GOVERNMENT AIRCRAFT FACTORIES

Nomad

Reference No.101

SERVICE BULLETIN

SUBJECT: IMPROVEMENT OF WING STRUT AND FAIRINGS (MODIFICATION N316)

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 N316 or compliance with Service Bulletin NMD-57-3.

Pre-certification implementation of the intent of this service bulletin is recorded in the airframe log book as Mod N316.

(2) Spares Affected

Nil.

B. Reason

To prevent localized cracking of wing skin and damage to wing strut.

C. Description

Rubber channel section is bonded to the wing strut upper and lower fairings and spacers bonded to the upper fairing where the fairing is secured to the wing skin. Neoprene sheet is attached to both ends of the wing strut where the strut enters the two fairings.

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 localized cracking of the wing skin at the wing strut upper fairing attachment point it will be necessary to incorporate S/B NMD-57-5 which embodies the intent of Mod N476.

E. Approval

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

F. Manpower

Three manhours plus time for adhesive to cure.

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

Service Letter 78-07.

NOTE: A copy of Service Letter 78-07 is enclosed with this Service Bulletin.

L. Publications Affected

Maintenance Manual
Illustrated Parts Catalogue.

2. Accomplishment Instructions

A. Inspect the wing skin at the wing strut attachment point. If localized cracking of the wing skin at the wing strut upper fairing attachment point is evident, service bulletin NMD-57-5 should be incorporated which embodies the intent of Mod N476.

B. Inspect the wing strut for damage (Ref Service Letter 78-07).

C. If damage is outside the limits detailed in Service Letter 78-07 the wing strut is to be replaced by a serviceable or new strut, or advice sought from the manufacturer.

D. Remove the wing strut and fairings.

(1) Place a wing support trestle under the wing at wstas 171.50 to 174.0.

(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 (27 Kg) 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 the 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.

E. Rework the wing strut (Ref Figure 1).

(1) Clean the surface of the wing strut with white spirits or trichloroethane prior to attaching the neoprene rubber.

(2) Clean the neoprene rubber, 2 inch wide 1/16 inch thick with acetone or trichloroethane then attach to the wing strut in the positions shown in Figure 1 using Scotchmount 4262 double - coated adhesive foam tape or suitable alternative i.e. contact adhesive (Ref Para 3.A).

F. Rework the upper fairing (Ref Figure 2).

(1) Trim back the fairing lip to the depth of the wing strut bolt cut-outs (0.19 inches approximately).

(2) Clean the fairing with white spirits or trichloroethane.

(3) Bond the rubber channel to the edges of the fairing using adhesive PR1422A-2 or Pro-seal 890A-2. Slit the inside edges of the rubber channel as necessary to obtain a good fit.

(4) Bond washers P/N AN960PD416 to the left wing strut upper fairing and washers P/N AN960PD416L to the right wing strut upper fairing, at the positions shown in Figure 2 using adhesive PR 1422A-2 or Pro-seal 890A-2. Cut away the rubber channel where necessary to clear the washers. Ensure that the screw holes in the fairing are not blocked with sealant.

G. Rework the lower fairing (Ref Figure 2).

(1) Trim back the fairing lip to the depth of the wing strut bolt cut-outs (0.19 inches approximately).

(2) Clean the fairing with white spirits or trichloroethane.

(3) Bond the rubber channel to the edges of the fairing using adhesive PR 1422A-2 or Pro-seal 890A-2. Slit the inside edges of the rubber channel as necessary to obtain a good fit. Cut away the rubber channel where necessary to clear the screw holes and ensure that the screw holes are not blocked with sealant.

H. 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.E. (5). Torque tighten the nut to a maximum of 200 lb inches ensuring that the hole in the pivot bolt aligns with the slot in the nut (if necessary, back-off the nut a minimum amount to align the split pin hole with slots in the nut). 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 the two washers and nut removed in Para 2.E.(4). Torque tighten the nut to a maximum of 200 lb inches ensuring that the hole in the pivot bolt aligns with the slot in the nut (if necessary back-off the nut a minimum amount to align the split pin hole with slots in the nut). 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.E.(3).

