



**BRADCO**  
BY PALADIN

## OPERATOR'S AND PARTS MANUAL

### CAR FORK CARRIAGE

**FOR  
RTFL**



SERIAL NUMBER: \_\_\_\_\_

MODEL NUMBER: \_\_\_\_\_

Manual Number: 76829

Part Number: 76829

Rev. 3 August 2018



# TABLE OF CONTENTS

|                                             |            |
|---------------------------------------------|------------|
| <b>PREFACE.....</b>                         | <b>3</b>   |
| <b>SAFETY PRECAUTIONS .....</b>             | <b>4-7</b> |
| SAFETY STATEMENTS .....                     | 4          |
| GENERAL SAFETY PRECAUTIONS.....             | 4-6        |
| EQUIPMENT SAFETY PRECAUTIONS .....          | 7          |
| <b>INSTALLATION AND OPERATION .....</b>     | <b>8</b>   |
| ATTACHING & DETACHING .....                 | 8          |
| OPERATING EQUIPMENT .....                   | 8          |
| <b>STORAGE.....</b>                         | <b>9</b>   |
| GENERAL INFORMATION.....                    | 9          |
| PREPARATION FOR STORAGE .....               | 9          |
| REMOVING FROM STORAGE.....                  | 9          |
| <b>LIMITED WARRANTY .....</b>               | <b>11</b>  |
| <b>PARTS</b>                                |            |
| 60" CAR FORK CARRIAGE ASSEMBLY #12614 ..... | 14-15      |
| 60" CAR FORK CARRIAGE ASSEMBLY #12672 ..... | 16-17      |
| 60" CAR FORK CARRIAGE ASSEMBLY #12824 ..... | 18-19      |

## FOREWORD

Although Bradco has various car fork carriages available, we are continually designing new sizes and mountings. If your combination is not listed, please contact the factory. We have extensive mounting information available to generate the product you need.

Below is a listing of the car fork carriages that are currently available. See the "Parts" section of this manual for the assemblies "Shown".

| <b>DESCRIPTION &amp; MOUNT</b>                                                          | <b>ASSEMBLY #</b> |
|-----------------------------------------------------------------------------------------|-------------------|
| <b>JCB</b>                                                                              |                   |
| 60" Floating Pin Fork Carriage - JCB 416 (84" Forks Included- Top Chisel) (Shown)       | 12614             |
| 60" Floating Pin Fork Carriage - JCB 411-416 (84" Forks Included- Bottom Chisel)(Shown) | 12672             |
| 60" Floating Pin Fork Carriage - JCB 416 (72" Forks Included- Bottom Chisel) (Shown)    | 12824             |

# PREFACE

## GENERAL COMMENTS

Congratulations on the purchase of your new attachment! This product was carefully designed and manufactured to give you many years of dependable service. Only minor maintenance (such as cleaning and lubricating) is required to keep it in top working condition. Be sure to observe all maintenance procedures and safety precautions in this manual and on any safety decals located on the product and on any equipment on which the attachment is mounted.

This manual has been designed to help you do a better, safer job. Read this manual carefully and become familiar with its contents.

**WARNING!** Never let anyone operate this unit without reading the "Safety Precautions" and "Operating Instructions" sections of this manual.



Always choose hard, level ground to park the vehicle on and set the brake so the unit cannot roll.

Unless noted otherwise, right and left sides are determined from the operator's control position when facing the attachment.

**NOTE:** The illustrations and data used in this manual were current (according to the information available to us) at the time of printing, however, we reserve the right to redesign and change the attachment as may be necessary without notification.

## BEFORE OPERATION

The primary responsibility for safety with this equipment falls to the operator. Make sure the equipment is operated only by trained individuals that have read and understand this manual. If there is any portion of this manual or function you do not understand, contact your local authorized dealer or the manufacturer to obtain further assistance. Keep this manual available for reference. Provide the manual to any new owners and/or operators.

## SAFETY ALERT SYMBOL



This is the "Safety Alert Symbol" used by this industry. This symbol is used to warn of possible injury. Be sure to read all warnings carefully. They are included for your safety and for the safety of others working with you.

## SERVICE

Use only manufacturer replacement parts. Substitute parts may not meet the required standards.

Record the model and serial number of your unit on the cover of this manual. The parts department needs this information to insure that you receive the correct parts.

