

*Nomad*

# SERVICE BULLETIN

SUBJECT: REINFORCED WING STRUT UPPER FAIRING  
ATTACHMENT POINTS (MODIFICATION N476)

## 1. Planning Information

### A. Effectivity

#### (1) Aircraft Affected

All Nomad N22-Series and N24-Series aircraft whose log books do not already record the embodiment of Mod N476 or compliance with Service Bulletin NMD-57-5.

Pre-certification implementation of the intent of this service bulletin is recorded in the airframe log book as Mod N476.

#### (2) Spares Affected

Nil.

### B. Reason

To prevent cracking of wing leading edge skin around the wing strut upper fairing attachment points.

### C. Description

A doubler plate is fitted behind the leading edge skins under stiffeners between wing stations (wstas) 134.89 and 153.26.

### D. Compliance

It is strongly recommended that operators incorporate the modification described in this Bulletin as soon as possible.

NOTE: If there is evidence of local minimal damage to the wing strut it is suggested that S/B NMD-57-3 be incorporated which embodies the intent of Mod N316.

### E. Approval

The modification detailed herein has been approved pursuant to Air Navigation Regulation 40 and conforms with the type certification requirements.

F. Manpower

Four manhours for each wing. Two men are required during riveting phase.

G. Material - Price and Availability

Refer to Para. 3.A.

H. Tooling - Price and Availability

None required.

J. Weight and Balance

Negligible effect.

K. References

M.M. - Maintenance Manual

L. Publications Affected

None.

2. Accomplishment Instructions

A. Manufacture Doubler Plate and Stringer (Ref Figure 3). The doubler plate P/N 1A/N-20-874 and stringer P/N 1A/N-03-672 are to be manufactured to the material specifications and dimensions detailed on Figure 3.

B. Remove wing strut and fairings.

- (1) Place a wing support trestle under the wing at wstas 171.50 to 174.0. (Ref M.M. 7-00-00).
- (2) Remove and retain the screws and washers securing the lower fairing. Discard the self-locking nuts.
- (3) Remove and retain the screws and washers securing the upper fairing.
- (4) Support the wing strut (weight 60 lb approximately) and remove the strut to wing attachment bolt. If the bolt is difficult to remove, adjust the height of the trestle by small amounts until the bolt can be easily removed. Retain the attaching parts but discard split pin.
- (5) Remove the strut to stub wing attachment bolt and lower the wing strut complete with upper and lower fairings to the ground. Retain the attaching parts but discard the split pin.

(6) Remove the fairings from the wing strut.

C. Rework the leading edge wing skin between wstas 134.89 and 153.26.

CAUTION: ALL RIVET HOLES TO BE DEBURRED BEFORE RIVETING.

- (1) Drill out the five rivets along each rib at wstas 134.89 and 153.26, between the stringer and the Z section (Ref Figure 1).
- (2) Drill out the rivets securing the stringer P/N 1BG/N-20-551 and remove and discard the stringer (Ref Figure 1).
- (3) Drill out the rivets securing the four anchor nuts (Ref Figure 1). Remove and discard the anchor nuts.
- (4) Drill out the rivets securing the Z section P/N 1BH/N-20-551 to the skin (Ref Figure 1) and the rivets securing the angles P/N 1BD/N-20-551 to the ribs at wstas 134.89 and 153.26 (Ref Figure 2). Remove and retain the Z section complete with angles.
- (5) Install the doubler plate allowing 0.50 inch joggle over the ribs at wstas 134.89 and 153.26. Clamp the doubler plate in position, back drill the skin and secure with rivets P/N MS20470 AD3-3 at the positions indicated in Figure 1.
- (6) Back drill 2.45 mm diameter holes in the doubler plate to accept rivets P/N MS20426 AD3-4 and P/N MS20470 AD3-4 and back drill the 5.5 mm diameter holes for the anchor nuts in the positions shown in Figure 1.
- (7) Position the new stringer P/N 1A/N-03-672 and mark the positions of the rivet holes. Remove the stringer and drill 2.45 mm diameter holes in the marked positions. Secure in position with rivets P/N MS20426 AD3-4. A rivet P/N MS 20470 AD3-4 is used at each end of the stringer (Ref Figure 1).
- (8) Refit the Z section (removed at step (4)) and secure in position with rivets P/N MS20470 AD3-4. Secure the existing angles P/N 1BD/N-20-551 to the ribs with rivets P/N MS20600 AD5-1 (Ref Figure 2).
- (9) Complete the riveting along the two ribs with rivets P/N MS20470 AD3-4.
- (10) Refit new anchor nuts P/N MS 21059-3 using rivets P/N MS20470 AD3-4 in the positions shown on Figure 1.

