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Registration no 2002/022837/07
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Manufacturing Organisation M677

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SERVICE BULLETIN

#0027

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(Sling Aircraft (Pty) Ltd. considers compliance with all Service Bulletins mandatory)

RELEASE DATE: 19/09/2024

EFFECTIVE DATE: 19/09/2024

SUBJECT: Interference of TSi firewall cutout and left nose gear pushrod

MODELS AFFECTED: Factory built aircraft:

504s, 546s, 547s, 559s

Kits and Quick Build kits:

385sk, 389sk, 422sk, 446sk, 448sk, 449sk, 454sk, 460sk, 463sk,
486sk, 488sk, 510sk, 515sk, 521sk, 530sk, 531sk, 533sk, 536sk,
544sk, 550sk, 553sk, 563sk, 569sk, 571sk, 575sk, 580sk, 582sk,
585sk, 587sk, 590sk, 592sk, 593sk, 594sk, 595sk, 596sk, 600sk,
611sk, 612sk, 615sk, 620sk

COMPLIANCE TIME: Next MPI (Mandatory Periodic Inspection) or annual inspection,
whichever comes first.

LABOUR TIME: 30 minutes

1. DESCRIPTION AND PURPOSE:

There is some interference between the slot of the firewall and the left nose gear pushrod that goes through it. When the left rudder pedal is extended fully, the left nose gear pushrod contacts the edge of the hole cutout in the firewall. Due to this interference the pushrod becomes scratched and will continue to wear over time. Refer to Figure 1.



Figure 1

This is only present on Sling 4 TSi aircraft outfitted with a Rotax 916 iS engine.

1.1. MASS DATA:

N/A

1.2. ELECTRICAL LOAD DATA:

N/A

1.3. SOFTWARE MODIFICATIONS:

N/A

1.4. REFERENCES:

- a) DC-KAI-008-X-F – Sling 4 TSi Finishing Construction Manual
- b) DC-MAM-001-X-F – Sling 4 TSi Maintenance Manual

1.5. PUBLICATIONS AFFECTED:

N/A

2. MATERIAL INFORMATION:

2.1. PARTS AND CONSUMABLES LIST:

- a) 1 x CT-ROD-007-X-A-3 - Nose wheel Pushrod (only required if current one installed has been damaged)

2.2. TOOLS REQUIRED:

- a) A metal file
- b) Flat screwdriver
- c) Philip screwdriver
- d) 5/16" Spanner
- e) 3 mm Allen key / hex drive
- f) 1/2" spanner or socket
- g) 7/16" spanner of socket
- h) Marker pen

2.3. MATERIAL RESPONSIBILITY:

Sling Aircraft (Pty) Ltd will provide the required parts listed in Section 2.1 for all aircraft subject to the Service Bulletin.

2.4. COMPANY SUPPORT INFORMATION

Sling Aircraft AMO 1264 (Johannesburg, South Africa) is available to perform the required work on all aircraft delivered to its premises. The aircraft may be flown to an aircraft maintenance organisation for the work to be carried out. Person(s) implementing the work are required to follow instructions set out below and refer to the supplementary documentation listed in Section 1.4 as needed. Sling Aircraft cannot accept any responsibility for the quality of work performed in implementing this Service Bulletin, if the work is not performed by Sling Aircraft AMO 1264 (Johannesburg, South Africa).

All work carried out on the aircraft with respect to this Service Bulletin (Service Bulletin 27) may be performed by the kit builder. Refer to the legal requirements of the governing aviation authority of the country where the actions, as detailed by this Service Bulletin, are to be carried out. Sling Aircraft will cover the installation costs of aircraft under warranty. Sling Aircraft is not responsible for costs related to shipping, downtime, loss of income, etc.

2.5. COMPANY SUPPORT INFORMATION

To request Service Bulletin kits, please use the following contact details:
sales@slingaircraft.com, or contact your local distributor.

Make use of the following contact details for any related technical queries:
airworthiness@slingaircraft.com or technical@slingaircraft.com.

