

CF-105 SERVICE DATA

Fuel System

CONFIDENTIAL

CF-105 SERVICE DATA

FUEL SYSTEM

Section 15

TABLE OF CONTENTS

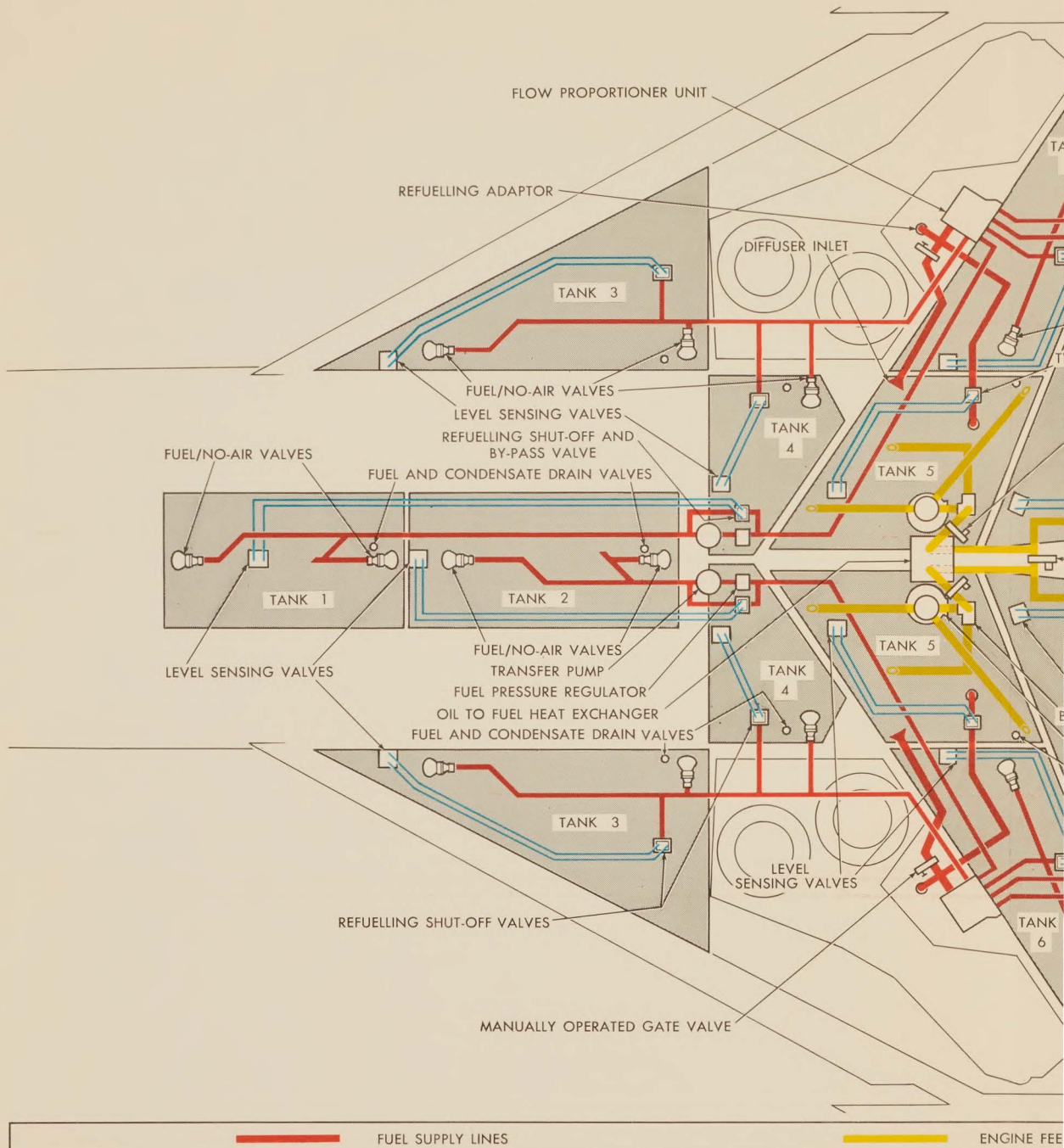
TITLE	PAGE
SYSTEM SERVICE DATA	
DESCRIPTION	
General	5
Tank Pressurization	5
Fuel Transfer	6
Engine Feed	7
Refuelling	7
Defuelling	8
FUNCTION TESTING	(To be issued later)
INSPECTION	(To be issued later)
COMPONENT SERVICE DATA	
Cell - Fuel No. 1	9
Cell - Fuel No. 2	11
Filter - Hot Air	13
Valve - Differential Air Pressure Regulator	15
Flow Limiter (Differential Regulator)	17
Flow Limiter (Fuselage Tank Supply)	19
Valve - Differential Air Relief	21
Valve - Absolute Air Pressure Regulator	23
Flow Limiter (Absolute Regulator)	25
Valve - Absolute Air Relief	27
Valve - Servo Pressure Regulator	29
Valve - Air/No-Fuel - Upper	31
Valve - Air/No-Fuel - Lower	33
Valve - Negative 'G' and Low Level Air Admission	35
Valve - Air Release	37
Unit - Flow Proportioner	39
Valve - Fuel/No-Air	41
Pump - Fuel Transfer	43
Valve - Fuel Pressure Regulator	45
Switch - Low Level Warning	47
Pump - Fuel Booster	49
Valve - Booster Pump By-pass	51
Valve - Fuel Feed Control	53
Adaptor - Refuelling	55
Cap - Refuelling Adaptor	57
Valve - Gate Manually Operated	59
Valve - Refuelling Shut-off	61
Valve - Two Way Shut-off	63
Valve - Two Way Shut-off and By-pass	65
Valve - Level Sensing	67
Valve - Fuel and Condensate Drain (Fuselage Tanks)	69

LIST OF ILLUSTRATIONS

FIGURE	TITLE	PAGE
1	Fuel System - Fuel Flow Schematic	3
2	Fuel System - Tank Pressurization Schematic	4

