



A Textron Company

ALERT SERVICE BULLETIN

505-22-33

PSL# 1291

3 November 2022

Revision A, 16 December 2022

MODEL AFFECTED: 505

SUBJECT: MAIN ROTOR FLIGHT CONTROL RIGGING
CHECK, PERFORMANCE OF

HELICOPTERS AFFECTED: Serial numbers 65011 through 65412, 65414
through 65416, 65419 through 65426, 65428,
65430, and 65431.

[Serial number 65413, 65417, 65418, 65427, 65429,
65432 and subsequent will have the intent of this
bulletin accomplished prior to delivery.]

COMPLIANCE: **PART I** - Within the next 10 flight hours or 30 days,
whichever occurs first, following the release date of
Revision A of this bulletin.

PART II - Prior to next flight, if required by **PART I**, but
not to exceed 600 flight hours or 12 months, whichever
occurs first, following the release date of Revision A of
this bulletin.

PART III - Prior to next flight and every 50 flight hours
thereafter, if required by **PART I** until **PART II** can be
accomplished.

DESCRIPTION:

Bell has become aware of a potential fouling condition with the main rotor flight controls. The initial release of this bulletin mandated a one-time rigging check of the collective control system to ensure sufficient minimum clearance is available per the published instructions contained in the Maintenance Manual (MM) Chapter 67. As instructed by

the MM, to accomplish the collective controls clearance check, both the non-boosted and the boosted controls required verification. In fact, the low clearance or potential fouling area of concern that is considered critical is between the collective lever and the swashplate outer ring (Figure 1) during rotation at cyclic fully forward and collective fully down. There are two other locations where a low clearance conditions can be found: between the collective lever lower surface and the swashplate support (Figure 2), and between the swashplate inner ring and the collective sleeve (Figure 3). Following the accomplishment of the original release of this bulletin, some operators have reported a dimensional difference when comparing the clearance measured between the collective lever and each pitch change (pc) link attachment points (outer ring assembly lugs). Due to manufacturing and assembly stack up tolerances Bell established that a difference of up to 0.048 inch (1.22 mm) could be noted when comparing each measurement.

Revision A of this bulletin mandates a collective controls clearance check to be accomplished as instructed in **PART I**. Depending on the findings, collective controls rigging in accordance with **PART II** may be required. Helicopters that had the initial release of this bulletin accomplished and did not have a low clearance condition or corrected a low clearance condition meet the intent of **Revision A** of this bulletin provided that one of the following conditions is met.

- Both swashplate pc link attachment points were recorded and verified to meet minimum clearance of 0.060 inch (1.53 mm) and both were found acceptable or,
- If the clearance was measured at only one of the two pc link attachment points, the clearance measured and recorded to be 0.108 inch (2.75 mm) or greater. The 0.108 inch (2.75 mm) minimum clearance required is based on the worst-case scenario of a measurement difference of 0.048 inch (1.22 mm) between each pc link attachment points and the collective lever.

If neither of the conditions described above is met, then **Revision A** of this bulletin must be accomplished.

PART II will be required prior to next flight only if the clearance between the collective lever and the swashplate outer ring is not sufficient. Both **PART I** and **PART II** require the use of a Hydraulic Power Unit (HPU). **PART II** requires special tooling to accomplish the rigging procedures. Rather than referring to the Maintenance Manual, Revision A **PART II** incorporates the required rigging instructions to clarify and simplify the accomplishment of the rigging procedure.

PART III introduces an initial visual inspection before next flight and a recurring 50 flight hour visual inspection, for evidence of contact between swashplate components. **PART III** is required after accomplishment of **PART I** only if the clearance between the collective lever and the swashplate support (Figure 2) and/or the swashplate inner ring and the collective sleeve (Figure 3) is not sufficient, and **PART II** cannot be accomplished immediately.

APPROVAL:

The engineering design aspects of this bulletin are Transport Canada Civil Aviation (TCCA) approved.

CONTACT INFO:

For any questions regarding this bulletin, please contact:

Bell Product Support Engineering
Tel: 1-450-437-2862 / 1-800-363-8023 / productsupport@bellflight.com

MANPOWER:

Approximately 3.0 man-hours are required to complete **PART I** of this bulletin.
Approximately 7.0 man-hours are required to complete **PART II** of this bulletin.
Time required to accomplish **PART III** of this bulletin is negligible.
These estimates are based on hands-on time and may vary with personnel and facilities available.

WARRANTY:

Owners / Operators of Bell Helicopters who comply with the instructions in this bulletin will be eligible to receive labor coverage to perform **PART I** and **PART II** of this bulletin. The www.mybell.com portal allocates specific warranty entitlement for an aircraft by serial number. The Product Service Letter (PSL) number which will be listed below the bulletin number on the introduction page. This is going to be a required field when submitting a claim on the Bulletins Tab for replacement, labor. If you receive an ASB or TB that does not have a PSL number, then there is no warranty entitlement for that bulletin.

Labor entitlement: **PART I \$ 285.0 USD**
PART II \$ 665.0 USD

To receive labor, under warranty:

- Comply with the instructions contained in this Bulletin no later than the applicable date in the “compliance section”.
- If there is a PSL number identified in the bulletin you will be required to enter this PSL number which will validate warranty entitlement for the selected aircraft. Please ensure that you use the Bulletin tab on the warranty section on www.mybell.com portal to file your claim.

MATERIAL:

Required Material:

The following material is required for the accomplishment of this bulletin and may be obtained through your Bell Supply Center.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Qty (Note)</u>
AS5174W0505	UNION	1 (1)
MS24665-151	COTTER PIN	3 (2)
MS24665-155	COTTER PIN	3 (2)

NOTES:

1. Used to connect Hydraulic Power Unit (HPU) to helicopter hydraulic system for accomplishment of **PART I** and **PART II**.
2. Required for accomplishment of **PART II**.

Consumable Material:

The following material is required to accomplish **PART II** of this bulletin, but may not require ordering, depending on the operator's consumable material stock levels. This material may be obtained through your Bell Supply Center.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Qty (Note)</u>	<u>Reference *</u>
2100-00349-00	Corrosive Preventative Compound	2.5 OZ (1)	C-101
2100-00350-00	Corrosive Preventative Compound	2.5 OZ (1)	C-104

* C-XXX numbers refer to the consumables list in the BHT-ALL-SPM, Standard Practices Manual

NOTE 1: Quantity indicated is the format that the product is delivered in. Actual quantity required to accomplish the instructions in this bulletin may be less than what has been delivered.

SPECIAL TOOLS:

Required for accomplishment of **PART I**:

Hydraulic Power Unit (available commercially) (1 required)

- Specifications to be 600 PSI (4137 kPa) operating pressure, 1.7 gallons per minute (6.44 L/min) maximum flow, 5-micron pressure filter.

Required for accomplishment of **PART II**:

Hydraulic Power Unit (available commercially) (1 required)

- Specifications to be 600 PSI (4137 kPa) operating pressure, 1.7 gallons per minute (6.44 L/min) maximum flow, 5-micron pressure filter.

