

# Back Lift Cylinder Replacement Kit [002-2069-00] Carriage Roller Replacement Kit [002-2074-00]

## Components:

Refer to last page

## Special Tools:

Torque wrench

Language of origin: English

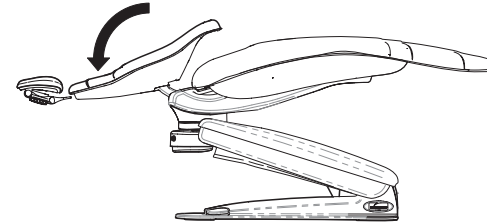
### Note

For carriage roller kit, complete Steps 1-6 then Step 14.  
Torque wrench should be capable of 33 ft-lbs (44.7 Nm).

**Step 1: Inspect components (See back page).**

### Step 2: Position chair.

- A) Move the chair back to FULL DOWN position.
- B) Raise / lower the chair to a comfortable working height.

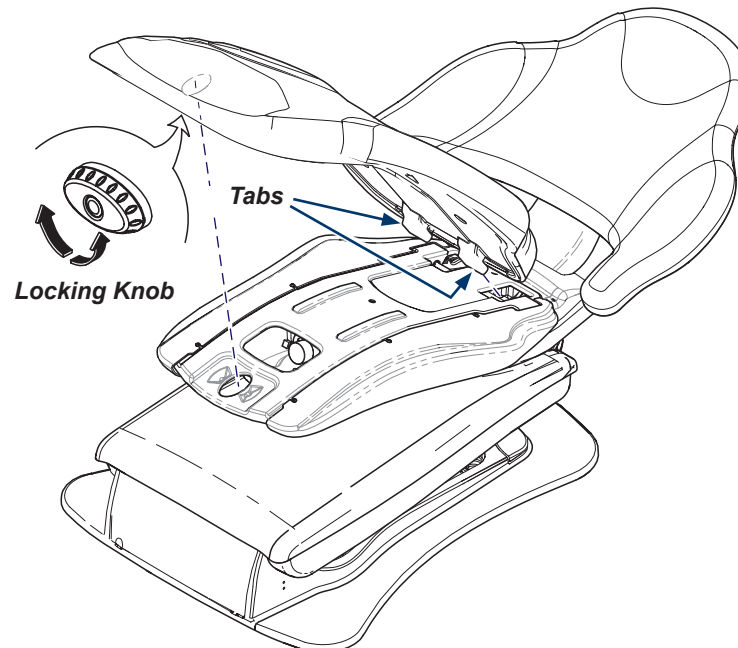


### WARNING

Always disconnect the power source before removing any covers. Failure to do so may result in personal injury.

### Step 3: Remove seat upholstery.

- A) Disconnect power source.
- B) Rotate seat locking knob.
- C) Lift seat upholstery, then pull to release tabs from frame.