## SOUND AND VIBRATION

Sound pressure levels and vibration data for this attachment are influenced by many different parameters: some items are listed below (not inclusive):

- prime mover type, age, condition, with or without cab enclosure and configuration
- operator training, behavior, stress level
- job site organization, working material condition, environment

Based on the uncertainty of the prime mover, operator, and job site, it is not possible to get precise machine and operator sound pressure levels or vibration levels for this attachment.

**NOTE:** A list of all Paladin Patents can be found at <http://www.paladinattachments.com/patents.asp>.

M-934 10-22-13-5

## SAFETY STATEMENTS



THIS SYMBOL BY ITSELF OR WITH A WARNING WORD THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY OR THE SAFETY OF OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH.



### **DANGER**

THIS SIGNAL WORD INDICATES A HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, WILL RESULT IN DEATH OR SERIOUS INJURY.



### **WARNING**

THIS SIGNAL WORD INDICATES A HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN DEATH OR SERIOUS INJURY.



### **CAUTION**

THIS SIGNAL WORD INDICATES A HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN MINOR OR MODERATE INJURY.

### **NOTICE**

NOTICE IS USED TO ADDRESS PRACTICES NOT RELATED TO PHYSICAL INJURY.

## GENERAL SAFETY PRECAUTIONS

### **WARNING!**



#### **READ MANUAL PRIOR TO INSTALLATION**

Improper installation, operation, or maintenance of this equipment could result in serious injury or death. Operators and maintenance personnel should read this manual, as well as all manuals related to this equipment and the prime mover thoroughly before beginning installation, operation, or maintenance. **FOLLOW ALL SAFETY INSTRUCTIONS IN THIS MANUAL AND THE PRIME MOVER'S MANUAL(S).**



#### **READ AND UNDERSTAND ALL SAFETY STATEMENTS**

Read all safety decals and safety statements in all manuals prior to operating or working on this equipment. Know and obey all OSHA regulations, local laws, and other professional guidelines for your operation. Know and follow good work practices when assembling, maintaining, repairing, mounting, removing, or operating this equipment.



#### **KNOW YOUR EQUIPMENT**

Know your equipment's capabilities, dimensions, and operations before operating. Visually inspect your equipment before you start, and never operate equipment that is not in proper working order with all safety devices intact. Check all hardware to ensure it is tight. Make certain that all locking pins, latches, and connection devices are properly installed and secured. Remove and replace any damaged, fatigued, or excessively worn parts. Make certain all safety decals are in place and are legible. Keep decals clean, and replace them if they become worn or hard to read.

## GENERAL SAFETY PRECAUTIONS

### WARNING!



#### PROTECT AGAINST FLYING DEBRIS

Always wear proper safety glasses, goggles, or a face shield when driving pins in or out, or when any operation causes dust, flying debris, or any other hazardous material.

### WARNING!



#### LOWER OR SUPPORT RAISED EQUIPMENT

Do not work under raised booms without supporting them. Do not use support material made of concrete blocks, logs, buckets, barrels, or any other material that could suddenly collapse or shift positions. Make sure support material is solid, not decayed, warped, twisted, or tapered. Lower booms to ground level or on blocks. Lower booms and attachments to the ground before leaving the cab or operator's station.

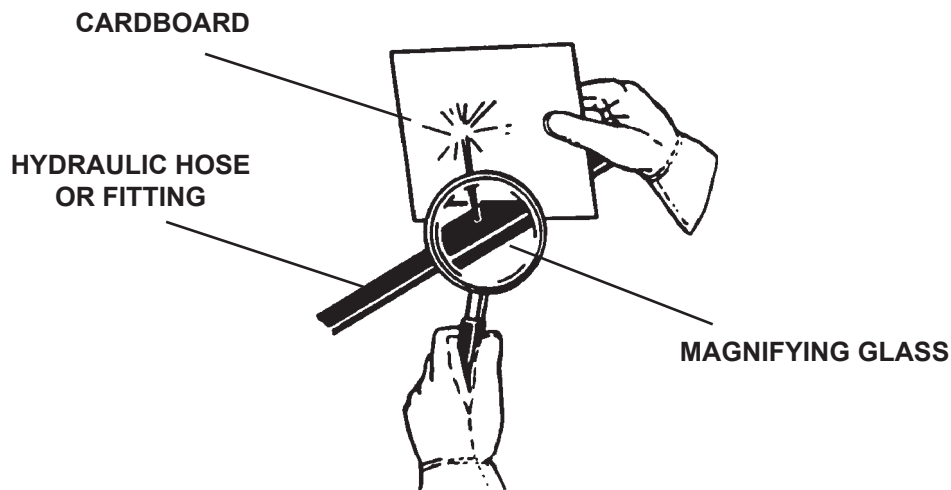
### WARNING!



