

RESTRICTED

AL No 430
(Fuel System - Filter
1857/1777A - intro)

AP 4781A Vol 2
Leaflet No H13

Gnat T Mk 1 Aircraft - Fuel System to introduce Improved Filter Part No 1857/1777A (Ref No 26DN/NIV) in place of Filter Part No 1857/801A (Ref No 26DN/3036) in No 1 Fuel Tank.

(Mod No Gnat/704)

(Class B/2)

(AB/A/24015.-14.6.71)
(ADP No GNO70400)

1. INTRODUCTION

As a protection against foreign bodies affecting the closure of the inverted flight valve in the No 1 fuel tank, a larger filter having a finer mesh gauge replaces the existing filter on the tank supply pipe connection.

(1) This modification does not supersede, partially supersede or satisfy the work called for by any other modification, Command Modification, SRIM or Special Instruction (Technical).

(2) This modification is also applicable to Gnat T 185D Aircraft.

2. EMBODIMENT

This modification is to be embodied as directed by Command Headquarters.

3. APPROXIMATE TIME REQUIRED FOR EMBODIMENT

The work will take approximately 18 man hours. (3 to strip; 12 to embody; 3 to reassemble) plus normal testing time.

4. DRAWING REQUIRED

No drawings are required for the embodiment of this modification.

5. PARTS AND SPECIAL TOOLS REQUIRED

(1) Parts and/or materials

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(a) The modification kit which consists of the following items will be assembled by No 16 Maintenance Unit under Ref No 26DN/100704.

(i) Items supplied by the Contractor:-

<u>Ref No</u>	<u>Part No</u>	<u>Nomenclature</u>	<u>Qty</u>	<u>Class of Equipment</u>
26DN/NIV Comprising:-	1857/1777A	Filter Assy	1	C
(26DN/1498002	1857/1777C	Sub Assy Filter	1	
(26DN/1498003	1857/1779A	Bottom Flange	1	
(26DN/1498004	1857/1791A	Special Clip	1	
26DN/6240	1357/1209	Gasket	1	C
28M/9433473	AGS.2001.C.1	Stiffnut	24	C
28F/9429636	AGS.1186.3	Bonded Seal	24	C
26DN/6257	1857/1273	Gasket	2	C

(ii) Service Supply Items

Nil

All the above items will be issued on issue order to RAF Units at home and those overseas units on direct resupply, no demands are to be submitted. RAF units abroad and all other users are to demand separately their requirements of kits as listed in sub para (a) above, in accordance with current regulations

(b) The following material is to be provided under Unit arrangements.

<u>Ref No</u>	<u>Part No</u>	<u>Nomenclature</u>	<u>Qty</u>	<u>Class of Equipment</u>
30A/9437135		22G Stainless Steel Locking Wire Specn DTD 189A	A/R	C

(2) Special Tools and/or Test Equipment

No special tools or test equipment are required for the embodiment of this modification.

6. MODIFICATION OF SPARES

The following list shows the spare affected by this modification:-

<u>Ref No</u>	<u>Part No</u>	<u>Nomenclature</u>	<u>Qty</u>	<u>Class of Equipment</u>
26DN/3036	1857/801A	Filter Assy	1	C

This part cannot be modified.

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7. CHANGE OF REFERENCE, PART AND ASSEMBLY NUMBERS

The embodiment of this modification changes Reference, Part and Assembly numbers as follows:-

<u>Old</u>			<u>New</u>	
<u>Ref No</u>	<u>Part/Assy No</u>	<u>Nomenclature</u>	<u>Ref No</u>	<u>Part/Assy No</u>
26DN/3036	1857/801A	Filter Assy	26DN/NIV	1857/1777A

8. SEQUENCE OF OPERATIONS

The following is the sequence of operations.

Note: Before any electrical circuit is disturbed or disconnected, all electrical power supplies in to or from the aircraft are to be disconnected. Power supplies are to be reconnected only when the person responsible for embodying or inspecting the modification is satisfied that all action has been taken to make the aircraft safe for reconnection.

