

Nomad

SERVICE BULLETIN

FLIGHT CONTROLS

RUDDER AND HORIZONTAL STABILISER TRIM CONTROL SYSTEM

REPLACEMENT OF CHAIN SYSTEMS - MODIFICATION NO. N8

1. PLANNING INFORMATION

A. Effectivity

Nomad N22 Aircraft

Serial No. N22-1 and N22-4.

Factory action covers all other aircraft.

B. Reason

It is possible that Aileron control chains fitted to early production aircraft may contain intermediate link joints which have been hand riveted. A small number of chains have been supplied to us with this condition as a result of joining of short chain lengths. It is essential that all chain links should be machine riveted, hence it is considered that the condition should be rectified. All chains are new inspected to ensure that machine rivetted joints are used throughout and an improved end link attachment is now in use.

C. Description

This Service Bulletin requests the removal of chains in the Trim Control System and their replacement by new chains having machine riveted joints throughout.

D. Compliance

Recommended before next Major Inspection.

E. Manpower

Approximately 3 manhours are required to incorporate this modification.

F. Material, Price and Availability

Replacement chains will be supplied by GAF at nil cost.

G. Weight and Balance

Not Affected.

H. Publications Affected

Nil.

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I. **References**

N22 Maintenance Manual Chap 27.

2. **ACCOMPLISHMENT INSTRUCTIONS**

A. **Removal and Replacement of Horizontal Stabilizer Trim Control Chains.**

- (1) At throttle box in cockpit centralise trim control and insert rigging pin PN 1/N-88-60.
- (2) Between Stations 399.0 and 419.00 and between Stations 373.00 and 399.0 unlock and remove 2 off turnbuckles securing cables PN 1/N-45-1283, 1/N-45-1284, 1/N-45-1287 and 1/N-45-1288.
- (3) Remove and retain 3 keeper bolts along BL.1.0 aft of stn. 420.0.
- (4) Unlock and remove 2 off 10BA belts securing chain assembly 1/N-45-1336 to cable ends.
- (5) Remove chain from sprocket Assy at Tailplane.
- (6) At throttle box in cockpit remove 2 off 10BA bolts securing chain item 1/N-45-485 to cables.
- (7) Remove chain from throttle box sprocket.
- (8) At throttle box, position new chain supplied, item 2/N-45-485, equally about sprocket.
- (9) Re-attach cables items 1/N-45-1283 and 1/N-45-1284 with the retained 10BA belts and wire lock.
- (10) Position rigging pin item 1/N-88-60 in horizontal stabilizer torque shaft at stn. 428.40 above WL 97.75 me that control is in neutral position.
- (11) With trim jack set to mid-position place supplied chain item 2/N-45-1336 equally around sprocket and connect back to cables 1/N-45-1287 and 1/N-45-1288 using 2 off 10BA belts and wire lock ends.
- (12) Reconnect 2 off turnbuckles removed in step 2.A.(2)
- (13) Replace 3 off keeper belts removed in step 2.A.(3)
- (14) Rig and test System as laid down in Para 27-41-00 of Maintenance Manual.
- (15) Lock Turnbuckles.

B. **Removal and Replacement of Rudder Trim Control Chains.**

- (1) At Station 420 remove two turnbuckles attaching Chain PN 1/N-45-1337 to cables 1/N-45-1281 and 1/N-45-1282.
- (2) Remove and retain upper keeper belt at trim screw jack sprocket Station 420.
- (3) Release chains from cables by removing 2 off 10BA belts and remove chain from sprocket.
- (4) At Station 132.0 remove and retain two off teflon keepers and release chain from cables PN 1/N-45-1281 and 1/N-45-1282 by removing 2 off 10BA belts.

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- (5) Remove chain from sprocket.
- (6) Insert rigging pin PN 1/N-88-60 in rudder trim control in cockpit.
- (7) Position chain supplied PN 2/N-45-485 equally about sprocket and end of rudder trim drive Shaft Station 132.0.
- (8) Attach cables 1/N-45-1281 and 1/N-45-1282 to chain using the 2 off 10BA belts and wire lock.
- (9) Between rudder and rear of fin forward of stn. 469.17 position rigging bar item 1/N-88-80. Thus setting rudder trim in neutral position.
- (10) Position chain supplied PN 2/N-45-485 equally about trim jack sprocket at stn. 420.
- (11) Re-connect two turnbuckles removed in step 2.B.(1)
- (12) Replace two off teflon keepers removed in step 2.B.(4)
- (13) Replace upper keeper belt removed in step 2.B.(2)
- (14) Tension cables an laid down in Para. 27.21 of Maintenance Manual.
- (15) Lock turnbuckles.

3. MATERIAL INFORMATION

A. Parts Required per Aircraft

New Part No	Qty	Description
2/N-45-1336	1	Chain Assy
2/N-45-485	3	Chain Assy

The above items will be supplied free of charge.

B. Removed Items

The removed chains are to be returned to the Government Aircraft Factory, Lorimer Street, Port Melbourne, Victoria, Australia.

4. SPECIAL TOOLS AND EQUIPMENT

New Part No	Qty	Description
1/N-88-60	1	Rigging Pin
1/N-88-80	1	Rigging Bar