Nomad
SERVICE BULLETIN

REPLACEMENT OF FIN/HORIZONTAL STABILISER ATTACHMENT BRACKETS (IDENTIFIED AS MOD N600A FOR AIRCRAFT PRE–MOD N331 AND MOD 600B FOR AIRCRAFT POST MOD N331)

1. **PLANNING INFORMATION**

A. **Effectivity**

(1) Aircraft Affected

All Nomad N22 Series and N24 Series aircraft whose Log Books do not record either:

(a) The embodiment of Mod N600A or N600B.

(b) Compliance with Service Bulletin NMD–53–5 at any revision level.

Pre-certification implementation of the Intent of this Service Bulletin is recorded in the Airframe Log Book as Mod N600A for aircraft without Mod N331 or Mod N600B for aircraft with Mod N331 embodied.

(a) The following aircraft to have Mod N600A incorporated in accordance with Service Bulletin NMD-53-5, Para 2, Part A.

LS2, LS4 to LS9 inclusive, LS11, LS12, LS15 to LS20 inclusive, LS22 to LS27 inclusive, LS30 to LS38 inclusive, LS42, LS44 LS46, LS50, LS53 to LS62 inclusive, LS64, LS66 to LS93 inclusive, LS95 to LS111 inclusive, LS115 to LS123 inclusive, LS125 and LS126.

(b) The following aircraft to have Mod N600B incorporated in accordance with Service Bulletin NMD-53-5. Para 2. Part B.

LS114 and LS131 to LS145 inclusive.

(c) The following aircraft to have Mod N600B incorporated in accordance with Service Bulletin NMD-53-5, Para 2. Part C.

LS146 to LS151 inclusive, LS153 and LS155 to LS158 inclusive.

(2) Spares Affected

None.

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B. **Reason**

(1) The fin/horizontal stabiliser attachment brackets fitted prior to Mod N600A or Mod 600B or Service Bulletin NMD-53-5 are Iifed components (3000 hours) and when life expires, are to be replaced with the following brackets.

(a) Aircraft LS2, LS4 to LS9 inclusive, LS11, LS12, LS15 to LS20 inclusive. LS22 to LS27 inclusive, LS30 to LS38 inclusive, LS42, LS44, LS46, LS50, LS53 to LS62 inclusive,LS66 to LS93 inclusive, LS95 to LS111 inclusive, LS114 to LS123 inclusive, L125 and LS126 and LS131 to LS145 inclusive.

Old Bracket Assembly	New Bracket Assembly
1/N–12–48 (LH) 1/N–12–49 (RH)	1/N–12–375 (LH) 1/N–12–376 (RH)

(b) LS146 to LS151, inclusive, LS153 and LS155 to LS158 inclusive.

Old Bracket Assembly	New Bracket Assembly
1/N–12–295 (LH) 1/N–12–296 (RH)	1/N–12–375 (LH) 1/N–12–376 (RH)

(2) Revision 1

Use of drilling jig added to aid In locating the rigging pin hole for the horizontal stabiliser trim on Post–Mod N331 aircraft.

(3) Revision 2

Revised use of oversize bolts in the Stub Fin attachment bracket bolt holes.

C. **Description**

The Pre and Post–Mod N331 fin/horizontal stabiliser attachment brackets are removed and replaced by Mod N600A/B brackets. The area of each bracket attachment on the fin post is reinforced by the fitment of a strap sandwiched between each new bracket and the fin post.

D. **Compliance**

(1) At 3000 hours TIS for aircraft not having Mod N600A or N600B embodied.

(2) For aircraft not having Mod N600A or N600B embodied whose TIS exceeds 3000 hours, within 300 hours of receipt of this Service Bulletin.

NOTE

It is recommended that Service Bulletin NMD–55–21 (Mod N602) be incorporated in conjunction with this Service Bulletin.

E. **Approval**

The requirement detailed herein has been approved by a person authorised under Civil Aviation Regulation 35 and conforms with the type certification requirements.

F. **Manpower**

16 manhours (2 men x 8 hours).

G. **Material – Price and Availability**

The parts required to initially incorporate the modification detailed in this Service Bulletin are available free of charge as Kit PN NMD–53–5–1 (Mod N600A) or PN NMD–53–5–2 (Mod N600B) from the operator's local distributor. Distributors are to place a "No Charge" purchase order on ASTA Defence through the normal procurement procedure. Purchase orders are to quote Aircraft Serial No(s) and Service Bulletin No NMD–53–5. These kits are available from ASTA Defence.

H. **Tooling – Price and Availability**

Tooling price and availability may be obtained from ASTA Defence (Ref Para 3.E).

I. **Weight and Balance**

The following information is to be used to amend the appropriate Flight Manual/Weight and Balance Manual entry for Basic Empty Weight.