#### USE CARE WITH HYDRAULIC FLUID PRESSURE

Hydraulic fluid under pressure can penetrate the skin and cause serious injury or death. Hydraulic leaks under pressure may not be visible. Before connecting or disconnecting hydraulic hoses, read your prime mover's operator's manual for detailed instructions on connecting and disconnecting hydraulic hoses or fittings.

- Keep unprotected body parts, such as face, eyes, and arms as far away as possible from a suspected leak. Flesh injected with hydraulic fluid may develop gangrene or other permanent disabilities.
- If injured by injected fluid, see a doctor at once. If your doctor is not familiar with this type of injury, ask him or her to research it immediately to determine proper treatment.
- Wear safety glasses, protective clothing, and use a piece of cardboard or wood when searching for hydraulic leaks. **DO NOT USE YOUR HANDS! SEE ILLUSTRATION.**



## GENERAL SAFETY PRECAUTIONS

### WARNING!



### DO NOT MODIFY MACHINE OR ATTACHMENTS

Modifications may weaken the integrity of the attachment and may impair the function, safety, life, and performance of the attachment. When making repairs, use only the manufacturer's genuine parts, following authorized instructions. Other parts may be substandard in fit and quality. Never modify any ROPS (Roll Over Protection Structure) or FOPS (Falling Object Protective Structure) equipment or device. Any modifications must be authorized in writing by the manufacturer.

### WARNING!



### SAFELY MAINTAIN AND REPAIR EQUIPMENT

- Do not wear loose clothing or any accessories that can catch in moving parts. If you have long hair, cover or secure it so that it does not become entangled in the equipment.
- Work on a level surface in a well-lit area.
- Use properly grounded electrical outlets and tools.
- Use the correct tools for the job at hand. Make sure they are in good condition for the task required.
- Wear the protective equipment specified by the tool manufacturer.



### SAFELY OPERATE EQUIPMENT

Do not operate equipment until you are completely trained by a qualified operator in how to use the controls, know its capabilities, dimensions, and all safety requirements. See your machine's manual for these instructions.

- Keep all step plates, grab bars, pedals, and controls free of dirt, grease, debris, and oil.
- Never allow anyone to be around the equipment when it is operating.
- Do not allow riders on the attachment or the prime mover.
- Do not operate the equipment from anywhere other than the correct operator's position.
- Never leave equipment unattended with the engine running, or with this attachment in a raised position.
- Do not alter or remove any safety feature from the prime mover or this attachment.
- Know your work site safety rules as well as traffic rules and flow. When in doubt on any safety issue, contact your supervisor or safety coordinator for an explanation.

### WARNING!



### CALIFORNIA PROPOSITION 65 WARNING

This product may contain a chemical known to the state of California to cause cancer, or birth defects or other reproductive harm. [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



## EQUIPMENT SAFETY PRECAUTIONS

### WARNING!



### KNOW WHERE UTILITIES ARE

Observe overhead electrical and other utility lines. Be sure equipment will clear them. When digging, call your local utilities for location of buried utility lines, gas, water, and sewer, as well as any other hazard you may encounter.

### WARNING!



### EXPOSURE TO RESPIRABLE CRYSTALLINE SILICA DUST ALONG WITH OTHER HAZARDOUS DUSTS MAY CAUSE SERIOUS OR FATAL RESPIRATORY DISEASE.

It is recommended to use dust suppression, dust collection and if necessary personal protective equipment during the operation of any attachment that may cause high levels of dust.

### WARNING!



### REMOVE PAINT BEFORE WELDING OR HEATING

Hazardous fumes/dust can be generated when paint is heated by welding, soldering or using a torch. Do all work outside or in a well ventilated area and dispose of paint and solvent properly. Remove paint before welding or heating.

When sanding or grinding paint, avoid breathing the dust. Wear an approved respirator. If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from area. Allow fumes to disperse at least 15 minutes before welding or heating.



