



SERVICE BULLETIN

INSPECTION OF SLINGSBY T67 FIREFLY PROPELLER SPINNER SUPPORT DISC FOR RUBBER CONDITION

1. PLANNING INFORMATION

A. EFFECTIVITY

Slingsby T67M, T67M-MkII, T67M200 and T67M260 Firefly Variants

B. CONCURRENT REQUIREMENTS

None

C. REASON

A maintenance company noted grooves in the root of the aircraft's propeller blades when performing the 150 flying hour check on a T67M200. Further investigation noted movement in the spinner cone and when the spinner was removed, it was seen that the spinner cone's supporting disc rubber had broken free, allowing excessive movement of the spinner cone, such that the cone contacted the blade roots creating grooves.

Issue 2 adds reference to DOI T67G-927 in section 1K and section 3C (6) after a request from a customer for a repair procedure. It also amends minor grammatical errors.

D. DESCRIPTION

This Service Bulletin (SB) details the inspection of the propeller blades for grooves and assesses their acceptability. The SB also details inspection of the spinner support disc rubber condition, security and replacement as applicable. This Service Bulletin also details the repetitive inspections required.

E. COMPLIANCE

Inspect within the next 5 flights from the receipt date of this Service Bulletin unless SB 196 issue 1 has already been accomplished.

F. APPROVAL

Marshall Aerospace EASA Design Organisation Approval No EASA.21J.181

G. MANPOWER

Two persons – approximate man-hours per person (waiting time, e.g. drying times, not included) as follows:

Preparation	1
Inspection / Rectification	1
Testing	2.5 (Add approximately 5 hrs if propeller balancing required)
Re-assembly	1.5
Records	0.25
Total	6.25
	11.25 (if propeller balancing required)

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H. WEIGHT AND BALANCE

No change.

I. ELECTRICAL LOAD DATA

No change.

J. SOFTWARE SUMMARY

Not Applicable.

K. REFERENCES

Marshall Slingsby Advanced Composites (MSAC)
Firefly T67M, T67M-MkII, T67M200 or T67M260 Maintenance Manual - as applicable to aircraft type.

Hoffmann Propeller Manuals
HOV72 (T67M and T67M-MkII) or KV 123 (T67M200 and T67M260)

Repair of T67 Spinner Cone for SB 196 Compliance
DOI T67G-927

L. OTHER PUBLICATIONS AFFECTED

Marshall Slingsby Firefly IPC.

M. INTERCHANGEABILITY/INTERMIXABILITY OF PARTS

Not Applicable.

2. MATERIAL INFORMATION

A. MATERIAL – PRICE AND AVAILABILITY

Not Available.

B. INDUSTRY SUPPORT INFORMATION

Not Applicable.

C. MATERIAL NECESSARY FOR EACH AIRCRAFT

T67M and T67M-MkII aircraft:
Rubber section 126-15-116 (0.65 meter) and Adhesive 126-51-211

T67M200 and T67M260 aircraft:
Rubber section 126-15-131 (0.61 meter) and Adhesive 126-51-211
PTFE tape 121-03-024 as required

D. MATERIAL NECESSARY FOR EACH SPARE

Not Applicable.

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E. RE-IDENTIFIED PARTS

Not Applicable.

F. TOOLING AND AVAILABILITY

Not Applicable.

3. ACCOMPLISHMENT INSTRUCTIONS

A. MAINTENANCE PRACTICES

WARNING **DO NOT ATTEMPT TO MAINTAIN, REPAIR, REBUILD, OVERHAUL OR REMANUFACTURE THIS UNIT OR ANY OF ITS COMPONENTS EXCEPT IN STRICT ACCORDANCE WITH THE METHODS, TECHNIQUES AND PRACTICES SPECIFIED IN THIS SERVICE BULLETIN.**

