

# ***SERVICE BULLETIN***

***Subject: Rope Ejector Side Plate Retrofit***

***Parts Affected:***

P/Ns listed in Table 1.

**Table 1 - Affected Part Numbers**

| OSI P/N    | Description                        |
|------------|------------------------------------|
| 528-029-04 | Talon LC Cargo Hook – H160 Lateral |

All P/Ns referenced in this service bulletin are subject to US export compliance regulations for ECCN 9A991.d

***References:***

Airbus ECPF: 000556 (OSI P/N 158-034-00)

OSI CMM: 122-017-00

ATP 180-172-00

***Ownership:***

Please review this information and determine if the equipment is still in your possession. If the equipment is no longer in your possession, please forward this service bulletin to the current owner, or to your customer, as applicable.

If you are retrofitting Lateral Cargo Hook, 528-029-04 to use rope ejector side plates, and convert to 528-029-05, perform the ***Hook Retrofit Procedure*** documented herein.

## ***Hook Retrofit Procedure***

***Compliance:***

Recommended

***Description:***

This retrofit includes new Side Plates which extend down to overlap the load beam opening. This feature was introduced because of a reported in-service incident where a trailing rope did not slide off the open load beam (i.e. – did not release). It is intended to improve jettisoning of lightweight trailing loads such as a rope by “ejecting” the rope off the load beam as it opens.

***Action:***

To comply with this bulletin, perform the following:

Remove and replace side plates with rope ejector side plates per the instructions herein. While the side plates are removed it is recommended to examine the hook IAW 122-017-00 CMM.

***Manpower:***

Approximately 2 man-hours will be required for implementation.

***Required Materials/Parts:***

Retrofit kit P/N 212-083-00 contains all of the parts required to comply with this service bulletin (See Table 2 & Table 3).

**Table 2 – Rope Ejector Side Plate Retrofit Kit**

| <b>Lateral<br/>Cargo Hook<br/>P/N</b> | <b>Retrofit Kit<br/>P/N</b> | <b>Retrofit Kit Description</b>                                 |
|---------------------------------------|-----------------------------|-----------------------------------------------------------------|
| 528-029-04                            | 212-083-00                  | H160 Lateral Cargo Hook w/ Rope Ejector Retrofit & Overhaul Kit |

**Table 3 - Parts List for Retrofit Kits P/N 212-083-00**

| Part No.   | Description                                         | Quantity |
|------------|-----------------------------------------------------|----------|
| 215-480-00 | Serial Plate                                        | 1        |
| 232-932-00 | Side Plate w/ Rope Ejector Assembly, Solenoid       | 1        |
| 232-933-00 | Side Plate w/ Rope Ejector Assembly, Manual Release | 1        |
| 510-029-00 | Nut                                                 | 1        |
| 510-102-00 | Nut                                                 | 2        |
| 510-206-00 | Nut                                                 | 2        |
| 510-796-00 | Nut                                                 | 1        |
| 510-115-00 | Cotter Pin                                          | 1        |
| 510-125-00 | Cotter Pin                                          | 1        |

**Special Tools:** ATP test stand

**Weight and Balance:** N/A

**Electrical Load Data:** N/A

**Disposition of Parts Removed:**

Part specific instructions provided in *Hook Retrofit Procedure*.

**Material/Part Availability:**

Contact Onboard Systems for availability of replacement parts.

**Compliance Instructions:**

Remove and replace hardware per the steps in *Hook Retrofit Procedure*.

**Compliance Recording:**

Record compliance with this service bulletin No. 159-057-00 in the helicopter documentation.

Record the P/N and S/N of the retrofitted cargo hook per the following:

- The cargo hook P/N is changed as specified in Table 4.
- The cargo hook S/N is provided on the ID label and log card.

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**Table 4 - P/N After Retrofit**

| P/N          | New P/N – After Retrofit |
|--------------|--------------------------|
| 528-029-04   | 528-029-05               |
| U259A00T1002 | U259A60T1001             |

***Publications Affected:***

The following publications can be downloaded from the company web site by visiting the following link: <http://www.onboardsystems.com/document>

Component Maintenance Manual: 122-017-00

***Contact Information:***

Technical support question regarding this bulletin can be addressed through the following contact methods:

Phone: 360-546-3072

Fax: 360-546-3073

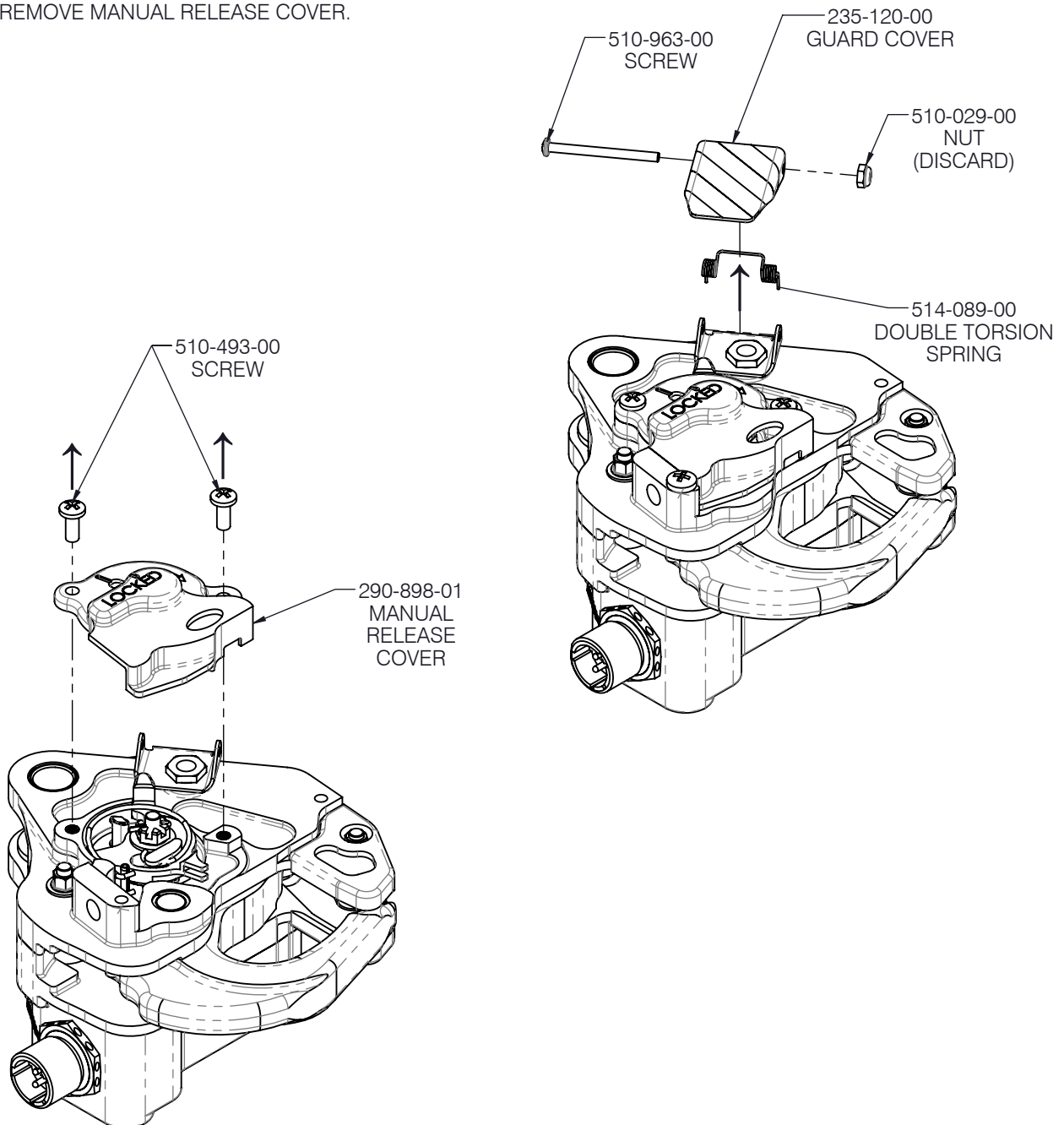
E-mail: [techhelp@onboardsystems.com](mailto:techhelp@onboardsystems.com)

Web: <https://www.onboardsystems.com/support/technical>

### *Hook Retrofit Procedure*

INSTRUCTIONS:

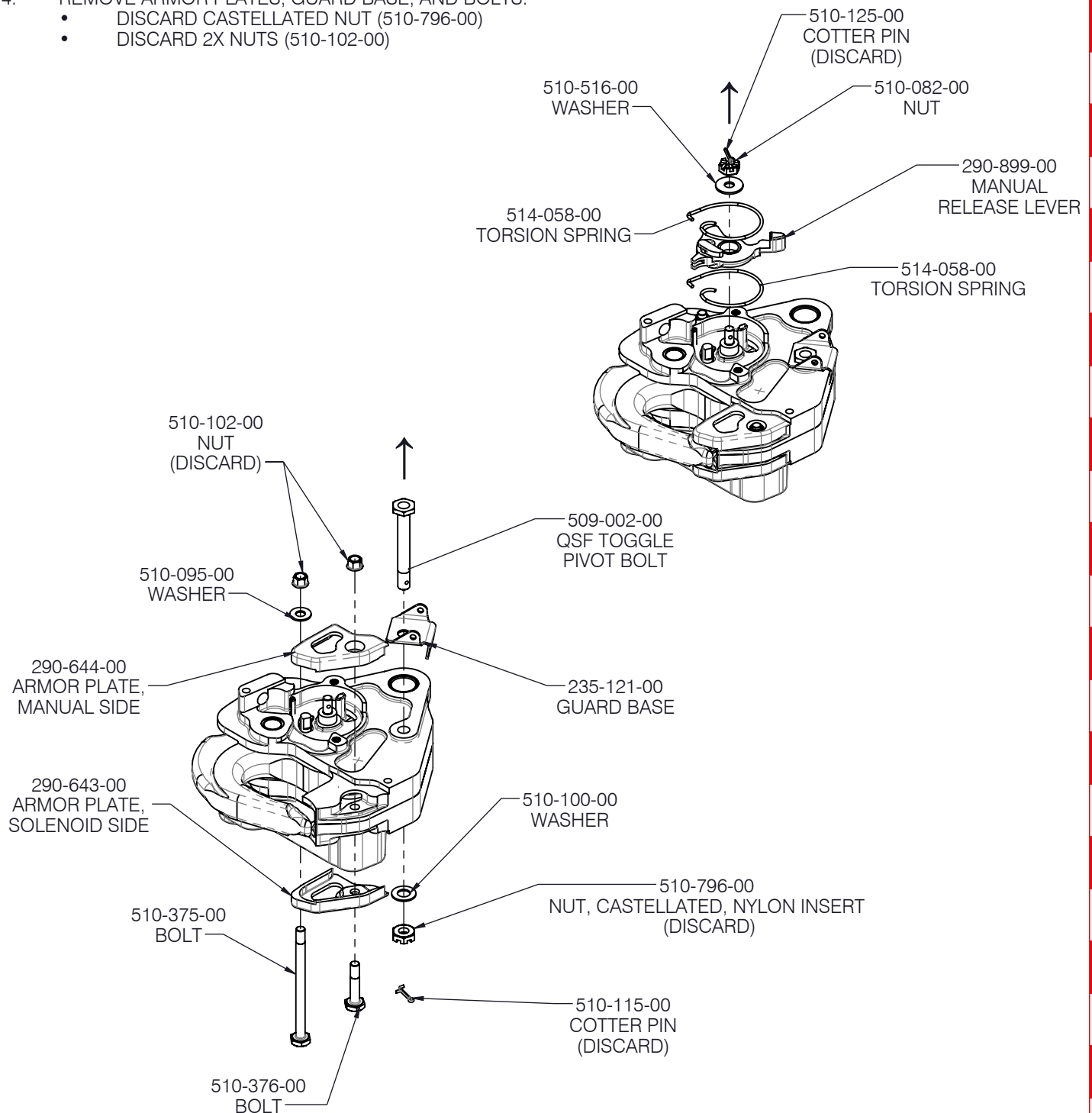
1. REMOVE GUARD COVER.
  - DISCARD NUT
2. REMOVE MANUAL RELEASE COVER.