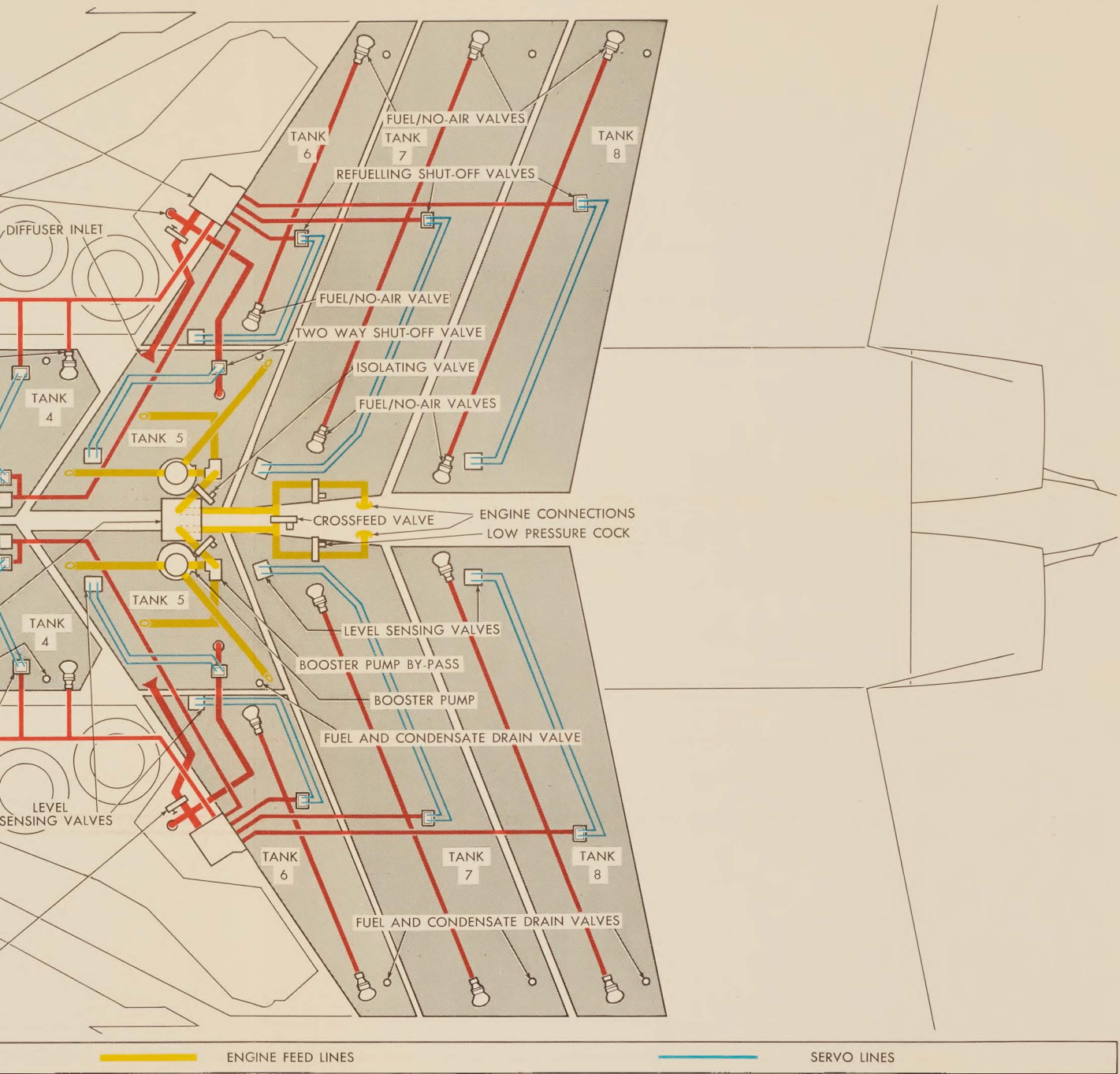
CF-105 SERVICE DATA

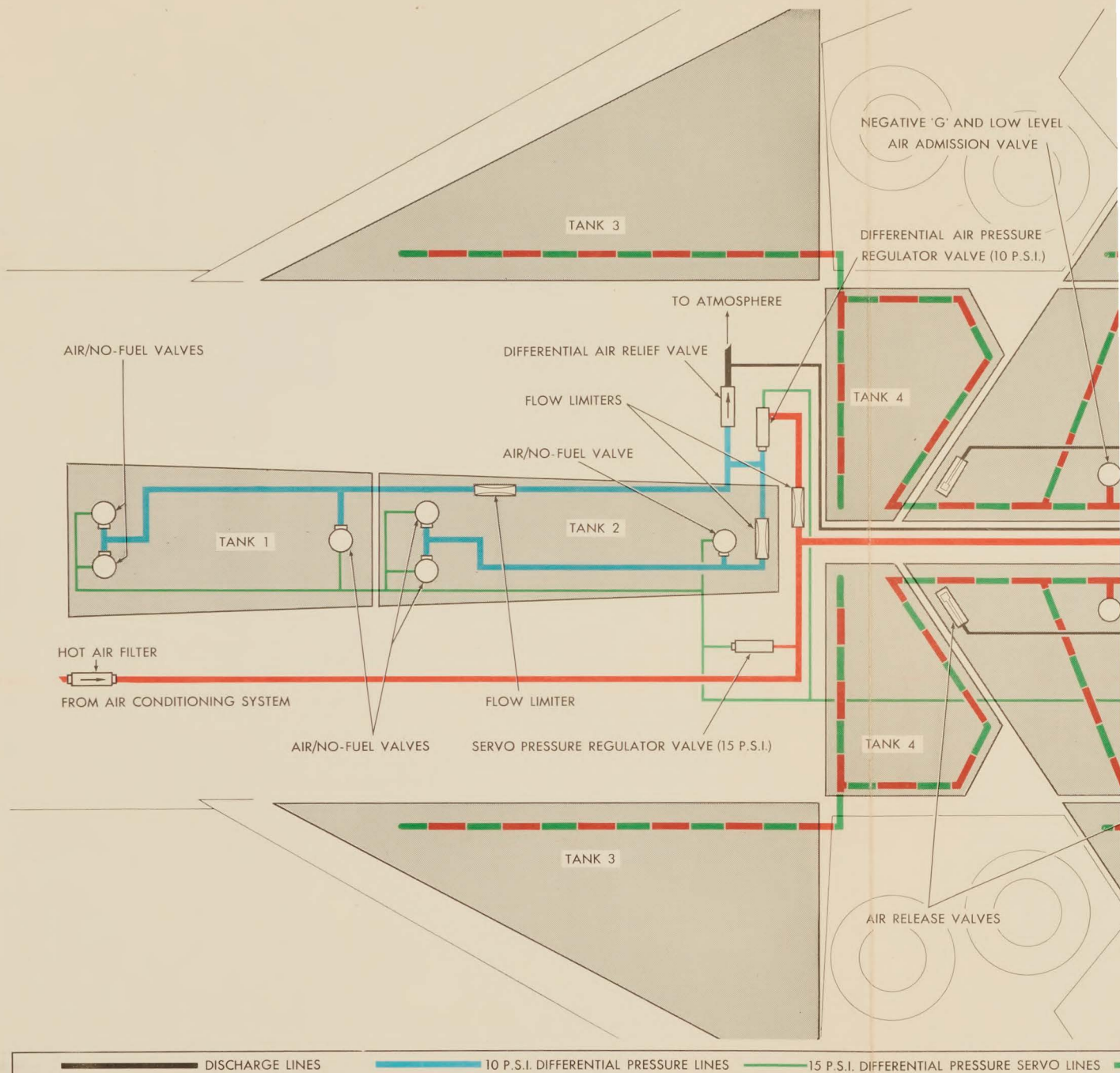
COMPONENT DATA SHEET



7M1-3402-2

FIG. 1 FUEL SYSTEM - FUEL FLOW SCHEMATIC





7M1-3401-2

CF-105 SERVICE DATA

COMPONENT DATA SHEET

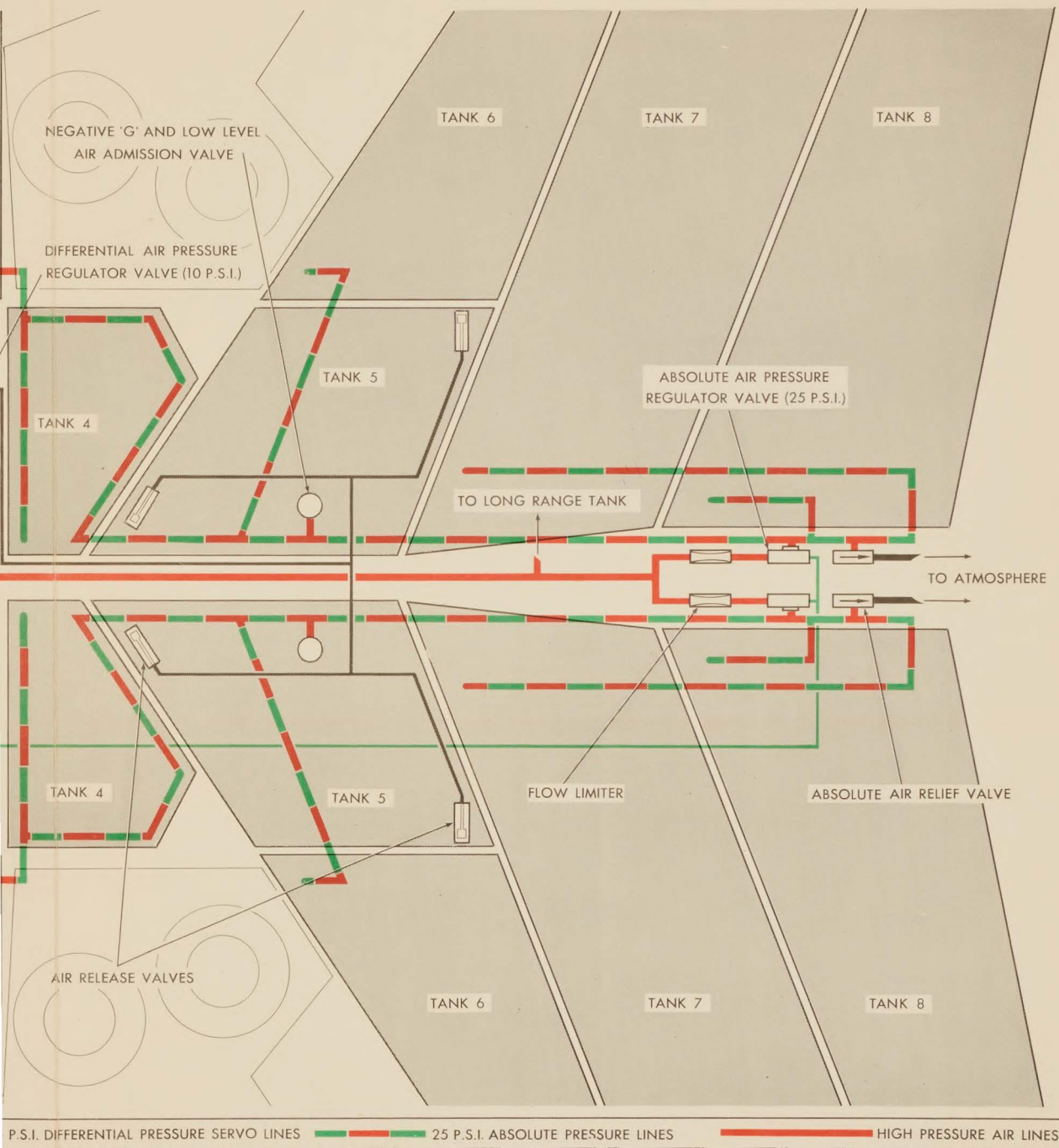


FIG. 2 FUEL SYSTEM-TANK PRESSURIZATION SCHEMATIC

CF-105 SERVICE DATA

SYSTEM DATA SHEET

SYSTEM	SUB-SYSTEM		AIRCRAFT EFFTY	REF. NO.
FUEL SYSTEM			25201	16
<p style="text-align: center;">DESCRIPTION</p> <p>General</p> <p>1. Fuel is contained in 14 tanks, two being installed in tank bays in the centre fuselage and six built integrally with each side of the inner wing. The fuselage tanks are of rubber cell type. The forward fuselage tank is Tank 1 and the aft fuselage tank is Tank 2. The wing tanks at each side are numbered 3, 4, 5, 6, 7 and 8. Each Tank 5 is a collector tank. The fuel passes from each collector tank to its respective engine. Provision is made for fitting a single long range tank below the fuselage.</p> <p>2. The quantity of fuel in each side of the system is registered on two gauges in the front cockpit. The total capacity of internally carried fuel is 2544 gallons (3064 U.S.) 19,433 lbs. The capacity of the long range tank is 500 gallons (602.5 U.S.) 3,900 lbs.</p> <p>Tank Pressurization</p> <p>3. Fuel is transferred into the collector tanks by air pressure tapped off the air conditioning system, downstream of the air-to-air heat exchanger. The pressure in the fuselage tanks is controlled to 10 psi differential by a differential pressure regulator. The pressure in the wing tanks is controlled to 25 psia by an absolute pressure regulator.</p> <p>4. To prevent over-pressurization of the tanks in case of failure of a pressure regulator, each regulator has a flow limiter fitted at its inlet which limits the airflow to slightly above the normal maximum demand. A relief valve fitted at each regulator outlet relieves the excess pressure.</p> <p>5. The pressure regulators and relief valves are fitted with override solenoids operated by the master refuelling switch on the master refuelling panel. This permits air in the tanks to be displaced by the incoming fuel, during refuelling, and also prevents further air from entering the tanks if a ground air supply is connected.</p> <p>6. A flow limiter is fitted in the supply line to each fuselage tank to limit loss of air through a damaged tank thereby maintaining pressure to the undamaged tank. Flow limiters are not required in the wing tank supply lines, as these lines are sized to restrict air loss in the event of a damaged tank.</p> <p>7. Air/no-fuel valves are fitted at each of the air pressure inlets to each fuselage tank to prevent fuel from entering the pressurization lines.</p> <p>8. A servo supply regulated to 15 psi differential is tapped off the high pressure line to operate the air/no-fuel valves and also supply the servo pressure to operate the pressure regulators which close off the air supply during refuelling.</p>				
