Reference No. 99

SERVICE BULLETIN

SUBJECT: INSTALLATION OF STOP BRACKET ON EMERGENCY EXIT DOOR OPERATING MECHANISM (MOD N495)

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 N495 or compliance with Service Bulletin NMD-52-4.

Pre-certification implementation of the intent of this service bulletin is recorded in the Airframe Log Book as Mod N495.

(2) Spares Affected

Spare emergency exit doors are to be modified in accordance with Para 2 of this service bulletin.

B. Reason

Isolated instances have been reported in which the latch operating handle of an emergency exit door became incorrectly orientated, and the handle operating sense became reversed.

The problem is believed to be caused when the door trim is removed and the door operating handle is forcibly turned anti-clockwise beyond the fully closed position. When sufficient force is applied to the handle after the mechanism push-rods reach their mechanical stops, flexing of the door structure can allow the mechanism linkage to move to an over-centre condition. The door operating handle will then be 180 degrees from its normal attitude. If an attempt is then made to rectify the problem by simply removing, re-orientating and re-fitting the handle, the mechanism will operate in the wrong sense (tending to open the door when the handle is turned anti-clockwise, and to close it when the handle is turned clockwise).

C. Description

A bracket is manufactured and riveted to the inside of the emergency exit door outer wall. The bracket limits the range of movement of the latch mechanism forward push-rod so that the linkage cannot be forced over-centre. The bracket also serves to prevent cross-connection of the forward and aft pushrods at the latch operating lever during maintenance or repair operations.

D. Compliance

This service bulletin is to be incorporated at the next removal of an emergency exit door or by 1st November, 1981 (whichever is sooner).

E. Approval

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

F. Manpower

Four manhours.

G. Material - Price and Availability

The materials required to comply with this service bulletin (Ref Para 3) are to be procured from operator's stock or local sources.

H. Tooling - Price and Availability

None required.

J. Weight and Balance

Negligible effect.

K. References

M.M. - Maintenance Manual
I.P.C. - Illustrated Parts Catalogue

L. Publications Affected

None.

2. Accomplishment Instructions

A. Manufacture stop bracket P/N NMD-52-4-1 (Ref Figure 1, Detail A).

B. Remove the emergency exit door from the aircraft (Ref MM 52-20-00).

C. Remove the emergency exit door window panel assembly (Ref IPC 52-20-01 Figure 1 Item 4).

D. Place stop bracket P/N NMD-52-4-1 in position (Ref Figure 1), mark its position, then use one of the holes in the stop bracket as a drill guide to drill a 0.1285 inch diameter hole in the door outer wall.

E. Remove the split pin P/N MS24665-151, washer P/N AN960-10L and straight pin P/N MS20392-2C9 (Ref IPC 52-20-01 Figure 1 Items 9, 10 and 11) which attach the latch mechanism forward push rod to the operating lever (Ref IPC 52-20-01 Figure Figure 1 Item 12). Discard the split pin but retain the straight pin and the washer.

F. Hold the stop bracket in the marked position against the inside surface of the emergency exit door outer wall and align the previously-drilled hole in the door panel with the corresponding hole in the stop bracket. Using the other hole in the stop bracket as a drill guide, drill a second 0.1285 inch diameter hole in the door outer wall.

G. Rivet the stop bracket to the emergency exit door outer wall using two rivets P/N MS20470AD4-5 or equivalent.

H. Re-assemble the latch mechanism forward push rod to the operating lever using the original straight pin and washer (Ref Para 2.E) add additional washers P/N AN960-10L as required to eliminate end float in the straight pin then secure with a new split pin P/N MS24665-151.

J. Lubricate the latch pins with grease MIL-G-21164 or equivalent.

K. Operate the emergency exit door handle over its normal range and check that the stop bracket does not interfere with normal operation of the latch pins.

L. Touch up emergency exit door paintwork to match existing paint scheme.

M. Fit the emergency exit door window panel assembly.

N. Install the emergency exit door (Ref MM 52-20-00).

P. Check the operation of the emergency exit door as follows -

(1) Lift the cover and rotate the emergency exit handle in the direction indicated to open the door and check that the emergency exit lock pins withdraw from the door frame by pushing the door outwards at the bottom.

NOTE: It is not necessary to move the door outwards more than 0.5 inches (12 mm) to ensure that the door pins are fully withdrawn. Further movement may fracture the trim panel at the lower edge.

(2) If the operation and release of the door is satisfactory, secure the door in the closed position.

