

*Nomad*

SERVICE BULLETIN

SUBJECT: REMOVAL OF MAIN LANDING GEAR FLIPPER DOORS (MOD N373)

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 N373 or compliance with Service Bulletin NMD-32-17.

Pre-certification implementation of the intent of this service bulletin is recorded in the airframe log book as Mod N373.

NOTE: Mod N419 or Service Bulletin NMD-51-1 is a pre-requisite of Service Bulletin NMD-32-17.

(2) Spares Affected

Nil

B. Reason

To improve aircraft reliability.

C. Description

The main landing gear flipper doors and their associated operating mechanisms are removed from the main landing gear pods.

D. Compliance

Incorporation of the modification described in this service bulletin is recommended.

E. Approval

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

7th July, 1983

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F. Manpower

16 Manhours.

G. Material - Price and Availability

Ref Para 3.A.

H. Tooling - Price and Availability

None Required.

J. Weight and Balance

The following information is to be inserted into:

- (1) The Weight and Balance Manual, for N22-Series aircraft issued with this manual.
- (2) The Weight and Balance Manual for N24-Series aircraft issued with this manual.
- (3) Flight Manual 12.28F for N22-Series aircraft not issued with a Weight and Balance Manual.
- (4) Flight Manual 12.58F for N24-Series aircraft not issued with a Weight and Balance Manual.

(a) N22-Series aircraft Weight and Balance Manual

<u>Weight</u> (Kg)	<u>Arm</u> (mm)	<u>Index Units</u> $\left(\frac{\text{Kg mm}}{1000}\right)$
-.59	4624	-2.73

(b) N24-Series aircraft Weight and Balance Manual

<u>Weight</u> (Kg)	<u>Arm</u> (mm)	<u>Index Units</u> $\left(\frac{\text{Kg mm}}{1000}\right)$
-.59	5334	-3.15

(c) Flight Manual 12.28F

<u>Weight</u> (lb)	<u>Arm</u> (in)	<u>Index Units</u> $(\frac{\text{lb in}}{1000})$
-1.3	182	-0.24

(d) Flight Manual 12.58F

<u>Weight</u> (lb)	<u>Arm</u> (in)	<u>Index Units</u> $(\frac{\text{lb in}}{1000})$
-1.3	210	-0.27

K. Reference

M.M. - Maintenance Manual.
I.P.C. - Illustrated Parts Catalogue.

L. Publications Affected

M.M. - Maintenance Manual.
I.P.C. - Illustrated Parts Catalogue.
W & B - Weight and Balance Manual.

2. Acomplishment Instructions

A. Remove the Main Landing Gear Flipper Doors and Operating Mechanisms (Ref MM 32-10-15 and IPC 32-32-01, Figure 1).

- (1) Remove the flipper doors from the LH and RH main landing gear pods.
- (2) Remove the self-locking nut, washer and bolt (items 26, 27 and 28 IPC 32-32-01, Figure 1) from the control rod fork-end (item 30) and withdraw the control rod assembly (item -25A) from the lever assembly (item -45).
- (3) Remove the self-locking nut and washer (items 36 and 37) from the layshaft assembly (items -34 LH and -35 RH) and, using a suitable drift, drive out the roll pins through the lever boss and cross-shaft assembly (items 44, 43 and 42).
- (4) Remove the self-locking nuts, washers and bolts (items 39, 40 and 41) connecting the cross-shaft and the fork plate (items 42 and 38). Remove the fork plate from the cross-shaft.

- (5) Withdraw the cross-shaft from the bush housing assembly (items 42 and 52), ensuring that the bearing boss and lever assembly (item -45) is supported to prevent it falling when the cross-shaft is withdrawn through the bush housing.
- (6) Remove the two locking nuts and the adjustable stop from the bracket on the outboard side of the LH and RH pod (items 60 and 61).
- (7) Discard removed parts.

