

	<b>Standard Modification</b> Issue 1	Mod No. SM10366
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		Compiled : N. Batty
		Approved : A. Moore

## TITLE : Reduced Friction in Elevator Circuit

APPLICABILITY : Zenair CH601 Series  
Mod Type : New Build & Retro-fit

### 1. Introduction

The purpose of this modification is to improve the location, security and operation of the elevator control cable. This is done by replacing the Fairlead guide plate by a bracket mounted pulley.

### 2. Parts List

2.1 Manufacture and procure the following new parts:

Qty	Description	Source
1	Bracket 'Right Handed' as per SM10366-2	Self Fabricated from 6061-T6 Aluminium bent 1/8" radius Ref Info Note 21
1	Bracket 'Left Handed' as per SM10366-2	
1	AN-210A 1.25" Pulley	Ref Info Note 21
4	Avdel Rivets	Ref Info Note 21

2.2 List of related drawings / photos

Drawing No.	Title / Description	Issue
SM10366-1	Fuselage frame 6-F-2-1 Before Modification	1
SM10366-2	Fuselage frame 6-F-2-1 After Modification	1
SM10366-3	Bracket and mounted pulley	1
SM10366-4	Detail A Bracket dimensions	1

### 3. Action

- 3.1 For retro-fits disconnect elevator cable and remove existing Fairlead. Care must be taken not to enlarge holes in frame when removing rivets.
- 3.2 Manufacture brackets as per SM10366-4, including suitable finish.
- 3.3 Measure, centre and drill bottom two holes to accept rivets on frame 6-F-2-1.
- 3.4 Rivet brackets in place, and fit pulley, ensuring no lateral movement exists.
- 3.5 Refit/fit elevator control cable running over installed pulley, and tension as per manufacturers instructions.
- 3.6 Install keeper pin (A/C grade split pin will suffice).
- 3.7 Inspector to inspect and verify conformity & workmanship.

### 4. Flight Test and Special Inspections

- 4.1 Positive function check to be carried out.
- 4.2 Conduct an air test to confirm that the installation makes no difference to the normal operation of the aircraft over the speed range. This air test to be authorised under a PMR by LAA Inspector.
- 4.3 Inspect the installation for security after first flight and periodically thereafter.

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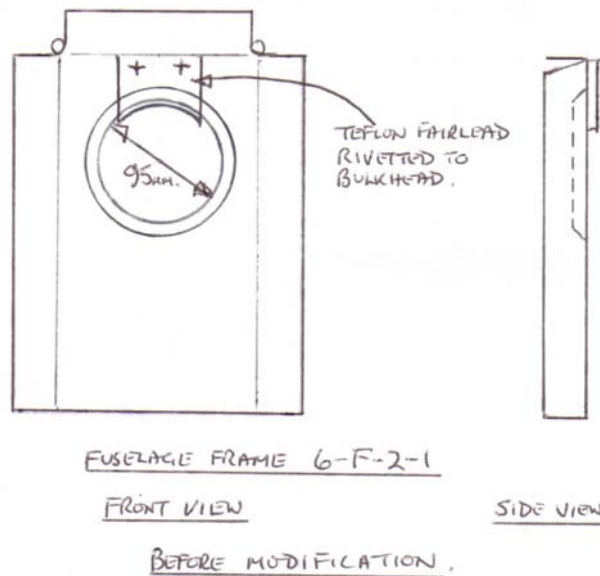
## 5. Weight and Balance

- 5.1 To be included in initial weight and balance schedule.
- 5.2 For retro-fits, change considered negligible.

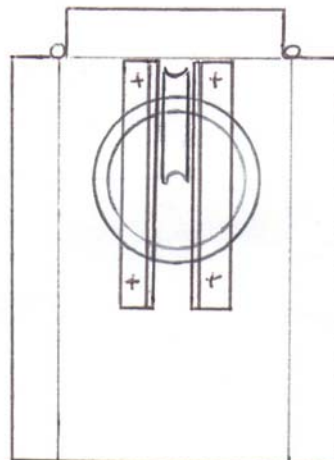
## 6. Certification

- 6.1 Appropriate logbook entry to be made by approved LAA inspector prior to air test.
- 6.2 Appropriate completion statement to be included in aircraft logbook once aircraft has satisfied the air test requirement.

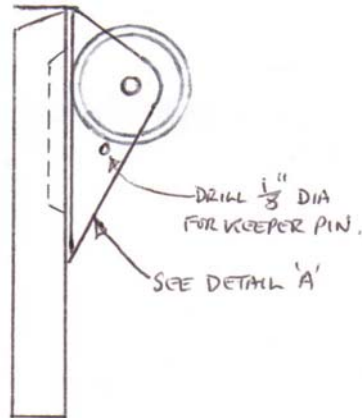
### SM10366-1 Fuselage frame 6-F-2-1 - Before modification



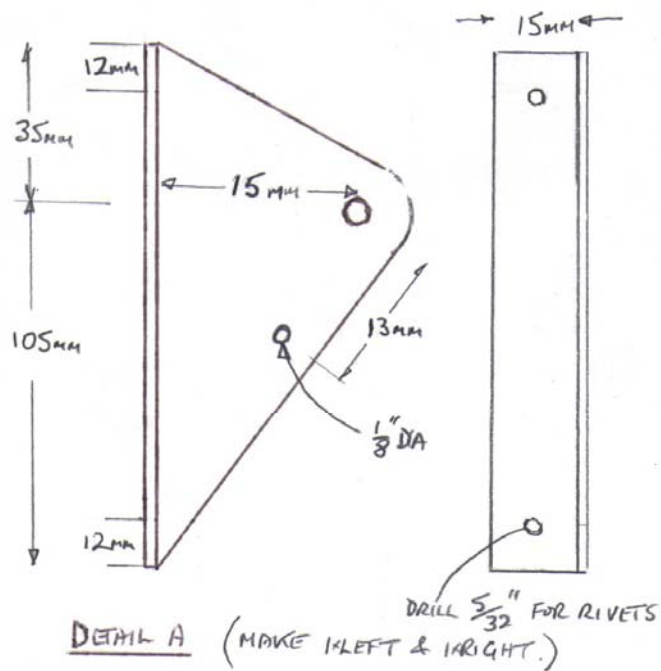
### SM10366-2 Fuselage frame 6-F-2-1 - After modification



**SM10366-3 Bracket and mounted pulley**



**SM10366-4 Detail A Bracket dimensions**



DETAIL A (MAKE 1 LEFT & 1 RIGHT.)

MATERIAL 6061-T6 ALU BENT  $\frac{1}{8}$ " RADIUS.

PULLEY IS AN-210 A 1.25"

RIVETS ANDEL  $\frac{5}{32}$ " AS USED THRU'OUT AIRFRAME.