ISSUE	1			
DATE	29 Oct 56			

9. To prevent fuel vaporization, a negative G and low level air admission valve admits air into the tank when the tank pressure falls below 11 psia due to a drop in fuel level.

10. Two air release valves in each collector tank allow air in excess of 14 psi absolute to be released from the collector tank when transfer resumes after being temporarily suspended. The air release valves automatically suspend air release if the collector tank pressure falls below 13 psi absolute.

Fuel Transfer

11. Fuel is transferred from the left hand wing storage tanks and the aft fuselage tank into the left hand collector tank. Fuel is transferred from the right hand wing storage tanks and the forward fuselage tank into the right hand collector tank.

12. Tank pressurization forces fuel through fuel/no-air valves in each wing storage tank and each fuselage tank into transfer lines to flow proportioner units. The fuel/no-air valves prevent pressurization air from entering the transfer lines.

13. An electrically driven transfer pump and a fuel pressure regulator is fitted in the transfer line from each fuselage tank to raise the fuel pressure from the fuselage tanks to a regulated pressure of 25 psi absolute to match the transfer delivery from the wing storage tanks. In the event of failure of a transfer pump, fuel is allowed to by-pass the pump through a two way shut-off and by-pass valve and the FUEL PROP light on the master warning panel in the pilot's cockpit is actuated on by a pressure differential switch which is fitted in parallel with the pump.

NOTE

As there is only one FUEL PROP light, two PRESS TO TEST buttons are fitted on the master refueling panel to allow the ground crew to establish which pump has failed.

14. The flow proportioner units meter fuel from each transfer line to the collector tanks in amounts proportionate to the tank capacities. In this way, all tanks empty at the same time, ensuring a minimum C of G shift during consumption of fuel. Each flow proportioner unit incorporates an electric motor-operated by-pass, which operates automatically in the event of jamming or seizure of the vanes. Each by-pass is controlled by a low level switch in its respective collector tank. The low level switches also control the FUEL PROP light and two LOW LEVEL lights on the master warning panel.

ISSUE	1							
DATE	29 Oct 56							

CF-105 SERVICE DATA

SYSTEM DATA SHEET

SYSTEM	SUB-SYSTEM	AIRCRAFT EFF'TY	REF. NO.
FUEL SYSTEM (Cont'd)		25201	16

15. The flow proportioners have a lock-on feature which keeps the by-pass open once it has been signalled. The lock-on is automatically released when the aircraft power is switched off and the aircraft or ground power is switched on again. A mechanical indicator on each flow proportioner unit indicates the by-pass 'open' and by-pass 'closed' positions.

