



# 23-JD Pallet Fork System for John Deere Quick Attach Loaders

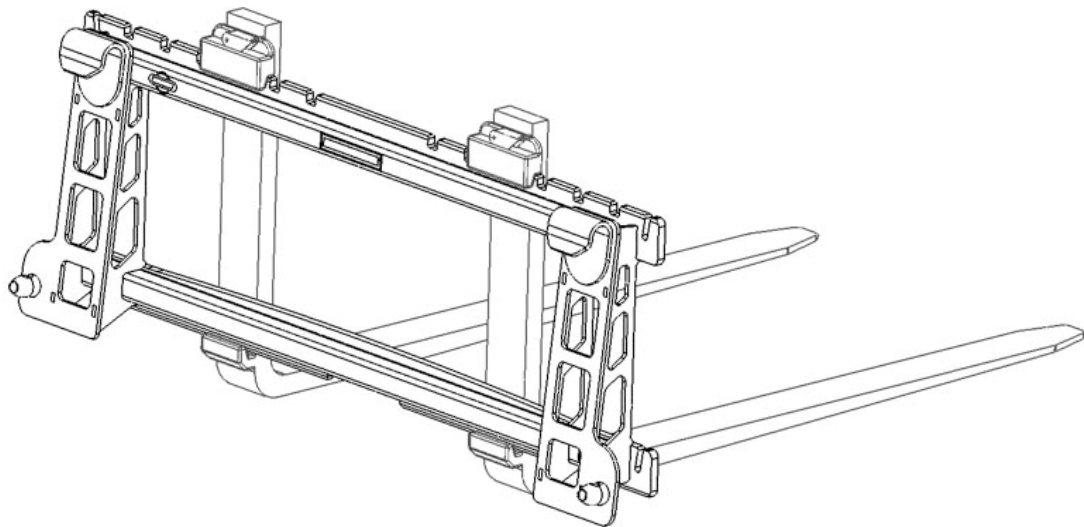
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## User Guide

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**Congratulations** and **Thank You** for your decision to own an Artillian Pallet Fork System for John Deere JDQA Loaders

PLEASE CAREFULLY READ ALL OF THIS INFORMATION BEFORE USING



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## SAFETY

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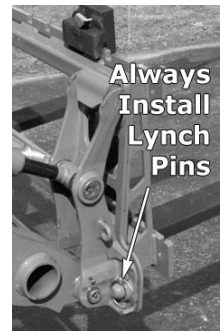
1. **Wear gloves** whenever handling Artillian Pallet Forks and its attachments. Watch for sharp edges and possible pinching hazards. Steel toe boots, eye and hearing protection are also recommended anytime working around a tractor.



2. **It is the responsibility of the operator to provide adequate rear ballast** on the tractor to counter loads lifted with the pallet forks. Please reference the Ballast Calculator produced by John Deere that can be found at the Technical Information page of the Artillian website for more information.



3. **Anytime an attachment is mounted on your John Deere Quick Attach (JDQA) loader, IMMEDIATELY install BOTH lynch pins in the JDQA pins.**



4. **Tractor loaders are optimized for speed as opposed to the precision of a forklift. Heavy loads can drop very quickly. Make control inputs carefully. TAKE YOUR TIME. PLAN AHEAD. WATCH FOR OBJECTS ABOVE, BESIDE, BELOW, IN FRONT OF AND BEHIND YOU.**

5. Do not apply side forces to the fork tines as damage to the frame and/or forks may occur. If side forces have been applied, do not use the system until a complete inspection has been performed.

6. Be aware when moving in reverse of objects in your path when turning. If an object is struck, do not use the system until a complete inspection has been performed.

7. This system should never be used for lifting or moving people.

8. This system should not be used to suspend an object that is to be manipulated by a person. Always use positive support such as a table, chain fall, sawhorses, etc. in the event of a hydraulic failure, load shift, etc.

