

SERVICE BULLETIN SB-122722-A

ID NUMBER & REVISION: SB-122722-A SUBJECT: NLG Actuator Rod End Torque **RELEASE DATE:** 27 December 2022 27 December 2022 **EFFECTIVE DATE:** SUPERSEDES NOTICE: N/A AIRCRAFT AFFECTED: MAKE & MODEL: ICON A5 SERIAL NUMBERS: 00004 - 00015, 00017 - 00024, 00026 - 00074, 00076 - 00137, 00139, 00141 - 00142, 00144 -00145, 00148 - 00150, 00152 - 00159, 00161, 00163,00166 **REQUIRED ACTION:** Verify the current torque level of the jam nut on the rod end of the nose landing gear (NLG) actuator. If proper torque not present, apply proper torque. At the next service intervention TIME OF COMPLIANCE: **REVISION HISTORY:** Initial Release Α Pilot/Owner ⊠ A&P LEVEL OF CERTIFICATION REQUIRED (any level checked

LSA Repairman – Inspection can perform task): LSA Repairman – Maintenance \boxtimes

- ☑ Certified Repair Station
- ⊠ Manufacturer

PURPOSE:

ICON Aircraft has identified an issue with the torque value of the Nose Landing Gear (NLG) jam nut on the rod end of the NLG actuator. ICON discovered that the jam nut may have been under torqued during manufacturing. This Service Bulletin provides inspection and adjustment instructions to correct the issue.

ASSEMBLIES AND PARTS:

PART NUMBER	DESCRIPTION	QUANTITY	ALTER	NATE
PART NUIVIDER	DESCRIPTION	QUANTIT	PART NUMBER	DESCRIPTION
ICA012080	INSPECTORS LACQUER, ANTI	A/N		
	SABOTAGE, YELLOW	A/N		
S73HW2-100-043	RETAINING RING, CRES, .438X.025	1		
ICA012078	LUBRICANT, GENERAL PURPOSE	A/N		
MOLYKOTE G-4700	LUBRICANT, MOLY-LITHIUM	A/N		
	SYNTHETIC GREASE, BLACK	A/N		
LOCTITE 222	THREADLOCKER, ACRYLIC,	A/N		
	REMOVABLE LOW STR, PURPLE	A/N		

IF APPLICABLE, SERVICE KITS:

KIT NUMBER	CONTENT PARTS	DESCRIPTION	QUANTITY



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INSTRUCTIONS:

It is permissible to disassemble the aircraft as required to permit accessibility, inspection, adjustment, maintenance, and repair in accordance with the latest release of the <u>Aircraft Maintenance Manual</u>.

Inspection and Repair

- 1. Raise the nose of the aircraft so that the nose gear is clear of the ground.
 - a. Place foam blocks underneath the cockpit, aft of the NLG doors.

CAUTION: Do not allow the aircraft to tip back, causing the tail of the aircraft to strike the ground

- 2. Remove the MLG fuse.
- 3. Remove screw retaining NLG Door as shown in Figure 1Error! Reference source not found.. Retain removed hardware for reinstallation.

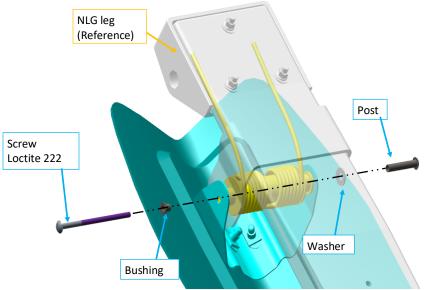


Figure 1 Remove Forward NLG Door

4. Release NLG leg from NLG drag link by removing NLG wrist pin and retaining ring, see Figure 2 for reference. Discard retaining ring, retain pin for reinstallation.



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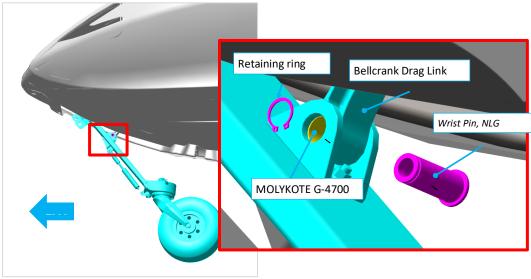


Figure 2 Release NLG Leg

- 5. Retract Actuator enough to get access to Actuator Boot FWD hose clamp, see Figure 3.Error! Reference source not found.
 - a. Remove FWD hose clamp, retain for reinstallation.