### WORKING WITH THE ATTACHMENT

- Never use the attachment for a work platform or personnel carrier.
- Specified lift capacities must not be exceeded, otherwise machine stability will not be sufficient. Always observe lift capacity limits listed in machine specifications or on load charts furnished with the prime mover.
- An operator must not use drugs or alcohol, which can change his or her alertness or coordination. An operator taking prescription or over-the-counter drugs should seek medical advice on whether or not he or she can safely operate equipment.
- Always check locking pins before operating any attachment.
- Never lift, move, or swing loaded forks over anyone.
- Always space the forks correctly for the load. Loads can fall off incorrectly spaced forks. Make sure the forks are completely under the load before lifting.
- Never stack loads on uneven ground.
- Never lift a load with one fork. A load lifted with one fork can slip off and cause injury.
- Secure loads properly. Unsecured loads can fall unexpectedly.
- Do not handle round bales with fork lift tines.
- Carry the forks low for maximum stability and visibility.
- When operating on slopes, drive up and down, not across. Avoid steep hillside operation, which could cause the prime mover to overturn.
- Reduce speed when driving over rough terrain, on a slope, or turning, to avoid overturning the vehicle.



### MAINTAINING THE ATTACHMENT

- Never perform any work on the equipment unless you are authorized and qualified to do so. Always read the operator's and service manual(s) before any repair is made. After completing maintenance or repair, check for correct functioning of the attachment. If not functioning properly, always attach a "DO NOT OPERATE" tag to the machine until all problems are corrected.
- Worn, damaged, or illegible safety decals must be replaced. New safety decals can be ordered from the manufacturer.

M-1014 8-6-18-2

# INSTALLATION AND OPERATION

Car forks and frames feature a single fork shaft going full width of the carriage with shaft support plate in the center for added strength. This support also ties in the lower and upper cross-tubes in the center. Additionally, we feature a retainer device on the lower side of the carriage to hold the fork tips rigid, thereby allowing for easy crushing of the car top. A “Bat Ear” style load backrest allows for an open center for optimal visibility.

## ATTACHING AND DETACHING EQUIPMENT

Please see your vehicle operator’s manual for instructions on attaching and detaching your equipment.

### WARNING!



To prevent serious personal injury or death, only attach equipment that is designed for your prime mover.

Specified lift capacities must not be exceeded, otherwise machine stability will not be sufficient. Always observe lift capacity limits listed in machine specifications.

## OPERATING EQUIPMENT

The Car Fork Carriage was designed for picking up and moving vehicles within your lot quickly and safely. Placement of the lift pressure points on the vehicle are important, so you do not damage the undercarriage components of the vehicles. The handling of vehicles, when done properly, will result in absolutely no damage.



- Read all Safety Precautions before operating your new attachment.
- Do not overload forks.
- Approach the load slowly and carefully.
- Keep the carriage in the vertical position.
- Space forks to distribute weight evenly.
- Approach load and drop-off areas at right angles.
- After properly loaded, tilt the carriage back slightly to stabilize the load.
- Raise the load only enough to prevent dragging.
- Position the carriage vertically over the unloading spot.
- Lower the load and reverse slowly, watch for rear swing, and don’t drag the forks.
- When unloading a trailer, chock wheels, set brakes, and use jacks.
- For personal safety, lower the attachment to the ground, set the parking brake, shut off engine, and remove key before getting off of your prime mover.

# **STORAGE**

## **GENERAL INFORMATION**

The following storage procedure will help you to keep your attachment in top condition. It will also help you get off to a good start the next time your equipment is needed. We therefore strongly recommend that you take the extra time to follow these procedures whenever your attachment will not be used for an extended period of time.

## **PREPARATION FOR STORAGE**

1. Clean the attachment thoroughly, removing all mud, dirt, and grease.
2. Inspect for visible signs of wear, breakage, or damage. Order any parts required, and make the necessary repairs, to avoid delays when starting next season.
3. Tighten all loose nuts and capscrews.
4. Touch up all unpainted and exposed areas with paint, to prevent rust.
5. Replace decals, if damaged or in unreadable condition.
6. Store the attachment in a dry and protected place, with a cover, if possible. Leaving the attachment outside will materially shorten its life.