B. Blank off the Flanged Access Hole in the Pod Rear Bulkhead (Ref Figures 1 and 2)

- (1) Manufacture two blanking plates and one cover plate using Figure 1 as a template. Joggle the blanking plates opposite ways so that the two panels become LH and RH respectively. Still using Figure 1 as a template, remove the metal from the area shown, in the LH plate only.
- (2) Mark out and pilot drill 2.5 mm dia fourteen off rivet holes in each blanking plate but not the seven screw holes in the LH blanking plate. Pilot drill 2.5 mm dia the seven screw holes in the cover plate.
- (3) Drill out the 7 rivets attaching the cone to the main landing gear pod and remove the cone to gain access to the rear face of the pod rear bulkhead. Identify each rear cone for re-assembly (Ref step (12)).
- (4) LH POD ONLY - Temporarily disconnect and relocate the battery vent pipes forward of the pod rear bulkhead. Remove the vent pipes locating mount and tie down point and discard.
- (5) Position the LH and RH blanking plates on the rear face of the LH and RH main landing gear pod rear bulkhead and drill through the pilot holes in the blanking plates and through the bulkhead. Service bolt or pin the blanking plates in position on the bulkhead rear face and open up the rivet holes to No 30 drill (3.30 mm) dia.
- (6) LH POD ONLY - Locate the grommets onto the battery vent pipes and position the vent pipes through the cut-out in the blanking plates. Locate the cover plate onto the blanking plates, positioning it so that the cut-out traps the grommets in position (Ref Figure 2). Drill the seven pilot holes through the cover plate into the blanking plate. Remove the cover plate, open up the seven holes in the cover plate to 4.30 mm dia.

- (7) Remove the LH and RH blanking plates from the pods rear bulkhead and deburr the cover plate, blanking plates and rear bulkheads.
- (8) Degrease the blanking plates and cover plate using MEK or solvent Naptha, wiping off while the surface is still wet. Swab with Airtec 6 detergent, Kelite 25E or suitable alternative keeping the surface wet for 10 minutes and then rinse thoroughly in clean water. Dry with a clean lint free cloth and, as soon as the metal surface is moisture free, prime using an epoxy primer (MIL-P-23377).
- (9) Wet assemble the two blanking plates to the rear face of the LH and RH pod rear bulkhead using PR1221B or PR1222B sealing compound and rivet up using rivets P/N MS20470AD4-3.
- (10) Locate the grommets installed on the vent pipes into position on the blanking plates on the LH rear bulkhead. Wet assemble the cover plate to the blanking plates using PR1221B or PR1222B sealing compound, ensuring that the grommets are trapped in position (Ref Figure 2) then secure the cover plate using self-tapping screws AN530-8-4.
- (11) Securely blank off any redundant rivet or tooling holes with rivets, or, if necessary, blanking plates and seal any other cracks or holes with PR1221B or PR1222B sealing compound.
- (12) Ensure that the battery vent pipes branch is located in the slot at the rear of the LH cone, then using PR1221B sealing compound wet assemble each rear cone to its associated landing gear pod and rivet up using rivets CR 3223-4-3.
- (13) Drill three 0.25 inch dia vent holes in the bottom of the LH pod rear cone at its lowest point when the aircraft is standing level.
- (14) Re-identify the LH and RH pod assemblies as 4/N-11-601 and 4/N-11-602 respectively, adjacent to the blanking plate on the pod rear bulkhead.

3. Materials Information

A. Parts Required Per Aircraft

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

<u>Item P/N</u>	<u>Title</u>	<u>Qty</u>
*1A/N-03-635	Blanking Plate LH	1
*1A/N-03-636	Blanking Plate RH	1
*1B/N-03-635	Cover Plate, LH Pod only	1
MS20470AD4-3	Rivet	28

<u>Item P/N</u>	<u>Title</u>	<u>Qty</u>
CR3223-4-3	Rivet, Cherry	32
AN530-8-4	Screw, Self-tapping	7
PR1221B	Sealing Compound	A/R
PR1222B	Sealing Compound - Alt	A/R
MS35490-14	Grommet	2
-	Methyl-Ethyl-Keytone (MEK)	A/R
-	Solvent Naptha - Alt	A/R
Airtec 6	Detergent	A/R
Kelite 25E	Detergent - Alt	A/R
-	Primer, Epoxy	A/R

B. Parts Modified and Re-identified by Operator

<u>New P/N</u>	<u>Title</u>	<u>Old P/N</u>
4/N-11-601	Pod Assembly LH	(1/N-11-601 (Pre-Mod N47) (2/N-11-601 (Post Mod N47) (3/N-11-601 (Post Mod N419)
4/N-11-602	Pod Assembly RH	(1/N-11-602 (Pre-Mod N47) (2/N-11-602 (Post Mod N47) (3/N-11-602 (Post Mod N419)

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>
1/N-11-636	Rod Assembly	2	Scrap
1/N-11-655	Layshaft Assembly LH	1	Scrap
1/N-11-656	Layshaft Assembly RH	1	Scrap
1/N-11-816	Bungee Cord Assembly	4	Scrap
1/N-11-703	Stop Assembly	2	Scrap
1/N-11-705	Flipper Door LH	1	Scrap
1/N-11-706	Flipper Door RH	1	Scrap
1AN/N-11-601	Hinge Pin	2	Scrap

