

Author: J. Juse	Field Modification Instruction Platform/Knuckle Link Arm Replacement	FMI 751-075 05/06/16 Rev:A
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Field Modification Instructions for Project:
Platform/Knuckle Link Arm (Extension) Replacement
For Recall Number 16E-020

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05/06/2016

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Date

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Follow all Safety Precautions before proceeding:

- All installation procedures must be performed by a Ricon dealer or qualified service technician.
- Under no circumstances is maintenance, repair, or adjustment of the product to be performed without the presence of an individual capable of giving aid.
- This lift is driven with hydraulic pressure generated by a hydraulic pump system. The fluid is highly pressurized and possibly very hot. Use extreme caution when doing maintenance and repairs. DO NOT disconnect hoses or fittings when lift is in motion.
- Give immediate attention to all injuries, and administer first-aid, or seek medical attention as necessary.
- Protective eye shields and clothing should be worn during maintenance, repair, and adjustment of the lift.
- Work in a properly ventilated area.
- Check for hidden obstructions before drilling and cutting. Avoid interference with wiring, fuel tank, fuel lines, hydraulic lines, subfloor members, etc.
- Read and understand all instructions before attempting to operate the product.
- Read and understand all instructions before attempting to perform maintenance, repairs, or adjustments to the product.
- Read and comply with warning labels attached to ramp.
- All wheelchair lift models and configurations may not be mentioned in this Field Modification Instruction. Refer to the corresponding service manual related to your lift for maintenance and adjustments. Go to www.riconcorp.com or call Ricon Customer Service at 1-800-322-2884.

Subject: Recall Number 16E-020 – Platform & Knuckle Link Arm (Extension). Occurrence of Fatigue Cracks in certain S-Series Wheelchair Lifts.

Reason: Under certain conditions present in some applications, the platforms included on the potentially affected, S-Series model wheelchair lifts can exhibit cracking of the platform pivot plate while in the stowed position which, if left unchecked, can propagate to the point where separation of the rear portion of the pivot plate occurs rendering the lift potentially inoperable and possibly unsafe for the operator.

These instructions and the material herein referenced are intended to mitigate the circumstances that can potentially precipitate the referenced cracking, bent knuckle link arms or DU bearings that have fallen out are the subject of Ricon Recall Extension 16E-020.

Affected Units:

Ricon DOT Public Use, "S" 2000 and 5500 Series lifts manufactured after January 1, 2006 equipped with platforms measuring 32"x51" and 34"x54". The affected population is comprised of six (6) primary model numbers:

S2005-XXXXXXXX	S5010-XXXXXXXX
S2010-XXXXXXXX	S5505-XXXXXXXX
S5005-XXXXXXXX	S5510-XXXXXXXX

Approximate completion time: 30 min – 2 Hours (Contingent upon inspection of affected unit)

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Parts required:

Platform assembly or Platform weldment or
Knuckle Link Arm Assembly

LIFT SERIES	KIT P/N	DESCRIPTION	QTY
S2005	RI55999	KIT, RETROFIT, LINK ARM SET, S2000	1
S2010	RI55999	KIT, RETROFIT, LINK ARM SET, S2000	1
S5005	RI58701	KIT, RETROFIT, LINK ARM SET, S5000	1
S5010	RI58701	KIT, RETROFIT, LINK ARM SET, S5000	1
S5505	RI55997	KIT, RETROFIT, LINK ARM SET, S5500	1
S5510	RI55997	KIT, RETROFIT, LINK ARM SET, S5500	1
Titanium	RI58367	KIT, RETROFIT, LINK ARM SET, Titanium	1

