



2141 ICON Way, Vacaville, CA 95688 - Tel: 707.564.4000 – www.iconaircraft.com

SERVICE BULLETIN

SB-032118 REV B

DATE ISSUED: 4/23/2018
DATE EFFECTIVE: 4/23/2018
SUPERSEDES NOTICE: When complied with, SB-090817 Rev B
SB-032118 Rev A
SUBJECT: Aileron bellcrank to aileron socket interference correction

AIRCRAFT AFFECTED: **MODEL:** ICON A5
S/N: 00001-00020, 00022-00025, 00028, 00030-00032

REQUIRED ACTION:

- 1) If the interference condition detailed in SB-090817 rev B occurs on either wing, then replace the wing inboard roll bellcrank on both wings with new design bellcrank.
- 2) If the interference condition detailed in SB-090817 rev B **does not** occur on either wing, no maintenance action is necessary.

TIME OF COMPLIANCE: At or before the next service intervention or regularly scheduled maintenance event, but not to exceed the next one hundred (100) hours' time-in-service from the effective date above.

PURPOSE:

ICON is committed to designing, manufacturing, delivering, and supporting a high quality Light Sport Aircraft, providing a level of safety well beyond expectations. This Service Bulletin is to provide instructions on how to install a new design wing inboard roll bellcrank to eliminate an interference condition between the roll socket and the roll bellcrank rod end detailed in SB-090817 rev B. Not all aircraft have this condition, so it is important to inspect each aircraft for applicability. This service bulletin, when complied with, supersedes SB-090817 rev B and eliminates the reoccurring inspections of the bellcrank to roll socket interface.

WARRANTY:

ICON Certified Service Providers: Please submit an invoice for warranty reimbursement for labor on completion of this service bulletin. Please reference service bulletin number SB-032118.

1. 4-man hours of labor removal, installation, and rigging check.

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PARTS LIST:

Part Number	Part Description	Quantity
98410A110	RETAINING RING, EXTERNAL BERYLLIUM COPPER	2
MS27640-3A	BEARING, BALL, AFR AFB, HD, .190X.625X.245	2
MS27644-3	BEARING, BALL, AFR AFB, DBL ROW HD, .190X.777X.495	2
ICA009410	PIN, BELLCRANK, ROLL, WING FOLD	2
ICA012439	BELLCRANK, ROLL, WING FOLD, LH	1
ICA012440	BELLCRANK, ROLL, WING FOLD, RH	1
LOCTITE 603	RETAINING COMPOUND, CYLINDRICAL BONDING	A/N
LOCTITE 7471	ACTIVATOR FOR LOCTITE	A/N

Instructions:

Special tools, fixtures, or test equipment:

1. Bearing press
2. Two - 0.1875" rigging pins

PREPARATION:

1. Inspect the aircraft in accordance with SB-090817 rev B. If an interference condition **is** occurring, follow the steps below to correct it. If an interference condition is **not** occurring this service bulletin does not apply to that aircraft.
2. 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 Aircraft Maintenance Manual, ICA000833.
3. Fold the wings or slide them back from center wing and place them on padded work stand.
4. On each wing, remove the inboard aileron pushrod by disconnecting it from the inboard and outboard roll bellcranks. See Figure 1 and Figure 2. Retain hardware for reinstallation.
5. Remove the inboard roll bellcrank by disconnecting it from the inboard wing rib. Retain hardware for reinstallation.

