

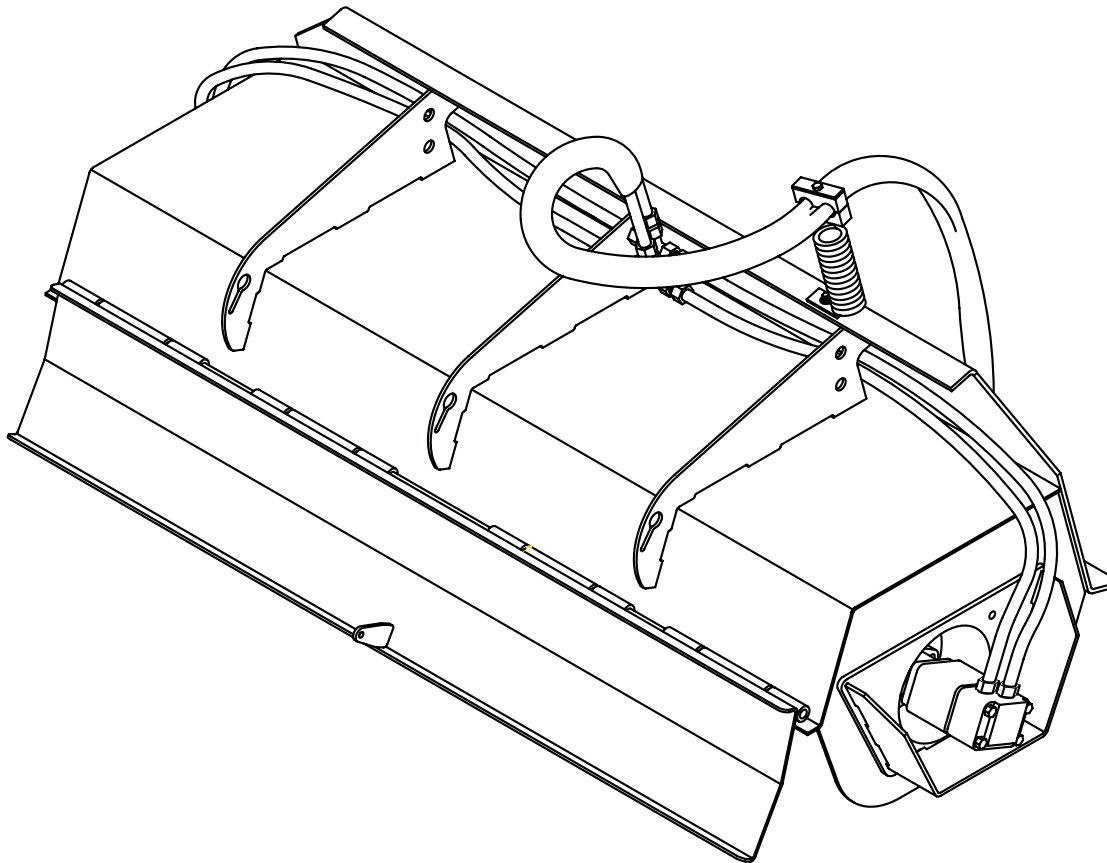


OPERATOR'S & PARTS MANUAL

ROTO-TILLER



PALADIN LIGHT CONSTRUCTION



SERIAL NUMBER: _____

MODEL NUMBER: _____

Manual Number: MR15639

Models: LAF3438, LAF3452 & LAF3468

Date: February 2007

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INTRODUCTION

Congratulations on your purchase of a new **FFC Attachments Roto-Tiller**. This product has been designed and built to till and loosen soil. This product can also be used for aeration purposes such as reconditioning of contaminated soil. You or any other person who will be assembling, operating, maintaining, or working with this product are required to read and completely understand the information and instructions contained in this manual. If anyone does not fully understand every part of this manual, please obtain further assistance by contacting the dealer from which this product was purchased or by contacting **FFC Attachments** at the telephone number or address listed on the cover of this manual. Keep this manual available for reference whenever this product is being handled or used. Provide this manual to any new owners and/or operators.

This manual covers model[s] :**LAF3438, LAF3452** and **LAF3468**. The difference between these models is the width of the product and the motor configuration, details of which are covered on the parts list and specification page[s].

GENERAL INFORMATION

The purpose of this manual is to assist in assembling, mounting, operating, and maintaining your **Roto-Tiller**: Read this manual carefully to obtain valuable information and instructions that will help you achieve years of safe and dependable service.

The illustrations and data used in this manual were current at the time of printing, but due to possible engineering and/or production changes, this product may vary slightly in detail. **FFC Attachments** reserves the right to redesign and/or change components as necessary without notification to anyone.

Throughout this manual, references may be made to:

Power Unit	The engine-driven machine to which this product must be attached.
Right, Left, Front, Rear	Directions that are determined in relation to the operator of the equipment when seated in the normal operating position.
IMPORTANT	Precautions that must be followed to prevent damage to equipment.
NOTICE	Precautions that must be followed to prevent substandard performance.

