Nomad
ALERT SERVICE BULLETIN

ACN 008 622 008

Reference No 246

TRANSMITTAL LETTER
FOR
SERVICE BULLETIN ANMD–71–8

POWER PLANT — ELECTRICAL HARNESS — STARTER CIRCUIT FIREWALL STUD — INSPECTION AND REPLACEMENT (MOD N789)

Reason

1. Instances have occurred where the terminal lug on the starter circuit cable, at the engine firewall, has been severely damaged by overheating. The firewall stud has also shown signs of heating (blueing) and arcing (pitting). The incorporation of Mod N789 overcomes this hazard.

Instructions

2. Insert the attached Service Bulletin ANMD–71–8, dated 22 Jun 92 into the Service Bulletin binder and annotate the Service Bulletin Index accordingly.

Revision Status

Original	22 Jun 92

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POWER PLANT — ELECTRICAL HARNESS — STARTER CIRCUIT FIREWALL STUD — INSPECTION AND REPLACEMENT (MOD N789)

1. PLANNING INFORMATION

A. Effectivity

(1) Aircraft Affected.

All Nomad N22 and N24 Series aircraft. Part 2, incorporation of Mod N789, is mandatory for Nomad N22S Searchmaster aircraft LS 159 to 165.

(2) Spares Affected.

Not applicable.

B. Reason

Instances have occurred where the terminal lug on the starter circuit cable, at the engine firewall, has been severely damaged by overheating. The firewall stud has also shown signs of heating (blueing) and arcing (pitting). The incorporation of Mod N789 overcomes this hazard. Mod N789 is identical to Mod N724 (Service Bulletin ANMD–24–5) which applies to the generator circuit only.

C. Description

(1) Part 1 — Inspection.

Starter circuit cable lugs and feed-through stud, PN 1/N–81–424, located at the wing leading edge firewalls, are inspected for security and signs of damage caused by overheating.

(2) Part 2 — Repair.

Incorporation of Mod N789. The existing steel studs, PN 1/N–81–424, are replaced with copper studs, PN 1/N–81–925. The attaching hardware and cable lugs are also replaced.

NOTE

Embodiment of Part 2 supersedes the requirement of Part 1.

D. Compliance

(1) Part 1 — Inspection.

At or before the next 100 hourly service.

NOTE

Part 1 is not applicable to N22S Searchmaster aircraft LS159 to 165.

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(2) Part 2 — Repair.

(a) All aircraft except LS159 to 165 — Immediately after an inspection when evidence of overheating is apparent.

(b) LS159 to 165 — at or before the next 100 hourly inspection after 1 August 1992.

E. **Approval**

This Service Bulletin is approved pursuant to Civil Aviation Regulation 35 and conforms with type certification requirements.

F. **Manpower**

Part 1 — 0.5 manhour.

Part 2 — 1.5 manhours.

G. **Material — Price and Availability**

Parts are to be obtained from ASTA General Aviation, own stock or local sources.

H. **Tooling — Price and Availability**

None.

I. **Weight and Balance**

None.

J. **References**

None.

K. **Publications Affected**

Maintenance Manual
Illustrated Parts Catalogue

2. **ACCOMPLISHMENT INSTRUCTIONS**

A. **Part 1 — Inspection**

(1) Raise the upper engine cowls, and the wing leading edge servicing doors to gain access to the stater circuit firewall feed through stud.

(2) Locate the starter circuit firewall feed through stud PN 1/N–81–424 and pull back the protective covers from the cable connections at both ends of the stud.

(3) Inspect the terminal lug and stud for overheating (blueing) and the stud for arcing (pitting). Also check all components for security of attachment of the cable to the stud, at each side of the firewall.

(4) If there is evidence of overheating and/or arcing repair in accordance with Part 2.

(5) Report results of inspection to ASTA General Aviation. Nominate aircraft Serial No, hours TIS, and indicate if any known previous component replacements have occurred in the affected area.

B. **Part 2 — Repair**

(1) Incorporate Mod N789 as follows:

(a) Disconnect the battery and ground power from the aircraft.

(b) Raise the upper engine cowls, and the wing leading edge servicing doors to gain access to the stater circuit firewall feed through stud.

WARNING

ENSURE BATTERY AND GROUND POWER ARE DISCONNECTED.

(c) Locate the starter circuit firewall feed through stud PN 1/N–81–424 and pull back the protective covers from the cable connections at both ends of the stud.

(d) Remove the starter cable K1A2 (inboard), K1B2 (outboard) and K2B2 (inboard), K2C2 (outboard) from stud PN 1/N–81–424. Remove stud from firewall.

(e) Remove the 1/4 in diameter terminal lug from cables K1A2 (inboard left wing) and K2B2 (inboard right wing) and replace with a 3/8 in diameter terminal lug PN MS25036–127.

(f) Install the replacement stud PN 1/N–81–925 in the following sequence:

NOTE

All item numbers refer to Figure 1.

1 Onto the longer end of the stud (1) place special washer (2) and insulating washer (3).

2 Insert stud through firewall from the wing leading edge side.

3 Place insulating washer (4), special washer (2), spring washer (5) and nut (6A) onto stud.

NOTE

Before tightening nut (6A) apply Loctite 242 Nutlock to the threads on the stud. Preparation, application and curing of the Loctite should be in accordance the manufactures instructions.

CAUTION

TAKE CARE NOT TO CRUSH THE INSULATING WASHERS WHEN TIGHTENING NUTS (6A) AND (6B).