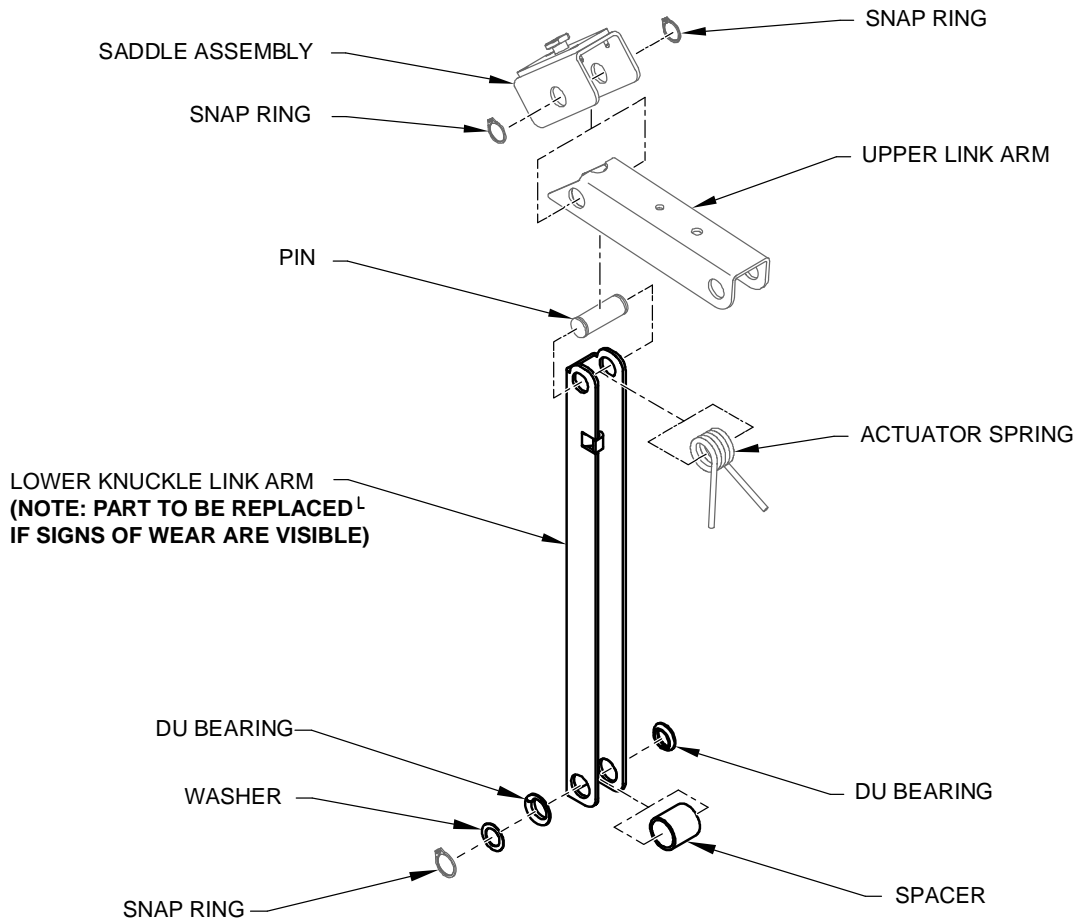


Figure 2. Left Hand Knuckle Link Arm Assembly (Shown)

RSM0071600

Note: Follow all safety practices before attempting to work on wheelchair lift.

Tools required:

- Phillips Screwdriver
- Snap Ring Pliers, Right Angle
- Rubber Mallet

I. PLATFORM ASSEMBLY REMOVAL/INSTALLATION

Apply power to lift then deploy and lower platform out to ground level, onto a pallet. Refer to **Figure 1**.

NOTE: If the wheelchair lift is under warranty, then a platform assembly is replaced. If the wheelchair lift is not under warranty, only a platform weldment is provided. Sub-assemblies (i.e. bridgeplate, rollstop and hardware) will require transfer from old platform to new platform weldment. Refer to your service manual that pertains to your wheelchair lift.