SLS-200-017-001 (Kitted Collector, Cyclic and Collective Rigging Tools) (1 required) consisting of the following tools and parts:

SLS-200-010-001 (111493781) (Collective Centering Tool) (QTY 1)

SLS-200-012-001 (Cyclic Aft and Centering Rigging Tool) (QTY 1)

SLS-200-013-001 (Swashplate Rigging Tool) (QTY 1)
SLS-200-016-001 (T505005) (Cyclic Centering Tool) (QTY 1)
427-201-001-147 (Servo Rigging Pin) (QTY 3)
NAS6607-20 (BOLT) (QTY 1)
NAS1149DO763J (WASHER) (QTY 1)

WEIGHT AND BALANCE:

Not affected.

ELECTRICAL LOAD DATA:

Not affected.

REFERENCES:

BHT-505-MM Maintenance Manual.

PUBLICATIONS AFFECTED:

BHT-505-MM Maintenance Manual, Chapter 67.

ACCOMPLISHMENT INSTRUCTIONS:

PART I – Collective control system rigging check.

1. Prepare the helicopter for maintenance.
2. Remove transmission fairings 432BR and 432AL ([DMC-505-A-53-40-02-00A-520A-A](#), [DMC-505-A-53-40-01-00A-520A-A](#)) to gain access to the swashplate assembly.
3. Install the Hydraulic Power Unit (HPU) ([DMC-505-A-29-00-00-00A-722A-A](#)).

WARNING

Make sure that there are no personnel and/or equipment on or near the flight controls. Operation of the flight controls can cause injury and/or damage to the equipment.

CAUTION

Make sure that all the parts from the collective control system and the cyclic control system are installed in their correct position and that all the support equipment used for the rigging are removed before you do this procedure.

CAUTION

Do not apply more than 400 PSI (2757 kPa) on the HPU or the hydraulic reservoir can be overfilled, and damage can occur.

-NOTE-

The procedure below covers the rigging check for both the cyclic control and collective control systems as the two systems are interlinked.

-NOTE-

Prior to applying hydraulic power, all main rotor fixed control tubes must be installed.

4. On the Hydraulic Power Unit (HPU), set the flow between 1.5 and 2.5 gallons per minute (5.68 and 9.46 L/min) and slowly apply pressure to 400 PSI (2757 kPa).
5. Put the collective stick and grip assembly against the down stop.
6. Put the cyclic stick and grip assembly fully forward and centered laterally.
7. Slowly rotate the swashplate outer ring (2, Figure 1) until one of the pitch change link attachment points is directly over the collective lever (1).
8. Examine the clearance between the collective lever assembly (1) and the outer ring assembly (2). Verify both pitch change link attachment points for minimum clearance when rotated. Make sure that the clearance is more than 0.060 inch (1.53 mm) at both locations. If clearance is less than 0.060 inch (1.53 mm) rigging of the collective and cyclic control systems, as instructed in **PART II** of this bulletin, will be required prior to next flight.
9. Put the collective stick and grip assembly against the up stop.
10. With the collective full up, examine the clearance between the collective lever assembly (1, Figure 2) and the support assembly (3). Make sure that the clearance is more than 0.010 inch (0.25 mm). If clearance is less than 0.010 inch (0.25 mm) and there is no evidence of contact, accomplish **PART II** or accomplish **PART III** as indicated in the **COMPLIANCE** section. If there is evidence of contact, report this condition to Product Support Engineering for disposition.

11. With the collective full up, examine the clearance between the inner ring (4, Figure 3) and the sleeve assembly (5) with cyclic stick and grip assembly in extreme positions. Make sure that the clearance is more than 0.010 inch (0.25 mm). If the clearance is less than 0.010 inch (0.25 mm) and there is no evidence of contact, accomplish **PART II** or accomplish **PART III** as indicated in the **COMPLIANCE** section. If there is evidence of contact, report this condition to Product Support Engineering for disposition.
12. On the HPU, set the pressure to 0 PSI (0 kPa).
13. Remove the HPU ([DMC-505-A-29-00-00A-522A-A](#)).
14. Regardless of the results of the check required in **PART I**, provide the following information to Product Support Engineering at productsupport@bellflight.com :
 - a. Include helicopter serial number in the subject line of the email.
 - b. Include the ASB number 505-22-33 Rev A in the subject line of the email.
 - c. Provide total time in service of the helicopter.
 - d. Provide the results of **PART I** Step 8 for both pc link attachment points.
 - (1) Dimension at the Target (red) pc link _____ (Figure 1).
 - (2) Dimension at the Blank (white) pc link _____ (Figure 1).
 - e. Provide the results of **PART I** Step 10.
 - (1) Dimension at the collective lever and the swashplate support _____ (Figure 2).
 - f. Provide the results of **PART I** Step 11.
 - (1) Dimension at the inner ring and the swashplate sleeve _____ (Figure 3).
15. As required, install left transmission fairing (432AL) and right transmission fairing (432BR) ([DMC-505-A-53-40-01-00A-720A-A](#), [DMC-505-A-53-40-02-00A-720A-A](#))
16. Make an entry in the helicopter logbook and historical service records indicating findings and compliance with **PART I** of this Alert Service Bulletin. If the clearance checks at all three affected locations were found satisfactory, no further action is required. Otherwise, accomplish **PART II** and/or **PART III** as required.

PART II – Cyclic and collective control system rigging.

WARNING

PART II requires the use of a Hydraulic Power Unit (HPU) to accomplish rigging operations. During rigging adjustments on aircraft, turn off the hydraulic power unit to prevent injury and/or damage to the equipment.

1. Prepare the helicopter for maintenance.
2. As required, remove left transmission fairing (432AL) and right transmission fairing (432BR) ([DMC-505-A-53-40-02-00A-520A-A](#), [DMC-505-A-53-40-01-00A-520A-A](#)) to gain access to the swashplate assembly.

-NOTE-

The procedure below covers the rigging for both the cyclic and collective control systems as the two systems are interlinked.

3. Un-Boosted Main Rotor Fixed Controls Rigging (Cyclic and Collective)
 - a. Disconnect M207-20M211-043 tube from M207-20M207-041 (or M207-20M207-045) bellcrank (left actuator) (Figure 4).
 - b. Disconnect M207-20M312-041 tube from M207-20M306-041 bellcrank (center actuator).
 - c. Disconnect M207-20M211-043 tube from M207-20M207-043 (or M207-20M207-047) bellcrank (right actuator).
 - d. As applicable, remove M207-20M477-043 (or M207-20M477-045) co-pilot cyclic stick or RAM0359 cyclic cover. Install SLS-200-016-001 (T505005) cyclic centering tool using an NAS6607-20 bolt and NAS1149D0763J washer (Figure 5).
 - e. Slightly move the pilot cyclic and grip assembly in circular motion while tightening the bolt to ensure the tool is properly seated and secured.
 - f. Install the SLS-200-010-001 (111493781) collective centering tool (Figure 6).
 - g. Insert the 427-201-001-147 rig pin between rigging hole on actuator support and bellcrank (left actuator) (Figure 7).