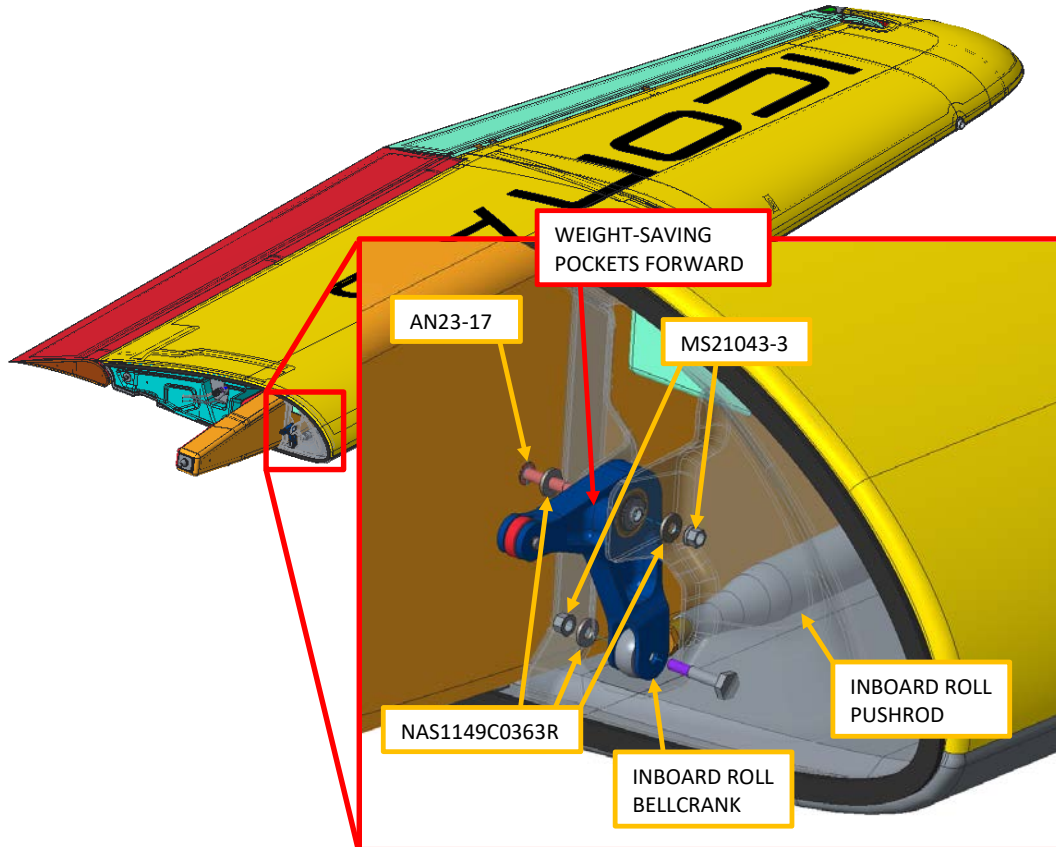
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Figure 1: Inboard Roll Bellcrank and Pushrod Attachment. LH Wing Shown.

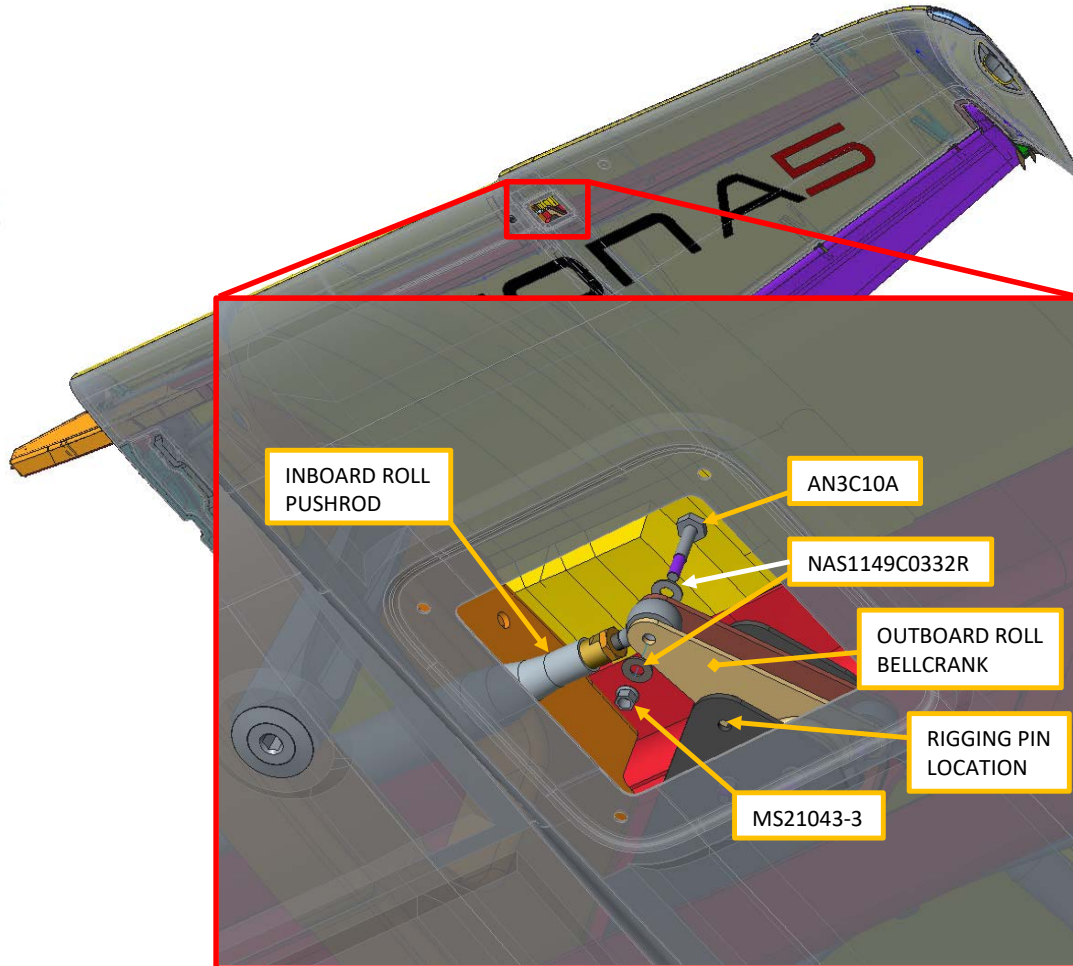
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Figure 2: Outboard Bellcrank and Pushrod Attachment. LH Wing Shown.