D. Refit the wing strut and fairings.

- (1) Slide the upper and lower fairings on to the wing strut.
- (2) Align the wing strut lower end-fitting to the corresponding fitting at the stub wing and install the attachment bolt, head facing forward.
- (3) Assemble the two washers and nut, removed in Para 2.B.(5), to the bolt and torque tighten the nut to a maximum of 200 lb inches. If necessary back-off the nut a minimum amount to align the split pin hole and the slots of the nut then fit a new split pin P/N MS24665-302.
- (4) Align the wing strut upper end-fitting to the corresponding fitting on the wing and install the attachment bolt, head facing aft.
- (5) Assemble two washers and nut removed in Para 2.B(4) to the bolt and torque tighten the nut to a maximum of 200 lb inches. If necessary back-off the nut a minimum amount to align the split pin hole and slots of nut then fit a new split pin P/N MS24665-302.
- (6) Secure the upper fairing to the wing using the screws and washers retained in Para 2.B.(3).
- (7) Secure the lower fairing to the pod using the screws and washers, retained in Para 2.B.(2) and new self-locking nuts P/N MS21083N3.
- (8) Remove the wing support trestle.

### 3. Materials Information

#### A. Parts Required per Aircraft

The following items (\*) are to be locally manufactured and the remaining items obtained from the operators stock or local sources.

<u>Item P/N</u>	<u>Title</u>	<u>Qty</u>
1A/N-20-874	Doubler plate *	2
MS20470AD3-3	Rivet	24
1A/N-03-672	Stringer *	2
MS20426AD3-4	Rivet	34
MS20470AD3-4	Rivet	68
MS20600AD5-1	Rivet	8
MS21059-3	Anchor nut	8

\* Refer to Figure 3 for details of locally manufactured items.

#### B. Parts Modified and Re-identified by Operator

None.

#### C. Parts Required to Modify Spares

None.

