



QUICK-LATCH

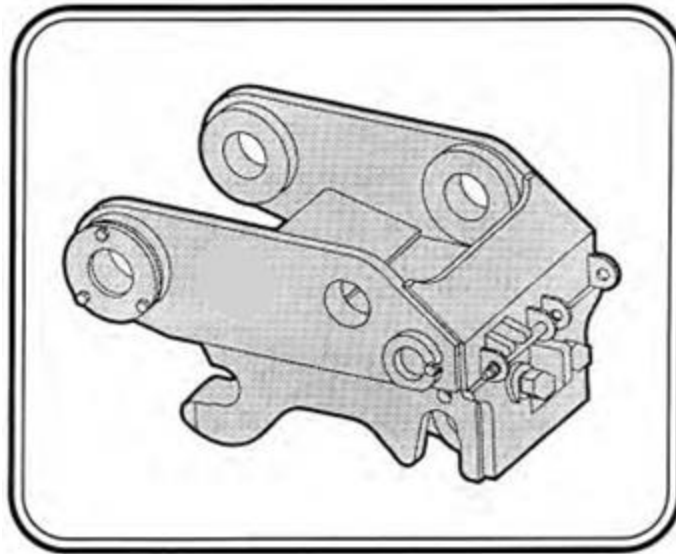
Liebherr 900 B/C Top / John Deere 595 Bottom

3000396 - QL,LIEB 900 TOP/JD 595 BOTTOM

Owner's Manual P/N 3000403

Date Code 11/24/2023

REV B



WainRoy
Tools & Attachments Division
Epiroc Drilling Tools LLC
1962 Queenland Drive
Mosinee, WI 54455
U.S. 1-800-848-3447
www.wainroy.com
Email: cesales@wainroy.com

Table of Contents

Introduction	3
Safety Practices	4
Placement of Warning Decal	6
Installation	7
Operation	8
Attachment Pickup	8
Attachment Removal	9
Maintenance	10
Storing the Quick-Latch	10
Replaceable Parts	11
Warranty	13

Introduction

Thank you for purchasing a WainRoy Equipment Company, Mini-Excavator Manual Quick-Latch. This Quick-Latch is made from the finest materials and optimum design specifications to maximize performance with compatible excavator attachments. This manual covers a wide range of quick latches. The pictures in this manual may not exactly represent the quick latch you have ordered.

Please read and understand this entire owner's manual before installing the Quick-Latch. If questions arise, contact WainRoy Equipment Company. Factory personnel are available to assist you over the phone.



WainRoy
Tools & Attachments Division
Epiroc Drilling Tools LLC
1962 Queenland Drive
Mosinee, WI 54455
U.S. 1-800-848-3447
www.wainroy.com
Email: cesales@wainroy.com

Safety Practices



This symbol means **"Attention! Become Alert! Your Safety or the Safety of Others is Involved!"** This symbol is used with the following signal words to attract attention to safety messages found in this manual. The message that follows the symbol contains important information about **Safety**. To avoid possible death or injury, carefully read and follow the messages! Be sure to fully understand the potential causes of death or injury.

The signal word is a distinctive word on safety decals and in this manual that alert the viewer to the existence and relative degree of the hazard.



The signal word **"Danger"** denotes an extremely hazardous situation exists on or near the machine, which would result in high probability of death or serious injury if proper precautions are not taken.



The signal word **"Warning"** denotes a hazard exists on or near the machine which can cause injury or death if the precautions are not taken.



The signal word **"Caution"** denotes a reminder of safety practices or directs attention to unsafe practices on or near the machine, which could result in personal injury if the proper precautions are not taken. It is impossible to compile a list of safety precautions covering all situations. However, there are basic safety precautions that **MUST** be followed during installation and operation of the Quick-Latch. Safety is **YOUR PRIME RESPONSIBILITY**, since any piece of equipment is only as safe **AS THE PERSON AT THE CONTROLS**.

With this thought in mind, this information has been provided to assist you in promoting a safe working atmosphere for yourself and those around you. It is not meant to cover every conceivable circumstance that could arise. It is intended to present basic safety precautions that should be followed during installation and operation of the Quick-Latch.

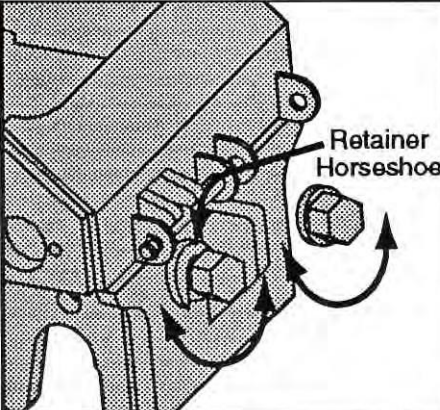
Because you are the only part of the machine that can think and reason, your responsibility is not lessened by the addition of operation aids or warning devices. You are the person who can be relied upon to ensure the safety of yourself and those around you. Be a PROFESSIONAL and follow the rules of safety.

