GOVERNMENT AIRCRAFT FACTORIES

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In Reply Quote S/B NMD-32-10
Revision 1
16th October, 1981

SUBJECT: NOMAD SERVICE BULLETIN NMD-32-10 REVISION 1

Ladies and Gentlemen,

Service Bulletin NMD-32-10 (Reference No. 91) is now issued at Revision 1 incorporating the following changes:

(1) Paragraph 1.A.(1) - Aircraft Affected.
Reference to Service Bulletin NMD-32-10, Revision 1 added.
Para 1.B. - Reason
Extended to include possibility of malfunction of landing gear.
Para 1.G. - Material - Price and Availability.
Kit P/N changed to NMD-32-10-2

(2) Paragraph 2. - Accomplishment Instructions.
Re-written to include instructions for widening of slot in wheel well top panel, replacement of bracket P/N 1B/N-10-705 with bracket P/N 1E/N-10-705, and application of adhesive to top and bottom of seal P/N 1/N-40-933.
Various minor amendments to procedures and illustration references.

(3) Paragraph 3.A. - Parts Required per Aircraft.
Introductory text reworded and Kit P/N changed to NMD-32-10-2.
P/N 1E/N-10-705 Bracket, quantity 1 added.
P/N MS20470AD4-5 Rivet, 1/8 inch, universal hd, quantity 7 added.

(4) Paragraph 3.D. - Removed Parts.
P/N 1B/N-10-705 Bracket, quantity 1, scrap added.
P/N MS20426AD3-4 Rivet, quantity 4, scrap deleted.

(5) Paragraph 4.
'NMD-32-10' amended to read 'NMD-32-10, Revision 1'.
'Aircraft' amended to read 'Airframe'.

(6) Illustrations re-organised and expanded to show additional work on wheel well top panel.

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(7) Pagination and page make-up revised to accommodate the above changes. Revision 1 and new date (16th October, 1981) inserted in all pages.

NOTE: Revised areas of text and illustrations are identified by black bars at L.H. side of page.

for S. Schofield

W. HENDERSON
PRODUCT SUPPORT MANAGER

GOVERNMENT AIRCRAFT FACTORIES

Nomad

SERVICE BULLETIN

SUBJECT: ELIMINATION OF OPENINGS IN NOSE LANDING GEAR ACTUATING MECHANISM HOUSING (MODIFICATION N345)

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 N345 or compliance with Service Bulletin NMD-32-10, Revision 1.

Pre-certification implementation of the intent of this service bulletin is recorded in the Airframe Log Book as Mod N345.

(2) Spares Affected

None.

B. Reason

Under certain operating conditions it is possible that foreign objects could pass into chain drive areas of the nose landing gear actuating mechanism located within the centre console and possibly cause malfunction of the landing gear.

C. Description

A five inch diameter lightening hole in the left hand side panel of the centre console is covered by a blanking plate, and the upper chain cover has been redesigned to enclose the chain completely.

D. Compliance

It is strongly recommended that operators comply with the requirements of this service bulletin at their earliest convenience, particularly if any work is to be carried out, or is likely to be carried out, in the central console or instrument panel area.

E. Approval

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

F. Manpower

Seven man hours.

G. Material - Price and Availability

The kits (NMD-32-10-2) required to accomplish this Service Bulletin are to be procured through the operator's local distributor. These kits are classified "no charge" and a "No Charge Purchase Order" should be placed upon the distributor, specifying aircraft serial number(s) and quoting this Service Bulletin number.

Distributors are to place a "No Charge Purchase Order" on GAF in accordance with normal procurement procedures. This order should specify aircraft serial number(s) and quote this Service Bulletin number.

NOTE: In view of compliance requirements, distributors are advised to notify GAF of their requirements by telex (Nomad AA34397).

H. Tooling - Price and Availability

None required.

J. Weight and Balance

Negligible Effect.

K. References

MM - Maintenance Manual and relevant Option Supplements.
IPC - Illustrated Parts Catalogue.