- h. Insert 427-201-001-147 rig pin between rigging hole on actuator support and bellcrank (center actuator).
 - i. Insert 427-201-001-147 rig pin between rigging hole on actuator support and bellcrank (right actuator).
 - j. Loosen the nut on the control tube M207-20M211-043 (or M207-20M211-041) and turn the rod end to adjust the control tube length to fit at the M207-20M207-041 (or M207-20M207-045) bellcrank (left actuator). The attachment bolt should fit freely. Exposed threads on tube shall not exceed 1 inch (25.4 mm) (Figure 4). Tighten nut to 80 to 100 inch-pounds (9.1 to 11.4 Nm).
 - k. Loosen the nut on the control tube M207-20M312-041 and turn the rod end to adjust the control tube length to fit at the M207-20M306-041 bellcrank (center actuator). The attachment bolt should fit freely. Exposed threads on tube shall not exceed 1 inch (25.4 mm). Tighten nut to 80 to 100 inch-pounds (9.1 to 11.4 Nm).
 - l. Loosen the nut on the control tube M207-20M211-043 (or M207-20M211-041) and turn the rod end to adjust the control tube length to fit at the M207-20M207-043 (or M207-20M207-047) bellcrank (right actuator). The attachment bolt should fit freely. Exposed threads on tube shall not exceed 1 inch (25.4 mm) (Figure 4). Tighten nut to 80 to 100 inch-pounds (9.1 to 11.4 Nm).
 - m. Remove the SLS-200-016-001 (T505005) cyclic centering tool, NAS6607-20 bolt and NAS1149D0763J washer (Figure 5).
 - n. Remove the SLS-200-010-001 (111493781) collective centering tool (Figure 6). As applicable, re-install M207-20M477-043 (or M207-20M477-045) co-pilot cyclic stick or RAM0359 cyclic cover.
 - o. Remove the 427-201-001-147 rig pins from all three actuator supports (Figure 7).
 - p. Apply corrosion preventive compound (C-104) to the shank of the bolt securing the control tubes M207-20M312-041 and M207-20M211-043 (or M207-20M211-041). Install the washers and the nut. Tighten nut to 50 to 70 inch-pounds (5.6 to 7.9 Nm), then loosen the nut only sufficiently to install the new Cotter pin. Apply corrosion preventive compound (C-101) to the bolt head, nut and washers. ([DMC-505-A-67-11-00-00A-271A-A](#), [DMC-505-A-67-12-00-00A-271A-A](#)).
4. Boosted Section Main Rotor Swashplate Position Rigging (Cyclic and Collective).
- a. Install the Hydraulic Power Unit (HPU) ([DMC-505-A-29-00-00-00A-722A-A](#)).

WARNING

Make sure that there are no personnel and/or equipment on or near the flight controls. Operation of the flight controls can cause injury and/or damage to the equipment.

CAUTION

Make sure that all the parts from the collective control system and the cyclic control system are installed in their correct position and that all the support equipment used for the rigging are removed before you do this procedure.

CAUTION

Do not apply more than 400 PSI (2757 kPa) on the HPU or the hydraulic reservoir can overflow, and damage can occur.

-NOTE-

The procedure below covers the swashplate rigging for both the cyclic and collective control systems as the two systems are interlinked.

-NOTE-

Prior to applying hydraulic power, all main rotor fixed control tubes must be installed.

- b. On the Hydraulic Power Unit (HPU), set the flow between 1.5 and 2.5 gallons per minute (5.68 and 9.46 L/min) and slowly apply pressure to 400 PSI (2757 kPa).
- c. Disconnect the M207-20M485-041 (or M207-20M485-043) rod from the 206-010-447-109 lever assembly (Figure 8).
- d. Disconnect both M207-20M213-041 tubes from the 206-010-451-109 inner ring.
- e. Position the collective stick against the down stop and tighten the collective friction knob to hold the collective stick in place.
- f. Loosen the friction knob on the pilot cyclic stick and install the SLS-200-012-001 (111494191) cyclic aft and center rigging tool to position the cyclic stick against the up stop and centered in the lateral direction as follows (Figure 9):

- (1) Remove bolt and washer from the cyclic base assembly.
- (2) Secure the SLS-200-012-001 (111494191) tool using the previously removed bolt and washer on the cyclic base assembly.
- (3) Using the knob on the side, adjust the tool to ensure it is properly seated laterally (no lateral movement) then tighten the top screw.
- (4) Remove cyclic friction.
- (5) Pull on the cyclic stick backward to position the cyclic stick against mechanical stop (cyclic aft).
- (6) Tighten the knob on top of the tool until it presses on the cyclic stick base. While tightening the knob, pull gently on the stick until the stick is straight and stable in a backward position.

-NOTE-

When hydraulic power is applied to the aircraft, the pilot input linkages of the hydraulic servo actuators will center automatically.

- g. Center the pilot input linkages on all three hydraulic servo actuators (Figure 10).
- h. Position the 206-010-447-109 collective lever height between 2.22 and 2.28 inches (56.39 and 57.91 mm) (Figure 11).
- i. Loosen the nut on the tube M207-20M485-041 (or M207-20M485-043) and turn the clevis to adjust the length to fit at the 206-010-447-109 lever assembly. Make sure that the two holes of the clevis assembly align with the hole of the collective lever. The attachment bolt should fit freely. Exposed threads on the rod shall not exceed 1 inch (25.4 mm) (Figure 8). Tighten nut to 80 to 100 inch-pounds (9.1 to 11.4 Nm).
- j. Reconnect the M207-20M485-041 (or M207-20M485-043) rod to the 206-010-447-109 lever assembly.
- k. Apply corrosion preventive compound (C-104) to the shank of the bolt securing the M207-20M485-041 (or M207-20M485-043) rod to the 206-010-447-109 lever assembly. Install the bolt, washers, and nut. Tighten nut to 100 to 140 inch-pounds (11.4 to 16.0 Nm), then loosen the nut only sufficiently to install the new Cotter pin. Apply corrosion preventive compound (C-101) to the bolt head, e nut and washers. ([DMC-505-A-67-11-00-00A-271A-A](#), [DMC-505-A-67-12-00-00A-271A-A](#)).

- I. Install the SLS-200-013-001 (111494713) swashplate rigging tool on the 206-040-014-107 mast assembly (Figure 12).

-NOTE-

Ensure that swashplate rigging tool is properly seated and secure prior to adjustment of swashplate position.

- m. Position the left and right horns of the 206-010-451-109 inner ring using the SLS-200-013-001 (111494713) swashplate rigging tool.
- n. Loosen the nut on the left control tube. Adjust the control tube length to fit at the inner ring and the rigging tool. The attachment pin should fit freely. Exposed threads on tube shall not exceed 1 inch (25.4 mm) (Figure 12). Tighten nut to 95 to 110 inch-pounds (10.8 to 12.4 Nm).
- o. Loosen the nut on the right control tube. Adjust the control tube length to fit at the inner ring and the rigging tool. The attachment pin should fit freely. Exposed threads on tube shall not exceed 1 inch (25.4 mm) (Figure 12). Tighten nut 95 to 110 inch-pounds (10.8 to 12.4 Nm).
- p. To verify the M207-20M213 cyclic boosted tube adjustment is correct, perform the following.
 - (1) Remove the forward triangular portion of the SLS-200-013-001 (111494713) swashplate rigging tool (Figure 12).
 - (2) Reconnect the M207-20M213 tubes to the left and right horns of the 206-010-451-109 swashplate inner ring.
 - (3) Remove the forward ("U" shape) portion of the SLS-200-012-001 (111494191) cyclic aft and center rigging tool (Figure 9).
 - (4) Cycle the cyclic stick.
 - (5) Re-position the cyclic stick to aft and center by installing the forward ("U" shape) portion of SLS-200-012-001 (111494191) cyclic aft and center rigging tool. Refer to step f. (5) and (6) to ensure proper installation of the "U" shape tool.
 - (6) Re-install the forward triangular portion of the SLS-200-013-001 (111494713) swashplate rigging tool (Figure 12).
 - (7) Ensure the pins securing the M207-20M213 tubes and the 206-010-451-109 swashplate inner ring fit freely. If further adjustments are required repeat steps 4.m. through 4.o. until satisfactory.