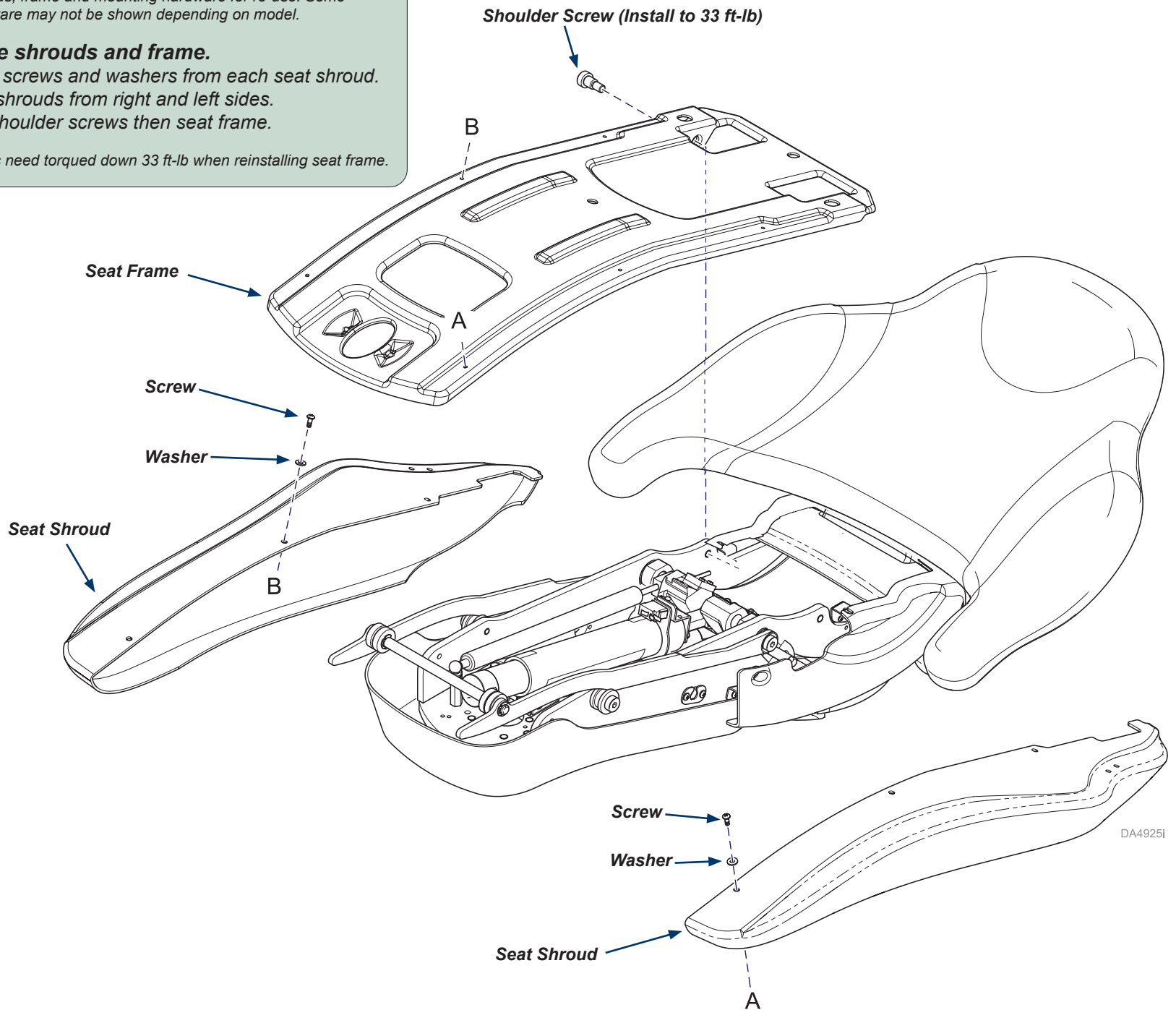
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Note: Retain all shrouds, frame and mounting hardware for re-use. Some mounting hardware may not be shown depending on model.

**Step 4: Remove shrouds and frame.**

- A) Remove three screws and washers from each seat shroud.
- B) Remove seat shrouds from right and left sides.
- C) Remove two shoulder screws then seat frame.

