Safety Alert

Inspection of Elevator Pushrods and Their Bearings

MANDATORY

Symbols:

Please pay attention to the following symbols emphasizing particular information throughout this document.

▲ WARNING: Identifies an instruction, which if not followed, may cause serious injury or even death.

▮ CAUTION: Denotes an instruction which if not followed, may severely damage the aircraft / engine or could lead to suspension of warranty.

♦ NOTE: Information useful to implement the change more easily.

1. General

Issued by:	STEMME GmbH, Flugplatzstrasse F2 Nr. 7, 15344 Strausberg, Germany
Contact details:	web: www.remos.com – email: info@stemme.com – telephone: +49-3973-225519-0
Release date:	19. Nov. 2025
Date of effect:	immediately
Compliance:	At next 100h maintenance or next annual condition inspection, whatever comes first.
Release number:	SA-008-elevator pushrods
Superseded notice:	none
Referenced documents:	none
Models affected:	G3/600, GX

Safety Alert

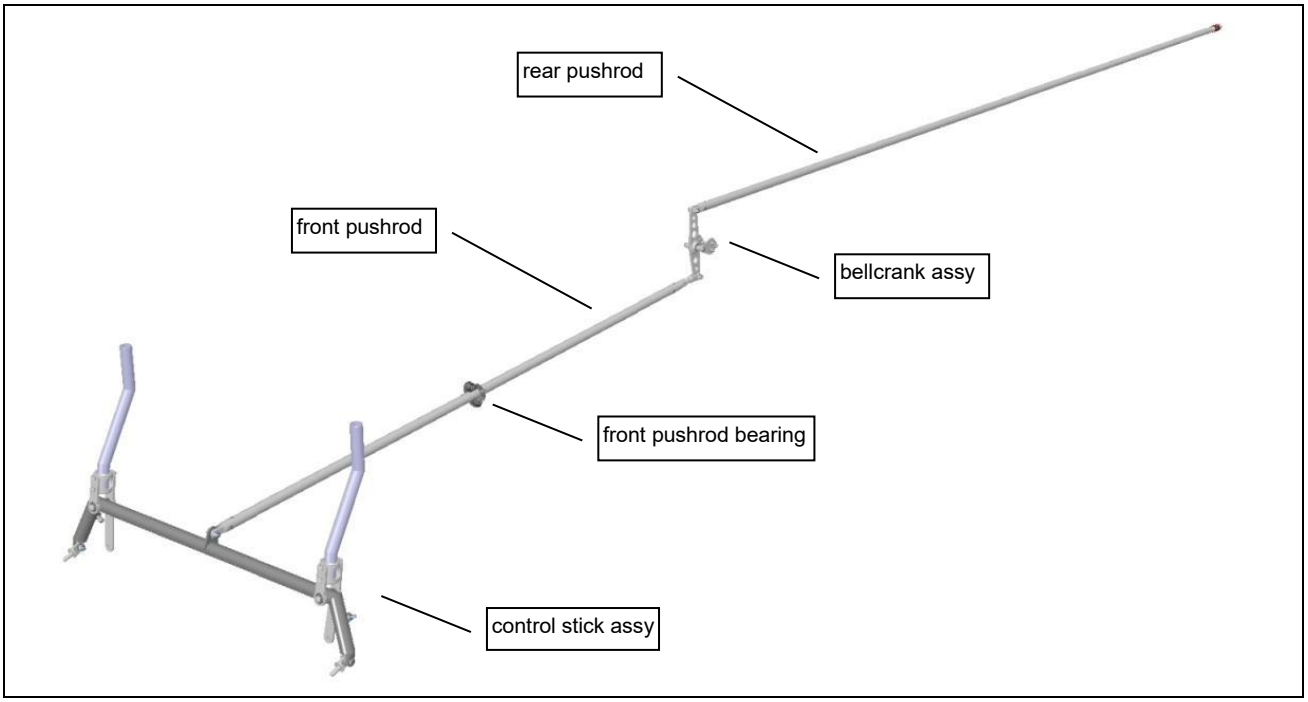
Affected S/N:	all
Reason:	An elevator control system with untypically high friction has been found on a REMOS GX. Detailed inspection revealed a damaged bearing of a pushrod of the elevator control system causing damage to that pushrod. This safety alert provides information on inspecting the control system for safe condition.
Subject:	Inspection of elevator pushrods and their bearings and application of a protective liner on the pushrods.
Level of maintenance:	heavy
▲ WARNING:	As per referenced document: “non-compliance with the instructions could result in further damages, personal injuries or even fatal injuries.”
Weight and Balance:	no effect
Approval:	This safety alert is approved by the aircraft manufacturer i.a.w. ASTM F3198 for conduct on aircraft as defined above. Subsequent to complete and correct conduct of this safety alert, the aircraft will still meet the requirements of the applicable ASTM design and performance specification.
License required:	US-LSA ● owner/operator with Sport Pilot Licence (or higher) ● LSA Repairman, or ● A&P Mechanic, or ● Part 145 Repair Station EASA or CAA PtF appropriately rated certifying staff
Release to service:	After checking without issues the aircraft is released back to service by logging this safety alert with date and signature and license number of the responsible person in the aircraft logs. In case issues are detected in the inspection described below, release process is
Disclaimer	This safety alert has been prepared with utmost care. Nevertheless, errors and misunderstandings can never be fully excluded. In case of any doubts the applicant of this safety alert is requested to contact Stemme immediately to clarify the issue.