- q. On the HPU, set the pressure to 0 PSI (0 kPa).
 - r. Remove the SLS-200-013-001 (111494713) swashplate rigging tool and SLS-200-012-001 (111494191) cyclic aft and center rigging tool from the aircraft. Install bolt and washer previously removed for tool installation.
 - s. Apply corrosion preventive compound (C-104) to the shank of the bolt securing the two control tubes M207-20M213 to the inner ring assembly. Install the washers and the nut. Tighten nut to 100 to 140 inch-pounds (11.4 to 16.0 Nm), then loosen the nut only sufficiently to install the new cotter pin. Apply corrosion preventive compound (C-101) to the bolt head, nut and washers (Figure 8). ([DMC-505-A-67-11-00-00A-271A-A](#), [DMC-505-A-67-12-00-00A-271A-A](#)).
- 5. Perform a cyclic and collective control system rigging check ([DMC-505-A-67-12-00-00A-360A-A](#), [DMC-505-A-67-11-00-00A-360A-A](#)).
 - 6. Remove the HPU ([DMC-505-A-29-00-00-00A-522A-A](#)).
 - 7. Install left transmission fairing and right transmission fairing (432AL) and (432BR) ([DMC-505-A-53-40-01-00A-720A-A](#), [DMC-505-A-53-40-02-00A-720A-A](#)).
 - 8. Verify and adjust, as required, the main rotor autorotation RPM ([DMC-505-A-62-00-00-00A-300A-A](#)).

-NOTE-

The accomplishment of **PART II** of this bulletin is considered the terminating action to this bulletin.

- 9. Make an entry in the helicopter logbook and historical service records indicating compliance with **PART II** of this Alert Service Bulletin.

PART III – Recurring 50 flight hours visual inspection for surface contact.

-NOTE-

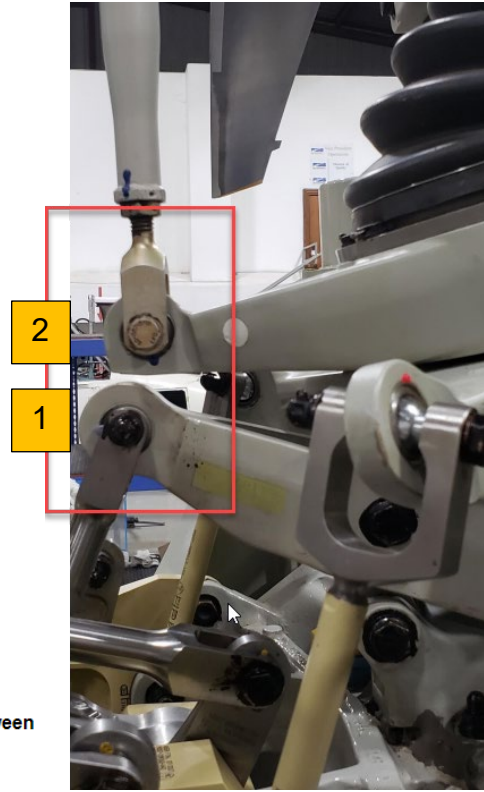
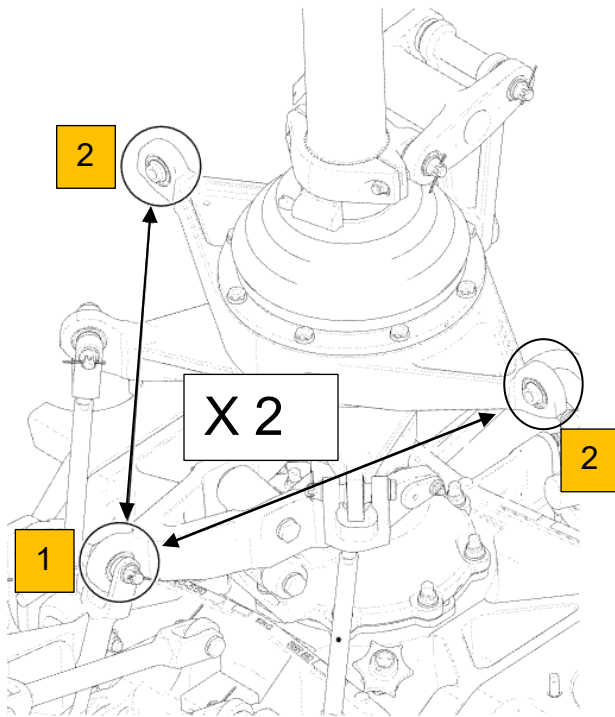
The use of a Hydraulic Power Unit (HPU) is **not** required for this visual check.

1. Conduct a visual inspection of the following areas for contact:
 - a. Between the collective lever assembly (1, Figure 2) and the support assembly (3).
 - b. Between the inner ring (4, Figure 3) and the sleeve assembly (5).
2. If visual inspection reveals evidence of contact between parts, contact Product Support Engineering with the damage information.
3. If visual inspection reveals **no** contact between parts, continue to perform the recurring 50 hours inspection until **PART II** is accomplished.

-NOTE-

The accomplishment of **PART II** of this bulletin is considered the terminating action to this bulletin.

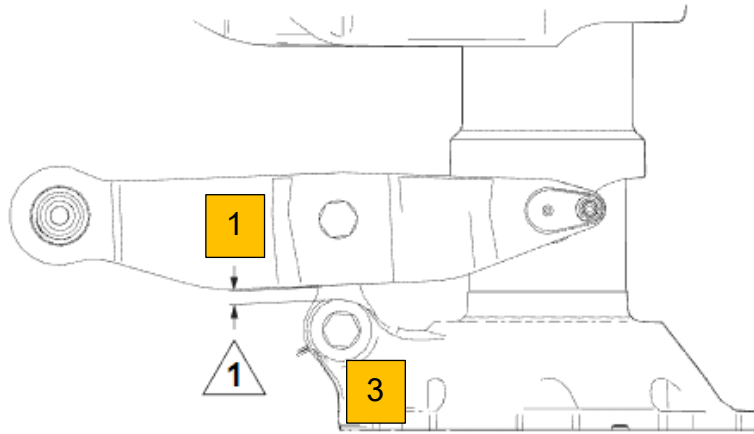
4. Make an entry in the helicopter logbook and historical service records to indicate findings and accomplishment of **PART III**.



NOTE

1. With the collective down and cyclic forward verify minimum clearance between the collective lever and the outer ring when rotated in the forward and AFT direction.

FIGURE 1 – Examination of Clearance Between Collective Lever Assembly and Outer Ring Assembly.