3. INSTRUCTIONS:

This section details the inspection and corrective action required to prevent the wearing on the left nose gear pushrod, as seen in Figure 2.



Figure 2

Only the left nose gear pushrod is affected by the interference.

Should your aircraft be assembled to the point where the pushrods are installed, refer to Section 3.1 on the required inspection, and Section 3.2 for the required corrective action. If the aircraft is still in the process of being built and the pushrods have not been installed, then refer to Section 3.3.

3.1. Inspection for assembled aircraft

It is possible to inspect the nose gear pushrod without removing the cowling. Inspect the pushrod and look for any scratches as well as denting along the edge of the firewall cutout. Refer to Figure 3 on what this will look like. If this is present on the aircraft, the clearance between the pushrod and the hole cutout will need to be increased. Refer to Section 3.2 for the instructions on how to do this.

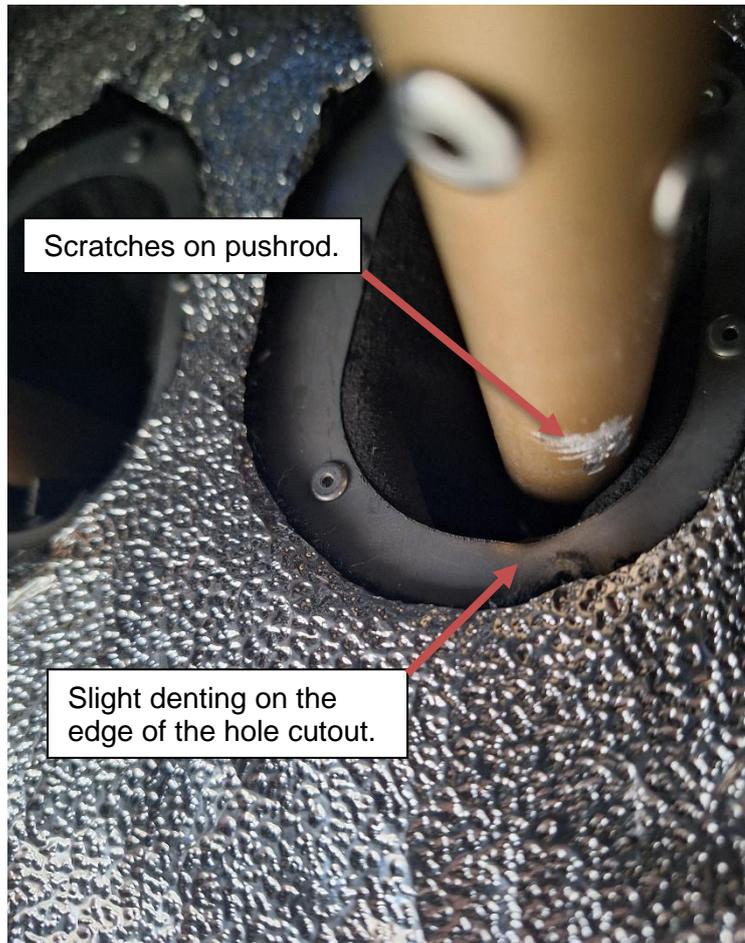


Figure 3

It is also possible that the pedals have not been extended to their extreme points yet, in which case no scratches or dents will be visible yet. Extend the right peddle to its max deflection and check the clearance between the pushrod and the cutout. If it is seen that the pushrod touches the edge of the hole cutout, it will need to be filed down to increase the clearance, refer to Section 3.2.



Figure 4

Note: Should the pushrod be gouged, a new one can be requested. Refer to the Section 2.5 for the applicable contact details.

3.2. Modification of firewall for fully assembled aircraft

If the clearance between the pushrod and the cutout is insufficient, follow the procedure set out below.

- Step 1: Remove the cowling, this will make it easier to access the pushrod and the cutout. Refer to Section 5.1.1 of the Sling 4 TSi Maintenance Manual (DC-MAM-001-X-F) for instructions on how to remove the cowling.
- Step 2: Using the marker pen, mark the area of the cutout that is to be filed down, this is where the pushrod makes contact with it. The profile of the curve should be a gentle radius, so that there will not be any sharp corners once the area has been filed down. Refer to Figure 5. Only do this for the cutout of the left pushrod, the right one is not affected by this interference. Alternatively, the template located at the end of this document may be used to mark the profile that the hole should be widened too.