9. **Check your tire pressure.** You may find that it needs to be increased for use with the higher loads associated with pallet forks.



10. Always wear your seat belt and be sure all ROPS provisions on your tractor are in proper working order and configured to perform as intended.

11. Inspect the frame occasionally for possible unseen damage. The areas around the JDQA hooks and along the upper fork rail are where overstress damage would most likely be detected.
12. **The components of this system are electrically conductive.** Be aware of and avoid any sources of electrical power with this system.
13. All safety guidelines illustrated in your tractor and loader owner's manuals should be observed whenever using an Artillian Pallet Fork System. In the event of conflicting information found here, defer to the information in your tractor owner's manual.
14. **This product is designed FOR PERSONAL USE ONLY by the original purchaser. It is not to be used for commercial applications such as for rental equipment or commercial construction, for example. Any such use voids warranty.**

## ASSEMBLY

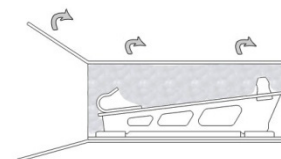
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The simplest method of assembling the Artillian Pallet Fork System is to first mount the pallet fork frame on the loader, and then add the other components (e.g. fork tines) to the pallet fork frame.

### Pallet Fork Frame Unpacking and Mounting

If unpacking your Artillian Pallet Fork Frame from a shipping box, you do not need to lift it. Simply open one end of the box to see inside. Then:

1. Orient the box so the fork rails are facing down and the JDQA mounting points are facing up.
2. Peel away and remove the packing materials until the frame is exposed and the JDQA mounting points are completely accessible to the loader.
3. Approach the fork frame with the tractor. "Dump" or tip the loader mounts downward and engage the pallet fork frame hooks with the loader mounts.
4. Raise the frame up to waist height and curl it back until the fork frame mounting pins enter the holes in the loader mounts.
5. Shut off the engine and/or set the parking brake.
6. **Install BOTH lynch pins** in the JDQA pins on the fork frame as shown in the SAFETY section.



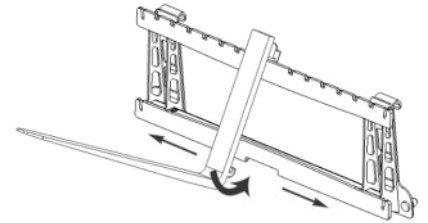
Alternatively, you can remove the frame from the shipping box and packing materials, pick the frame up, and set it onto the loader mounts. **Install BOTH lynch pins** in the JDQA pins as shown in the SAFETY section.

If your Artillian Pallet Fork System came fully assembled on a pallet (such as for orders picked up at Artillian), simply follow the attaching instructions in the DAILY USE AND OPERATION section.

## Attaching the Fork Tines

To mount the fork tines on the fork frame, first attach the Artillian frame to your loader (see above), then mount each fork tine onto the frame, one at a time.

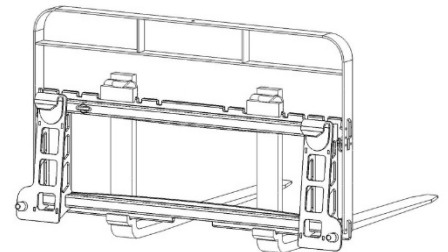
1. With the fork frame mounted on your loader, raise it to a comfortable waist height for minimal bending.
2. Using proper lifting techniques (back straight/bend knees), pick up a fork tine and hang its upper clip at the **middle** of the upper fork rail. Swing the bottom clip of the fork tine through the gap in the middle of the lower rail.
3. Raise the fork's locking pin (see DAILY USE AND OPERATION) and slide the fork left or right as desired, then lower the locking pin into one of the notches to secure it in place. Repeat for the opposite fork. Your Artillian Pallet Fork Set is now ready for use.
4. Removal of fork tines is the opposite of installation.



Sliding fork tines on and off the ends of the fork frame is not recommended. A fork tine can bind and may fall when it becomes dislodged.