(1) Mod N600A – Strengthening of Fin/Horizontal Stabiliser attachment (Pre–Mod N331)

	N22 Series Weight and Balance		**N24 Series Weight and Balance**	
	SI	Imperial	SI	Imperial
Weight Arm Index units	+ 0.2 kg 11 227 mm +2.19 kg mm/1000	+ 0.43 lb 442 in +0.19 lb in/1000	+ 0.2 kg 12 370 mm +2.41 kg mm/1000	+ 0.43 lb 487 in +0.21 lb in/1000

	Flight Manual 12.28F		**Flight Manual 12.58F**	
	SI	Imperial	SI	Imperial
Weight Arm Index units		+ 0.43 lb 442 in +0.19 lb in/1000		+ 0.43 lb 487 in +0.21 lb in/1000

(2) Mod N600B– Strengthening of Fin/Horizontal Stabiliser Attachment (Post Mod N331)

	N22 Series Weight and Balance		**N24 Series Weight and Balance**	
	SI	Imperial	SI	Imperial
Weight Arm Index units	+ 0.23 kg 11 176 mm +2.57 kg mm/1000	+ 0.5 lb 440 in +0.22 lb in/1000	+ 0.23 kg 12 319 mm +2.79 kg mm/1000	+ 0.5 lb 485 in +0.24 lb in/1000

	Flight Manual 12.28F		Flight Manual 12.58F	
	SI	Imperial	SI	Imperial
Weight Arm Index units		+ 0.5 lb 440 in +0.22 lb in/1000		+ 0.5 lb 485 in +0.24 lb in/1000

J. **References**

Illustrated Parts Catalogue

Maintenance Manual

K. **Publications Affected**

Maintenance Manual

Illustrated Parts Catalogue

Inspection Requirements Manual (Part 3)

Weight and Balance Manual (Ref Para 1.I.(1) and (2))

Flight Manual (Ref Para 1.I.(1) and (2))

2. **ACCOMPLISHMENT INSTRUCTIONS**

A. **Part A – Mod N600A (Ref Fig 1)**

NOTE

For aircraft applicability refer to paragraph 1 .A.(1)(a).

(1) Jack up the nose of the aircraft to a height which will lower the rear fuselage sufficiently to provide easy access to the tail section. Place suitable padded support under the rear fuselage.

(2) Ensure BATTERY switch is at OFF and all external power supplies disconnected from the aircraft, then disconnect any antenna system(s) from the fin assembly (Ref relevant option supplements).

(3) Remove the rudder, dorsal fin and horizontal stabiliser (Ref MM Chap 55).

(4) Remove the horizontal stabiliser trim control torque shaft assembly (Ref MM 27–41–06).

(5) Inspect the torque shaft assembly for signs of wear at the taper pin installations and also bearing blocks (PN 1/N–45–941) for wear. Renew any defective parts as necessary.

(6) Loosen, remove and discard the forward LH attachment bolt (PN 2/N–00–43) of the upper fin; check that the bolt can be removed without using excessive force and that no visible bearing loads or movement of the fin assembly occurs after the bolt is removed.

NOTE

To remove tight bolts in the fin attachment brackets, remove nuts and washers, wash the area with suitable solvent to remove old jointing compound, extract the bolt by turning whilst lightly tapping out to prevent damage to the fin attachment brackets and pick-up plates.

(7) Remove and discard the LH fin/horizontal stabiliser attachment bracket and attaching hardware only.

NOTE

- It is not possible to remove the top outboard bolt and the bottom inboard bolt because of a Camloc fastener and rivet head interference respectively. Therefore it is acceptable to retain these two bolts for attachment of the modified brackets PN 1/N-12–375–954 (LH) and 1/N–12–376–954 (RH).

- If for any reason the unremovable bolts are removed, measure the diameter of the hole in the spar and web (Ref fig 1).

  (a) If it does not exceed 0.256 in, the original standard size bolt may be retained and refitted.

  (b) If it exceeds 0.256 in, discard the original bolt. Ream out the hole in the spar and web to 0.2656/0.2665 in with the 17/64 in reamer PN NMD–T–003 obtainable from ASTA Defence. Use first oversize bolt X.

(8) Clean off any old jointing compound from around the bracket attachment holes and adjacent areas on the fin post.

(9) Drill out the nine 1/8 in dia rivets, on the LH side of the fin post, numbered 1 and 3 as shown on Figure 1. Deburr the rivet holes.

NOTE

The countersunk rivet numbered 4 on Figure 1 is not to be removed.

(10) On new LH horizontal fin/stabiliser attachment bracket, PN 1/N–12–375–954, drill the top outboard and bottom inboard bracket attachment holes to 6.5mm dia.

NOTE

If the 1st oversize bolt X is fitted (Ref step 7 NOTE) drill the corresponding hole in the bracket to 6.9 mm dia

Drill the LH reinforcing strap PN 1/N–12–379–950 as detailed in Figure 3.

(11) Assemble the LH reinforcing strap and LH attachment bracket to the forward face of the fin post using the two original bolts, washers and nuts (Ref step 7 NOTE) to ensure the strap is positioned to the dimensions shown in Figure 1. If necessary, open up the rivet tail clearance hole in the strap to achieve correct position of the strap. Touch up reworked bare metal with primers.

(12) Check for interference between the bracket and the top of the fin post and between the bracket and the lower section of the upper fin (Ref Fig 1). Chamfer the top of the fin post locally by hand file as necessary to clear the bracket. Rework the channel section of the upper fin by removing sufficient metal from the channel section to enable the attachment bracket to be fitted without fouling the upper fin. Re-identify the channel section to 1A/N–03–766 and touch up reworked bare metal with primers.

(13) After satisfactory fit of the bracket is obtained, bolt the strap and bracket into position using the new upper fin attachment bolt PN 3/N–00–43 to locate the bracket vertically. Do not tighten bolts at this stage.

(14) Using the ASTA Defence manufactured spacer assembly PN NMD–T–005, check and adjust as necessary, the lateral position of the LH attachment bracket in relation to the RH attachment bracket. The spacer should be lightly clamped between the inner bearing surfaces of the two brackets.