Figure 1. Lower Platform onto Pallet

A. PLATFORM REMOVAL

1. Refer to **Figure 2**. Manually raise platform approximately 6 inches to access bottom of platform.

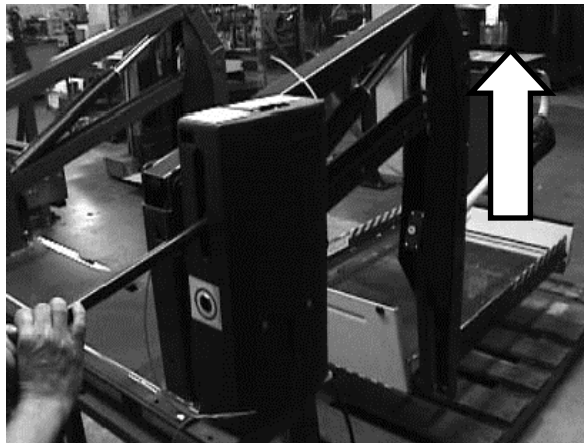


Figure 2. Raise Platform

2. Refer to **Figure 3**. Locate set screw under the vertical arm. Remove and retain for re-installation.

Field Modification Instruction Platform/Knuckle Link Arm Replacement

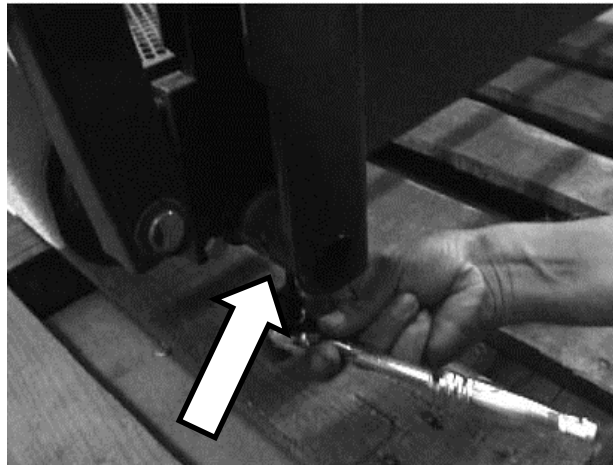


Figure 3. Set Screw 1 under Vertical Arm

3. Refer to **Figure 4**. Locate second set screw under the vertical arm. Remove and retain for re-installation.

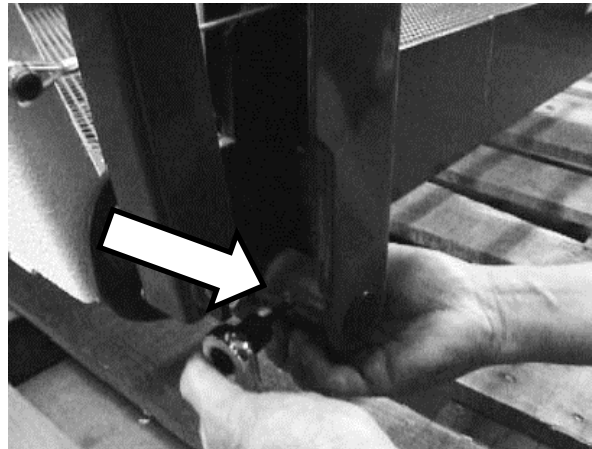


Figure 4. Set Screw 2 under Vertical Arm

4. Lower platform onto pallet as shown in **Figure 1**.
5. Refer to **Figure 5**. Remove pinch point shields to access knuckle link arms.

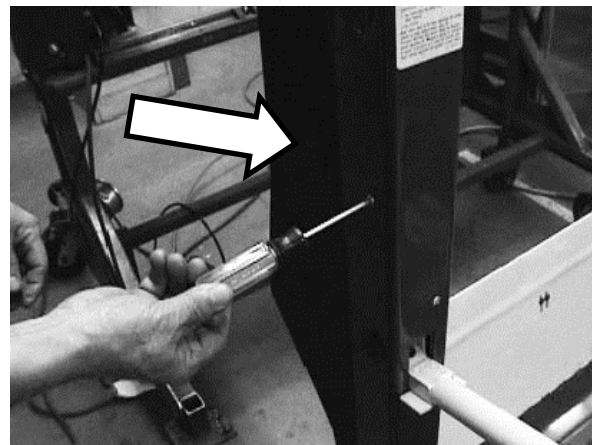


Figure 5. Remove Pinch Point Shields

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6. Refer to **Figure 6**. Locate Lower Knuckle Link Arm Snap Ring near the bottom of the vertical arm then remove and retain Snap Ring for re-installation.