## Optional Backrest (model 5-BR)

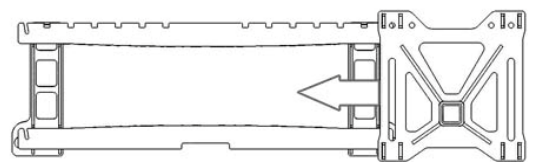
If your tasks or habits would benefit from a taller fork frame, we offer an optional Backrest. There is no modification required to install. It attaches to the fork frame very simply and remains in place with two simple pins. Our Backrest raises the rear elevation to 29" and is rated for a 500 Lb load against the top edge. Please see the Artillian website for more information and ordering.



## Attaching other Optional Add-On Attachments

There are a variety of other attachments available from Artillian to be used on your Artillian Pallet Fork Frame in place of the fork tines. These "Add-On" attachments are intended to maximize the usefulness of your pallet fork frame, reduce the overall cost of having multiple attachments, and to minimize storage space requirements of having various attachments.

Some of these Add-On Attachments install by sliding on from the side of the fork frame. Others attach at the middle of the fork frame using a certain technique. Each attachment comes with its own set of instructions. All Add-On Attachments include our Patent Pending Lock Keys for securing to the fork frame.



## DAILY USE AND OPERATION

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### Attaching the Fork System to the JDQA Loader

Once the system has been assembled (see ASSEMBLY), attaching the pallet fork system to your loader is performed as follows.

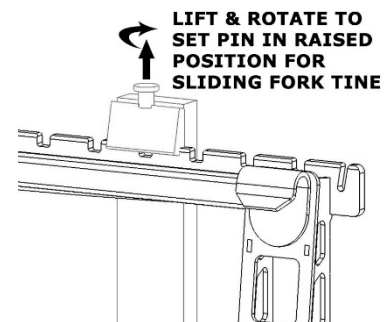
1. Remove any attachments (e.g. bucket) from your JDQA loader mounts.
2. Approach the backside of the Artillian frame with your tractor. Tilt the loader mounts forward so that the upper bars fit under the JDQA hooks on the fork frame.
3. Raise the loader slightly to settle the fork frame onto the loader mounts and then curl the loader back until the JDQA pins fall into the holes in the loader mounts.
4. Raise the frame to waist height.
5. Shut off the engine and/or set the parking brake.
6. **Install BOTH lynch pins** in the JDQA pins on the fork frame as shown in the SAFETY section.
7. Your pallet fork set is now ready to use. To remove, reverse these instructions.

### Adjusting the Fork Tines

To adjust the position of the fork tines, their locking pins must be released. To perform this with the Cascade fork tines, lift the pull pin and rotate 180° to lock the pin in the raised position. Slide the fork tine to the desired location and then turn and lower the lock pin into a detent slot on the fork rail.

When sliding the fork tines from side to side, they tend to move more easily if tilted downward until the weight of the fork is hanging primarily by the upper clip. After your fork set has been in use for a while, you may be able to slide the forks with two fingers using this method.

When your fork set is new, movement may be a little stiff. With use, the parts should wear in a bit and move more smoothly. It may be helpful to apply lubricant sparingly in the contact areas. When sliding the fork tines along the mounting rails, keep them hanging straight down. Tipping to one side while sliding may cause binding.



### Use of the Pallet Fork Set



When carrying a load on your forks,

- a. ALWAYS KEEP THE LOAD AS LOW AS POSSIBLE for the task at hand.
- b. Keep the load as far back toward the loader as safely possible
- c. Keep the load curled back as far as practical to prevent the load from falling forward
- d. Keep in mind that the level of the load may need to be adjusted for changes in grade

- e. More ballast is necessary while sloping downhill than on flat ground or sloping uphill.