## Hook Retrofit Procedure

### INSTRUCTIONS:

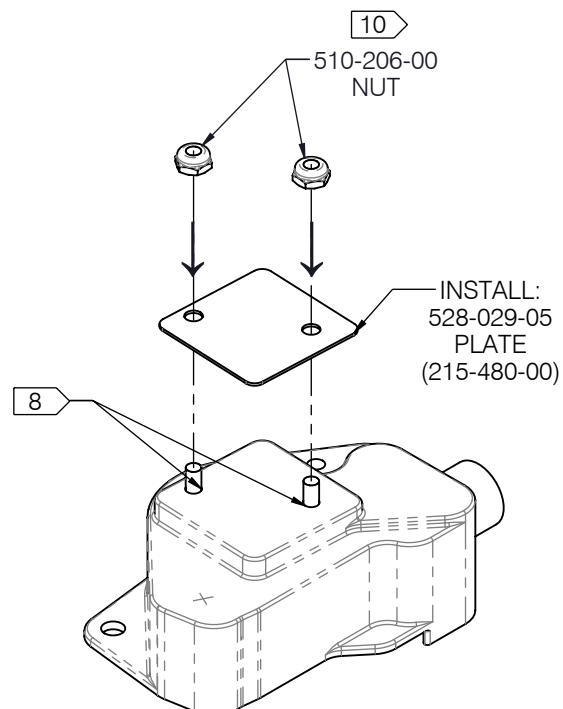
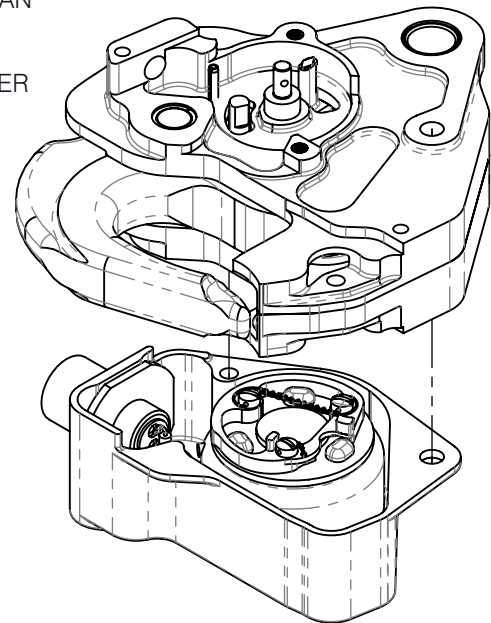
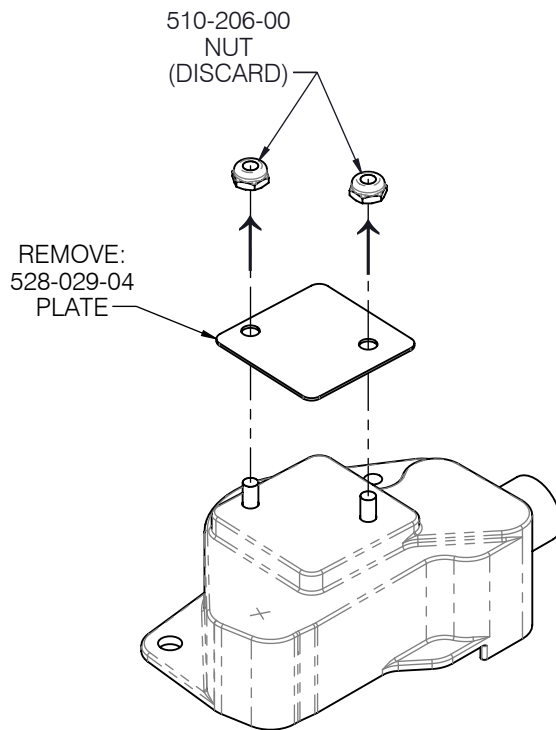
3. REMOVE MANUAL RELEASE LEVER.
4. REMOVE ARMOR PLATES, GUARD BASE, AND BOLTS.
  - DISCARD CASTELLATED NUT (510-796-00)
  - DISCARD 2X NUTS (510-102-00)



### Hook Retrofit Procedure

**INSTRUCTIONS:**

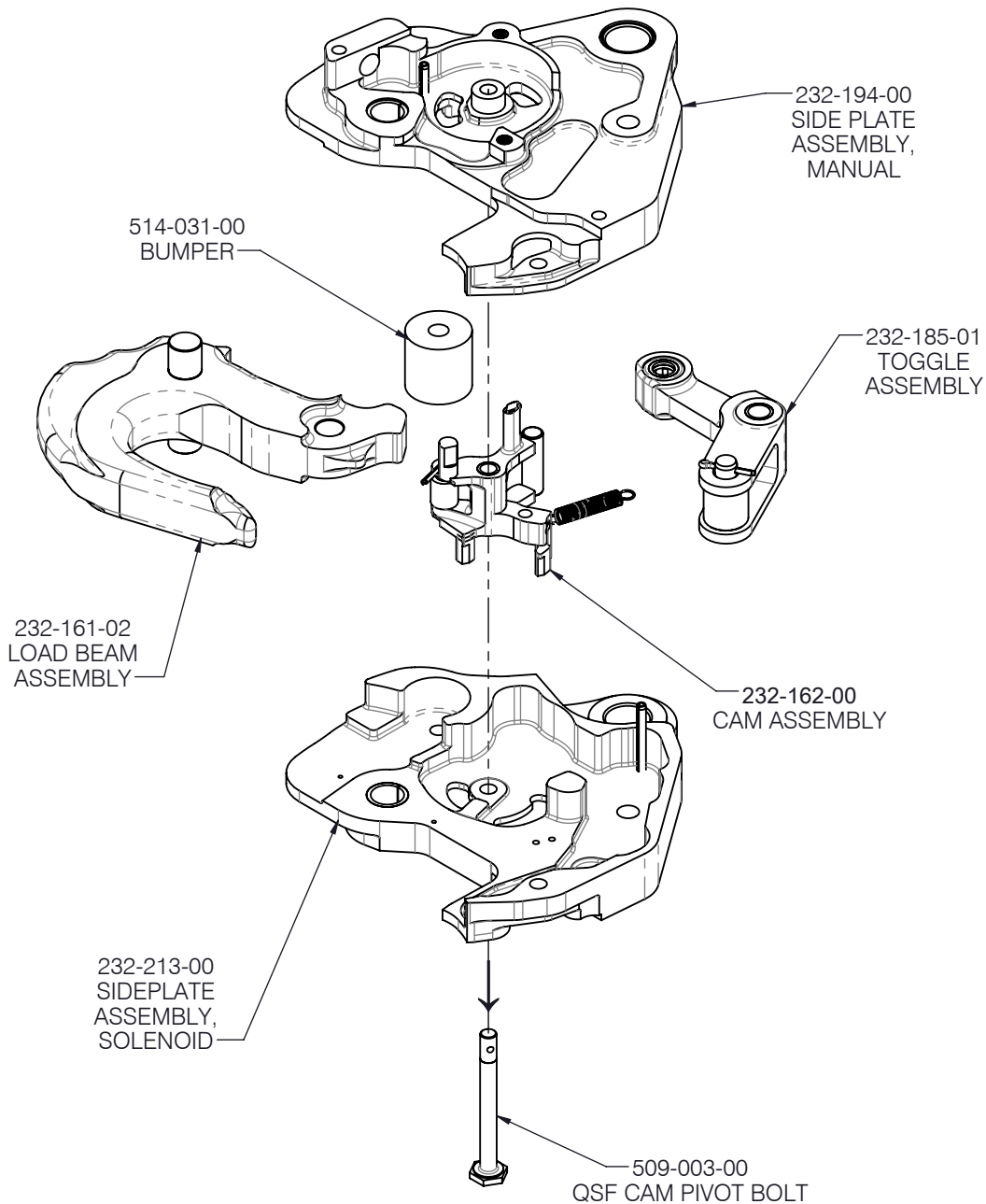
5. VERIFY S/N ON THE NEW SERIAL PLATE MATCHES EXISTING S/N.
6. REMOVE SOLENOID ASSEMBLY.
7. REMOVE NUTS THEN REMOVE SERIAL PLATE FOR 528-029-04, CLEAN SURFACE BELOW PLATE WITH ISOPROPYL ALCOHOL.
  - DISCARD NUTS
8. APPLY BLACK SILICONE, (MFG: LOCTITE, MFG P/N: 59830) TO COVER WHERE STUDS PROTRUDE PRIOR TO INSTALLING SERIAL PLATE.
9. INSTALL NEW SERIAL PLATE FOR 528-029-05.
10. TORQUE NUTS TO 20-25 IN-LB.



### *Hook Retrofit Procedure*

INSTRUCTIONS:

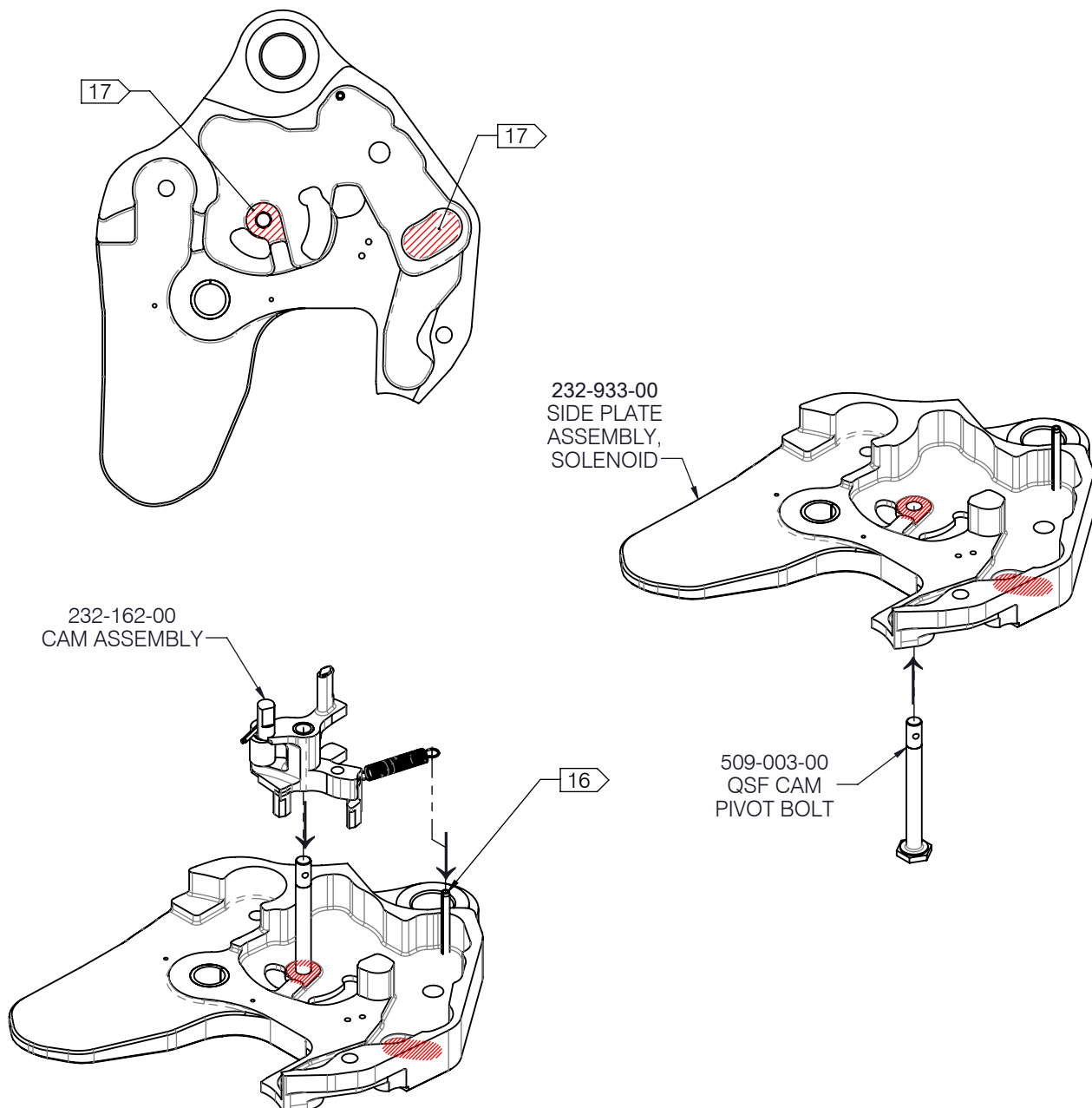
11. REMOVE AND DISCARD BOTH SIDE PLATES.
12. INSPECT THE FOLLOWING PER CMM 122-017-00, REPLACE IF NECESSARY:
  - TOGGLE ASSEMBLY
  - LOAD BEAM ASSEMBLY
  - CAM ASSEMBLY