Safety



WARNING

DO NOT RAISE THE ATTACHMENT WITHOUT THE SWING LATCH SECURED. SWING LATCH NUTS MUST BE TIGHTENED PER SPECIFICATIONS ON PAGE 8 OR ATTACHMENT CAN FALL CAUSING POSSIBLE INJURY TO PEOPLE IN VICINITY OF ATTACHMENT.





CAUTION

KEEP ALL UNNECESSARY PERSONNEL FROM INSTALLATION AREA. PERSONAL INJURY COULD RESULT.



CAUTION

IF DAMAGE OR WELD CRACKS ARE FOUND DURING A DAILY INSPECTION, DO NOT USE THE QUICK-LATCH. POSSIBLE DAMAGE TO EQUIPMENT OR PERSONAL INJURY COULD RESULT.



WARNING

Fig. 8A

CRUSHING HAZARD

-  Slide safety pin all the way right **BEFORE** swing latch is lowered over rear attachment pin.
-  Slide safety pin all the way left **AFTER** swing latch is mechanically secured to the rear attachment pin.

Latch lock arm **MUST BE ABOVE** safety pin to properly couple with attachment.

IF YOU DO NOT FOLLOW THESE INSTRUCTIONS, SEVERE INJURY OR DEATH COULD RESULT.

3035808

Placement of Warning and Operator Instruction Decals

IMPORTANT! Before using this WainRoy Quick-Latch, place the attachment warning decal (22) and the operator instruction decal (23) on the inside windows of the cab, as shown in Figure 1.

Care must be taken during operation of the excavator with Quick-Latch attached. In certain positions the bucket or attachment can contact the operator's cab and damage the cab with possible injury to the operator.

CAUTION - DO NOT USE ANY ATTACHMENT WITHOUT SAFETY LATCH PIN ENGAGED

ATTACHMENT PICKUP

- ON THE REAR OF THE LATCH, LOOSEN AND BACK OUT THE LATCH NUTS TO THE POINT WHERE THE SWING LATCH HITS THE STOP BLOCK.
- ROTATE LATCH TO VERTICAL POSITION AND ENGAGE FRONT HOOK ON PIN.



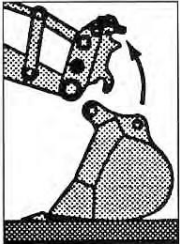
- ROTATE LATCH TO SEAT OVER REAR PIN.



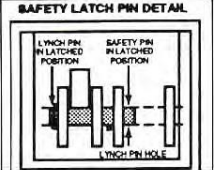
- ON THE REAR OF THE LATCH, TIGHTEN THE LATCH NUTS AND TORQUE NUTS PER SPECIFICATION ON PAGE 8, DAILY MAINTENANCE, ITEM 2.
- ENGAGE SAFETY LATCH PIN.

ATTACHMENT REMOVAL

- DISENGAGE SAFETY LATCH PIN.
- WITH ATTACHMENT ON THE GROUND, ON THE REAR OF THE LATCH, LOOSEN AND BACK OUT THE LATCH NUTS TO THE POINT WHERE THE SWING LATCH HITS THE STOP BLOCK.
- SLOWLY UNCURL ATTACHMENT. RAISE BOOM TO RELEASE ATTACHMENT FROM LATCH.



SAFETY LATCH PIN DETAIL

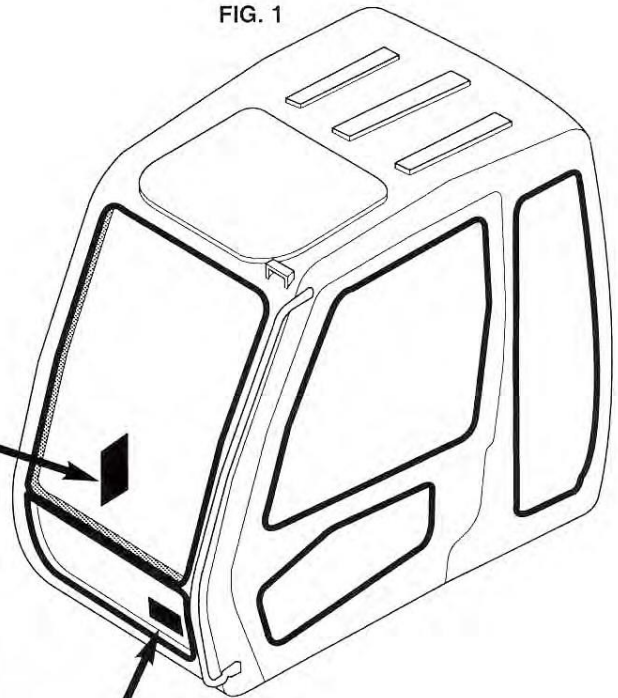


SEE OWNERS MANUAL FOR COMPLETE OPERATING INSTRUCTIONS

C319029

Place on inside lower right window.