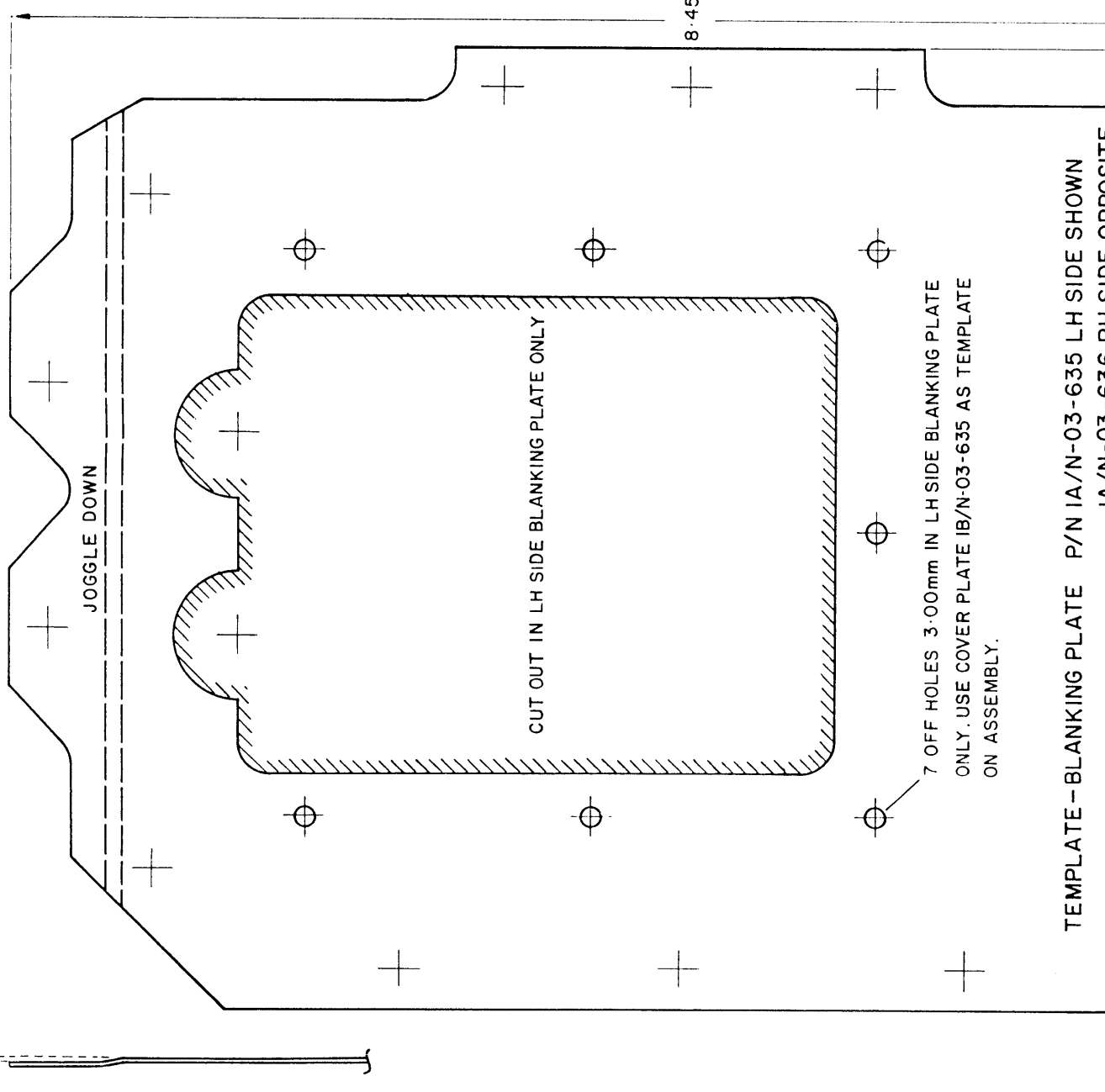
E. Special Tools and Equipment

None.

F. Compliance

Record compliance with Service Bulletin NMD-32-17 in the aircraft log book.

0.032 JOGGLE



UNLESS OTHERWISE INDICATED

30 mm DIA. PILOT
AND USE AS
RILL OFF BLANKING
635 BEFORE
LL SIZE.

