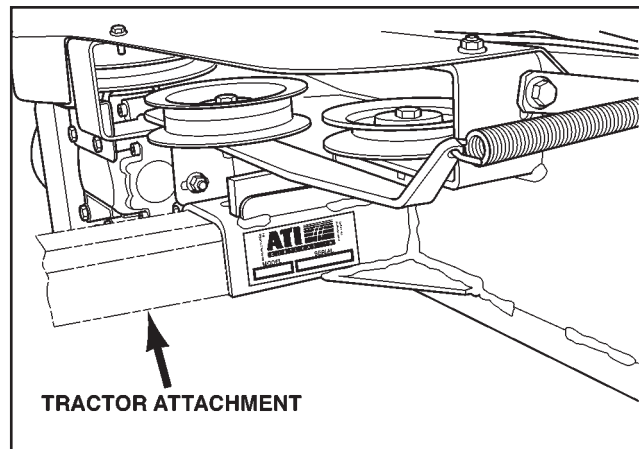


FIGURE 3 Preseeder Serial Number Location

ENGINE SERIAL NUMBER LOCATION

Located the serial number plate on your engine.

The serial number will be require when ordering parts.

For easy reference, enter the engine manufacturer and the serial number on these line:

Manufacturer _____

Serial Number _____

GENERAL ARRANGEMENT

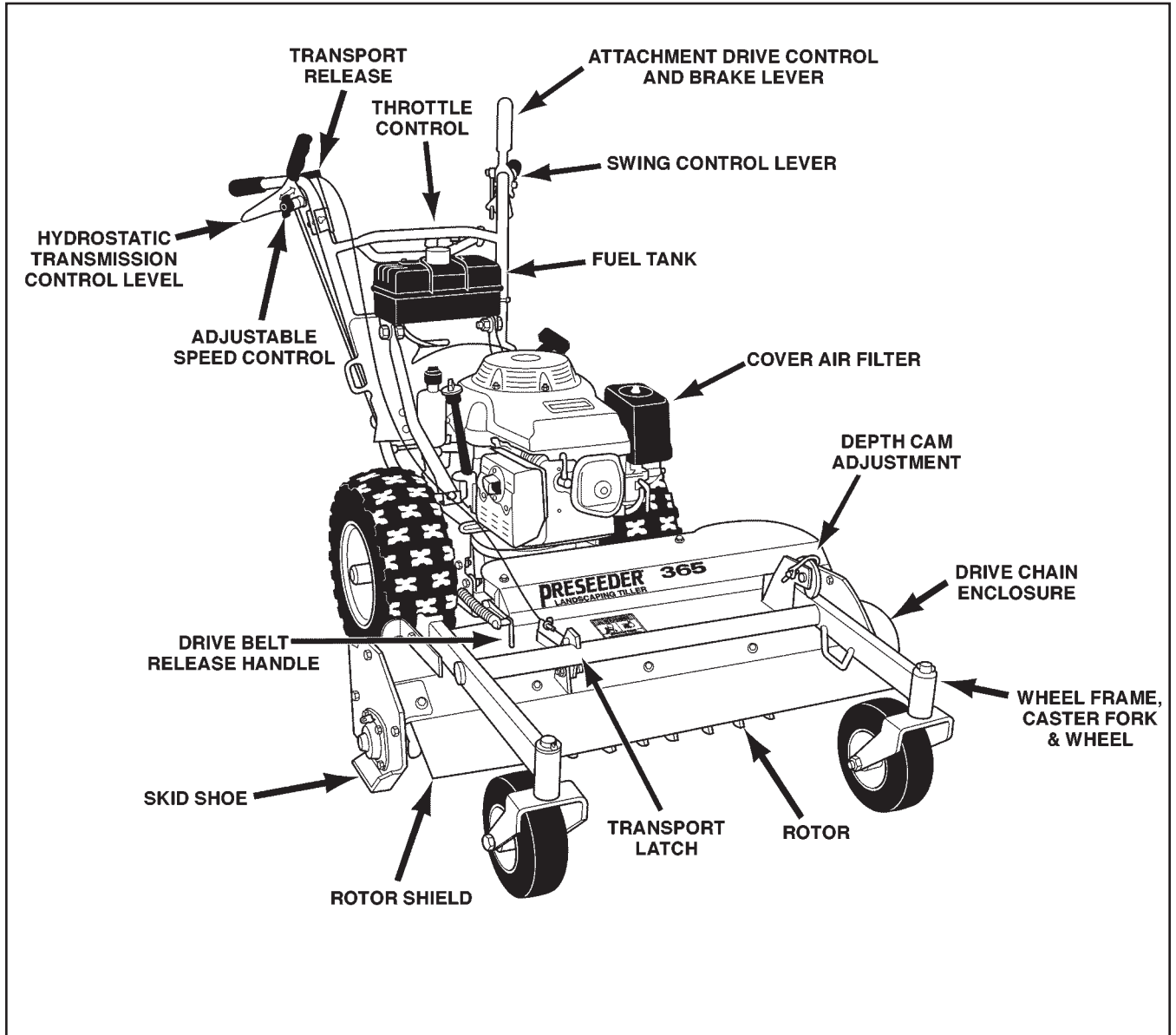


FIGURE 4 Preseeder Landscaping Tiller General Arrangement

DAILY CHECKS TO PERFORM BEFORE STARTING THE ENGINE

CHECK ENGINE OIL LEVEL

1. Place the machine on a level surface then remove the oil dipstick.
2. Check the oil level as indicated in the engine owner's manual and fill with the recommended motor oil.(See Figure 5).

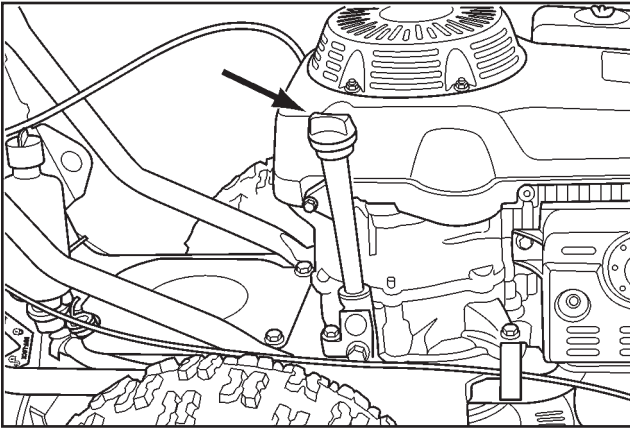


FIGURE 5 Check Engine Oil Level

CHECK FUEL LEVEL

1. Remove the fuel tank cap (See Figure 6).
2. Fill tank to the bottom of the fuel tank neck.
3. Use minimum of 86 octane gasoline.
4. Wipe any spilled fuel before starting the engine.

NOTE: Do not overfill the fuel tank. Observe all safety statements listed in the safety information section.

CHECK THAT ALL SHIELDS ARE INSTALLED AND ATTACHING HARDWARE IS TIGHT

1. Check the main drive belt shield, A.
2. Check the drive chain cover, B.

3. Check the dust shield, C.

NOTE: Do not operate the machine with loose or missing shields. Replace missing shields immediately (See Figure 7).

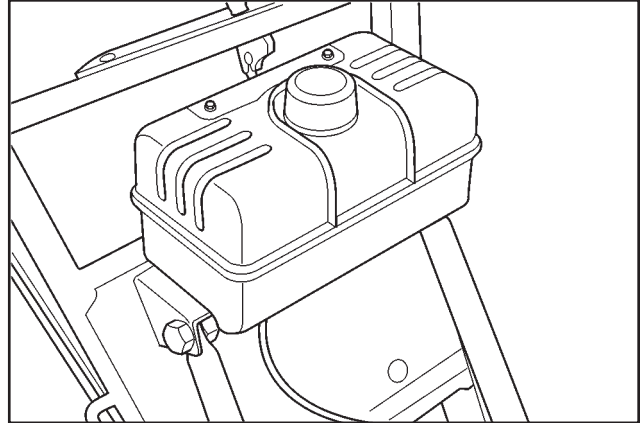


FIGURE 6 Check Fuel Level

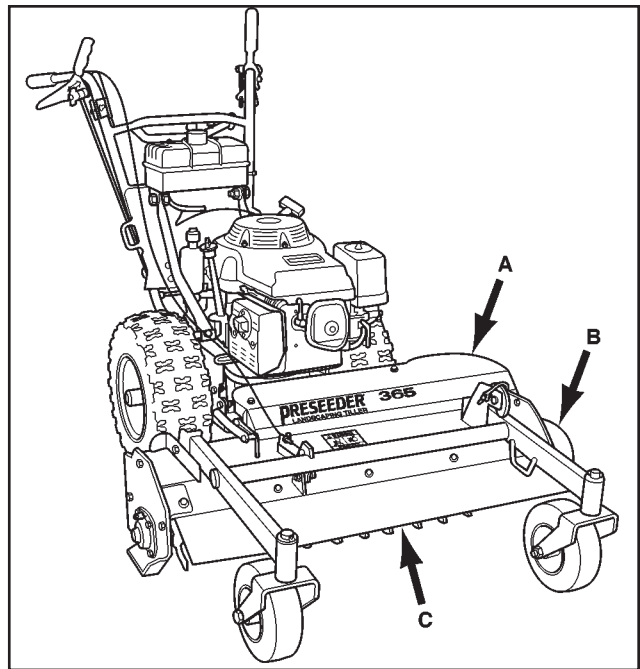


FIGURE 7 Check All Shields

CHECK TIRE PRESSURES

Check tire pressures in the tractor tires and inflate to 14 psi.