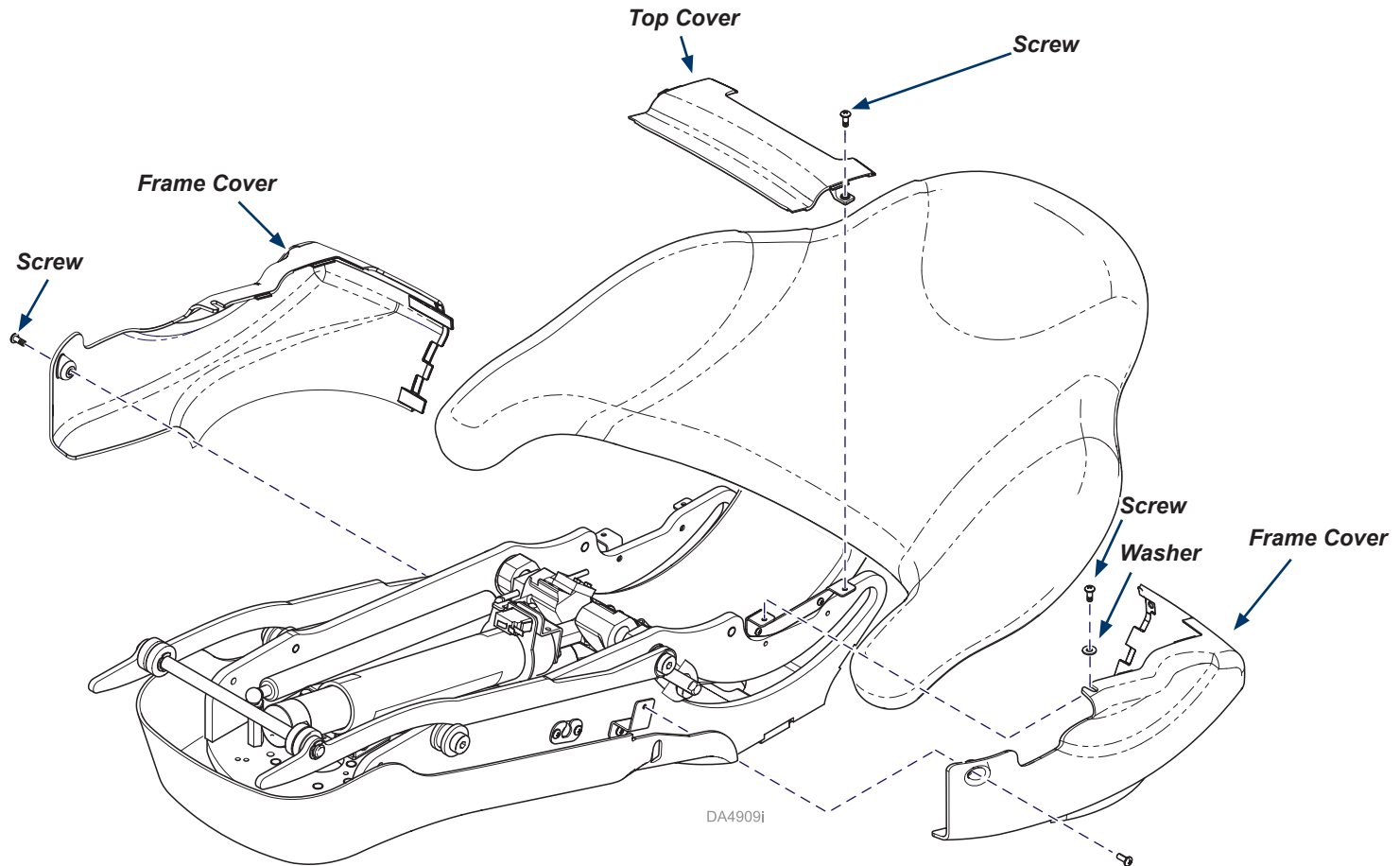
Note: Shoulder Screws need torqued down 33 ft-lb when reinstalling seat frame.



Note: Retain all covers and mounting hardware for re-use.

**Step 5: Remove frame/top covers.**

- A) Remove screws and washer then frame covers.
- B) Remove two screws then top cover.





