

CHAP 2 AIRFRAME SP 121 AL 4 SHEET 1 OF 10	SERVICING PROCEDURE F53 T55	BAC F53 & T55 (SA) 5A3A Section 1 2nd Edition
Tailplane PFCU - Calibrated Leak Check	AFSC 43151 42152 43171 42172 43250	TIME EST
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.		
SPECIAL TOOLS AND EQUIPMENT		
Walkway (26DK/95055). Tyre inflation rig (4G/1050542). Retraction rig (EF5-88-367). Setting pin (CH/91192). Auto-stabilizer setting pin (CHA/455/148). Locating pin (26DK/95127). Tailplane incidence gauge (26DK/95864 - left). Pitot/Static test set (6C/1042139).		
<u>43151/42152</u>		
1. PREPARATION		
1.1 Arrestor hook safety bar (26DK/1439551).	Remove from aircraft.	SP 5(P) 6(P)
1.2 Arrestor hook.	Release from stowed position and lower onto two hard rubber mats prepositioned on ground (Using retraction rig (EF5-88-367)).	114(AF) 602(AF) 603(AF) 152(AF) 142(AF)
1.3 Arrestor hook operating handle.	Reset to unoperated position (Ball catch engaged).	
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2. PREPARATION		
2.1 Bolster.	Remove.	
2.2 Drain channels.	Remove.	
2.3 Access panels 93 & 103.	Remove.	
<u>43250</u>		
3. PREPARATION		
3.1 No.1 Reheat jet pipe.	Remove (SP 5(P)).	
Continued Overleaf		
SERVICING PROCEDURE INSPECTION STAGES DO NOT EXCLUDE ADDITIONAL INSPECTION STAGES INCORPORATED AS NECESSARY IN MAINTENANCE CERTIFICATION DOCUMENTS		

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4. PREPARATION

4.1 Walkway (26DK/95055). Fit.

4.2 Heat shields and tailplane motor protective cover. Remove.

4.3 Ground air charging/ release connexion (Access panel 63P (left)). Remove blank.

4.4 Services system hydraulic pressure. Release pressure by operating brake lever.

4.5 Hydraulic test trolleys. (i) Prime.
(ii) Bleed.

4.6 No.1 Services ground test connexions (Access panel 45P (left)). Connect hydraulic test trolleys.

4.7 No.1 Controls ground test connexions (Access panel 45P (left)). Connect hydraulic test trolleys.

4.8 No.2 Controls ground test connexions (Access panel 67P (left)). Connect hydraulic test trolleys.

4.9 Hydraulic reservoirs. Replenish (SP 603(AF)).

4.10 Hydraulic accumulators. Check pressures (SP 602(AF)).

4.11 Tyre inflation rig (4G/1050542). (i) Connect to ground air charging/release connexion (Access panel 63P (left)).
(ii) Set to deliver a pressure of between 16 and 18 lbf/in².

4.12 External d.c. power supply. (i) Connect.
(ii) Switch to ON.

4.13 External a.c. power supply. (i) Connect.
(ii) Switch to ON.

4.14 MRG switch. Set to OFF (See Fig.1).

4.15 STAB switch (On controller). Set to OFF (See Fig.1).

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4. PREPARATION (Contd)

4.16 Autopilot engage switch (On control column). Set to OFF (See Fig.1).

4.17 Instrument master switch. Set to ON (See Fig.1).

4.18 Autopilot master switch. Set to ON (See Fig.1).

4.19 Tailplane auto-stabilizer actuator. (i) Set to neutral using aircraft hand pump.
(ii) Check neutral using setting pin (CHA/455/148).

4.20 Tailplane auto-stabilizer actuator. Remove setting pin.

4.21 Tailplane incidence gauge (26DK/95864-left). Fit.

4.22 Undercarriage. Ensure ground locks fitted.

4.23 Pitot/Static test set. Connect.

4.24 Services system. Pressurize to 3000 lbf/in².

4.25 Pitot/static system. Pressurize to equivalent of 250 Kt.

4.26 No.1 Controls system. Pressurize to 3000 lbf/in².

4.27 Feel selector. Ensure set to ON.

4.28 Tailplane trim. Trim to neutral (On incidence gauge).

4.29 Tailplane control system vertical torque shaft (Access panels: 26S - Right - F53 20S - Right - T55). Fit locating pin (26DK/95127).