L. Publications Affected

Maintenance Manual
Illustrated Parts Catalogue.

2. Accomplishment Instructions

A. Remove the avionics units from the centre console (Ref relevant Option Supplements).

CAUTION: DURING FOLLOWING OPERATION, LOCATE UNIVERSAL COUPLING JOINT AND REMOVE FOR SAFETY (REF IPC 32-30-03 FIGURE 1, SHEET 2, ITEM 25).

B. Remove the landing gear emergency manual extension system from left hand side of centre console retaining the attaching parts (Ref MM 32-31-00 Maintenance Practices).

C. Fit blanking plate P/N 1/N-10-1227 over five inch diameter lightening hole in left hand side panel of the centre console (Ref Figure 1).

(1) Thoroughly clean mating surfaces with a degreasing solvent such as trichlorethylene.

(2) Secure blanking plate to left hand side panel using double-sided Scotch tape P/N 4032 (3M Co.) cut as illustrated in Figure 2.

D. Remove nose gear screw actuator chain drive cover assembly, discard upper chain cover and four self-locking nuts and retain lower chain cover, side cover plate and the remaining attaching parts (Ref Figure 3).

NOTE: The lower chain cover and side cover plate are accessible from inside the nose wheel well, top left hand side, rear end. Access to the upper chain cover is through the top of the centre console forward of the engine control box console.

E. Rework wheel well top panel.

(1) Remove and discard bracket P/N 1B/N-10-705 (Ref Figure 4).

(2) Widen the slot in the wheel well top panel by carefully cutting off 0.1 inch of metal along the RH side of the slot (Ref Figure 5).

(3) Clamp new bracket P/N 1E/N-10-705 to the upper surface of the wheel well top panel in the position shown in Figure 5. Ensure that the shorter arm of the bracket is upwards and aligned with the edge of the widened slot in the wheel well top panel.

(4) Using the original rivet holes in the wheel well top panel as a drill guide, drill seven 0.125 inch diameter holes in bracket P/N 1E/N-10-705. Rivet using universal head rivets P/N MS20470AD4-5. Remove the clamp.

(5) Using existing hole A on Figure 5 as a drill guide, drill a 0.202 inch diameter hole in bracket P/N 1E/N-10-705.

(6) Align anchor nut P/N MS21077-3 with each of the two existing holes in the wheel well top panel, then drill four 0.096 inch diameter holes (B on Figure 5) using the anchor nut as a template.

(7) Countersink holes on underside of panel 100° to suit rivets P/N MS20426AD3-4.

(8) Rivet two anchor nuts P/N MS21077-3 in position on top surface of wheel well top panel.

(9) Drill two 0.2188 inch diameter holes (C on Figure 5).

(10) Align anchor nut P/N 21082-3K with each hole C, then drill four 0.096 inch diameter holes (D on Figure 5) using the anchor nut as a template. Dimple down 0.17 inch by 100°.

(11) Rivet anchor nuts P/N 21082-3K in position on underside of wheel well top panel.

F. Rework diaphragm (Ref Figure 6).

(1) Drill out rivets retaining existing anchor nuts and discard the anchor nuts (Ref Figure 6).

(2) Manufacture blanking plate (Ref Figure 6) and rivet to diaphragm using suitable rivets.

(3) Drill two 0.202 inch diameter holes (A on Figure 6).

(4) Align anchor nut P/N MS21047-L3K with each hole A, then drill four 0.096 inch diameter holes (B on Figure 6) using the anchor nut as a template. Dimple forward.

(5) Rivet anchor nuts P/N MS21047-L3K on the forward side of diaphragm using rivets P/N MS2046AD-4.

G. Install seal P/N 1/N-40-933 between the screw actuator and the wheel well top panel (Ref Figure 1).

(1) Clean and degrease the surfaces of the screw actuator and the wheel well top panel in the areas which will be in contact with the seal.

(2) Make an angled cut through the seal (Ref Figure 1).