FIG. 1



WARNING

ATTACHMENT (BUCKET, GRAPPLE, ETC.) CAN CONTACT CAB. ALWAYS MAINTAIN CLEARANCE BETWEEN ATTACHMENT AND CAB TO PREVENT DAMAGE TO CAB AND POSSIBLE INJURY. CLEARANCE WILL DECREASE WHEN WINDSHIELD IS OPEN.

C16939

Place on inside lower left windshield.

Installation

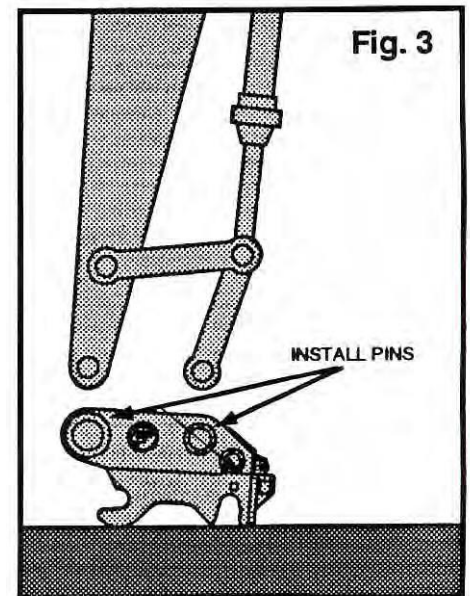
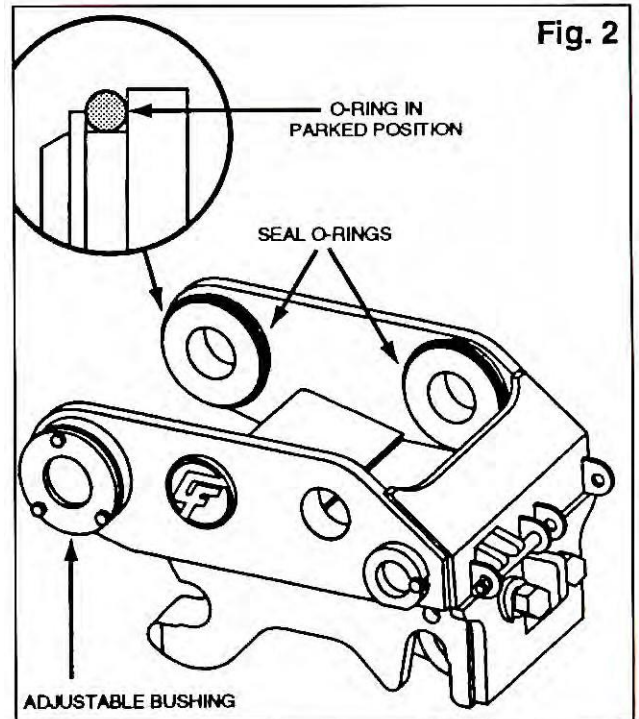


IMPORTANT! Before installing the Quick-Latch, Thoroughly clean the arm/bucket joint area at the end of the excavator arm to avoid bearing contamination.

The Quick-Latch is designed to be installed like a Bucket. Refer to any bucket mounting and setup Procedures that may be in the excavator operator's Manual.

Installation Procedure:

1. Remove existing attachment (bucket, hammer, etc.) from the excavator.
2. Remove the seal a-rings from the attachment. Clean and position them over the Quick-latch bosses and then roll them over the Quick-latch boss "park-lip" (See Figure 2).
3. Position the Quick-latch on the ground next to the end of the excavator arm. Move the excavator arm to position it over the Quick-latch (See Figure 3). lower the excavator arm and power link to align the mounting holes in the Quick-latch with holes in the arm and link. Install previously removed pins to attach Quick-latch to the arm and link.
4. The Quick-latch has an adjustable bushing (See Figure 2). Verify that the adjustable bushing is "set up" per the excavator attachment mounting specifications. Shims may have to be removed or added to meet specification.
5. Verify that excavator arm seal o-rings are properly positioned and fitted.