SERIAL NUMBER LOCATION

Always refer to the model and serial number when ordering parts or requesting information from your dealer. The serial number plate for this product is located on the upper left rear portion of the loader attachment plate of your **Roto-Tiller**.

Reference Information	
Model Number	Loader Make
Serial Number	Loader Model
Date Purchased	Loader Serial #

DEFINITION OF SAFETY TERMS AND SYMBOLS

Throughout this manual, the terms **DANGER**, **WARNING**, and **CAUTION** are used to indicate the degree of hazard to personnel if proper safety procedures are not followed. These words will be used in conjunction with the Safety Alert Symbol: a dark triangle containing a white exclamation mark.



The Safety Alert Symbol means:

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

DANGER

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

WARNING

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

CAUTION

Indicates a potentially hazardous situation which, if not avoided,
may result in minor or moderate injury;
OR

may also be used to alert against unsafe practices which **may result in personal injury.**

ACCIDENTS CAN BE PREVENTED WITH YOUR HELP!

No accident prevention program can be successful without the wholehearted cooperation of the person who is directly responsible for the operation of the equipment.

To read equipment accident reports from all over the country is to be convinced that a large number of accidents can be prevented only by operators who consistently anticipate the results of their actions and thus prevent accidents from ever occurring. No power-driven equipment, whether it is on the highway, in a farm field, or in an industrial plant, can be any safer than the person who is at the controls.

If accidents are to be prevented [and accidents can be prevented], that prevention will come from equipment operators who accept their complete responsibility.

The designer, the manufacturer, and the safety engineer all help create a safe product, but their combined efforts can be wiped out with a single careless act by the operator of that product.

The best safety device is a careful operator. FFC Attachments and your dealer ask that **YOU** be that careful, responsible equipment operator.

YOU ARE THE KEY TO SAFETY BECAUSE:

YOU are responsible for the SAFE operation and maintenance of **YOUR** Roto-Tiller.

YOU are responsible to familiarize yourself, and anyone else who will assemble, operate, maintain, or work around this product, with the safety information contained in this manual.

YOU are responsible to read ALL information contained in this manual to any operators or maintenance personnel who are not fully able to read the written English language. Whether **YOU** read the manual as written or translate it into another language, **YOU** must make certain that all operators and maintenance personnel have a complete understanding of the full and exact contents of this manual. Translations of this manual into other languages are available by submitting a written request to FFC Attachments.

YOU can reduce the risk of injury or death by following all safety precautions and by using good safety practices.

SAFETY INSTRUCTIONS

WORK SAFELY - A CAREFUL OPERATOR IS THE BEST INSURANCE AGAINST ACCIDENTS !!

SECTION 1

WARNING SECTION



WARNING

Obey all the safety instructions listed in this section and throughout this manual. Failure to obey instructions in this section could result in death or serious injury.

BEFORE ATTEMPTING ANY TYPE OF ASSEMBLY, OPERATION, MAINTENANCE, OR OTHER WORK ON OR NEAR THIS PRODUCT:

- **READ AND COMPLETELY UNDERSTAND THIS MANUAL.**
- **READ AND COMPLETELY UNDERSTAND THE MANUALS PROVIDED WITH YOUR POWER UNIT, LOADER AND QUICK-ATTACH.**
- Read and understand all **safety signs** on this product and on your power unit, loader, and quick-attach.
- Know all your controls and know how to quickly stop all power unit movement, the Roto-Tiller movement, and the engine in case of an emergency.
- Know and obey all applicable government rules, O.S.H.A. regulations, local laws and other professional guidelines for your operation.
- Make sure that anyone who will be assembling, mounting, maintaining, repairing, removing, and/or storing this product:
 - has been instructed in the safe operation of this product and of the power unit and quick-attach to which this product is attached.
 - is physically and mentally capable of the safe operation of this type of equipment.
 - is not under the influence of drugs or alcohol.
 - is carefully supervised from a safe distance, especially if such person is inexperienced.
 - wears appropriate protective equipment (i.e. hardhat, safety glasses, work gloves, protective shoes, respirator, ear protection, etc.).
 - does not wear loose fitting clothing, loose or uncovered hair, or any accessories (jewelry, necktie, scarf, wrist watch, etc.) that can catch in moving parts.
 - has annually reviewed all safety instructions.
- Know and follow good work practices when assembling, mounting, maintaining, repairing, removing, and storing this product:
 - Work on a level surface in a well lit area.
 - Keep the area clean and dry.
- Use properly grounded electrical outlets & tools.

- Use the right tool for the job at hand.
- Make sure that your tools are in good condition for performing the desired function.
- When using tools, wear the protective equipment specified by the tool manufacturer. (i.e. hardhat, safety glasses, work gloves, protective shoes, etc.)