## **REMOVING FROM STORAGE**

1. Remove all protective coverings.

**THIS PAGE  
IS INTENTIONALLY  
BLANK**

## LIMITED WARRANTY

In order to provide you with the most UP-TO-DATE Warranty information, Paladin Warranty Statement and Warranty Procedures along with Warranty Registration and Claim Forms have been moved to our website at [www.paladinattachments.com](http://www.paladinattachments.com).

**THIS PAGE  
IS INTENTIONALLY  
BLANK**

## PARTS

The following section contains detailed diagrams and parts lists which include your attachment. Please use these diagrams and parts lists to locate replacement parts, prior to contacting the parts department.

When servicing your attachment, remember to use only original manufacturer replacement parts. Substitute parts may not meet the standards required for safe, dependable operation.

To facilitate parts ordering, have the model and serial number of your product ready, to ensure that you receive the correct parts for your specific attachment.

The model and serial number for your attachment should be recorded in the space provided on the cover of this manual. This information may be obtained from the serial number identification plate located on your attachment. **See the parts diagram for your attachment for the location.**

**NOTE: Most daily and emergency orders received by 2:00 P.M. will be shipped the same day received, with “Emergency-Machine-Down” orders receiving first priority.**



### PARTS DEPARTMENT

(734) 996-9116

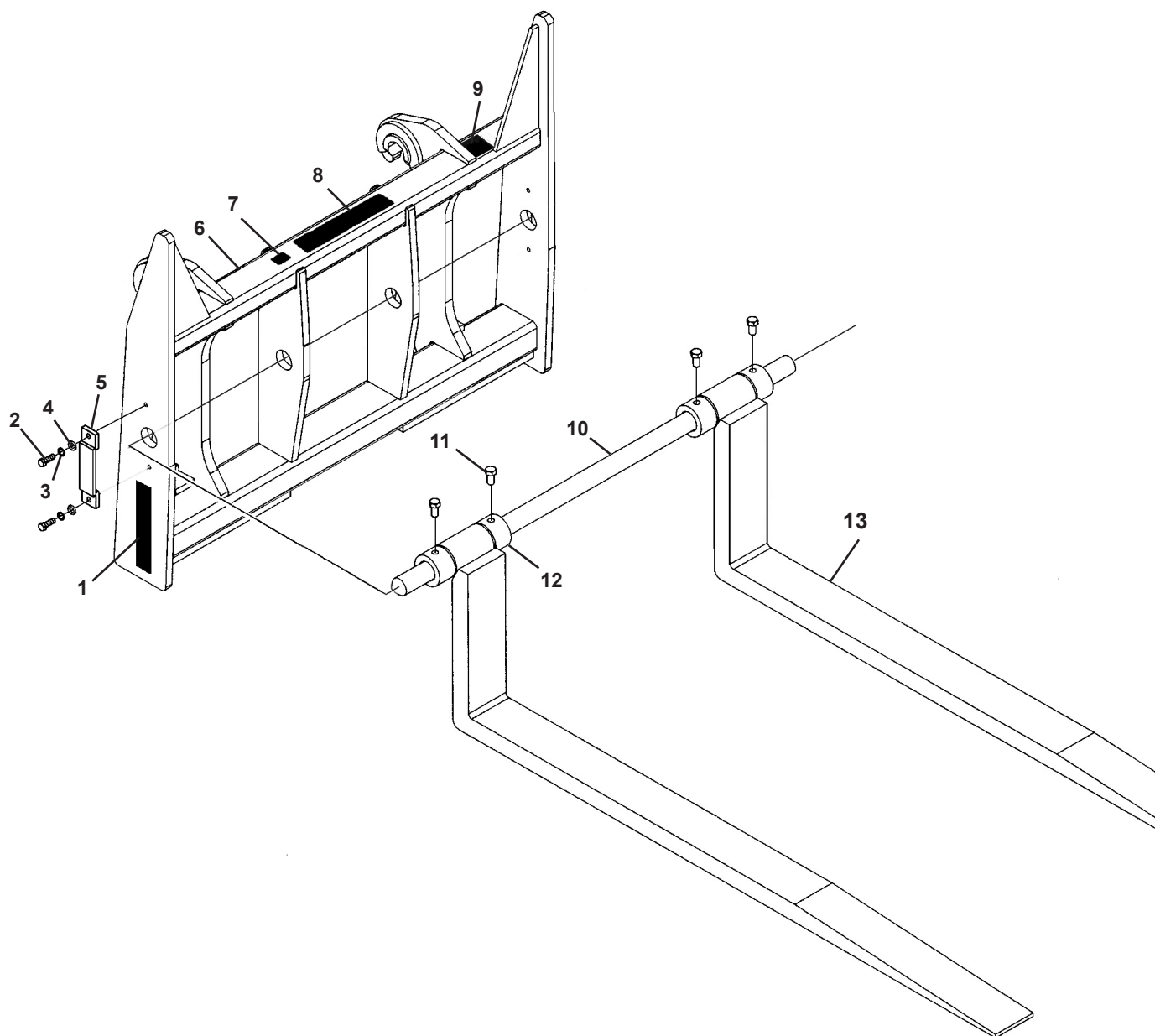
(800) 456-7100

We Encourage Fax Orders