### Hook Retrofit Procedure

**INSTRUCTIONS:**

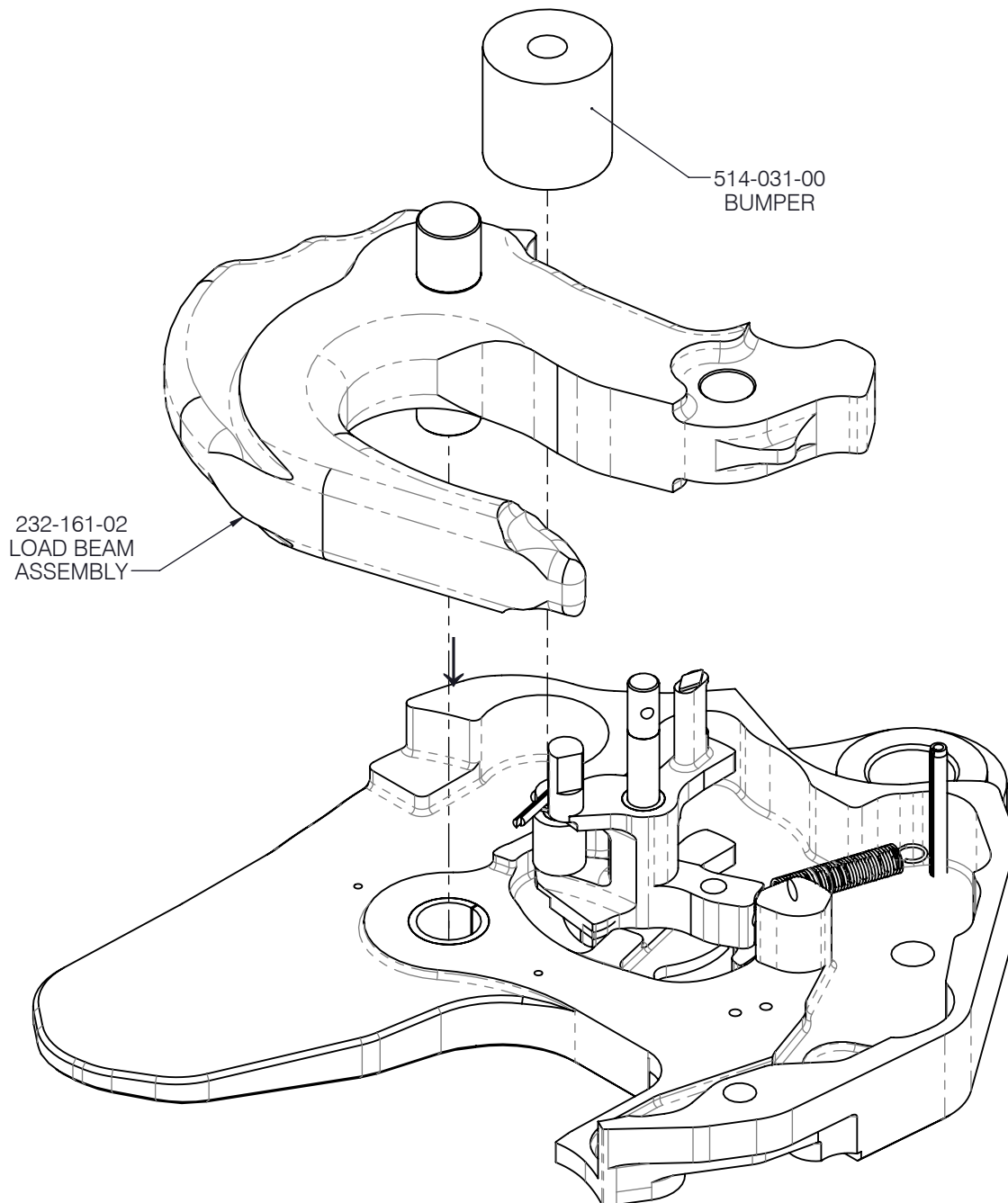
13. OBTAIN LEFT SIDE PLATE ASSEMBLY (SOLENOID SIDE).
14. INSTALL CAM PIVOT BOLT AS SHOWN.
15. INSTALL CAM ONTO CAM PIVOT BOLT AS SHOWN.
16. LOOP THE SPRING OVER THE ROLL PIN PROTRUDING FROM THE SIDE PLATE.
17. APPLY A LIGHT COAT OF MIL-PRF-23827 GREASE TO INDICATED SURFACES OF SIDE PLATE.



***Hook Retrofit Procedure***

INSTRUCTIONS:

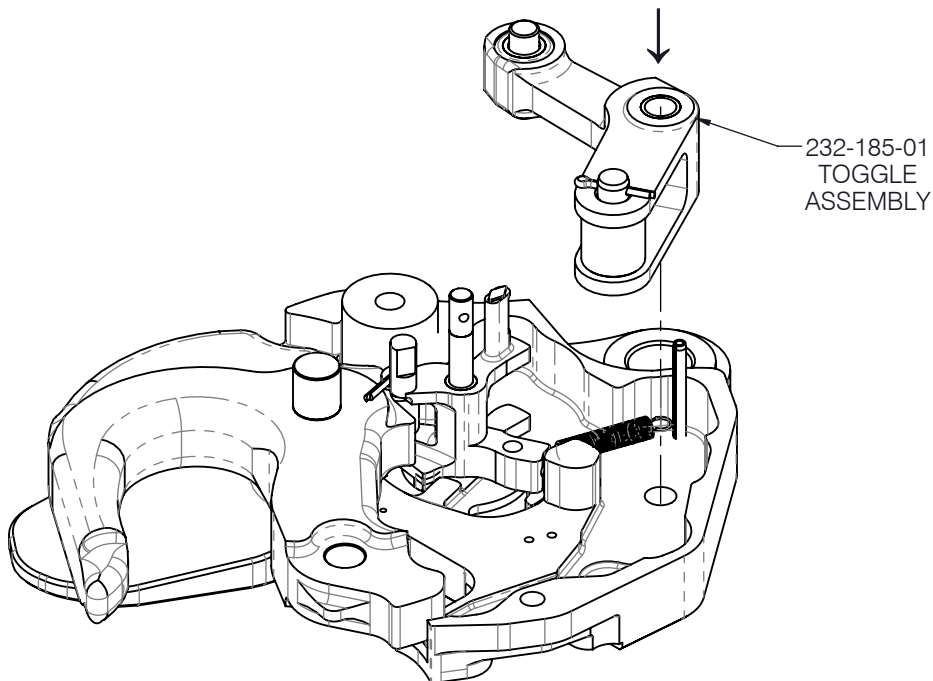
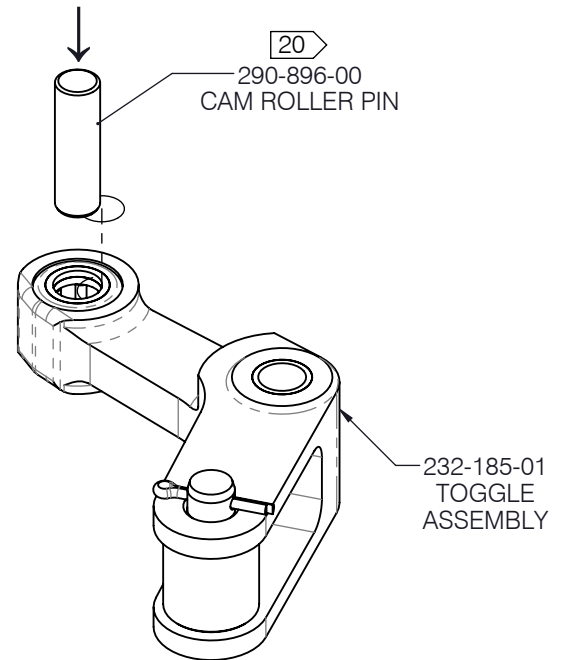
- 18. INSTALL LOAD BEAM ASSEMBLY.
- 19. INSTALL BUMPER.



### *Hook Retrofit Procedure*

#### INSTRUCTIONS:

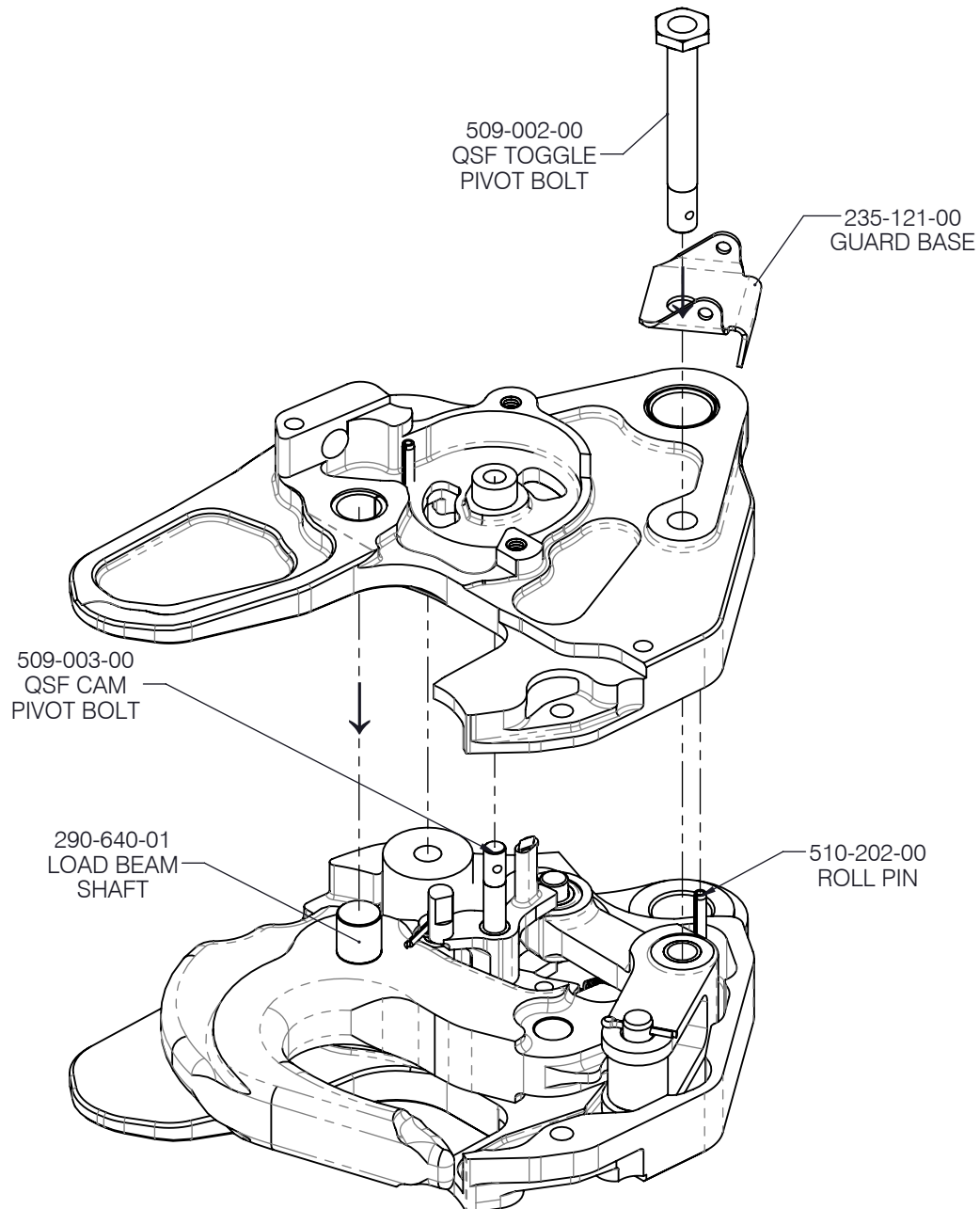
20. APPLY MIL-PRF-23827 GREASE TO BEARING AND INSTALL CAM ROLLER PIN.
21. OPEN LOAD BEAM ALL THE WAY, INSTALL TOGGLE ASSEMBLY.