ENGINE OPERATION

STARTING A COLD ENGINE

1. Place the throttle control to the CHOKE position (See Figure 7).

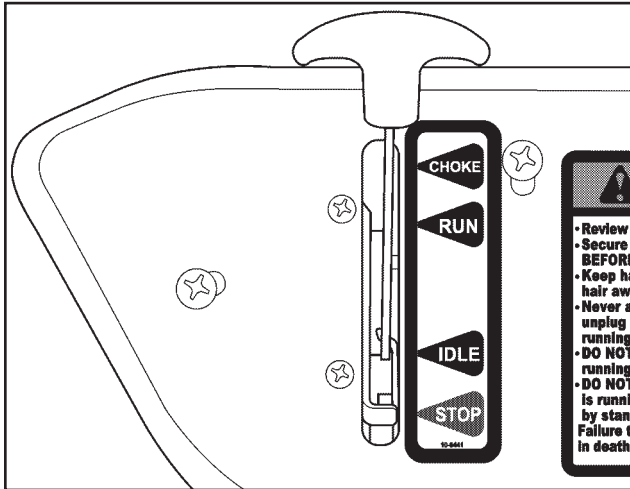


FIGURE 8 Choke Position

2. Pull the starter rope slowly and with low force until the slack is out of the rope and resistance is felt (See Figure 9).
3. When resistance is felt, pull the rope with enough force to turn the engine fast enough to start the engine. Return the pull rope gently to the retracted position.

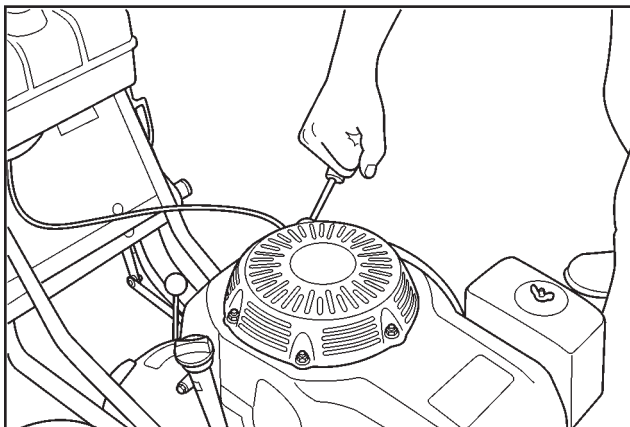


FIGURE 9 Pull Start

4. When the engine starts, position the throttle to the RUN position for 30 seconds to allow the engine to warm up (See Figure 10).

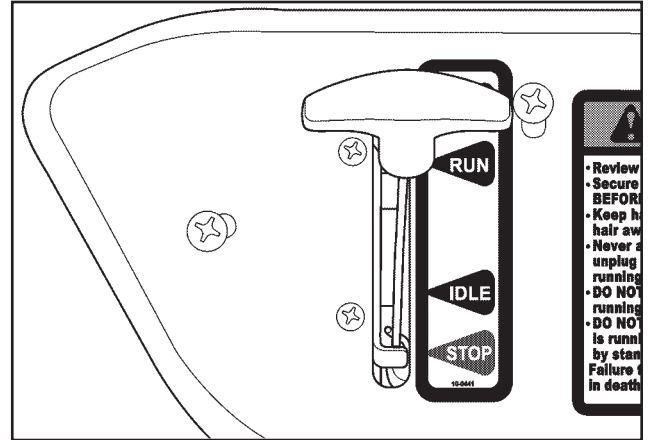


FIGURE 10 Run Position

5. After the engine has warmed up, slowly place the throttle to the IDLE position (See Figure 11).

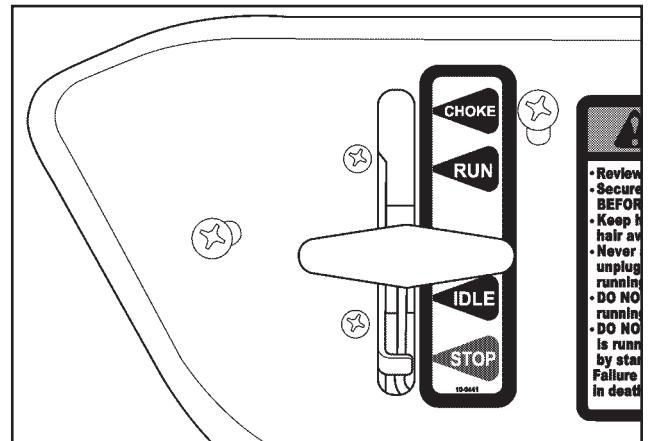


FIGURE 11 Idle Position

6. Move the throttle to the RUN position when operating the machine (See Figure 10).

NOTE: Operating conditions may not require setting to full RUN position.

STARTING A WARM ENGINE

1. Place the throttle control slightly past the IDLE position (See Figure 11).
2. Pull the starter rope slowly and with low force until the slack is out of the rope and resistance is felt (See Figure 9).
3. When resistance is felt, pull the rope with enough force to turn the engine fast enough to start the engine.

TRACTOR OPERATION

STARTING A WARM ENGINE (Cont'd)

4. Move the throttle to the RUN position when operating the machine (See Figure 10 on Page 7).

NOTE: *Operating conditions may not require setting to full RUN position.*

STOPPING THE ENGINE

1. Place the throttle to the IDLE position and allow the engine to idle for 30 seconds (See Figure 11 on Page 7).
2. Place the throttle in the STOP position and the engine should stop running (See Figure 12).

NOTE: *Engine components get very hot during operation. Stop the engine and allow it to cool before doing any work on the engine.*

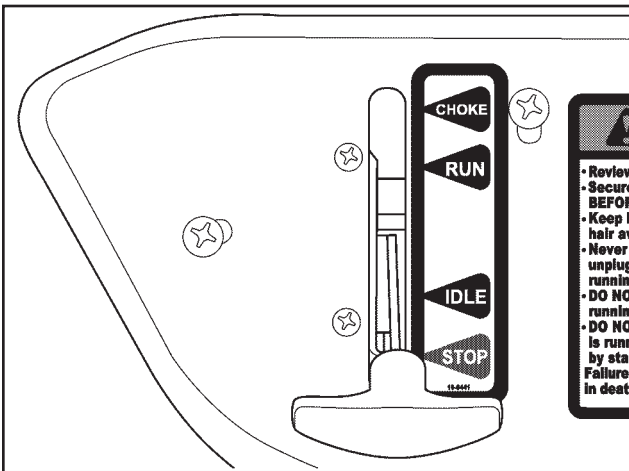


FIGURE 12 Stop Position

PARKING THE MACHINE

When parking the tractor for any period of time, use the following procedure.

1. Stop the engine by placing the throttle control to the STOP position (See Figure 12).

OPERATING THE TOW VALVE

The TOW VALVE disengages the transmission so the machine can be moved when the engine is not running. This feature makes it easy to move the machine without starting the engine.

TOW VALVE ON

When the TOW VALVE, A, is in the ON position as shown, the machine can be pushed or pulled without the engine running (See Figure 13).

NOTE: *When the TOW VALVE is in the ON position, the transmission will not propel the machine in forward or reverse when the engine is running and the hydrostatic control lever is activated.*

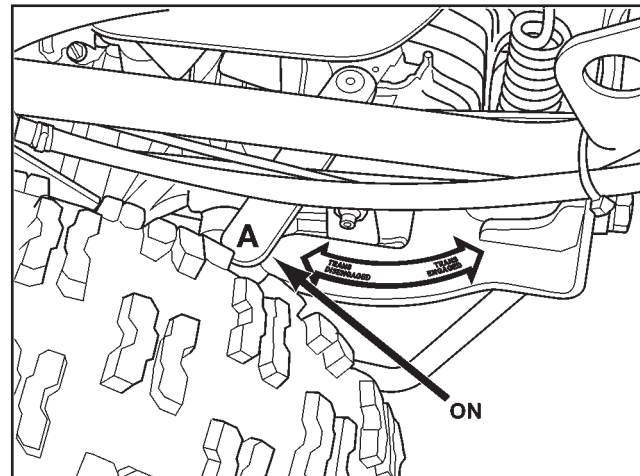


FIGURE 13 Tow Valve On

TOW VALVE OFF

When the TOW VALVE, A, is in the OFF position as shown, the machine will be very hard to push or pull with the engine is not running (See Figure 14).