2. Resources

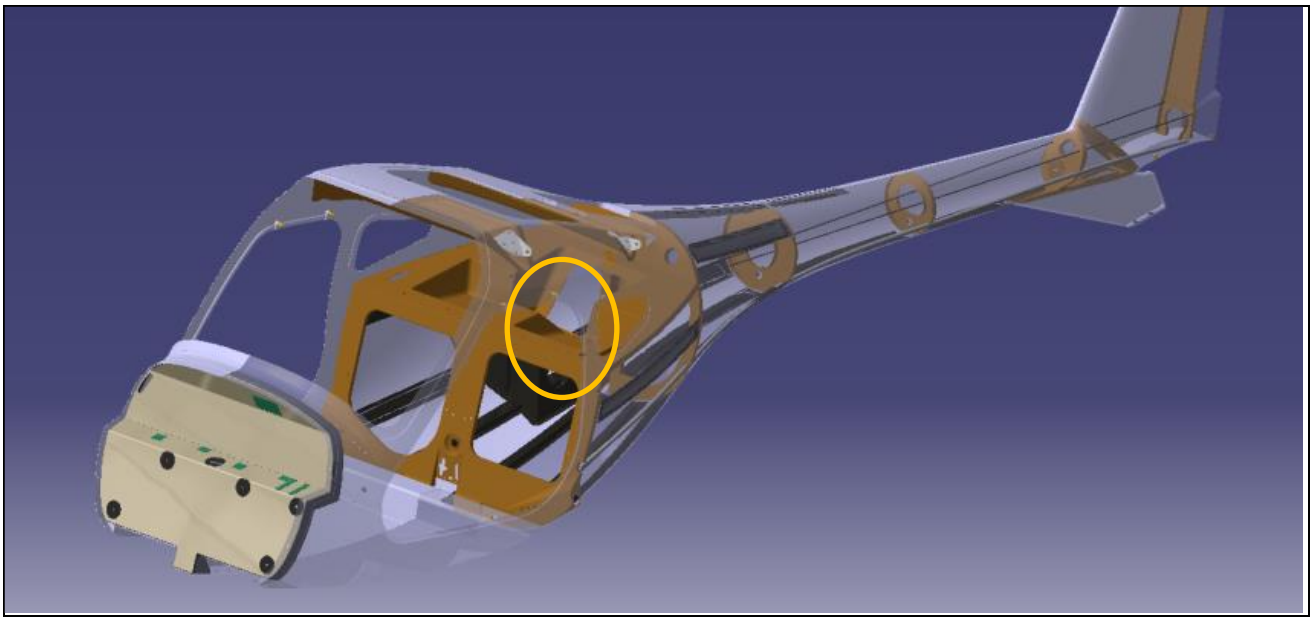
Workshop Conditions:	no specific conditions
Parts needed:	3 ea. nylstop nuts M6
	G3-8_CS-10-00-05-R02 front pushrod, if so required
	G3-8_CS-10-00-06-R02 rear pushrod, if so required
Material needed:	app. 60cm (app. 24 inches) of shrink hose dia. 25, shrink rate 1:2 or equivalent
Tools:	standard tools
Special Tools:	none
Manpower:	approximately 4 hours