Operation

Attachment Pickup

1. Retract internal swing latch (item #2, parts illustration, page 9) to the "pick-up" position. Method: (See Fig. 7). On the rear of the latch, loosen and completely "back out" the latch nut that does NOT have a retainer horseshoe. Then, back out the nut that has a horseshoe to the point where the swing latch contacts the internal swing latch stop block. The Quick-Latch is ready to pick up an attachment.
2. Install and secure a set of OEM attachment mounting pins (not supplied by C.F.I.) or compatible pins in the attachments that are going to be used with the Quick-Latch.
3. Operate the excavator to position the Quick-Latch in a vertical orientation (See Fig. 4). The attachment must be level and resting securely on the ground.
4. Lower the Quick-Latch and hook the pin on the front of the attachment that is being interfaced (See Fig. 5).
5. Rotate the Quick-Latch and seat the rear of the latch over the rear attachment pin. Be absolutely sure the Quick-Latch is seated on the pin. Leave the attachment on the ground until secured (See Fig. 6).
6. Secure the attachment. Method: On the rear of the Quick-Latch, tighten the swing latch nut that has the retainer horseshoe. Then, tighten the nut that does not have a retainer horseshoe. Torque nuts per the specifications on page 8, daily maintenance, item 2. Torque the nuts more for vibratory compactor and hydraulic hammer type of attachment applications. Do not exceed the maximum torques listed on page 8.
7. Visually verify that the swing latch is seated on the rear pin of the attachment by looking down from the rear top of the Quick-Latch and by viewing the swing latch to pin engagement.

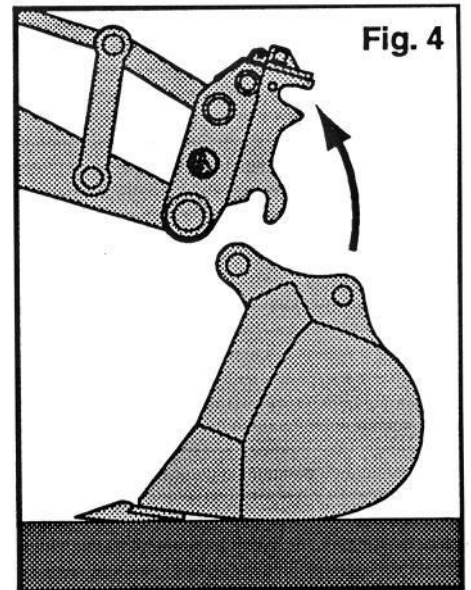


Fig. 4

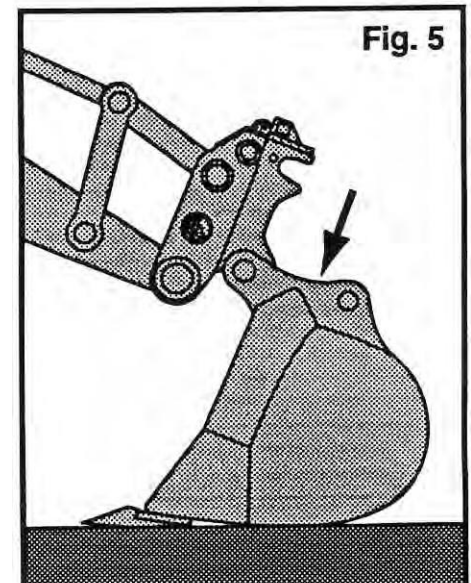


Fig. 5

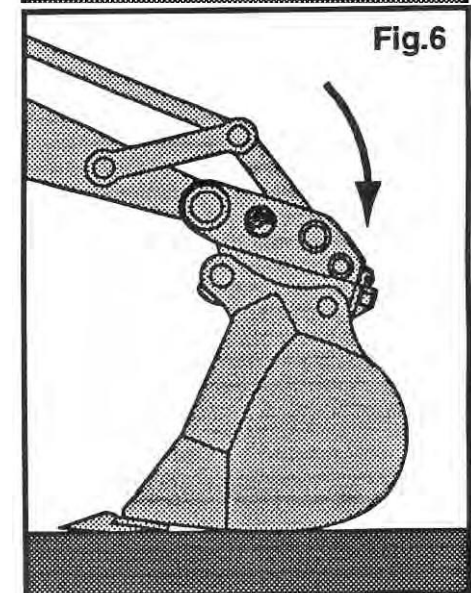


Fig. 6

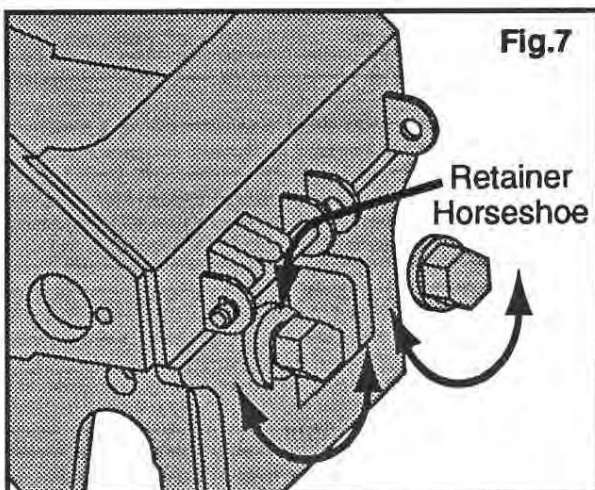


Fig. 7


DO NOT
EXCEED
TORQUE
SPEC. ON
NUTS
(SEE PAGE 8,
DAILY MAINT.
ITEM 2)