NOTE

Ensure that the horizontal stabiliser pivot bearing In the RH bracket is pressed firmly against the shoulder on the Inboard side of the bracket.

(15) With the LH attachment bracket thus positioned tighten the two bolts attaching the bracket and strap to the fin post. Drill the six remaining attachment holes in the bracket, strap and fin post to 6.5 mm dia, then ream the six holes with the ASTA Defence supplied special 17/64 in dia reamer PN NMD–T–003, ensuring that the bolts supplied PN NAS6204–8X, –9X, –11X and –19X are a good push fit in their respective bolt holes (Ref Fig 1). For loose fit bolts (hole size greater than 0.2670 in) the 2nd oversize bolt Y of the same grip length may be installed in a hole reamed to 0.2821/0.2812 in dia.

(16) Using a 4 mm dia drill, back drill the LH reinforcing strap, using a hole finder as necessary, at rivet hole positions marked 1 and 3 as shown on Figure 1.

(17) Remove the LH attachment bracket and LH reinforcing strap and deburr holes in bracket and strap.

CAUTION

BEFORE RIVETING THE STRAP AND TORQUE TIGHTENING THE CLOSE TOLERANCE BRACKET ATTACHMENT BOLTS, CHECK THAT THE ATTACHMENT BRACKET IS CORRECTLY POSITIONED USING THE ASTA DEFENCE MANUFACTURED SPACER AS DETAILED IN STEP 14.

(18) Wet assemble the LH attachment bracket PN 1/N–12–375–954 and reinforcing strap PN 1/N–12–379–950 to the fin post with pigmented jointing compound and secure in final position using bolts, washers, nuts and rivets at respective positions detailed in Figure 1. Ensure bolt heads face aft with countersunk face of countersunk washer under head of bolt.

(19) Refit the new fin attachment bolt PN 3/N–00–43 at the forward LH position and torque tighten the slotted nut to 30 to 40 lb ins, then drill the bolt for split pin PN 24665–153. Fit new split pin.

NOTE

If Service Bulletin NMD–55–21 (Mod N602) is being incorporated at the same time as Service Bulletin NMD–53–5, then the fin attachment bolt should be left loose pending removal of the upper fin for incorporation of Service Bulletin NMD-55-21 (Mod N602).

(20) Torque tighten the eight attachment bracket bolts to 50—70 lb in.

(21) Remove excess jointing compound and seal all gaps between fin post, reinforcing strap and attachment bracket with PR 1422B–2 sealing compound or suitable alternative. Touch up all bare metal surfaces with primers.

(22) Repeat steps (6) to (21) for installation of RH reinforcing strap PN 1/N–12–380–950 and RH horizontal stabiliser/fin attachment bracket PN 1/N–12–376–954.

NOTE

The removal and refitting of the horizontal stabiliser stop pad PN 1/N–12–73 is to be included when reworking the RH attachment bracket installation (Ref Figure 1). This requires the removal of rivet at position numbered 2 and riveting at the same position (Ref step 18 and Fig 1).

(23) Install the trim control torque shaft assembly (Ref MM 27–41–06) removed at step (4).

NOTE

If new bearing blocks have been fitted to torque shaft assembly, ensure that after assembly to the attachment brackets the torque shaft end float is 0.015 to 0.025 in. Correct end float is obtained by the addition or removal of washers PN 1A/N–45–943.

(24) Remove the upper fin (Ref MM 55–30–00) and incorporate Mod N602 (if in receipt of Kit PN NMD–55–21–1) In accordance with Service Bulletin NMD–55–21.

(25) Refit the horizontal stabiliser (Ref MM 55–20–00)

CAUTION

AFTER FITTING NEW HORIZONTAL STABILISER/FIN ATTACHMENT BRACKETS AND REINFORCING STRAPS, ADJUST THE HORIZONTAL STABILISER STOP BOLTS TO OBTAIN THE CORRECT RANGE OF MOVEMENT OF THE HORIZONTAL STABILISER.

(26) If step (24) cannot be complied with, refit the dorsal fin (Ref MM 55–30–00) and rudder (Ref MM 55–40–00).

(27) Refit any antenna systems, disconnected from the fin assembly at step (2) (Ref Relevant Option Supplements).

B. **Part B – Mod N600B (Ref Fig 2) – Aircraft Applicability – Line Sequence 114 and 131 to 145 Inclusive.**

(1) Carry out steps (1), (2) and (3) of Part A.

(2) Remove the horizontal stabiliser trim control torque shaft assembly as follows:

(a) Disconnect the trim screw jack rod from the trim control torque shaft centre crank arm. Discard the split pin.

(b) Remove and discard the split pins, nuts, washers and bolts securing the torque shaft assembly to the fin/horizontal stabiliser attachment brackets and remove the torque shaft assembly.

(3) Remove and discard the taper pins securing the LH and RH crank arms to the torque shaft and remove both crank arms, complete with associated bearing blocks, from the torque shaft.

(4) Remove the LH and RH bearing blocks PN's 1/N–03–629 and 1/N–03–630 complete with bearings from their associated crank arms. Discard the bearing blocks and bearings.

(5) Inspect the taper pin installations at the centre crank arm for indications of wear. Replace loose or defective taper pins.

(6) Assemble new LH bearing block assembly PN 1/N–12–381 to the new LH fin/horizontal stabiliser attachment bracket PN 1/N–12–375–954 as follows:

(a) Using bolt PN AN3–4A, locate the LH bearing block assembly to the LH attachment bracket and torque the bolt to 20 to 25 lb in. Using a suitable clamping method, ensure that maximum contact is achieved between the mating surfaces of the bracket and bearing block assembly.