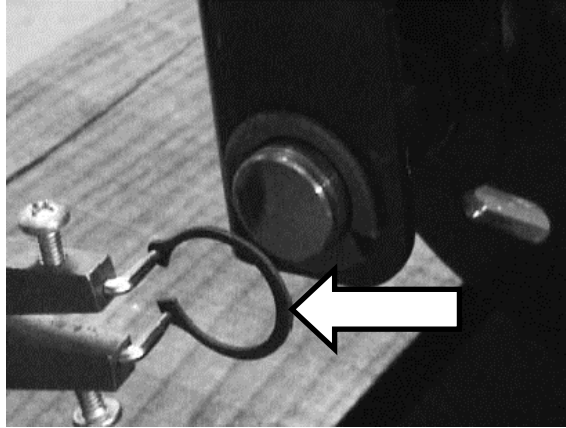


Figure 6. Lower Knuckle Link Arm Snap Ring, Bottom

7. Refer to **Figure 7**. Remove and retain Pin Link Screw then attach Pin Link Bullet.

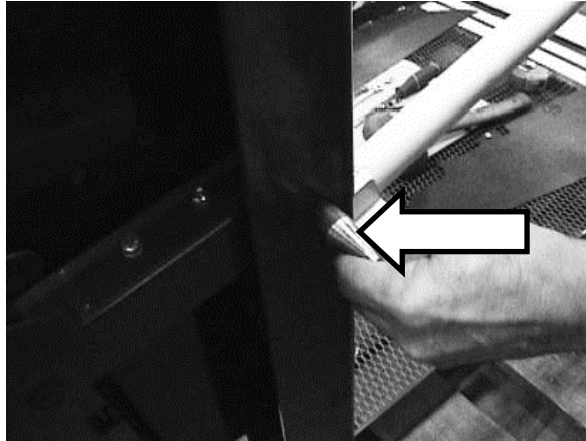


Figure 7. Remove Screw, Attach Bullet

8. Refer to **Figure 8**. Use a rubber mallet to drive out Pin Link.

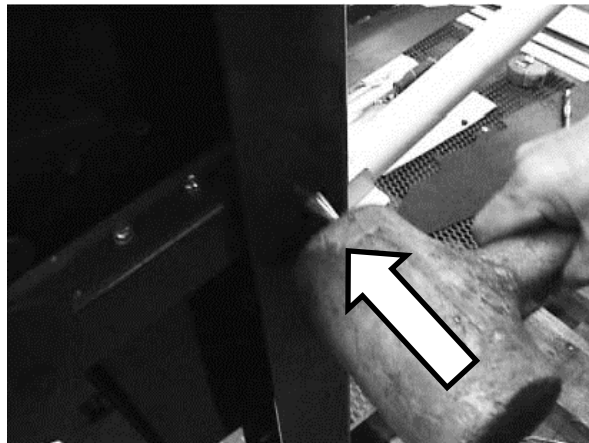


Figure 8. Punch out Link Pin

9. Refer to **Figure 9**. Remove and retain two (2) spacers.

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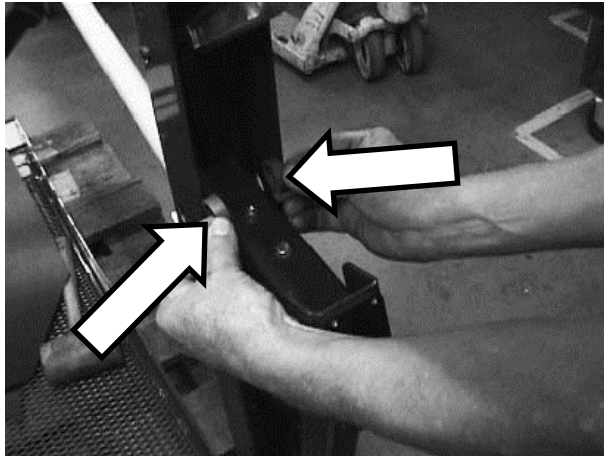


Figure 9. Remove Spacers

10. Refer to **Figure 10**. Detach the knuckle link arm from the platform stud.

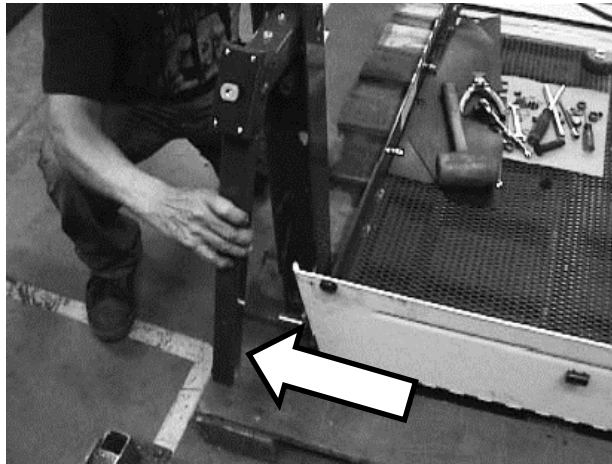


Figure 10. Detach Knuckle Link Arm

11. Repeat Steps 2 through 10 for opposite side vertical arm.
12. Refer to **Figure 11**. Remove and retain bridgeplate cable hardware.

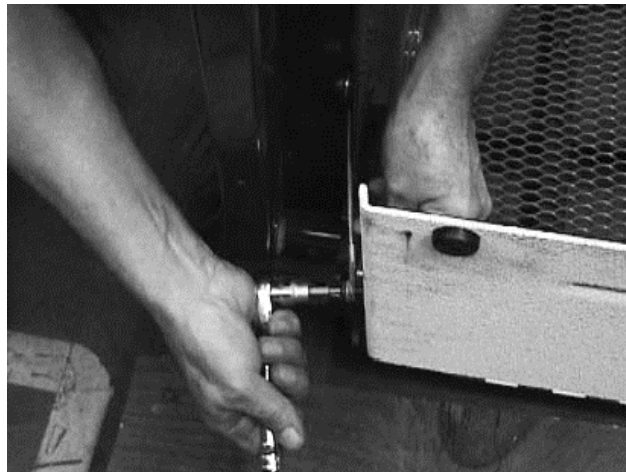


Figure 11. Detach Bridgeplate

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13. Refer to **Figure 12**. Use a rubber mallet and cylinder to drive main shaft out from vertical arm.