WHEN YOUR POWER UNIT IS USED DURING ANY TYPE OF ASSEMBLY, OPERATION, MAINTENANCE, OR OTHER WORK ON OR NEAR THIS PRODUCT:

- Before leaving the operator's station or before beginning any type of work on this product, lower this product to the ground, apply your power unit's parking brake, stop the engine, remove the starter key, wait for all moving parts to stop, and then relieve all pressure in the hydraulic lines. Refer to your power unit's operator's manual for instructions on how to relieve hydraulic pressure in lines.
- Know your loader's safe lifting and operating capacity and the weight of this product. See the specifications in this manual for the weight of this product and refer to your power unit's and loader's operator's manuals for safe operating limits. Lift capacity may be reduced if using a quick-attach.
- Never allow anyone, except the operator, to be around the power unit or this product when either is in motion. Do not startup unless others are clear of the work area.
- Do not allow riders on this product or the power unit.
- Do not stand or climb on this product when raised.
- Do not place any part of your body under any part of this product unless this product is securely resting on adequate blocking or on the ground.
- Do not use blocking made of concrete blocks, logs, buckets, barrels or any other material that could suddenly collapse or shift positions. Do not use wood or steel blocking that shows any signs of material decay. Do not use blocking that is warped, twisted, or tapered.
- Never operate controls from the ground. Operate the controls only from the operator's station.
- Never leave equipment unattended with the engine running or with this product raised on the loader.
- Be aware of the added weight and width of this product. Reduce travel speeds accordingly, especially when traveling over rough ground.
- Keep this product close to the ground and under control when transporting.

SAFETY INSTRUCTIONS

WORK SAFELY - A CAREFUL OPERATOR IS THE BEST INSURANCE AGAINST ACCIDENTS !!

WARNING SECTION [CONTINUED]



WARNING

Obey all the safety instructions listed in this section and throughout this manual. Failure to obey instructions in this section could result in death or serious injury.

WHEN DEALING WITH HYDRAULICS DURING ANY TYPE OF ASSEMBLY, OPERATION, MAINTENANCE, OR OTHER WORK ON OR NEAR THIS PRODUCT:

- Hydraulic fluid under pressure can penetrate the skin and cause serious injury or death. Hydraulic leaks under pressure may not be visible!
- If any fluid penetrates the skin, **GET IMMEDIATE MEDICAL ATTENTION!!**
- Wear safety glasses, protective clothing, and use a sound piece of cardboard or wood when searching for hydraulic leaks. **DO NOT USE YOUR HANDS!**
- Before connecting or disconnecting hydraulic hoses, read your tractor or power unit's operator's manual for detailed instructions on connecting and disconnecting hydraulic attachments.
- Make certain that all parts meet the specifications for this product when installing or replacing hydraulic hoses or fittings.
- After connecting hydraulic lines:
 - Slowly and carefully raise the loader and cycle the rollback / dump cylinders to check hose clearances and to check for any interference.
 - Operate the hydraulics on this product to check hose clearances and to check for any interference.
 - Make certain that the hoses cannot interfere with or actuate the quick-attach mechanism.
 - Make certain that hoses will not be pinched, or get tangled, in any equipment.
- Do not lock the auxiliary hydraulics of your power unit in the "ON" position.
- Refer to your power unit's operator's manual and this manual for procedures and intervals, then inspect and maintain the entire hydraulic system to insure that the fluid remains clean, that all devices function properly, and that there are no fluid leaks.

WHEN MOUNTING THIS PRODUCT TO YOUR POWER UNIT:

- Refer to the operator's manuals of your power unit, your loader, and your quick-attach for special or detailed mounting instructions.
- This product should fit onto the quick-attach or loader arms of your power unit the same as the original products that were designed by your loader / quick-attach manufacturer.
- If this product does not fit properly, contact FFC Attachments before operating.
- Never place your finger into the mounting plate or 3-point hitch or loader holes. A slight movement of the power unit or this product could cause serious injury.

BEFORE EACH USE, THOROUGHLY INSPECT THIS PRODUCT AND:

- Make certain that all safety signs are in place and legible. Refer to the safety sign page in this manual for the placement of safety signs for this product.
- Replace all damaged or excessively worn parts and hardware only with genuine FFC Attachments parts or with properly rated fasteners, hydraulic hoses, or fittings.
- Make certain that all locking pins, latches, and connection devices are properly installed and secured.
- Make certain that all protective guards, canopies, doors, etc., are in place and secure.

WHEN OPERATING THIS PRODUCT IN ACCORDANCE WITH DESIGN INTENTIONS:

- Keep everyone at least nine feet away from the unit when operating.

WHEN ADJUSTING, SERVICING OR REPAIRING THIS PRODUCT:

- Make no modifications to your Roto-Tiller.
- When making repairs, use only genuine FFC Attachments parts or, for fasteners, hydraulic hoses, or hydraulic fittings, use only properly rated parts.
- Replacement parts, for parts with safety signs attached, must also have safety signs attached.