- (1) De-fuel the aircraft (AP 101B-1801-A) (Sect 2, Chap 2, paras 10 and 13 refer).
- (2) Remove the main hatch from the underside of the aircraft.
- (3) Locate the fuel booster pump (Ref No 5UE/9332) situated at underside of No 1 centre tank between frames 14 and 15. Disconnect the electrical connection from the pump, remove the fuel delivery pipe 1857/49, remove the drain pipe 1857/993, and retain. Remove the 18 nuts and seals holding the pump and discard. Withdraw the pump and inverted flight valve and retain, remove the gasket 1357/1209 and discard. Clean the face of tank where gasket has been removed.
- (4) Remove 6 nuts and seals holding the adjacent inlet fuel pipe 1857/49 to the tank, disconnect this pipe at the coupling and retain, then remove the 2 gaskets 1857/1273 and the filter assembly 1857/801A from the tank aperture and discard, clean the face of the tank where gasket has been removed.
- (5) From the Modification Kit take the filter assembly 1857/1777A and detach the special clip 1857/1791A and the bottom flange 1857/1779A. Assemble one gasket 1857/1273 to studs at this aperture then assemble the bottom flange 1857/1779A with tube portion protruding into tank, assemble a further gasket 1857/1273 and replace the fuel pipe 1857/49 to tank studs. Fit new scale AGS.1186.3. 6 off and stiffnuts AGS.2002.C.1 6 off. Reconnect pipe at the coupling.

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(6) Working through pump aperture assemble the filter 1857/1777C and clip 1857/1791A inside the tank onto the bottom flange 1857/1779A ensure the spigots on the clip engage in the slots on the filter base and the bottom flange and tighten up the clip using a hooded jubilee clip screwdriver taking care to avoid damage to the bag tank.

(7) Reassemble the fuel pump and inverted flight valve using a new gasket 1357/1209, new seals AGS.1186.3 18 off and stiffnuts AGS.2002.C.1 18 off. Refit all pipes and remake all bonding and electrical connections. Lock fuel and drain pipe connections with 22G stainless locking wire DTD 189A.

(8) Replace the main hatch.

(9) Refuel the aircraft (AP 101B-1801-A Sect 2, Chap 2, para 10 refers).

9. SPECIAL TESTS AFTER EMBODIMENT

When this modification has been embodied and inspected carry out functional tests of all systems which have been disturbed for the purpose of embodying this modification in accordance with current testing instructions.

10. RECORDING ACTION

When this modification has been embodied and inspected record on Aircraft Form 700.

11. DISPOSAL OF REDUNDANT PARTS

The undermentioned part rendered redundant by the embodiment of this modification is to be disposed of as scrap in accordance with AP 830 Vol 1 (5th Edition) Leaflet A19/1.

<u>Ref No</u>	<u>Part No</u>	<u>Nomenclature</u>	<u>Qty</u>	<u>Class of Equipment</u>
26DN/3036	1857/801A	Filter Assy	1	C

12. EFFECT ON WEIGHT AND MOMENT

This modification causes a change in the Basic Weight of plus 0.4 lb with a change in moment of 78 lb ins. about the C.G. datum.

13. EFFECT ON AIRCRAFT OR EQUIPMENT OPERATION AND HANDLING

This modification does not affect the operation or handling of the aircraft or equipment.

14. EFFECT ON SERVICING AND ON GROUND SUPPORT EQUIPMENT

This modification does not affect the servicing or ground servicing equipment.

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AL No 435
(Fuel System - Filter
1857/1777A - intro)

AP 101B-1801-2,
Leaflet No H 13
(Alteration 1)

Gnat T Mk 1 Aircraft - Fuel System - To introduce Improved Filter
Part No 1857/1777A (Ref No 26DN/NIV) in place of Filter Part No
1857/301A (Ref No 26DN/3036) in No 1 Fuel Tank.

(AB/A/24015.-24.11.71)

(ADP No GNO70401)

1. AP 101B-1801-2, Leaflet No H13 (Mod No Gnat/704) is amended
as follows:-

(1) ADP No

Amend 8th Character from "O" to "1".

(2) Para 5 (1)(a)(i)

Amend Part No AGS 2001.C.1 to read AGS 2002.C.1.

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