Operation



Additional Safety Information

8. At the rear of the Quick-Latch (away from the operator's seat), remove the lynch pin from the safety latch pin. Slide the safety latch pin from the rest position to the latched position (See Figure 8 & 8A). Install the lynch pin in the opposite end of the safety latch pin. **The safety latch pin is a safety device to mechanically secure the attachment in the event of the failure of the swing arm latch bolts. If the safety latch pin cannot be positioned as shown due to interference with the latch arm safety stop, this is an indication that the swing arm is not properly positioned on the bucket link pin. Before continuing, determine cause of interference and correct as necessary. The machine should not be operated without the pin in the latched position. (See Figure 8 & 8A).**

9. The attachment is now ready for use.

Attachment Removal

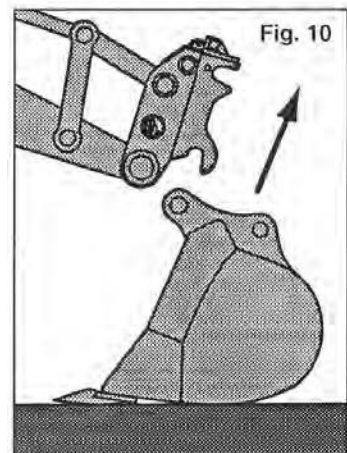
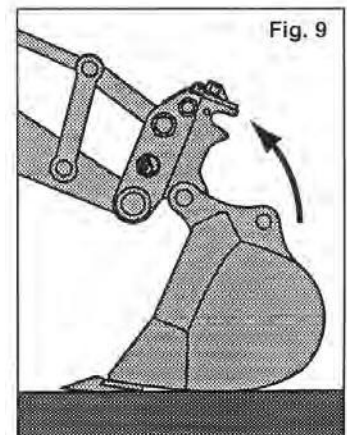
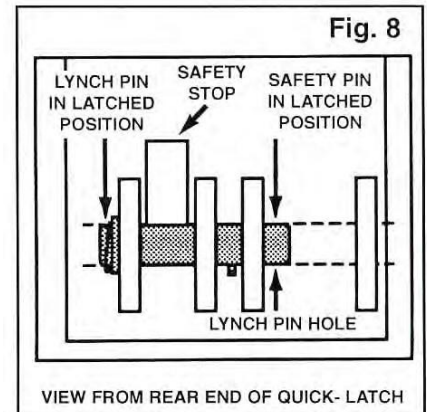


1. Place attachment on the ground and relieve the down force between the Quick-Latch and the attachment pins.

WARNING! DO NOT ATTEMPT TO REMOVE

ATTACHMENT UNTIL THIS STEP IS COMPLETE TO PREVENT UNEXPECTED MOVEMENT. RESIDUAL STATIC LOADS IN THE EXCAVATOR ARM AND BOOM MAY CAUSE THE VEHICLE AND QUICK-LATCH TO SUDDENLY MOVE UNEXPECTEDLY FROM THE REST POSITION AND CAUSE SERIOUS INJURY.

2. Remove the safety latch pin from its latched position (See Figure 8 & 8A) and install it in the rest position.
3. Retract internal swing latch (item #2, parts illustration, page 9) to the "pick-up" position. Method: (See Figure 7). On the rear of the Quick-latch, loosen and completely "back-out" the latch nut that does NOT have a retainer horseshoe. Then back out the nut that has the retainer horseshoe to the point where the swing latch contacts the internal swing latch stop block. The Quick-latch is ready for removal.
4. Operate the excavator to rotate and position the Quick-latch in a vertical orientation (See Figure 9).
5. Raise the Quick-Latch from the pin on the front of the attachment (See Figure 10)
6. Attachment removal is complete.





Maintenance

CAUTION! IF DAMAGE OR WELD CRACKS ARE FOUND DURING DAILY INSPECTION, DO NOT USE THE QUICK-LATCH. POSSIBLE DAMAGE TO EQUIPMENT OR PERSONAL INJURY COULD RESULT.

1. Visually inspect the Quick-latch for damage or weld cracks. If damage or weld cracks are found, contact WainRoy before attempting to use the Quick-latch.
2. Verify the swing latch nuts that secure the attachment to the Quick-Latch are tight. If the nuts are loose, tighten the nuts.