NOTE: *When the TOW VALVE is in the OFF position, the transmission will propel the machine forward or reverse when the engine is running and the hydrostatic control lever is activated.*

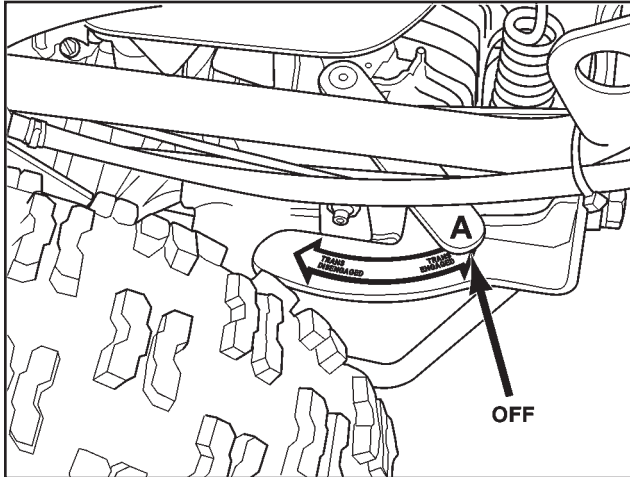


FIGURE 14 Tow Valve Off

CAUTION *DO NOT Engage the Attachment when TOW VALVE is in the ON position.*

OPERATING THE DIRECTIONAL CONTROLS

STOPPING MOVEMENT WITH ENGINE RUNNING

1. RELEASE the HYDROSTATIC CONTROL LEVER, A. The lever will automatically go the neutral position as shown (See Figure 15).
2. When the hydrostatic lever is in the neutral position the machine will not move.

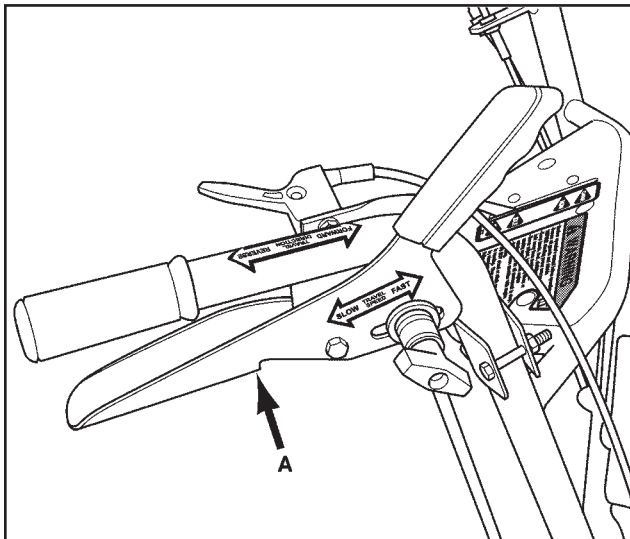


FIGURE 15 Stopping Movement

VARIABLE SPEED CONTROL ADJUSTMENT

1. Adjust to slowest speed.

The maximum forward and reverse speeds can be adjusted to meet specific operating conditions by moving the Control Knob, A, in the adjustment slot (See Figure 16).

WARNING *Adjust to slowest speed setting, B, while learning to operate the machine and when operating in confined spaces.*

NOTE: *Only adjust the variable speed control when the engine is stopped.*

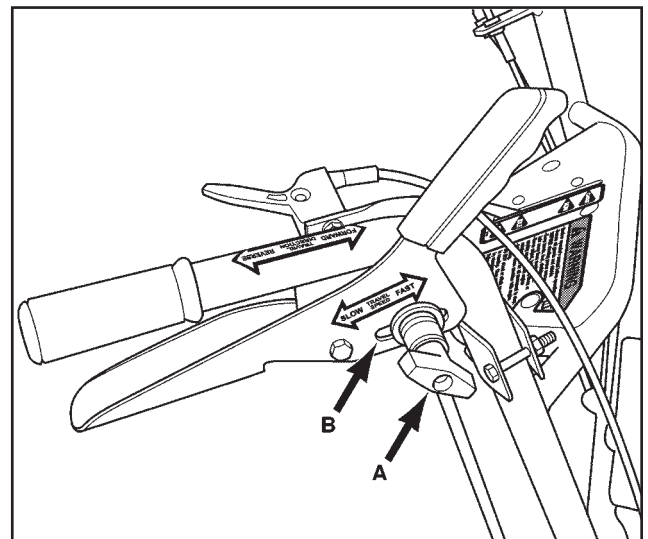


FIGURE 16 Variable Speed Control Setting

ADJUSTING THE VARIABLE SPEED CONTROL

1. Loosen the control knob, A.
2. Move the VARIABLE SPEED CONTROL KNOB forward to the FAST position to increase maximum speed. (Knob shown in fastest position.)
3. Move the VARIABLE SPEED CONTROL KNOB rearward to the SLOW position to decrease maximum speed.

ADJUSTING THE VARIABLE SPEED CONTROL (Cont'd)

4. Tighten control knob, A (See Figure 17).

NOTE: *The optimum location of the VARIABLE SPEED CONTROL KNOB allows you to fully engage the hydrostatic control lever to achieve a comfortable operating speed for the ground conditions.*

NOTE: *Moving the VARIABLE SPEED CONTROL KNOB toward the FAST position increase hydrostatic control lever effort.*

Moving the VARIABLE SPEED CONTROL KNOB toward the SLOW position decreases hydrostatic control lever effort.

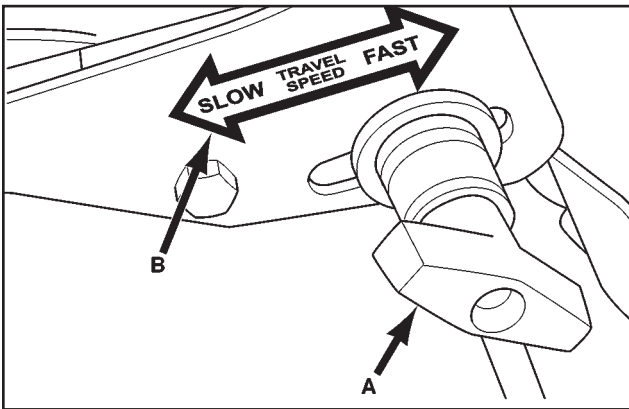


FIGURE 17 Variable Speed Control Knob

FORWARD DIRECTION

1. SLOWLY apply pressure and PULL UP on the HYDROSTATIC CONTROL LEVER, A, as shown (See Figure 18).
2. Forward speed is directly proportional to the amount the hydrostatic control lever is moved.
3. The more the lever is pulled up, the faster the forward ground speed will be,

CAUTION *When stopping release the control lever slowly.*

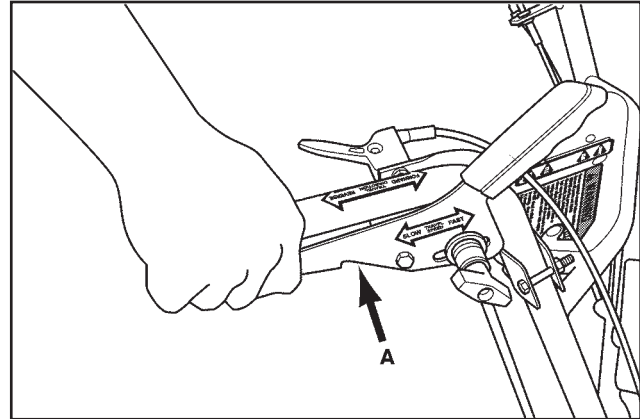


FIGURE 18 Forward Direction

REVERSE DIRECTION

1. SLOWLY apply pressure and PULL BACK on the HYDROSTATIC CONTROL LEVER as shown (See Figure 19).
2. Reverse speed is directly proportional to the amount the hydrostatic control lever is moved.
3. The more the lever is pulled back, the faster the reverse ground speed will be.