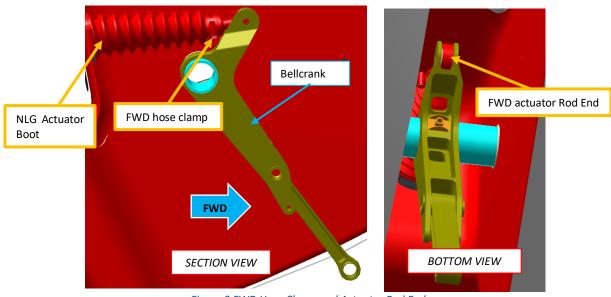


Figure 3 FWD Hose Clamp and Actuator Rod End

6. Slide boot (see Figure 3Error! Reference source not found.) back to expose NLG actuator rod end.



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- 7. Remove FWD Actuator Bolt to validate Torque at FWD actuator Rod End, see Figure 4 for reference
 - a. Make note not to remove the bushing.
 - b. Verify and note the torque level on the jam nut.

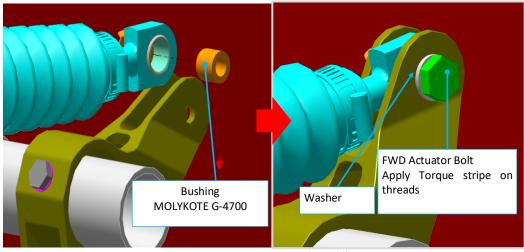
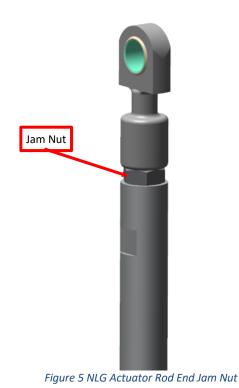


Figure 4 FWD Actuator Bolt Install

- 8. If the torque level of the jam nut is outside the allowable range (95-110 in-lbs) then:
 - a. Bottom the rod end onto the thrust tube. See Figure 5.
 - b. Torque the jam nut to 95-110 in-lbs.



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- 9. Reinstall actuator boot using retained FWD hose clamp.
 - a. Position the forward end of the boot on the rod end as close to the rod as possible and secure the FWD hose clamp. Note orientation of the clamp seen in Figure 4.
 - b. Torque the FWD hose clamp until there is a rise in torque then ¼ turn more. Verify NLG boot is not twisted as shown in Figure 6.

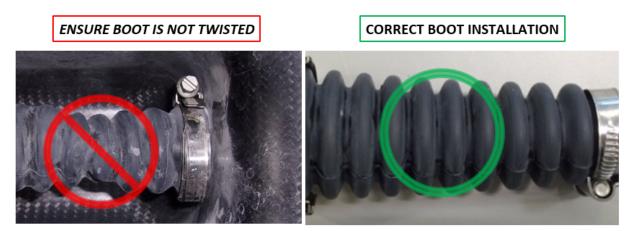


Figure 6 NLG Boot Installation



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- 10. Reinstall hardware securing actuator to bellcrank.
 - a. Verify bushing is installed.
 - b. Torque hardware t 53 in-lbs, see Figure 4.
- 11. Apply Molykote to the wrist pin and re-install through the NLG leg and NLG drag link as shown in Figure 2.
 - a. Secure the wrist pin using 1x new S73HW2-100-043 retaining ring.
- 12. Verify NLG Actuator rig for the down position in accordance with applicable Maintenance Manual Section.
 - a. For ASN 00001 00020: <u>100419</u>, Nose Landing Gear (NLG) Rigging and Check, Landing Gear Down.
 - b. For ASN 00021+: <u>100429</u>, Nose Landing Gear (NLG) Rigging and Check, Landing Gear Down.
- 13. Verify NLG Actuator rig for the up position in accordance with ICON Aircraft maintenance manual section <u>100430</u>, Nose Landing Gear (NLG) Rigging and Check, Landing Gear Up.
- 14. Reinstall NLG door using retained hardware, see Figure 1.
 - a. Using Isopropyl alcohol, clean the threads of the screw where threadlocker will be applied.
 - b. Apply Loctite 222 threadlocker to the threads of the screw.
 - c. Deflect spring until it rests in the upper door edge.
 - i. The spring will press the door against the NLG leg.
 - d. Install the door to the NLG leg as shown using specified hardware.
 - i. Ensure that no edge of the spring rests on the door.
 - e. Install and torque the screw to 8 +/- 2 in-lb.
- 15. Reinstall the MLG fuse.
- 16. In accordance with the <u>ICON Aircraft maintenance manual</u>, reinstall items that were removed from the aircraft.

Make the following logbook entry:

"I hereby certify the inspection and repair has been completed in accordance with Service Bulletin (SB-122722-A, NLG Actuator End Torque) and all the referenced documents. Potentially unclear procedures have been clarified with ICON Aircraft. The corrective action of this Service Bulletin (SB-122722-A) has been complied with (ref. FAA Exemption 10829B)".



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If you have questions, comments, or concerns about this Service Bulletin and/or if you are no longer owner/operator of this aircraft, please forward this information to the present owner/operator and notify ICON Aircraft 2141 ICON Way, Suite 100 Vacaville, CA 95688 (855) FLY-ICON or (707) 564-4000 <u>support@iconaircraft.com</u>

Please include the aircraft registration number, serial number, your name, and if known the contact information of the new owner/operator.