3. Instructions

3.1. System Overview

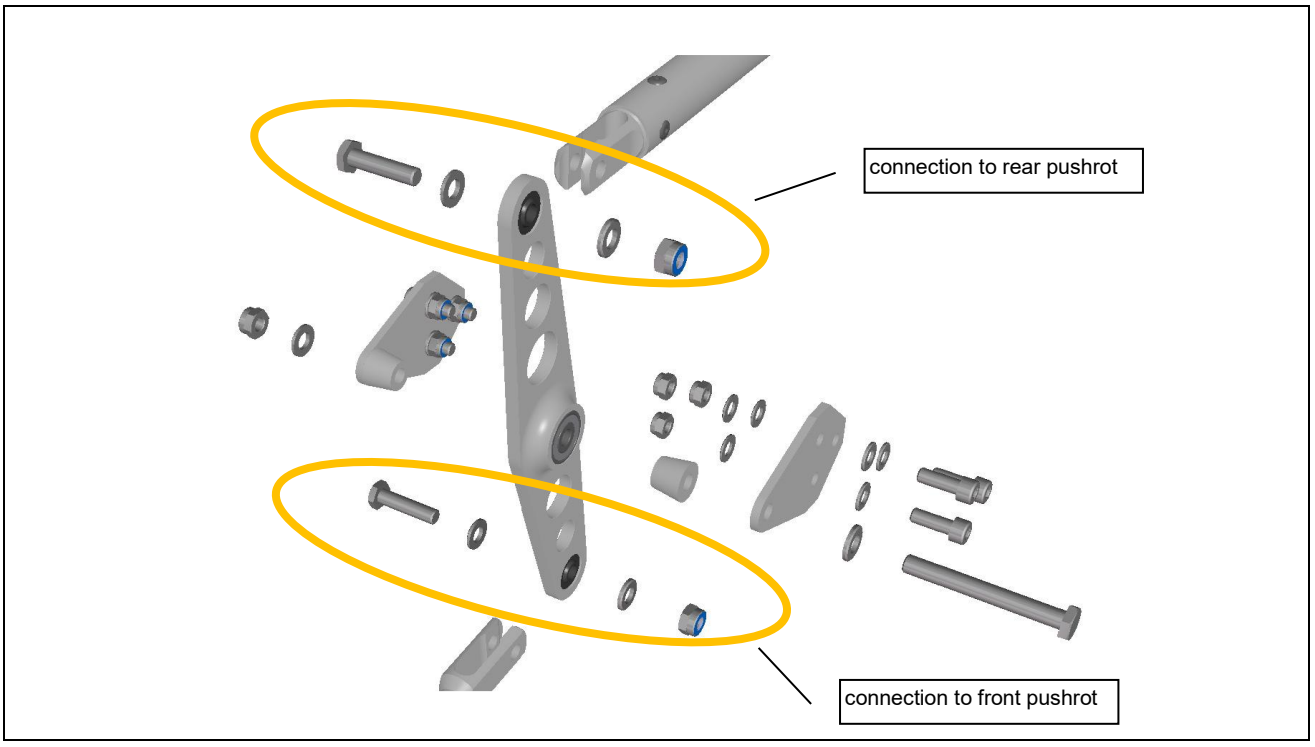


overview of the elevator control system

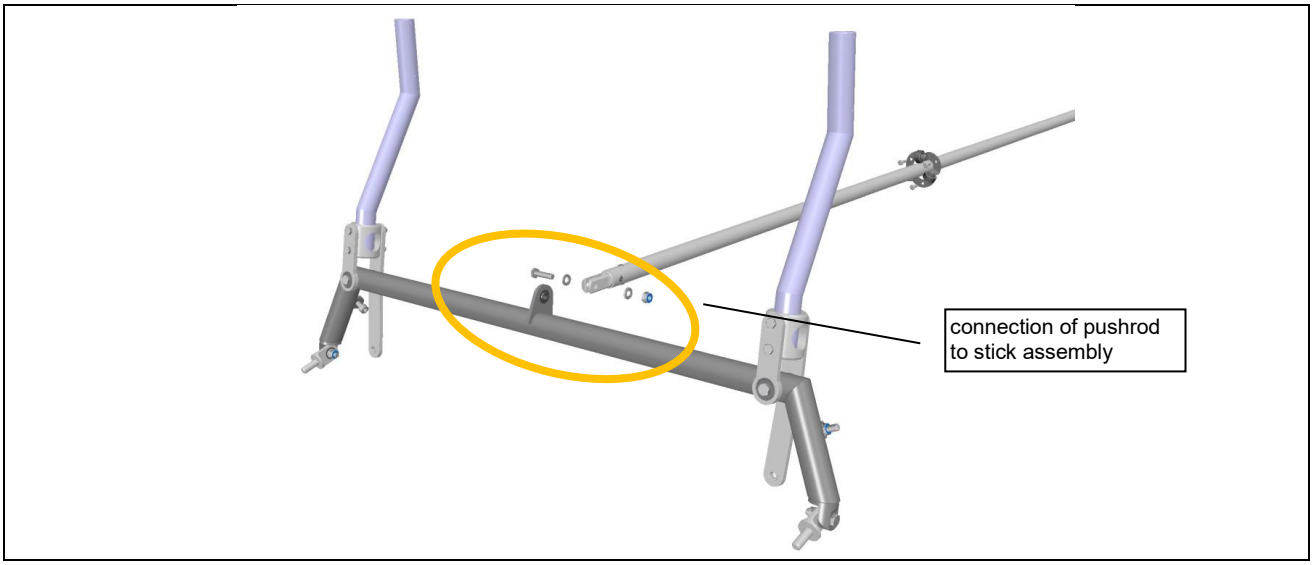


position of bellcrank assy on ring frame 1

Safety Alert



connection of pushrods on bellcrank assy



connection of front pushrod to stick assembly

3.2. Disassembly

1. Park the aircraft, preferably in a hangar and set parking brakes.
2. Take out pilot and copilot seat.
3. Uninstall the center console cover:
    a. Peel out the colored cover in the parking valve lever (red or blue color, use a small blade screwdriver), unscrew the Philips head screw underneath the cover and take-off the lever.
    b. Two hex bolts are in the front, next to the brake lever.
    c. Two more screws fix the cover to the baggage compartment frame.
4. Take out the baggage compartment:
    a. Two bolts fix the baggage compartment to the frame behind the seats.
    b. Another screw is found half way into the compartment on the left side of the floor to fix the compartment to a bracket in the fuselage.
    c. Pull the compartment out after having taken out the three bolts.
5. Uninstall the tailcone:
    a. Release the two screws attaching it to the fuselage
    b. Disconnect the electric wiring for the taillight (if so equipped).
6. Uninstall stick fairings
    a. Take out carpets overing the stick fairings (if so equipped) on both pilot and copilot side
    b. Lift the leather bag around the from the stick fairings (both sides)