NOTE

Care should be taken when clamping not to damage the bearing housing of the bearing block assembly.

(b) Using a drill press, drill out the existing 3/32 in dia holes in the bracket and block assembly and ream to 0.1900 to 0.1907 in dia H8 for the lateral attachment bolt.

(7) Assemble new RH bearing block assembly PN 1/N–12–382 to the new RH fin/horizontal stabiliser attachment bracket PN 1/N–12–376–954 and drill and ream the assembly as detailed In step (6)(a) and (b).

(8) Dismantle the bearing block assemblies from the fin/horizontal stabiliser attachment brackets, remove drill swarf and deburr the newly drilled holes.

(9) Assemble the new RH bearing block assembly PN 1/N–12–382 onto the RH crank arm PN 1/N–45–1560 (Ref step (4)). Ensure that the boss with the rigging pin hole faces inboard.

(10) Wet assemble the RH crank arm complete with new bearing block (Ref step 9), to the RH end of the torque shaft using a pigmented jointing compound. Ensure that the centre crank arm is facing aft and that the taper pin holes of the crank arm and torque shaft are aligned. Do not allow any pigmented jointing compound or grease to come into contact with the pre-lubricated dry film bearings. Secure the crank arm to the torque shaft by fitting two new taper pins PN MS24692–128P.

NOTE

The large end of a taper pin should protrude between 1/4 to 1/2 of its diameter, while the small end before peening should protrude between 1/2 to 1 of its diameter. The large end of the taper pin should be supported whilst peening the small end to prevent the pin from moving.

(11) Peen the small ends of the two taper pins.

(12) Mark the RH bearing block PN 1/N–12–382 (Ref Fig 4). Install drill jig PN 1/N–88–255 (Ref Fig 5), align with register mark on RH bearing block, and drill/ream bearing block to 0.1250 to 0.1257 in dia H8 through drill bushing. Remove drill jig and deburr hole.

(13) Assemble the new LH bearing block assembly PN 1/N–12–381 onto the LH crank arm PN 1/N–45–1559 (Ref step (4)) ensuring that the flange of the bearing block faces inboard.

(14) Wet assemble and secure the LH crank arm complete with new bearing block (Ref step (9)), to the LH end of the torque shaft as in steps (10) and (11).

NOTE

The LH crank arm has no rigging hole.

(15) Carry out procedure detailed in Part A, steps (6) to (22) inclusive.

(16) Wet assemble the trim control torque shaft assembly to the new fin/horizontal stabiliser attachment brackets PN 1/N–12–-375–954 (LH) and 1/N–12–376–954 (RH) with pigmented jointing compound. Ensure that the torque shaft centre crank arm faces aft. Secure the torque shaft assembly to the brackets with bolts PN NAS6203–11 (laterally installed through flange of the bearing blocks and through the brackets), bolt heads facing Inboard, flat washers PN AN960KD10, countersunk washers PN MS21299C3 and nuts PN MS21042L3.

NOTE

When fitting the bolts ensure that the countersunk washers are under the head of the bolt with the countersunk side of the washer nearest the bolt head.

Install the remaining attaching bolts PN AN3–4A, lock washers PN MS9276–09 and flat washers PN AN960KD10 through the bearing blocks and brackets. Ensure that the flat washer is next to the bearing block and the lock washer under the bolt head. Torque tighten all torque shaft attaching bolts to 20 to 25 lb in, then bend up the tabs of the lock washers against the flats of the bolt heads. Remove any excess pigmented Jointing compound.

(17) Reconnect the trim screw jack rod to the torque shaft centre crank arm with the attaching hardware removed at step (2)(a), but do not torque tighten the nut and fit split pin until the trim control is check rigged (Ref step (17)).

(18) Carry out procedure detailed in Part A, steps (24) to (27) inclusive.

NOTE

Use existing attaching hardware plus new split pins when installing the upper fin.

C. **Part C – Mod N600B (Ref Fig 2) – Aircraft Applicability – Line Sequence 146 to 151 Inclusive, 153, 155 to 158 Inclusive.**

(1) Carry out procedure detailed in Part A, steps (1) to (4) Inclusive.

(2) Inspect and reassemble the trim control torque shaft assembly as detailed in Part B, steps (5) to (14) inclusive.

(3) Carry out procedure detailed in Part A, steps (6) to (22) inclusive.

(4) Assemble the trim control torque shaft assembly to the fin/horizontal stabiliser attachment brackets as detailed in Part B, step (16).

(5) Reconnect the trim screw jack rod to the torque shaft centre crank arm with the attaching hardware removed at step (1), but do not torque tighten the nut and fit split pin until the trim control is check rigged (Ref step (6)).

(6) Carry out procedure detailed in Part A, steps (24) to (27) inclusive.

NOTE

Use existing attaching hardware plus new split pins when installing the upper fin.

3. **MATERIALS INFORMATION**

A. **Parts Required for Aircraft**

(1) Mod N600A — Refer to paragraph 1 .A.(1)(a) for aircraft applicability. One kit PN NMD–53–5–1 is required per aircraft and comprises the following items.

