Nomad
SERVICE BULLETIN

Reference No. 190

TRANSMITTAL SHEET FOR NOMAD SERVICE BULLETIN

SERVICE BULLETIN NO: NMD-28-12 DATED: 22nd November, 1980

TITLE: Fuel - Introduction of Dual Commutator Fuel Boost Pumps (Modification N313)

REVISION NO: 1 DATE: 17th January 1990

ACTION: Insert Service Bulletin NMD-28-12, Revision 1 into Service Bulletin publication and annotate index accordingly.

REASON: Effectivity of the original Service Bulletin has been revised to include all Nomad N22-Series aircraft and all Nomad N24-Series aircraft whose log books do not already record the embodiment of Modification N313 or compliance with Service Bulletin NMD-28-12

REMARKS:

Nomad
SERVICE BULLETIN

FUEL-INTRODUCTION OF DUAL COMMUTATOR FUEL BOOST PUMPS (MODIFICATION N313)

1. PLANNING INFORMATION

A. Effectivity

(1) Aircraft Affected

(a) All Nomad N22-Series Aircraft whose log books do not already record the embodiment of Mod N313 or compliance with Service Bulletin NMD-28-12.

(b) All Nomad N24-Series Aircraft whose log books do not already record the embodiment of Mod N313 or compliance with Service Bulletin NMD-28-12.

Pre-certification implementation of the intent of this Service Bulletin is recorded in the airframe log book as Mod N313.

(2) Spares Affected

Nomenclature	Part Number	Recommended Disposition
Inboard Sump Lid	1/N-57-167	* Scrap
Fuel Boost Pump	1C6-2)	Retain as
	1C6-14)	spares

* Scrap after flap valves P/N 1/N-57-135 (2-off) and 1/N-57-136 (2-off) have been removed (Ref Para 2 (5)).

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B. Reason

The manufacturer has advised that production of fuel boost pumps P/N 1C6-2 (1C6-14 ALT) has ceased. The item is replaced by fuel boost pump P/N 2C6-2. Fitment of a modified inboard fuel tank sump lid assembly is necessary to accommodate the longer type fuel boost pump introduced by Modification N313.

C. Description

Fuel boost pumps P/N 1C6-2 and 1C6-14, when life expired or unserviceable, are to be replaced by dual commutator fuel boost pumps P/N 2C6-2. A modified fuel sump lid P/N 1/N-57-348 is provided to accommodate the increased length of the new pumps.

NOTE: the following combination of fuel boost pumps per tank may be used when the modified fuel sump lid is fitted.

(1)	P/N 1C6-2 (ALT 1C6-14)	-	2 off
(2)	P/N 1C6-2 (ALT 1C6-14)	-	1 off
	P/N 2C6-2	-	1 off
(3)	P/N 2C6-2	-	2 off

D. Compliance

Recommended.

E. Approval

The modification detailed herein has been approved pursuant to Civil Aviation Regulation 35 and conforms with the type certification requirements.

F. Manpower

20 manhours, or four manhours when performed at a scheduled tank inspection (E check).

G. **Material - Price and Availability**

Prices and availability of parts identified in para 3A(1) are available on request to ASTA, through the operators distributor.

Distributors are to place a purchase order on ASTA through the normal procurement method. Purchase orders are to quote the Service Bulletin Number.

H. **Tooling - Price and Availability**

Nil.

J. **Weight and Balance**

Weight and balance variations are as follows:

N22 Series: + 1.27 kg (2.8 lb)	N24 Series: 1.27 kg (2.8 lb)
Moment / 1000 6.47 kgmm (.56 lbin)	Moment / 1000 7.37 kgmm (.64 lbin)

K. **References**

M.M	-	Maintenance Manual Chapters
I.P.C.	-	Illustrated Parts Catalogue
I.R.M.	-	Inspection Requirements Manual

L **Publications Affected**

Illustrated Parts Catalogue
Wiring Diagram Manual
Inspection Requirements Manual

2. **ACCOMPLISHMENT INSTRUCTIONS**

(1) Drain the LH fuel tanks (Ref M.M. 12-10-00 Maintenance Practices).

