



# SERVICE BULLETIN

SUBJECT - Propeller Brake System - Removal from aircraft.

1. Planning Information:

A. Effectivity

(1) Aircraft Affected:

Nomad N22 and N22B aircraft

N22-2, N22-3M, N22-4, N22B-5M, N22B-6M, N22B-7, N22-8M, N22-9M, N22B-11M, N22B-12M, N22B-13M, N22B-15M, N22B-16M, N22-17M, N22B-18M, N22B-19M, N22B-20M, N22B-21M, N22B-22M, N22-23M, N22-24M, N22B-25, N22B-26, N22B-27, N22B-28, N22B-31M, N22B-35 and N22B-39.

Affected aircraft other than those listed above will be modified prior to delivery or included in a subsequent revision to this Service Bulletin.

(2) Spares Affected:

<u>Part Number</u>	<u>Nomenclature</u>	<u>Recommended Disposition</u>
U2100MS2-176	Cable Assy	Scrap
1/N-50-312	Clevis	Scrap

B. Reason

Some Nomad operators have requested advice concerning removal of the propeller brake system from the aircraft, on the grounds that inadvertent movements of the propeller with the brake applied leads to contamination of the oil system and excessive chip warnings due to swarf particles generated by movement of the contacting friction faces of the brake band and drum.

C. Description

This Service Bulletin describes the removal of the propeller brake system, the provision of a propeller restraint system, the installation of placards and the amendments to the flight manual.

D. Compliance

Optional at the discretion and convenience of the operator.

Fitment of the CAUTION placard (Ref. para. 2F) and observance of its instruction is optional for Military aircraft only.

E. Approval

The rework described herein has been approved by the Department of Transport Designated Engineering Representative at Government Aircraft Factories.

F. Manpower

Approximately 4 hours with a crew of one man is required to accomplish this modification.

G. Material-Price and availability

Parts required in para 3A are to be procured from operators stock or local sources.

H. Tooling-Price and availability

None.

I. Weight and Balance

Not affected.

J. References

Maintenance Manual, Chapter 61-30-00 I.P.C.

K. Publications Affected

Flight Manual,  
Maintenance Manual,  
I.P.C.

2. Accomplishment Instructions:

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

Caution: Electrically ground the aircraft.

- A. In the cockpit remove the fuel selector panel, circuit breaker panel and dome light panel from the overhead console.

Remove the inspection panel located at the rear of each PROP BRAKE lever.

Move the PROP BRAKE levers to RUN to release the tension on the brake cable (U2100MS2-176) and disconnect the cable end-fitting from the clevis attached to the lever.

Remove the cabin roof lining between stn 120 and 182 and remove the ferrule holding each brake cable.

Remove the grease nipples and withdraw the cables into the cabin through the holes in the frames.

Remove the clamps securing the cables up to the point of entry into the wing leading edge.

- B. At the left hand and right hand engine remove the pin attaching the clevis (1/N-50-312) to the brake application lever. Unscrew the clevis from the cable.

Stow the brake application lever by loosening the oil tank to allow the lever to rotate forward under the oil tank. Lockwire the lever in that position.

Secure the oil tank back in position.

Remove the clevis pin attaching the brake cable to the nacelle upper yoke.

Remove the collet part No. 1/N-50-168 from the leading edge firewall rib and fill the hole using one each bolt AN3A3, nut MS21044N3 and two each washer AN970-3.

Remove the two "P" clips from the wing front spar and refit the bolts.

Remove the cable from the fairleads at wing stn 0 and just inside the fuselage.

Draw the cable into the fuselage.

- C. In the cockpit, on both sides of the overhead console overpaint the lettering as follows:

- (1) "PROP. BRAKE RUN" becomes "DOOR WARNING ON".
- (2) "PARK" becomes "OFF:."

- D. Reassemble the trim and panels removed for access to the cables.
- E. Manufacture two placards which provide the following warning:

WARNING

BEWARE OF PROP ON EXIT

Attach one placard to each cockpit door so that the warning is clearly visible to the crew.

- F. Manufacture a placard which provides the following caution:

CAUTION

PASSENGERS MUST NOT BE CARRIED IN  
RIGHT HAND CREW SEAT.

Attach the placard to the frame immediately forward of the top forward corner of the right hand cockpit door.

- G. Drill designated holes in the engine nacelle bottom cowl exhaust ducts and manufacture two off propeller restraints for use when parked (Ref. Fig. 1 and 2).
- H. In Section 3 of the Flight Manual incorporate the following amendments:
  - (1) Page 3: After 'NORMAL OPERATING PROCEDURES' insert 'CAUTION, PASSENGERS MUST NOT BE CARRIED IN RIGHT HAND CREW SEAT'.
  - (2) Page 16: After para. 3.26b insert 'WARNING, BEWARE OF PROP ON EXIT'.
  - (3) Pages 6, 7, 16 and 27: Delete PROP BRAKE and insert DOOR WARNING; delete RUN and insert ON; delete PARK and insert OFF.

- I. Modification Action

This Service Bulletin incorporates the intent of modification N29.