(3) Apply Bostik 1489 adhesive to the upper and lower surfaces of the seal, and to the interfacing edges formed by the cut.

(4) Fit the seal to the screw actuator, ensuring that the upper and lower edges of the seal are in firm and uniform contact with the screw actuator and wheel well top panel, respectively, and that the cut in the seal is fully closed by the adhesive.

H. Inspect the nose gear screw actuator chain drive for the presence of any foreign objects. Clean and lubricate in accordance with MM 12-20-00, Figure 1.

J. Fit new upper chain cover P/N 1/N-40-926 using attaching parts, screws P/N MS35207-262 and washers AN960PD10 (Ref Figure 3).

K. Prior to installing the lower half of the chain cover and side cover plate, removed in Para 2D, thoroughly clean mating surfaces with a degreasing solvent such as trichlorethylene.

L. Refit lower half of the chain cover and side cover plate, with a fillet of Silastic RTV731 between mating surfaces, using the four self-locking nuts P/N MS21044N3 and the attaching parts retained in Para 2D (Ref Figure 3).

M. Fit angle P/N 1/N-40-929.

(1) Locate angle P/N 1/N-40-929 in position against upper chain cover (Ref Figure 1) and drill 0.1285 inch diameter hole in wheel well top panel to suit.

(2) Rivet angle to top panel using pop rivet P/N AGS2050-419BS.

N. Seal all edges and gaps that provide direct access to the chain with adhesive backed tape such as BEAR No. 383, 1 inch wide, except where indicated on Figure 3.

P. Check that the landing gear emergency manual extension system is free from foreign objects and refit to the left hand side of centre console using attaching parts retained in Para 2B (Ref MM 32-31-00).

NOTE: Before installing system, lightly lubricate the external surfaces of the universal coupling joint with grease P/N Mil-G-21164C and assemble to the nose gear actuator input drive sprocket.

Q. Replace avionics units in centre console (Ref relevant Option Supplements).

R. Carry out landing gear retraction and extension tests (Ref MM 32-30-00).

S. Carry out a landing gear emergency extension system test (Ref MM 32-31-00).

3. Materials Information

A. Parts Required per Aircraft

One kit P/N NMD-32-10-2 is required for each aircraft. The kit comprises the following items:

Item P/N	Title	Qty
1/N-10-1227	Plate, blanking	1
4032	Tape, scotch, double-sided	12 inches
1E/N-10-705	Bracket	1
MS20470AD4-5	Rivet, 1/8 inch, universal hd	7
MS21077-3	Nut, anchor	2
MS20426AD3-4	Rivet	8

Item P/N	Title	Qty
MS21082-3K	Nut, anchor	2
MS20426AD3-3	Rivet	4
MS21047L3K	Nut, anchor	2
1/N-40-933	Seal	1
MS21044N3	Nut, self-locking	4
MS35207-262	Screw, machine	4
AD960PD10	Washer, flat	4
1/N-40-926	Cover, chain, upper	1
1/N-40-929	Angle	1
AGS2050-419BS	Rivet, pop, domed	3

B. Parts Modified and Re-identified by Operator

None.

C. Parts Required to Modify Spares

None.