NOTE

- 1 With collective up, verify minimum clearance between collective lever and support assembly.

FIGURE 2 – Examination of Clearance Between Collective Lever Assembly and Support assembly.

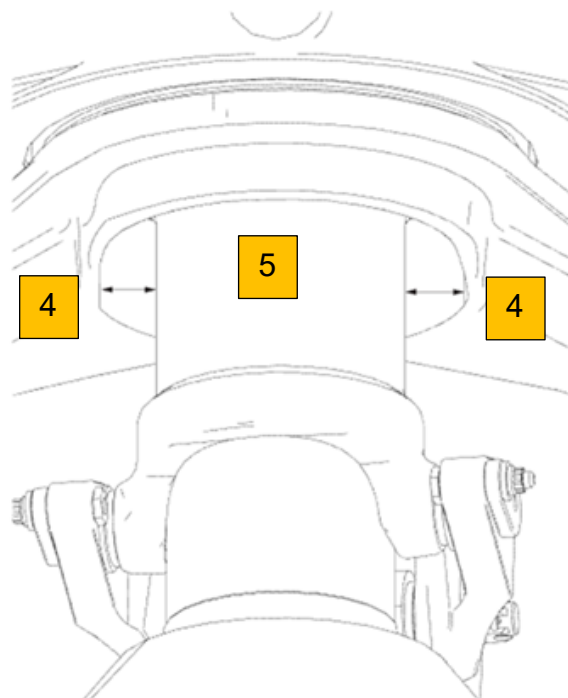


FIGURE 3 – Examination of Clearance Between Inner Ring and Sleeve Assembly.

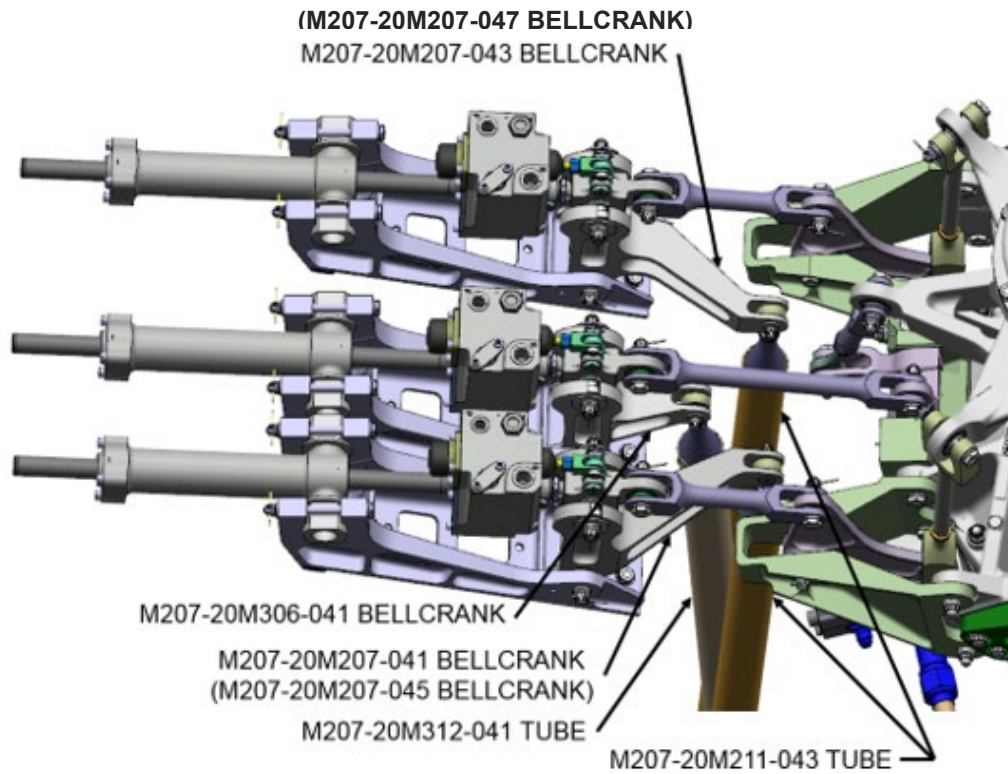


FIGURE 4 – Disconnection of Tubes from Bellcranks

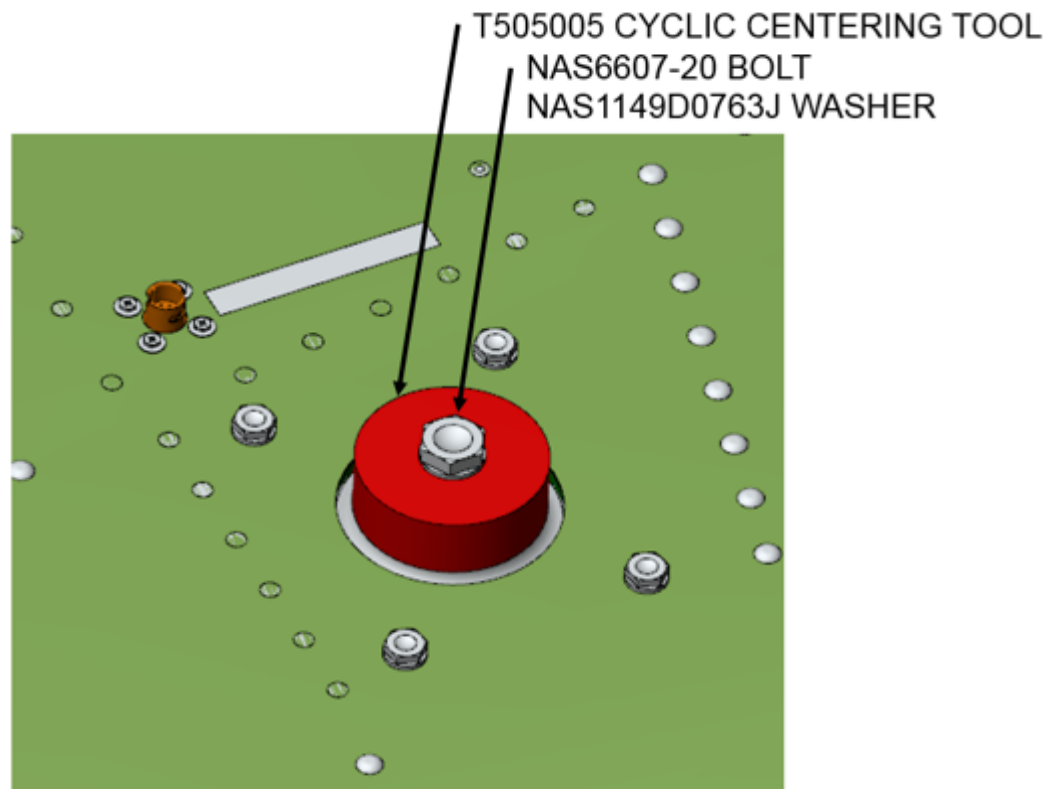
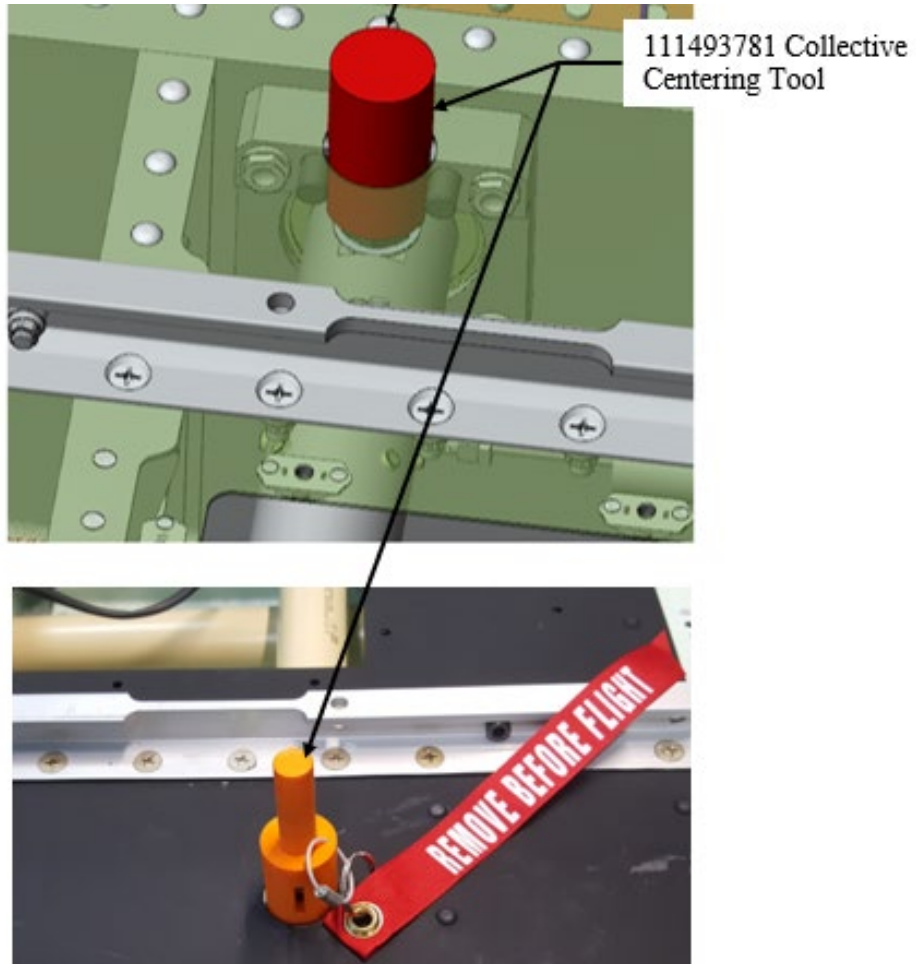