When transporting from one location to another with no load, ALWAYS KEEP THE TIPS OF THE FORK TINES CURLED UPWARD so that

- a. You will know where they are for ease of maneuvering, and
- b. They cannot inadvertently strike or gouge any objects in your path or plunge into the ground



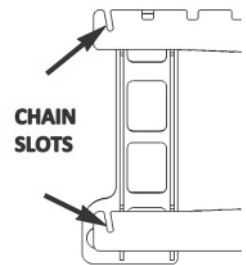
When parked, always rest the fork tines flat on the ground to prevent causing a tripping hazard.

### Chain Slots

There are chain slots built into the fork rails which can be used for securing loads or for lifting. The slots are designed for 5/16" chain of Grades 30 Proof Coil, 43 High Test, or 70 Transport.



DO NOT USE THE CHAIN SLOTS FOR PULLING. If the chain becomes dislodged from the chain slot, something could snap back toward you or others in the area.



## MAINTENANCE

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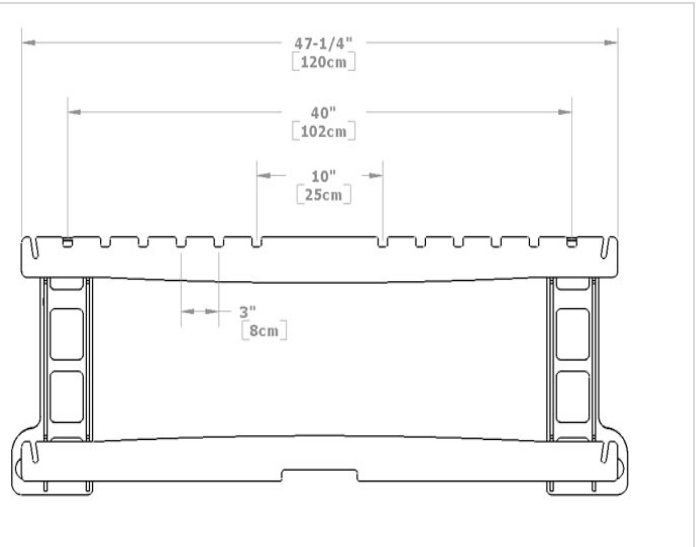
The system is largely maintenance free. However, you may occasionally apply lubricant to the beveled face on the backside of the upper fork rail where the fork tines interface.

The front faces of the fork rails have additionally been treated with a dry film graphite coating over the electroplating and powder coating. This is to help attachments slide more easily and offer yet another layer of protection over the powder coating. This graphite coating will become more lubricious with some use. It will also become scratched and scuffed over time. This is normal. If desired, it can be touched up with any commercially available dry film graphite lubricant.



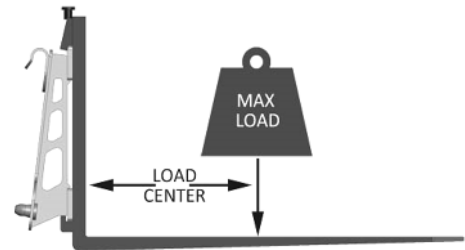
# SPECIFICATIONS

Artillian FF-23-JD Pallet Fork Frame	
Weight	73lbs (33kg)
Format	ITA Class II, Fixed
Rail Width	47-1/4"(120cm) Overall
Notch Width	10"(25cm) min - 40"(102cm) max @ 3"(7.6cm) increments
Max Load	2300lb (1045kg) at an 18" (450mm) load center
Material	High Strength Carbon Steel, all North American origin
Finish	Electroplate and Powder Coat John Deere Green (meets OEM spec). Fork rail faces coated with dry film graphite lubricant



## Pallet Fork Set Maximum Loading

The load capacity of a pair of fork tines is defined as an amount of weight centered at a distance from the heel (bend) of the fork tine. This is referred to as the "load center".