3. Material Information

A. Parts Required per Aircraft

<u>NEW PART NO.</u>	<u>QTY.</u>	<u>NOMENCLATURE</u>	<u>OLD PART NO.</u>
AN3-3A	2	Bolt	-
AN970-3	4	Washer	-
MS21044N3	2	Nut	-
-	1	Placard, caution	-
-	1	Placard, warning (RH)	-
-	1	Placard, warning (LH)	-
N-88-155	2	Strap	-
N-88-156	4	Cord, braided rubber	-

B. Parts Required to Modify Spares

None.

C. Removed Parts

<u>PART NO.</u>	<u>NOMENCLATURE</u>	<u>RECOMMENDED DISPOSITION</u>
AN742D5	Clamp	Scrap
MS20392-2C15	Pin	"
MS20392-2C7	Pin	"
MS20392-3C21	Pin	"
MS21919DG6	Clamp	"
MS21919D5	Clamp	Hold as spares
U2100MS2-176	Cable Assy	Scrap
1/N-50-168	Collet	Hold as spares
1/N-50-170	Circlip	" " "
1/N-50-173	Washer	" " "
1/N-50-312	Clevis	Scrap

D. Special Tools

None.

PREPARED BY:

GOVERNMENT AIRCRAFT FACTORIES,

POST DESIGN SECTION.

APPROVED



DESIGN.

20th July, 1977

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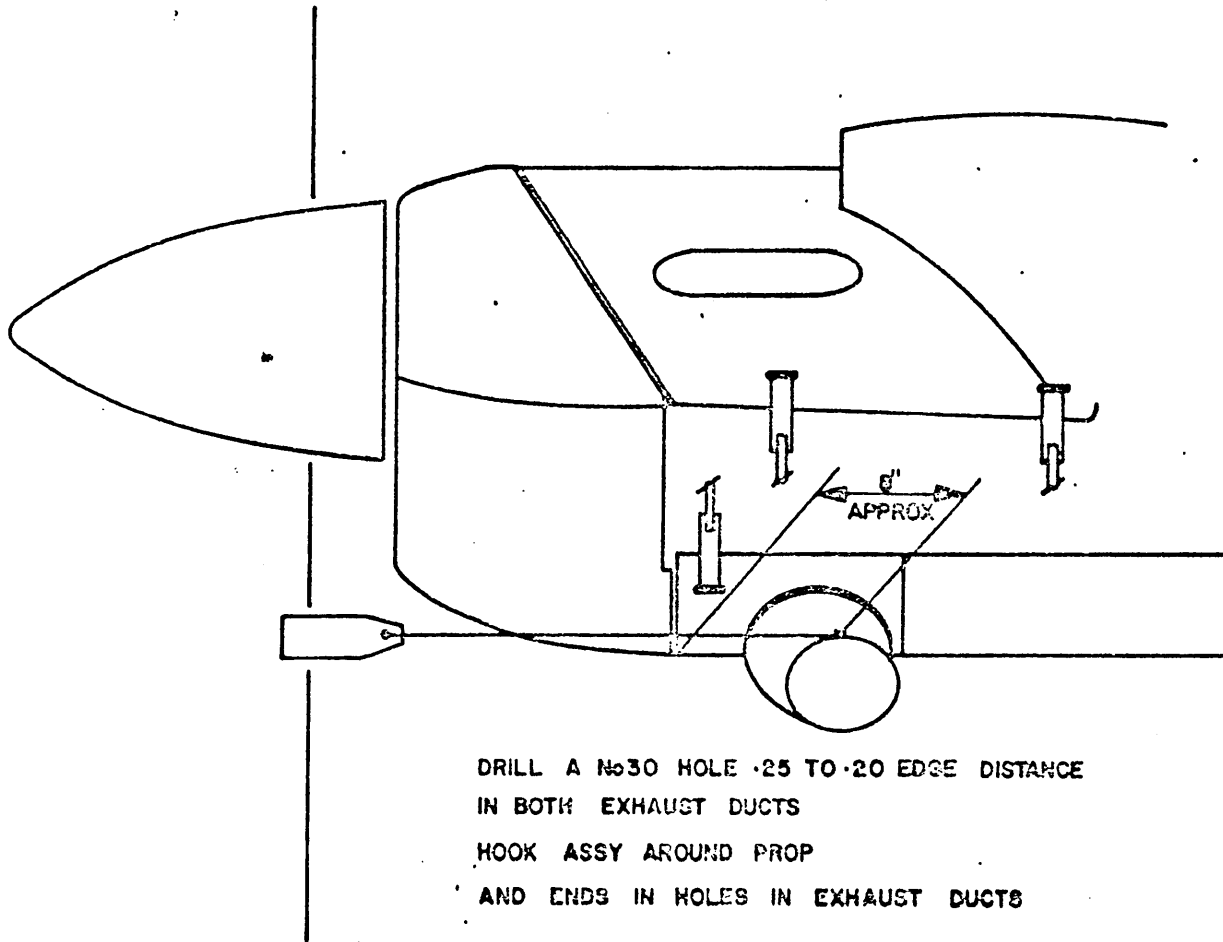