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INSTALLATION:

1. Assemble the inboard roll bellcrank components as shown in Figure 3 (if not already assembled from ICON). It is permissible to re-use hardware from the previously removed bellcrank except the 98410A110 clip. The MS27644-3 bearing will require a press fit. Once press fit into the bellcrank, ensure the bearing smoothly rotates. If it does not smoothly rotate contact ICON for further assistance.

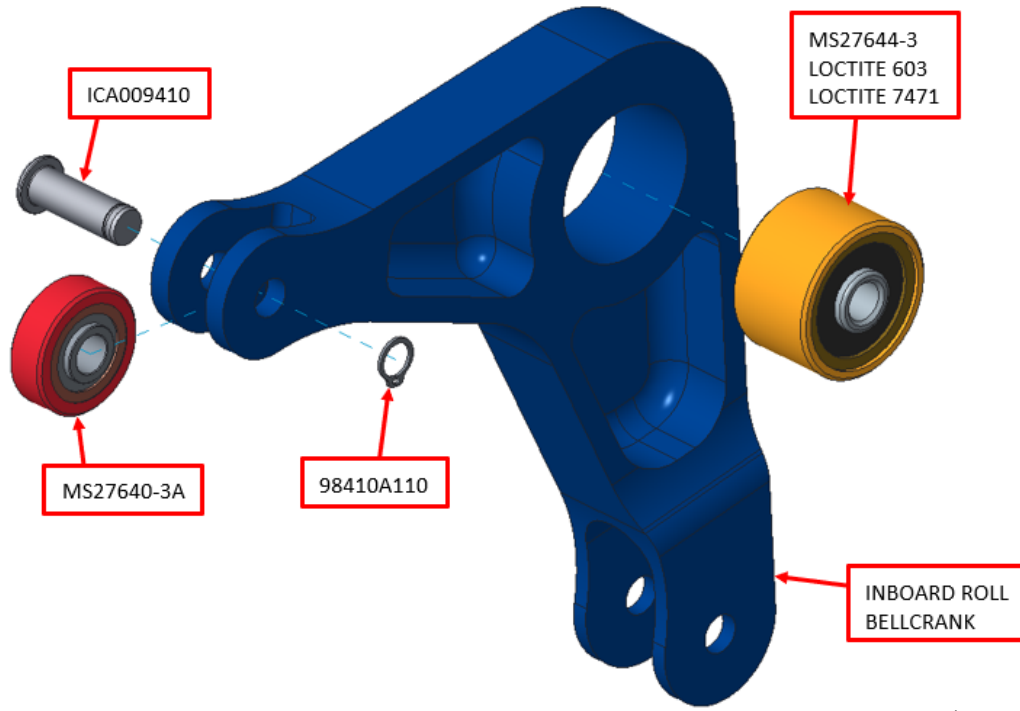


Figure 3: Inboard Roll Bellcrank. LH Side Shown.

