



SERVICE BULLETIN

Reference No. 32

SUBJECT: MAIN UNDERCARRIAGE POD - INCREASED RIGIDITY

1. Planning Information

A. Effectivity:

(1) Aircraft Affected:

Nomad N22 Aircraft

N22-2, N22-3M, N22-4, N22-8M, N22-9M, N22-17M and N22-24M.

Nomad N22B Aircraft

N22B-5M, N22B-6M, N22B-7, N22B-11M, N22B-12M, N22B-13M, N22B-15M, N22B-16M, N22B-18M, N22B-19M, N22B-20M, N22B-21M, N22B-22M, N22B-23M, N22B-25, N22B-26, N22B-27, N22B-28, N22B-31M, N22B-33 and N22B-35.

Nomad N24 Aircraft

N24-30, N24-32 and N24-34.

(2) Spares Affected

<u>Part Number</u>	<u>Nomenclature</u>	<u>Recommended Disposition</u>
1/N-11-601	Pod Assy - L.H.	Rework
1/N-11-602	Pod Assy - R.H.	Rework

B. Reason

When subjected to heavy landings the undercarriage pod has been found to distort, especially the L.H. Battery pod. The result is for the forward door Assy to remain partially open and so prevent operation of "landing gear up" indication when fully retracted.

C. Description

This Service Bulletin contains information extracted from an in-production modification that stiffens both the L.H. and R.H. pods in the manner described but does not include stiffening of the step plate.

Instructions contained in this Service Bulletin may be complied with on the L.H. pod only but it would be preferable that both pods are stiffened.

Compliance with this Service Bulletin is to be on a pod without known distortion and is not intended to effect a repair to a pod which has already been subjected to abnormal "G" loading. Any such damage and/or distortion is to be rectified prior to or in conjunction with these instructions.

D. Compliance

At the operators discretion.

E. Approval

The rework described herein has been approved by the D.O.T. Designated Engineering Representative at Government Aircraft Factories.

F. Manpower

Approximately 8 hours and a crew of one man is required to accomplish this modification in to each pod.

G. Material Price and Availability

The Kit of Parts N22-53-1-1 and N22-53-1-2 in para 3A can be obtained through the operators distributor. Distributors are to place a purchase order on G.A.F. through the normal procurement method. Purchase Orders are to quote the Service Bulletin number.

Both Kits are available at \$260.00 each and available on a progressive basis from the last week in March. This price remains effective for 90 days. After expiration of the quotation, price and availability data will be provided upon request.

H. Tooling Price and Availability

None.

I. Weight and Balance

Negligible effect.

J. References

I.P.C. Chapter 32
Maintenance Manual.

K. Publications Affected

Nil.

2. Accomplishment Instructions:

Warning: To avoid injury to personnel or damage to equipment, ensure that adequate precautions are taken while performing any work if electrical power is applied to the aircraft.

Caution: Electrically ground the aircraft.

Disconnect and remove battery I.A.W. M.M. Chapter 24.
Disconnect and remove battery vent pipes for access as required.

(1) Jack aircraft I.A.W. M.M. Chapter 7.

Disconnect and remove pod forward door assy.

(2) I.A.W. M.M. 32-10-5 Para. 1A.

(3) Stiffening of the pod is carried out in 3 parts each of which can be carried out in any order. L.H. pod instructions given, R.H. pod is opposite handed.

Part A. Stiffening of Door Opening (Ref. Fig. 1 and Fig. 2)

Remove nylon block 1BE/N-11-601 taking care not to damage the holes, and retain.

Remove 2 angles 1BD/N-11-601 and 602 located between pod STN 14-45 and Aircraft STN on pod 181.30 and discard.

On the pod at A/C STN. 181.30 remove 2 off gussets 1V/N-11-601 and 602. Refit these on the aft. face of frame 181.30 picking up existing rivet locations and new locations from gusset Ref. Fig. 2.

Fit the 2 channels 1BM/N-11-601 and 602 in the positions formerly occupied by the angles removed above, picking up existing rivet locations and interpitching mid way between, Ref. Fig. 2.

Refit nylon block 1BE/N-11-601.