Engine Feed

16. An engine driven booster pump is fitted in each collector tank to boost fuel delivery to the engines. Each booster pump is provided with an automatic priming device to dispel air and vapour from the fuel. By-pass valves are fitted in parallel with each pump to permit fuel to feed directly to the engines by a combination of collector tank pressure, gravity and suction from the engine pumps, should the booster pump fail. The booster pumps increase the delivery pressure to a minimum of 15 psi above collector tank pressure.

17. Fuel flow to the engines passes through an oil to fuel heat exchanger and is controlled by five electrically operated valves. Two of these valves are isolating valves, two are low pressure cocks and the remaining valve is a crossfeed valve. The crossfeed valve opens when a crossfeed selection is made and one of the isolating valves shuts off the inoperative side of the system. The low pressure cocks may be closed during ground servicing by two ground servicing switches located on the forward accessories panel in the nose landing gear well.

Refuelling

18. The aircraft is pressure refuelled through two refuelling adaptors, located one in each main landing gear well. Access to each refuelling adaptor is through a refuelling access door. The action of opening the access door closes a manually operated gate valve in the transfer line to the collector tank, permitting fuel flow into the collector tank through a separate refuelling line. The access door must be closed after refuelling, to re-open the transfer line to the collector tank. A micro-switch actuated by the door latch brings on the FUEL PROP light on the master warning panel to warn the pilot before take-off if either access door has been left open.

19. When the tanks are full, or when the desired level has been reached during partial refuelling, fuel flow is automatically cut off by a refuelling shut-off valve in each wing storage tank, by a two way shut-off valve in each collector tank, and by refuelling shut-off and by-pass valves for the fuselage tanks. A level sensing valve mounted at the top of each tank controls the shut-off valves.

20. A master refuelling panel is located on the underside of the duct bay, access to which is through a refuelling access door. This panel incorporates a master refuelling switch and a refuelling selector switch. The master refuelling switch has two positions, ON and OFF AND DEFUEL. An ON selection eliminates tank pressurization and permits venting of the tanks during refuelling. It also brings on the tank signal lights. See para 22. An OFF AND DEFUEL selection overrides all

ISSUE	1							
DATE	29 Oct 56							

refuelling switches and lights. To guard against the master switch being inadvertently left on at the end of the refuelling operation, the switch is provided with a guard which prevents the access door from closing when the switch is on.

21. The refuelling selector switch has two positions, PARTIAL and FULL REFUEL. The PARTIAL selection causes the flow proportioner by-pass to be motored closed and fuel is delivered in proportionate amounts to the tanks. The FULL REFUEL selection causes the flow proportioner by-pass to be motored open, allowing the tanks to fill at random rates.

22. A refuelling control and signal panel, fitted outboard of the refuelling access door in each main landing gear well, incorporates a REFUEL CONTROL switch which controls the flow into the tanks on the respective sides of the system. It also incorporates a green signal light for each tank which goes out when refuelling is taking place, and comes on when refuelling is terminated. The operation of the level sensing and shut-off valves may be pre-checked immediately after the commencement of refuelling by switching the REFUEL CONTROL switch to its two positions and observing the signal lights.

Defuelling

23. The aircraft is defuelled through the refuelling adaptor in each main landing gear well. Defuelling from the wing storage tanks and the fuselage tanks is effected by tank pressurization through the transfer lines assisted by suction from the tender pumps. An external source of air pressure is necessary to pressurize the tanks to achieve this.

24. Defuelling from the collector tanks which are not pressurized by air, is by suction through the two way shut-off valves. As the level in the collector tank drops, air is admitted through the negative 'G' and low level air admission valves to take the place of the displaced fuel.

25. The refuelling master switch remains in the OFF AND DEFUEL position for defuelling, therefore no selection is necessary. Residual fuel may be drained through residual fuel and condensate drain valves located at the bottom of each tank.

ISSUE	1							
DATE	29 Oct 56							

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Cell - Fuel No. 1		REF. NO. 16-1	
AVRO PART NO. 7-1754-5		MANUFACTURER Dominion Rubber		MAN'FR'S PART NO.		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE:		KNOWN-		ESTIMATED-		500 hours	
FUNCTION To contain fuel and fuel system components.							
LOCATION Centre fuselage above armament bay.							
ACCESS Gained by removing the dorsal fairing - six latches and the tank access panel - 36 screws.						MEN X MINUTES	
REPLACEMENT PROCEDURE						MEN X MINUTES	

CONFIDENTIAL

INSPECTION								MEN X MINUTES	
FUNCTIONAL CHECKS								MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT									
SPECIAL TOOLS TO REMOVE OR SERVICE									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

TW1-8413-2-6

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Cell - Fuel No. 2		REF. NO. 16-2	
AVRO PART NO. 7-1754-6		MANUFACTURER Dominion Rubber		MAN'FR'S PART NO.		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE:		KNOWN-		ESTIMATED-		500 hours	
FUNCTION To contain fuel and fuel system components.							
LOCATION Centre fuselage above armament bay.							
ACCESS Gained by removing the dorsal fairing - six latches and the tank access panel - 36 screws.						MEN X MINUTES	
REPLACEMENT PROCEDURE						MEN X MINUTES	

CONFIDENTIAL

INSPECTION								MEN X MINUTES	
FUNCTIONAL CHECKS								MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT									
SPECIAL TOOLS TO REMOVE OR SERVICE									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

TWT-3(13)-2-6

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Filter - Hot Air		REF. NO. 16-3	
AVRO PART NO. 7-1654-7		MANUFACTURER Furolator Products		MAN'FR'S PART NO.		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE :		KNOWN-		ESTIMATED-		500 hours	
FUNCTION To prevent particles of foreign material from entering fuel tank pressurization system.							
LOCATION Centre Fuselage - upper armament bay.							
ACCESS Accessible in armament bay, with missile pack lowered.						MEN X MINUTES	
REPLACEMENT PROCEDURE Locate the filter in position at its mounting. Insert four mounting bolts. Connect two "Wig-o-Flex" couplings. Interchangeable component.						MEN X MINUTES	

FW-3013-2-5

CONFIDENTIAL

INSPECTION							MEN X MINUTES		
Remove filter element and clean.									
FUNCTIONAL CHECKS							MEN X MINUTES		
GROUND HANDLING AND GROUND TEST EQUIPMENT									
SPECIAL TOOLS TO REMOVE OR SERVICE									
"Wig-o-Flex" tools.									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

741-3413-2-6

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Valve - Differential Pressure Regulator		REF. NO. 16-4	
AVRO PART NO. 7-1600-8		MANUFACTURER Aviation Electric		MAN'FR'S PART NO.		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE:		KNOWN-		ESTIMATED-		500 hours	
<p>FUNCTION</p> <p>To maintain fuselage fuel tank air pressure at 10 psig.</p>							
<p>LOCATION</p> <p>At Sta. 500 near the bottom skin of the inner wing.</p>							
<p>ACCESS</p> <p>Gained through the electrics access panel - 44 camlocs.</p>						MEN X MINUTES	
<p>REPLACEMENT PROCEDURE</p> <p>Position the valve and insert the two attachment bolts. Connect one 1/4 inch line. Connect two "Wig-o-Flex" couplings. Interchangeable component.</p>						MEN X MINUTES	