CAUTION: THE FUEL TANK BAY DOORS FORM PART OF THE STRESSED WING AREA. BEFORE REMOVING A TANK BAY DOOR, THE WING AND ENGINE MUST BE ADEQUATELY SUPPORTED USING SUITABLE TRESTLES.

NOTE: Support both sides if both LH and RH inboard fuel tanks are being reworked at the same time (Ref M.M. 28-10-00 Maintenance Practices).

(2) Jack and shore the aircraft (Ref M.M. 7-00-00).

NOTE: On completion of step (1) support the engine nacelles by placing a well padded beam, mounted on a support stand, underneath each nacelle bottom yoke.

(3) Remove the LH Wing inboard fuel tank (Ref M.M. 28-10-00 Maintenance Practices).

(4) Remove the assembly of the internal stiffening ring P/N 1/N-57-127, sump lid assembly P/N 1/N-57-168 and the sump mounting ring P/N DC4384 (Ref M.M. 28-10-00 Maintenance Practices Fig 201) from the tank.

CAUTION: THE SUMP LID FLAP VALVES ARE HANDED, NOTE THE DISPOSITION OF THE VALVES TO ASSIST IN FITTING THE VALVES TO THE MODIFIED SUMP LID.

(5) Drill out the 3/32 in dia rivets attaching the flap valves (P/N's 1/N-57-135 and 1/N-57-136) to the sump lid and remove the valves from the lid. Retain serviceable valves for fitment to the modified sump lid P/N 1/N-57-348 (ref step (9)).

(6) Carefully break the seal between the sump mounting ring and the sump lid then remove the mounting ring from the lid.

(7) Clean the mating surfaces of the modified sump lid assembly P/N 1/N-57-348 and the sump mounting ring with an oil-free solvent (for example petroleum ether), then dry with a clean cloth.

(8) Apply a thin coating of PR1221 (A or B) or PR 1422 (A or B) to the cleaned mating surfaces and assemble the modified sump lid to the sump mounting ring and press firmly together. Clean off any excess sealing compound.

CAUTION: THE SUMP LID FLAP VALVES ARE HANDED, NOTE THE DISPOSITION OF THE VALVES TO ASSIST IN FITTING THE VALVES TO THE MODIFIED SUMP LID.

Assemble the flap valves to the modified sump lid P/N 1/N-57-348 using rivets P/N MS20470A3-5. Set the flap valves tag to obtain the angle shown in Figure 1. Re-identify the sump lid assembly by marking the new part number 1/N-57-349 in ink at the position shown in Figure 1.

(10) Install the internal stiffening ring on the sump mounting ring studs. Fit the assembly into the tank so that the domes of the sump lid are positioned to accept the pumps. Ensure that with the assembly correctly located, the sump mounting ring studs protrude through the stud holes in the tank fabric and the supporting wing structure metal diaphragm.

(11) Remove the fuel boost pumps P/N 1C6-2 or 1C6-14 (if life expired or unserviceable), from the sump (Ref M.M. 28-20-00 Maintenance

NOTE: Fuel boost pumps P/N IC6-2 IC6-14 may be left installed until they become life expired or unserviceable at which time they are to be replaced by fuel boost pumps P/N 2C6-2.

(12) Install the dual commutator fuel boost pumps P/N 2C6-2 to the sump (Ref M.M. 28-20-00 Maintenance Practices). Record pump serial numbers in the aircraft log book as necessary.

NOTE: The installation procedure for the dual commutator fuel boost pump is the same as for fuel boost pump P/N 1C6-2 or 1C6-14.

(13) Install the LH wing inboard fuel tank (Ref M.M. 28-10-00 Maintenance Practices Para 1B).

NOTE: (a) Fit new "Thredseal" washers P/N 7500-1/2 (26 off) when refitting the sump, and after torque tightening the sump attachment nuts clean off any excess sealing compound.