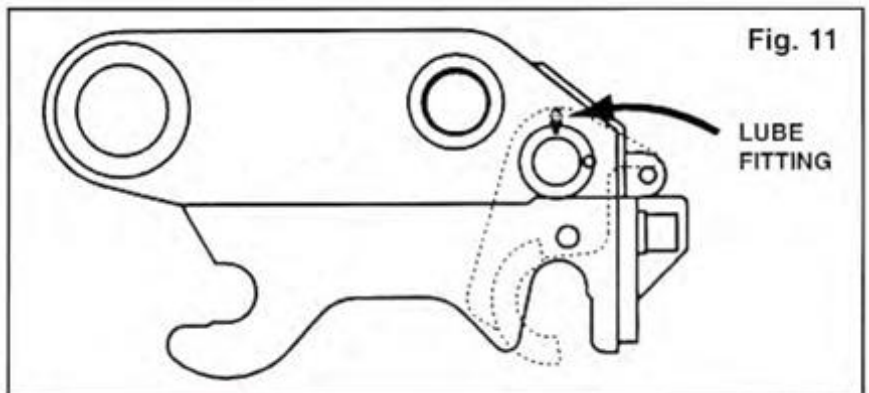
Note: Torque the swing latch nuts:

1" threads: 300-350 ft. lbs. Normal, 600 ft. lbs. maximum

1.25" threads: 600-650 ft. lbs. Normal, 1300 ft. lbs. Maximum

Weekly

1. Verify the attachment is snug and secure in the front hooks and rear saddle of the Quick-latch. If excessive looseness is noticeable, inspect the Quick-latch and attachment pins for damage or structural failure. Contact WainRoy factory personnel for assistance.
2. Inspect the swing latch nuts and swing bolts for stretch or damage to the threads. **If** the nuts or swing bolts are damaged or worn, replace immediately.
3. Unlatch and remove the attachment:
 - 3a. From the bottom side of the Quick-Latch, inspect the internal swing latch for excessive wear or damage. If damaged, replace with a new swing latch.
 - 3b. From the bottom side of the Quick-Latch, inspect the integral lifting hook for wear or damage. If damaged, contact WainRoy for repair instructions.



Monthly

1. Lubricate the swing latch pivot with a good grade of water resistant grease. Apply through lube fitting (See Figure 11).

Storing the Quick-Latch

1. Apply a light coat of oil to all exposed metal parts (nuts, bolts, hook, etc).
2. Lubricate the swing latch pivot (See Monthly Maintenance).