D. Removed Parts

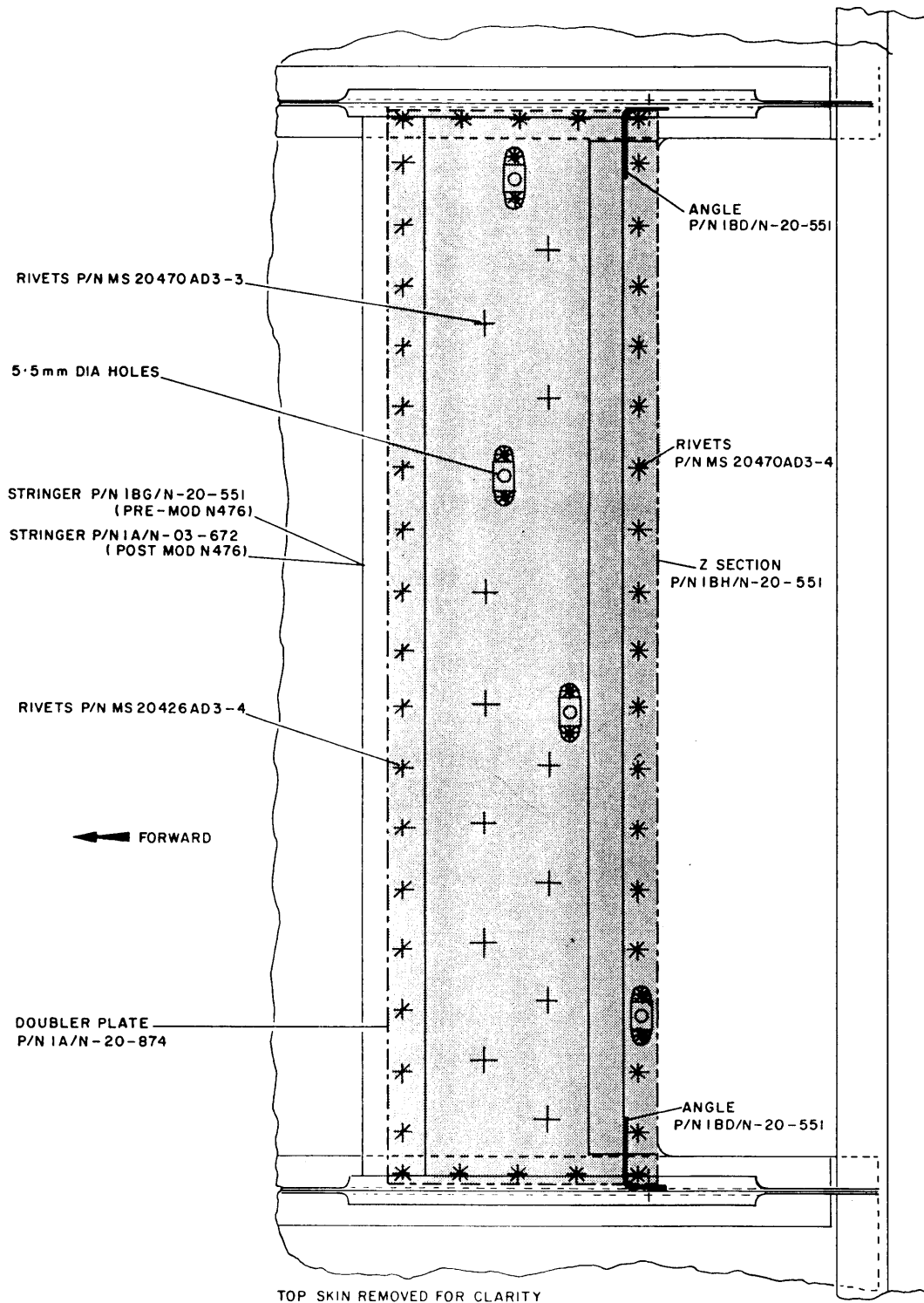
<u>Item P/N</u>	<u>Title</u>	<u>Qty</u>	<u>Recommended Disposition</u>
1BG/N-20-551	Stringer	1	Scrap

E. Special Tools and Equipment

None.