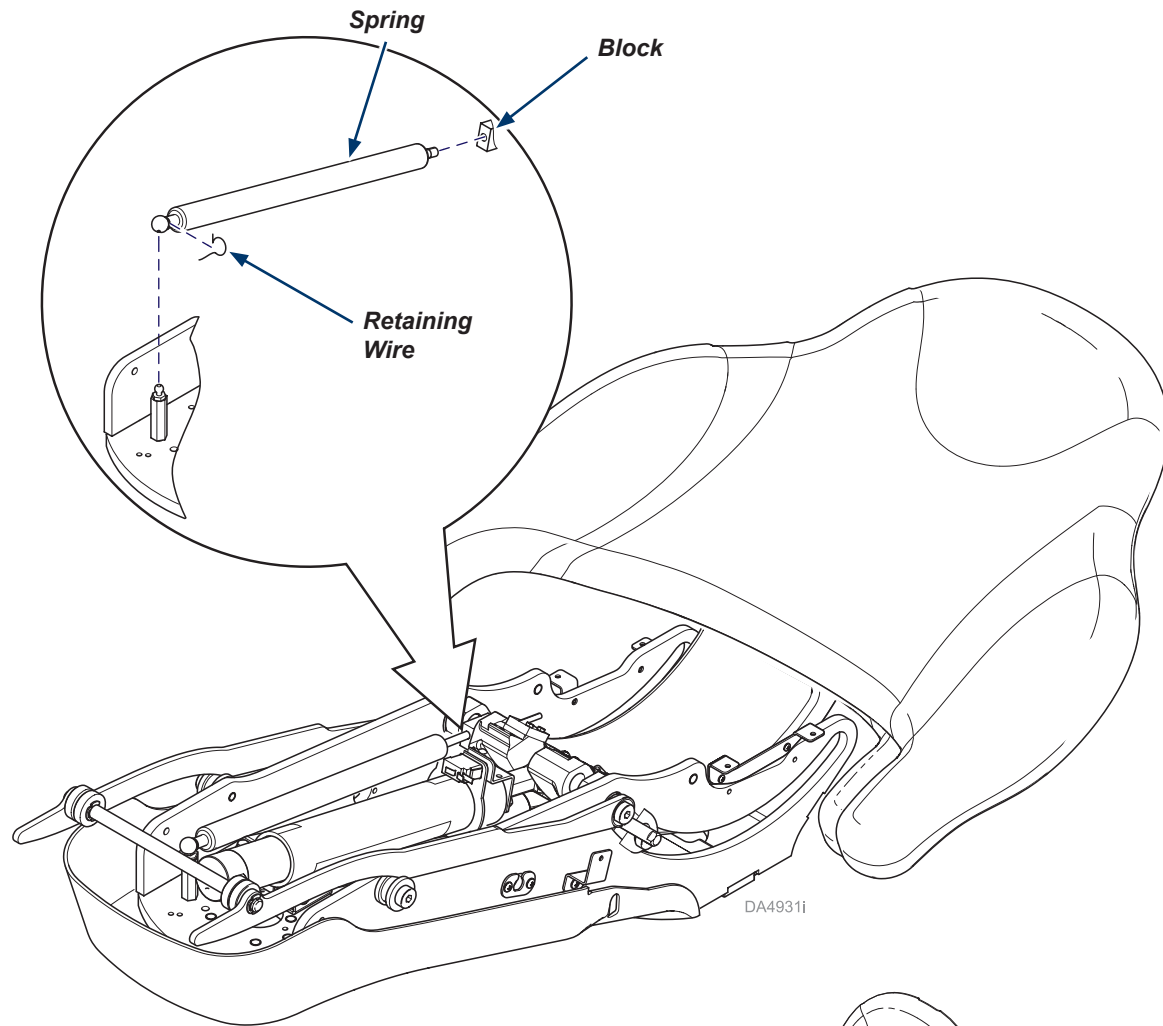
### Equipment Alert

Retraction spring under pressure.

#### Step 6: Remove retraction spring.

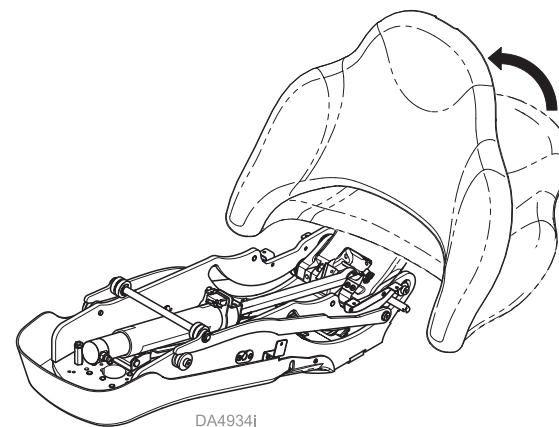
- A) Remove retaining wire.
- B) Move spring off stud.
- C) Remove spring from clevis block.

For Carriage Roller Kit, proceed to last step.  
For Back Lift Cylinder Kit, continue to Step 14.



#### Step 7: Position chair.

- A) Connect chair to power source.
- B) Move chair back to FULL UP position.
- C) Disconnect power source.