    c. Uninstall the stick fairings (hex screws) on both pilot and copilot side
7. Uninstall the front elevator pushrod:
    a. Uninstall connection to autopilot servo (if so equipped).
    b. Uninstall the front elevator pushrod from the bellcrank assy.
    c. Uninstall pushrod from stick assembly
    d. Pull out the pushrod to the rear.
8. Uninstall the rear elevator pushrod
    a. Disconnect the quick connector to the elevator.
    b. Uninstall the rear elevator pushrod from the bellcrank assy.
    c. Pull out the pushrod from the uninstalled tailcone.

3.3. Inspection

1. Inspect the pushrods:
    a. Visual inspection of pushrods, slight marks of abrasion may be visible.
    b. Measure abrasion on pushrods. Acceptance criteria are given in section 3.5.
2. Inspect all pushrod bearings (1 for front pushrod, 3 for rear pushrod)
    a. Visually inspect bearings using a boroscope, a small camera, etc. Slight marks of abrasion, but no damage may be visible on bearings.
    b. Acceptance criteria are given in section 3.5.

3.4. Protection of Pushrods

1. Apply app. 15cm (app. 6 inches) of shrink hose on the pushrods on the location of the bearings.
2. Middle of the shrink hose shall be at the location of the bearing with the control system in neutral position.
3. In any case, the shrink hose must be long enough, so the bearings are running on in in any extreme position of the elevator. Applying the shrink hose on the full length of the pushrod is also acceptable.