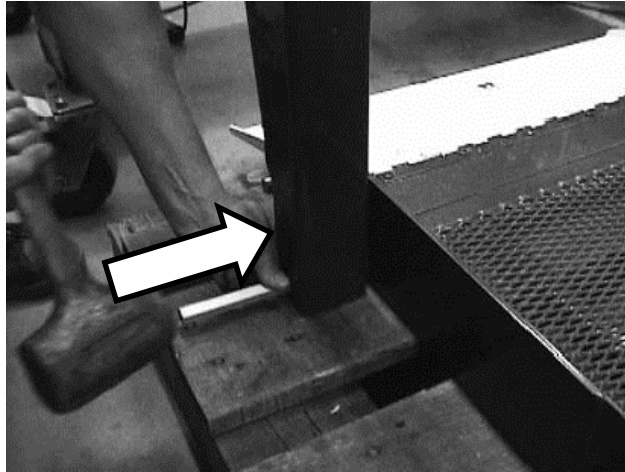


Figure 12. Drive Out Main Shaft

14. Refer to **Figure 13**. Close the release valve then pump to raise left vertical arm from platform.

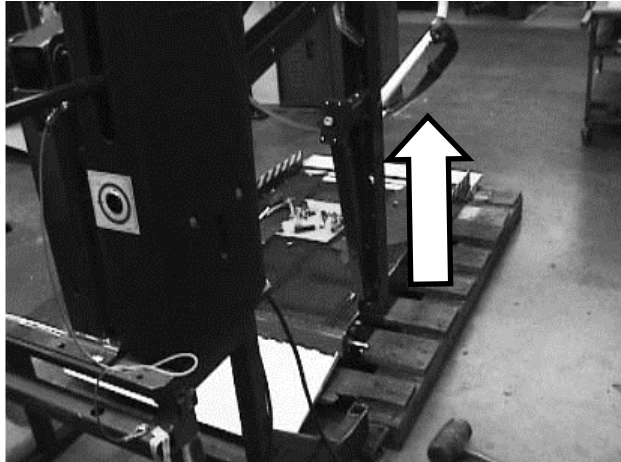


Figure 13. Raise Left Vertical Arm

15. Refer to **Figure 14a** and **Figure 14b**. Use a cylinder to drive main shaft out from right vertical arm.

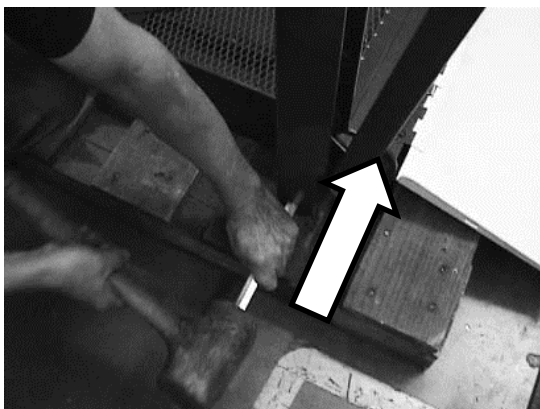


Figure 14a. Drive Out Main Shaft

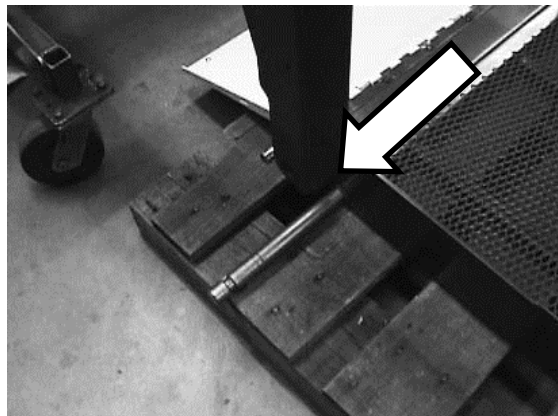


Figure 14b. Main Shaft

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16. Refer to **Figure 15**. Raise right vertical arm to detach from platform.

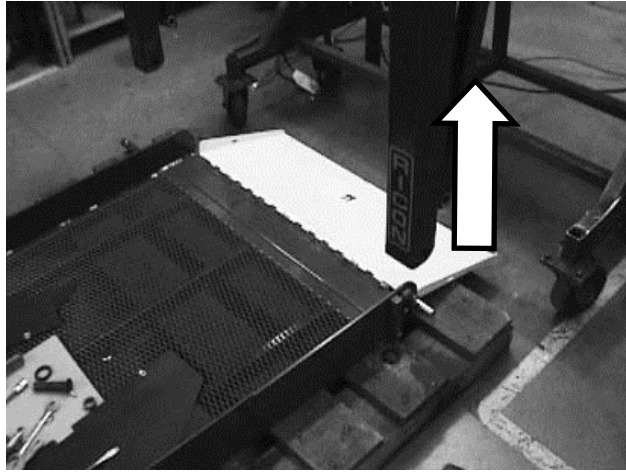


Figure 15. Raise Left Vertical Arm

17. Refer to **Figure 16**. Remove and discard damaged platform weldment.



Figure 16. Discard Damaged Platform

B. PLATFORM INSTALLATION

Ensure that wheelchair lift is prepared for the platform installation by raising vertical arms approximately 6 inches above pallet with platform assembly. Remove power.

