

Chap 4 PROPULSION

HUNTER ALL MARKS

AP101B-1300-5A2  
1st Edition  
Section 2

AL 19

REPLENISHMENTS

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PF 144/144A

16

1934

1875-1876-1877

69

ITEM NO	ITEM	OPERATION	OPERATOR
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Fuel System Refuelling

1.1	Battery master switch.	Ensure set to 'OFF'.	Propulsion
1.2	External power supply.	(i) Connect. (ii) Switch on.	"
1.3	Fuel gauges.	Record contents indications.	"
1.4	External power supply.	(i) Switch off. (ii) Disconnect.	"
1.5	Refueller.	(i) Ensure trailing strap in contact with ground. (ii) Ensure bonding lead connected to aircraft earth bolt.	"
1.6	Defuelling cock.)	Ensure set to 'OFF'	"
1.7	LP Fuel cock. )		
1.8	Refuelling pressure relief valves. (stud wing).	Ensure free to operate.	"
1.9	Refuelling coupling sealing cap. (Pt wheel compartment).	Remove.	"
1.10	Refueller hose.	Connect.	"

NB: Sub item 1.11 is applicable to post CM/HUNTER/20A only.

1.11	Drop tank selector switches. (Port and starboard wheel wells). Select required range as follows:-
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ITEM NO	ITEM	OPERATION	OPERATOR
	(a) <u>Short Range</u>		
	Both switches ) port. ) Both switches ) stbd. )	Set to 'OFF'.	
	(b) <u>Medium Range</u>		
	In board switch) port. ) In board switch) stbd. )	Set to 'ON'	
	(c) <u>Long Range</u>		
	Both switches ) port. ) Both switches ) stbd. )	Set to 'ON'	
NB1:	During item 2 rate of refuelling is not to exceed 150 gall/min at 40 lbf/in <sup>2</sup> . If pressure is progressively reduced during refuel this will minimise venting.		
NB2:	The aircraft will refuel and cease refuelling when the selected capacity has been attained.		
2.	<u>Refuelling</u>		
2.1	Time switch.	Set to 'ON'.	Propulsion
2.2	Refueller control.	Set to 'REFUEL'	"
2.3	Refueller pump.	Set to 'ON'	"
3.	<u>General</u>		
3.1	Refueller hose.	Disconnect	"
3.2	Refuelling coupling sealing cap.	Refit	"
3.3	Refueller bonding lead.	Disconnect from aircraft earth bolt.	"
3.4	MOD F700 Replenishment record	Record amount of fuel put in. (From refueller gauge).	"
3.5	Fuel reconciliation checks.	Carry out.	"

Fuel Reconciliation Check

This check is to be carried out after every refuelling operation as follows:

- a. Note the contents indications on the aircraft fuel gauges before the refuel operation.
- b. From the contents noted at a. calculate the amount of fuel necessary to bring the aircraft to its required fuel state.
- c. Refuel the aircraft.
- d. The difference between the bowser fuel gauge reading and the calculated figure at b. is the fuel discrepancy.

Express the fuel discrepancy as a % of the total fuel gain. Record the fuel discrepancy on the F.705.

Maximum fuel discrepancy for the Hunter aircraft is 5%. If the discrepancy calculated is in excess of 5%, report this fact to the NCO IC Servicing.

Fuel Reconciliation Check Examples

EG 1.

(a) Fuel gauges in aircraft read	1000 lbs
(b) Fuel state required is	4960 lbs
(c) Calculated fuel required is	3960 lbs
(d) After refuel, refueller gauges read	3850 lbs

$$\begin{array}{r} \text{Fuel Discrepancy} = 3960 \\ -3850 \\ \hline 110 \text{ lbs} \end{array}$$

$$\begin{array}{r} \text{Difference \%} = \frac{110}{3850} \times 100 = \underline{\underline{2.8\%}} \text{ APPROX} \end{array}$$

EG 2.

(a) Fuel gauges in aircraft read	1000 lbs
(b) Fuel state required is	4960 lbs
(c) Calculated fuel required is	3960 lbs
(d) After refuel, refueller gauges read	3740 lbs

$$\begin{array}{r} \text{Fuel Discrepancy} = 3960 \\ -3740 \\ \hline 220 \text{ lbs} \end{array}$$

$$\begin{array}{r} \text{Difference \%} = \frac{220}{3740} \times 100 = \underline{\underline{5.8\%}} \text{ REQUIRES} \\ \text{Fuel Put In} \qquad \qquad \qquad \qquad \qquad \qquad \text{INVESTIGATION} \end{array}$$

**FUEL DISCREPANCY CONVERSION CHART**

TOTAL FUEL PUT IN/TAKEN OUT (LBS)

FROM BOWSER GAUGE

500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 6500

5% 4% 3% 2% 1%

350

300

250

200

150

100

50

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B

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DISCREPANCY  
REQUIRES  
TAKEN OUT

8A

ITEM NO	ITEM	OPERATION	OPERATOR
<u>Fuel System - Defuelling</u>			
1.	<u>Preparation</u>		
1.1	Refueller.	(i) Ensure trailing strap in contact with ground. (ii) Ensure bonding lead connected to aircraft earth bolt.	Propulsion
1.2	Refuelling coupling sealing cap. (Port wheel compartment).	Remove.	"
1.3	Refueller hose.	Connect.	"
1.4	LP Fuel cock.	Ensure set to 'OFF'.	"
1.5	Defuelling cock.	Set to 'ON'.	"
1.6	External air pressure & supply.	(i) Connect to aircraft spine connection. (ii) Apply pressure. (10 lbf/in <sup>2</sup> max).	"
2.	<u>Defuelling</u>		
2.1	Refueller control.	Ensure set to 'DEFUEL'.	"
2.2	Refueller pump control.	Ensure set to 'ON'.	"
2.3	Aircraft fuel system.	Defuel.	"
2.4	Refueller pump control.	Ensure set to 'OFF'.	"
2.5	Defuelling cock.	(i) Set to 'OFF'. (ii) Lock.	"
3.	<u>General</u>		
3.1	Battery master switch.	Ensure set to 'OFF'.	"

ITEM NO	ITEM	OPERATION	OPERATOR
3.2	External power supply.	(i) Connect. (ii) Switch on.	Propulsion "
3.3	Fuel gauges.	Ensure contents indication reads 'ZERO'.	"
3.4	External power supply.	(i) Switch on. (ii) Disconnect.	"
3.5	External air pressure supply.	(i) Turn off. (ii) Disconnect from aircraft.	"
3.6	Refueller hose.	Disconnect.	"
3.7	Refuelling coupling sealing cap.	Refit.	"
3.8	Refueller bonding lead.	Disconnect from aircraft earth bolt.	"
3.9	MOD F700 Replenish- ment record.	Record amount taken out. (From refueller gauge).	"



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