D. Removed Parts

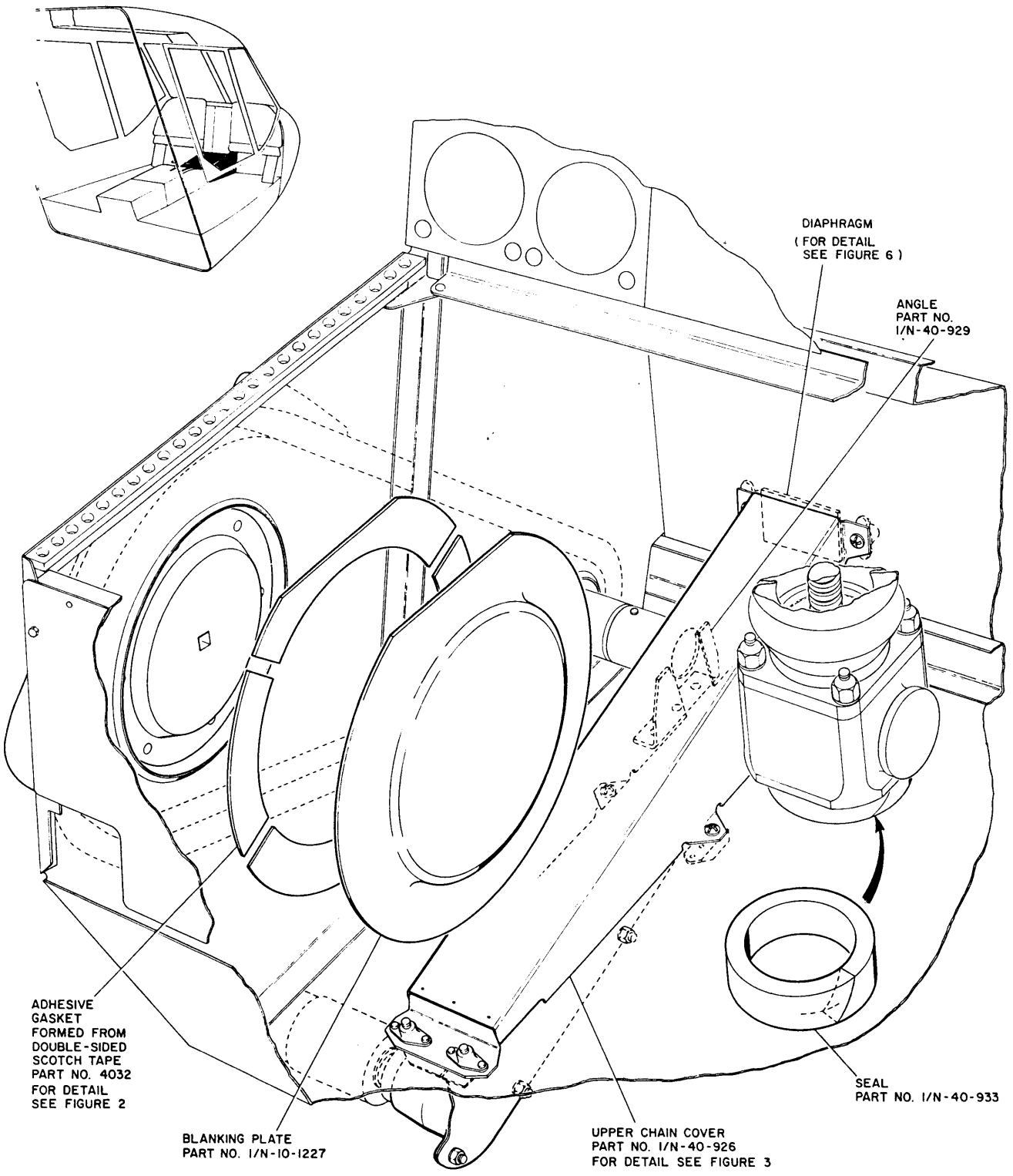
Item P/N	Title	Qty	Recommended Disposition
1/N-40-822	Cover, chain, upper	1	Scrap
MS21047L3K	Nut, anchor	2	Scrap
MS21044N3	Nut, self locking	4	Scrap
1B/N-10-705	Bracket	1	Scrap