1. Refer to **Figure 17**. Align the new platform assembly or weldment with vertical arms.



Figure 17. Platform Installation

2. Refer to **Figure 18**. Open the release valve then lower vertical arms next to platform.

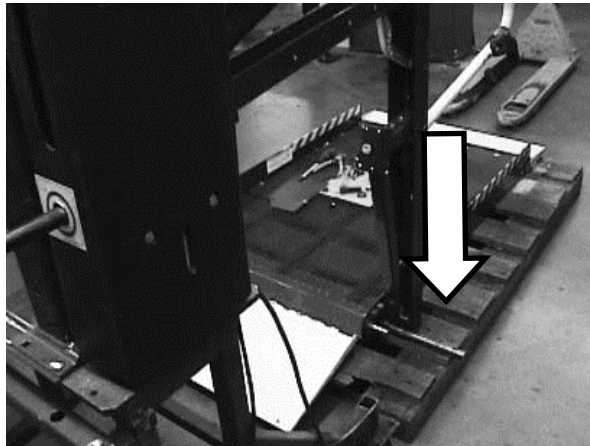


Figure 18. Lower Vertical Arms onto Pallet

3. Align right lower vertical arm opening with platform main shaft.
4. Refer to **Figure 19**. Use a rubber mallet to drive the main shaft partially through platform. Only drive the main shaft out to the edge of the platform opening.
5. Verify the alignment of the lower vertical arm opening with the main shaft.

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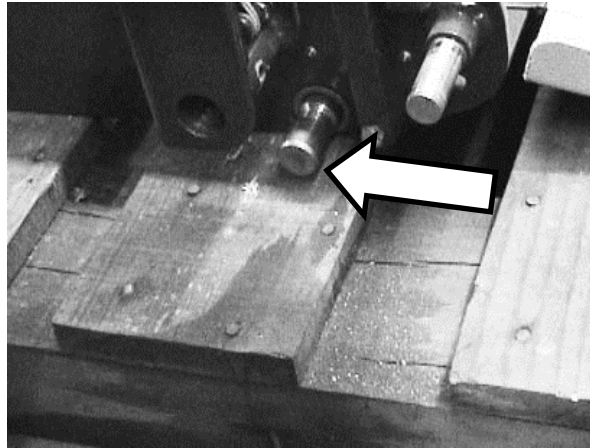


Figure 19. Align Main Shaft with Vertical Arm

6. Refer to **Figure 20**. Add the spacer onto the main shaft then align and insert the main shaft in the lower vertical arm opening.

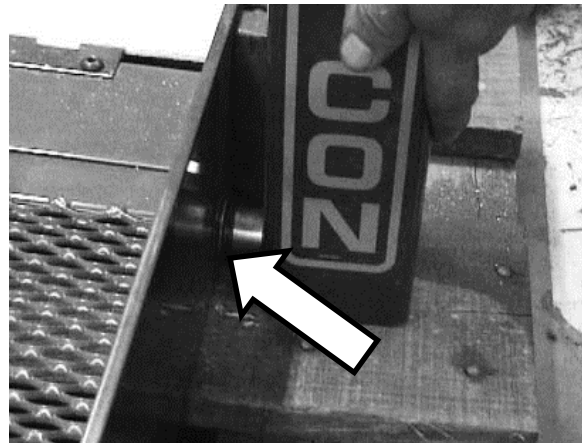


Figure 20. Insert Main Shaft into Vertical Arm

7. Use a rubber mallet and drive the main shaft through pallet and into the lower vertical arm opening.
8. Refer to **Figure 21**. Verify the lower vertical arm opening with the main shaft on the opposite side of the platform. Add spacer onto the main shaft then insert into vertical arm opening.

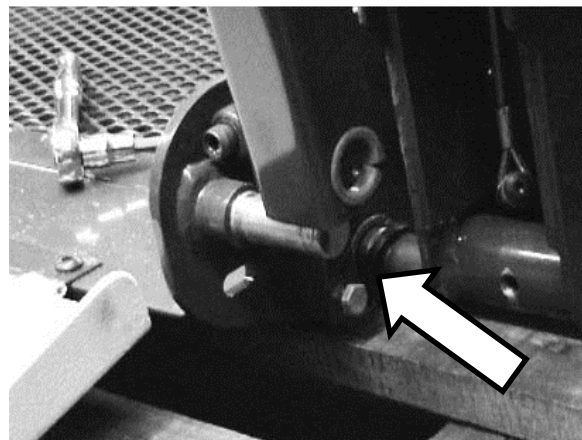


Figure 21. Align Main Shaft with Vertical Arm

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9. Refer to **Figure 22**. Insert lower Knuckle Link Arm onto platform stud.