LATE P/N IB/N-03-635

4.65

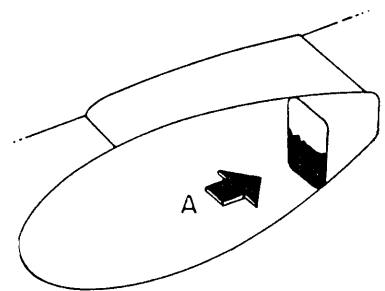
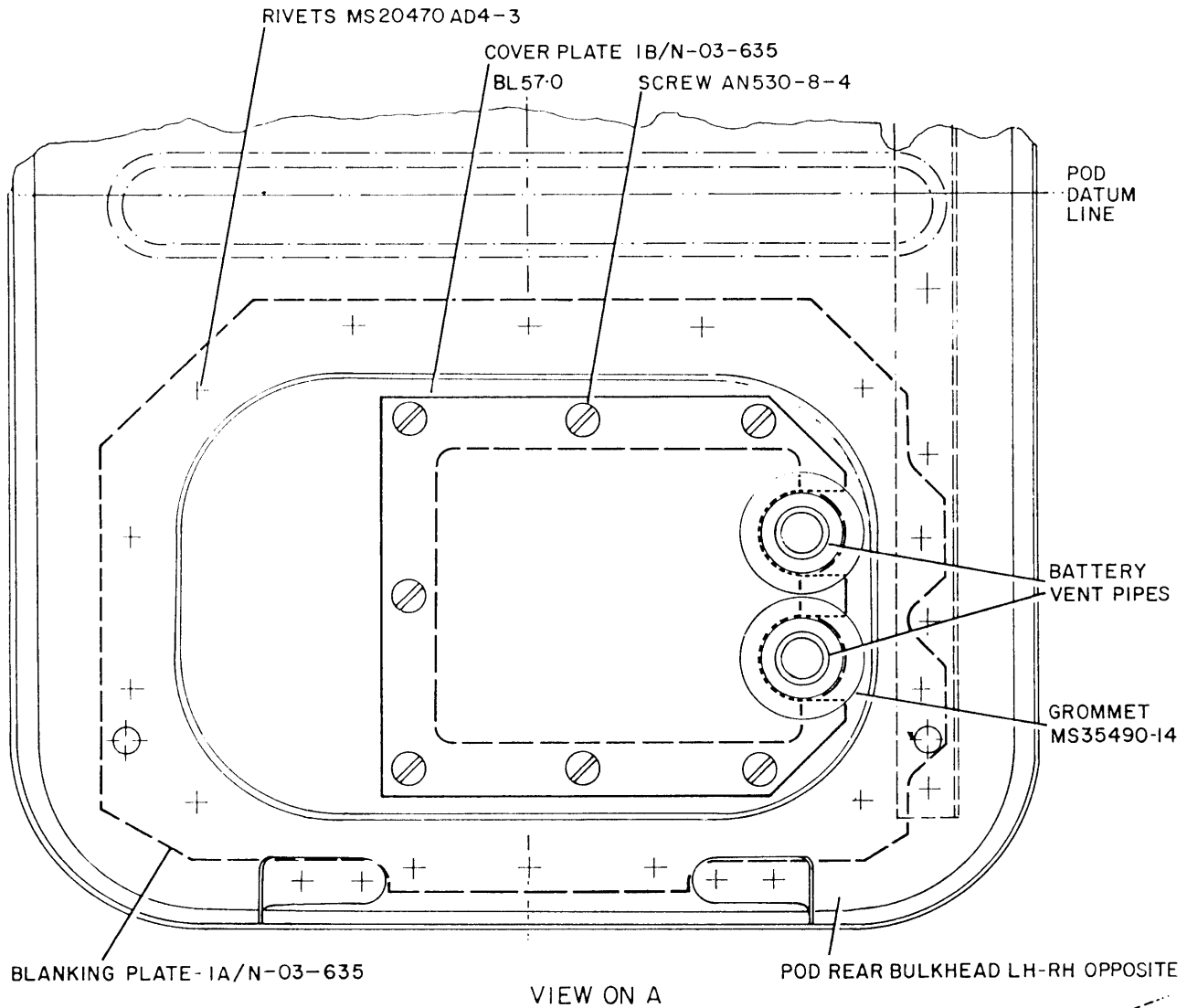
8.45

4.10

7 OFF HOLES 3.00mm IN LH SIDE BLANKING PLATE
ONLY. USE COVER PLATE IB/N-03-635 AS TEMPLATE
ON ASSEMBLY.

TEMPLATE--BLANKING PLATE P/N IA/N-03-635 LH SIDE SHOWN
IA/N-03-636 RH SIDE OPPOSITE

OUTBOARD
→



Blanking and Cover Plate LH Side Installation
Figure 2