### *Hook Retrofit Procedure*

INSTRUCTIONS:

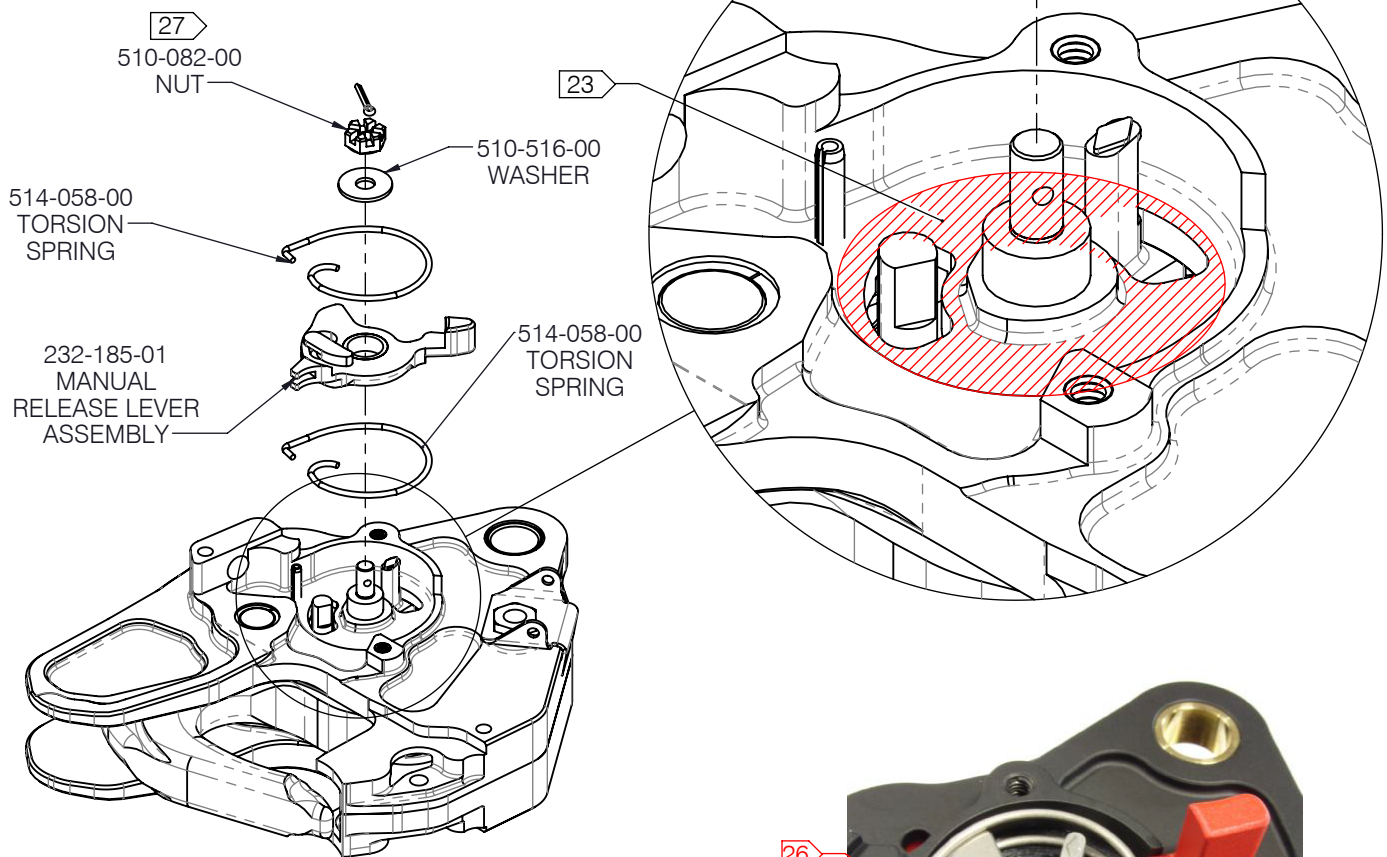
22. INSTALL THE OTHER SIDE PLATE ASSEMBLY. INSTALL THE TOGGLE PIVOT BOLT THRU GUARD BASE. LINE UP ROLL PIN, LOAD BEAM SHAFT AND BOLTS.



### Hook Retrofit Procedure

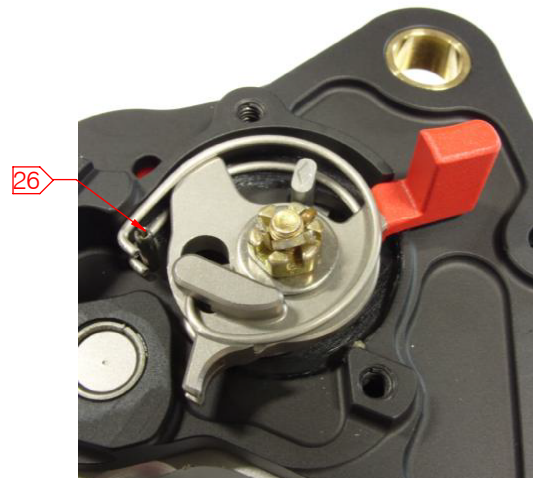
**INSTRUCTIONS:**

- 23> APPLY MIL-PRF-23827 GREASE TO SIDE PLATE SURFACES THAT WILL CONTACT THE SPRING AND INSTALL SPRING CAPTURING CAM AND ROLL PIN.
- 24. PLACE MANUAL RELEASE LEVER ASSEMBLY OVER BOLT
- 25. SECURE WITH WASHER, NUT, AND COTTER PIN.
- 26> INSTALL SECOND SPRING CAPTURING THE ROLL PIN AND INSERTING THE LOOPED END INTO THE SLOT ON THE MANUAL RELEASE LEVER ASSEMBLY (AS SHOWN).
- 27> INSTALL NUT, TORQUE INSTRUCTIONS IN LATER STEPS.



## CAUTION

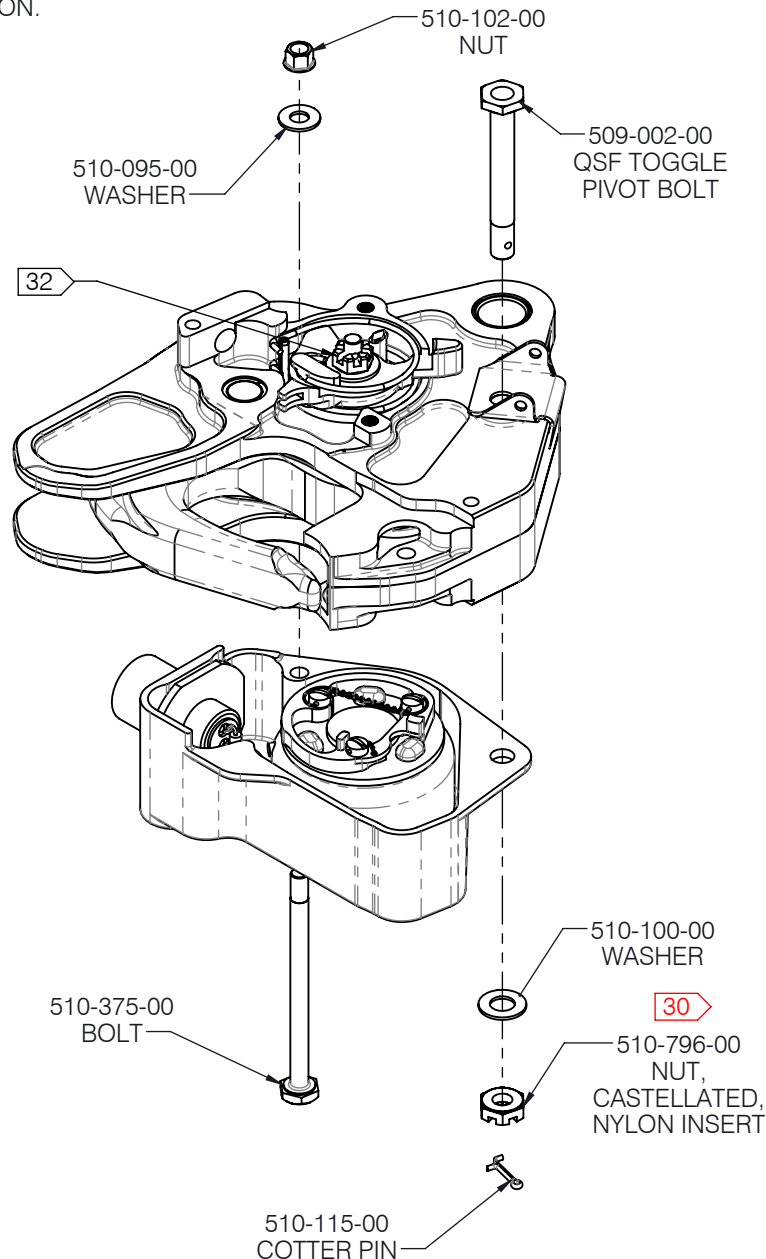
DO NOT ACTUATE THE MANUAL RELEASE LEVER WITHOUT THE MANUAL RELEASE COVER INSTALLED. ACTUATING THE MANUAL RELEASE LEVER MAY RESULT IN THE SPRING BEING EJECTED FROM THE HOOK.



### Hook Retrofit Procedure

INSTRUCTIONS:

- 29 INSTALL NUT, WASHER & BOLT . TORQUE NUT TO 20-25 IN-LB.
- 30 INSTALL TOGGLE PIVOT BOLT, WASHER & NUT TORQUE NUT TO 15 IN-LB, THEN TO THE NEXT CASTELLATION.
- 31. INSTALL COTTER PIN.
- 32 TORQUE NUT HAND TIGHT PLUS ONE FLAT, THEN TO THE 29 NEXT CASTELLATION.



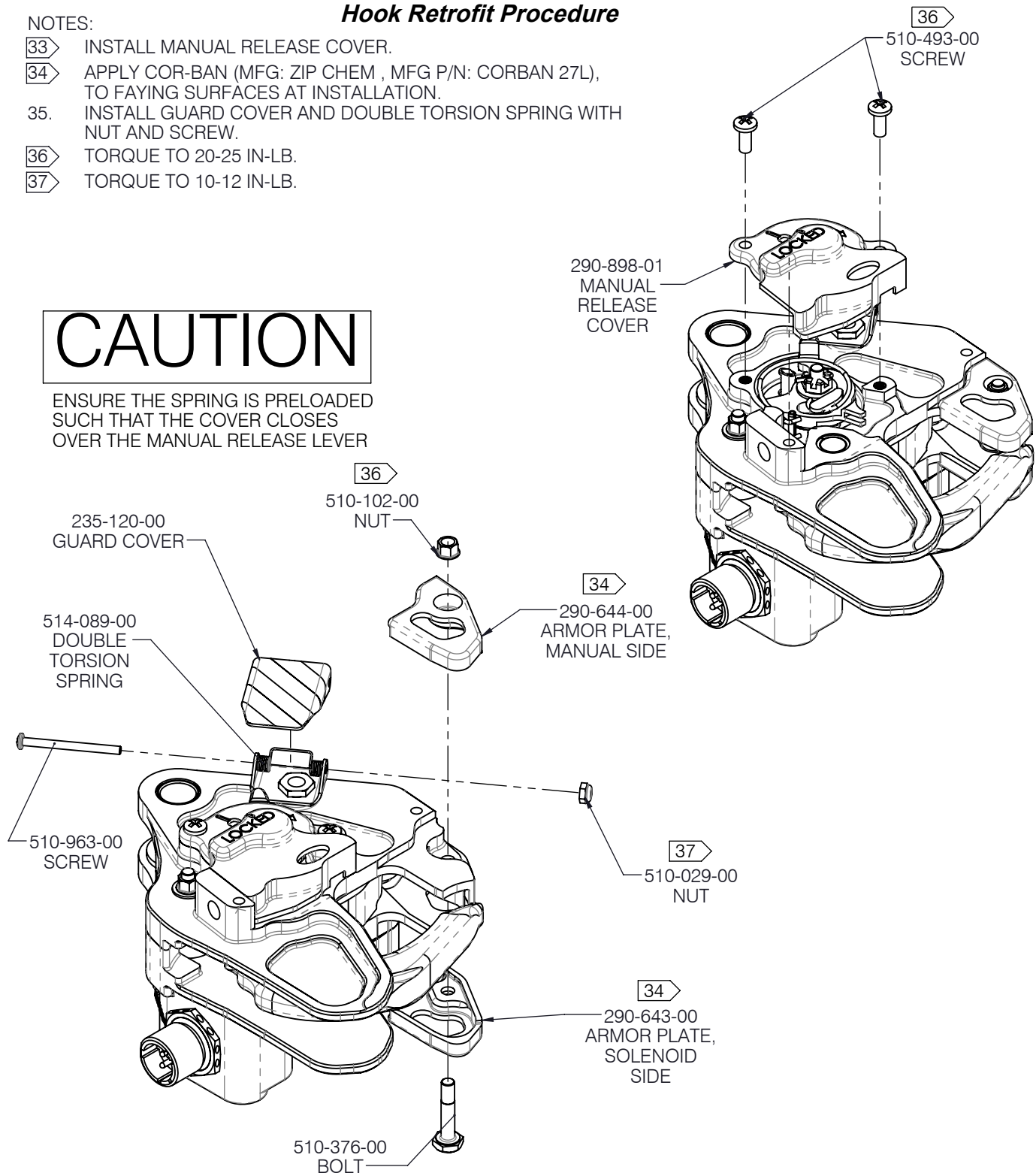
NOTES:

- [33] INSTALL MANUAL RELEASE COVER.
- [34] APPLY COR-BAN (MFG: ZIP CHEM , MFG P/N: CORBAN 27L), TO FAYING SURFACES AT INSTALLATION.
- 35. INSTALL GUARD COVER AND DOUBLE TORSION SPRING WITH NUT AND SCREW.
- [36] TORQUE TO 20-25 IN-LB.
- [37] TORQUE TO 10-12 IN-LB.

## Hook Retrofit Procedure

# CAUTION

ENSURE THE SPRING IS PRELOADED SUCH THAT THE COVER CLOSES OVER THE MANUAL RELEASE LEVER

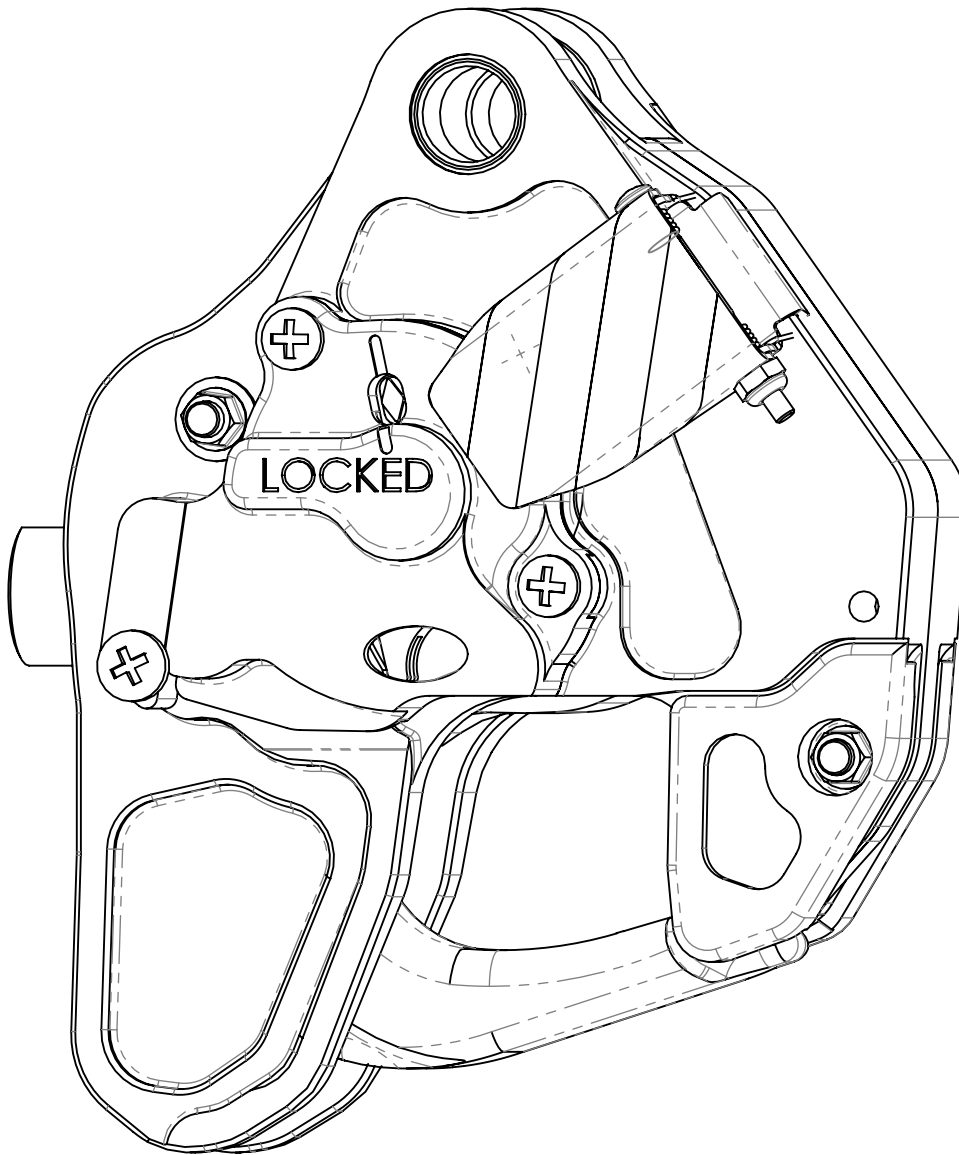


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INSTRUCTIONS:

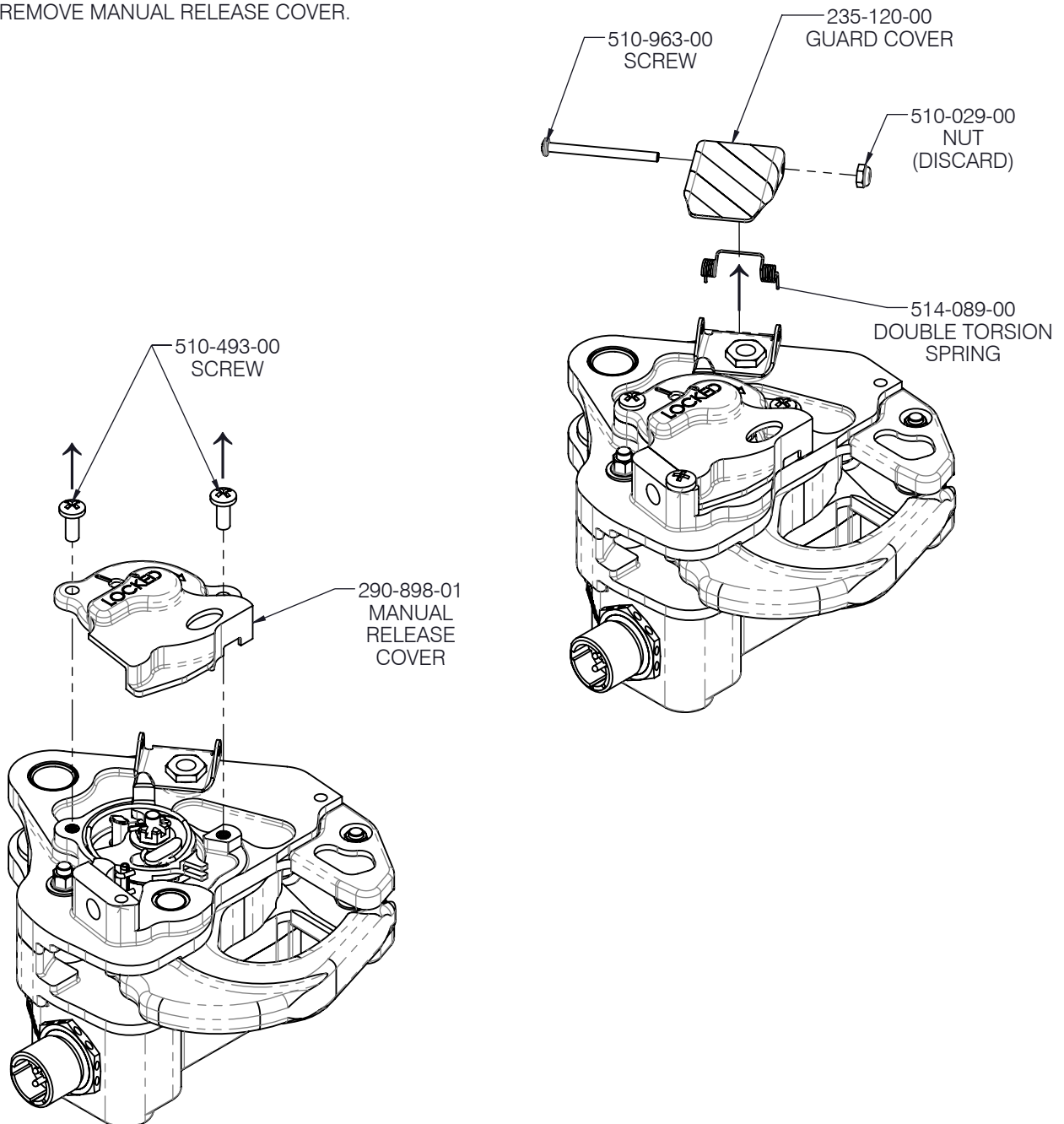
38.    PERFORM ACCEPTANCE TEST PROCEDURE PER CMM 122-017-00.



### *Hook Retrofit Procedure*

INSTRUCTIONS:

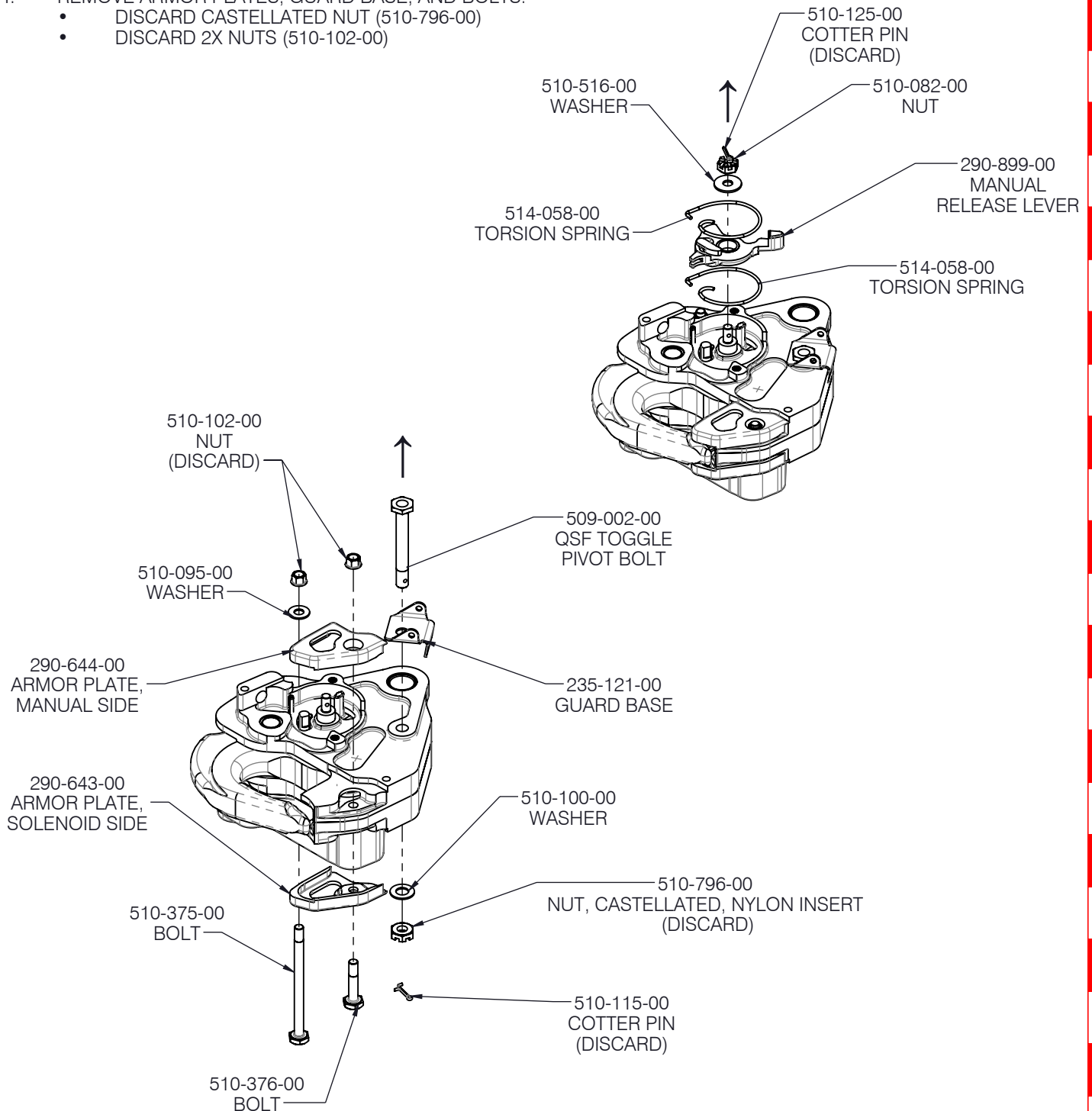
1. REMOVE GUARD COVER.
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## Hook Retrofit Procedure