New Part No	Qty	Description	Old Part No	Instruction/Disposition
Kit PN NMD–53–5–1				
1/N–12–379–950	1	Strap, Reinforcing, LH		
1/N–12–380–950	1	Strap, Reinforcing, RH		
1/N–12–375–954	1	Bracket, Fin/Horizontal Stabiliser Attachment LH		
1/N–12–376–954	1	Bracket, Fin/Horizontal Stabiliser Attachment RH		
3/N–00–43	2	Bolt, Shouldered		
NAS6204–8X	4	Bolt, Close Tolerance		
NAS6204–9X	4	Bolt, Close Tolerance		
NAS6204–11X	2	Bolt, Close Tolerance		
NAS6204–11X	2	Bolt, Close Tolerance		(Ref Part 2A para 7)
NAS6204–19X	2	Bolt, Close Tolerance		
NAS6204–19X	2	Bolt, Close Tolerance		(Ref Part 2A para 7)
NAS6204–8Y	4	Bolt, Close Tolerance		(Ref Part 2A para 15)
NAS6204–9Y	4	Bolt, Close Tolerance		(Ref Part 2A para 15)
NAS6204–11Y	2	Bolt, Close Tolerance		(Ref Part 2A para 15)
NAS6204–19Y	2	Bolt, Close Tolerance		(Ref Part 2A para 15)
AN960KD416	32	Washer, Flat		
AN960PD416		Washer, Flat Alt		
MS21299C4	16	Washer, Countersunk		
MS21042L4	16	Nut		
MS20470AD5–8	9	Rivet, 5/32 in dia, Universal head		
MS20470AD5–10	8	Rivet, 5/32 in dia, Universal head		
MS20470AD5–11	1	Rivet, 5/32 in dia, Universal head		
* As an alternative to countersunk washer PN MS21299C4, take an AN960 type washer and countersink the inside diameter to 45°.				

(2) Mod N600B — Refer to paragraph 1 .A.(1)b) and (c) for aircraft applicability. One kit PN NMD–53–5–2 is required per aircraft and comprises the following items.

New Part No	Qty	Description	Old Part No	Instruction/Disposition
Kit PN NMD–53–5–2				
1/N–12–379–950	1	Strap, Reinforcing LH		
1/N–12–380–950	1	Strap, Reinforcing RH		
1/N–12–375–954	1	Bracket, Fin/Horizontal Stabiliser Attachment LH		
1/N–12–376–954	1	Bracket, Fin/Horizontal Stabiliser Attachment RH		
1/N–12–381	1	Block, Bearing Assy LH		
1/N–12–382	1	Block, Bearing Assy RH		
NAS6204–8X	4	Bolt, Close Tolerance		
NAS6204–9X	4	Bolt, Close Tolerance		
NAS6204–11X	2	Bolt, Close Tolerance		
NAS6204–11X	2	Bolt, Close Tolerance		(Ref Part 2A para 7)
NAS6204–19X	2	Bolt, Close Tolerance		
NAS6204–19X	2	Bolt, Close Tolerance		(Ref Part 2A para 7)
NAS6204–8Y	4	Bolt, Close Tolerance		(Ref Part 2A para 15)
NAS6204–9Y	4	Bolt, Close Tolerance		(Ref Part 2A para 15)
NAS6204–11Y	4	Bolt, Close Tolerance		(Ref Part 2A para 15)
NAS6204–19Y	4	Bolt, Close Tolerance		(Ref Part 2A para 15)
AN960KD416	32	Washer, Flat		
AN960PD416		Washer, Flat Alt		
*MS21299C4	16	Washer, Countersunk		
MS21042L4	16	Nut		
MS20470AD5-8	9	Rivet, 5/32 in dia, Universal Head		
MS20470AD5-10	8	Rivet, 5/32 in dia, Universal Head		
MS20470AD5-11	1	Rivet, 5/32 in dia, Universal Head		
MS9276–09	2	Washer, Lock		
MS24692–128P	4	Pin, Tapered		
NAS6203–11	2	Bolt, Close Tolerance		
NAS1303–11		Bolt, Close Tolerance Alt.		
AN960KD10	6	Washer, Flat		
AN960PD10		Washer, Flat Alt.		
MS21299C3	2	Washer, Countersunk		
MS21042L3	2	Nut		
AN3–4A	2	Bolt		

* As an alternative to countersunk washer PN MS21299C4, take an AN960 type washer and countersink the inside diameter to 45°.

B. **Parts Modified and Re-identified by Operator**

New Part No	Qty	Description	Old Part No	Instruction/Disposition
1/AN–03–766	1	Channel	1/N–03–766	

C. **Parts Required to Modify Spares**

None.

D. **Parts Removed**

All Items listed below are to be returned to the operators stock or scrapped as appropriate.

(1) For aircraft applicability refer to paragraph 1.A.(1)(a).

New Part No	Qty	Description	Old Part No	Instruction/Disposition
	1	Bracket Assembly, LH	1/N–12–48	Scrap
	1	Bracket Assembly, RH	1/N–-12–49	Scrap
	4	Bolt, Shear	NAS1304–4	Scrap
	4	Bolt, Shear	NAS 1304–6	Scrap
	4	Bolt, Shear	NAS 1304–9	Scrap
	4	Bolt, Shear	NAS1304–17	Scrap
	32	Washer, Flat	AN960PD416	Scrap
	16	Nut, Self–locking	MS21042L4	Scrap

(2) For aircraft applicability refer to paragraph 1.A.(1)(b).

All items listed in Para 3.D.(1) plus the following items.

