

	Standard Modification Issue 2	Mod No. SM11631
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		Compiled : G McDill
		Approved : F Donaldson

TITLE : Mechanical elevator trim assembly

APPLICABILITY : RANS S6 Series

Mod Type : New build or retrofit

1. Introduction

RANS supplies a mechanical elevator trim assembly to replace the bungee system; this is particularly effective with higher powered machines and consists of a separate mechanically operated elevator tab.

2. Parts List

Retrofit kit contains all necessary parts and hardware to fit.

Qty	Part No.	Description	Source
1	O-ELEV-TK	Mechanical trim kit	Skycraft Ltd
2	AN3H-3A	Bolt*	01406 371779
2	CCPQ42	Rivet*	www.sky-craft.co.uk

*Items required to implement PFA MOD/204/005

3. Action

Installation of the mechanical trim tab system is described in detail in the literature supplied with the retrofit kit. For Installation the tailplane and elevator will need to be removed from the aircraft. Rear fuselage lacing may also need to be undone for access to secure the operating cable. The tab is supplied un-painted.

This work requires oversight and certification by an LAA inspector and duplicate control inspection.

4. Weight and balance

Negligible increase; weigh painted parts prior to fitment and amend weight schedule by calculation.

5. Flight Test and Special Inspections

Ensure that all installation instructions are followed and pay particular attention to the routing of the cable in the aft fuselage to prevent chafing.

PFA MOD/204/005 specifies to 'Install trim tab control limit stops.....' (see copy on page 2); this is most easily accomplished by installing two pop rivets in the trim actuator housing to limit its worm block 'up' travel to 17° and 'down' travel to 20°. In addition 'Elevator trim tab pivot screws to be class 1 locked.....'; this is most easily accomplished by riveting a small 'tab' to the trim tab end-rib and wire locking the pivot screw to it, having first drilled its head.

Note: Reference in PFA MOD/204/005 to 'Sportair UK' should now be read 'Skycraft Ltd'.

6. Certification

Before the modified aircraft may be flown a suitable LAA inspector must check the trim system installation and, if satisfied, make an appropriate logbook entry, including reference to SM11631, also noting compliance with PFA MOD/204/005 and sign a Permit Maintenance Release (PMR).

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Popular Flying Association

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PFA MODIFICATION/BULLETIN

Subject: Rans S6 variants with elevator trim tab

Dated: 10 April 1996

Reference: PFA MOD/204/005 Category: A

Description

During the design investigation of the elevator trim tab option supplied with some variants of the Rans S6-ESD and S6-116, two areas have come to light which do not meet normal airworthiness requirements, these being

- (a) the absence of trimmer control stops to limit travel to the safe useable range
- (b) The reliance on screws fitted into stiffnut/anchor nuts for the hinge pins of the elevator tab. As the tab rotates around these screws in normal use and loosening of the screws could cause disastrous results, these screws must be class 1 locked.

Action

- (a) Install trim tab control limit stops inside console in cockpit, to limit range of travel of tab to 20 degrees down, 17 degrees up. Control stop fitting kit available from Sportair UK.
- (b) Elevator trim tab pivot screws to be class 1 locked in place by drilling the screw heads and wire locking to a tag rivetted adjacent. Locking fitting kit available from Sportair UK.

Weight and Balance

Negligable change.

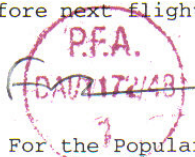
Inspection

Normal PFA inspection procedures apply. A suitable logbook entry to be made on completion quoting modification PFA MOD/204/005.

Applicability All PFA Rans S6-ESD aircraft fitted with elevator trim tabs.

Compliance Time For aircraft under construction, before first flight. For completed aircraft, before next flight

Approved



For the Popular Flying Association
CAA Approval No. DAI/1172/48