(b) Before fitting the tank bay door (Ref Para 1B step (14)) check the condition of the sealant on the tank bay door supporting structure and renew or repair the seal as necessary. If the sealant has to be renewed or repaired clean the damaged area with an oil free solvent (for example petroleum ether), dry with a clean cloth and apply a coating of PR1221 to the cleaned surfaces. Wax the surfaces of the door, coming into contact with the sealing compound, with Johnsons 'Durasil' (or equivalent to prevent the door from sticking to the sealing compound, then fit the door.

(14) Repeat step (1) to (13) to the RH wing inboard fuel tank to complete the embodiment of Modification N313.

3. MATERIAL INFORMATION

A. Parts required per Aircraft

(1) The following parts are available from ASTA (Refer Para 1G).

Part No.	Nomenclature	Qty per Aircraft
1/N-57-348	Inboard Sump Lid	2
2C6-2	Fuel Boost Pumps	4

(2) The following parts are to be procured from local sources or operators stocks.

Part No.	Qty	Nomenclature
PR1221 (A or B)	AR	Sealing Compound
OR		
PR1422 (A or B)	AR	Sealing Compound
	AR	Oil-free Solvent (e.g. Petroleum Ether)
	AR	Johnsons "Durasil" or equivalent
MS20470A3-5	16	Rivet, Universal head, 3/32 in dia
7500-1/4	52	"Thredseal" washer (Parker Seal Co., Cleveland, Ohio, USA)
1/N-57-135	*4	Flap Valve
1/N-57-136	*4	Flap Valve

* The number of valves to be procured may be less than four depending on the number or serviceable valves removed from the redundant sump lid (Ref Para 2 (5)).

B. Parts Required to Modify Spares

Not applicable.

C. Parts Removed

Part No.	Qty	Nomenclature	Recommended Disposition
1/N-57-168	2	Inboard Sump Lid Assembly	Scrap (Ref Note)

NOTE: Flap valves P/N's 1/N-57-135 and 1/N-57-136 are to be removed from the redundant sump lid and retained if serviceable for assembly to the modified sump lid P/N 1/N-57-348 (Ref Para 2 Steps (5) and (9)).