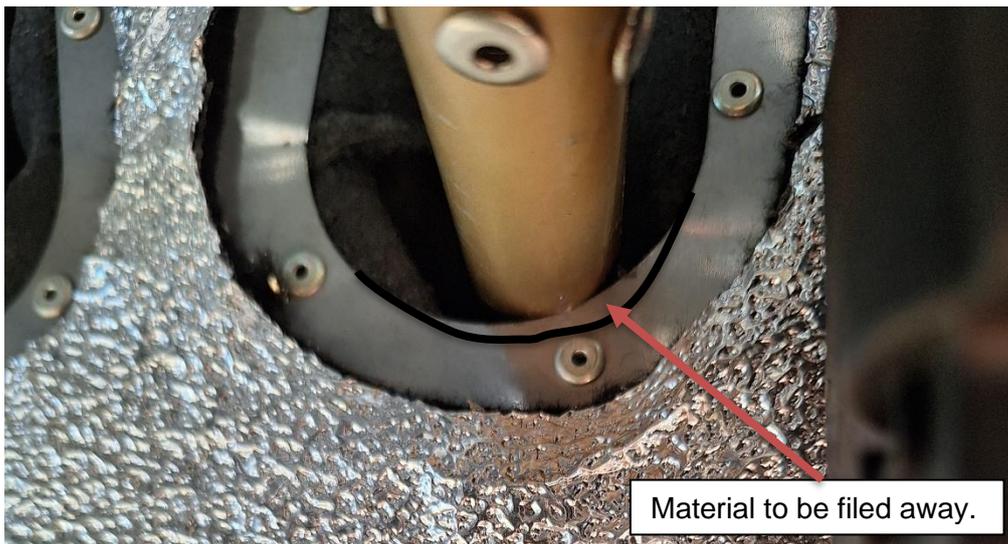


Figure 5

- Step 3: Use the 1/2" and 7/16" spanners to loosen the lock nuts on the affected pushrod, and then remove the pushrod.
- Step 4: Using a metal file, file down the affected area around the firewall cutout.
- Step 5: Once complete, reinstall the pushrod. Ensure that when the rudder pedals are extended fully right, the pushrod does not contact the edge of the cutout. If required, file down the edge further.
- Step 6: Ensure full and free movement of the rudder pedals.
- Step 7: Lock the nuts on the pushrod's rod ends and apply torque seal.
- Step 8: Reinstall the cowling.

Note: For flying aircraft, please inspect the pushrod. If it has been damaged, please contact technical@slingaircraft.com to see if a new pushrod is required.

3.3. Modification of firewall for partially assembled aircraft

Should the build of the aircraft not be at a point where the nose gear pushrods can be installed, and the clearance between the pushrod and the hole cutout checked, use the template located at the end of this service bulletin to increase the size of the cutout.

- Step 1: Print out the template provided. Once printed measure the lengths of the boarder of the template and ensure they match the dimensions provided. This will ensure that you have printed the PDF to the right scale. Ensure the printer settings have the page sizing set to "Actual size", as seen below.

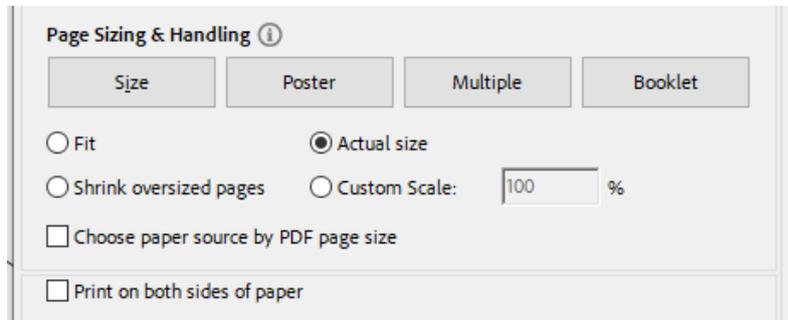


Figure 6

- Step 2: Cut out the provided template from the page.
Step 3: Line it up with the cutout on the firewall. Masking tape can be used to hold the template in place if required.