New Part No	Qty	Description	Old Part No	Instruction/Disposition
	1	Block, Bearing LH	1/N–03–629	Scrap
	1	Block, Bearing RH	1/N–03–630	Scrap
	2	Bearing	BU16RZH32–4A	Scrap
		Bearing Alt.	ABK8CR12	Scrap
	2	Bolt	AN173–7	Scrap
	2	Washer, Flat	AN960PD10	Scrap
	2	Nut, Plain, Castellated	AN310–3	Scrap

(3) For aircraft applicability refer to paragraph 1 .A.(1)(c).

New Part No	Qty	Description	Old Part No	Instruction/Disposition
	1	Bracket Assembly, LH	PN 1/N–12–295	Scrap
	1	Bracket Assembly, RH	PN 1/N–12–296	Scrap
	4	Bolt, Shear	NAS1304–4	Scrap
	4	Bolt, Shear	NAS1304–6	Scrap
	4	Bolt, Shear	NAS1304–9	Scrap
	4	Bolt, Shear	NAS1304–17	Scrap
	32	Washer, Flat	AN960PD416	Scrap
	16	Nut, Self-locking	MS21042L4	Scrap

E. **Special Tools and Equipment**

The following two special tools are available from ASTA Defence to aid in the installation of the modified fin/horizontal stabiliser attachment brackets PN 1/N–12–375–954 (LH) and 1/N–12–376–954 (RH).

NMD–T–005 Spacer Assembly
NMD–T–003 Reamer, 17/64 in dia

The Jig for drilling the RH bearing block can be manufactured by the operator to drawing N–88–255 (available from ASTA Defence). Alternatively, ASTA Defence will manufacture and supply the jig on an as required basis.

1/N–88–255 Drilling Jig (Rigging Pin hole) — 2 parts.

4. **RECORDING ACTION**

A. Aircraft LS2, LS4 to LS9 inclusive, LS11, LS12, LS15 to LS20 inclusive, LS22 to LS27 inclusive LS30 to LS38 inclusive, LS42, LS44, LS46, LS50, LS53 to LS62 inclusive, LS64, LS66 to LS93 inclusive, LS95 to LS111 inclusive, LS115 to LS123, LS125 and LS126.

Record compliance with Service Bulletin NMD–53–5 Part A in the airframe log book.

B. Aircraft LS114 and LS131 to LS145 inclusive.

Record compliance with Service Bulletin NMD–53–5 Part B in the airframe log book.

C. Aircraft LS146 to LS151 inclusive, LS153 and LS155 to LS158 inclusive.

Record compliance with Service Bulletin NMD–53–5 Part C in the airframe log book.