FIGURE 1 PROPELLER RESTRAINT INSTALLATION

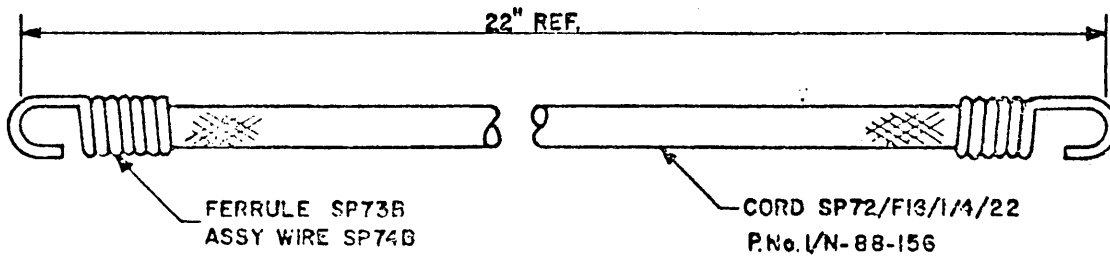
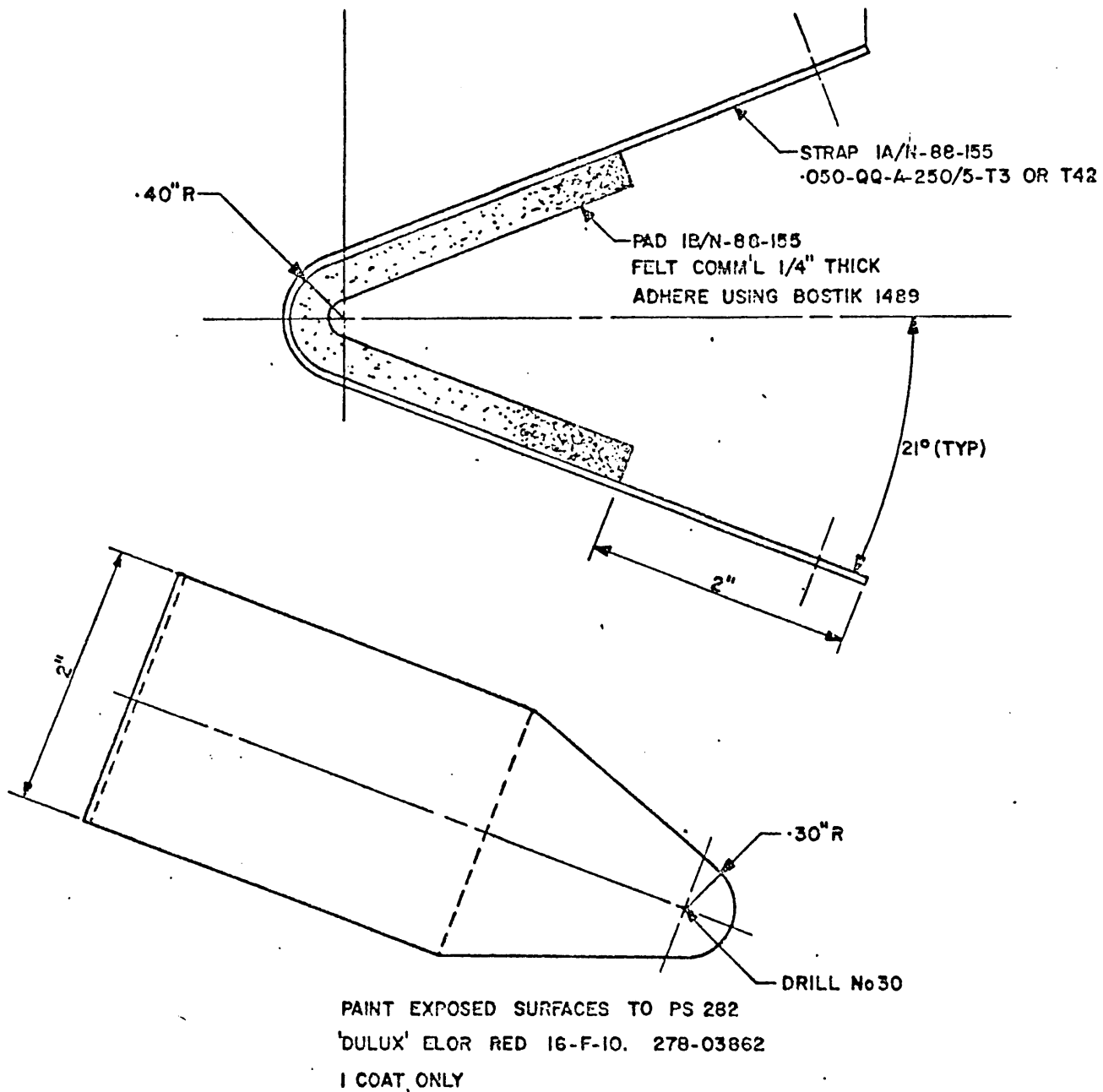


FIGURE 2 PROPELLER RESTRAINT