Fig. I

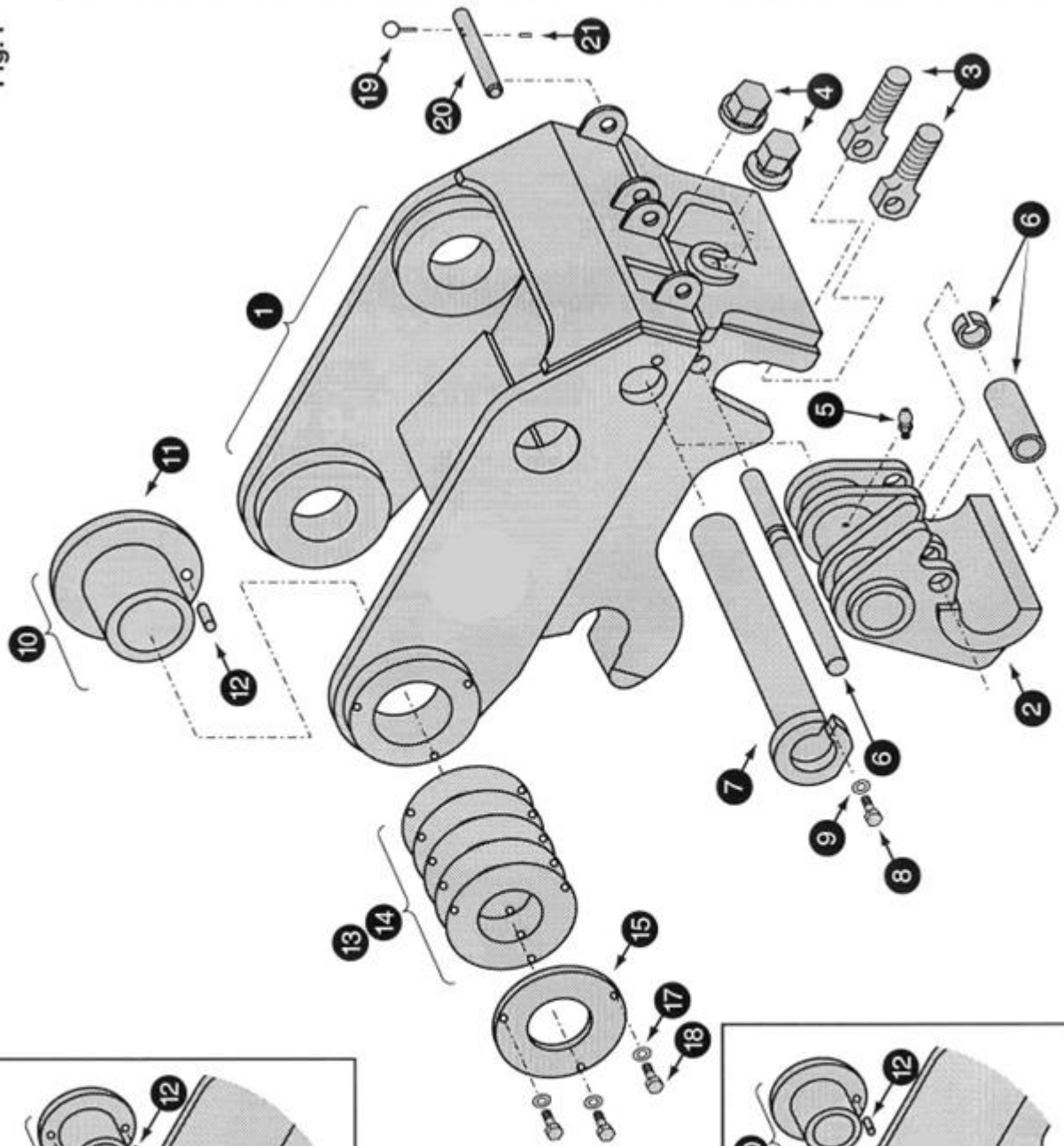


Fig. II

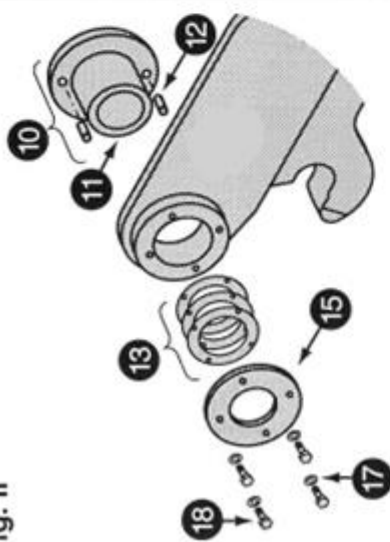


Fig. III

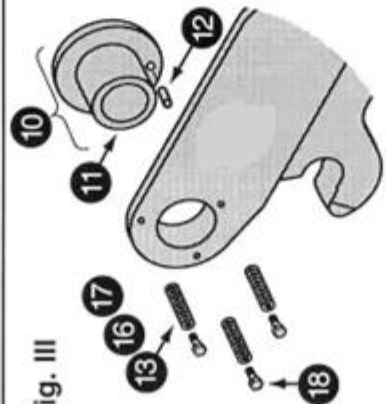
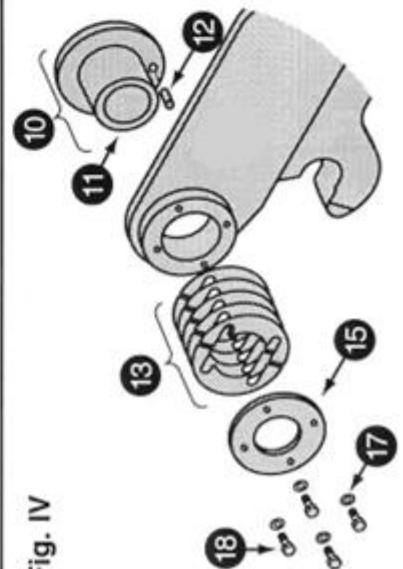


Fig. IV



Replaceable Parts List

3000396 Liebherr 900 B/C Top / John Deere 595 Bottom Quick Latch

<i>Ref. Number</i>	<i>Part Number</i>	<i>Part Description</i>	<i>Req.</i>
------------------------	------------------------	-----------------------------	-------------

See Parts Fig. 1

1	3000396	Quick-Latch Assembly (complete)	1
2	C617441	Swing Latch	1
3	C319049	Swing Latch Bolt – 1.00” – 8 UNC Thread	2
4	C11073	Swing Latch Nut – 1.00” – 8 UNC Thread	2
5	C259925	Grease Fitting - .12 NPT	1
6	C36782	Pin Kit – (includes pin, spacer, and lock ring)	1
7	C319117	Locking Pin	1
8	C257535	Capscrew - .38 – 16 UNC x 1.25 Gr 8	1
9	303154	Flat Washer	1

See Parts Fig. 1

10	NA		
11	NA		
12	NA		
13	NA		
14	NA		
15	NA		
16	NA		
17	NA		
18	NA		
19	C30108	Lynch Pin	1
20	C31586	Latch Pin	1
21	C30107	Spring Pin	1
22	C16939	Decal – (See Item 22 on Page 4)	1
23	C319029	Decal – (See Item 22 on Page 4)	1

WARRANTY

WainRoy Construction and Mining Attachments

Please Enter the Information Below and Save it For Future Reference.