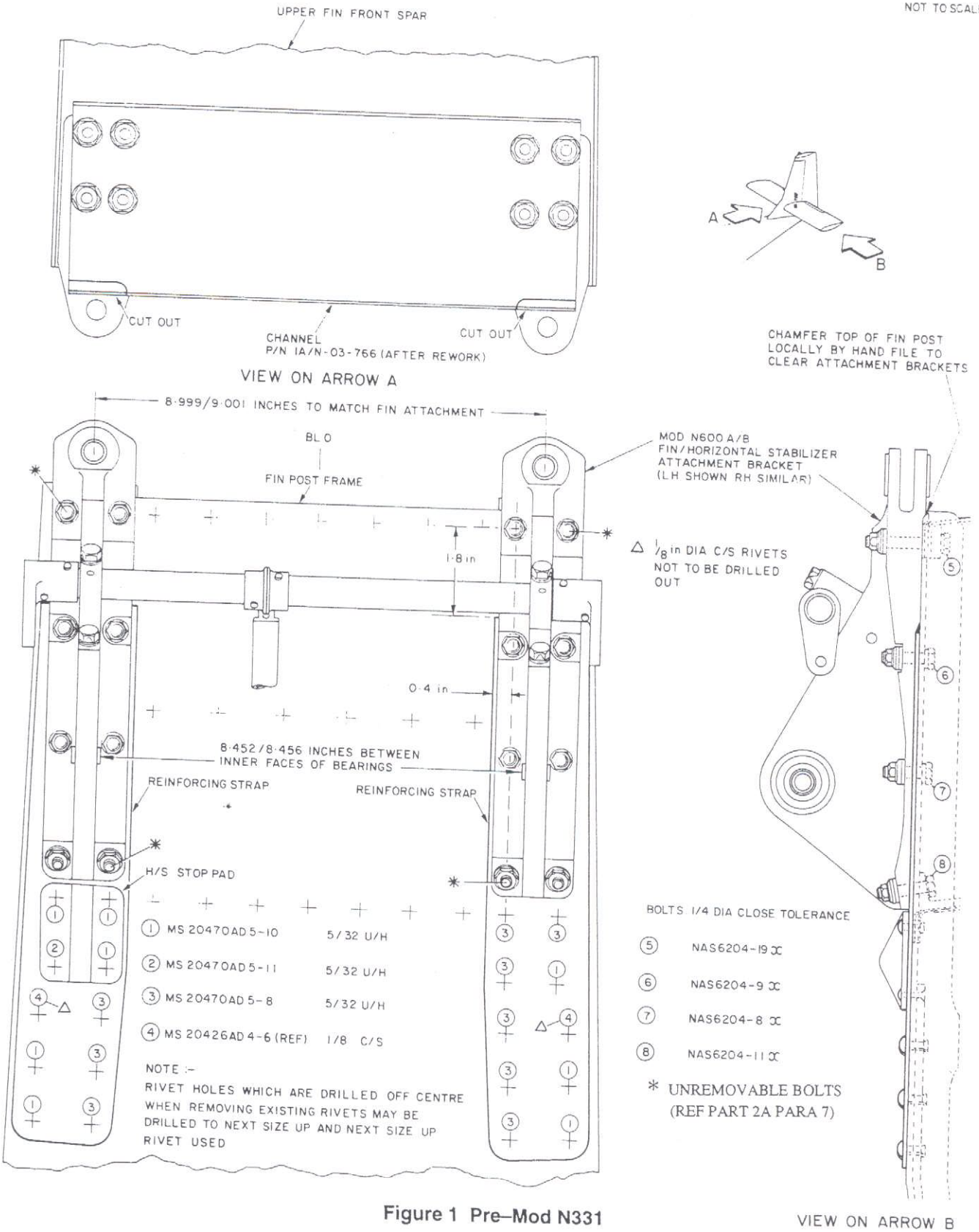


Figure 1 Pre–Mod N331

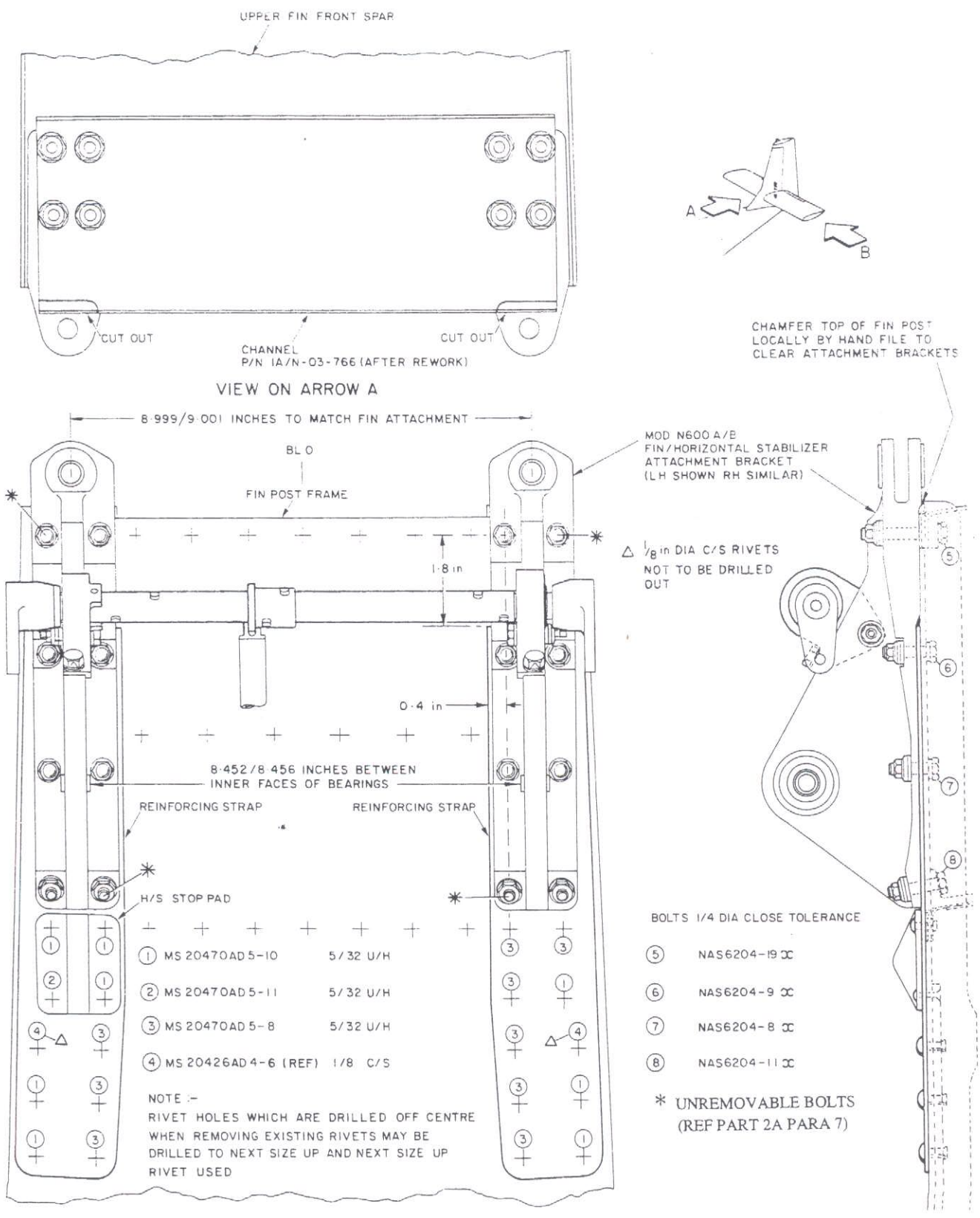
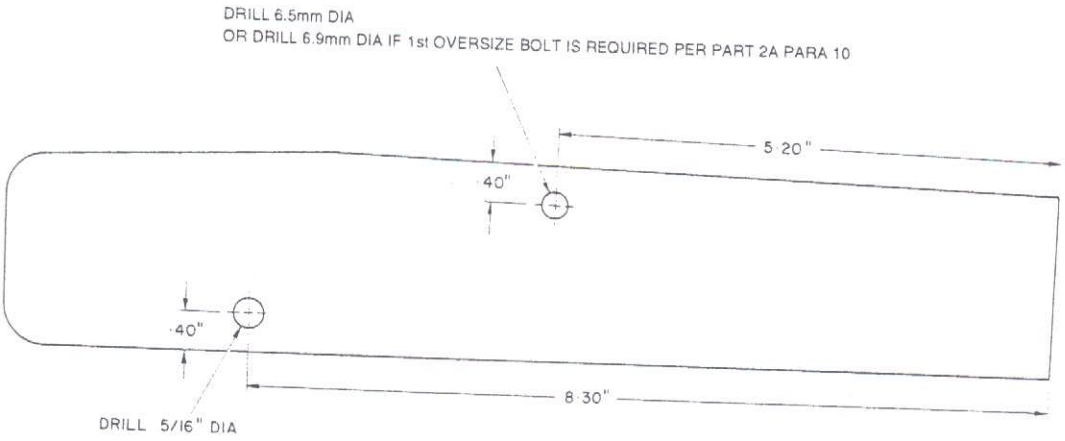


