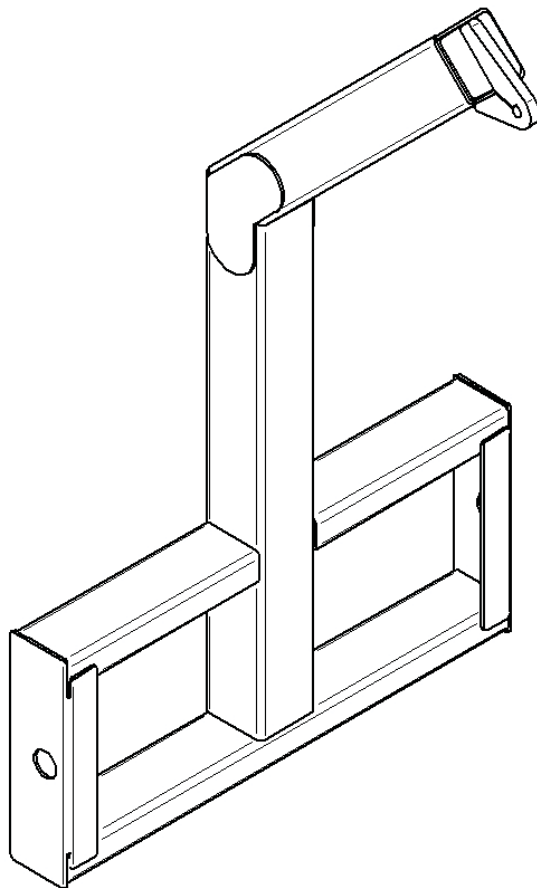




LOADER BOOM



PALADIN LIGHT CONSTRUCTION



SERIAL NUMBER: _____

MODEL NUMBER: _____

Manual Number: MR15563

Model Covered: LAF2210

Date: August 2007

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INTRODUCTION

Congratulations on your purchase of a new **FFC Attachments Loader Boom**. This product has been designed and built to vertically lift loads with a chain or similar device (not included) and transport those loads for a short distance. You or any other person who will be 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 **LAF2210**.

GENERAL INFORMATION

The purpose of this manual is to assist in mounting, operating, and maintaining your **Loader Boom**. 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 may be 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 NOTICE	Precautions that must be followed to prevent damage to equipment.
	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 top left surface of the loader attachment plate** of your **Loader Boom**.

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 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** Loader Boom.

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 an order to FFC.

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 !!

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 Loader Boom 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, loader, 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 position 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 your loader's operator's manuals for safe operating limits. Loader capacity may be reduced if using a quick-attach. Do not lift loads weighing more than the maximum limits listed in the chart on page 7.
- 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.
- Never lift the lowest portion of the attachment plate higher than 5'-0" above the ground.
- 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 position.
- 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



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 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 before operating.
- Never place your finger into the mounting plate 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 parts or with properly rated fasteners.
- 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.

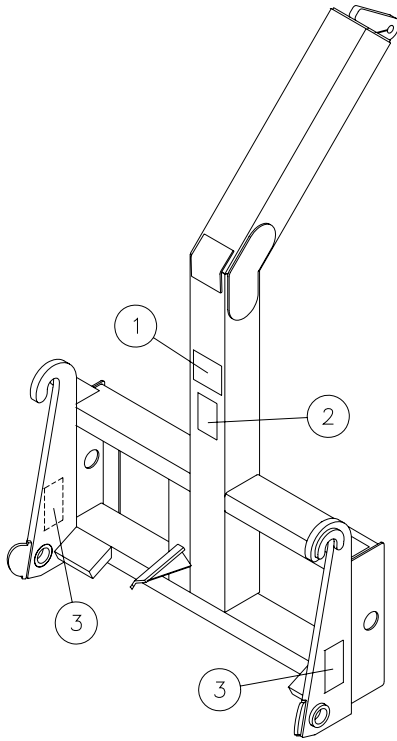
WHEN OPERATING THIS PRODUCT IN ACCORDANCE WITH DESIGN INTENTIONS:

- Do not exit the operator's position by crawling over or under raised loader arms. Any load requiring the loader arms to be in a raised position to allow for the chain to be connected must be hooked to the clevis by a person other than the operator.
- Prevent the load from swinging by chaining or otherwise securing the load to the loader attachment plate using the two holes provided. Do not lift or pull loads using either of these holes as a point of support.
- All lifting should be vertical only. Never pull a load or Loader a load from an off-center position.
- Never lift a load that is in any way attached to the ground or another object. This includes objects that are frozen down or have another object resting on top of the object being lifted.
- Do not contact overhead electric power lines.
- Remove or secure all chains or similar devices when not lifting loads.