(734) 996-9014

# CAR FORK CARRIAGE

60" WIDE - ASSEMBLY #12614





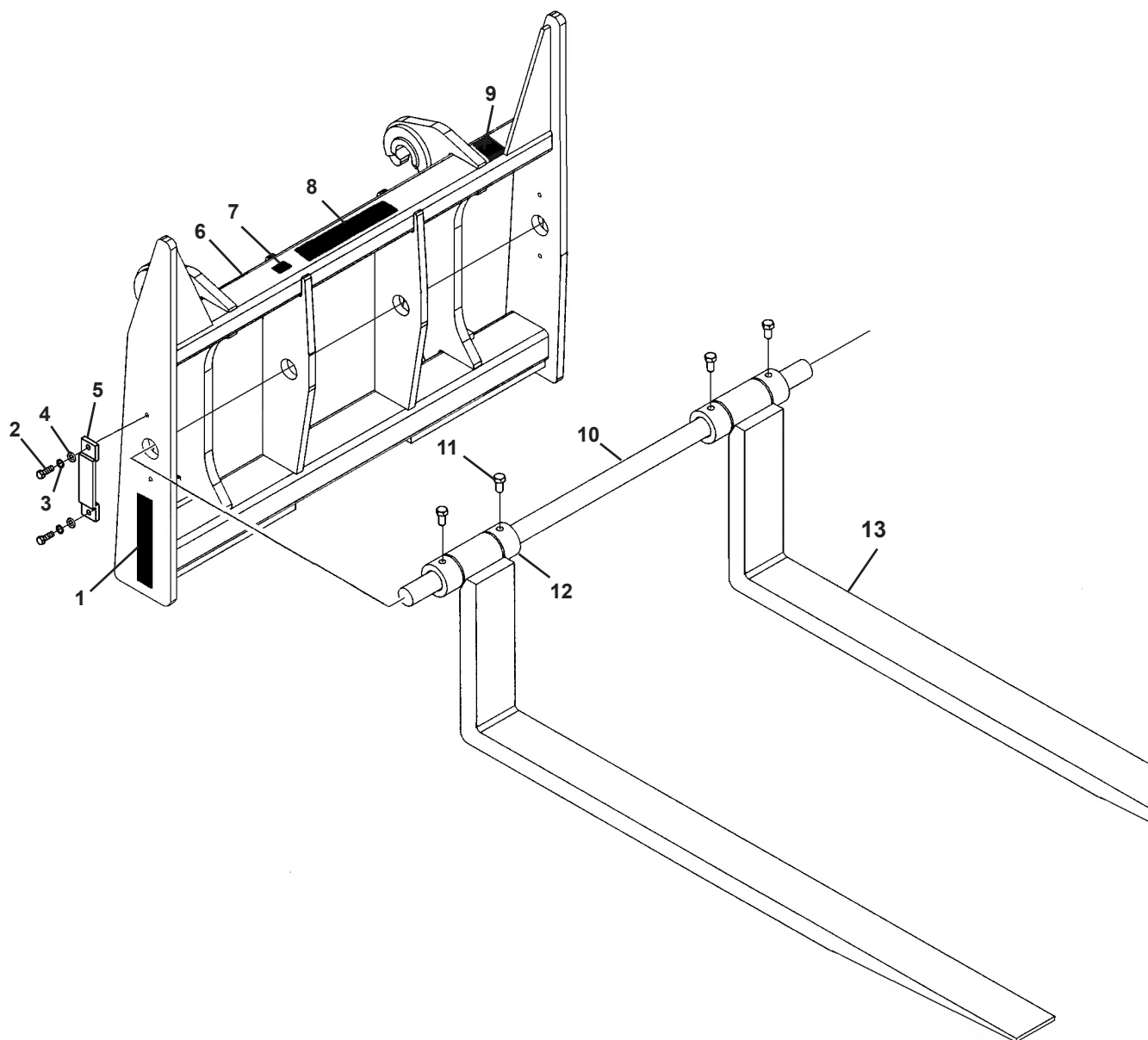
## CAR FORK CARRIAGE

60" WIDE - ASSEMBLY #12614

| <u>ITEM</u> | <u>QTY.</u> | <u>PART NO.</u> | <u>DESCRIPTION</u>                           |
|-------------|-------------|-----------------|----------------------------------------------|
| 1           | 2           | Varies          | Logo                                         |
| 2           | 2           | 1339            | .50" UNF x 1.25" Hex Capscrew                |
| 3           | 2           | 1505            | .50" Lock Washer                             |
| 4           | 2           | 1516            | .50" Flat Washer                             |
| 5           | 1           | 14002           | Fork Pin Retainer                            |
| 6           | 1           | 100180          | 60" Fork Carriage                            |
| 7           | 1           | 4338            | Made in USA Decal                            |
| 8           | 1           | Varies          | Logo                                         |
| 9           | 1           | -----           | Serial Number Identification Tag Location    |
| 10          | 1           | 17964           | Fork Pin, 2.25" x 62.50"                     |
| 11          | 4           | 1136            | .75" UNC x 1.25" Hex Capscrew                |
| 12          | 4           | 100185          | Locking Collar, 4.00" x 2.50" x 2.50"        |
| 13          | 2           | 100178          | Top Chisel Fork Tine, 2.50" x 6.00" x 84.00" |