E. Special Tools and Equipment Required

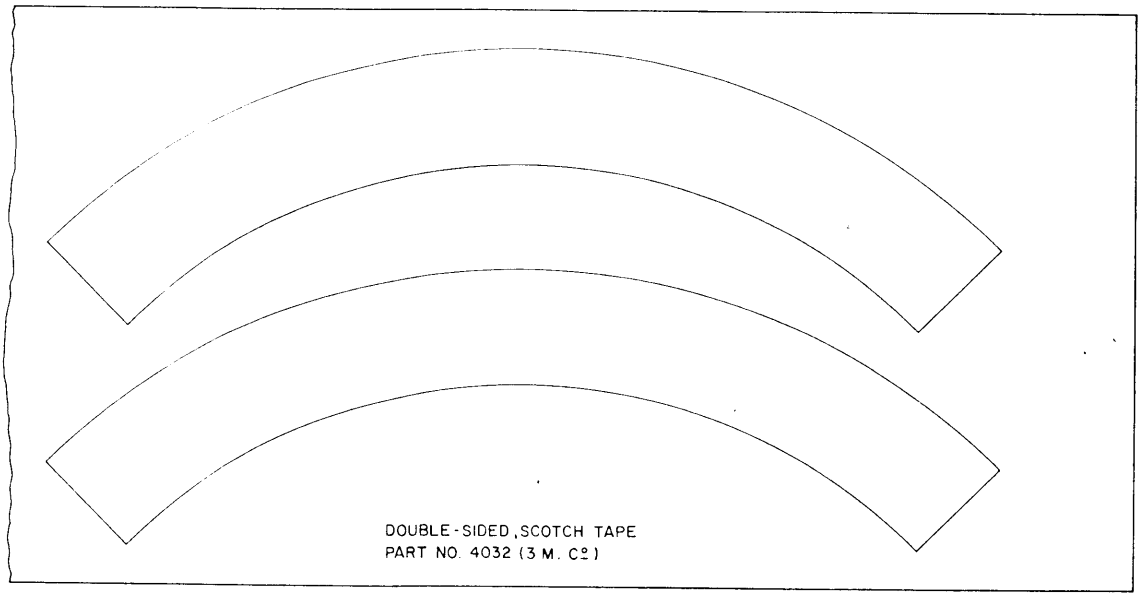
None.

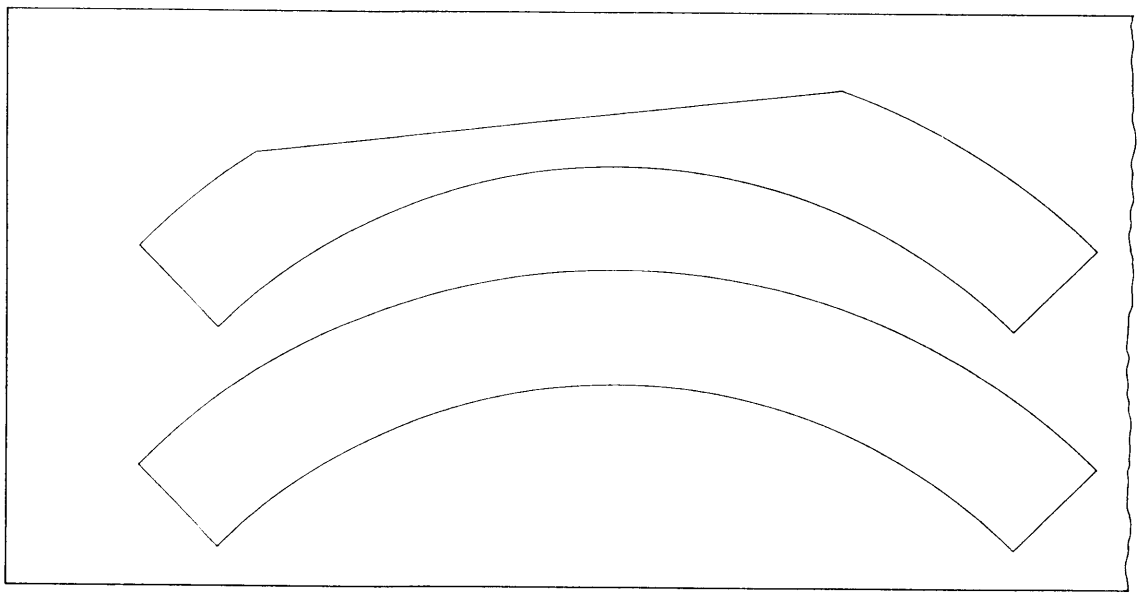
4. Recording Action

Record compliance with S/B NMD-32-10 Revision 1 in the Airframe Log Book.