WHEN ADJUSTING, SERVICING OR REPAIRING THIS PRODUCT:

- Make no modifications to your Loader Boom.
- When making repairs, use only genuine FFC parts or, for fasteners, use only properly rated parts.
- Replacement parts, for parts with safety signs attached, must also have safety signs attached.

SAFETY SIGN LOCATIONS



ITEM	QTY.	PART # - DESCRIPTION
1	1	50-10017-READ MANUAL
2	1	RDL3181-OVERHEAD LINES
3	2	RDL3108-HANDS & FEET (On Model 741493019 Only)

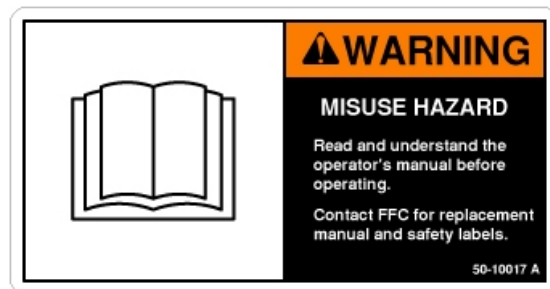
INSTRUCTIONS

- 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.

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



POWER UNIT SPECIFICATIONS

IMPORTANT

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

DESCRIPTION

SPECIFICATIONS

Rear Ballast

As required to maintain full power unit stability.
(Note the Shipping Weight on page 9, then see the operator's manual(s) for your power unit, loader, and quick-attach for ballasting needs.)

LOADER BOOM MOUNTING



SAFETY FIRST!! READ AND UNDERSTAND THE SAFETY INSTRUCTIONS (pages 2-5 of this manual) BEFORE BEGINNING ANY LOADER BOOM 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 and cycle the tilt cylinders to check clearances and to verify that all mounting procedures have been successfully completed.

LOADER BOOM SETUP



SAFETY FIRST!! READ AND UNDERSTAND THE SAFETY INSTRUCTIONS (pages 2-5 of this manual) BEFORE BEGINNING ANY LOADER BOOM SETUP

You must supply all chains, slings, cables, "chokers", or other devices that will be used to secure the load to your Loader Boom. These items are not supplied with your Loader Boom. Make sure that the working load capacity of these devices when used in your particular configuration (angle of connection, hooking method, etc.) is greater than the load being lifted. This lifting capacity information should be obtained from the manufacturer of the device.



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



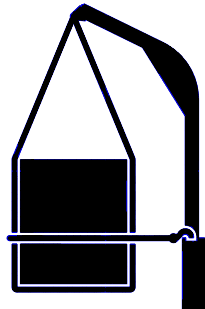
WARNING

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

- 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 your loader's operator's manuals for safe operating limits. Lift capacity may be reduced if using a quick-attach. Do not lift loads weighing more than the maximum limits listed below.

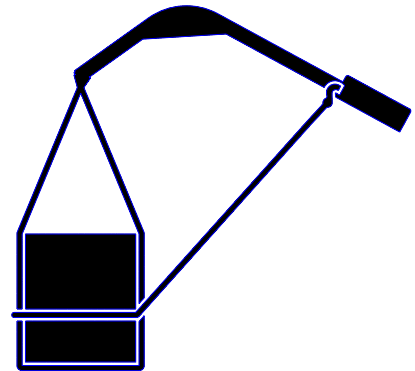
Maximum Loads that can be safely lifted

Selected SAE Operating Loads For Power Units and Loader



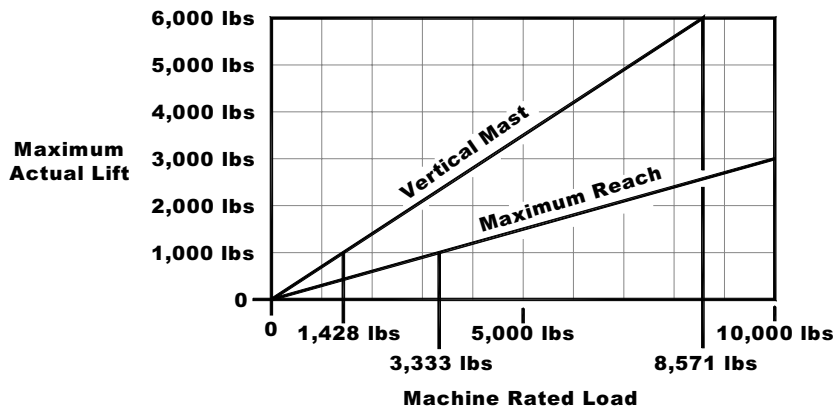
Vertical Mast

(70% of Operating Load, not to exceed 6,000 pounds)



Maximum Reach

(30% of Operating Load, not to exceed 6,000 pounds)



Use the specific SAE Operating Load for your power unit and loader to calculate a specific maximum load.

