GOVERNMENT AIRCRAFT FACTORIES
Nomad

Reference No. 131

SERVICE BULLETIN

SUBJECT: INSPECTION OF FLEXIBLE FUEL HOSES IN WINGS BETWEEN WING STA 0 AND ENGINE NACELLE FIREWALL

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 N194 or compliance with Service Bulletin NMD-28-14.

(2) Spares Affected

Nil

B. Reason

To inspect flexible fuel hoses for hardening and cracking and possible fuel leakage from deteriorated hoses.

C. Description

Three flexible hoses in each wing in the fuel distribution system between Wing Sta 0 and the engine nacelle firewall on the left and right sides of the aircraft and one hose just inboard of Wing Sta 0 on the RH side of the aircraft, should be inspected for leakage caused by hardening and cracking of the hoses. (Ref IPC 28-20-01 Figure 1 Page 0 Item 6, 33, 52 and 60).

D. Compliance

At the next 100 hr inspection.

E. Approval

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

F. Manpower

Four manhours

G. Material - Price and Availability

Refer to Para 3A.

H. Tooling - Price and Availability

None required.

J. Weight and Balance

Negligible effect.

K. References

MM - Maintenance Manual
IPC - Illustrated Parts Catalogue

L. Publications Affected

None.

2. Accomplishment Instructions

A. Ensure all electrical power is switched off and that both the LH and RH fuel-shut off levers are selected to OFF.

B. Inspect hoses for hardening and cracking.

(1) Open up both wing leading edge doors between the fuselage and the engine nacelles.

(2) If fitted, remove the Scotchtape and firesleeve from the flexible fuel hoses.

(3) Inspect hoses for hardening and cracking by squeezing firmly by hand. The hoses should feel resilient and show no sign of cracking or fuel seepage. Hoses showing evidence of leakage shall be replaced before further flight. Hoses showing evidence of hardening or cracking shall be replaced as soon as possible.

(4) If hoses are serviceable refit firesleeve and secure with new Scotchtape (Ref Sub-para D).

(5) If hoses are unserviceable repairs must be effected by:

(a) Replacement of hoses as described in Sub-para C and fitting of firesleeve as described in Sub-para D or

(b) Incorporation of part of Mod N194 as described in Sub-para E.

C. Replacement of hoses.

(1) Loosen the hose clamps and slide them clear of the joint.

(2) Remove the hose. (Unserviceable hoses may be cut if necessary to facilitate removal).

(3) Install the new hose and apply two turns of Permacell No. 64 adhesive cotton tape or equivalent around each hose where the securing clamps are to be fitted.

(4) Fit the hose clamps and torque tighten to between 15 and 20 lb in to secure the unions.

(5) Pressure test disturbed joints for leaks (Ref MM 28-20-00), if no leaks are evident fit firesleeve around the hose. (Ref Sub-para D).

(6) If any leaks are evident, diagnose cause and take remedial action.

D. Fitting of Firesleeve.

(1) Cut two pieces of Aeroquip firesleeve 2.7 inches long and one piece 4.8 inches long for each side of the aircraft. Cut a further piece 4.8 inches long for the hose inboard of RH wing (Ref IPC 28-20-01, Figure 1, Page 0, Item 60).

(2) Slit along each length of firesleeve to allow for fitting.

(3) Remove hose clamps from flexible fuel hose.

(4) Fit firesleeve over flexible hose with slit towards wing front spar. Wrap firesleeve with aluminium Scotchtape 425.

(5) Refit hose clamps and torque tighten to between 15 and 20 lb in.

E. Fitting of Metal Pipe (Part Mod N194) (Ref IPC 28-20-01 Fig 1, Sheet 1, Item 6).

NOTE: 1 This is an alternative to renewing flexible hose P/N 1A/N-57-170.

2 If Mod N169 has been incorporated, the magnetic shield covering the fuel flow transmitter must be removed to incorporate part Mod N194. This is accomplished by removing four screws holding together the two halves of the shield and removing the shield. Remove and discard the Scotchfoam tape around the transmitter. After carrying out part Mod 194 wrap sufficient Scotchfoam tape around the flow transmitter to ensure that the shield fits tightly around the transmitter. Refit the two halves of the shield over the flow transmitter and secure with the four screws.

(1) Remove flexible fuel hose P/N 1A/N-57-170 (Ref IPC 28-20-01, Page 0, Item 6), pipe assembly P/N 1/N-57-178 (Ref IPC 28-20-01, Page 0, Item 8) and adaptor P/N AN807-8J (Ref IPC 28-20-01, Page 0, Item 5).

(2) Fit metal pipe P/N 1/N-57-335 LH and 2/N-57-335 RH (Ref IPC 28-20-01. Page 0, Item 6 and 6A respectively) and Union, flared tube MS24393-8 (Ref IPC 28-20-01, Page 0, Item 5). Secure the pipe with the tube nuts and torque load to between 150 and 250 lb in.

(3) Service the fuel tanks (Ref MM 12-10-00) and then purge the air from the fuel system (Ref Allison 250-B17 and B17B Operation and Maintenance Manual).

(4) Pressure test the fuel system for external leaks (Ref MM 28-20-00).