2. Reinstall the inboard roll bellcrank using the retained hardware. Tighten bellcrank AN23-17 bolt to 19inlb. See Figure 1.
3. Adjust the length of the inboard push rods to 85.575" center of rod end to center of rod end by adjusting the pushrod rod ends equally, then tighten the jamb nut to 60 in-lb. Ensure that both rod ends have enough thread protrusion by visually inspecting for threads through the witness holes on the rod ends.

Note: The provide push rod length provided is intended as a starting point for the rigging process, the outboard rod end and will likely need to be adjusted slightly in a step 6 below if the rigging pin cannot be easily inserted.

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4. Install the inboard roll pushrod using the retained hardware. It may be helpful to temporarily install the push rod on the outboard bellcrank to facilitate adjustment should it be needed in step 6. See Figure 1 and Figure 2.
5. With the wing still folded install a 0.1875" rig pin in the roll socket on the center wing as shown in Figure 4, insert it from the spar socket forward so that the wing can be inserted and locked.

CAUTION: Take care to ensure that the rigging pin won't interfere with spar during unfolding. If unsure have a helper watch this area during the unfolding process to ensure the spar will not contact the rigging pin.

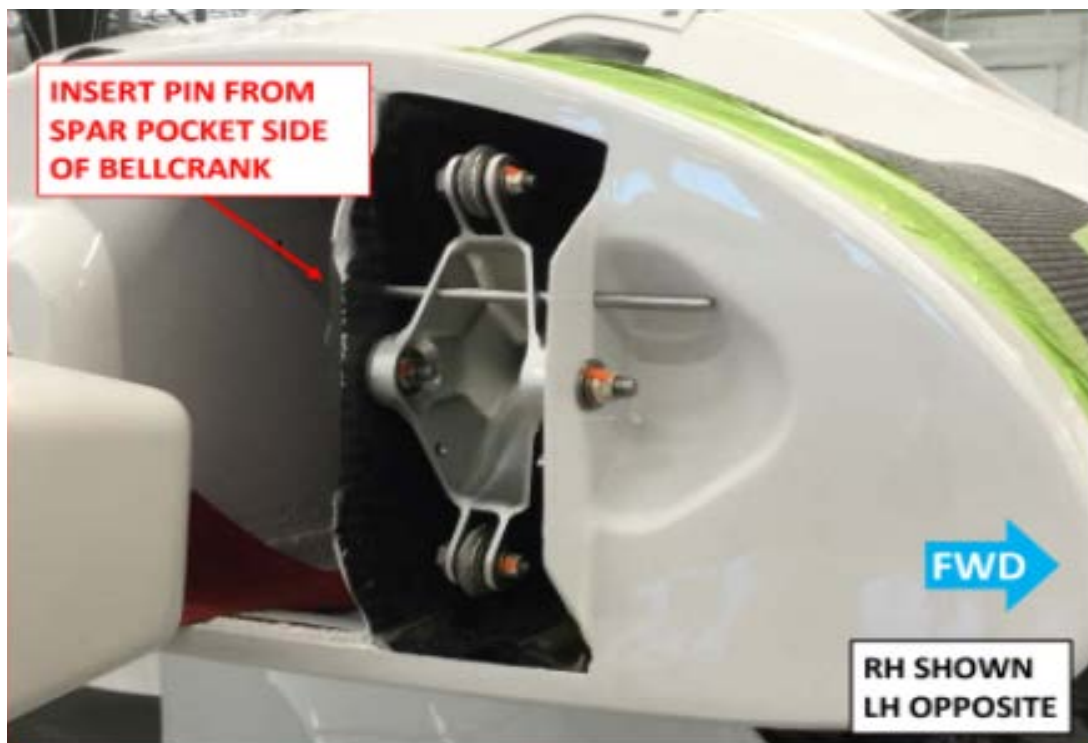


Figure 4: Roll socket rig pin installation

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6. Unfold the wing and lock it in place. Attempt to install the outboard bellcrank 0.1875” rig pin as shown in Figure 5. If it cannot be installed easily, adjust the inboard pushrod outboard rod end to allow it to install easily. Once finished retorque the jamb nut to 60 in-lb.