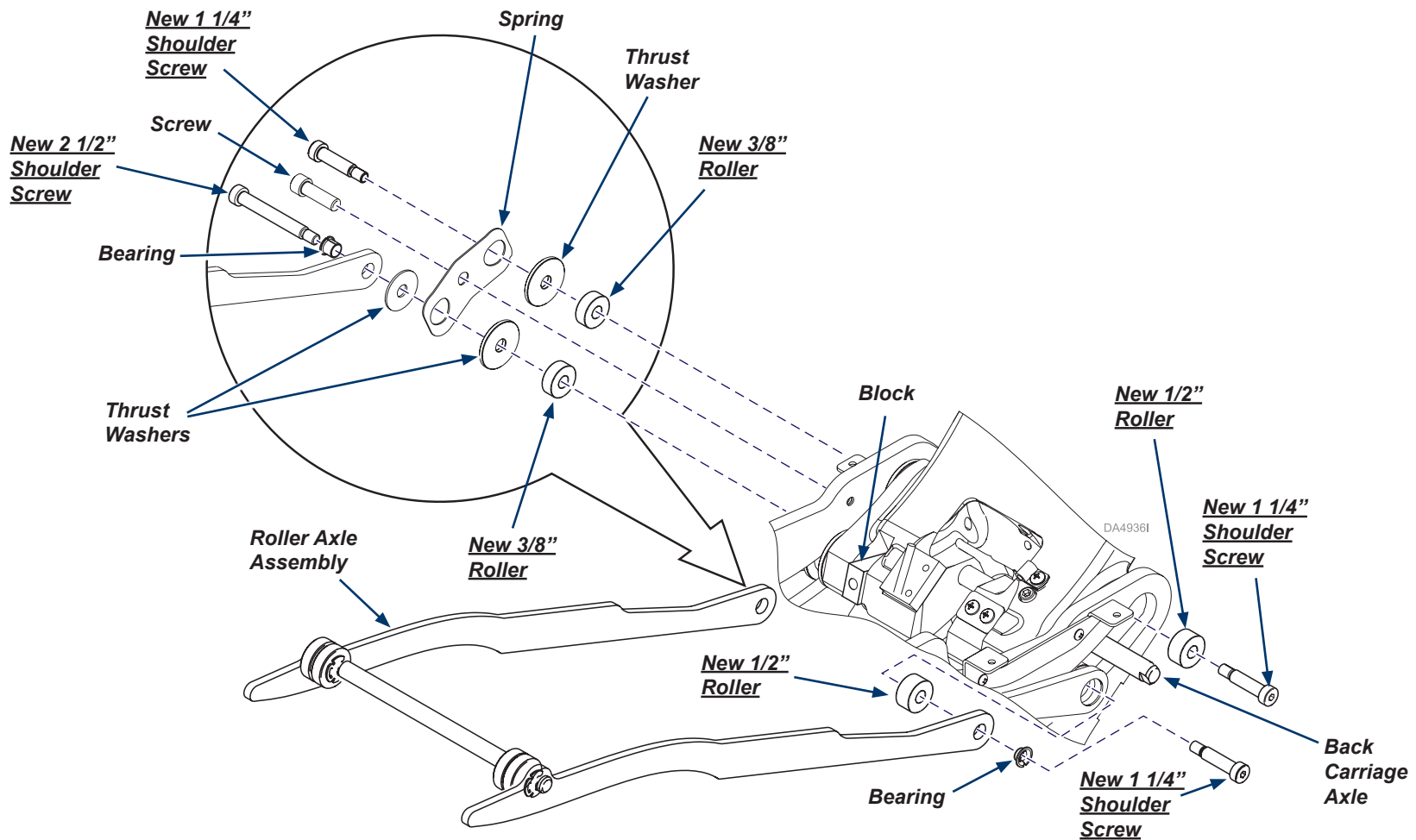
### Equipment Alert

DO NOT remove the back carriage axle and block when removing existing components then installing new shoulder screws and rollers.

Note: Retain all removed components that are not new for re-use.

### Step 8: Install new shoulder screws and rollers as shown.

- Remove existing shoulder screws, bearing and two rollers from right side (facing chair) ONE AT A TIME.
- Install new short shoulder screw and new 1/2 inch wide roller to back right side.
- While keeping block in place on the front left side, remove existing shoulder screws, screw, bearing, spring, thrust washers, and two rollers from left side.
- While keeping block in place on the front left side, place new 3/8 inch wide rollers, thrust washers, spring, roller axle assembly, bearing, new long shoulder screw, new short shoulder screw, and screw then install to left side.
- Install new short shoulder screw, bearing, roller axle assembly and new 1/2 inch wide roller to front right side.