NOTE: *Do not back up with the attachment on the ground.*

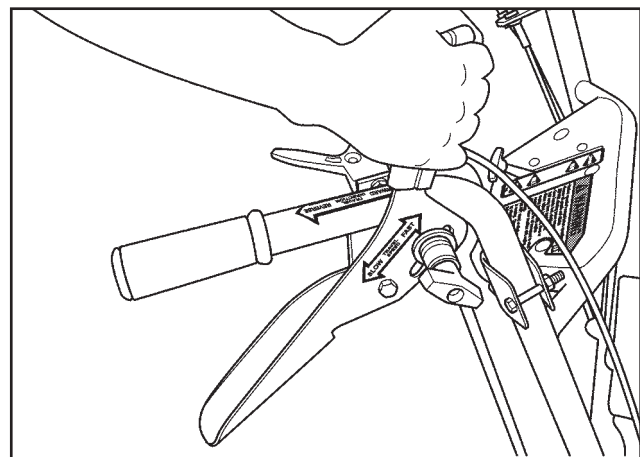


FIGURE 19 Reverse Direction

TRACTOR SWING CONTROL LEVER

The swing control lever is shown at A (See Figure 20).

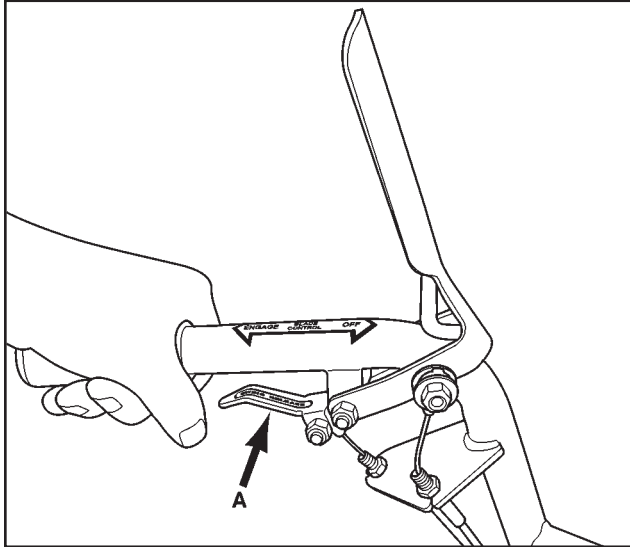


FIGURE 20 Swing Control Lever Disengaged

ANGLING THE ATTACHMENT USING THE SWING CONTROL LEVER

1. Stop the engine by positioning the throttle to the STOP position (See Figure 21).

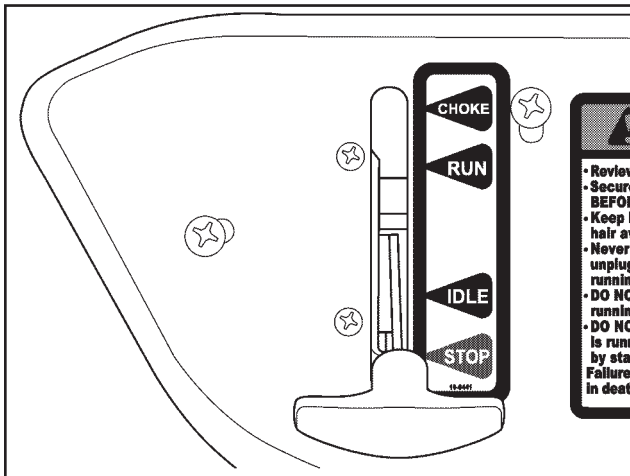


FIGURE 21 Stop Position

2. Lift up and hold the SWING CONTROL LEVER (See Figure 22).
3. Push forward on the left handlebar while simultaneously pulling rearward on the right handlebar until the desired attachment angle is achieved.

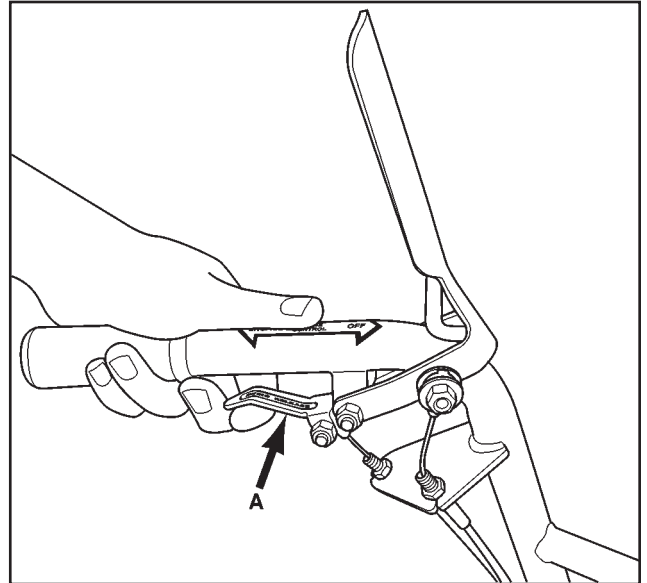


FIGURE 22 Swing Control Lever Engaged

4. Release the SWING CONTROL LEVER, A, and it will lock the arm in position (See Figure 20). If SWING CONTROL does not lock, rock the handlebars side to side until it locks.

TRACTOR OPERATION

END OF SEASON STORAGE SERVICE

CLEAN THE ENTIRE MACHINE AND ENGINE

Thoroughly clean the machine and engine then blow dry with 50 PSI compressed air.

ENGINE SERVICE

1. Refer to the engine manufactures manuals for specific recommendations and procedures.

MACHINE SERVICE

1. Lubricate all grease point as shown in the Lubrication Section.
2. Lubricate all linkage pivot points.
3. Spray exposed cabled with a fluid lubricant to prevent binding and rust.
4. Examine drive belt and chain for damage and replace as required.
5. Check the condition of all shields and replace as required.
6. Check safety decals and replace as required.
7. Check all bearings and gear box for bearing condition. Replace any loose bearings.

SPECIFICATIONS

ENGINE

Honda - GXV390K1 13.0 HP

FUEL TANK

1.0 US Gallon

TRANSMISSION

Tuff Torq Model K62

Hydrostatic

Infinite variable control

Oil - 2.5 liters of 10W30 Class CD motor oil

GROUND SPEED

0 - 4.2 mph

WEIGHT

440 Lbs.

DIMENSIONS

42" W x 45" H x 76" L

36" Maximum working width

DRIVES

Engine mounted clutch/brake

Heavy duty bevel gearbox with sealed bearings

B76 main drive belt

#50 o-ring final drive chain

TIRES

Rear = 18 x 6.5 heavy 4-Ply lugged

CONTROLS

Variable speed control lever

Swing control lever

Transport release lever

FRAME

Heavy formed tube mainframe, Tractor

12 gauge fabricated mainframe, Tiller

PRESEEDER OPERATION

GENERAL SAFETY

The Preseeder tiller is a machine designed to quickly prepare a level, fine-textured bed, ready for seeding turfgrass. It is intended for conditioning and leveling the top layer of soil; it is not designed to be used as a deep tiller. If hard, unbroken soil is encountered, it is recommended that a chisel be used first for two reasons:

1. To break up the soil for more efficient operation.
2. To allow more water to be absorbed, thereby reducing surface erosion.

WARNING *To prevent personal injury, make certain all tractor and Preseeder tiller safety shields are in place and secure before operating.*

OPERATING THE ATTACHMENT

STARTING THE ATTACHMENT

1. Raise attachment to transport position.
2. Adjust the depth adjustment cam to the desired working depth.
3. Start the engine and place the throttle in the run position as described in the STARTING THE ENGINE SECTION.
4. Depress the ATTACHMENT DRIVE CONTROL AND BRAKE LEVER, A, as shown. This releases the brake and engages the drive (See Figure 23).

NOTE: *Engage attachment before lowering onto the ground.*

5. Push down on the handle bars and pull the TRANSPORT RELEASE LEVER A to lower the tiller to working depth (See Figure 24).

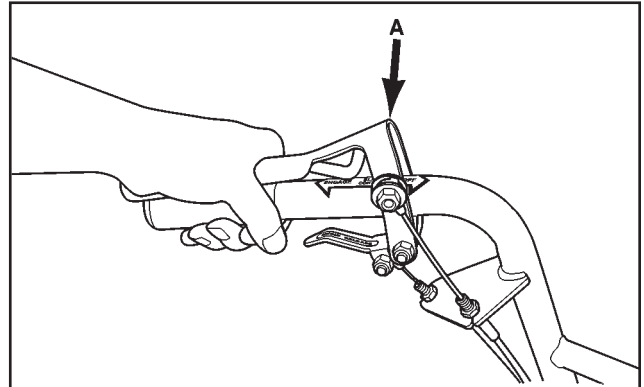


FIGURE 23 Attachment Drive Control and Brake Lever

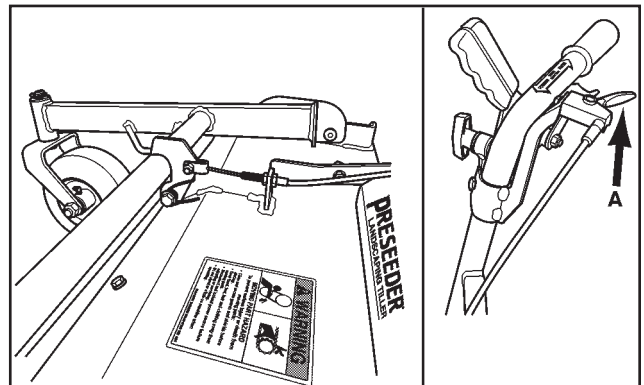


FIGURE 24 Transport Release Lever

ADJUSTING THE DEPTH CONTROL

1. Raise the tiller to transport position.
2. Stop the engine.
3. Remove the Lock Pin and rotate the Depth Adjustment Cam to the desired depth (See Figure 25).
4. Reinsert the lock pin to set the depth.