SECTION 2

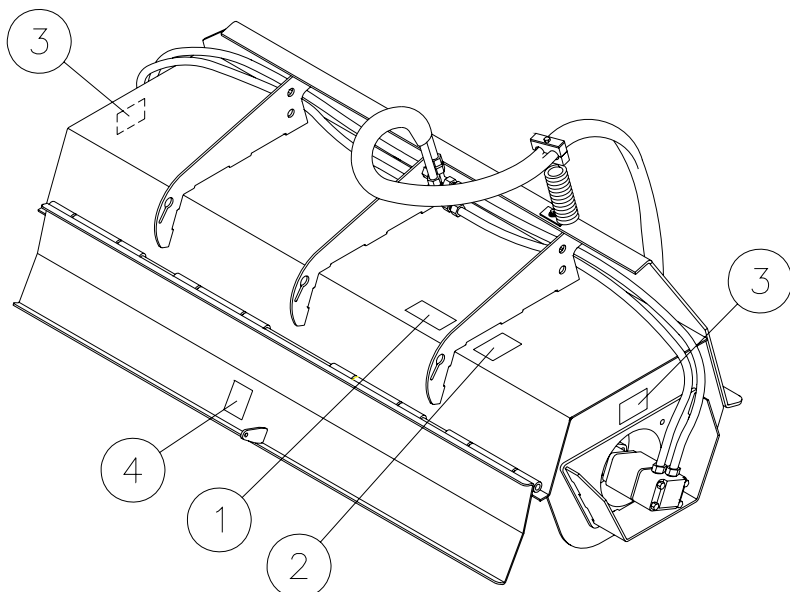


CAUTION

Obey all the safety instructions listed in this section and throughout this manual. Failure to obey instructions in this section may result in personal injury.

- Do not use the top of this product as a step. Under certain conditions, this area can be slippery.

SAFETY SIGN LOCATIONS



ITEM	QTY.	PART #	DESCRIPTION
1	1	50-0723	READ MANUAL
2	1	50-0724	HYDRAULIC
3	2	RDL3100	STAND CLEAR
4	1	RDL3178	NOT A STEP

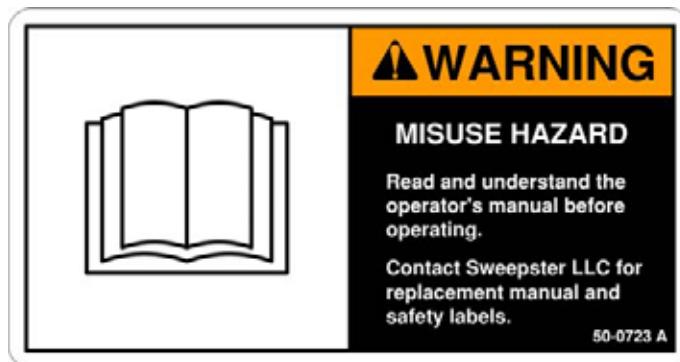
INSTRUCTIONS

- Keep all safety signs clean and legible.
- Replace all missing, illegible, or damaged safety signs.
- Replacement parts for parts with safety signs attached must also have safety signs attached.
- Safety signs are available, free of charge, from your dealer or from FFC Attachments.

PLACEMENT OR REPLACEMENT OF SAFETY SIGNS

1. Clean the area of application with non-flammable solvent, then wash the same area with soap and water.
2. Allow the surface to fully dry.
3. Remove the backing from the safety sign, exposing the adhesive surface.
4. Apply the safety sign to the position shown in the diagram above and smooth out any bubbles.

ITEM 1



ITEM 2



ITEM 3



ITEM 4



POWER UNIT SPECIFICATIONS

IMPORTANT Exceeding any of the maximum recommended power unit specifications **CAN** result in damage to this product and **WILL** void all FFC Attachments warranties.

DESCRIPTION	SPECIFICATIONS
Weight of Power Unit without Planer	11,000 lbs. maximum
Operating Capacity of Power Unit's loader	3,750 lbs. maximum
Lift Capacity of Power Unit's loader	7,500 lbs. maximum
Hydraulic Pressure Output	3,500 psi. maximum
Rear Ballast	As required to maintain full power unit stability. (see the shipping weight on page 11, then see the operator's manual(s) for you power unit, loader, and quick-attach for your ballasting needs.)

ROTO-TILLER MOUNTING



SAFETY FIRST!! READ AND UNDERSTAND THE SAFETY INSTRUCTIONS (pages 2-5 of this manual) BEFORE BEGINNING ANY ROTO-TILLER MOUNTING

1. Place this product on a firm, level surface that is large enough to safely accommodate this product, your power unit, and all workers involved in the mounting process.
2. Refer to the operator's manual(s) for your power unit, loader, and quick-attach and follow the mounting instructions contained therein.
3. Carefully raise the loader arms or three point linkage and cycle the tilt cylinders or lower link arms to check clearances and to verify that all mounting procedures have been successfully completed.