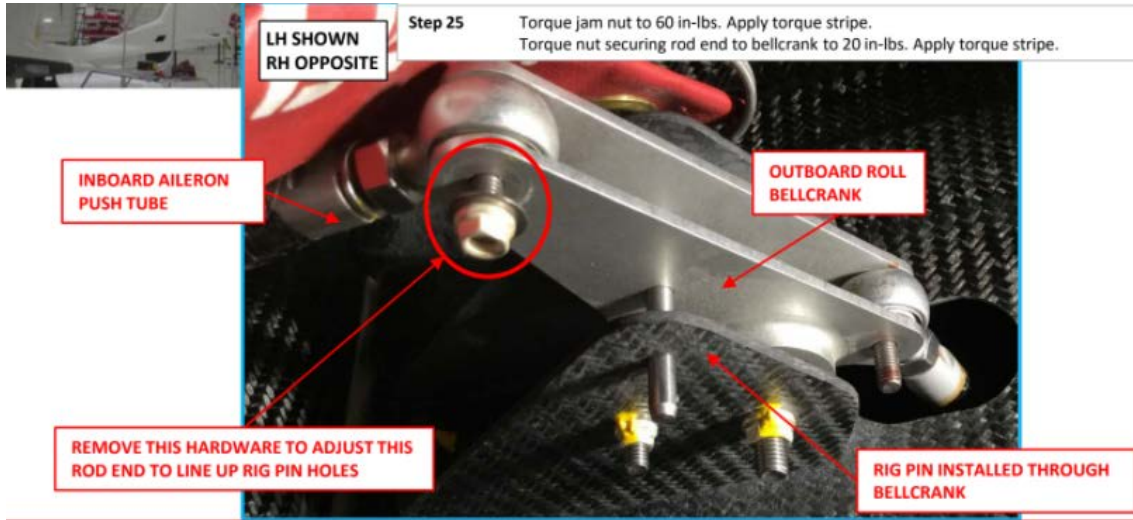


Figure 5: Out board roll bell crank rig pin installation and adjustment.

7. Torque the bolt hardware securing the push rod rod ends to the bellcranks to 20 in-lb.
8. Unfold the wing and remove both rig pins.
9. Repeat steps 1-8 for the opposite wing.

VERIFICATION:

1. Using the procedure and aileron rigging angles in the latest maintenance manual check the aileron neutral, up, and down rigging angles are correct. Record the values below. If found out of rig, contact ICON Customer support for assistance.

Nominal Position	_____	In-line with the flap trailing edge within ± 0.02 inch	
Left Aileron	___ ° TED (15 \pm 2°)	_____	___ ° TEU (25 \pm 2°)
Right Aileron	___ ° TED (15 \pm 2°)	_____	___ ° TEU (25 \pm 2°)

2. Verify that the inboard pushrod rod end bearing is not contacting the roll cable terminal in the roll cable socket.
 - a. Obtain modeling clay or suitable formable material and form to an approximate ½ in diameter sphere/ball.



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- b. Place that ball on the end of the inboard push tube inboard rod end.
- c. Unfold the wing and insert it into the center wing and lock it in accordance with the Pilot operating handbook.
- d. Unlock and fold the wing
- e. Visually verify that there is some amount of clay between the roll socket cable rod end and the inboard push rod inboard rod end. If there is still an interference present report the interference back to ICON Aircraft.

MAKE THE FOLLOWING LOGBOOK ENTRY:

“Service Bulletin (insert subject bulletin number) has been complied with and installation is reported to ICON Aircraft Customer Owner Support and Service”.

If you need assistance relocating your A5 to your home base or temporary storage arrangements, please contact ICON Aircraft and ask for Customer Service and Support.

If you are no longer in possession of this aircraft, please forward this information to the present owner/operator and notify ICON Aircraft, Owners Center at:

ICON Aircraft
2141 ICON Way
Vacaville, CA 95688
(855) FLY-ICON or (707) 564-4000
support@iconaircraft.com

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



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SERVICE BULLETIN APPROVAL

A handwritten signature in black ink, appearing to read "Bret Davenport".

Bret Davenport

Flight Sciences Manager

4/23/2018

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