Part B. Stiffening of Bulkhead Pod STN. 14.45 (Ref. Fig 1 and 3)

Remove 2 cleats 1X/N-11-601 and 1S/N-11-601 (1X/N-11-602 and 1S/N-11-602 R.H. Pod) at the top of vertical angles 1F/N-11-645 (1F/N-11-646 R.H. Pod).

Over the vertical angles locate and secure stiffening angles 1A/N-11-852 and 1B/N-11-852 with rivets MS 20470AD Ref. Fig. 3 and Fig. 2 for codes.

Assemble 2 new cleats 1C/N-11-852 and 1E/N-11-852 (1D/N-11-852 and 1F/N-11-852 R.H. Pod) Ref. Fig. 3.

Part C. Stiffening of Pod Frame STN 49.50 (Ref. Fig. 1 and 4)

At the aft. door hinge, assemble bracket 1A/N-11-841 (1B/N-11-841 R.H. Pod) at pod STN 49.50 as shown on Fig. 4 (Ref. Fig. 2 for rivet specs.).

Remove upper rivet of existing angle 1AP/N-11-601 (1AP/N-11-602 R.H. Pod).

Install channel 1D/N-11-841 (1F/N-11-841 R.H. Pod) and channel 1C/N-11-841 (1E/N-11-841 R.H. Pod) to bracket 1A/N-11-841 with a 45° angle as indicated in Fig. 4.

As located, drill and secure upper end of channel 1C/N-11-841 (1E/N-11-841 R.H. Pod) to pod STN 49.50 frame 1A/N-11-685 (1A/N-11-686 R.H. Pod).

- (4) Refit pod forward door assy. I.A.W. M.M. 32-10-5 Para. 1B.
- (5) Refit battery and battery vent tubes I.A.W. M.M. Chapter 24.
- (6) Check adjustment of pod door I.A.W. M.M. 32-10-15 Para.2A.
- (7) Carry out retraction test I.A.W. M.M. 32-30-00 Para. 1A.
- (8) Remove aircraft from jacks.

Recording

Record compliance of this Service Bulletin in the Airframe Log Book.

3. Material Information

A. Parts Required per Aircraft

One each kit Part No. N22-53-1-1 is required per L.H. pod.

One each kit Part No. N22-53-1-2 is required per R.H. pod.

<u>New Part No.</u>	<u>Qty. per Kit</u>		<u>Nomenclature</u>	<u>Old Part No.</u>
	<u>-1</u>	<u>-2</u>		
1BM/N-11-601	1	1	Channel	1BD/N-11-601
1BM/N-11-602	1	1	Channel	1BD/N-11-602
1A/N-11-841	1		Bracket	-
1B/N-11-841		1	Bracket	-
1C/N-11-841	1		Channel	-
1D/N-11-841	1		Channel	-
1E/N-11-841		1	Channel	-
1F/N-11-841		1	Channel	-
1A/N-11-852	1	1	Angle	-
1B/N-11-852	1	1	Angle	-
1C/N-11-852	1		Cleat	1X/N-11-601
1D/N-11-852		1	Cleat	1X/N-11-602
1E/N-11-852	1		Cleat	1S/N-11-601
1F/N-11-852		1	Cleat	1S/N-11-602
AGS2050-424BS	2	2	Rivet	-
MS20426AD3-4	10	10	Rivet	-
MS20470AD3-3	5	5	Rivet	-
MS20470AD3-4	4	4	Rivet	-
MS20470AD4-4	39	39	Rivet	-
MS20470AD4-5	29	29	Rivet	-
MS20470AD4-6	3	3	Rivet	-
MS20470AD4-10	3	3	Rivet	-

B. Parts Required to Modify Spares

Spare M.L.G. Pod Assy 1/N-11-601 and 1/N-11-602 reworked to para. 2 of this Service Bulletin. One each Kit P/No. N22-53-1-1 is required for each 1/N-11-601 pod Assy. and one each Kit P/No. N22-53-1-2 is required for each 1/N-11-602 pod assy.