(7) Secure the lower fairing to the pod using the screws and washers, retained in Para 2.E.(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 obtained from Operator's stock or local sources:

Item	Qty
Neoprene rubber 2 inch wide, 1/16 inch thick	84 inches
Double-coated adhesive foam tape Scotchmount 4262	84 inches
Contact adhesive Bostik 1489 or EC 1300 L (Alt)	A/R
Rubber channel type B Van Dusen Aircraft Supplies	360 inches
P/N AN960 PD416L Washer (Right wing strut upper fairing)	16
P/N AN960PD416 Washer (Left wing strut upper fairing)	16
PR1422A-2 or Pro-seal 890A-2 adhesive	A/R
MS24665-302 Split pin	4
MS21083-N3 Self-locking nut	24
White Spirits or trichloroethane	A/R

B. Parts Modified and Re-indentified by Operator

None.

C. Parts Required to Modify Spares

None.

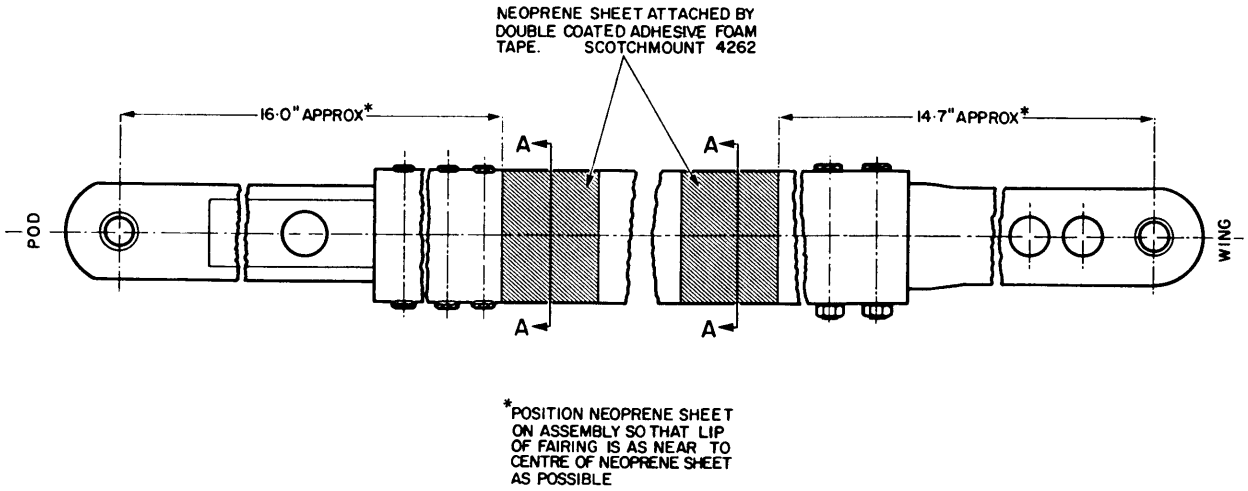
D. Remove Parts

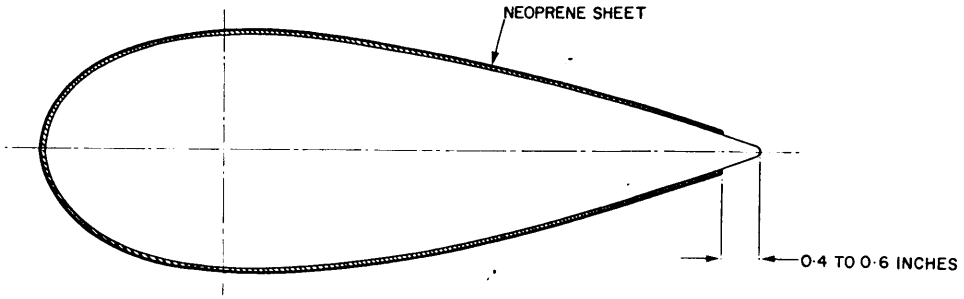
Item P/N	Title	Qty	Recommended Disposition
MS21083-N3	Nut, self-locking	24	Scrap
MS24665-302	Pin, split	4	Scrap