FIGURE 5 – Cyclic Centering Tool Installation (SLS-200-016-001)



SLS-200-010-001
Collective centering tool

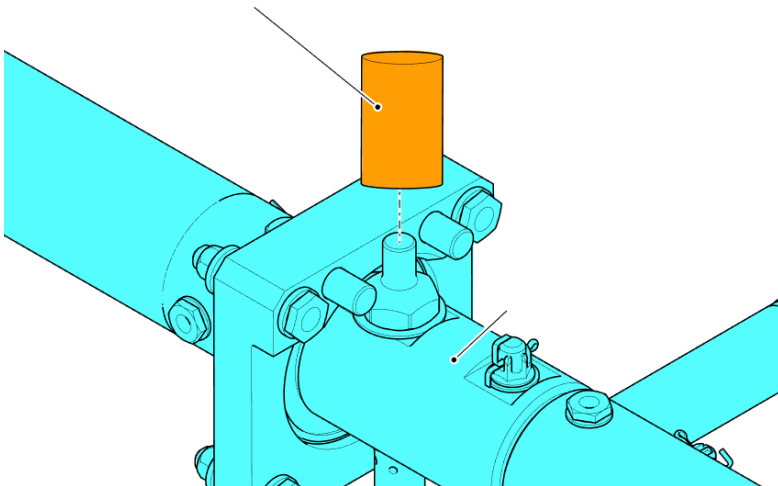


FIGURE 6 – Collective Centering Tool Installation (SLS-200-010-001)

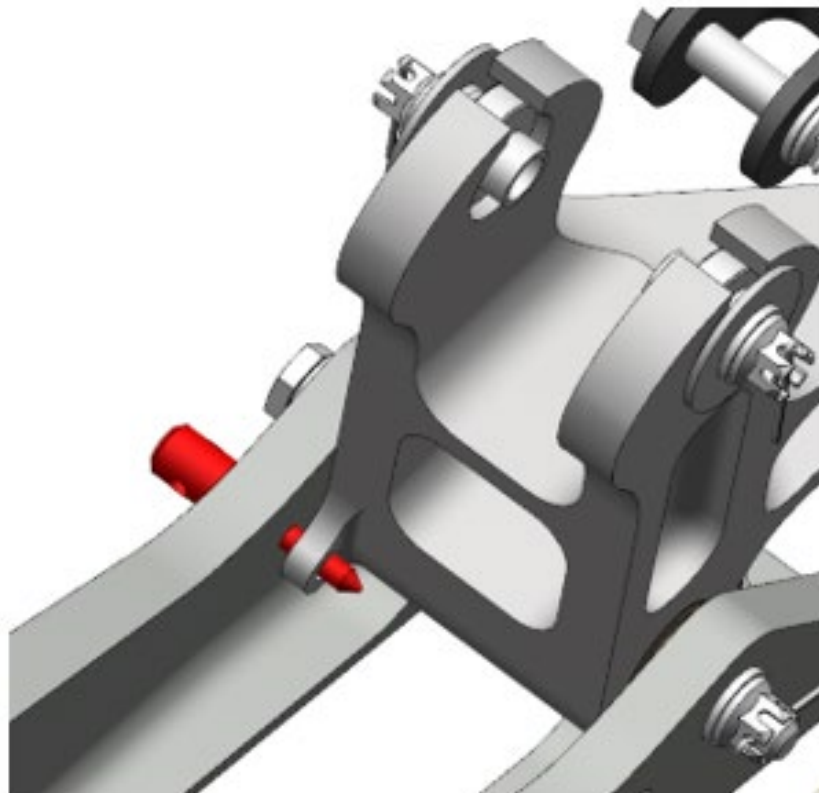
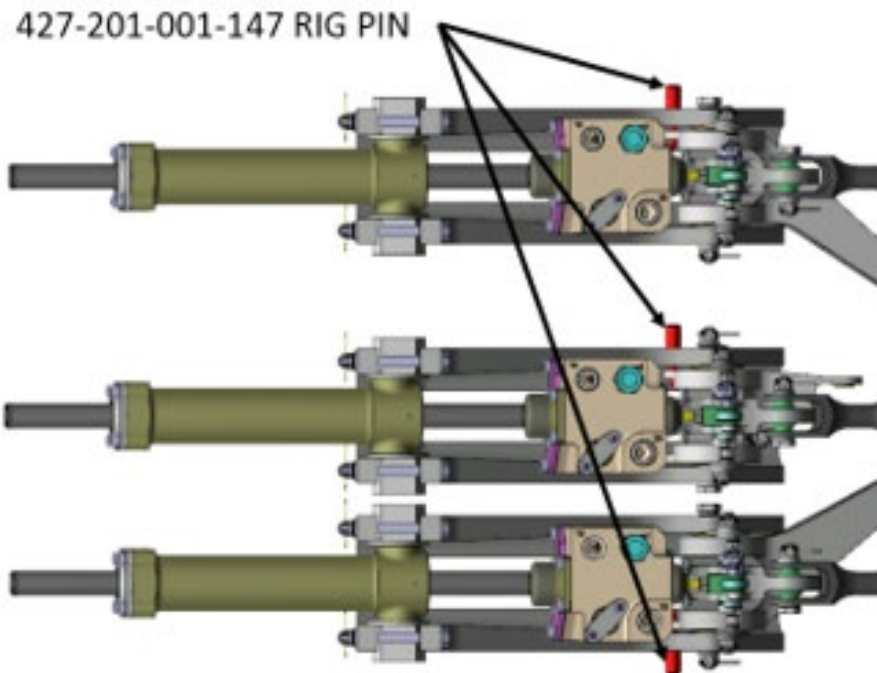


