# MARSHALL AEROSPACE AND DEFENCE GROUP

THE AIRPORT, CAMBRIDGE, ENGLAND

# **SERVICE BULLETIN**



MARSHALL AEROSPACE AND DEFENCE GROUP SERVICE BULLETIN SBM-197

INTRODUCTION OF MODIFICATION KIT T67A-05-1992 (MA1992)

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Issued By
Marshall Aerospace and Defence Group
The Airport, Cambridge, CB5 8RX

LETTER OF TRANSMITTAL

Dated December 2014

This page transmits Initial Issue 1 of Service Bulletin SBM-197

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INTRODUCTION OF MODIFICATION KIT T67A-05-1992 (MA1992)

## 1. PLANNING INFORMATION

#### A. EFFECTIVITY

Slingsby T67B, T67C, T67M, T67M MkII, T67M200, T67M260, (Excluding T67M Construction No. 1999).

## B. CONCURRENT REQUIREMENTS

None.

## C. REASON

Service Bulletins SB 187 and SB 188 inspection of rudder pedals mandates a clearance of 16.5 mm between the head of bolt 126-21-080, which is used as an axis of rotation for the rudder pedal link plate, and the number 3 pedal. If the clearance falls below 16.5 mm modification MA1992 is to be embodied replacing bolt 126-21-080, secure nut 126-22-003 and washer 126-23-101 with Modification Kit T67A-05-1992.

## D. DESCRIPTION

This Service Bulletin (SB) details the installation of modification kit T67A-05-1992, embodying Modification MA1992 on to the aircraft.

# E. COMPLIANCE

In conjunction with SB 187 (Issue 6) and SB 188 (Issue 6) if required.

## F. APPROVAL

US CFR 14 Part 23, Amendment 23-27 and UK BCARs Section K, Chapter 2-2 to 2-5.

## G. MANPOWER

One person – approximate man-hours as follows:

Preparation	1
Inspection / Rectification	2
Testing	1
Re-assembly	0.5
Records	0.25

Total 4.75

## H. WEIGHT AND BALANCE

No change.

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# I. ELECTRICAL LOAD DATA

No change.

### J. SOFTWARE SUMMARY

Not Applicable.

## K. REFERENCES

SB 187 Issue 6 & Subsequent

SB 188 Issue 6 & Subsequent

# L. OTHER PUBLICATIONS AFFECTED

T67/IPC, Illustrated Parts Catalogue Firefly T67

T67B/IPC, Illustrated Parts Catalogue Firefly T67B

T67M260/IPC, Illustrated Parts Catalogue Firefly T67M260

# M. INTERCHANGEABILITY/INTERMIXABILITY OF PARTS

Not Applicable.

# 2. MATERIAL INFORMATION

A. MATERIAL - PRICE AND AVAILABILITY

Price on Application

# B. INDUSTRY SUPPORT INFORMATION

Not Applicable.

# C. MATERIAL NECESSARY FOR EACH AIRCRAFT

Modification kit T67A-05-1992 comprising:

Description	Part Number
Split Pin, SP90 – B4	126-25-308
M5 Washer	126-23-103
M5 Slotted Nut	126-22-113
M5 x 18 Low Pan Head Bolt	T67M-45-0579

# D. MATERIAL NECESSARY FOR EACH SPARE

Not Applicable.

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# E. REIDENTIFIED PARTS

Not Applicable.

#### F. TOOLING - PRICE AND AVAILABILITY

Not Applicable.

## 3. ACCOMPLISHMENT INSTRUCTIONS

#### A. MAINTENANCE PRACTICES

WARNING: OBEY ALL WARNINGS, CAUTIONS AND MAINTENANCE PRACTICES. IF YOU DO NOT OBEY THIS WARNING THERE IS A RISK OF INJURY TO PERSONNEL

AND/OR DAMAGE TO THE EQUIPMENT.

- (1) Observe all safety procedures.
- (2) All engineering and local procedures are to be observed whilst embodying this Service Bulletin.
- (3) Care must be taken when the rudder cables are released. The rudder pedal assemblies are spring tensioned and will spring forward.
- (4) After inspection ensure aircraft is clean and clear of tools and miscellaneous equipment and any removed parts are refitted.

#### B. PREPARATION

Prior to proceeding, ensure that the Service Bulletin has been read in its entirety and is understood.

- (1) Lock the Rudder in position to prevent damage to equipment or injury to personnel.
- (2) Gain access to the rudder pedals.

## C. INSPECTION

Not applicable.

# D. MODIFICATION

Refer to Figure 1.

<u>CAUTION:</u> When disconnecting the rudder link plates (8) (10), take care to retain the cable plate spacers (7) (9).