# CAR FORK CARRIAGE

60" WIDE - ASSEMBLY #12672



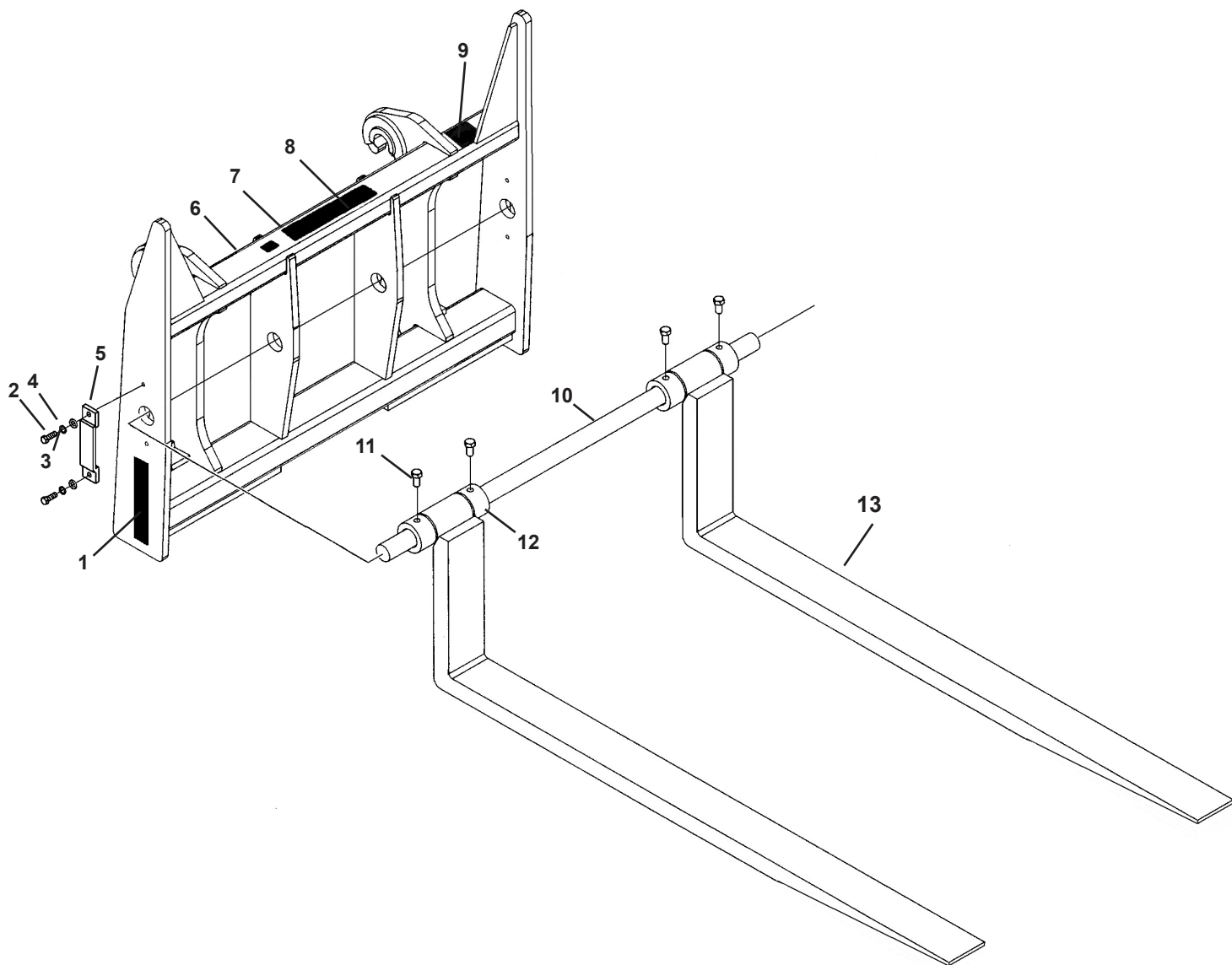
## CAR FORK CARRIAGE

60" WIDE - ASSEMBLY #12672

| <u>ITEM</u> | <u>QTY.</u> | <u>PART NO.</u> | <u>DESCRIPTION</u>                              |
|-------------|-------------|-----------------|-------------------------------------------------|
| 1           | 2           | Varies          | Logo                                            |
| 2           | 2           | 1339            | .50" UNF x 1.25" Hex Capscrew                   |
| 3           | 2           | 1505            | .50" Lock Washer                                |
| 4           | 2           | 1516            | .50" Flat Washer                                |
| 5           | 1           | 14002           | Fork Pin Retainer                               |
| 6           | 1           | 100180          | 60" Fork Carriage                               |
| 7           | 1           | 4338            | Made in USA Decal                               |
| 8           | 1           | Varies          | Logo                                            |
| 9           | 1           | -----           | Serial Number Identification Tag Location       |
| 10          | 1           | 17964           | Fork Pin, 2.25" x 62.50"                        |
| 11          | 4           | 1136            | .75" UNC x 1.25" Hex Capscrew                   |
| 12          | 4           | 100185          | Locking Collar, 4.00" x 2.50" x 2.50"           |
| 13          | 2           | 101268          | Bottom Chisel Fork Tine, 2.50" x 6.00" x 84.00" |

# CAR FORK CARRIAGE

60" WIDE - ASSEMBLY #12824