ROTO-TILLER HYDRAULIC CONNECTION



SAFETY FIRST!! READ AND UNDERSTAND THE SAFETY INSTRUCTIONS (pages 2-5 of this manual) BEFORE BEGINNING ANY ROTO-TILLER HYDRAULIC CONNECTION

1. Disconnect the hydraulic hose quick couplers from one another and attach the quick couplers to your power unit as per the instructions in your power unit's operator's manual.
2. Carefully raise the loader arm and cycle the tilt cylinders to check hose clearances and to check for any interference.



WARNING

Do not lock the auxiliary hydraulics of your tractor or power unit in the "ON" position. Failure to obey this warning could result in death or serious injury.

ROTO-TILLER OPERATION



SAFETY FIRST!! READ AND UNDERSTAND THE SAFETY INSTRUCTIONS (pages 2-5 of this manual) BEFORE BEGINNING ANY ROTO-TILLER OPERATION



WARNING

Failure to obey the following procedures could result in death or serious injury.

- Never lift the lowest portion of this product higher than 1'-0" above the ground while operating.
- Do not lock the auxiliary hydraulics of your power unit in the "ON" position.
- Keep everyone at least nine feet away from the unit when operating.

- This product may be operated while moving forward or backward with your power unit.
- The auxiliary hydraulics must be engaged so that:
 - the tines rotate down into the untilled area in the direction of travel to achieve the fastest tilling speeds and the most efficient use of power or
 - the tines rotate up from under the untilled area in the direction of travel to achieve greatest conditioning of the soil.

IMPORTANT

Tilling while moving forward with the hinged shroud panel fully down

CAN result in damage to this product and
WILL void all FFC Attachments warranties.

- When tilling while moving forward, the hinged shroud panel must be chained up in a horizontal position to avoid damaging the panel. The hinged shroud panel is not designed to push any soil or other materials.
- Your power unit should be operating at full throttle with the auxiliary hydraulics fully engaged. The speed of the movement of your power unit should be varied as required to pulverize the soil to extent desired.
- The maximum tilling depth is 6". This depth is attained when the motor guard is about 1" below the surface of the soil. Compacted soils may require two passes to reach this depth.

IMPORTANT

Attempting to grind stumps or dig into rigid or frozen materials

CAN result in damage to this product and
WILL void all FFC Attachments warranties.

ROTO-TILLER MAINTENANCE



SAFETY FIRST!! READ AND UNDERSTAND THE SAFETY INSTRUCTIONS (pages 2-5 of this manual) BEFORE BEGINNING ANY ROTO-TILLER MAINTENANCE

BEFORE EACH USE

- Make sure that all nuts and bolts are in place and properly tightened.
- Make sure that all other fasteners are in place and are performing their specified function.
- Make sure that all hydraulic fittings are tightened and that there are no leaks in any fittings or hoses.
- Make sure that all safety signs are in place, are clean, and are legible.
(SEE THE SAFETY SIGN SECTION ON PAGE 5.)
- Replace any damaged parts and excessively worn parts.

AFTER EVERY 10 HOURS OF USE

- Oil the hinge at the top of the hinged shroud panel.

AFTER EVERY 40 HOURS OF USE

- Make sure the taper lock adapter assemblies are tight by turning the bearing locknut by hand. If the bearing locknut moves by hand, retighten the taper lock adapter assembly as specified in Roto-tiller Service (on page 8).

ROTO-TILLER SERVICE



SAFETY FIRST!! READ AND UNDERSTAND THE SAFETY INSTRUCTIONS (pages 2-5 of this manual) BEFORE BEGINNING ANY ROTO-TILLER SERVICE

Removing Wire, Twine, Weeds, etc. that are Wrapped Around the Roller

1. Park your power unit on a level surface with this product properly attached.
2. Place your power unit's transmission in "Park" and engage the parking brake.
3. Lower this product onto preplaced blocking that will support the motor guards of this product so that the tines are not in contact with the ground.



WARNING

Failure to obey the following procedures could result in death or serious injury.

- **Do not use blocking made of concrete blocks, logs, buckets, barrels or any other material that could suddenly collapse or shift positions. Do not use wood or steel blocking that shows any signs of material decay. Do not use blocking that is warped, twisted, or tapered.**

4. Shut off your power unit's engine, remove the starter key, wait for all moving parts to come to a stop, and relieve all pressure in the hydraulic lines.
5. Disconnect the hydraulic lines from your power unit and connect the two ends to each other. This should permit the tines to rotate freely.
6. Pull the material from the tine shaft while allowing the shaft to rotate.

ALTERNATE METHOD

If your power unit is equipped with safety stops for the lift arms of the loader that can be activated from the operator's position or if the safety stops must be activated from outside the operator's position and a second person is present, then Step 3 above may be replaced with these steps:

- a) Fully raise the lift arms and fully extend the tilt cylinders to the fully dumped position.
- b) Activate the safety stops for the lift arms. Test the stops to verify that no downward movement of the lift arms can occur.
- c) Continue with Step 4 above.