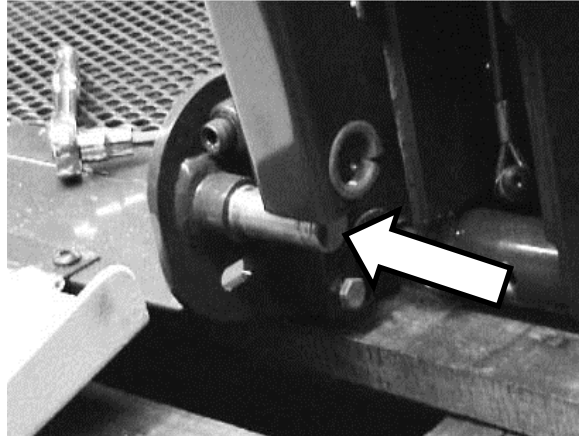


Figure 22. Knuckle Link Arm Platform Stud

10. Re-install snap ring onto lower knuckle link arm as shown in **Figure 6**.
11. Refer to **Figure 23**. Re-install two (2) spacers between the vertical arm and upper knuckle link arm.

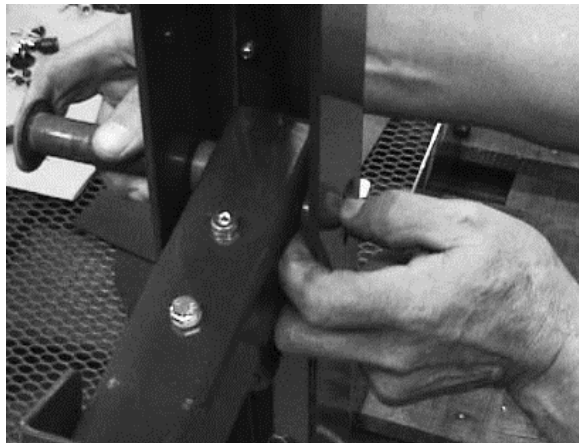


Figure 23. Align Pin Link with Vertical Arm and Knuckle Link Arm

12. Refer to **Figure 24**. Align pin link then re-install by driving the pin link through the vertical arm and upper knuckle link arm with a rubber mallet.



Figure 24. Pin Link Installation

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13. Remove the pin link bullet then re-install screw and washer hardware.
14. Repeat steps B.6 through B.13 for the opposite side of the wheelchair lift platform.
15. Re-install bridgeplate cable and hardware as shown in Figure 11.
16. Re-install pinch point shields.
17. Raise platform approximately 6 inches above pallet. Re-install set screws located on the bottom and rear of lower vertical arm as shown in Figures 3 and 4.
18. Perform platform level adjustments as described in the associated service manual for your lift.
19. Perform platform weight adjustment as described in the associated service manual for your lift.
20. Cycle wheelchair lift 3-4 cycles to ensure that platform is properly functioning for stow and deploy functions.

II. KNUCKLE LINK ARM ASSEMBLY REMOVAL/INSTALLATION
A. KNUCKLE LINK ARM REMOVAL

1. Refer to **Figure 25**. Locate Lower Knuckle Link Arm Snap Ring, bottom then remove Snap Ring. Retain Snap Ring for re-installation.



Figure 25. Lower Knuckle Link Arm Snap Ring, Bottom

2. Refer to **Figure 26**. Locate Upper/Lower Link Arm joint then remove Snap Ring. Retain Snap Ring for re-installation.