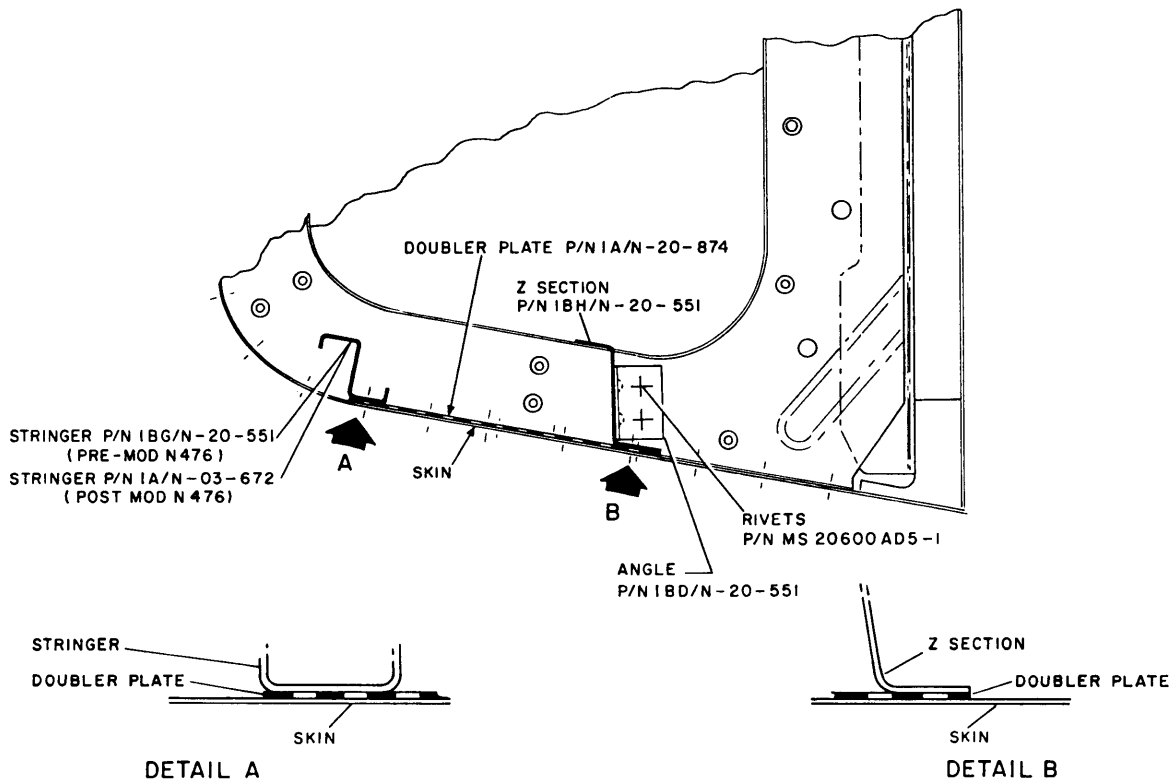
4. Record compliance with S/B NMD-57-5 in the airframe log book.

W STN 134-89

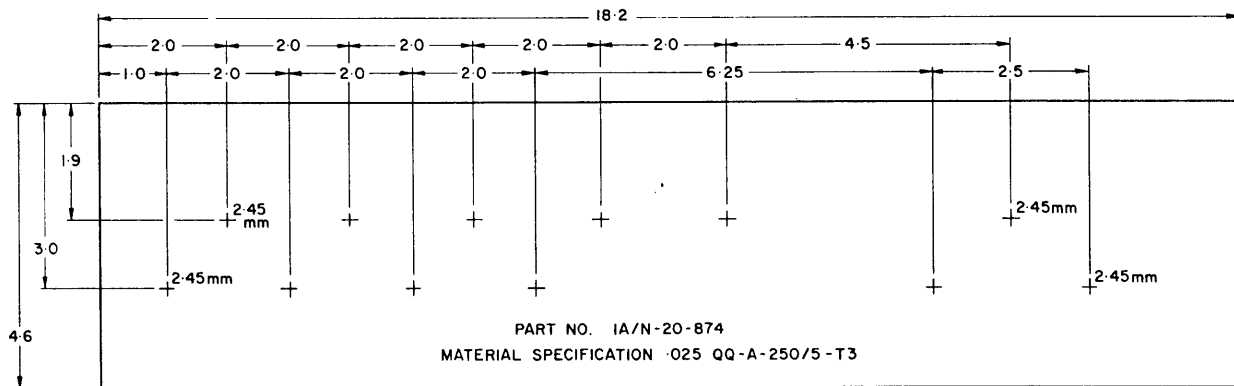


W STN 153-26

Installation of Mod N 476  
Figure 1

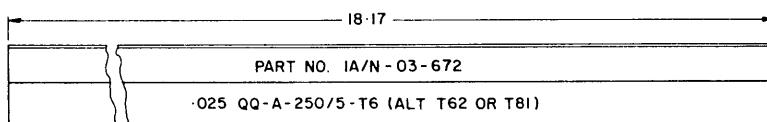


View on Rib Wing Stn 134.89  
 Looking Inboard  
 Figure 2



- NOTE: 1. ALL DIMENSIONS IN INCHES EXCEPT WHERE STATED.  
 2. PAINT DOUBLER PLATE AND STRINGER WITH EPOXY PRIMER (REF MM 11-00-00)

DOUBLER PLATE



STRINGER  
 Figure 3