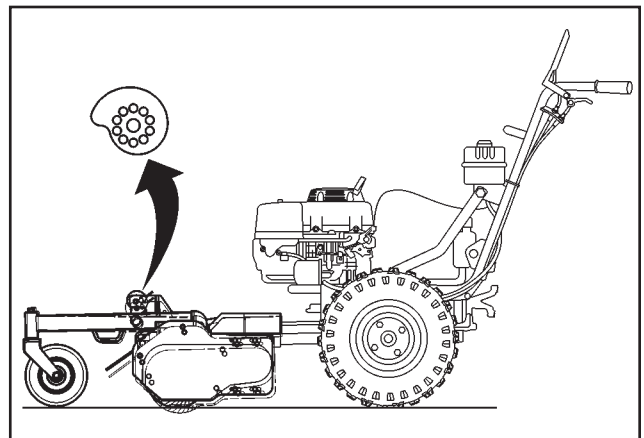


FIGURE 25 Depth Cam Adjustment

PRESEEDER OPERATION

STOPPING THE ATTACHMENT

1. Release the ATTACHMENT DRIVE CONTROL AND BRAKE LEVER. This will disengage the drive and apply the brake to stop the attachment from turning.

OPERATION

- A. Lubricate the machine as necessary. Refer to LUBRICATION section of this manual.
- B. Start tractor according to tractor operator's manual.

WARNING *Rotation of the rotor may cause tractor to move backwards, under certain soil conditions, if tractor is not moving forward under power, or Tow Valve is in ON position.*

- C. Lower the tiller to ground carefully.

CAUTION *Operating at excessive speeds can cause excessive wear or damage to the machine.*

SUGGESTIONS FOR EFFICIENT SEEDBED PREPARATION

The following suggestions are to be understood as general in nature, since each operator will develop their own style of operation, specific to the plot and terrain that is being prepared.

Soil type and conditions vary considerably and must be addressed individually, as they are encountered.

There are three basic operations that a Preseeder tiller performs: CLEARING, TILLING, and LEVELING.

1. **CLEARING** involves removing rocks from the soil surface. This is generally the final operation, but in extremely rocky conditions it is advisable to clear the area of excessive rocks for more efficient operation.

CAUTION *Do not attempt to operate the Preseeder tiller in areas with heavy weeds, rope, wire, package strapping, or anything that can wrap around the end of the rotor. Steel strapping is extremely abrasive and causes excessive and premature wear when caught in the tiller.*

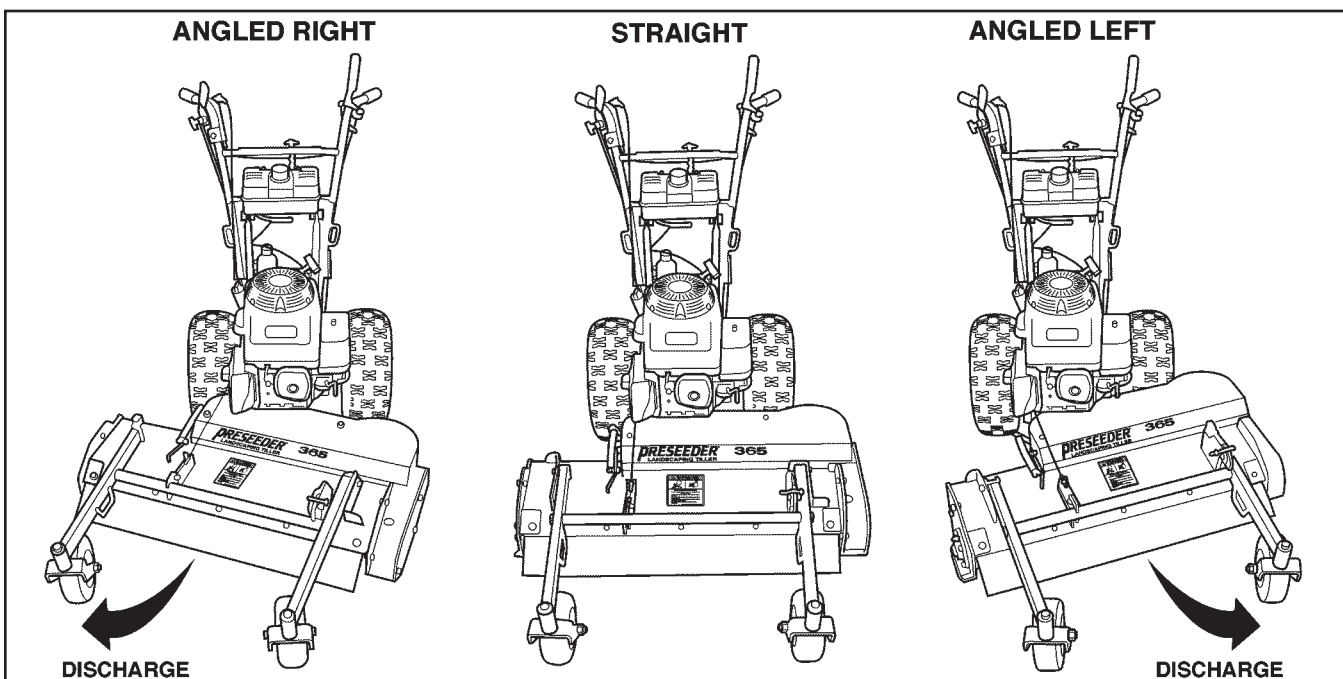


FIGURE 26 Working Angles of the Preseeder Tiller

PRESEEDER OPERATION

NOTE: When clearing an area with excessive rocks, adjust rotor depth so it just touches soil surface, then proceed to work and windrow rocks.

NOTE: Rock windrows should be picked up before they become too large. **Large windrows affect performance and cause premature wear of the Preseeder tiller.**

The adjustable angling feature of the tiller provides added efficiency when clearing an area. By reversing the angle, it is possible to continue moving rocks toward the collection area, while traveling in either direction.

2. **TILLING** is the main operation the machine performs. Experience will give the operator a feel for the best setting to use. Excessive depth can cause rock jamming.

In rocky conditions the tiller should be set at a shallow working depth for more efficiency. When there is a build-up of soil in front of the rotor, the soil build-up prevents rocks from being discharged away from the rotor and thus the machine jams much more readily. It is more efficient to make an extra pass at a shallower setting.

Overloading can be caused by an object such as a rock or root caught in the machine or by tilling too deeply in heavy, wet soil. Release clutch immediately when belt slippage occurs.

3. **LEVELING** occurs during the tilling process. Deeper rotor depth produces the best leveling. More shallow settings produce the smoothest seedbed.

When possible, it is best to work along contours rather than across them. The leveling function will cut off ridges and fill in valleys.


The operator may choose to angle the rotor parallel to the tractor axle to gain maximum leveling. However, when the rotor is straight (See Figure 26), rocks will not discharge to the side. All dirt and rocks gather in front of the rotor. **The operator should be careful**

not to overload the tiller when the rotor is in this position.

Learning to operate your tiller properly will allow you to get the most efficient use from it with minimal downtime. By keeping the following points in mind, you will be able to work more effectively and efficiently.

Survey the area: Take a few minutes to walk around the jobsite. These few minutes are time well-spent because you can:

1. **Plan a strategy.** Ask yourself some questions about doing the job most efficiently. Where are the highest points on this job? Where are the lowest? Where should I start? Where should I deposit the rocks? These are the types of questions that you should ask yourself before starting each job.
2. **Look for obstructions.** Walk around the jobsite to spot the enemies of your tiller. These enemies include: roots, steel strapping, rope, wire, plastic wrapping, or anything that may hinder or damage your machine. Remove these enemies before you start operating. Also, look for permanent objects that may often be buried or hidden on jobsites. These include: drainage pipe, electrical wiring, sewer vents, well covers, concrete slabs, etc.