C. Removed Parts

<u>Part No.</u>	<u>Nomenclature</u>	<u>Recommended Disposition</u>
1BD/N-11-601	Angle	Scrap
1BD/N-11-602	Angle	Scrap
1X/N-11-601	Cleat	Scrap
1X/N-11-602	Cleat	Scrap
1S/N-11-601	Cleat	Scrap
1S/N-11-602	Cleat	Scrap

D. Special Tools and Equipment Required


None.

PREPARED BY:

GOVERNMENT AIRCRAFT FACTORIES:

POST DESIGN SECTION

APPROVED

A handwritten signature in black ink, consisting of several stylized, overlapping loops and lines.

DESIGN

SKIN AND PART OF STRUCTURE NOT SHOWN

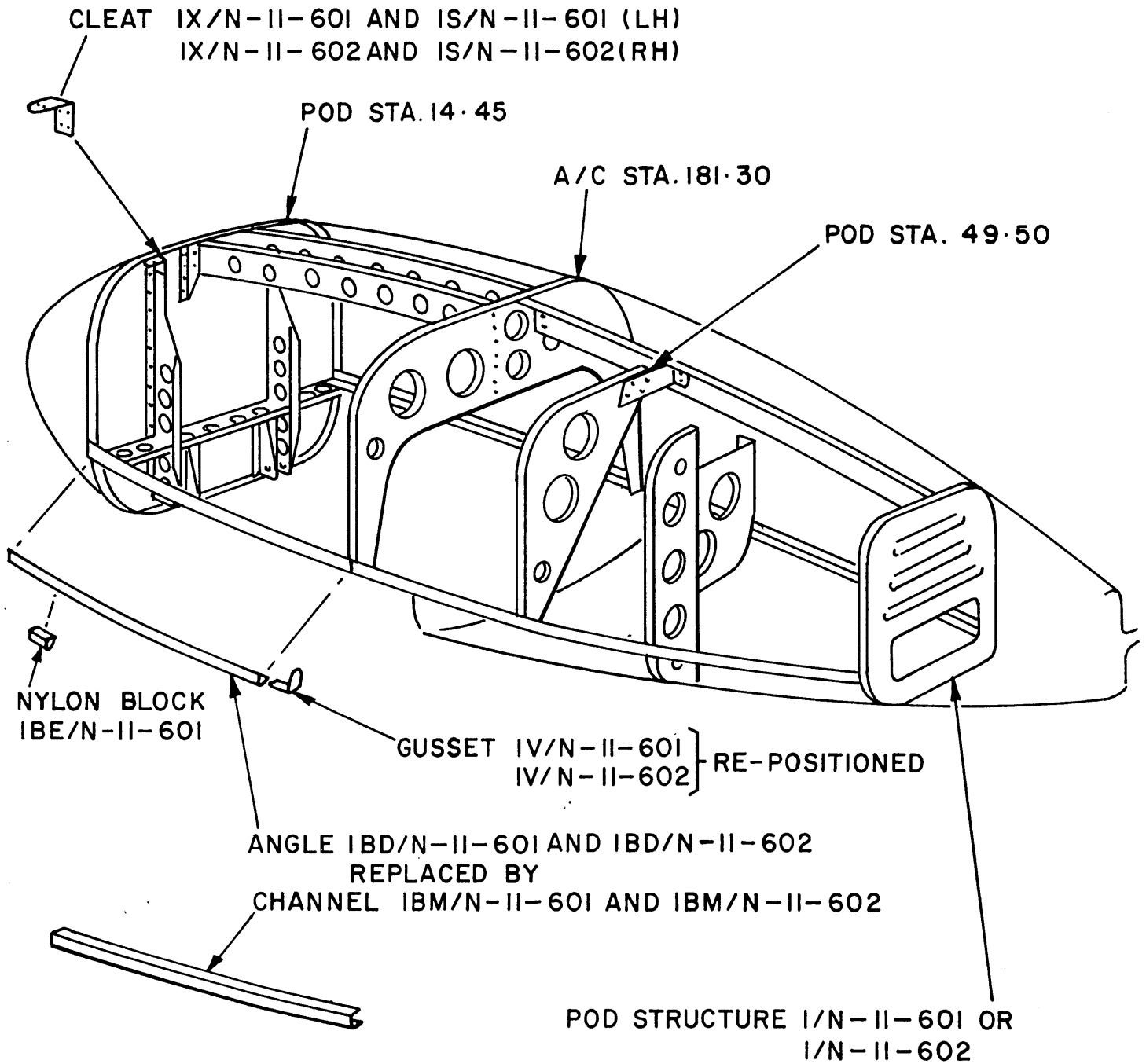


FIGURE 1 SB N 22-53-1

POD STA. 14.0

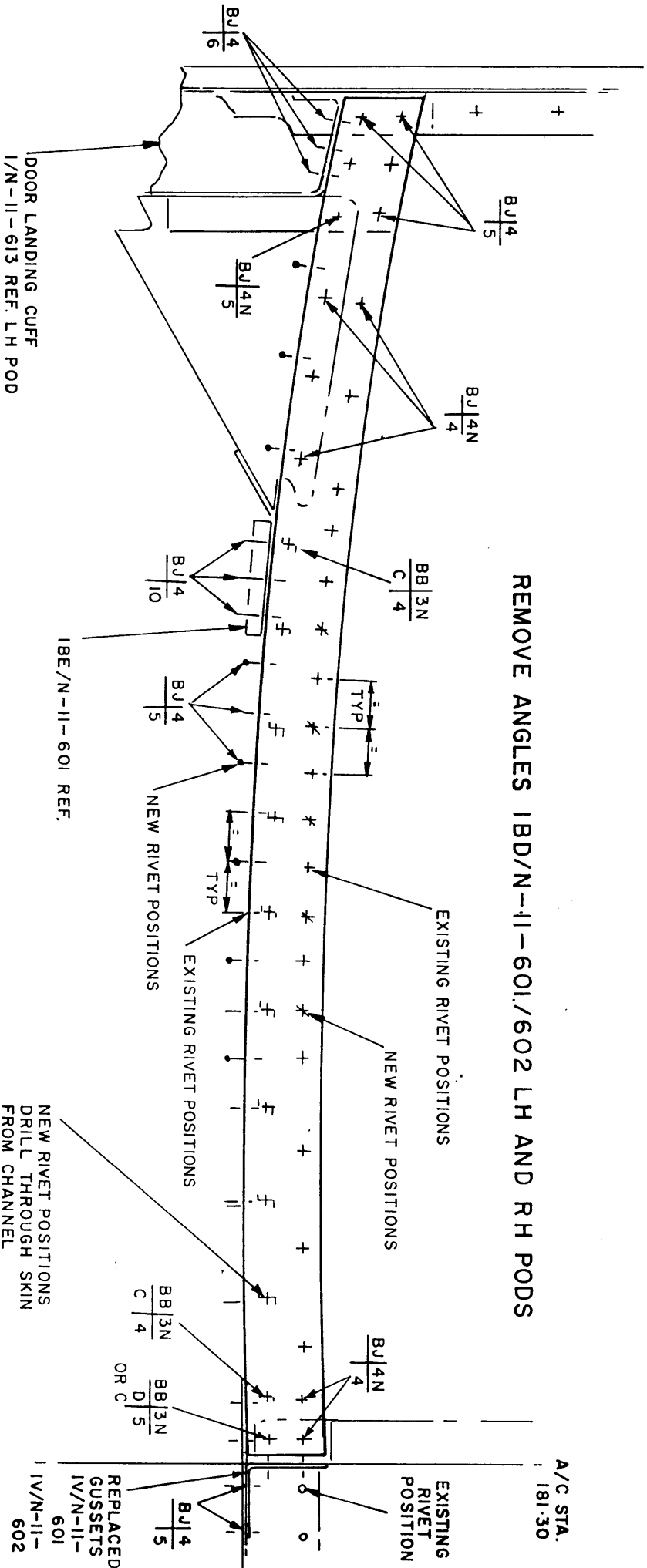
RIVET CODE : BJ = MS20470 , BB = MS 20426 , $\frac{14}{4}$ = DIA , $\frac{16}{6}$ = LENGTH , $\frac{1N}{1}$ = POSITIONING OF THE HEAD