Date of Purchase: _____

From (Dealer): _____

Model Number: _____

Serial Number: _____

EPIROC Drilling Tools, LLC; dba: WainRoy construction attachments, warrants this product to be free from defects in material and workmanship. Except as otherwise set forth below, the duration of this Warranty shall be for TWELVE (12) MONTHS COMMENCING ON THE INSTALLATION OF THE PRODUCTS TO THE ORIGINAL PURCHASER or FIFTEEN (15) MONTHS FROM THE ORIGINAL INVOICE DATE or 2000 HOURS OF SERVICE, whichever occurs first. Proof of the in-service date must be provided for claims involving product that originally shipped more than twelve (12) months prior to the date of the claim.

Under no circumstances will this Warranty apply if the product, in the good faith opinion of WainRoy construction attachments, has been subjected to improper operations, improper maintenance, misuse, or an accident. This Warranty does not apply if the product has been materially modified or repaired by someone other than WainRoy, a WainRoy authorized dealer or distributor, and/or WainRoy authorized service center. This Warranty does not cover normal wear or tear, or normal maintenance items. This warranty also does not cover repairs made with parts other than those obtainable through WainRoy.

This Warranty is extended solely to the original purchaser of the product. Should such original purchaser sell or otherwise transfer this product to a third party, this Warranty does not transfer to the third-party purchaser in any way. There are no third-party beneficiaries of this Warranty.

WainRoy makes no warranty, express or implied, with respect to engines, batteries, tires, or other parts or accessories not manufactured by WainRoy. Warranties for these items, if any, are provided separately by their respective manufacturers.

WainRoy's obligation under this Warranty is limited to, at WainRoy's option, the repair or replacement, free of charge, of the product if WainRoy, in its sole discretion, deems it to be defective or in noncompliance with this Warranty. The product must be returned to WainRoy with proof of purchase within thirty (30) days after such defect or noncompliance is discovered or should have been discovered, routed through the dealer and distributor from whom the purchase was made, transportation charges prepaid. WainRoy shall complete such repair or replacement within a reasonable time after WainRoy receives the product. THERE ARE NO OTHER REMEDIES UNDER THIS WARRANTY. THE REMEDY OF REPAIR OR REPLACEMENT IS THE SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE OF THIS WARRANTY. WainRoy MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND WainRoy SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY AND/OR ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

WainRoy shall not be liable for any incidental or consequential losses, damages or expenses, arising directly or indirectly from the product, whether such claim is based upon breach of contract, breach of warranty, negligence, strict liability in tort, or any other legal theory. Without limiting the generality of the foregoing, WainRoy specifically disclaims any damages relating to (i) lost profits, business, revenue, or goodwill; (ii) any expense or loss incurred for labor, supplies, substitute machinery, or rental; or (iii) any other type of damage to property or economic loss.

This Warranty is subject to any existing conditions of supply, which may directly affect WainRoy's ability to obtain materials or manufacture replacement parts.

No agent, representative, dealer, distributor, service person, or employee of any company, including without limitation, WainRoy, its authorized dealers, distributors, and service centers, is authorized to alter, modify or enlarge this Warranty.

Answers to any questions regarding Warranty service and locations may be obtained by contacting:

Epiroc Drilling Tools LLC: doing business as WainRoy
1962 Queenland Dr.
Mosinee, WI 54455
Tel: 800-848-3447



Examples of Common, Non-Covered Claims

1. The owner and operator are responsible for maintaining weld integrity on attachments subject to weld erosion from ongoing contact with soils, rocks, and other materials. Different materials have differing abrasive characteristics that will erode the structural welds of ground-engaging attachments at differing rates. Structural failures may occur as a result of excessive weld erosion. The owner and operator are responsible for maintaining necessary weld sizes and re-welding eroded welds with industry-approved procedures. WainRoy will not accept warranty claims for weld erosion or structural failures of the attachment as a result of weld erosion.
2. Attachments are used extensively in ground-engaging operations and, as a result, the teeth, tooth holders, cutting edges, bucket edges, ripper shanks, and other portions of the attachment are subject to abrasion and resulting wear. WainRoy will not accept warranty claims for wear of components or wear of areas of the attachment subject to ground-engaging wear.
3. The owner and operator are responsible for examining the attachment for any weld or structural cracking. Any such cracking caused by a defect in materials or workmanship by WainRoy will be covered under the WainRoy Warranty Policy. If the owner or operator continues to operate the attachment after weld cracking or structural cracking is visible or should have reasonably been visible, and as a result of continued operation, additional damage to the attachment results, WainRoy will not accept responsibility for the additional damage caused to other welds or to the attachment structure.
4. Materially modifying WainRoy attachments may result in premature failures of the attachment. WainRoy will not accept warranty claims on attachments that have been misapplied. For instance, using a general purpose excavator bucket in an application requiring a heavy or severe duty bucket or using the excavator bucket as a "jack hammer" to break concrete or as a "tamper" to drive rock or beams are considered misapplications.