 **WARNING** *Be aware of electrical wires or pipes which may have a shallow cover of earth.*

3. **Prepare for final clean-up.** Clean-up is made easier when you choose an area beforehand that is better for gathering and cleaning up rocks. Areas that are close to your trucks, on solid ground, along a street or grass-covered are ideal for depositing rocks and debris. Work the final windrows towards this area.

SECURING THE MACHINE

PRESEEDER OPERATION

FOR TRANSPORT

1. Position the machine on a trailer or other vehicle (See Figure 27).
2. Stop the engine.
3. Lower the Preseeder until the rotor rests on the deck.

NOTE: *The attachment must be fully lowered during transport or the frame may be damaged.*

4. Use the front tie down loops on the bottom of the wheel frame to secure the front of the machine.

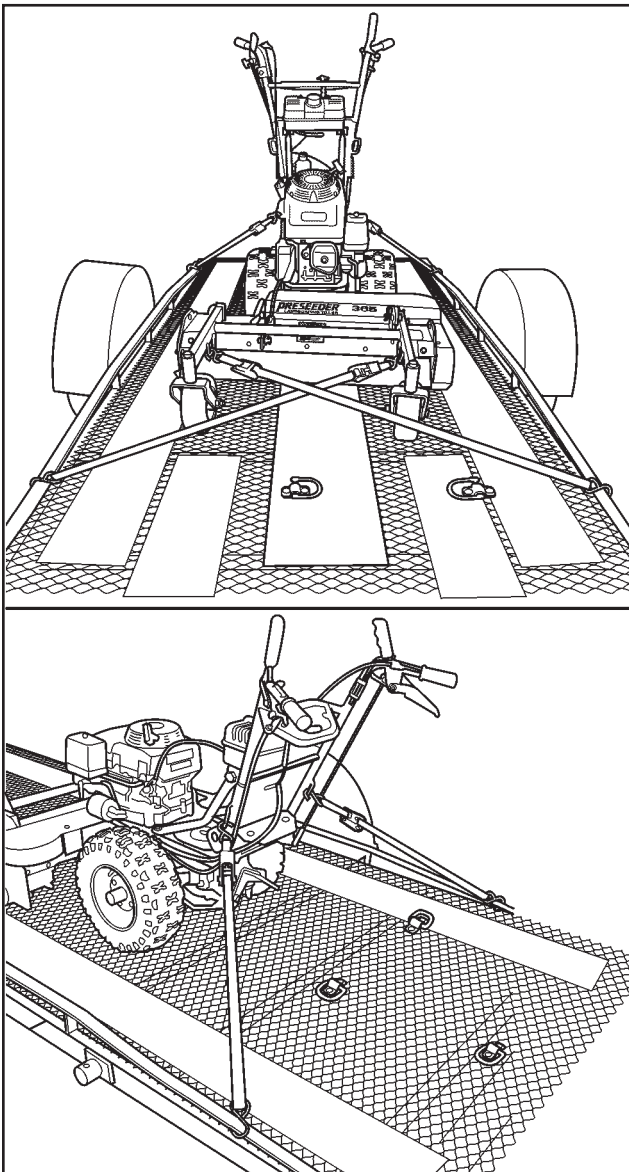


FIGURE 27 Transport Tie Downs

5. Secure the rear of the tractor using the tie down loops as shown

NOTE: *Do not over tighten the tie down straps or the frame or tires may be damaged.*

DETACHING PRESEEDER TILLER FROM TRACTOR

1. Turn off Tractor engine and lower rotor to ground.
2. Remove Main Drive Belt Shield by removing 2(two) mounting bolts (See Figure 30 on Page 18).
3. Move Drive Belt Release Handle to the disengaged position, and remove belt from Drive Pulley (D) on engine (See Figures 31 & 32 on Page 18).
4. Remove 2(two) 1/2 inch attaching bolts (See Figure 28).

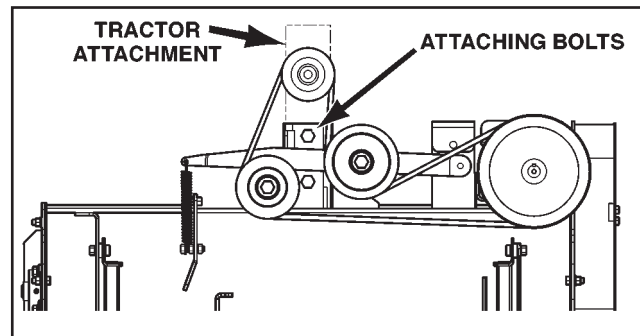


FIGURE 28 Attaching Bolts Preseeder to Tractor

REVERSE ORDER FOR ATTACHING PRESEEDER TILLER TO TRACTOR

LUBRICATION

The lubrication points in the accompanying illustration reflect standard production models. Quantities and locations of lube fittings, fill plugs, etc. could vary, as improvements in design and/or changes in machine configuration warrant.

CAUTION *Worn grease fittings that will not hold the gun, and fittings with a stuck check ball, must be replaced.*

Items not equipped with grease fittings (linkages, cables, pins, levers, etc.) should be lubricated with SAE 30 oil before the start of each operating day, or more frequently as conditions require. (See Figure 29 for locations.)

EVERY 10 HOURS

Lubricate the Drive Chain with a spray-on motorcycle chain lube.

NOTE: *Lubricating the chain when it is warm after being used will allow the lubricant to work best.*

Apply grease to fittings using grease gun to the following.

1. Rotor Bearings (2)

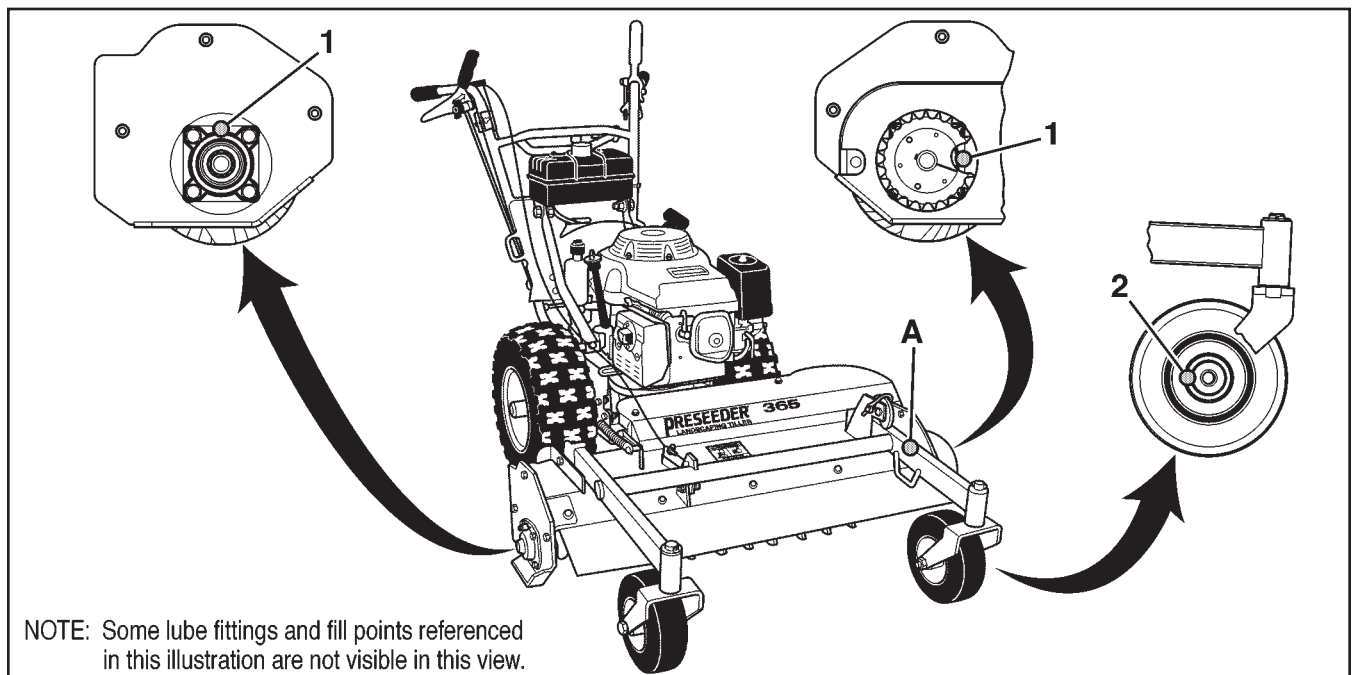


FIGURE 29 Preseeder Tiller Lubrication Points – Typical

2. Caster Wheel Bearings (2)

NOTE: *Do not over-grease lube points. One to two pumps of grease should offer the sufficient quantity of lubricant if the lube schedule is followed. Excessive grease only provides a passage for dirt to enter the bearing races. Be sure to wipe off any remaining grease from around the bearings.*

FILL POINT

Gearbox must be removed and set on its side to check the oil level.