4 Torque tighten nut (6A) to 20 in lb.

5 Assemble locknut (6B) and torque tighten against nut (6A) to 80 in lb.

6 Connect cables K1B2 and K2C2 to respective studs, washer (7), spring washer (5) and nut (6C).

7 Torque tighten nut (6C) to 60 lb in and replace protective cover (8).

8 On the inboard side of the firewall connect cables K1A2 and K2B2 to respective studs, washer (7), spring washer (5) and nut (6D).

9 Torque tighten nut (6D) to 60 lb in and replace protective cover (8).

(g) Reconnect battery and at the next engine start check Starter operation in accordance with 'Starting Procedure', Section 3 of the relevant Flight Manual.

3. MATERIAL INFORMATION

A. Parts Required Per Aircraft.

New Part No	Qty	Description	Old Part No	Instruction/Disposition
Parts to be obtained from ASTA General Aviation, own stock or local source				
AN960–616L	4	Washer, Plain		Fig 1 (7)
MS25036–127	2	Lug, Terminal	MS25036–126	Scrap, Fig 1 (9)
MS25171–2S	2	Nipple, Electrical	MS25171–S2	Replace, Fig 1 (8)
MS35338–46	6	Washer, Spring	MS35338–46	Replace, Fig 1 (5)
MS35650–3385T	8	Nut, Brass, tinned		Fig 1 (6)
1/N–81–161	4	Washer, Special		Fig 1 (2)
1/N–81–925	2	Stud	1/N–81–424	Scrap, Fig 1 (1)
2/N–81–306	2	Washer, Insulating	1/N–81–306	Scrap, Fig 1 (3)
2/N–81–307	2	Washer, Insulating	1/N–81–307	Scrap, Fig 1 (4)
Parts removed				
	2	Washer	AN960–C414	Scrap
	2	Washer	AN960–C416L	Scrap
	4	Washer	AN960–C616L	Scrap
	2	Nut	MS21083–N4	Scrap
	2	Nut	MS21083–N6	Scrap
	2	Washer, Spring	MS35338–44	Scrap
	2	Nut	MS3560–3384	Scrap

4. RECORDING ACTION

Record compliance with Alert Service Bulletin ANMD–71–8, Part 1 and/or 2 as appropriate in the airframe log book.

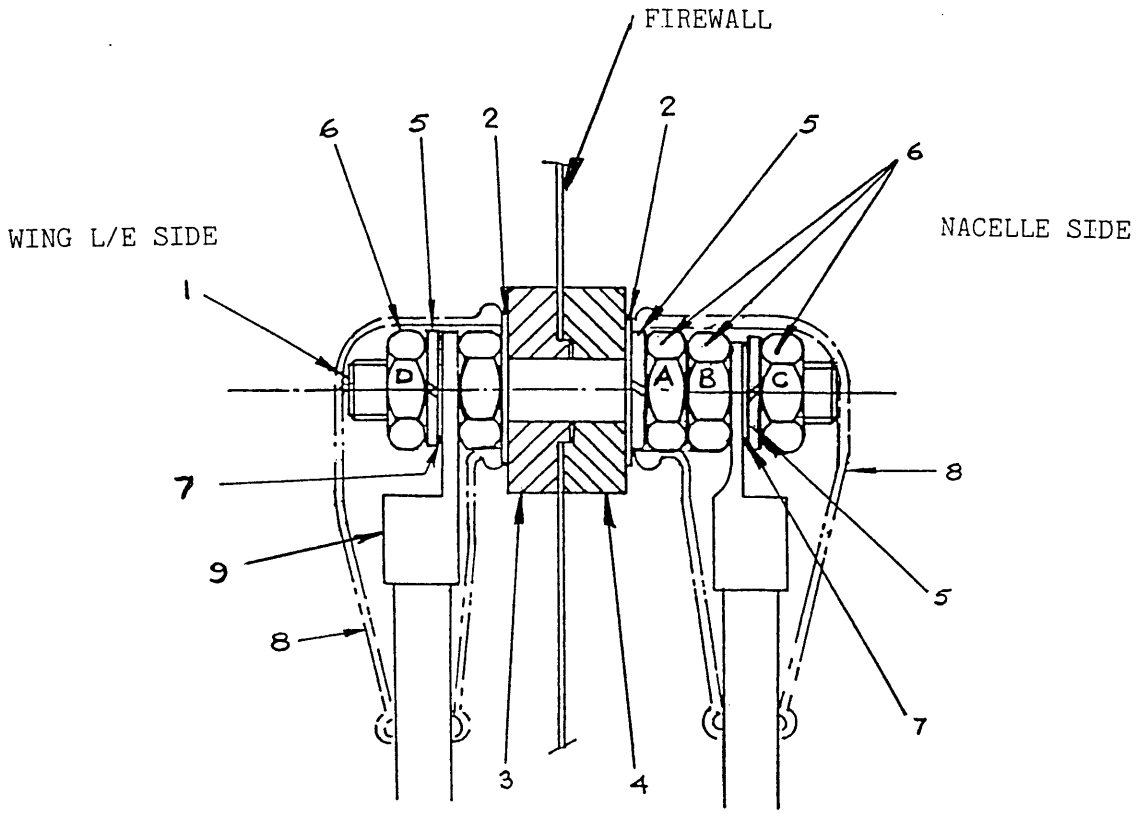

Figure 1 Starter Cables and Stud Assembly