eg $\frac{BJ4N}{6}$ = MS20470 AD4 - 6 WITH THE HEAD ON THE NEAR SIDE , UNIVERSAL HEAD

eg $\frac{BB3N}{4}$ = MS20426 AD3 - 4 WITH HEAD ON NEAR SIDE , C'SUNK HEAD

N - NEAR SIDE
F - FAR SIDE

REMOVE ANGLES 1BD/N-11-601./602 LH AND RH PODS



VIEW LOOKING INBOARD L.H. POD L.H.S.
SIMILAR ON R.H.S. OF L.H. POD.
SKIN OMITTED

RIVETS MS 20470 AD, RIVET CODE SEE FIGURE 2

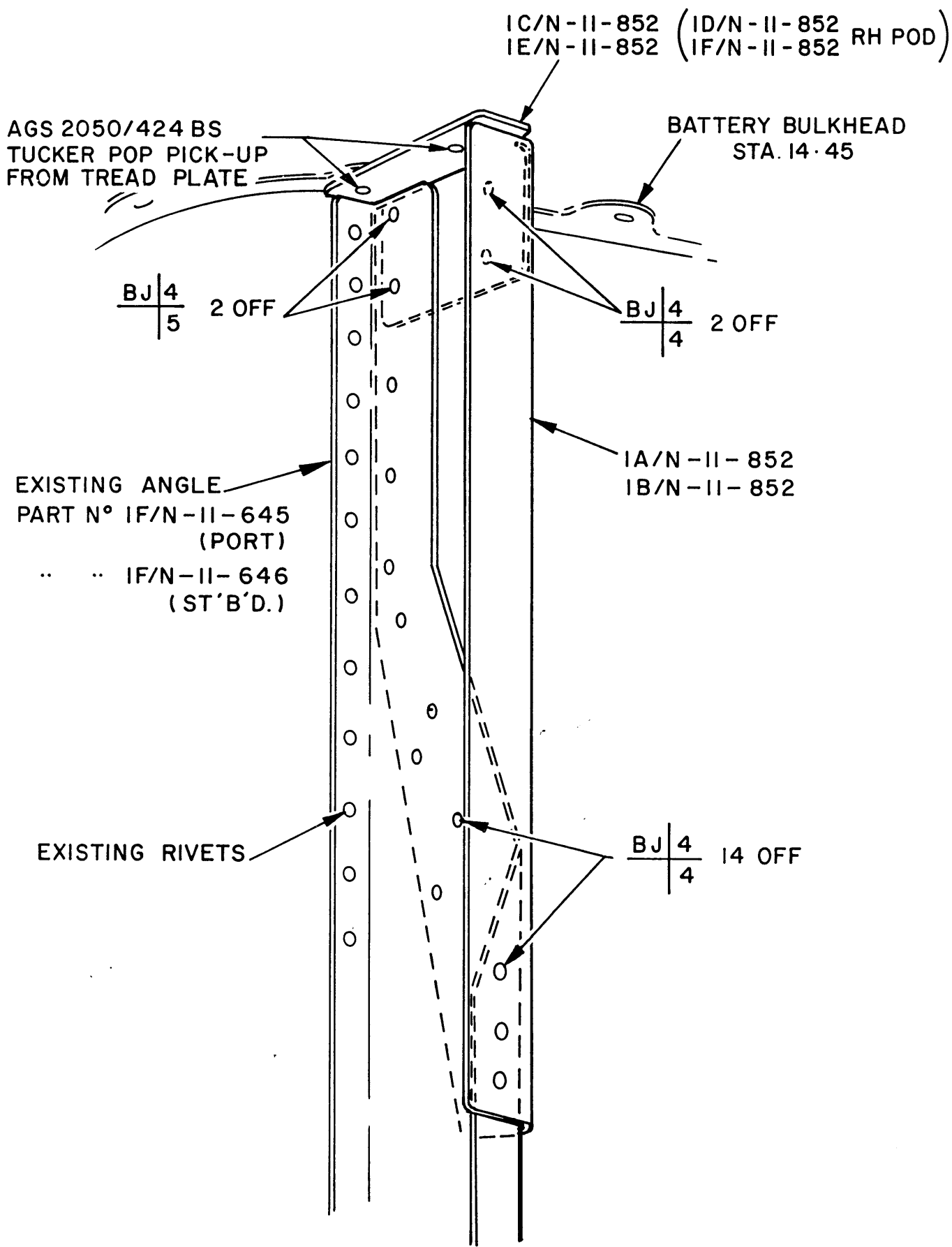


FIGURE 3 SB N22-53-1

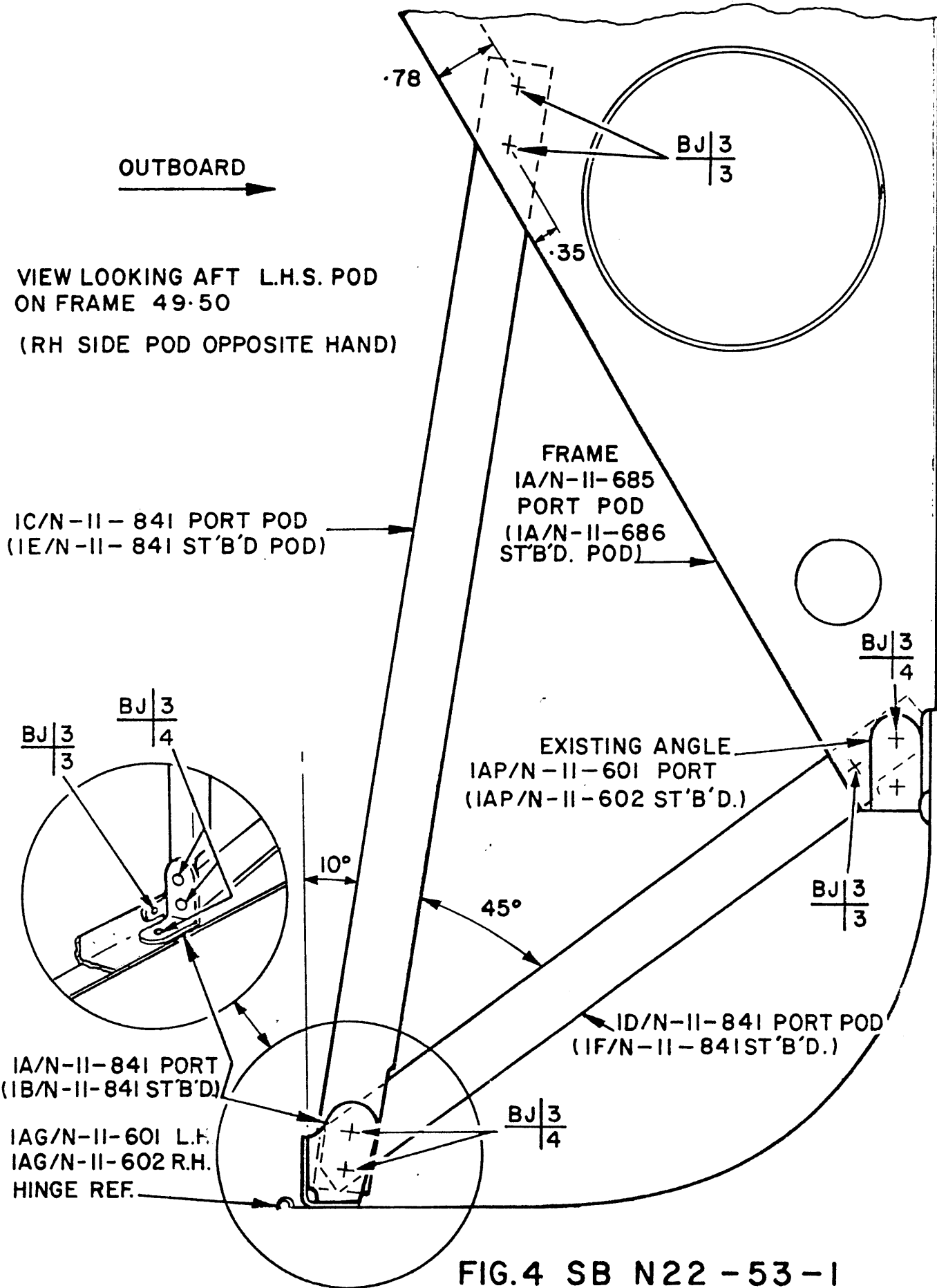


FIG.4 SB N22-53-1