1. Remove Main Drive Belt and Chain Drive.
2. Remove gearbox mounting bolts (4) and remove gearbox from tiller.
3. Remove oil check plug from back of gearbox. Correct oil level is at the bottom of the check plug. Add oil if necessary. Gearbox capacity is 13 oz. Use anti-foam SAE 90W oil.

MAIN DRIVE BELT REMOVAL

1. Turn off tractor engine and lower tiller onto level ground.
2. Remove Main Drive Belt Shield (See Figure 30).

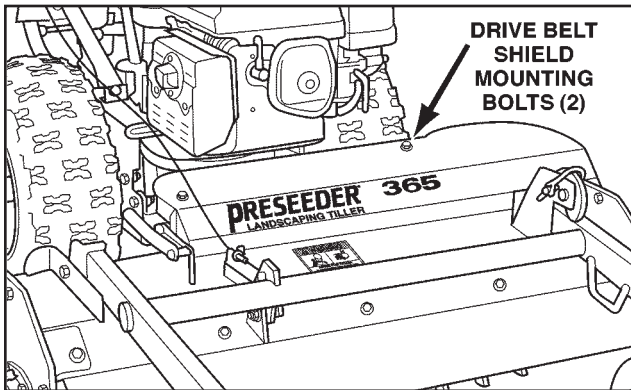


FIGURE 30 Main Drive Belt Shield

3. Move the Drive Belt Release Handle to the disengaged position (See Figure 31).
4. Remove the belt from the pulleys in the following order (See Figure 32).
 - A. Adjustable Idler Pulley
 - B. Gearbox Pulley
 - C. Tension Idler Pulley
 - D. Drive Pulley

Reverse order to reinstall the belt.

MAIN DRIVE BELT ADJUSTMENT

When the Drive Belt Release Handle is in the engaged position the spring should be approximately 1" longer than in the released position. If due to belt wear or replacement, the spring length varies by more than 1/2" adjustment is required.

1. Turn off tractor engine and lower tiller onto level ground.

2. Remove Main Drive Belt Shield (See Figure 30).

3. Move the Drive Belt Release Handle to the disengaged position.

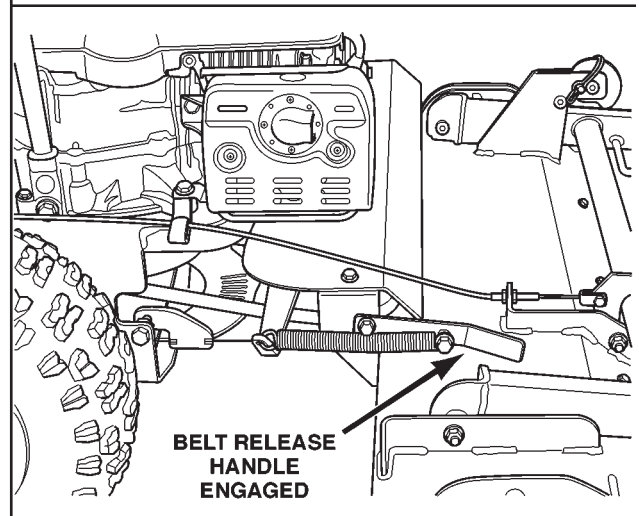
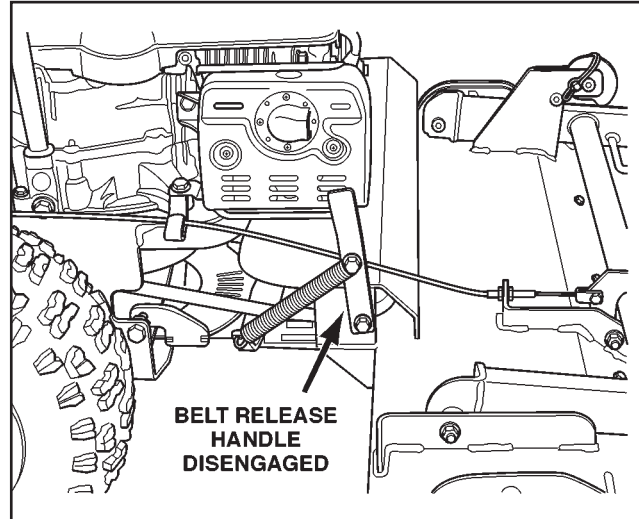


FIGURE 31 Main Drive Belt Release Handle

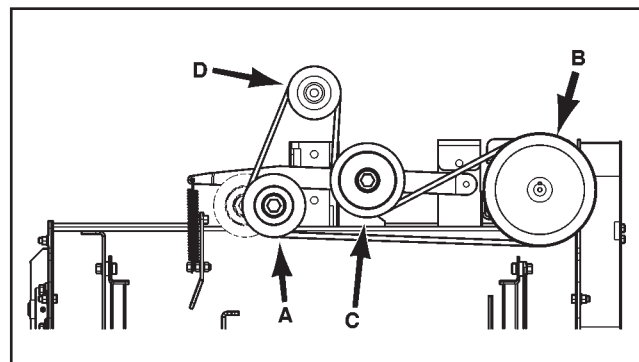


FIGURE 32 Main Drive Belt Removal - Pulley Locations

4. Loosen the bolt in the center of the Adjustable Idler Pulley (A).

5. Move the Adjustable Idler Pulley (A) toward the Gearbox Pulley (B) (to shorten the spring) or away from the Gearbox Pulley (to lengthen the spring) as required.
6. Tighten the bolt in the center of the Adjustable Idler Pulley (A).
7. Check belt tension by moving the Drive Belt Release Handle to the engaged position and measuring the spring length.

1. QD hub and Driven Sprocket mating surfaces must be clean and free of burrs.
2. Push the QD hub on until there is no side play in the rotor.
3. Insert the bolts through the unthreaded holes in the QD hub and into the threaded holes in the Driven Sprocket. Tighten the bolts evenly 1/2 turn at a time to 9 ft. - lbs. torque

DRIVE CHAIN REMOVAL

1. Turn off tractor engine and lower tiller onto level ground.
2. Remove the three bolts (3), and access cover.
3. Remove the QD hub from the Driven Sprocket by removing the bolts in the hub and putting them in the threaded holes in the hub. Turn each bolt 1/2 turn until the hub is loose and can be removed.
4. Remove the Drive Chain from the Drive Sprocket and remove the Driven Sprocket and Drive Chain together.

Reverse order with the following notes to reinstall the chain.

DRIVE CHAIN ADJUSTMENT

Check chain tension after the first 40 hours of operation. Then check/adjust chain every 100 hours following initial adjustment. (See Figure 33.)

1. Turn off tractor engine and lower tiller onto level ground.
2. Remove the three bolts (3), and access closure.
3. Check slack of the chain. Measure [A] midway between the sprockets on the top side of the chain. If there is more than 3/4" of slack adjust the chain. Release the main drive belt. Loosen the mounting bolts (5) for gear box, push the gear box mounting assembly toward the Tractor [A], tighten the mounting bolts. Then recheck slack.

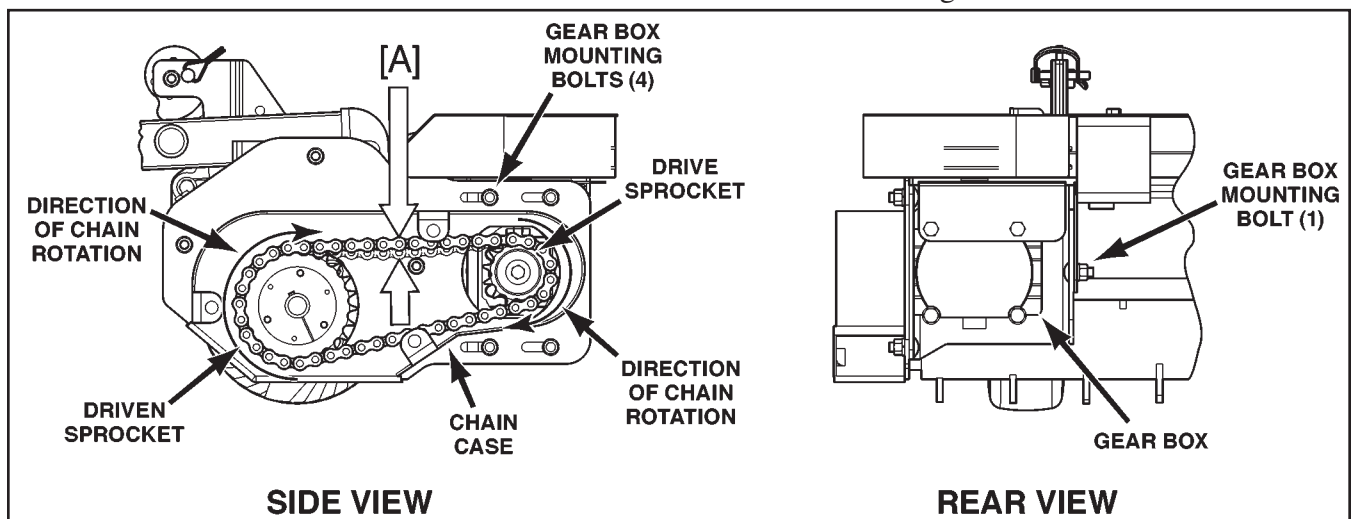


FIGURE 33 Drive Chain Adjustment

DRIVE CHAIN ADJUSTMENT (Cont'd)