### INSTRUCTIONS:

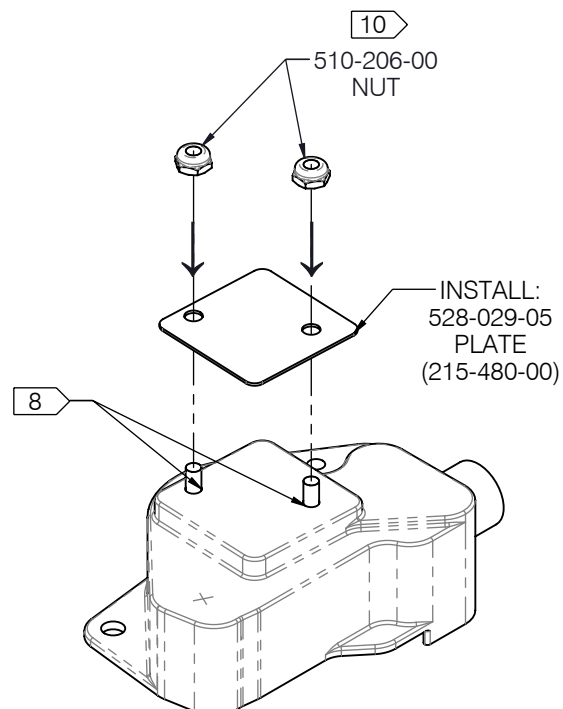
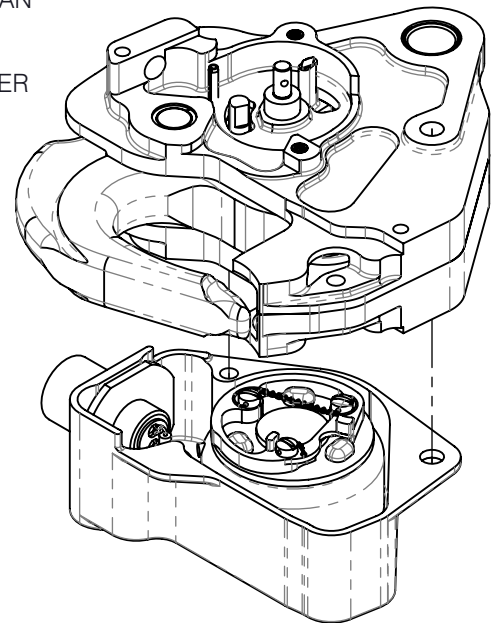
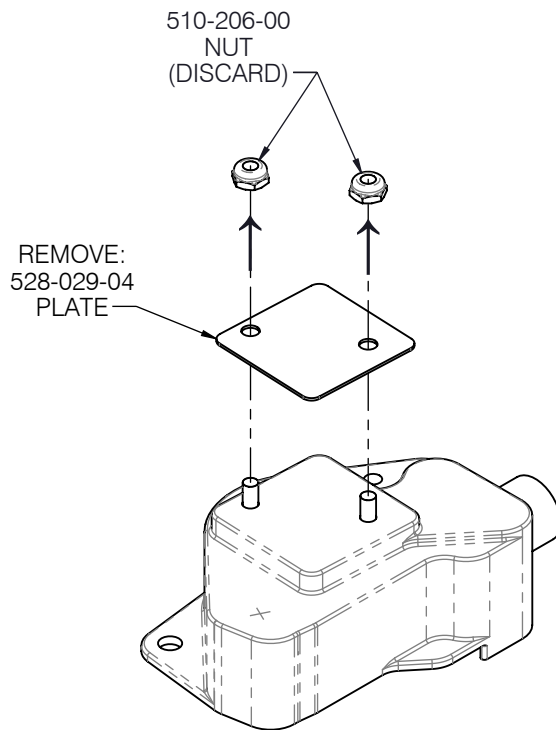
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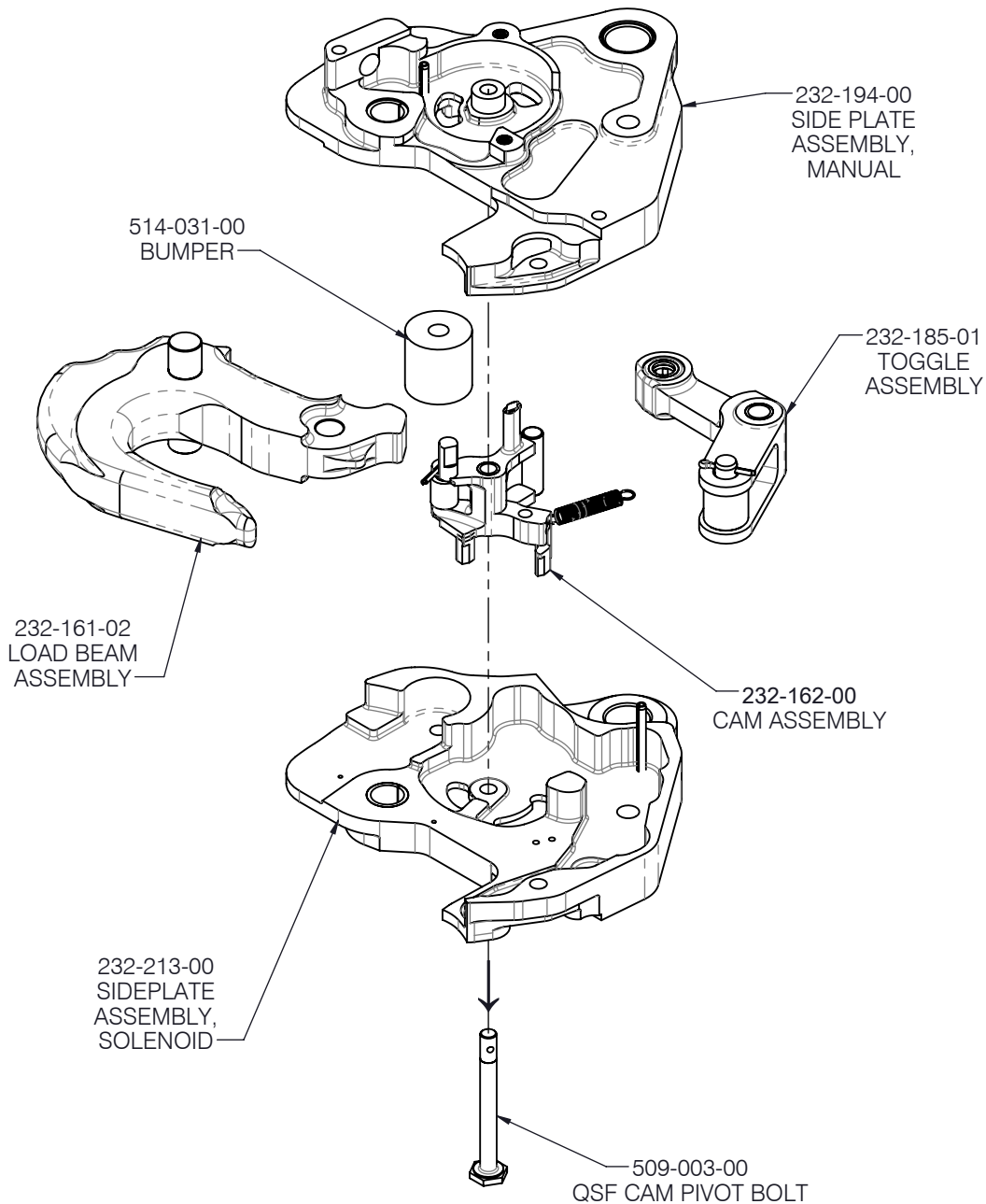
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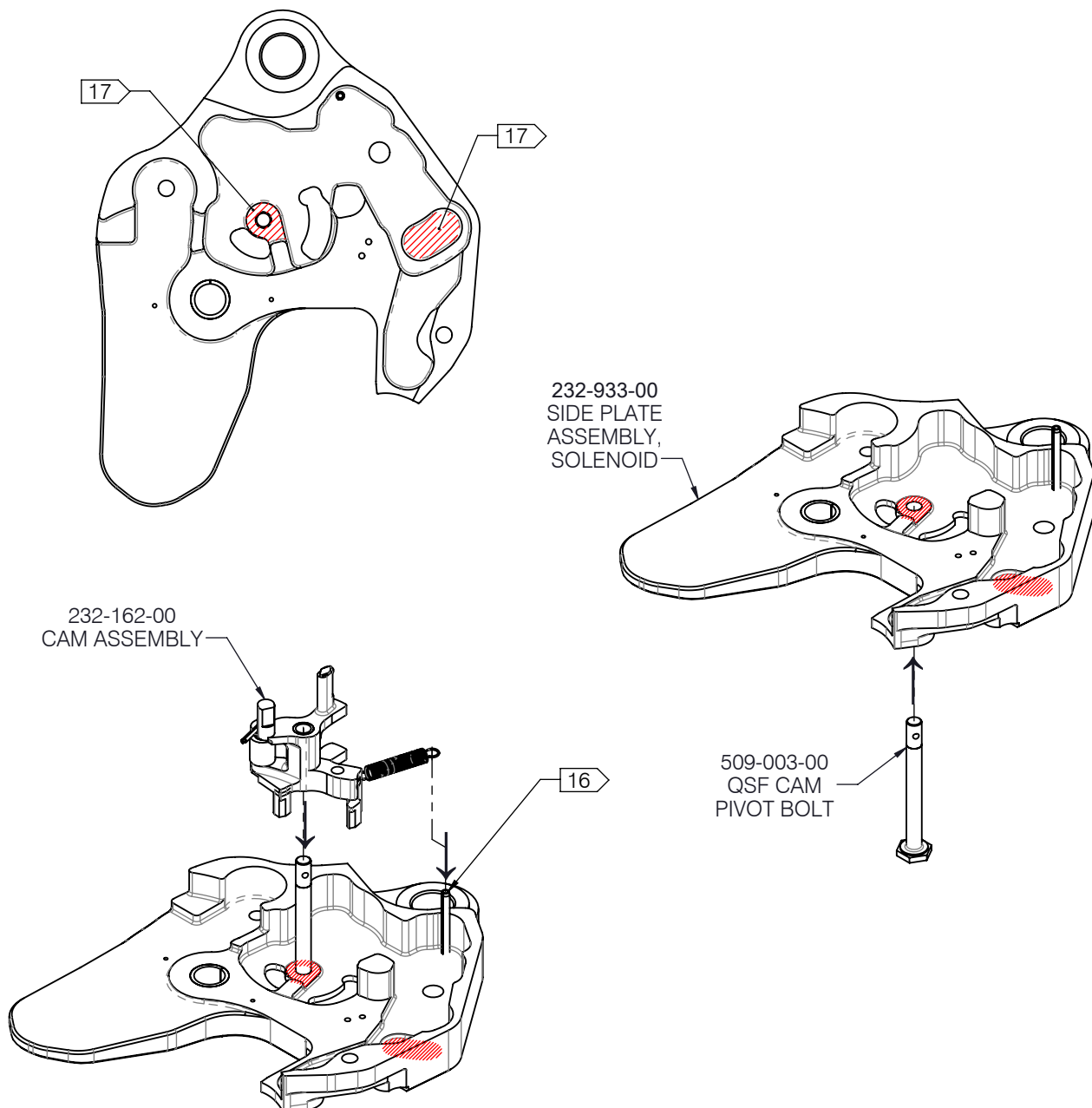
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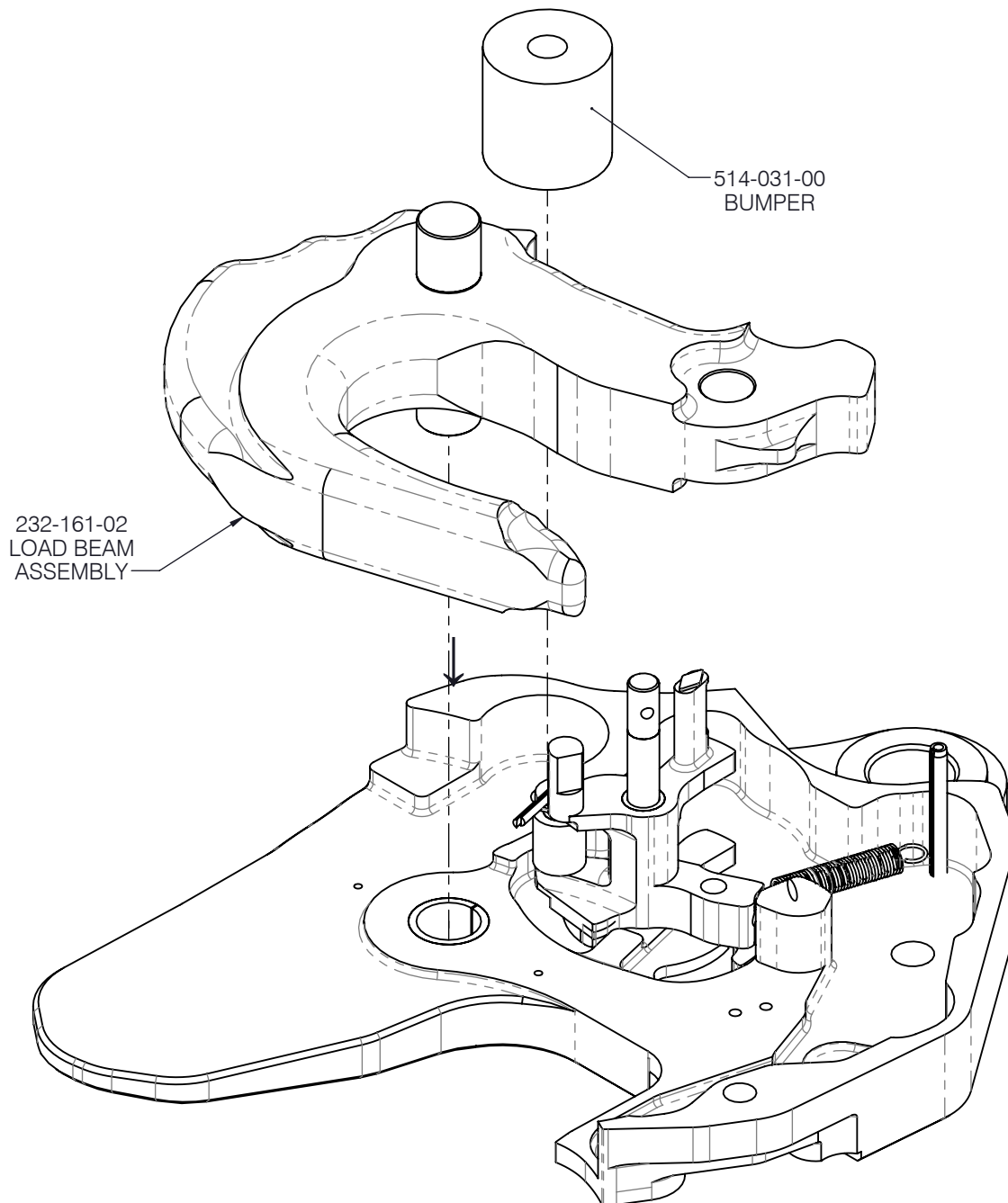
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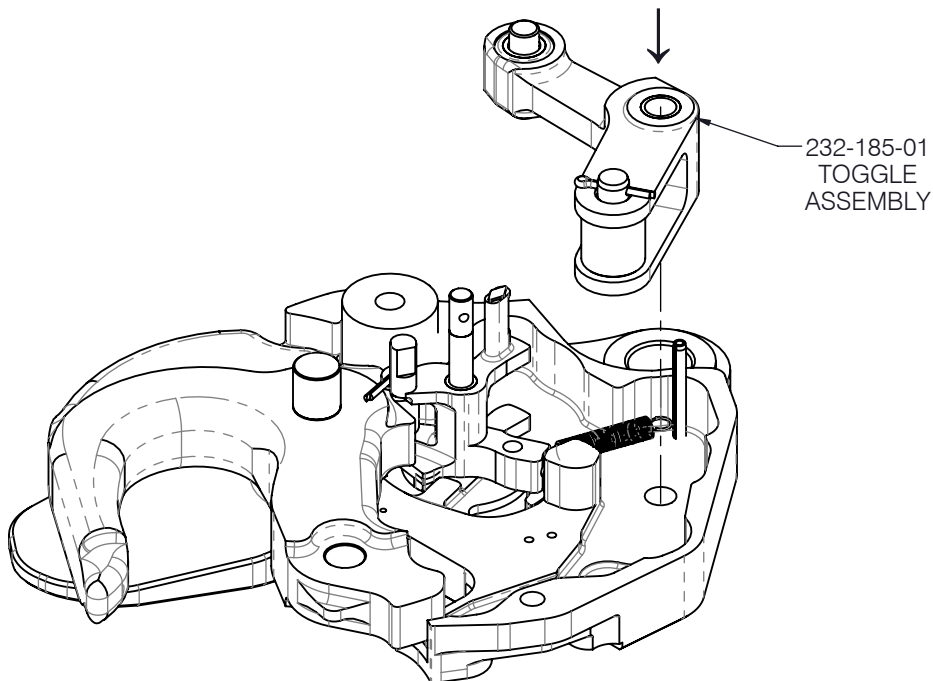