3. Materials Information

A. Parts Required per Aircraft

No kit is issued for the accomplishment of this service bulletin. Operators are to procure the following items from stock or local sources for each emergency exit door to be modified:

Item P/N	Description	Qty
0.050QQ-A-250/5-T3	Aluminium alloy sheet	A/R
-	Aluminium alloy epoxy primer	A/R
MS20470AD4-5	Rivet	2
AN960-10L	Washer, flat	A/R
MS24665-151	Split pin	1
MIL-G-21164	Grease	A/R

B. Parts Modified and Reidentified by the Operator

None.

C. Parts required to Modify Spares

Each spare emergency exit door to be modified requires the items listed in Para 3.A.

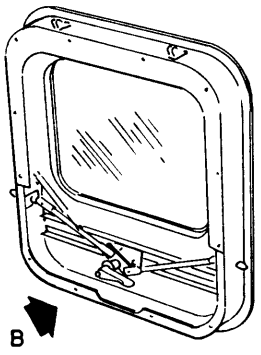
D. Removed Parts

None.

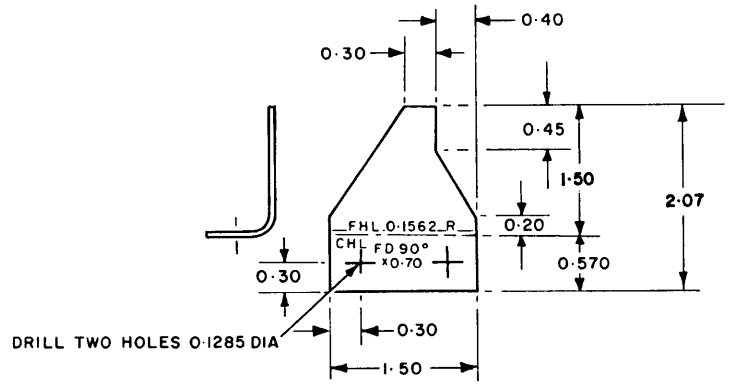
E. Special Tools and Equipment Required

None.

4. Record compliance with Service Bulletin NMD-52-4 in the Airframe Log Book.



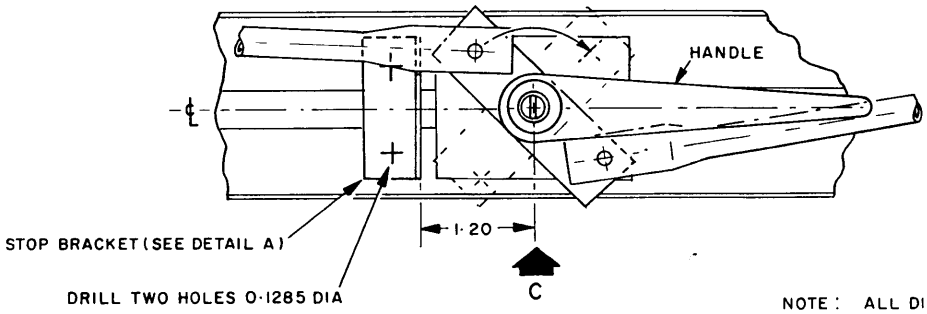
EMERGENCY EXIT DOOR



MATERIAL: 0·050 QQ-A-250/5-T3
COAT WITH EPOXY PRIMER

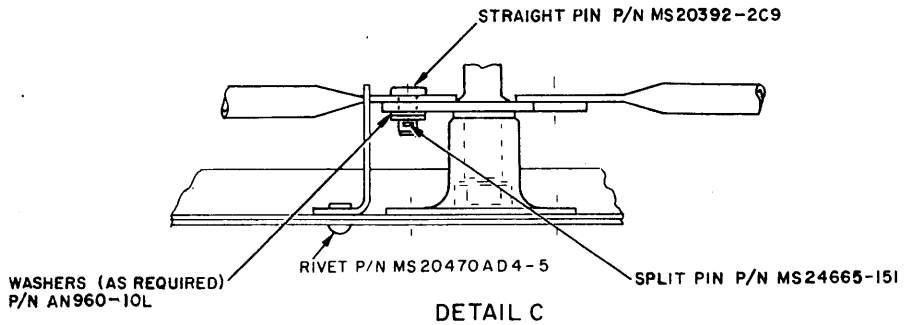
DETAIL A

MANUFACTURING DETAILS FOR
STOP BRACKET P/N NMD-52-4-1



DETAIL B

NOTE: ALL DIMENSIONS IN INCHES
UNLESS OTHERWISE STATED



DETAIL C
(LEG OF NEAREST ANGLE OMITTED FOR CLARITY)

Manufacture and Installation of Stop Bracket (Mod N495) Figure 1