- (1) Remove nuts (3) (6), washers (2) (5) and screws (1) (4) that attach the two rudder cable link plates (8) (10) to the two rudder pedal bars.
- (2) Discard items (1) (2) (3) (4) (5) (6).

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- (3) Attach the two rudder cable link plates and spacers to the rudder bar with the two low pan head bolts (T67M-45-0579), washers (126-23-103) and slotted nuts (126-22-113) provided in Modification kit T69A-05-1992 ensuring the bolt heads face outboard.
- (4) Tighten the slotted nuts (126-22-113) to 6.5 Nm.

CAUTION: ALL DRILL SWARF TO BE REMOVED FROM AIRCRAFT.

- (5) Check clearance between bolt head and rudder pedals i.a.w. SB 187 (Issue 6) and SB 188 (Issue 6) as applicable. If clearance is still below required minimum, check that pedals are setup correctly. If clearance is still below minimum, inform Marshall ADG.
- (6) Referring to Figure 2, mark the drill hole position in each bolt.
- (7) Drill a 1.3 mm hole in the marked location in each bolt.

NOTE: Bolts can be removed from assembly for drilling purposes. When re-assembling ensure bolt heads face outboard and the nuts are tightened to 6.5 Nm. The hole and slot are to be aligned.

(8) Install the split pins in the drilled holes and form the split pin legs and cut to length as required.

## E. TESTING

- (1) Remove the locking device from the rudder.
- (2) Ensure that the split pin does not foul on clothing or equipment.
- (3) Complete independent checks as per the maintenance manual.

# F. COMPLETION

- (1) Remove any FOD.
- (2) Annotate airframe logbook or aircraft record with SBM 197 carried out, Modification MA 1992 introduced (iaw local requirements).
- (3) Fill in and return the form in Annex A.

For any replaceable parts or materials contact Marshall ADG Advanced Composites Product Support Department contact details as below:

Gemma Hodgson Marshall ADG Advanced Composites Ings Lane Kirkbymoorside North Yorkshire YO62 6EZ UK

Tel. no. +44(0)1751 432474

Email: <a href="mailto:gemma.hodgson@marshalladg.com">gemma.hodgson@marshalladg.com</a>

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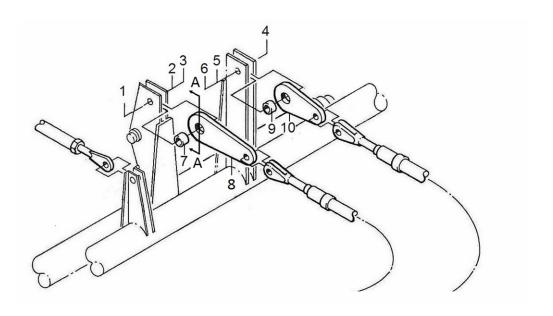
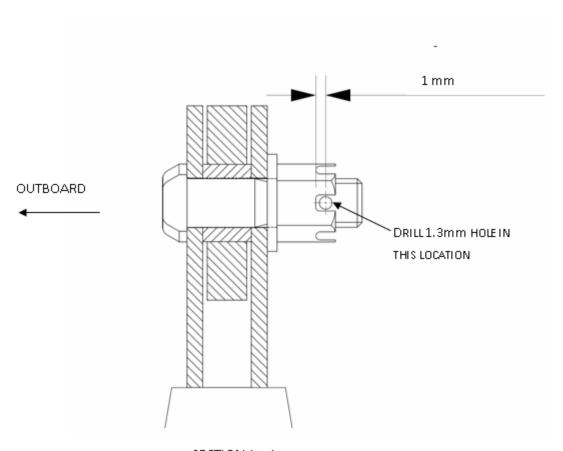


Figure 1 - Firefly Rudder Pedal at Rudder Cable to Rudder Pedal Interface



SECTIONA-A

Figure 2 - Drill Hole Position
Typical 2 Positions

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# **SBM 197 ANNEX A**

INTRODUCTION OF MODIFICATION KIT T67A-05-1992 (MA1992)

This form is to be completed and submitted to the address below.

Mr M Bright
Technical Support Group Engineer
Marshall Aerospace and Defence Group
The Airport
Cambridge
CB5 8RX
UK

Email: mark.bright@marshalladg.com, ss.tsg@marshalladg.com I can confirm that SBM-197 has been carried out and has increased the clearance above the minimum requirement in SB 187 (Issue 6) and SB 188 (Issue 6). I can confirm that SBM-197 has been carried out and the clearance does not meet the minimum requirement in SB 187 (Issue 6) and SB 188 (Issue 6) and the rudder pedals have been set up correctly. Please provide details in the space below Firefly Variant: Location: Clearance: Comments: Signature: Name: Date: Address:

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