7M1-3423-2-6

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Flow Limiter (Differential Regulator)		REF. NO. 16-5	
AVRO PART NO. 7-1654-199		MANUFACTURER Le Clair Engineering		MAN'FR'S PART NO.		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE:		KNOWN-		ESTIMATED-		500 hours	
<p>FUNCTION</p> <p>Limits air flow in fuselage fuel pressurization system to within the capabilities of the differential pressure relief valve in the event of a failed regulator.</p>							
<p>LOCATION</p> <p>In the duct bay - aft of Sta. 485, near wing bottom skin.</p>							
ACCESS						MEN X MINUTES	
<p>Gained through electrics access panel - 74 camlocs.</p>							
REPLACEMENT PROCEDURE						MEN X MINUTES	
<p>Connect two "Wig-o-Flex" couplings.</p> <p>Interchangeable component.</p>							

CONFIDENTIAL

INSPECTION							MEN X MINUTES		
Check security of connections .									
FUNCTIONAL CHECKS							MEN X MINUTES		
GROUND HANDLING AND GROUND TEST EQUIPMENT									
SPECIAL TOOLS TO REMOVE OR SERVICE									
"Wig-o-Flex" tools .									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

TW1-3433-9-6

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Flow Limiter (Fuselage Tank Supply)		REF. NO. 16-6	
AVRO PART NO. 7-1662-8		MANUFACTURER Le Clair Engineering		MAN'FR'S PART NO.		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE :		KNOWN-		ESTIMATED-		500 hours	
FUNCTION To prevent complete loss of pressurization by limiting the flow of air to a damaged fuel cell.							
LOCATION In No. 2 fuselage fuel cell.							
ACCESS Accessible in No. 2 fuselage fuel cell. Remove the dorsal fairing - six latches. Remove the tank access panel - 36 screws. Remove structural tie bars as required - two bolts each.						MEN X MINUTES	
REPLACEMENT PROCEDURE Connect two "Wig-o-Flex" couplings. Refuel the aircraft. Interchangeable component.						MEN X MINUTES	

TAF-3013-2-1

CONFIDENTIAL

INSPECTION							MEN X MINUTES		
FUNCTIONAL CHECKS							MEN X MINUTES		
GROUND HANDLING AND GROUND TEST EQUIPMENT									
SPECIAL TOOLS TO REMOVE OR SERVICE									
"Wig-o-Flex" tools .									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

TW1-3433-2-6

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Valve - Differential Air Relief		REF. NO. 16-7	
AVRO PART NO. 7-1656-5		MANUFACTURER Canadian Pratt and Whitney		MAN'FR'S PART NO. HS/503993-2		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE: KNOWN- ESTIMATED- 500 hours							
FUNCTION Safety valve (10.5 psi) and remote controlled dump valve for fuselage tanks.							
LOCATION Sta. 492 at bottom of fuselage.							
ACCESS Accessible through the electrical access door by removing 42 camlocs.						MEN X MINUTES	
REPLACEMENT PROCEDURE Insert four attachment bolts. Connect two flared tube couplings. Interchangeable component.						MEN X MINUTES	

161-7513-2-5

CONFIDENTIAL

INSPECTION							MEN X MINUTES	
FUNCTIONAL CHECKS							MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT								
SPECIAL TOOLS TO REMOVE OR SERVICE								
REMARKS								
ISSUE	1							
DATE	29 Oct 56							

TWT-3923-2-6

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Valve - Absolute Air Pressure Regulator		REF. NO. 16-8	
AVRO PART NO. 7-1600-20		MANUFACTURER Aviation Electric		MAN'FR'S PART NO.		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE:		KNOWN-		ESTIMATED-		500 hours	
FUNCTION To maintain wing fuel tank pressure at 25 psia.							
LOCATION Sta. 670 near bottom skin of inner wing.							
ACCESS Gained through No. 3 Service door - 26 camlocs .						MEN X MINUTES	
REPLACEMENT PROCEDURE Attach two 1/4 inch couplings . Attach the regulator to its mounting bracket by two bolts . Connect two electrical leads. Connect two "Wig-o-Flex" couplings . Interchangeable component .						MEN X MINUTES	

TWI-3913-2-4

CONFIDENTIAL

INSPECTION							MEN X MINUTES		
Check for security, damage, corrosion and leaks.									
FUNCTIONAL CHECKS							MEN X MINUTES		
GROUND HANDLING AND GROUND TEST EQUIPMENT									
Air conditioning unit. Air pressure gauge.									
SPECIAL TOOLS TO REMOVE OR SERVICE									
"Wig-o-Flex" tools.									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

787-3913-2-6

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Flow Limiter (Absolute Regulator)		REF. NO. 16-9	
AVRO PART NO. 7-1656-227		MANUFACTURER Le Clair Engineering		MAN'FR'S PART NO.		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE:		KNOWN-		ESTIMATED-		500 hours	
FUNCTION Limits air flow in the wing fuel pressurization system to within the capabilities of the absolute air pressure relief valve in the event of a failed regulator.							
LOCATION Sta. 663 - near wing bottom skin.							
ACCESS Gained through No. 3 service door - 36 camlocs.						MEN X MINUTES	
REPLACEMENT PROCEDURE Connect two "Wig-o-Flex" couplings. Interchangeable component.						MEN X MINUTES	

TW-3413-2-5

CONFIDENTIAL

INSPECTION		MEN X MINUTES	
Check security of connections.			
FUNCTIONAL CHECKS		MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT			
SPECIAL TOOLS TO REMOVE OR SERVICE			
"Wig-o-Flex" tools.			
REMARKS			
ISSUE	1		
DATE	29 Oct 56		

TW1-3423-2-5

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Valve - Absolute Air Relief	REF. NO. 16-10
AVRO PART NO. 7-1656-4	MANUFACTURER Hamilton	MAN'FR'S PART NO.		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE :		KNOWN-		ESTIMATED-	500 hours
FUNCTION Acts as a safety valve and remote controlled dump valve in the wing tank pressurization system.					
LOCATION In the Engine Bay - Sta. 674.16, 27 inches below wing bottom skin.					
ACCESS Accessible through No. 3 Service door - 36 camlocs.					MEN X MINUTES
REPLACEMENT PROCEDURE Insert the four attachment bolts. Attach the four-way fittings. Attach fuel pressurization pipe. Connect six "Wig-o-Flex" couplings. Connect four bonding jumpers. Connect one electrical lead.					MEN X MINUTES

CONFIDENTIAL

INSPECTION							MEN X MINUTES		
Check for security, damage, leakage and corrosion.									
FUNCTIONAL CHECKS							MEN X MINUTES		
GROUND HANDLING AND GROUND TEST EQUIPMENT									
SPECIAL TOOLS TO REMOVE OR SERVICE									
"Wig-o-Flex" tools.									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

7W1-3425-2-6

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM	SUB-SYSTEM	COMPONENT Valve - Servo Pressure Regulator	REF. NO. 16-11
AVRO PART NO. 7-1654-144	MANUFACTURER Airesearch	MAN'FR'S PART NO.	AIRCRAFT EFFECTIVITY 25201
OVERHAUL LIFE: KNOWN- ESTIMATED- 500 hours			
FUNCTION Regulates the control air supply at 15 psig to the air/no-fuel valves. Regulates a supply of air at 15 psig to the differential regulator valve and absolute regulator valves for override purposes.			
LOCATION In the duct bay at Sta. 485.			
ACCESS			MEN X MINUTES
Gained through the electrics access door - 74 camlocs.			
REPLACEMENT PROCEDURE			MEN X MINUTES
Install the valve, attach two nuts. Connect three air lines (5/16 inch dia. two flared and one flareless). Interchangeable component.			