FIGURE 7 – Actuator Rig Pin Installation

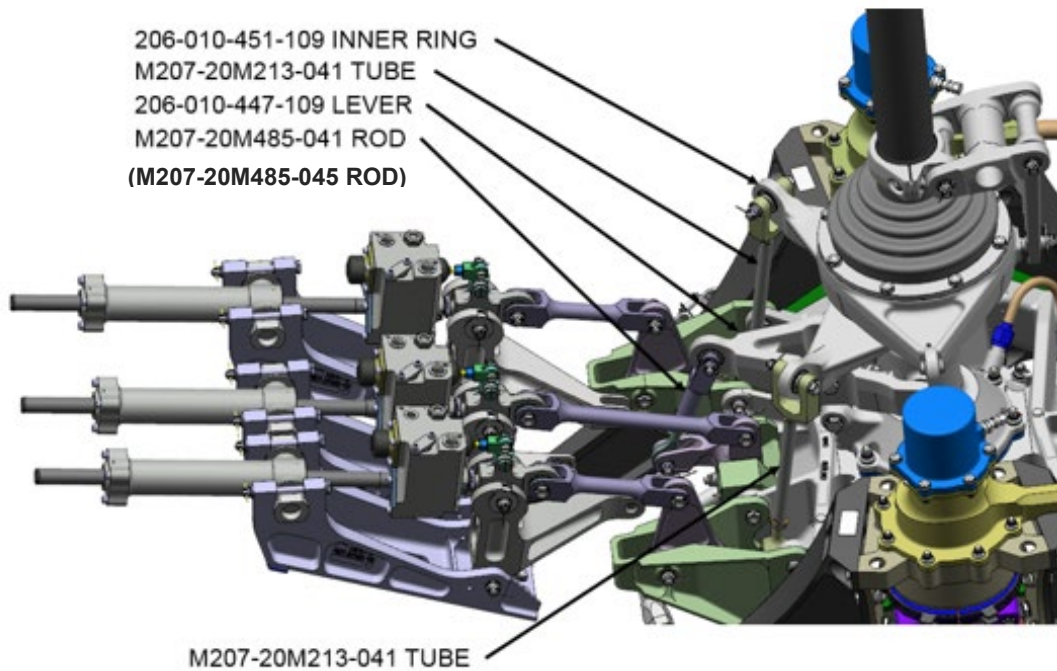


FIGURE 8 – Collective Rod / Cyclic Boosted Tubes

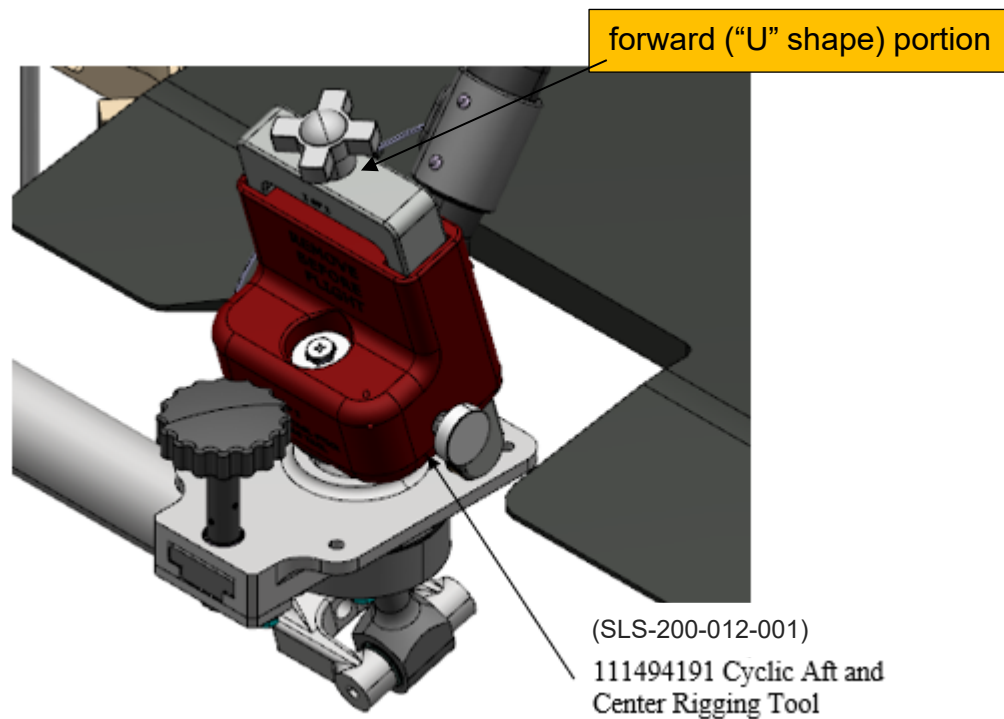


FIGURE 9 – Cyclic Aft and Center Rigging Tool (SLS-200-012-001)