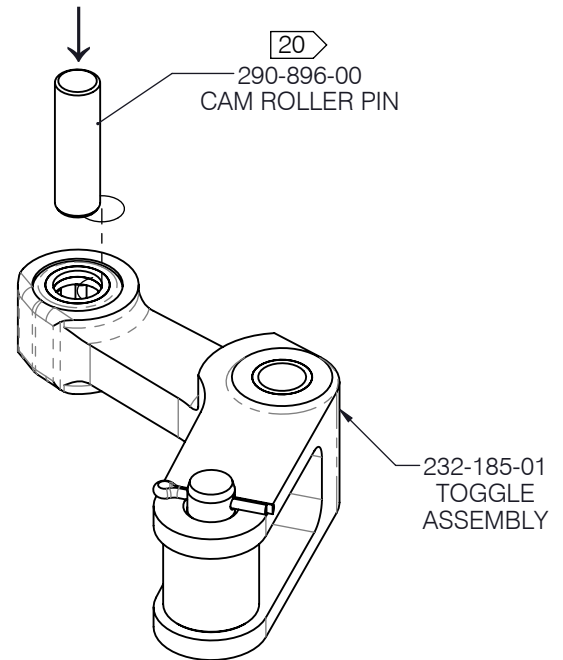
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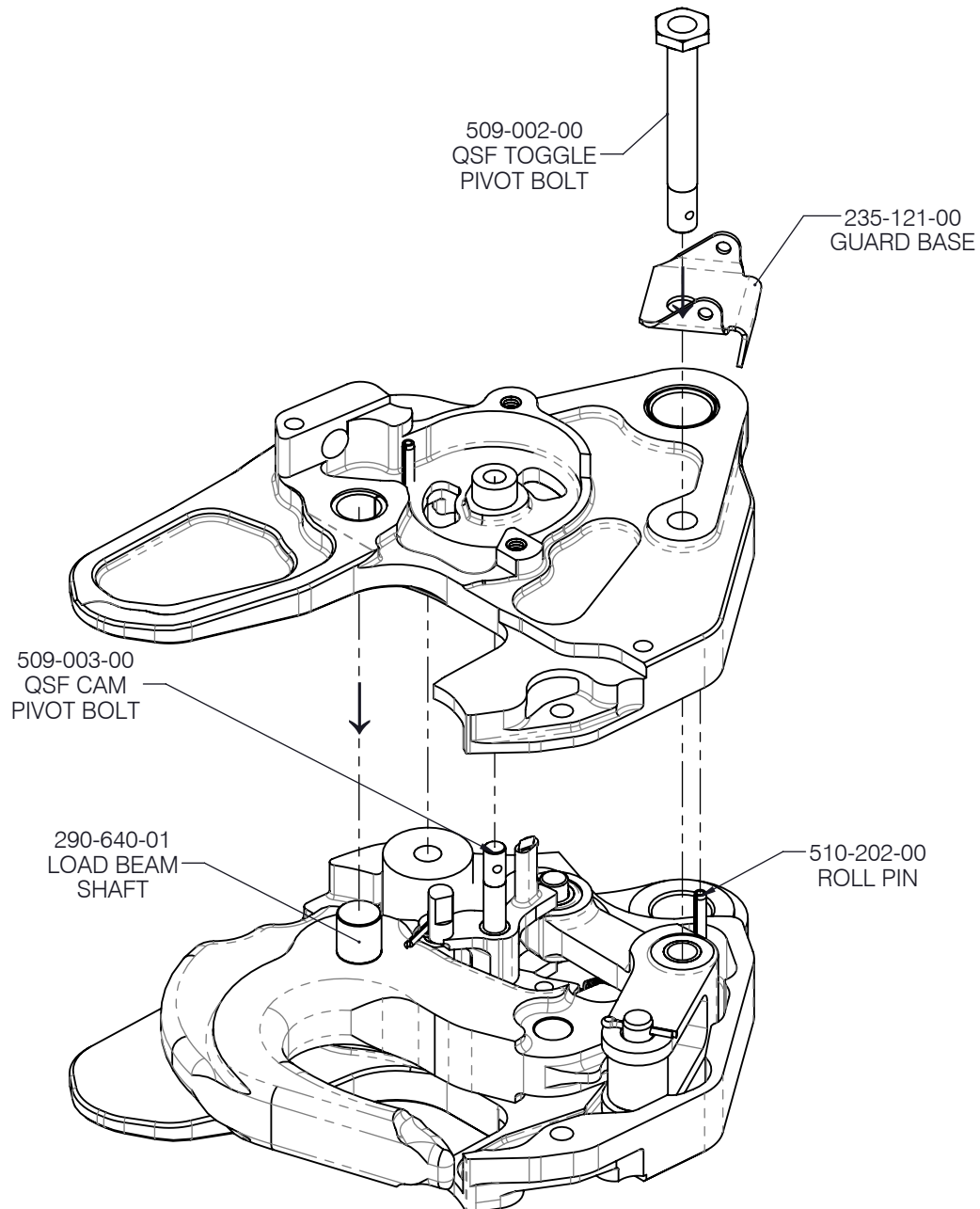
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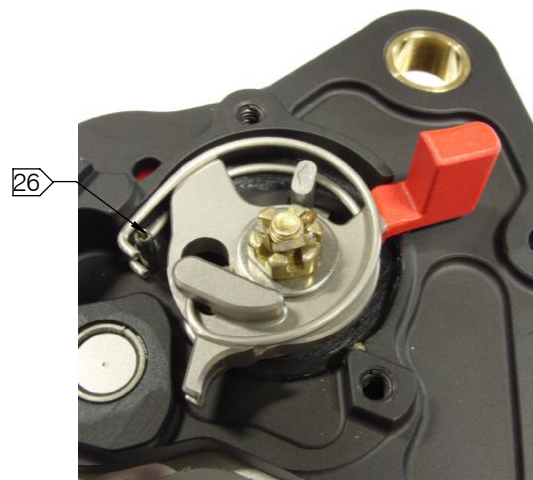
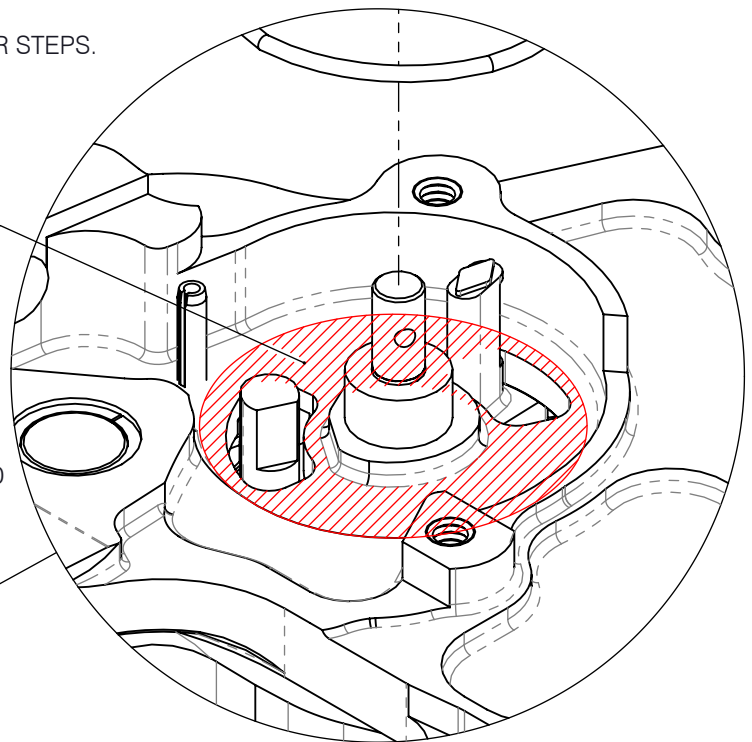
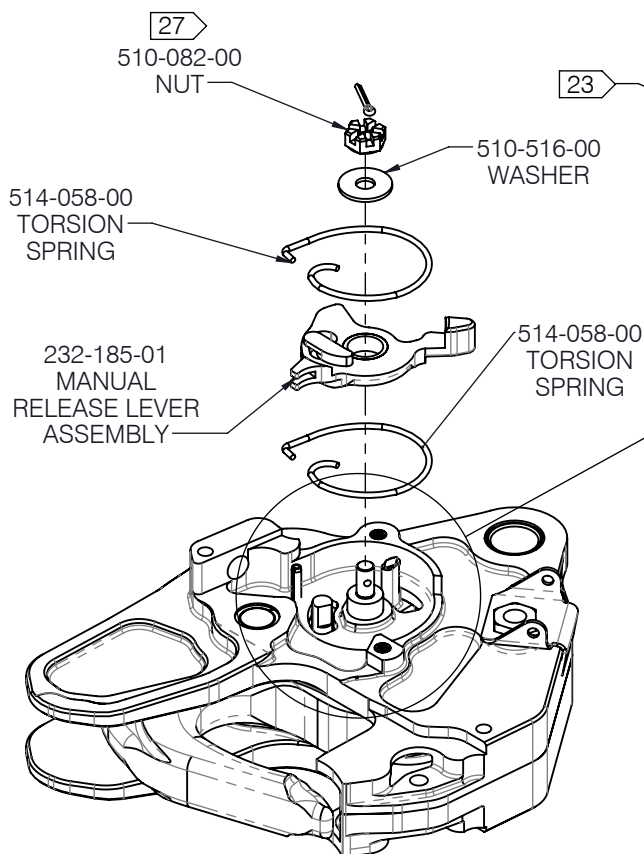
22. INSTALL THE OTHER SIDE PLATE ASSEMBLY. INSTALL THE TOGGLE PIVOT BOLT THRU GUARD BASE. LINE UP ROLL PIN, LOAD BEAM SHAFT AND BOLTS.