CONFIDENTIAL

INSPECTION Check for security, damage, corrosion and leakage.								MEN X MINUTES	
FUNCTIONAL CHECKS								MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT Air pressure gauge.									
SPECIAL TOOLS TO REMOVE OR SERVICE									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

T-11-3413-2-6

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Valve - Air/No-Fuel - Upper		REF. NO. 16-12	
AVRO PART NO. 7-1654-21		MANUFACTURER		MAN'FR'S PART NO.		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE:		KNOWN-		ESTIMATED-		500 hours	
FUNCTION To prevent the entry of fuel into the fuel system air pressurization lines.							
LOCATION Inside fuselage fuel tanks, two valves at the top of each tank.							
ACCESS Accessible through fuselage tank access panel. Remove dorsal fairing - six latches. Remove tank access panel - 36 screws. Remove structural tie bars as required - two bolts each.						MEN X MINUTES	
REPLACEMENT PROCEDURE Install the valves and secure by the four attachment nuts. Connect the pressurization air line "Wig-o-Flex" coupling. Connect the flared tube coupling in the control air line. Refuel the aircraft. Interchangeable component.						MEN X MINUTES	

CONFIDENTIAL

INSPECTION							MEN X MINUTES		
FUNCTIONAL CHECKS							MEN X MINUTES		
GROUND HANDLING AND GROUND TEST EQUIPMENT									
SPECIAL TOOLS TO REMOVE OR SERVICE									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

701-3413-2-4

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Valve - Air/No-Fuel - Lower	REF. NO. 16-13
AVRO PART NO. 7-1654-22	MANUFACTURER	MAN'FR'S PART NO.		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE:		KNOWN-		ESTIMATED- 500 hours	
FUNCTION To prevent the entry of fuel into the fuel system air pressurization lines.					
LOCATION Inside fuselage fuel tanks, one valve at the bottom of each tank.					
ACCESS Accessible through the fuselage tank access panels. Remove the dorsal fairing - six latches. Remove tank access panel - 36 screws. Remove one structural tie bar - two bolts.					MEN X MINUTES
REPLACEMENT PROCEDURE Install the valve and secure by the four attachment nuts. Connect the pressurization air line "Wig-o-Flex" coupling. Connect the flared fitting coupling in the control air line. Refuel the aircraft. Interchangeable component.					MEN X MINUTES

TWI-3913-2-5

CONFIDENTIAL

INSPECTION								MEN X MINUTES	
FUNCTIONAL CHECKS								MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT									
SPECIAL TOOLS TO REMOVE OR SERVICE "Wig-o-Flex" tools.									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

TW-3923-2-6

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Valve - Negative "G" and Low Level Air Admission		REF. NO. 16-14	
AVRO PART NO. 7-1662-7		MANUFACTURER Hymatic		MAN'FR'S PART NO.		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE :		KNOWN-		ESTIMATED-		500 hours	
FUNCTION Admits air pressure to collector tanks when fuel transfer from wing and fuselage tanks is interrupted, as during inverted flight or by action of negative "G" on fuel in wing and fuselage tanks.							
LOCATION Inside collector tank, on bottom skin.							
ACCESS Valve - Gained through access panel in top skin of inner wing - 29 screws. Locknut and line disconnect - Through electrics access panel - 44 camlocs.						MEN X MINUTES	
REPLACEMENT PROCEDURE Position the valve inside the tank. Secure the locking ring at outside of tank. Connect the pipeline coupling. Refuel aircraft. Interchangeable component.						MEN X MINUTES	

TM-7-11-2-5

CONFIDENTIAL

INSPECTION								MEN X MINUTES	
FUNCTIONAL CHECKS								MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT									
SPECIAL TOOLS TO REMOVE OR SERVICE									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

7W1-3413-2-6

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Valve - Air Release		REF. NO. 16-15	
AVRO PART NO. 7-1600-19		MANUFACTURER Manning, Maxwell and Moore		MAN'FR'S PART NO.		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE: KNOWN- ESTIMATED- 500 hours							
FUNCTION Serves as a means of permitting air to escape from the collector tank, preventing the displacement of fuel.							
LOCATION In the collector tanks. Forward inboard and aft outboard.							
ACCESS Gained through the access panels in the wing top skin. Forward valve gained through the forward access panel - 29 screws. Aft valve gained through the outboard access panel - 29 screws.						MEN X MINUTES	
REPLACEMENT PROCEDURE Insert the four attachment bolts. Connect the overboard drain. Interchangeable component.						MEN X MINUTES	

TWI-3415-7-6

CONFIDENTIAL

INSPECTION								MEN X MINUTES	
FUNCTIONAL CHECKS								MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT									
SPECIAL TOOLS TO REMOVE OR SERVICE									
REMARKS Excessive fuel venting from duct bay flame trap during engine running, may indicate malfunction of the air release valve. Disconnect air release valve vent line at the flame trap to determine source of fuel.									
ISSUE	1								
DATE	29 Oct 56								

TM 1-3413-2-6

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Unit - Flow Proportioner	REF. NO. 16-16
AVRO PART NO. 7-1662-2	MANUFACTURER Eclipse Pioneer	MAN'F'R'S PART NO.		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE: KNOWN- ESTIMATED- 500 hours					
FUNCTION To proportion the flow of fuel into and out of the individual fuel tanks.					
LOCATION On the front face of the main spar.					
ACCESS Gained through hinged door in underside of wing - 48 screws.					MEN X MINUTES
REPLACEMENT PROCEDURE Insert the four manifold attachment bolts. Connect three fuel line "Wig-o-Flex" couplings. Connect the electrical connection to the shut-off valve and by-pass valve. Refuel the aircraft. Interchangeable component.					MEN X MINUTES

CONFIDENTIAL

INSPECTION								MEN X MINUTES	
FUNCTIONAL CHECKS								MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT									
SPECIAL TOOLS TO REMOVE OR SERVICE "Wig-o-Flex" tools.									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

TM-3413-2-6

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Valve - Fuel/No-Air		REF. NO. 16-17		
AVRO PART NO. 7-1600-45		MANUFACTURER Aero Supply and Flight Refuelling		MAN'FR'S PART NO.		AIRCRAFT EFFECTIVITY 25201		
OVERHAUL LIFE :		KNOWN-		ESTIMATED-		500 hours		
FUNCTION To prevent ingress of fuel system pressurization air into the fuel transfer lines.								
LOCATION Two in No's 1, 2, 3, 6, 7 and 8 fuel tanks. One in No 4 fuel tank.								
ACCESS		Fuel/No-Air valves in the wing tanks are access- ible through access panels in the wing top skin as follows:- No 3 tank aft - 45 screws. No 3 tank forward - 36 screws. No 4 tank - 58 screws. No's 6, 7 and 8 tanks - 29 screws. Fuel/No-Air valves in fuselage tanks - remove dorsal fairing - six latches, tank access panels and tie bars as required.					MEN X MINUTES	
REPLACEMENT PROCEDURE		Insert the four attachment bolts. Connect one "Wig-o-Flex" coupling. Connect one electrical lead. Refuel the aircraft. Interchangeable component.					MEN X MINUTES	

TWI-1012-2-5

CONFIDENTIAL

INSPECTION								MEN X MINUTES	
FUNCTIONAL CHECKS								MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT									
SPECIAL TOOLS TO REMOVE OR SERVICE									
"Wig-o-Flex" tools.									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