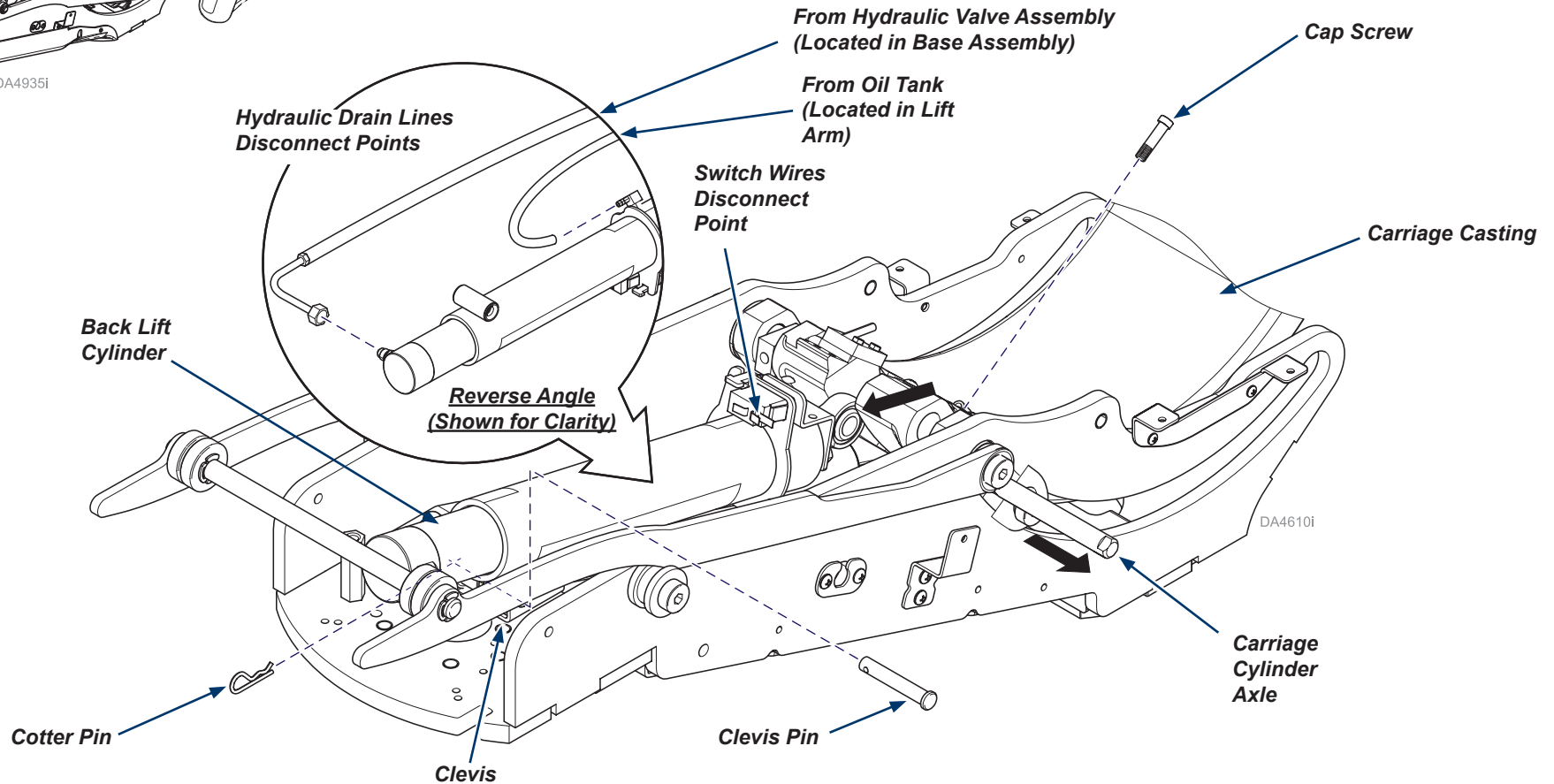
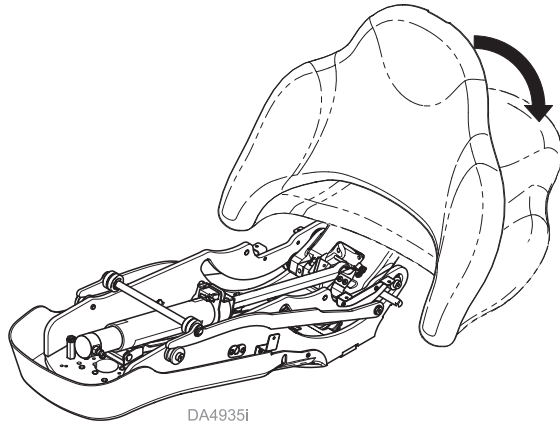


### Step 9: Position chair.

- A) Connect chair to power source.
- B) Move chair back to FULL DOWN position.
- C) Disconnect power source.