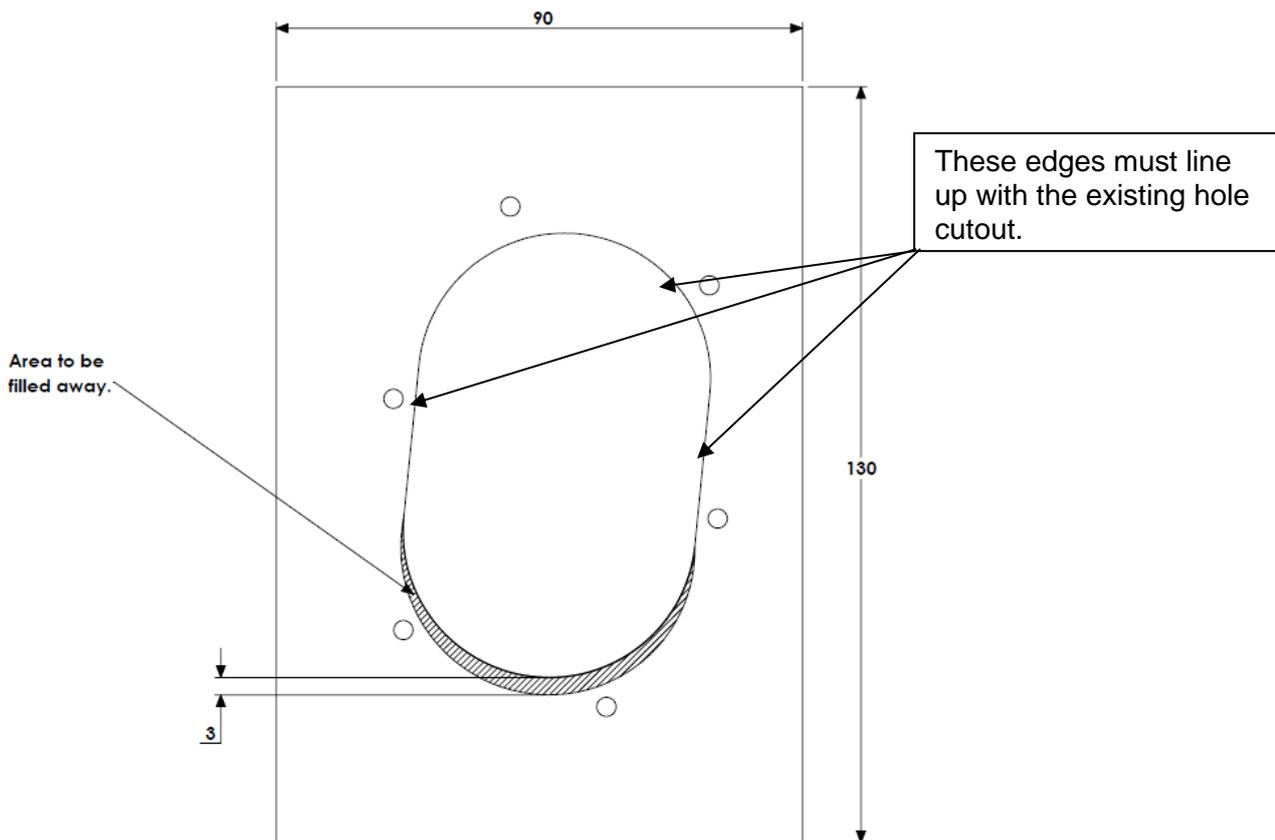


Figure 7

- Step 4: Mark the widened profile.
Step 5: Using a metal file, file away the required material around the hole cutouts edge.

Signed on this the 13 day of September 2024



ACCOUNTABLE MANAGER
MR JAMES PITMAN