### Hook Retrofit Procedure

#### INSTRUCTIONS:

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- 27> INSTALL NUT, TORQUE INSTRUCTIONS IN LATER STEPS.



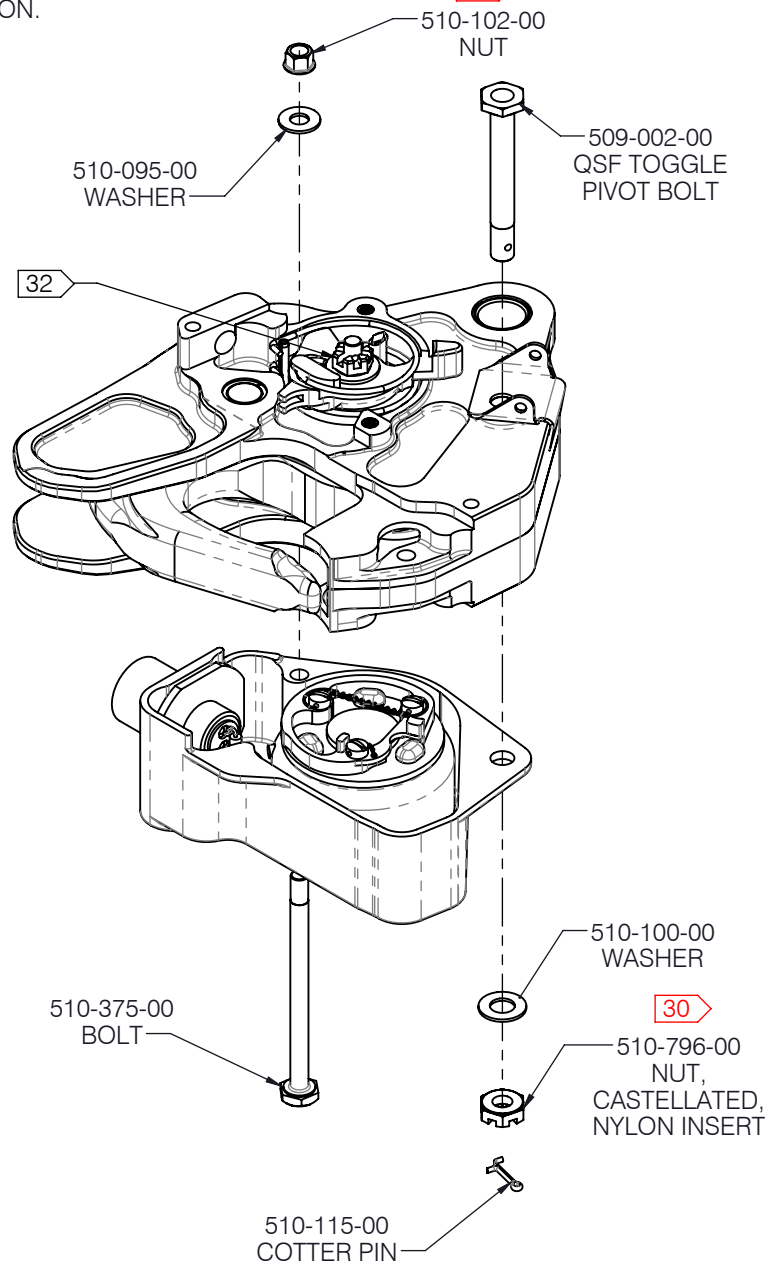
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### Hook Retrofit Procedure

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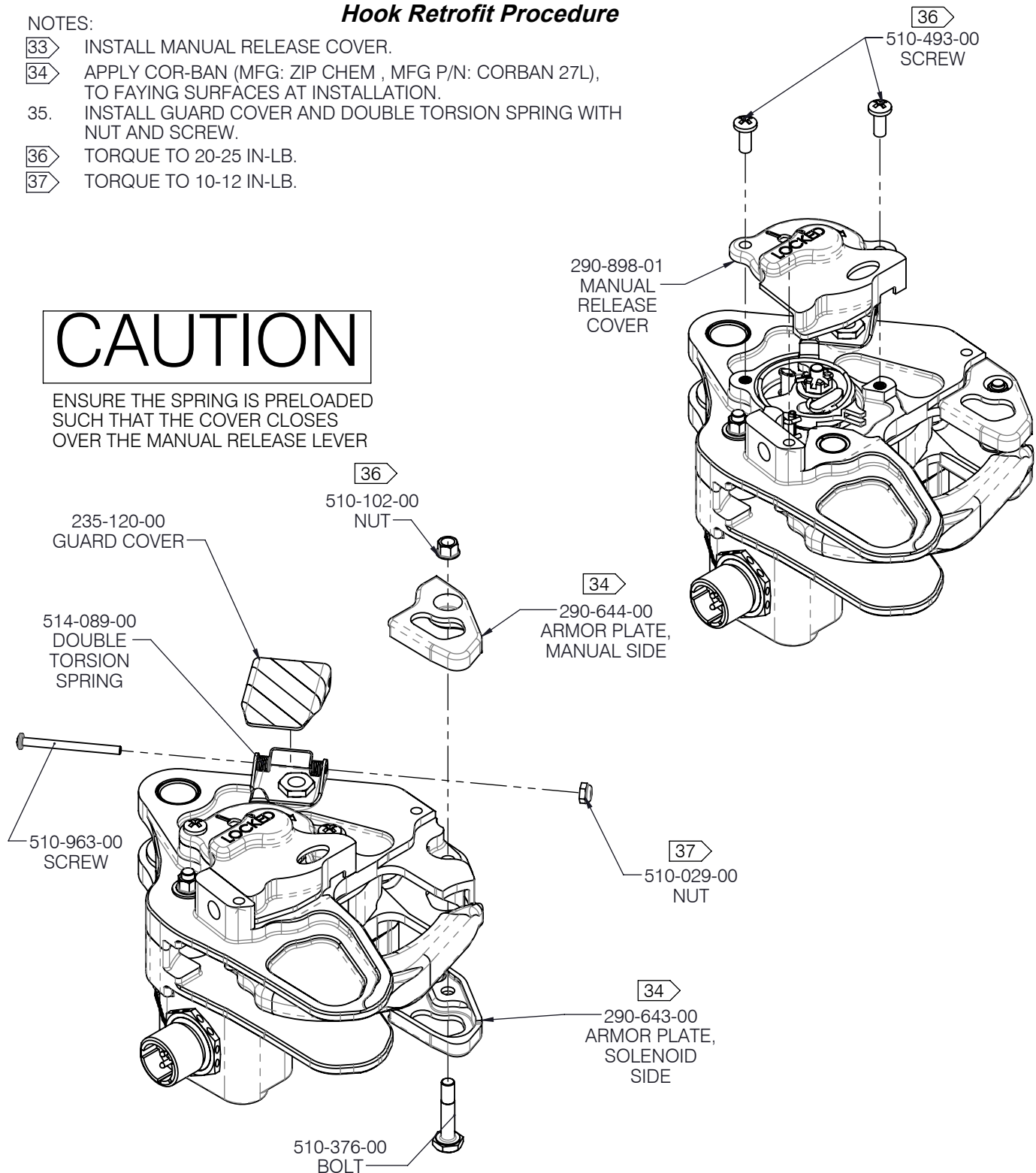
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## Hook Retrofit Procedure

# CAUTION

ENSURE THE SPRING IS PRELOADED SUCH THAT THE COVER CLOSES OVER THE MANUAL RELEASE LEVER



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***Hook Retrofit Procedure***

INSTRUCTIONS:

38.    PERFORM ACCEPTANCE TEST PROCEDURE PER CMM 122-017-00.