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.**

WARNING **WHILST WORKING IN THE ENGINE BAY OBSERVE ALL STANDARD PROCEDURES FOR WORKING ON THE ENGINE AS PER T67M, M-MkII, 200 & 260 FIREFLY MAINTENANCE MANUALS SECTION 6 FIGURE 6-1.**

WARNING **ENSURE WHILST WORKING WITH ADHESIVES AND OIL THAT THE MATERIAL SAFETY DATA SHEETS (MSDS) ARE AVAILABLE AND ARE WORKED TO. ENSURE MANUFACTURERS APPLICATION AND REMOVAL PROCEDURES ARE ADHERED TO. ENSURE USE IN WELL VENTILATED AREA, USE AWAY FROM IGNITION SOURCES. ENSURE APPROPRIATE PERSONNEL PROTECTIVE EQUIPMENT (PPE) IS USED, E.G. GLOVES, EYE PROTECTION, PROTECTIVE CLOTHING.**

- (1) Observe all safety procedures.
- (2) All engineering and local procedures are to be observed whilst embodying this Service Bulletin.
- (3) After inspection ensure aircraft's engine bay is clean and clear of tools and miscellaneous equipment.

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B. PREPARATION

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

- (1) Gain access to the engine bay in accordance with (iaw) aircraft Maintenance Manual paragraph 6.3.1 Engine Cowling Removal.
- (2) Remove spinner iaw aircraft maintenance manual paragraph 8.1.1 (3).

C. INSPECTION

- (1) Inspect the roots of the propeller blades, for spinner contact, Figure 1 shows.
- (2) For any blade showing contact, evidenced by paint removal down to the blade structure, the propeller is to be removed and returned to Hoffmann or Hoffmann approved agent, for further inspection/repair. Remove propeller iaw aircraft Maintenance Manual paragraph 8.1.1 (4), (5) plus for the T67M260 paragraph (6).
- (3) Check condition of spinner support disc rubber for perishing (cracks and brittleness), rubber bond integrity to the support disc and rubber wear, Figure 2 shows (T67M200 and T67M260).

NOTE The spinner disc rubber is attached to the Hoffmann propeller's support disc, for T67M200 and T67M260 aircraft, and for the T67M and T67M-MkII the rubber is attached to the spinner's support disc.

- (4) Should rubber exhibit any defect as described in (3) above it should be removed and replaced.

NOTE For T67M and T67M-MkII; use MSAC code number 126-15-116, and for T67M200 and T67M260; use MSAC code number 126-15-131. Ensure surfaces are free from rubber and adhesive, degrease and remove any dust from surfaces to be bonded. Apply adhesive 126-51-211 (3M PR 1300L) iaw manufacturer's instructions and allow to cure.

- (5) If applicable, fit propeller iaw aircraft Maintenance Manual paragraph 8.1.1, reverse order of removal; note comment in paragraph 8.1.2.
- (6) Replace spinner in reverse order of removal, iaw aircraft Maintenance Manual paragraph 8.1.1 (3). The clearance between the spinner blade cut-outs to the propeller blades should be 3 mm. If less than 3 mm then spinner is to be modified until 3 mm clearance is achieved. Procedure for achieving 3mm clearance is detailed in DOI T67G-927 and is obtainable from MSAC. The clearance is to be checked by applying a moderate load to the extreme front of the spinner. There should be no movement in the spinner relative to propeller. If in doubt consult MSAC.

NOTE If the spinner moves when applying load, following fitting of replacement rubber, then pack out the rubber with PTFE tape 121-03-024 (Ref Figure 3).

- (7) Ensure at each pre flight and post flight inspections, as published in the Pilot's Operating Handbook and aircraft Maintenance Manual respectively, that the propeller blades show no sign of rubbing.

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- (8) At each 50 flying hour interval, check spinner for movement iaw paragraph (6) above. If movement is detected, remove spinner and check spinner support disc rubber iaw paragraph (3) above.

D. MODIFICATION

Not applicable.

