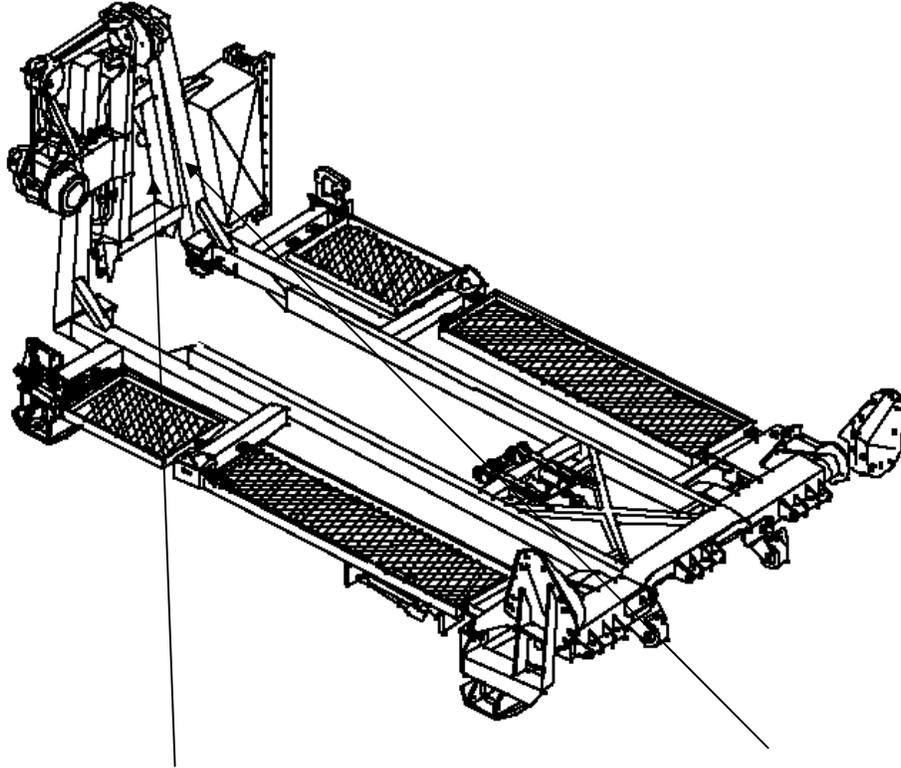


BRIDGE ADAPTER PALLET (BAP) WINCH FRAME LOCK (WFL) REPAIR



A need was identified for a better way to replace the BAP winch frame lock if it is broken during operation. The winch frame locks are occasionally broken off during operation due to improper operation of the equipment. When these locking tabs are broken off the problem becomes the inability to properly weld the locking tab back into place, due to the confined space of the welding as shown in Figure 1. This locking tab is a critical item in the loading and unloading of the Improved Ribbon Bridge from the Common Bridge Transporter, so proper welding of this tab is imperative as to not damage equipment or injure the Soldiers who are operating this equipment.

Field Maintenance:

- a. The proposed change:

This procedure shall be used in lieu of WP 0054 of TM 5-3990-263-13&P: Winch Frame Locking Lever Outboard Retainer Blocks Field Replacement.

Requisition:

- a. NSN and Part number:

An NSN has been created under the CAGE 3AR59: G.T. Machining & Fabricating Ltd.

WebFLIS
Federal Logistics Information System
WebFLIS Home

[Search again?](#) Total records = 1

Results for Part Number/CAGE Code: **A4809211/3AR59**

Part Number	Item Name	NSN
A4809211	BRACKET,EYE,NONROTATING SHAFT	3040200033567

[Search again?](#)

WebFLIS Rev 3.15.9WDSS

DLA Customer Interaction Center: 1-877-352-2255 or DSN 661-7766 Email: dlacontactcenter@dla.mil
[Privacy/Security](#) | [Accessibility](#) | [Contact Webmaster](#)

This Site Reviewed Quarterly for Accessibility Compliance
This Page Last Reviewed: July 1, 2012

Contact Information:

Robert H. West
Troop Support - Bridging
AMSTA-LCC-JW
Maintenance System Manager
BAP / IRB
Tel: (586) 467-6150
DSN: 330-6150
Fax: (586) 467-6165
robert.h.west.civ@mail.mil