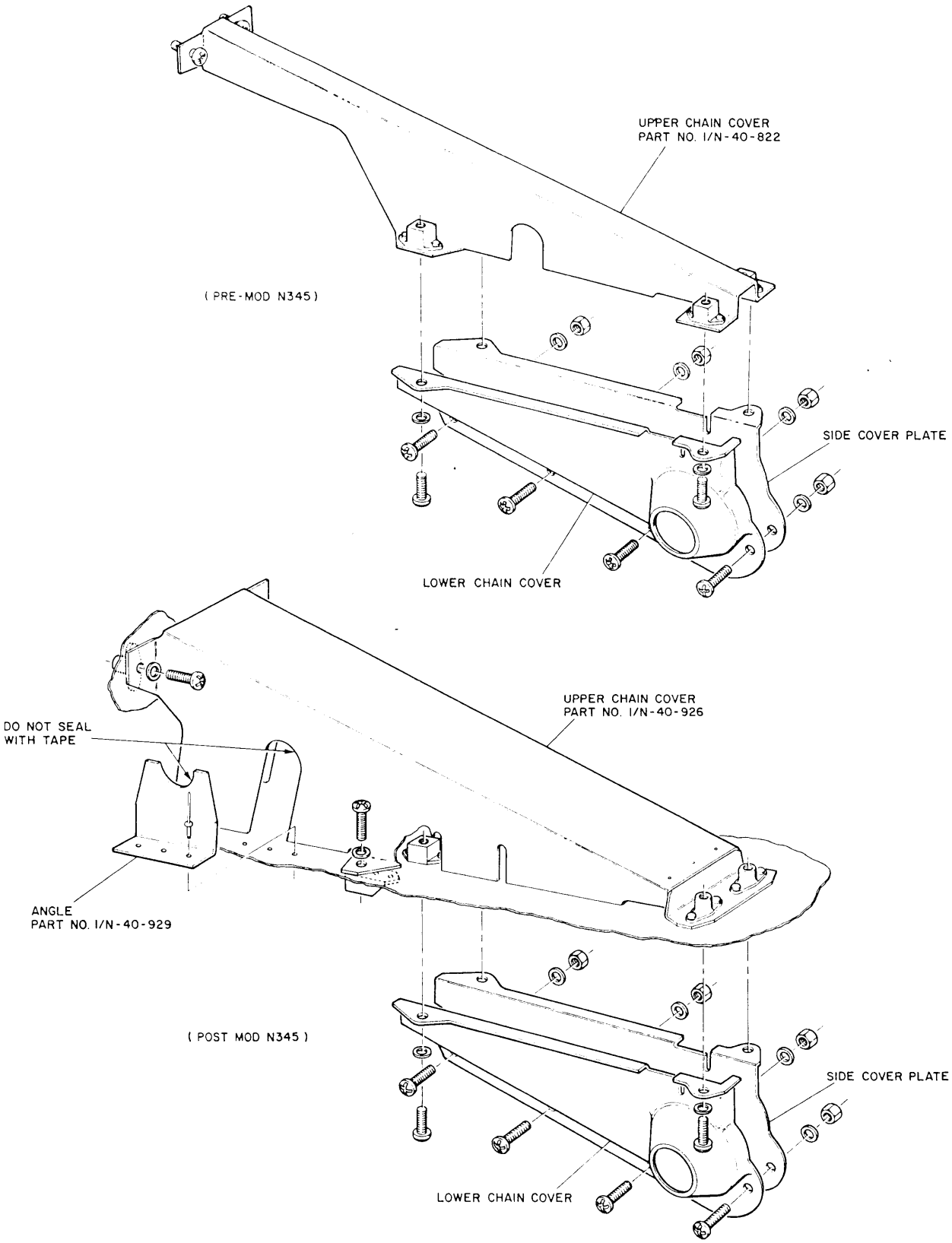


Installation of Mod N345
Figure I

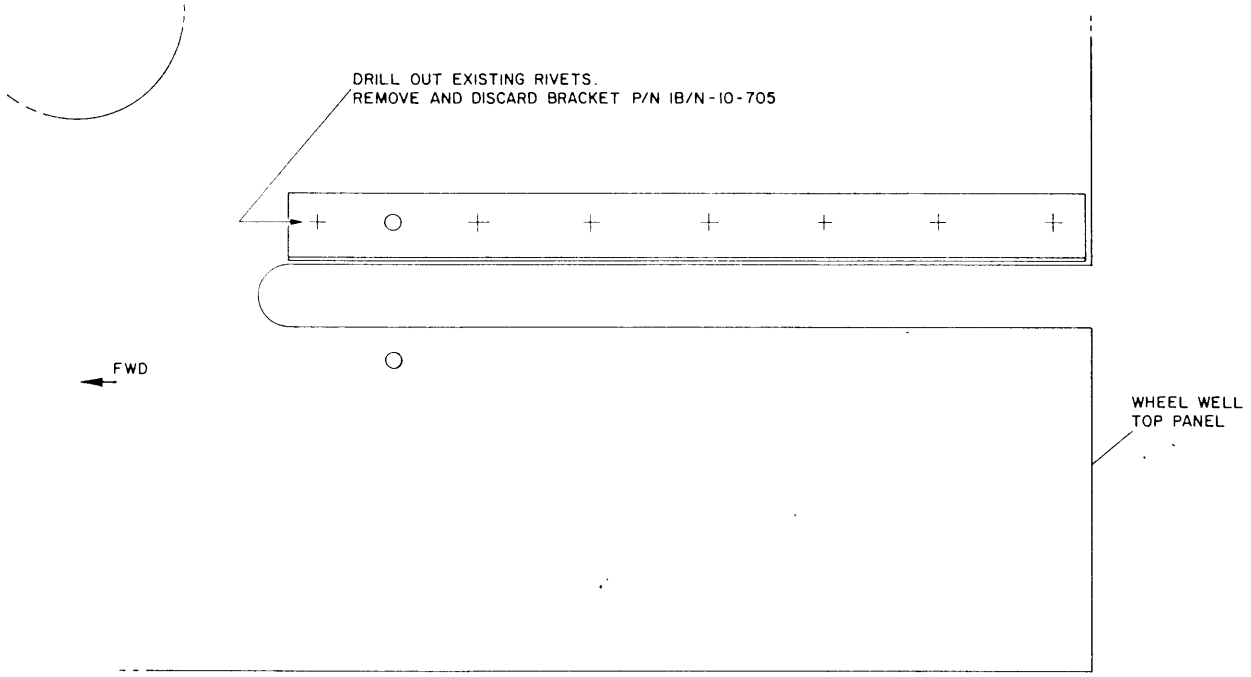