7M1-3423-2-6

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Pump - Fuel Transfer		REF. NO. 16-18	
AVRO PART NO. 7-1656-115,116		MANUFACTURER Hydroaire		MAN'FR'S PART NO.		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE:		KNOWN-		ESTIMATED-		500 hours	
FUNCTION Used in the fuel transfer lines from the fuselage tanks to equalize pressures at the inlets to the fuel transfer flow proportioners.							
LOCATION In the duct bay, lower wing skin Sta. 492.0 to 497.0.							
ACCESS Accessible through electrics access door - 74 camlocs.						MEN X MINUTES	
REPLACEMENT PROCEDURE Attach the pressure regulating valve. Insert four attachment bolts. Connect two "Wig-o-Flex" couplings. Connect one electrical connector. Install the air release valve vent line from LH collector tank to tee. Refuel the aircraft. Interchangeable component.						MEN X MINUTES	

INSPECTION								MEN X MINUTES	
FUNCTIONAL CHECKS								MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT									
SPECIAL TOOLS TO REMOVE OR SERVICE									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

TW1-3913-2-6

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM	SUB-SYSTEM	COMPONENT Valve - Fuel Pressure Regulator	REF. NO. 16-19
AVRO PART NO. 7-1656-117	MANUFACTURER Schulz	MAN'FR'S PART NO.	AIRCRAFT EFFECTIVITY 25201
OVERHAUL LIFE : KNOWN- ESTIMATED- 500 hours			
FUNCTION To regulate the output of the fuselage fuel transfer pumps to 25 psia.			
LOCATION In duct bay, downstream of fuselage fuel transfer pumps.			
ACCESS Accessible through electrical access panel - 74 camlocs.			MEN X MINUTES
REPLACEMENT PROCEDURE Mount the valve on the transfer pump and secure the four attaching nuts. Refit and connect the "Wig-o-Flex" coupling. Refuel the aircraft. Interchangeable component.			MEN X MINUTES

TW-1011-2-1

CONFIDENTIAL

INSPECTION							MEN X MINUTES	
Check for security, leakage, corrosion and damage.								
FUNCTIONAL CHECKS							MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT								
SPECIAL TOOLS TO REMOVE OR SERVICE								
"Wig-o-Flex" tools.								
REMARKS								
ISSUE	1							
DATE	29 Oct 56							

TM-313-2-6

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Switch - Low Level Warning		REF. NO. 16-20	
AVRO PART NO. 7-1654-213		MANUFACTURER Minneapolis - Honeywell		MAN'F'R'S PART NO.		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE: KNOWN-				ESTIMATED- 500 hours			
FUNCTION On receiving a fuel low level warning signal from the liquid level sensor in the collector tank, the switch actuates a warning light in the cockpit and the fuel flow proportioner by-pass valve, moving it to the open position.							
LOCATION On the main accessory panel E5 armament bay.							
ACCESS Accessible in missile bay with missile pack lowered. Drop panel from forward mounts by removing forward pip pins.						MEN X MINUTES	
REPLACEMENT PROCEDURE Interchangeable component.						MEN X MINUTES	

CONFIDENTIAL

INSPECTION								MEN X MINUTES	
FUNCTIONAL CHECKS								MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT									
SPECIAL TOOLS TO REMOVE OR SERVICE									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

TW1-3913-2-5

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM	SUB-SYSTEM		COMPONENT Pump - Fuel Booster	REF. NO. 16-21
AVRO PART NO. 7-1662-583 and 584	MANUFACTURER Pesco Products - Borg Warner	MAN'FR'S PART NO. X023234-010 and 011	AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE: KNOWN- ESTIMATED- 500 hours				
FUNCTION To provide sufficient pressure at the inlet to the engine fuel pump to suppress boiling of the fuel and subsequent vapour lock.				
LOCATION Inside LH and RH collector tanks - inner wing.				
ACCESS Gained through access panel in top skin of inner wing, over collector tank - 92 x 5/16 inch bolts. Booster pump drive accessible through the hydraulic access door - 52 camlocs.			MEN X MINUTES	
REPLACEMENT PROCEDURE Mount the pump on the attachment studs and secure with three 3/8 inch nuts. Connect the pump intake couplings. Connect the pump discharge coupling. (Connect three "Wig-o-Flex" couplings). Refuel the aircraft. Interchangeable component.			MEN X MINUTES	

TW-15113-2-5

CONFIDENTIAL

INSPECTION Check for security and leakage.								MEN X MINUTES	
FUNCTIONAL CHECKS								MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT									
SPECIAL TOOLS TO REMOVE OR SERVICE "Wig-o-Flex" tools.									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

741-3433-2-6

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Valve - Booster Pump By-pass		REF. NO. 16-22	
AVRO PART NO. 7-1662-671		MANUFACTURER Essex		MAN'F'R'S PART NO.		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE: KNOWN- ESTIMATED- 500 hours							
FUNCTION To permit engine feed around pump in the event of pump failure.							
LOCATION Inside collector tank, near booster pump.							
ACCESS Gained through booster pump access panel in top skin of inner wing - 92 x 5/16 inch and four 1/4 inch bolts.						MEN X MINUTES	
REPLACEMENT PROCEDURE Position the valve. Connect the "Wig-o-Flex" coupling at outside of collector tank. Insert the three attachment bolts inside collector tank. Connect the two remaining "Wig-o-Flex" couplings. Refuel the aircraft. Interchangeable component.						MEN X MINUTES	

TM1-5013-2-5

CONFIDENTIAL

INSPECTION								MEN X MINUTES	
FUNCTIONAL CHECKS								MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT									
SPECIAL TOOLS TO REMOVE OR SERVICE									
"Wig-o-Flex" tools.									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

TMI-3413-2-6

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Valve - Fuel Feed Control		REF. NO. 16-23	
AVRO PART NO. 7-1600-61		MANUFACTURER General Controls		MANFR'S PART NO.		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE:		KNOWN-		ESTIMATED-		500 hours	
FUNCTION		Serves as a positive remotely controlled method of closing a fuel line against flow in either direction. One valve is used as a low pressure cock in the fuel supply line to each engine. One valve is used as an isolating valve in the fuel supply line to each engine to isolate the inoperative side of the system during crossfeed. One valve is used as a crossfeed valve.					
LOCATION		In the duct bay - Sta. 550.					
ACCESS		Gained through the hydraulics access door - 52 camlocs.				MEN X MINUTES	
REPLACEMENT PROCEDURE		Secure 12 x 5/16 inch cap screws. Connect electrical lead. Interchangeable component.				MEN X MINUTES	

TM 1-25-1-2-5

CONFIDENTIAL

INSPECTION								MEN X MINUTES	
Check for security, damage, corrosion and leakage.									
FUNCTIONAL CHECKS								MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT									
SPECIAL TOOLS TO REMOVE OR SERVICE									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

141-3413-2-6

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Adaptor - Refuelling		REF. NO. 16-24	
AVRO PART NO. 7-1662-447		MANUFACTURER Flight Refuelling		MAN'FR'S PART NO. 07-01-050		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE:		KNOWN-		ESTIMATED-		500 hours	
FUNCTION Serves as the aircraft ground pressure refuelling connections.							
LOCATION One in each main landing gear wheel well.							
ACCESS Accessible through fuel proportioner access door in main landing gear wheel well - 48 screws.						MEN X MINUTES	
REPLACEMENT PROCEDURE Insert the eight 3/16 inch attachment bolts. Connect one "Wig-o-Flex" coupling. Refuel the aircraft. Interchangeable component.						MEN X MINUTES	

TM-3013-7-5

CONFIDENTIAL

INSPECTION Check for security, damage and leakage.							MEN X MINUTES		
FUNCTIONAL CHECKS							MEN X MINUTES		
GROUND HANDLING AND GROUND TEST EQUIPMENT									
SPECIAL TOOLS TO REMOVE OR SERVICE									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