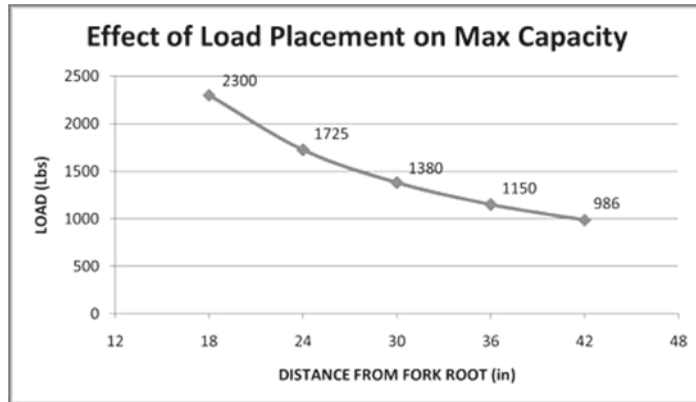


Maximum Load of Artillian Fork Tines					
MODEL #	WEIGHT per pair	DESCRIPTION	LENGTH	MAXIMUM LOAD per pair	LOAD CENTER
<b>FTC-424-F</b>	152lb/69kg	42" Cascade Full Taper	42" (1066mm)	2500lb (1135kg)	18" (450mm)
<b>FTS-423-F</b>	120lb/55kg	42" Standard	42" (1066mm)	2300lb (1045kg)	
<b>FTS-363-F</b>	112lb/51kg	36" Standard	36" (900mm)		

Regardless of fork tines used, the Artillian Pallet Fork Frame is limited to a maximum load of 2300lb (1045kg) at an 18" (450mm) load center.

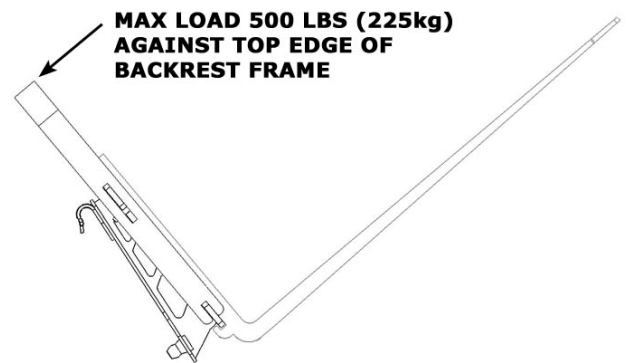
## Position of Load vs Lift Capacity

This graph gives an example of how the lift capacity of a set of forks decreases as the load center moves out toward the tips of the tines. For maximum lift capacity, keep the load as close to the loader as possible.



## Backrest Maximum Loading

When properly attached to the pallet fork frame, the Backrest is designed to withstand a maximum load of 500lb (225kg) applied perpendicular to the uppermost edge of the Backrest frame.



## Serial Number Tag

The serial number of your pallet fork frame can be found on a decal placed on the underside of the upper fork rail within the area of the structural framework.



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### *Warranty*

**Artillian, LLC** warrants to the original purchaser that this product will be free from defects in material and workmanship for a period of one year from the date possession is taken by the original purchaser when used as intended and under normal service and conditions for personal use.

Finishes (coatings, labels, & decals) are not inclusive. Artillian, LLC reserves the right to inspect items claimed to be defective in material or workmanship. Artillian LLC's obligation under this warranty is limited to repair or replacement with a nearest similar part.

This Warranty will not apply to any part or product which in Artillian LLC's judgment shall have been misused or damaged by accident, abuse, misapplication, fire, negligence, or lack of normal maintenance or care, or which has been altered or repaired in a way which adversely affects its performance or reliability, or which has been used for a purpose for which the product is not designed.

Artillian, LLC's obligations under this warranty, to the extent allowed by law, is in lieu of all warranties, implied or expressed, including implied warranties of merchantability and fitness for a particular purpose and any liability for incidental and consequential damages with respect to the sale or use of the product warranted. In any event, liability on behalf of Artillian LLC is limited to the original purchase price.

Thank you for choosing Artillian!

Your feedback is always welcome

[www.artillian.com](http://www.artillian.com) [sales@artillian.com](mailto:sales@artillian.com)