E. TESTING

- (1) Refer to aircraft Maintenance Manual paragraph 8.1.2.
- (2) Replace cowling iaw aircraft Maintenance Manual paragraph 6.3.1 Engine Cowling Installation.

F. COMPLETION

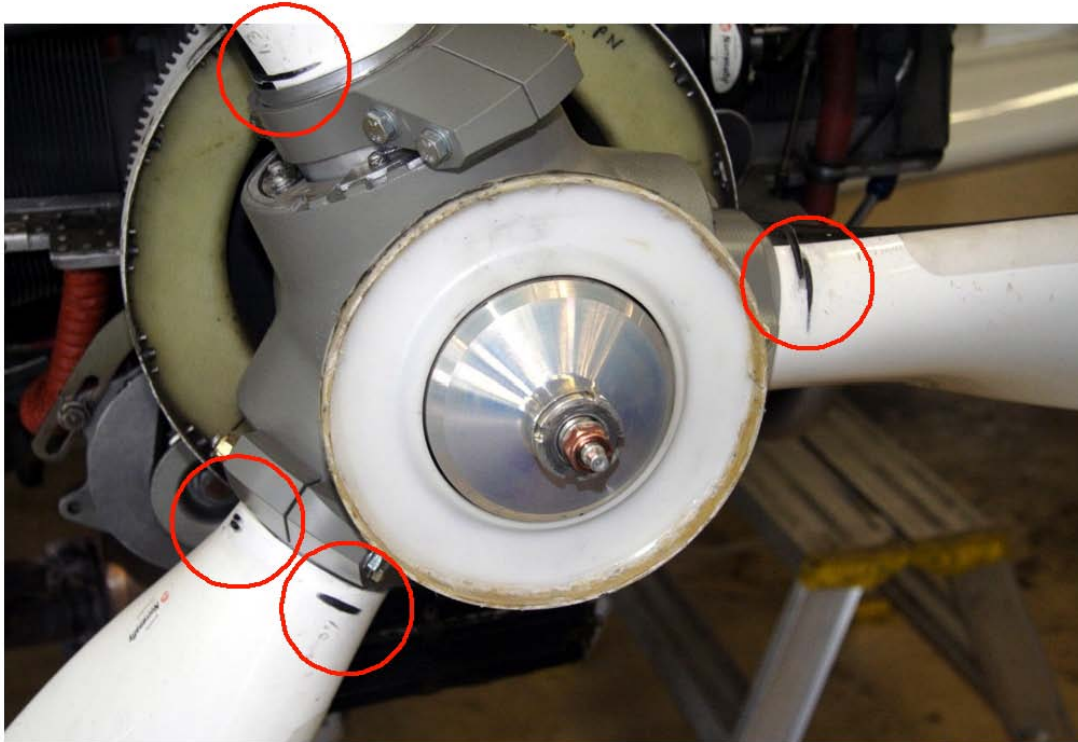
- (1) Annotate airframe logbook, or aircraft record, iaw local requirements, with SB 196 carried out.
- (2) On completion of initial inspection please complete the attached form at Annex A and return it to the address provided.
- (3) For any replaceable parts or materials contact Marshall-Slingsby Product Support Department contact details as below:

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 AREA OF GROOVING ON PROPELLER

SBM196-I-001-A

Figure 1 Areas of inspection

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SPINNER SUPPORT DISC

RUBBER STRIP
DE-BONDED

SBM196-I-002-A

Figure 2 De-bonded rubber strip (T67M200)