BAP Winch Frame Lock Repair Installation Instructions



INITIAL SETUP

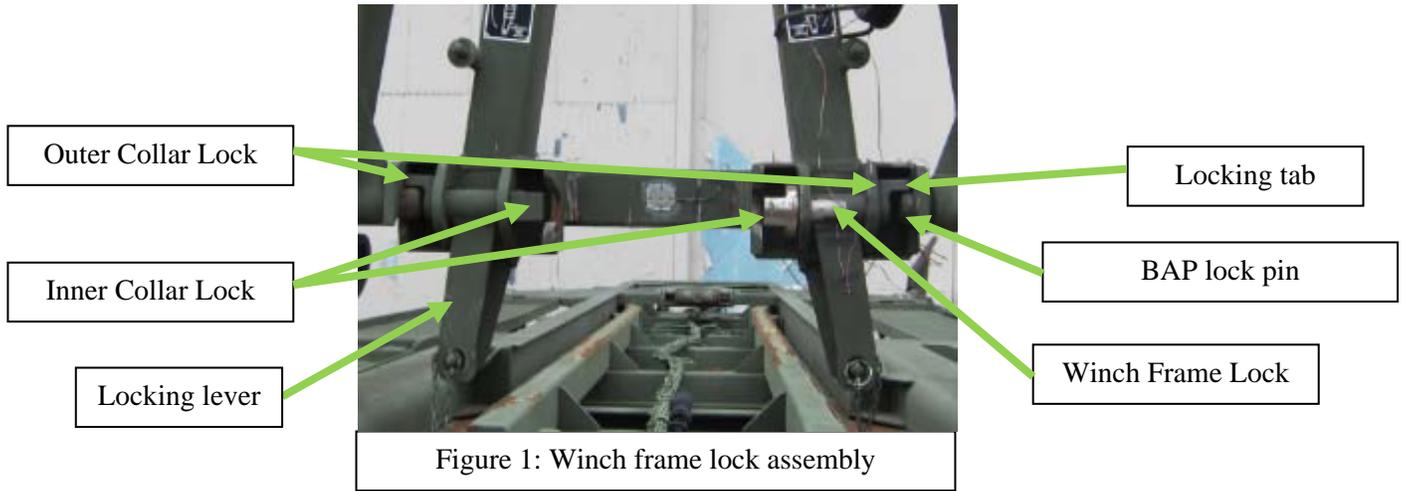
Tools/Test Equipment:

- 1ea. - M60 tanker bar
- 1ea. - Hammer
- 1ea. - Hand held center punch
- 1ea. - Die grinder
- 1ea. - 5/32" Allen Wrench
- 1ea. - Power Drill
- 1ea. - Size N (0.3150") drill bit
- 1ea. - Tape for depth marking
- 1ea. - Ruler/tape measure

Equipment Conditions:

BAP removed from CBT

DEFINITIONS



PROCEDURES

1. Remove any welds or pieces of the broken locking tab that are remaining from the failure of the winch frame lock. Use the new collar lock to check progress. Take off just enough material so the new collar lock slips completely on. It may be necessary to remove the paint around the lock pin to allow the collar lock to slip on.
 - a. Use a die grinder if needed
 - b. This is shown from Figure 2 to Figure 3



Figure 2: Pieces and welds remaining after winch frame locking tab removed with pieces and welds remaining



Figure 3: Pieces and welds removed with grinder until smooth

Note:

If replacing the outer collar lock, use steps 2 - 8

If replacing the inner collar lock, use steps 9 - 15

If replacing both collar locks, use steps 2 - **Outer lock**

2. Move the locking lever so it is in the up position and locked into place.
3. Slide the collar lock replacement over the winch frame lock.
As positioned in figure 4.

Note: If the collar lock does not fit between the winch frame lock and the BAP lock pin, use a M60 tanker bar to adjust the gap.

4. Using a punch and hammer, mark a spot in the set screw hole that is showing.
 - a. *As shown in figure 4.*
 - b. *Make sure there is enough clearance between the BAP and collar lock so the winch frame lock moves freely up and down..*

5. Remove the collar lock replacement.
6. Using tape, mark ¼” from the tip of a 0.3150” drill bit.
7. Drill out the punch marked on the bar to the ¼” mark on the drill bit.
8. Put the collar lock replacement back onto the winch frame lock.
9. Position the set screw hole over the hole that was drilled out and tighten the set screw.
10. Position the locking lever to the lowered position and lock. Repeat steps 4 through 9 for the second set screw hole.
 - a. *This position is shown in figure 6.*
11. Add Loctite #242 to the threads of the each set screw and tighten the screws to a torque of 110 in-lbs +/- 10 in-lbs until flush.
 - a. *As show in figure 5.*



Figure 4: Positioning and marking the collar lock for the first hole position.



Figure 5: Set screw is flush in place

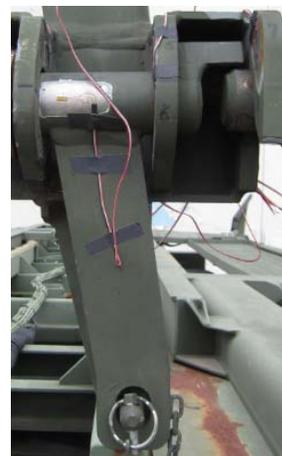


Figure 6: Locking lever in the down position

Inner lock

12. Move the locking lever so it is in the down position and locked into place.
13. Slide the collar lock replacement over the winch frame lock.
 - a. *The collar lock must be in the position as shown in figure 7.*
14. Using a punch and hammer, mark a spot in the set screw hole facing upward.
 - a. *Make sure there is enough clearance between the BAP and the collar lock before marking.*
15. Remove the collar lock replacement.
16. Using tape, mark ¼” from the tip of a 0.3150” drill bit.
17. Drill out the punch marked on the bar to ¼” mark on the drill bit.
18. Put the collar lock replacement back onto the winch frame lock.
19. Position the set screw hole over the hole that was drilled out and tighten the set screw.
20. Position the locking lever to the down position and repeat steps 13 through 19 for the other set screw hole.
 - a. *The position is shown in figure 9.*
 - b. *The set screw hole will be facing upward.*
21. Add Loctite #242 to the threads of the each set screw and tighten the screws to a torque of 110 in-lbs +/- 10 in-lbs until flush.



Figure 7: Collar lock position when the locking lever is down



Figure 8: Drilling out set screw hole



Figure 9: Collar lock position when the locking lever is up

Written By: Kyle Schubel (TARDEC Mechanical Engineer) 02-November-2012

Contact information
Email: kyle.a.schubel.civ@mail.mil
Phone: 1-586-282-6879