



Elevating and Amusement Devices Safety Program	Ref. No.: 306 / 24
ADVISORY	Date: April 19, 2024

Subject: Federal Elevator LULA – Addition of 1/2” Washer to Shackle
Distribution: Posted on TSSA website

This advisory is intended to inform about the possibility of a suspension failure at the shackle connection to the elevator on Federal Elevator LULAs.

TSSA became aware of an incident that occurred during an annual Category 1 test where the rope shackles detached from the hitch.

Upon investigation, it was determined that a washer (see item 3 in the adjacent representation) must be added to the EMCO 100 shackle assembly installed on Federal Elevator LULAs.

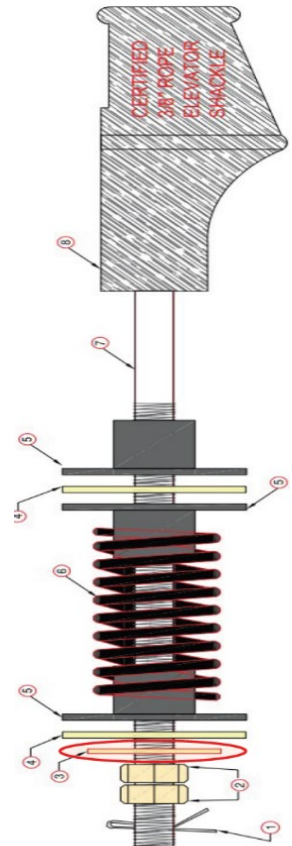
Advisory and Retrofit:

All EMCO 100 shackle assemblies on Federal Elevator LULA elevators should be retrofitted with a washer. For a step-by-step procedure to retrofit the shackle with the washer, refer to the Federal Elevator Safety Bulletin attached to this advisory.

The shackle and the spring (see item 6) should also be visually inspected for any signs of wear and should be replaced accordingly.

Retrofit Completion:

Once the washer retrofit has been completed, a Minor B submission should be completed referencing clause 8.7.1.2 of the B44 code. Please refer to this advisory in the Box 4000 of the Minor B template.



Federal Elevator Safety Bulletin

Bulletin Date/Revision: July 1, 2023/Rev. 0

Subject:

Addition of ½” washer to shackle assembly.

Sent to:

All Elevator Contractors maintaining and servicing Federal Elevator LULA Elevators

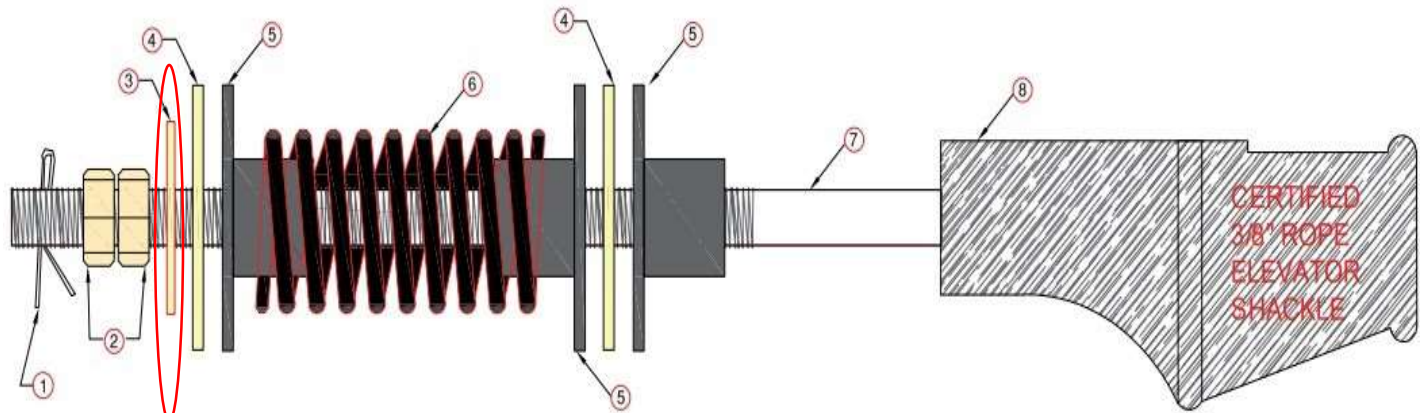
Issue found:

½” washer to be added to shackle assembly as per figure 1 – Item 3. This will not allow the ½” nuts to pass through the 5/8” washer (item #4) in the event of a safety failure.

Procedure:

1. Send the elevator to floor above the lowest landing.
2. Place elevator in temporary operation to allow use of temporary running buttons.
(Provided by maintenance company)
3. Open the bottom floor door using lunar key.
4. Place pit switch to off position and lift pit prop to gain safe access to pit.
5. Once safe access is confirmed, install rail shoring blocks for added safety.
6. Secondary shoring blocks at height required for mechanic to work on bottom sling channel, provided by maintenance company, to be installed in pit.
7. Safely and slowly bring elevator down on shoring blocks set at height to work on shackle assembly.
8. Lower the cylinder to ensure there is no tension on the ropes.
9. Remove cotter pin holding hinge plate to bottom sling channel and remove ¼” hardware holding brake rod.
10. Once removed, shackle can be loosened and removed from bottom sling channel.
11. Shackle and spring to be visually checked.
 - a. Call Federal Elevator Systems if a new shackle is required. Use Part No. LULA Shackle
 - b. Call Federal Elevator Systems if a new spring is required. Use Part No. LULA compression spring.
12. Additional ½” flat washer to be added between 5/8” washer and ½” nuts. See figure 1 below.
13. Re-install shackle onto bottom sling channel.
14. Reconnects brake rod and hinge plate.
15. Ensure shackle and bottom sling channel are working properly.
16. Raise elevator ensuring ropes do not get caught on anything.
17. Raise elevator to be between floors.
18. Remove all shoring blocks and exit pit safely.
19. Lower pit prop and ensure there are no obstructions left in the pit. 20. Place pit switch into the ON position
21. Close landing door.
22. Remove temporary buttons and place elevator back into automation operation.
23. Ensure elevator runs as normal.

Figure 1: Federal Elevator Shackle (Item #3 is the NEW washer to be added)



BILL OF MATERIALS		
NO.	NAME	PART NO.
1	COTTER PIN	LULA COTTER PIN
2	NUTS	LULA SHACKLE NUTS
3	1/2" WASHER	1/2" SHACKLE WASHER
4	5/8" WASHER	5/8" SHACKLE WASHER
5	ISOLATION BUSHING	SHACKLE ISOLATION BUSHING
6	SPRING	LULA COMPRESSION SPRING
7	ROD	LULA SHACKLE ROD
8	FEDERAL SHACKLE	LULA SHACKLE

Procurement:

-1/2" washer to be purchased from Federal Elevator Systems Inc. using Part No. 1/2" Shackle washer

-New Shackle to be purchased (if required) from Federal Elevator Systems Inc. using Part No. LULA Shackle

-New spring to be purchased (if required) from Federal Elevator Systems Inc. using Part No. LULA compression spring

MCP Procedures:

Category 1 test is a visual check and not a full load test as indicated in MCP

Category 5 test is a full load test as indicated in MCP