Figure 2 Post–Mod N331

L.H. REINFORCING STRAP P/N I/N-12-379/950
R.H. REINFORCING STRAP P/N I/N-12-380/950



DRILLING INSTRUCTIONS

(1) MARK OFF THE DRILL CENTRES OF THE HOLES TO BE DRILLED ON ONE REINFORCING STRAP THEN CLAMP THE MARKED STRAP EXACTLY ON TOP OF THE OTHER STRAP.

(2) DRILL BOTH STRAPS TOGETHER TO THE HOLE DIAMETERS SHOWN ON THE ABOVE FIGURE.

(3) UNCLAMP THE STRAPS AND DEBURR THE HOLES.

Figure 3 Reinforcing Strap Drilling Instructions (Mod N600A/B)

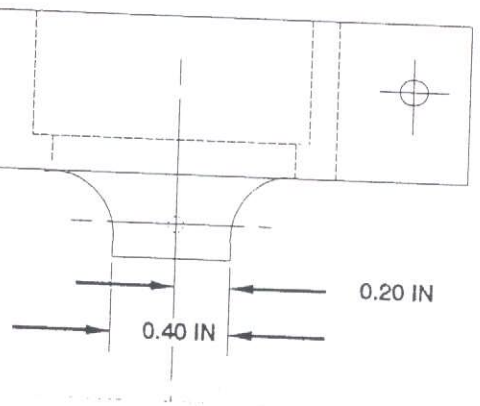


Figure 4 Bearing Block Alignment Mark

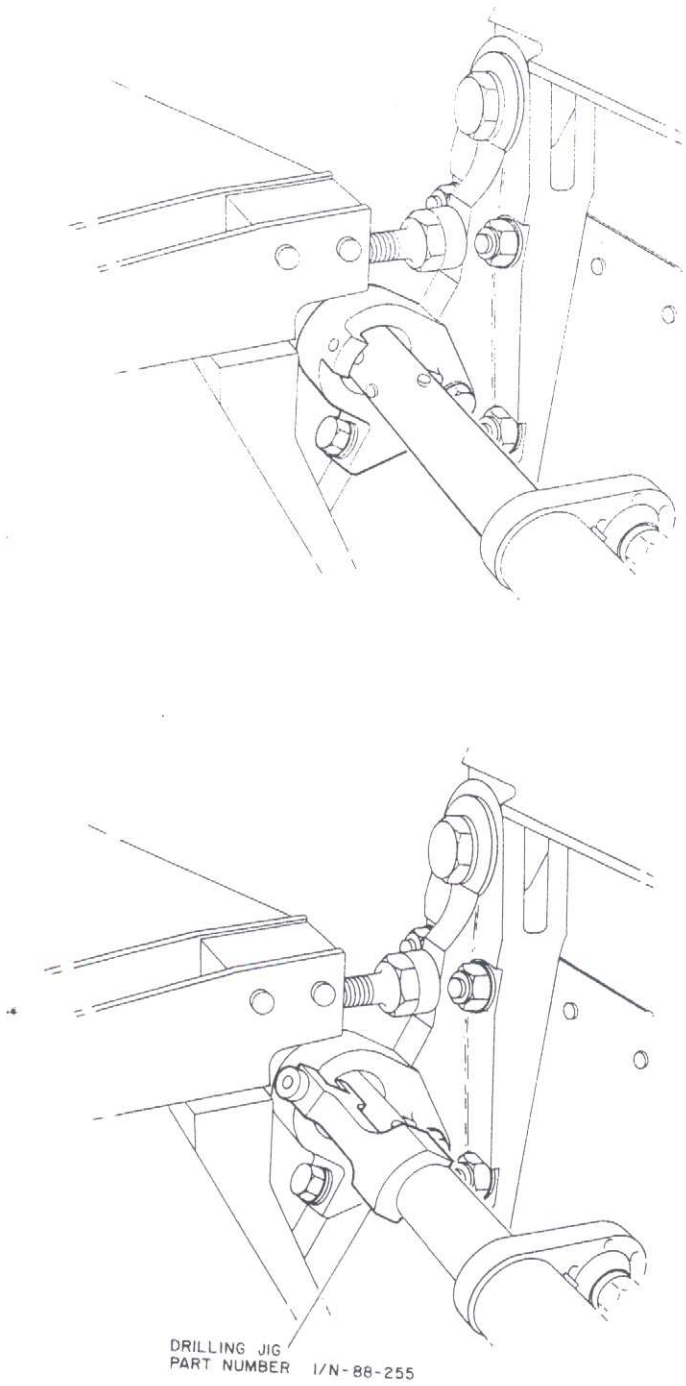


Figure 5 Installation of Drilling Jig