741-3413-2-8

CONFIDENTIAL

INSPECTION		MEN X MINUTES	
Check for security, damage and sealing efficiency.			
FUNCTIONAL CHECKS		MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT			
SPECIAL TOOLS TO REMOVE OR SERVICE			
REMARKS			
ISSUE	1		
DATE	29 Oct 56		

TW1-3413-2-5

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Valve - Gate Manually Operated		REF. NO. 16-26	
AVRO PART NO. 7-1662-775		MANUFACTURER General Controls		MAN'FR'S PART NO.		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE:		KNOWN-		ESTIMATED-		500 hours	
FUNCTION To isolate the collector tank transfer line during refuelling and defuelling and to direct fuel through the refuelling/defuelling line.							
LOCATION Adjacent to flow proportioners on the front face of the main spar.							
ACCESS Gained through the hinged door in underside of inner wing - 48 screws.						MEN X MINUTES	
REPLACEMENT PROCEDURE Insert the four attachment bolts. Connect two "Wig-o-Flex" couplings. Connect door link. Interchangeable component.						MEN X MINUTES	

TWI-3413-2-5

CONFIDENTIAL

INSPECTION Check operation of valve. Check linkage for wear and correct adjustment. Check for security.								MEN X MINUTES	
FUNCTIONAL CHECKS								MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT									
SPECIAL TOOLS TO REMOVE OR SERVICE "Wig-o-Flex" tools.									
REMARKS The valve is operated by the refuelling access door.									
ISSUE	1								
DATE	29 Oct 56								

TM-3513-2-6

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM	SUB-SYSTEM		COMPONENT Valve - Refuelling Shut-off	REF. NO. 16-27
AVRO PART NO. 7-1600-11	MANUFACTURER Schulz	MAN'FR'S PART NO. 7-355-1-2	AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE: KNOWN- ESTIMATED- 500 hours				
FUNCTION To control the admission of fuel to its respective tank during pressure refuelling.				
LOCATION Inside No's 3, 4, 6, 7 and 8 tanks.				
ACCESS Accessible through access panels in top skin of inner wing. No. 3 tank - outboard access panel - 62 screws. No. 4 tank - outboard access panel - 58 screws. No's. 6, 7 and 8 tanks centre access panel - 29 screws each.			MEN X MINUTES	
REPLACEMENT PROCEDURE Insert the four attachment bolts. Connect the "Wig-o-Flex" coupling. Connect two 1/4 inch servo bleed lines. Connect the bonding jumper. Connect the electrical lead. Refuel the aircraft. Interchangeable component.			MEN X MINUTES	

INSPECTION								MEN X MINUTES	
FUNCTIONAL CHECKS								MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT									
SPECIAL TOOLS TO REMOVE OR SERVICE									
"Wig-o-Flex" tools.									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM	SUB-SYSTEM		COMPONENT Valve - Two Way Shut-off	REF. NO. 16-28
AVRO PART NO. 7-1600-37	MANUFACTURER Schulz	MAN'FR'S PART NO. 7-355-1	AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE: KNOWN- ESTIMATED- 500 hours				
FUNCTION To close off refuelling as each collector tank becomes full. To open to reverse flow during suction defuelling from the collector tank.				
LOCATION Inside each collector tank.				
ACCESS Gained through access panel in the top of each collector tank - 58 screws.			MEN X MINUTES	
REPLACEMENT PROCEDURE Position the valve and secure with four attachment bolts. Attach one electrical connection. Connect two level sensing pipelines. Connect the "Wig-o-Flex" coupling. Refuel the aircraft. Interchangeable component.			MEN X MINUTES	

TW-3813-0-5

CONFIDENTIAL

INSPECTION								MEN X MINUTES	
FUNCTIONAL CHECKS								MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT									
SPECIAL TOOLS TO REMOVE OR SERVICE									
<p>"Wig-o-Flex" tools.</p>									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

TW1-3411-2-4

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Valve - Two Way Shut-off and By-pass		REF. NO. 16-29	
AVRO PART NO. 7-1656-121		MANUFACTURER Schulz		MAN'FR'S PART NO. 7-355-1		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE :		KNOWN-		ESTIMATED-		500 hours	
FUNCTION Admits fuel to a fuselage tank while acting under the control of the tank level sensing valve. Permits flow in the reverse direction to allow fuel transfer from the tank to by-pass the transfer pump in the event of pump malfunction.							
LOCATION Duct bay - mounted on bulkhead at Sta. 478.00.							
ACCESS						MEN X MINUTES	
Accessible through electrics access door - 74 camlocs.							
REPLACEMENT PROCEDURE						MEN X MINUTES	
Locate the valve on the bulkhead mounting and secure the four attachment nuts. Attach the three 1-3/4 inch "Wig-o-Flex" couplings and the fuel transfer pipe section. Connect the bonding jumpers. Assemble the two servo bleed lines. Connect one electrical connection. Refuel the aircraft. Interchangeable component.							

TM-1-3413-2-0

CONFIDENTIAL

INSPECTION Check for security, corrosion, damage and leakage.								MEN X MINUTES	
FUNCTIONAL CHECKS								MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT Electric ground power unit. Refuelling tender. B4 stand.									
SPECIAL TOOLS TO REMOVE OR SERVICE "Wig-o-Flex" tools.									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

TMI-3413-2-4

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Valve - Level Sensing		REF. NO. 16-30	
AVRO PART NO. 7-1600-12		MANUFACTURER Schulz		MAN'FR'S PART NO. 2-355-1		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE: KNOWN- ESTIMATED- 500 hours							
FUNCTION To operate tank fuel shut-off valves.							
LOCATION Inside each fuel tank.							
ACCESS		Wing - Gained through panel in top skin of inner wing - 29 to 42 screws each panel, varying according to location. Fuselage - Remove dorsal fairing over fuselage tank - six latches. Remove tank access panel - 36 screws, and at least one fuselage tie rod - two bolts.				MEN X MINUTES	
REPLACEMENT PROCEDURE		Insert the four attachment bolts. Connect two 1/2 inch level sensing lines. Connect one electrical connector. Refuel the aircraft. Interchangeable component.				MEN X MINUTES	

TWI-3811-2-5

CONFIDENTIAL

INSPECTION								MEN X MINUTES	
FUNCTIONAL CHECKS								MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT Electrical ground power unit. Refuelling tender. B4 stand. Wing protection mats.									
SPECIAL TOOLS TO REMOVE OR SERVICE									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

TW-3413-7-8

CF-105 SERVICE DATA

COMPONENT DATA SHEET

SYSTEM FUEL SYSTEM		SUB-SYSTEM		COMPONENT Valve - Fuel and Condensate Drain (Fuselage Tanks)		REF. NO. 16-31	
AVRO PART NO. 7-1656-8		MANUFACTURER Auto Valve Inc.		MAN'FR'S PART NO. 1550-B		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE:		KNOWN-		ESTIMATED-		500 hours	
FUNCTION To provide a means of draining condensate from a fuel cell.							
LOCATION Bottom skin of fuselage - Sta. 388.							
ACCESS Flush with fuselage bottom skin.						MEN X MINUTES	
REPLACEMENT PROCEDURE Position valve in housing. Fit the snap ring. Interchangeable component.						MEN X MINUTES	

TW-5413-2-5

CONFIDENTIAL

INSPECTION Drain condensate. Check for signs of valve leakage.								MEN X MINUTES	
FUNCTIONAL CHECKS								MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT									
SPECIAL TOOLS TO REMOVE OR SERVICE .25 inch O.D. push tube six inches in length.									
REMARKS									
ISSUE	1								
DATE	29 Oct 56								

TW-1313-2-6