Replacing Tines

1. Perform steps 1 through 5 above.
2. Remove the clip and pin that secure the strip; then slide the tine out.
 - a) If most of the tilling is done in one direction, the tine may be reversed and reinstalled.

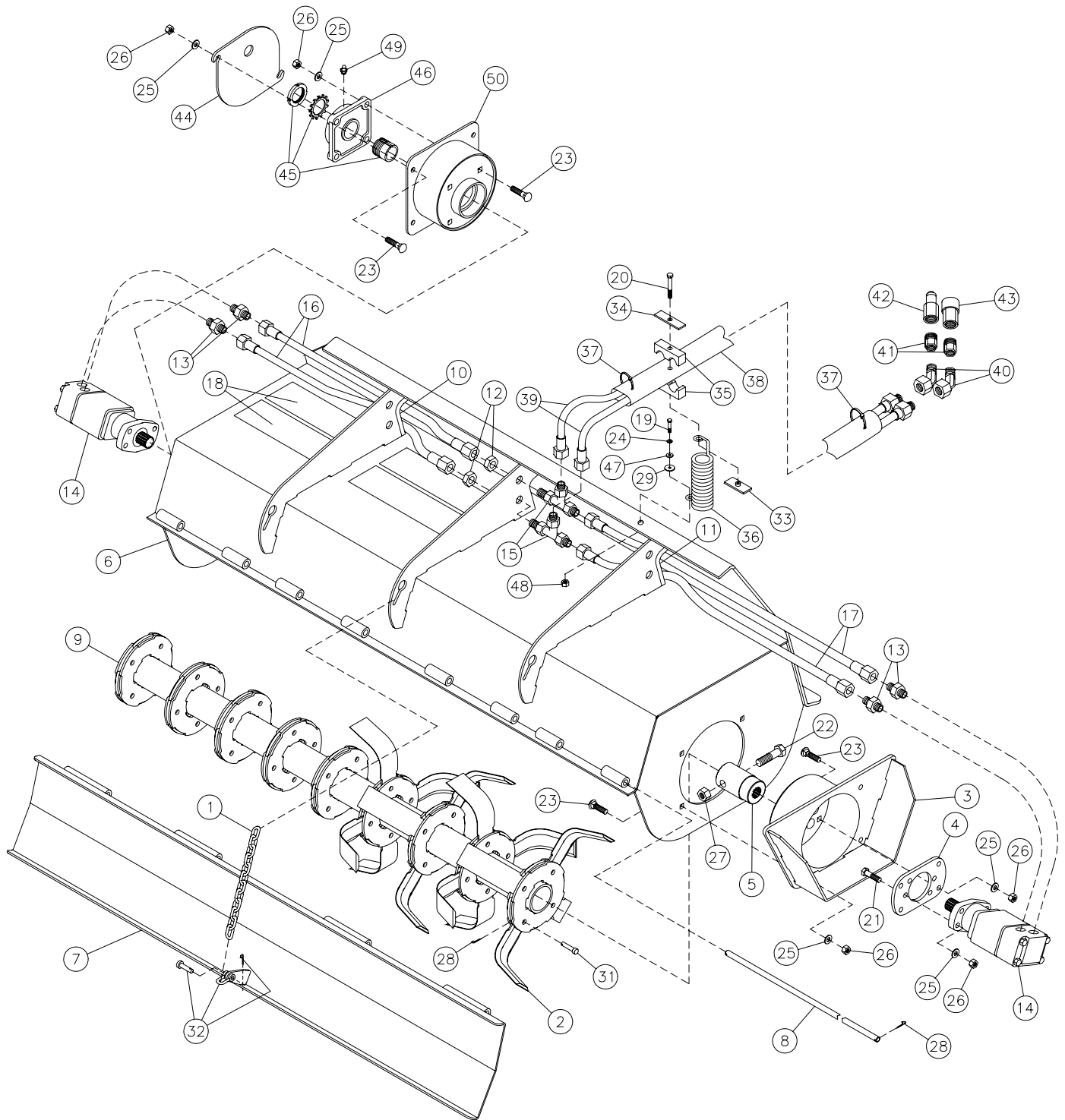
NOTICE To achieve the best tilling results, all the tines should be reversed at one time, not just one or two tines at a time.

- b) If the tine is worn out or damaged, properly dispose of the tine and install a new tine.
3. Replace the pin and clip.
 4. Repeat the process for all other tines.

Bearing Lock Adjustment

1. Bend the locking tang of the bearing lock washer out to free the bearing lock nut.
2. Loosen the bearing lock nut.
3. Retighten the bearing lock nut until finger - tight.
4. Tighten the lock nut an additional 1-1/4 turns and, if necessary, continue tightening until the first time one tang of the bearing lock washer is aligned with a notch on the locknut.
5. Bend that tang of the bearing lock washer back into the notch on the lock nut.