## CAR FORK CARRIAGE

60" WIDE - ASSEMBLY #12824

| <u>ITEM</u> | <u>QTY.</u> | <u>PART NO.</u> | <u>DESCRIPTION</u>                              |
|-------------|-------------|-----------------|-------------------------------------------------|
| 1           | 2           | Varies          | Logo                                            |
| 2           | 2           | 1339            | .50" UNF x 1.25" Hex Capscrew                   |
| 3           | 2           | 1505            | .50" Lock Washer                                |
| 4           | 2           | 1516            | .50" Flat Washer                                |
| 5           | 1           | 14002           | Fork Pin Retainer                               |
| 6           | 1           | 100180          | 60" Fork Carriage                               |
| 7           | 1           | 4338            | Made in USA Decal                               |
| 8           | 1           | Varies          | Logo                                            |
| 9           | 1           | -----           | Serial Number Identification Tag Location       |
| 10          | 1           | 17964           | Fork Pin, 2.25" x 62.50"                        |
| 11          | 4           | 1136            | .75" UNC x 1.25" Hex Capscrew                   |
| 12          | 4           | 100185          | Locking Collar, 4.00" x 2.50" x 2.50"           |
| 13          | 2           | 105423          | Bottom Chisel Fork Tine, 2.50" x 6.00" x 72.00" |



**(563) 922-2981**  
**(800) 456-7100**

[www.paladinattachments.com](http://www.paladinattachments.com)