(5) When all tests are satisfactorily concluded close and secure wing leading edge doors.

3. Material Information

A. Parts Required per Aircraft

(1) The following parts, if required, are to be obtained from the operator's local distributor.

Item P/N	Title	Qty
1/N-57-335	Metal Pipe LH	1
2/N-57-335	Metal Pipe RH	1
MS24393-8	Union - Flared Tube	2

(2) The following items are to be obtained from the operator's stock or from local sources.

Item P/N	Title	Qty
MIL-H-6000	Flexible Hose 2.5 in long x 1/2 inch ID	4
MIL-H-6000	Flexible Hose 4.6 in long x 1/2 inch ID	3
AE-102-14	Firesleeve, Aeroquip 2.7 in long	4
AE-102-14	Firesleeve, Aeroquip 4.8 in long	3
425	Scotchtape (3M)	A/R
4308	Tape, Scotchfoam (3M)	A/R
P64	Permacell Adhesive Cotton Tape	A/R

B. Parts Modified and Re-identified by the Operator

None.

C. Parts Required to Modify Spares

None.

D. Removed Parts

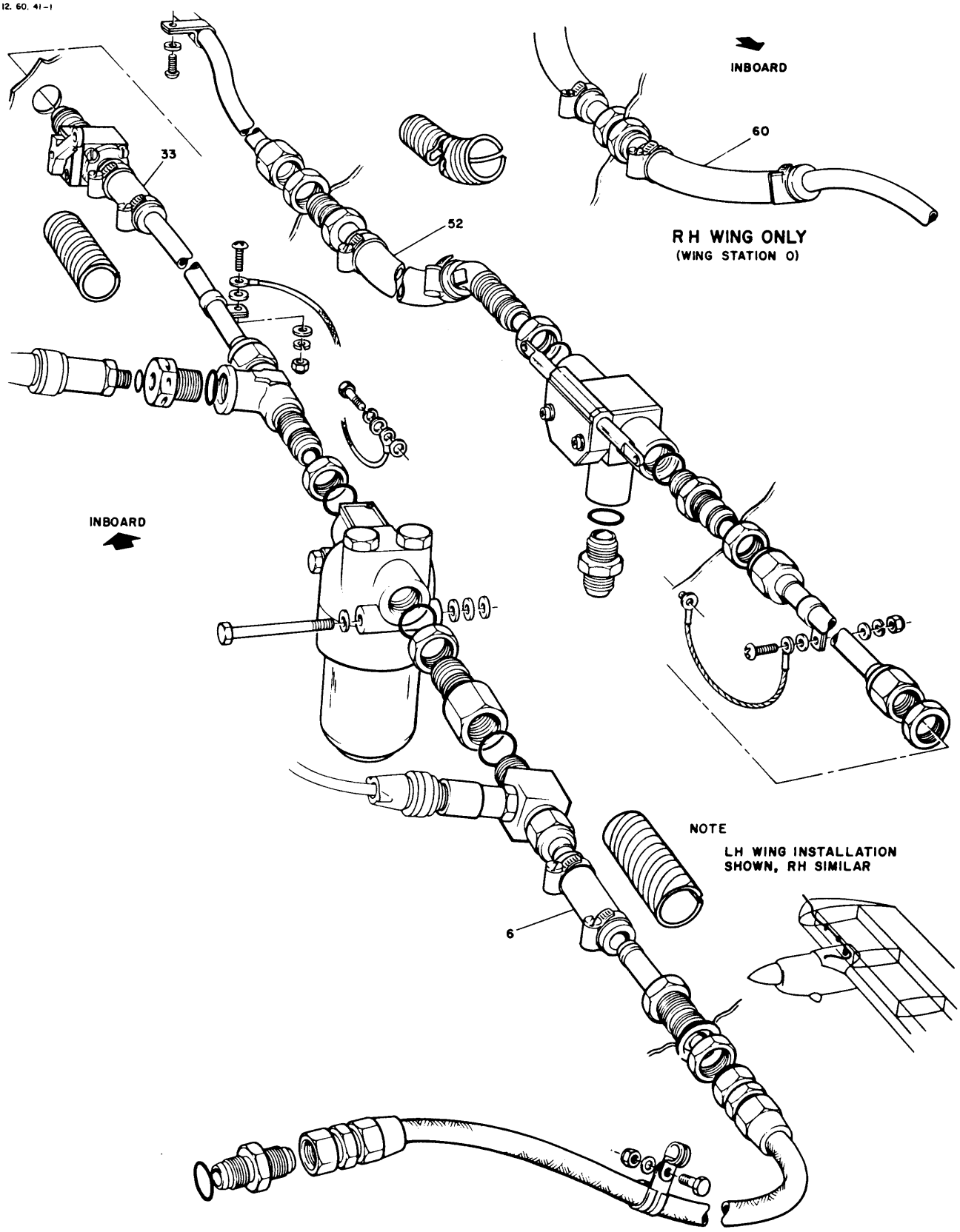
None.

E. Special Tools and Equipment

None.

4. Recording Action

Record compliance with S/B NMD-28-14 in the airframe log book.



Fuel Distribution Installation
Figure I

20th October, 1982