EXHAUST - NOZZLE HALF CLAMP INSPECTION/MODIFICATION

1. PLANNING INFORMATION

A. Effectivity

Nomad N22S, Serial No's LS159 to LS165 inclusive, if log books do NOT show compliance with Service Bulletin ANMD-78-01.

Nomad N24A, Serial No. LS42, if log book does NOT show compliance with Service Bulletin ANMD-78-01.

B. Reason

- (1) Several half-clamp failures have occurred due to one or more of the following: overtightening of the clamp bolts; misalignment of the clamp ends; or stress concentrations arising from grinding marks and interference of fasteners in the clamp.
- (2) Reason for Revision 1

Aircraft N24A-42 and reference to original issue of this Service Bulletin added to effectivity. PN 1/N-50-548 corrected in Para 2.(4) and materials list. Minor changes to enhance readability.

C. Description

The engine exhaust stub nozzle half-clamps are inspected for evidence of distress. An additional pair of conical spring washers is installed on each new half clamp attachment bolt, beneath a new nut. (The plain washer is discarded).

The bolts are preloaded via an acceptable procedure.

D. Compliance

Aircraft with less than 250 total flying hours: at or before 300 total flying hours.

Aircraft with more than 250 flying hours: within the next 50 flying hours.

E. Approval

The requirement detailed herein has been approved by a person authorised under Civil Aviation Regulation 35 and conforms to the type certification requirements.

F. Manpower

4 manhours per aircraft.

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G. Materials , Price and Availability

Contact ASTA Defence, Nomad Support, Customer Spares regarding parts and ASTA Product Support regarding warranty.

H. Tooling , Price and Availability

None.

I. Weight and Balance

None.

J. References

None.

K. Publications Affected

IPC Chapter 78-10-00

MM Chapter 78-10-00

2. ACCOMPLISHMENT INSTRUCTIONS

(1) Open lower cowl.

- (2) Refer to Fig 1 and remove the exhaust stub nozzle half-clamps and stub nozzles from the engine.
- (3) Discard existing bolts, nuts and plain washers, retain conical spring washers.
- (4) Dye penetrant inspect each half-clamp PN 1/N-50-548 in the vicinity of the welds for evidence of cracking. Any cracking is cause for rejection. Examine welds and the area shown on Fig 2 for evidence of grinding and/or "interference" marks. Any grinding marks which result in a loss of clamp thickness are a cause for rejection, other marks may be dressed using a round needle file to remove burrs and sharp corners.
 - (5) Inspect half-clamp pairs for evidence of misalignment of bolt holes or any obvious distortion as follows:
 - (a) Firmly hold half-clamp pair onto the exhaust flanges with even gaps front and rear.
 - (b) Insert a clamp bolt through each bolt hole. Bolts should pass through the bolt hole without interference.
 - (c) If the bolt will not pass through the bolt hole and there is obvious distortion of the half-clamp ends, reject the half-clamp/s. If the bolt will not pass through the bolthole and there is NO obvious distortion of the half-clamp ends, turn a half-clamp 180° and re-check. If it will still not pass through, counterbore the half-clamp ends per Fig 2 and re-check.

Reject if the bolt will still not pass through.



- (6) Refit Exhaust Stub Nozzle and Clamp Ring Halves to the aircraft in reverse order to their removal, observing the correct assembly of the bolt, nut and conical spring washers, including the additional pair, as per Fig 3. Use anti-seize compound on bolt threads.
- (7) Tighten the clamp attachment nuts until the conical washers are bottomed-out, as indicated by a noticeable increase in torque. Back-off each nut from this point by <u>one turn</u>.
- (8) Refit the lower engine cowl.

3. MATERIALS INFORMATION

The following parts are required for each aircraft.

New Part No	Qty	Description	Old Part No	Qty	Instruction/Disposition
		Clamp Ring-Half	1/N-50-548	8	Reuse if Serviceable
NAS1351C3-32	8	Socket Head Cap Screw			
		Bolt	NAS1802-3-28 1/N-50-568 (Alt.) NAS6703U28 (Alt.)	8	Discard
MS21043-3	8	Nut	MS21046C3	8	Discard
B10 x 5.2 x .4	16	Conical Spring Washer (16 x New, plus 16 x Existing = 32 Total)	B10 x 5.2 x .4	16	Reuse if Serviceable

4. SPECIAL TOOLS AND EQUIPMENT

None

5. **RECORDING ACTION**

Record compliance with Alert Service Bulletin ANMD-78-01 in the airframe log book.





Figure 1 Exhaust Nozzle Clamp Installation



Figure 3 Conical Washer Installation

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