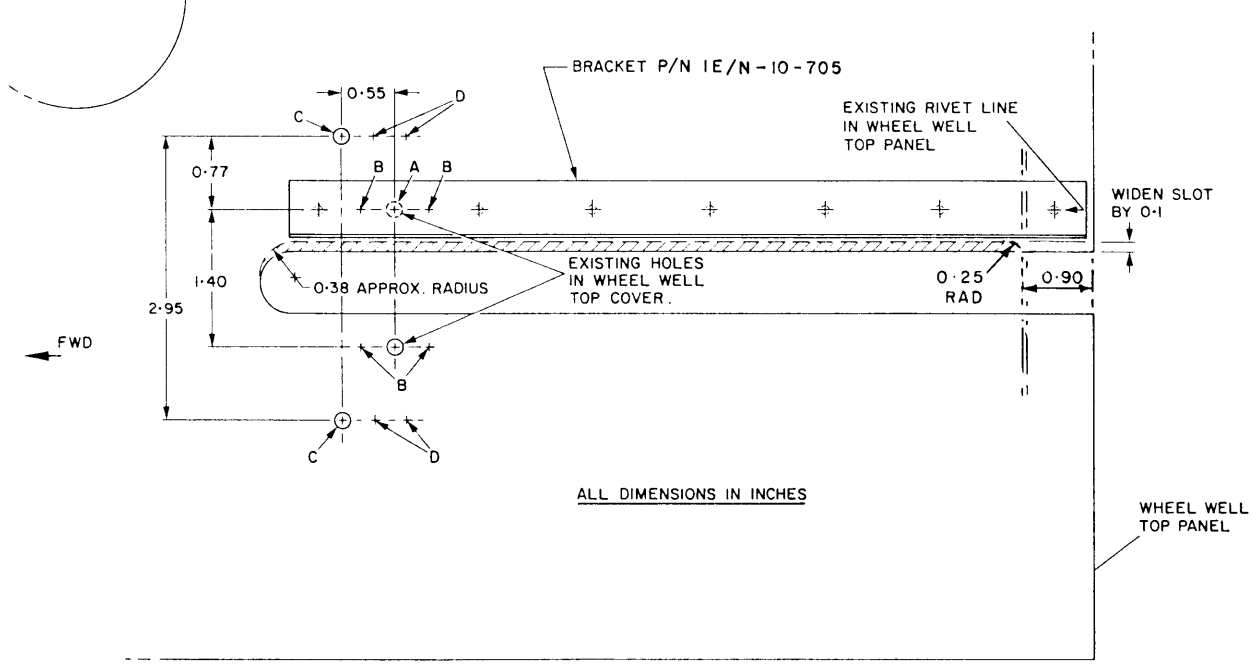
Template for Adhesive Gasket
Figure 2



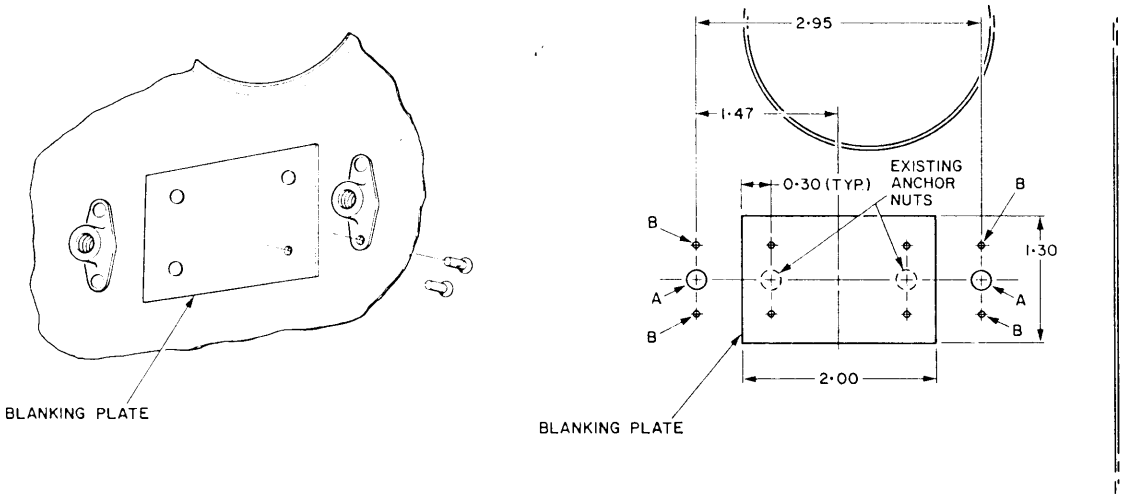
Chain Drive Cover Assembly Installation
Figure 3



Removal of Bracket P/N IB/N-10-705
Figure 4



Rework of Wheel Well Top Panel
Figure 5



Rework of Diaphragm
Figure 6