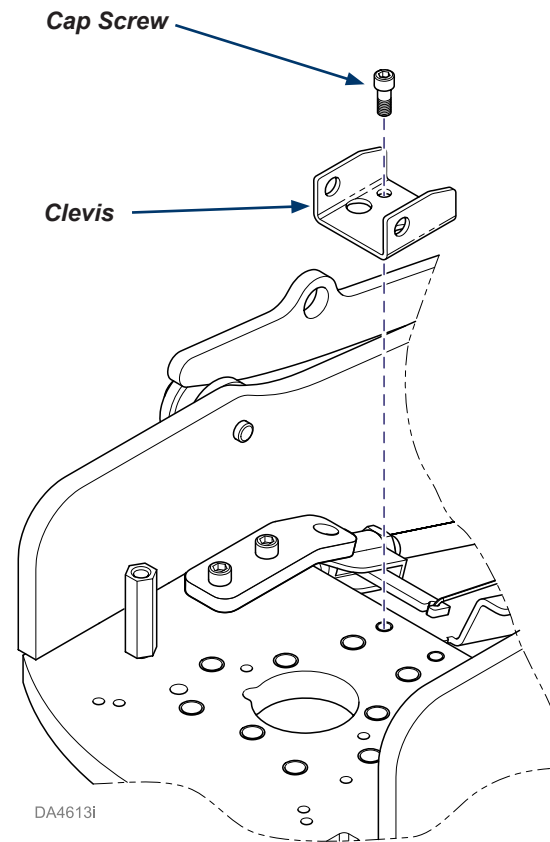
### Step 10: Remove back lift cylinder

- A) Remove any cable ties from the cylinder (note locations).
- B) Disconnect switch wires from terminals.
- C) Ensure power is removed from hydraulic functions.
- D) Disconnect hydraulic lines from cylinder then install plugs to prevent fluid leaking.
- E) Remove cotter pin from clevis pin.
- F) Remove clevis pin.
- G) Remove cap screw from axle in carriage casting.
- H) Remove axle from carriage casting.
- I) Remove back lift cylinder.