4. Replace the access cover and bolts.

NOTE: *Failure to adjust tension will result in premature failure and could void your warranty.*

ROTOR TOOTH WEAR

Before performing maintenance as outlined below be sure to:

1. Lower tiller to ground.
2. Turn off tractor.


 **WARNING** *If tiller must be raised off the ground, block securely.*

STANDARD TEETH

Rotor tooth length is critical to the efficient operation of the tiller. Length of the tooth should be no less than 1/2 inch. To keep your tiller performing effectively, we recommend that replacement teeth (Part no. 200-337-002) be welded onto the front of the original teeth when tooth length approaches the 1/2 inch minimum length. (See Figure 34.)

CARBIDE TEETH

Carbide teeth offer dramatically longer life. Due to tooth spacing, and rotor tubing material, carbide teeth cannot be welded onto an existing rotor. A new rotor with carbide teeth can be ordered for your tiller. Check with your authorized dealer for specific pricing. (See Figure 35.)

 **CAUTION** *When welding rotor teeth, welder ground clamp must be attached to rotor to prevent current from flowing through bearings.*

BEFORE EACH USE

1. Check tiller daily for loose, bent, broken, or missing parts.
2. Observe tiller's general condition, noting points that may need attention.
3. Check rotor to be sure no foreign objects such as wire or weeds are wrapped around them.
4. Make certain drive line shields are in place and in good condition.
5. During operation, listen for abnormal sounds which might indicate loose parts, damaged bearings or other damage. Correct any problem immediately.

AFTER EACH USE

1. Clean all debris from tiller especially on the rotor.
2. To prevent rusting, touch up any spots where paint may have worn off.
3. Store in a clean, dry place.

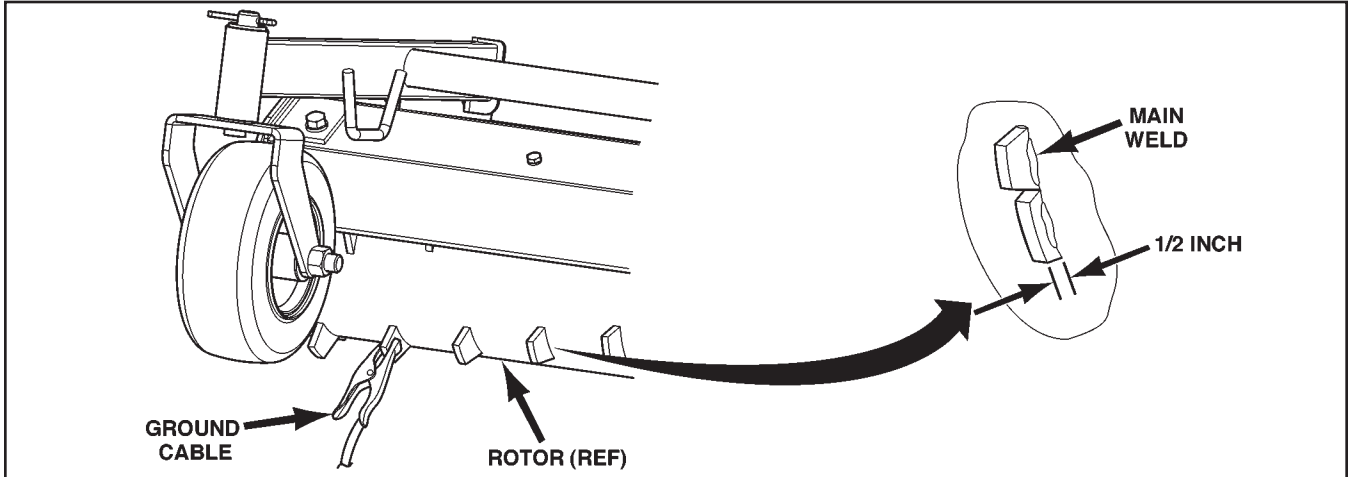


FIGURE 34 Welding Replacement Standard Rotor Tooth – Typical

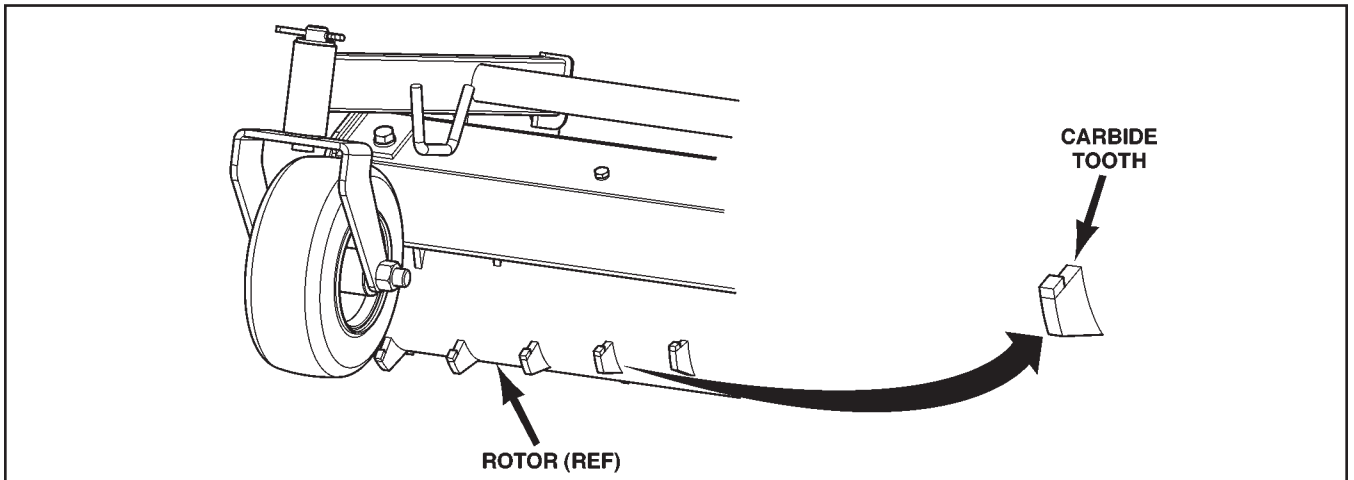


FIGURE 35 Rotor With Carbide Tooth – Typical

TROUBLESHOOTING GUIDE

SYMPTOM	POTENTIAL CAUSE	REMEDY
Rotor does not turn.	Tractor attachment drive is not engaged.	Engage tractor Attachment Drive. Control and Brake Lever
	Obstruction jammed between the rotor and frame.	Clear obstruction from the rotor.
	Main Drive Belt not adjusted correctly.	Adjust Main Drive Belt. (See Main Drive Belt adjusting).
	Main Drive Belt is worn out.	See dealer for appropriate service.
Rotor stalls too easily.	Working depth too deep.	Reduce working depth.
	Ground speed too fast.	Reduce ground speed.
	Main Drive Belt not adjusted correctly.	Adjust Main Drive Belt. (See Main Drive Belt adjusting).

STORAGE

When the seeding season is over, the Preseeder tiller should be thoroughly checked so a minimum amount of work will be required to put it back in operation for the next season. The following recommendations are offered to aid in storing the tiller correctly.

1. Clean the tiller thoroughly.
2. Lubricate the tiller. Check the fluid levels; fill to proper level if necessary.
3. Replace badly worn or damaged parts obtained from your authorized dealer.
4. Touch-up paint to prevent rust and maintain the tiller's appearance.
5. Store in a clean, dry place.

ORDERING PARTS

If ordering parts becomes necessary for your Preseeder tiller, call your **authorized dealer** to obtain correct parts replacement information. Please have model number, serial number, part number, and other necessary information ready when ordering parts.

IMPORTANT: Always order parts using part numbers from the Preseeder Parts Manual supplied with your unit. Replacement manuals may be obtained at www.preseeder.com/service.

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