(Continued on page 8.)



WARNING

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

- Do not exit the operator's position by crawling over or under raised loader arms. Any load requiring the loader arms to be in a raised position to allow for the chain to be connected must be hooked to the clevis by a person other than the operator.
- Do not contact overhead electric power lines.

LOAD LIFTING AND HANDLING PROCEDURE

1. Park your power unit next to the load being lifted.
2. After inspecting the area for overhead lines and insuring that there is sufficient clearance for lifting the load, then position the Loader Boom's clevis directly above the center of gravity of the load and maintain that centered position while fully lowering the loader arms.
 - If the shape or volume of the load will not permit the loader arms to be fully lowered, then a second person will be needed to attach the load to the Loader Boom. The operator could be seriously injured while leaving the operator's position if the loader arms are left raised when the operator attempts to leave.



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



WARNING

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

- Prevent the load from swinging by chaining or otherwise securing the load to the loader attachment plate using the two holes provided. Do not lift or pull loads using either of these holes as a point of support.
- All lifting should be vertical only. Never pull a load or lift a load from an off-center position.
- Never lift a load that is in any way attached to the ground or another object. This includes objects that are frozen down or have another object resting on top of the object being lifted.

LOAD LOADERING AND HANDLING PROCEDURE (Continued)

3. Place your power unit's transmission in "Park" and engage the parking brake.
4. Shut off your power unit's engine, remove the starter key, and wait for all moving parts to come to a stop.
5. Connect the load to the Loader Boom so that all lifting is performed by the clevis.
6. Use a second chain or other device to secure the load to the holes in the loader attachment plate. This chain should only be tight enough to minimize the swinging of the load and should never be used to fully or to partially lift or pull the load.
7. Make sure that the clevis is centered directly above the center of gravity of the load, restart your power unit, and raise the loader arms to remove all slack from the chain, sling, or whatever is connected to the load.
8. Raise the loader arms enough to begin lifting the load off the surface where the load is resting.
 - If some object or condition (for example: the load is frozen to the ground) is preventing the load from freely being lifted, then fully lower the loader arms, repeat steps 3 and 4 above, and use other equipment or tools to free the load before restarting the lifting process.
 - If the load begins to move to the side, then lower the load and reposition the Loader Boom so that the clevis is centered directly above the center of gravity of the load before restarting the lifting process.
 - If the second chain or other device that is used to secure the load to the holes in the loader attachment plate begins to assist in lifting or pulling the load, then fully lower the loader arms, repeat steps 3 and 4 above, and reposition that chain or other device to eliminate the lifting or pulling condition before restarting the lifting process.

(Continued on page 9.)

LOADER BOOM OPERATION (Continued)

WARNING

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

- Never lift the lowest portion of the attachment plate higher than 5'-0" above the ground.
- Do not contact overhead electric power lines.
- Remove or secure all chains or similar devices when not lifting loads.

9. Raise the load until the lowest point of the load has sufficient clearance to be able to move to the desired destination.
 - If the clearance requirements change significantly, the load height should be adjusted accordingly. (For example: one clearance may be required to safely lift a load out of a truck, but a significantly lower clearance would be needed to transport that same load across a parking lot.)

IMPORTANT

A chain, strapping, etc. that is allowed to drag on the ground can be driven over by the power unit tire and CAN result in damage to this product and WILL void all FFC warranties.

10. After inspecting the path of travel to insure that there is sufficient clearance with overhead lines, slowly begin moving your power unit toward the desired destination, always keeping the power unit and the load under full control.
11. After safely placing the load in the desired position, repeat steps 3 through 6, only this time the load is unhooked.
12. Secure the loose chains, slings, etc. to the holes in the loader attachment plate so that those devices cannot swing freely when the power unit is restarted and moved. Swinging chains can cause injury to the operator and to others.

LOADER BOOM MAINTENANCE



SAFETY FIRST!! READ AND UNDERSTAND THE SAFETY INSTRUCTIONS (pages 2-5 of this manual) BEFORE BEGINNING ANY LOADER BOOM 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 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 3 MONTHS OF USE

- Inspect all components of the clevis and replace any worn parts.

LOADER BOOM SPECIFICATIONS

Model Number	Overall Width	Overall Height	Overall Depth	Shipping Weight
LAF2210	47"	73-1/4"	31"	400 lbs.



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)*

- | | |
|---|---|
| <input type="checkbox"/> All Decals installed (see operator's manual) | <input type="checkbox"/> Review Operating and Safety Instructions |
| <input type="checkbox"/> Hydraulic fittings tight and free of leaks | <input type="checkbox"/> Guards and covers in place and secure |
| <input type="checkbox"/> Fasteners tight | <input type="checkbox"/> 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.