PARTS ILLUSTRATION



ROTO-TILLER: PARTS LIST

ITEM	QTY.	LAF3438 38"	LAF3452 52"	LAF3468 68"	DESCRIPTION
1	1			DHF2021	Chain: 18 links
2	varies	20	(28)	(36) LAF3400	Tine
3	varies	(1)	(2)	(2) LAF3401	Motor Guard
4	varies	(1)	(2)	(2) LAF3402	Motor Mounting Plate
5	varies	(1)	(2)	(2) LAF3403	Motor-Tine Shaft Coupler
6	1	LAF3416	LAF3404	LAF3408	Shroud
7	1	LAF3414	LAF3405	LAF3409	Hinged Shroud Panel
8	1	LAF3415	LAF3406	LAF3411	Hinge Pin
9	1	LAF3413	LAF3407	LAF3410	Tine Shaft Weldment
10	1	Not Used		LAF3412	Gusset Grommet
11	1	Not Used	Not Used	LAF3412	Gusset Grommet
12	2	Not Used		LAF4075	Jamb Nut: #10
13	varies	(2)	(4)	(4) LAF4414	Hydraulic Fitting, 10MB-10MJ Straight
14	varies	(1)	(2)	(2) LAF4655	Hydraulic Motor
15	2	Not Used		LAF4656	Bulkhead Run Tee 10MJ-10MJ-10MJ
16	2	Not Used		LAF4657	Hydraulic Hose: 1/2" dia., 10FJ-10FJ x 4'-0"
17	2	LAF4552 (84")	LAF4659 (32")	LAF4657 (48")	Hydraulic Hose: 1/2" dia., 10FJ-10FJ x Length Noted
18	4			LAF9447	Anti-Slip Abrasive Tape: 4" x 12"
19	1			RHW1108	Grade 5 Hex Head Cap Screw: 5/16" x 1-1/2"
20	1			RHW1112	Grade 5 Hex Head Cap Screw: 5/16" x 2-1/2"
21	varies	(4)	(8)	(8) RHW1406	Grade 5 Hex Head Cap Screw: 1/2" x 1-3/4"
22	varies	(1)	(2)	(2)RHW1714	Grade 5 Hex Head Cap Screw: 3/4" x 4-1/2"
23	16			RHW2405	Grade 5 Carriage Bolt: 1/2" x 1-1/2"
24	varies	(2)	(1)	(1) RHW6102	Grade 5 Lock Washer: 5/16"
25	varies	(20)	(24)	(24) RHW6402	Grade 5 Lock Washer: 1/2"
26	varies	(20)	(24)	(24) RHW7401	Grade 5 Hex Nut: 1/2", 13 tpi
27	varies	(1)	(2)	(2) RHW7703	Grade 5 Locknut: 3/4"
28	varies	(22)	(30)	(38) RHW8011	Grade 2 Cotter Pin: 1/8" x 1-1/4"
29	1			RHW8098	Grade 2 Fender Washer 5/64" x 5/16" x 1-1/2"
31	varies	(20)	(28)	RHW8134 (36)	Grade 8 Clevis Pin: 1/2" x 1-1/4"
32	1			RHW8317	D-Shackle With 5/16" Dia. Round Pin & Cotter Pin, Galvanized
33	1			RHW8613	Weld Plate: 5/16" Dia. Threaded Hole
34	1			RHW8614	Cover Plate For Hose Clamp Cradles
35	2			RHW8616	Clamp Cradle For (2) 7/8 O.D. Hoses
36	1			RHW8618	Spring: 1-1/2" x 11-5/8" With 7-1/4" Coil
37	2			RMR5002	Nylon Cable Ties: 1/4" x 11"
38	1		Contact FFC to obtain correct item		Hydraulic Hose Protector: 1-7/8"
39	2	Not Used	03-10025	03-10025	Hydraulic Hose: 5/8" ID with (1) #10 Female JIC Fitting
40	2		Contact FFC to obtain correct item		Hydraulic Elbow (not required on all models).
41	2		Contact FFC to obtain correct item		Hydraulic Adapter (not required on all models).
42	1		Contact FFC to obtain correct item		Hydraulic Hose Quick Coupler: Male Connection
43	1		Contact FFC to obtain correct item		Hydraulic Hose Quick Coupler: Female Connection
44	1	LAF3418	Not Used	Not Used	Dust Guard
45	1	LAF3512	Not Used	Not Used	Bearing Taper Lock Adapter
46	1	LAF3513	Not Used	Not Used	Rotor Bearing
47	1			RHW5162	Grade 5 Flat Washer:5/16", USS
48	1			RHW7101	Grade 5 Hex Nut: 5/16"
49	1	RHW8091	Not Used	Not Used	Grease Zerk: 1/4", 90°, Self-tapping, 28 tpi.
50	1	LAF3417	Not Used	Not Used	Bearing Mount

NOTE: All parts are the same as the LAF3468 except for those parts numbered under the other models.