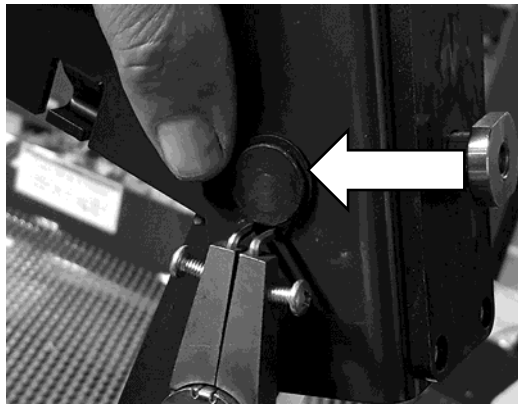


Figure 26. Lower Knuckle Link Arm Snap Ring, Top

3. Refer to **Figure 27**. Remove pin from Link Arm/Saddle Assembly.



Figure 27. Saddle Pin

4. Refer to **Figure 28**. Remove and retain actuator spring for reuse.

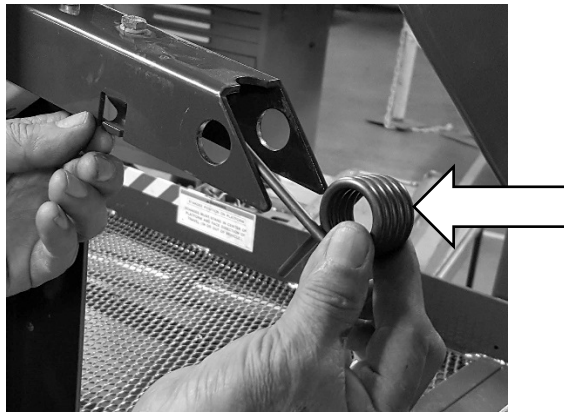


Figure 28. Actuator Spring

5. Refer to **Figure 29**. Remove Lower Knuckle Link Arm from platform pivot pin.

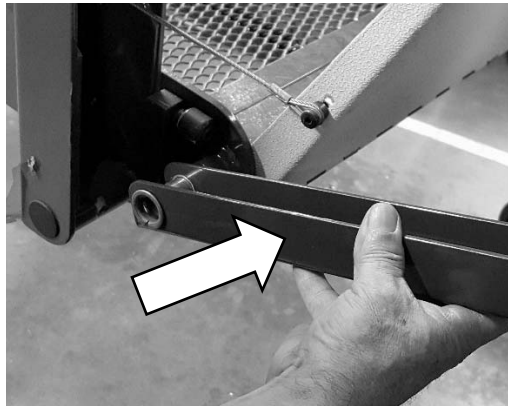


Figure 29. Lower Knuckle Link Arm

C. KNUCKLE LINK ARM ASSEMBLY INSTALLATION

1. Refer to **Figure 30**. Slide lower portion of Knuckle Link Arm onto platform pivot.

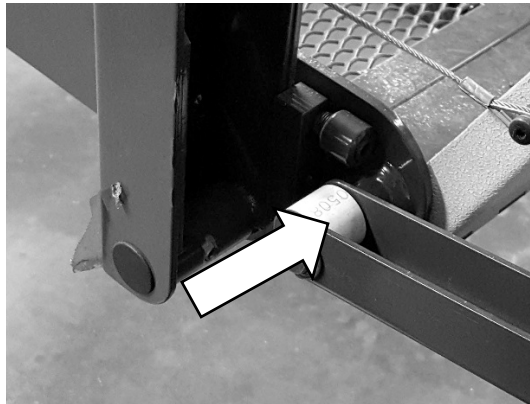


Figure 30. Ensure Bushing Installs Correctly

2. Refer to **Figure 31**. Re-install one (1) 3/4" flat washer over platform pivot and re-install snap ring.

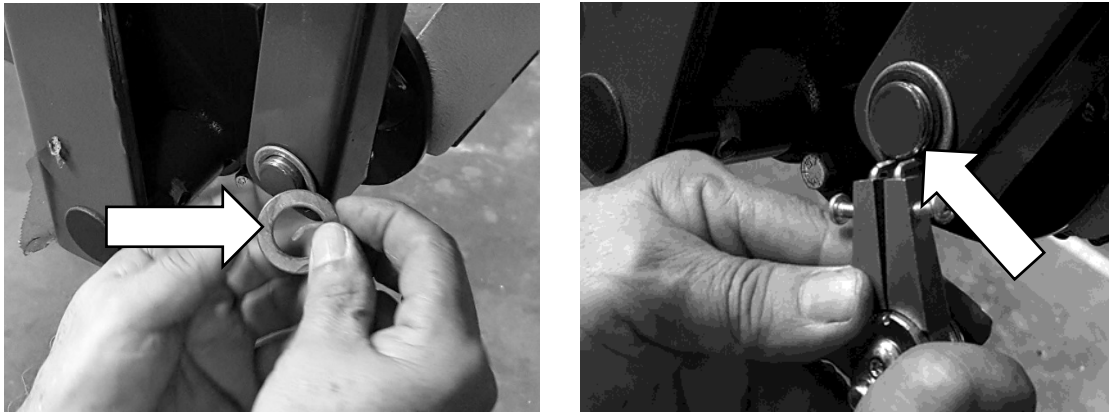


Figure 31. Install Washer and Snap Ring

3. Refer to **Figure 32**. Re-install actuator spring on upper portion of Link Arm.

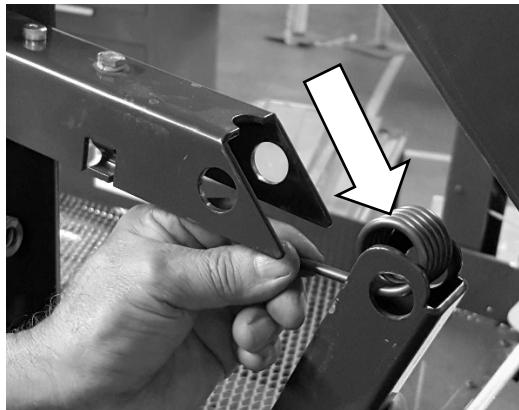


Figure 32. Install Actuator Spring

4. Re-install actuator spring on Upper Link Arm and install Saddle Assembly.
5. Re-install pin through upper portion of Knuckle Link assembly then re-install snap ring.
6. Repeat the steps 1-5 for the opposite Lower Knuckle Link Arm installation.
7. Re-install pinch point shields.
8. Perform stow and deploy cycle 2-3 times to ensure the wheelchair lift is working properly.