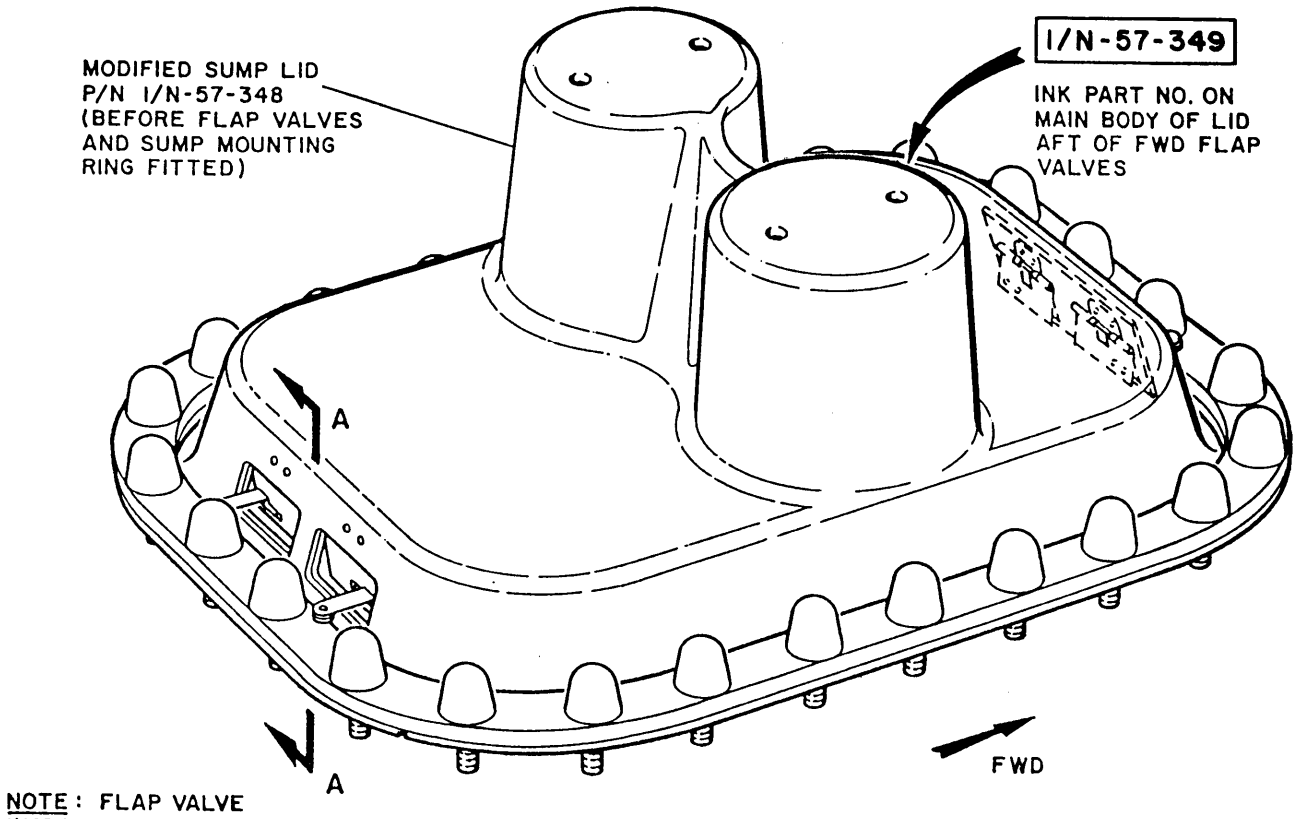
D. Special Tools and Equipment Required

None

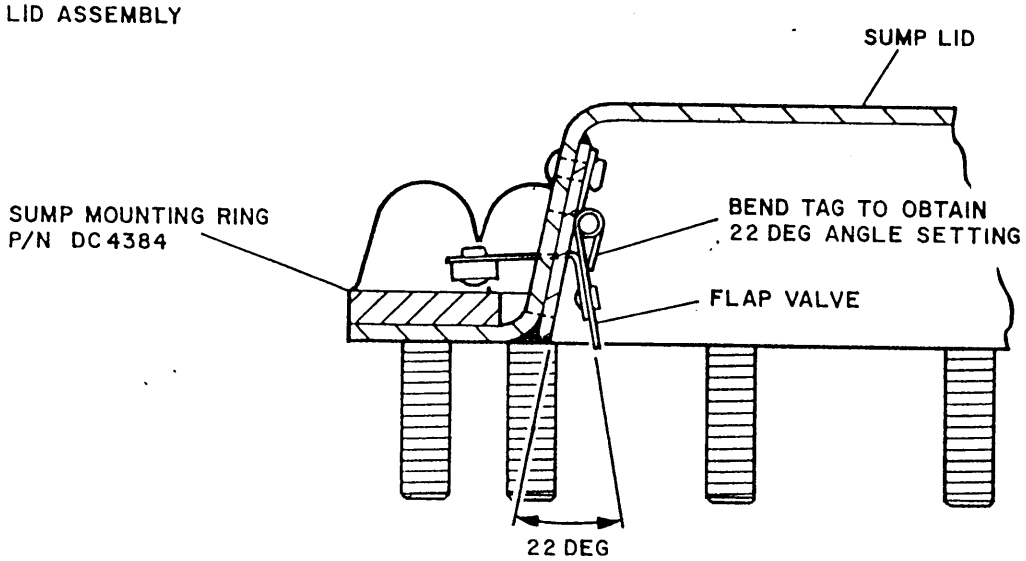
4. **RECORDING ACTION**

Record compliance with Service Bulletin NMD-28-12 Rev 1 in the airframe log book.

Aircraft modified to original issue of this Bulletin do not require recertification.



NOTE: FLAP VALVE INSTALLATION SIMILAR AT FWD END OF SUMP LID ASSEMBLY



SECTION A-A
SCRAP VIEW

MODIFIED SUMP LID ASSEMBLY
Figure 1