E. Special Tools and Equipment Required

4. Record compliance with S/B NMD-57-3 in the airframe log book.

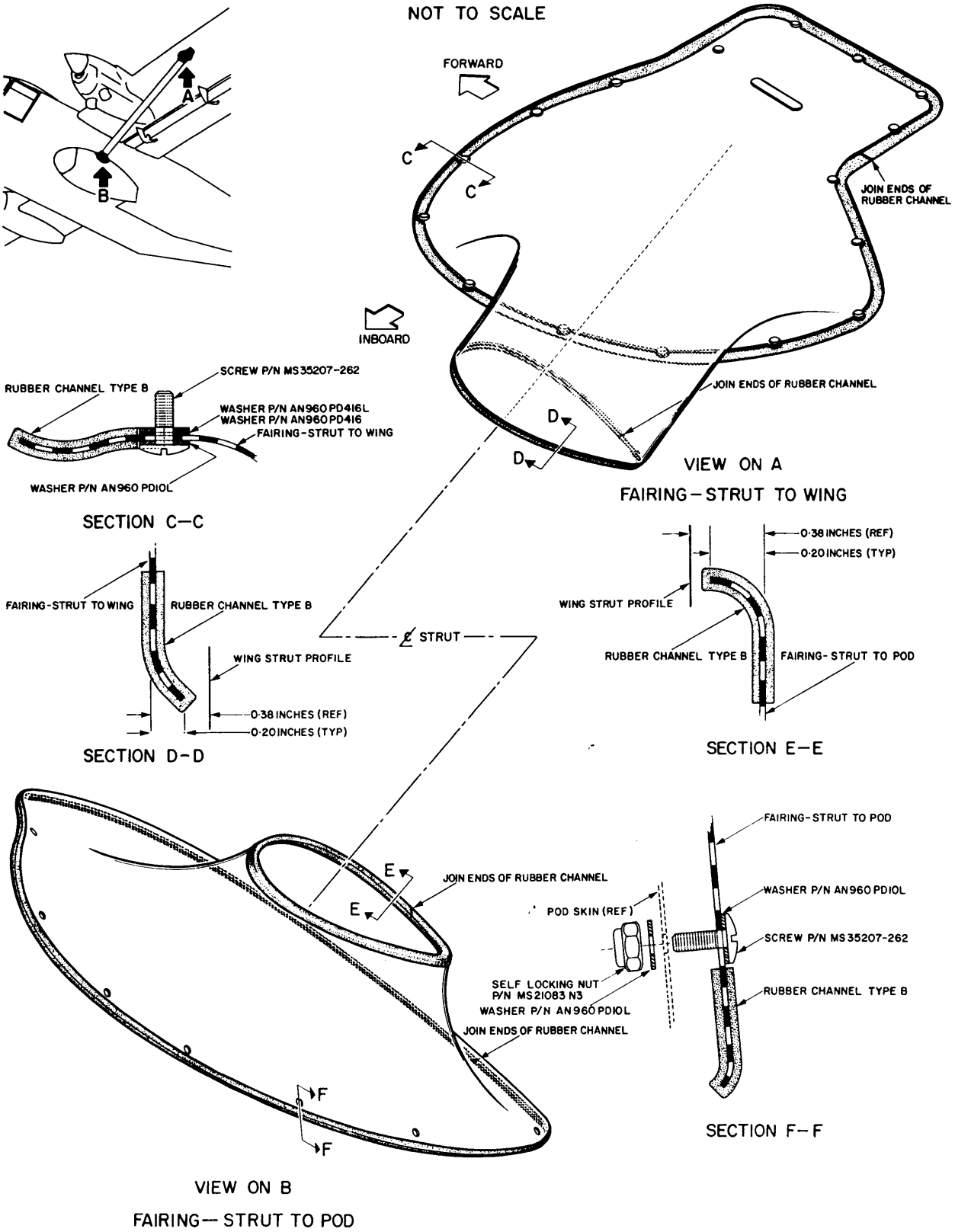
NOT TO SCALE





SECTIONS A—A

Wing Strut – Installation of Mod N316
Figure 1



Wing Strut-Upper and Lower Fairings
Mod N316
Figure 2