ROTO TILLER SPECIFICATIONS

Model Number	Overall Width	Overall Height	Overall Depth	Offset to Right	Torque @ 2,500 psi	Shipping Weight
LAF3438	53"	27"	27"	varies	469 ft. lbs.	450 lbs.
LAF3452	67-13/16"	27"	33-1/2"	12-1/2"	939 ft. lbs.	600 lbs.
LAF3468	78-1/4"	27"	33-1/2"	4-3/4"	939 ft. lbs.	695 lbs.

All replacement hydraulic hoses must have a minimum rated working pressure of 4,000 psi.

**TORQUE SPECIFICATIONS FOR STANDARD MACHINE HARDWARE
(FOR REFERENCE ONLY)**

Bolt Size	SAE Grade Bolt	Torque Ft./Lbs
0.31 - 18	5	17
0.50 - 13	5	75
0.75 - 10	5	260



PALADIN LIGHT CONSTRUCTION

Warranty Registration Form and Delivery Inspection Report

IMPORTANT! Warranty **Void** if card is not returned with 10 days.
All Applicable sections **must** be filled in.

This section to be filled out and signed by Dealer at time of delivery.

Warranty Registration

Customer's Name _____	Dealer's Name _____
Address _____	Address _____
City _____ State _____ Zip _____	City _____ State _____ Zip _____
Phone _____	CHECK ONE:
Loader / Tractor Model _____	Construction Use _____
Delivery Date _____	Agricultural Use _____
Model or Part # _____	Landscape Use _____
Serial # _____	Other: _____

Dealer Inspection *(check items applicable)*

- | | |
|--|--|
| _____ All Decals installed (see operator's manual) | _____ Review Operating and Safety Instructions |
| _____ Hydraulic fittings tight and free of leaks | _____ Guards and covers in place and secure |
| _____ Fasteners tight | _____ Does Product Function Properly |

I have thoroughly instructed the buyer on the above described equipment. This review included: The Operator's manual content, equipment care, adjustments, safe operation and applicable warranty policy.

Date _____ Dealer's Rep. signature _____

This section to be completed and signed by the customer

	1 Excellent	2 Good	3 Average	4 Unsatisfactory	5 Poor
QUALITY ASSURANCE RATING					
Question:		FFC		Local Dealer	
Quality of Product: Appearance		_____		_____	
Construction		_____		_____	
Quality of Service		_____		_____	
Value (Priced Fairly)		_____		_____	
Does it perform as claimed		_____		_____	

The above described equipment and Operator's Manual have been received by me and I have been thoroughly instructed as to care, adjustments, safe operation and applicable warranty policy.

Date: _____ Owner's signature _____

NOTE! Make one copy each for the dealer's and owner's records. Mail original to FFC Attachments.



PALADIN LIGHT CONSTRUCTION

FFC LIMITED 12 MONTH WARRANTY

Thank you for purchasing a FFC product. Warranty protection is valid only when this Warranty Registration is completed and signed by the customer and dealer, and mailed to FFC. I hereby acknowledge that I have received a copy of the owners Limited Warranty and I accept the terms therein.

For a period of 12 months from date of delivery of product to the original user, FFC, warrants each product to be free from manufacturing defects, subject to the limitations contained in this policy.

This warranty does not apply to defect caused, in whole or in part, by unreasonable use while in the possession of the user, including, but not limited to: failure to properly set up product; failure to provide reasonable and necessary maintenance; normal wear; routine tune ups or adjustments; improper handling or accidents; operation at speed or load conditions contrary to published specification; improper or insufficient lubrication; improper storage. This warranty is also not a guarantee that the performance of each product will meet the expectations of the purchaser.

FFC shall not be liable for consequential damages of any kind, including, but not limited to: consequential labor costs or transportation charges in connection with the replacement or repair of defective parts; lost time or expense which may have accrued because of said defects. In no event shall FFC, Inc.'s total liability hereunder exceed the product purchase price.

FFC makes no warranty with respect to trade accessories or any component or accessory of the product which was not manufactured by FFC, including any purchased components on any kind. These are subject to the warranties of their respective manufacturers. The warranty will be considered void if the product or any part of the product is modified or repaired in any way not expressly authorized by FFC, or if closed components are disassembled prior to return. Closed components include, but are not limited to: gearboxes, hydraulic pumps, motors, cylinders, and actuators.

Our obligation under the warranty is expressly limited, at our option, to the replacement or repair at FFC, of Lee, Illinois, or at a service facility designated by us, or such part or parts as inspection shall disclosed to have been defective. We are not responsible for unauthorized repairs or replacements. Any implied or statutory warranties, including any warranty of merchantability or fitness for a particular purpose, are expressly limited to the duration of this written warranty. We make no other express or implied warranty, nor is anyone authorized to make any in our behalf. This warranty cannot be extended, broadened, or changed except in writing by an authorized officer of FFC.