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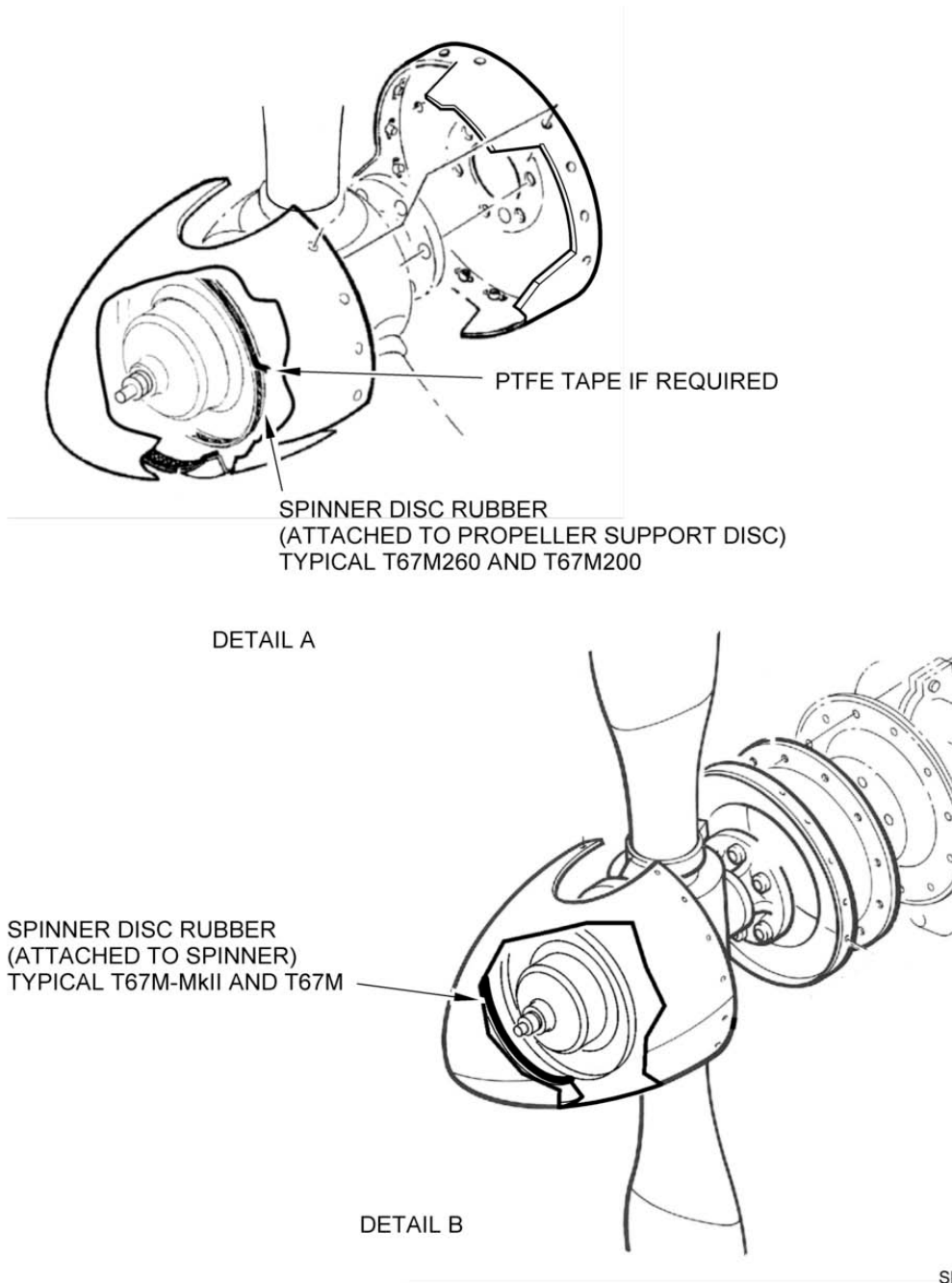


Fig 3 Spinner disc rubber position

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SB 196 ANNEX A

**INSPECTION OF SLINGSBY T67 FIREFLY PROPELLER SPINNER SUPPORT DISC FOR
RUBBER CONDITION**

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

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Table 1

Aircraft works number	
SB 196 carried out	
Total Flight Hours	
Details of rubber condition	
Reporters contact details i.e. Name, Address, e-mail, telephone etc	
Owner's details	