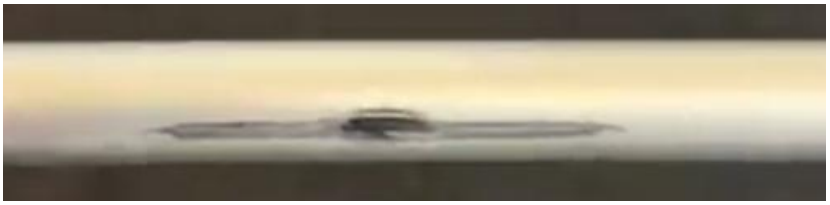
3.5. Acceptance Criteria for Pushrods and Bearings

Bearings: The bearings do not take up defined load. They only support the pushrod and prevent buckling. Therefore, the only criterion is that they must be movable.

Signs of abrasion and even cracks in the plastic liner are acceptable.

Pushrods: The pushrods will show abrasion on the location of the bearings

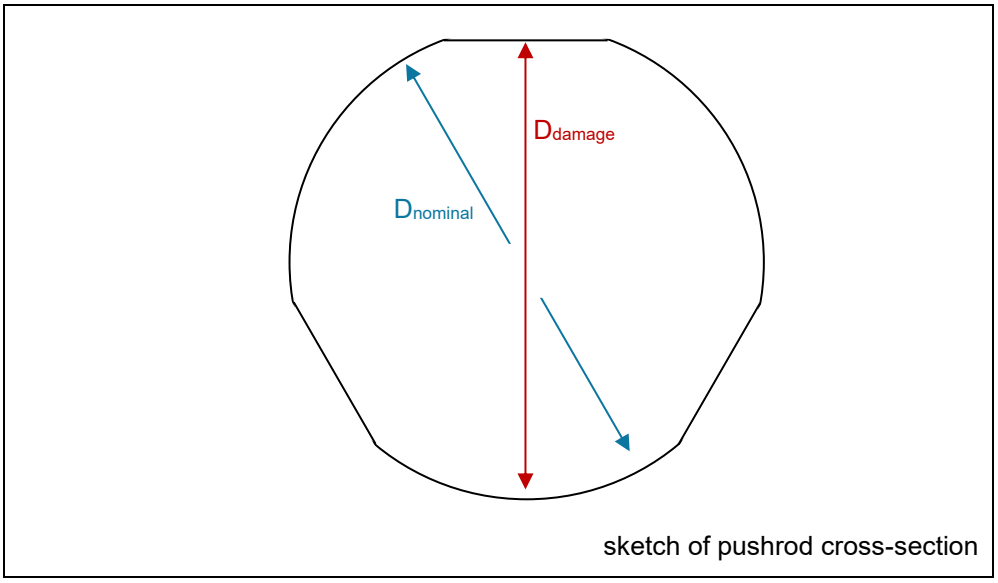
typical abrasion after app. 500h TTAF



high abrasion after app. 5.000h TTAF, measurement required

Due to the prevailing tolerances of the pushrods (protruded aluminum tubes), measuring the abrasion is a 2-step procedure.

1. Measure the outer diameter of the pushrod outside the bearing area. Nominal diameter is 20mm.
2. Measure area with abrasion. A max. material removal of 0,1mm is acceptable in any location.



sketch of pushrod cross-section

$D_{damage} \geq D_{nominal} - 0{,}1$ mm in any location

3.6. Reassembly of the Aircraft

1. After inspection and application of shrink hose, reassemble aircraft in reverse sequence.
2. Use new nylstop nuts.

3.7. Repair Instruction of Pushrods

The pushrods cannot be repaired and must be replaced.

3.8. Repair Instruction of Bearings

Contact Stemme for individual repair instructions.

4. Recurring Actions

1. Inspection of pushrods and bearings must be repeated after any 500h.
2. Follow instructions provided in section 3.
3. Renew shrink hoses as required.

5. Feedback

Use the following feedback form to report to Stemme.

REMOS

Safety Alert

Aircraft ID

Aircraft Model	☐ G3/600	☐ GX	S/N	_____
Certification	☐ ASTM-LSA	☐ EASA PtF	other	_____
Kind of Operation	☐ private use only	☐ flying club	TTSN	_____
	☐ flight school	☐ commercial		

Owner/Operator

Company / DBA	_____
Name SURNAME	_____
Address	_____
ZIP, City	_____
Country	_____
email	_____

Feedback

abrasion	☐ no	☐ yes, in following location(s): _____
damages	☐ no	☐ yes, in following location(s): _____
spare parts needed	☐ no	☐ yes: _____
need repair instruction	☐ no	☐ yes:

_____	_____	_____	_____
city, date	Name SURNAME	rating/license no.	signature

submit to info@stemme.com