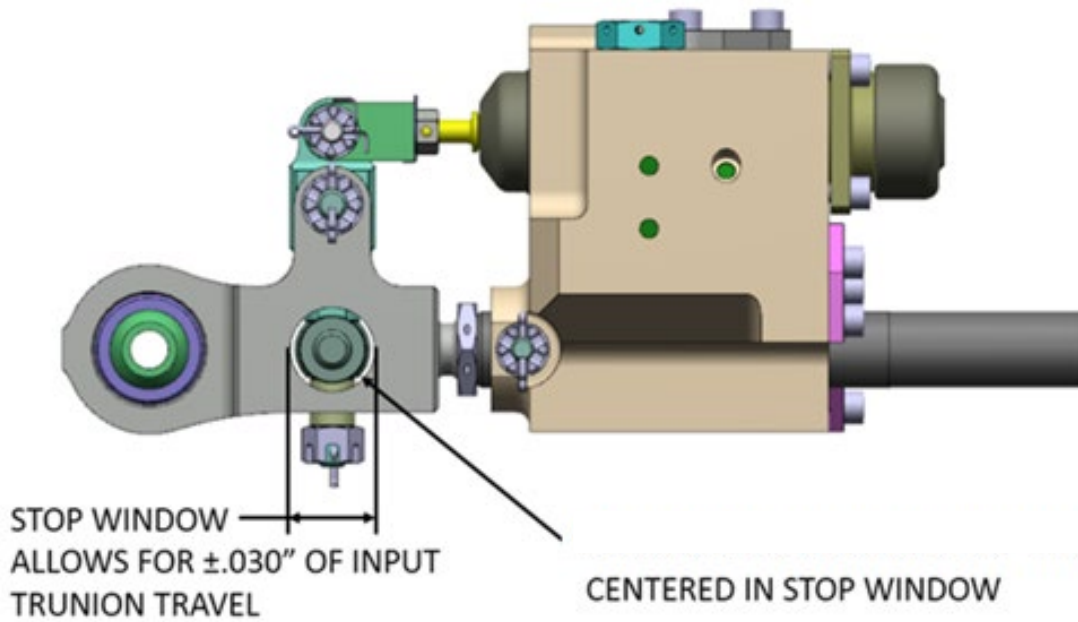


FIGURE 10 – Hydraulic Servo Actuator Centering

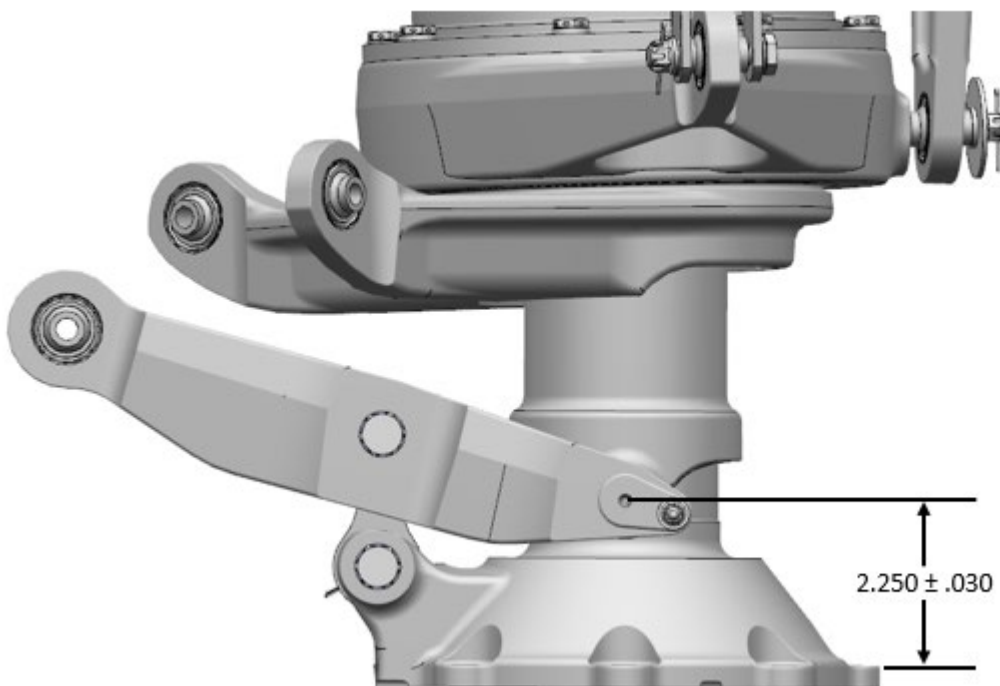


FIGURE 11 – Collective Lever Height Setting

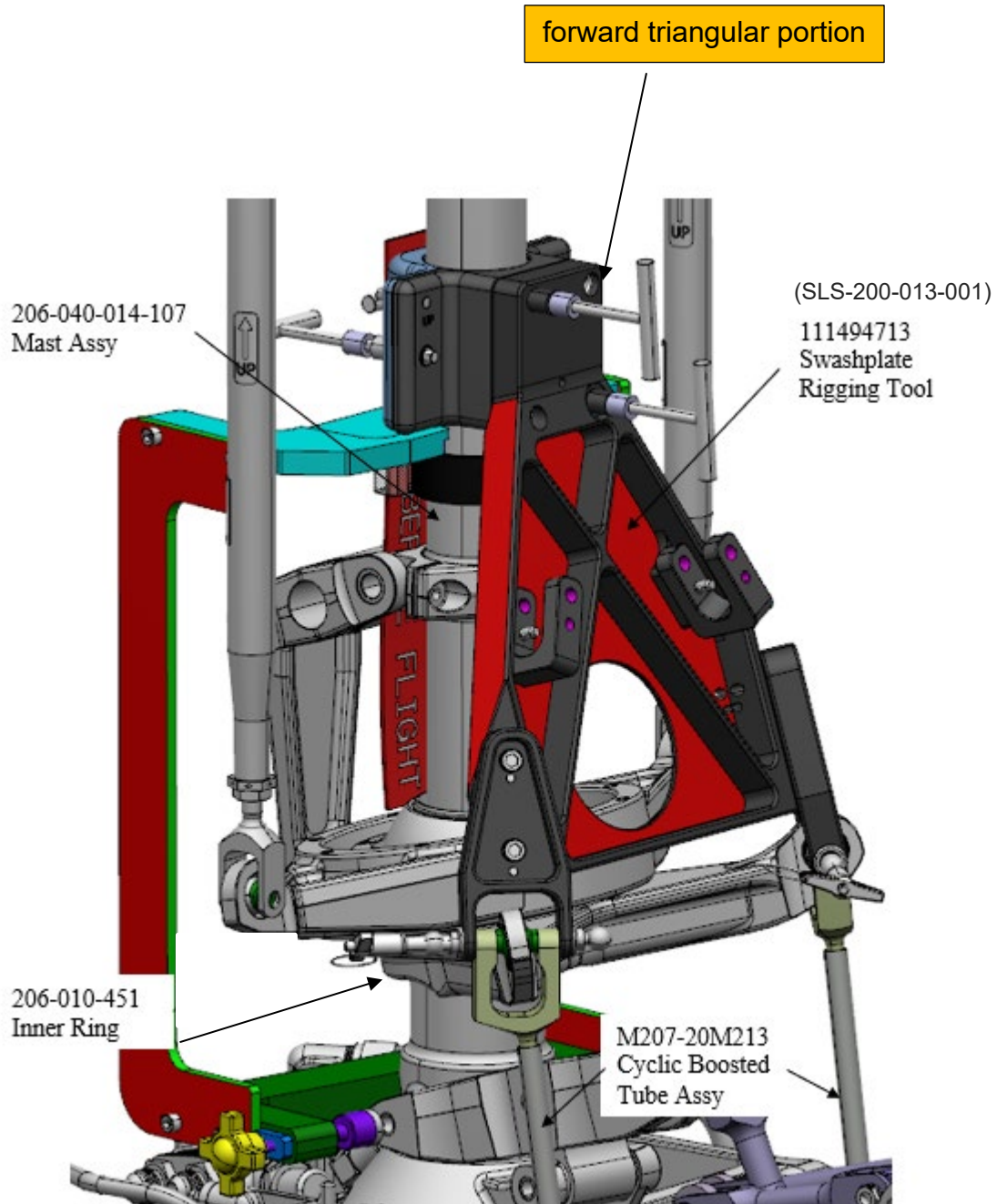


FIGURE 12 – Swashplate Rigging Tool Installation (SLS-200-013-001)