**Step 11: Install clevis.**

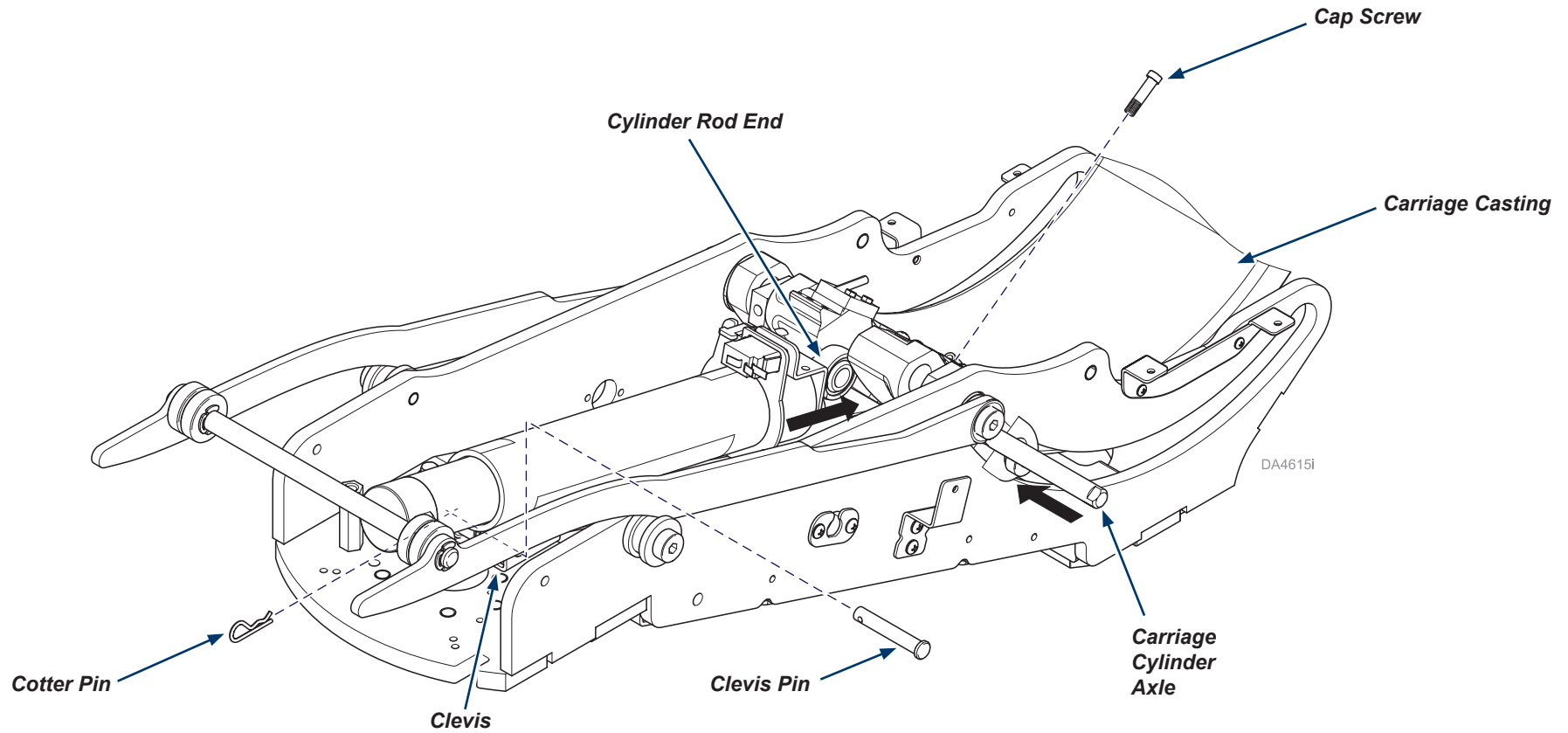
- A) Remove two screws from clevis then remove clevis.
- B) Install new clevis using two new cap screws as shown.





**Step 12: Install clevis pin, carriage cylinder axle and cap screw.**

- A) Place new back lift cylinder into the chair weldment.
- B) Install new clevis pin.
- C) Install new cotter pin.
- D) Install carriage cylinder axle to carriage casting while positioning axle to go through cylinder rod end.
- E) Install cap screw to axle in carriage casting.





### Step 13: Install back lift cylinder

- A) Install cable ties on the cylinder in previous locations.
- B) Connect hydraulic lines to cylinder as shown.
- C) Connect switch wires to terminals.

Hydraulic Line Connection To Hydraulic Valve Assembly (Located in Base Assembly)

Switch Wires Connect Points

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Hydraulic Line Connection To Oil Tank (Located in Base Assembly)

Spring

Block

Retaining Wire



### Caution

Retraction spring under pressure. Verify seat frame top cover and frame covers do not contact the carriage casting.

### Step 14: Finalize installation.

- A) Install retraction spring (reverse Step 6).
- B) Install covers/components (reverse Steps 3 through 5).
- C) Connect chair to power source.
- D) Ensure power is restored for hydraulic functions.
- E) Verify operation.

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Because we care.

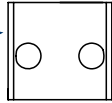
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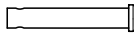
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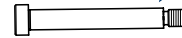
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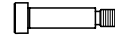
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**002-2069-00 Back Lift Cylinder Replacement Kit**  
(includes items 1 through 9)

**002-2074-00 Carriage Roller Replacement Kit**  
(includes items 1 through 4)

Item	Description	Qty.
1	Shoulder Screw (2 1/2")	1
2	Roller (3/8" wide)	2
3	Shoulder Screw (1 1/4")	3
4	Roller (1/2" wide)	2
5	Back Lift Cylinder	1
6	Cotter Pin	1
7	Clevis Pin	1
8	Clevis	1
9	Cap Screw	2