4.30 Tailplane PFCU. Fit locating pin (CH/91192).

4.31 Tailplane. Ensure NEUTRAL.

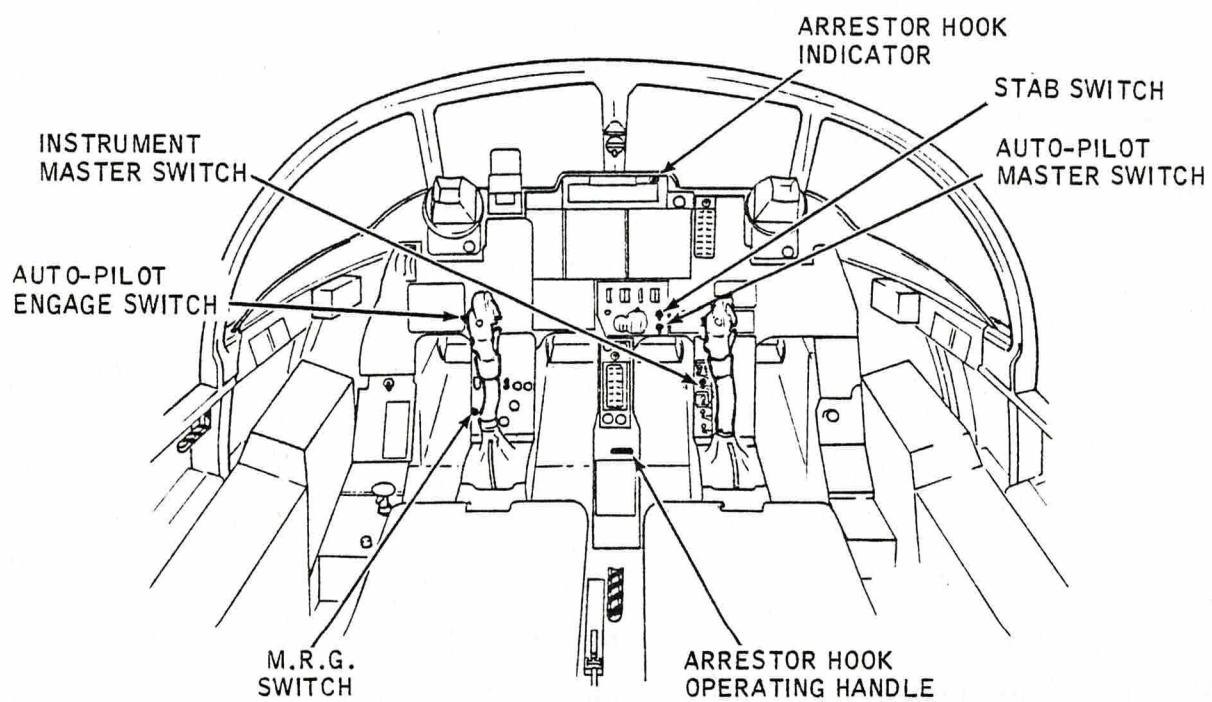
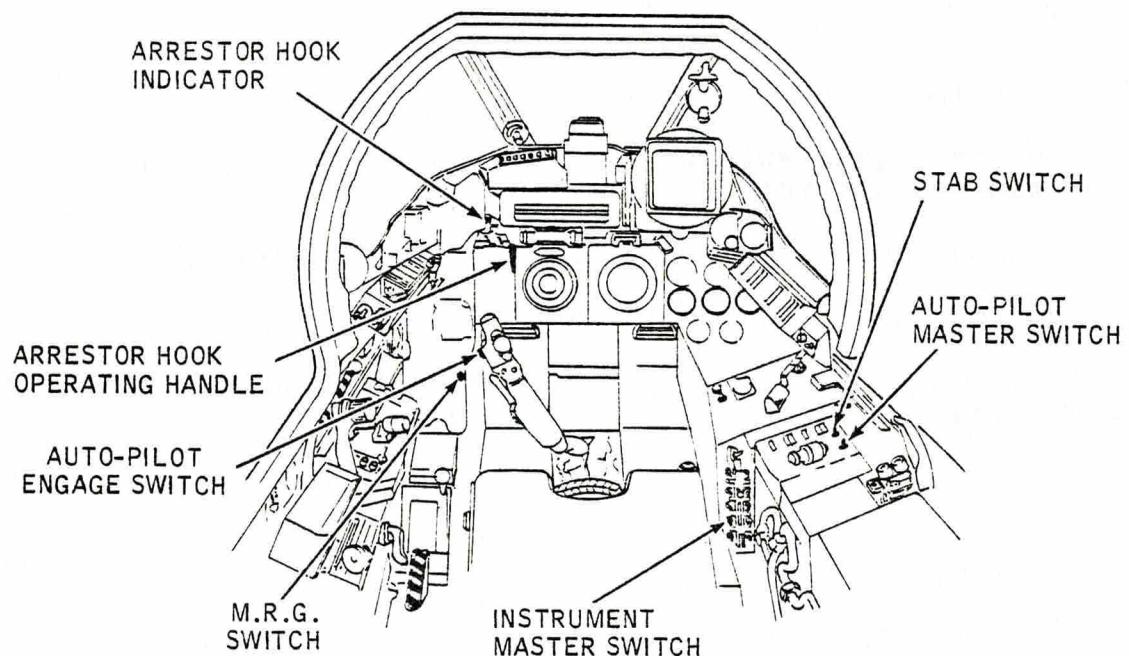
4.32 Tailplane PFCU. Remove locating pin.

4.33 Tailplane control system vertical torque shaft. Remove locating pin.

4.34 Pitot/Static system. Release pressure.

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INSTRUMENT AND AUTO-PILOT SWITCHES
FIGURE 1

Continued

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4. PREPARATION (Contd)

4.35 Autopilot master switch. Set to OFF (See Fig.1).

4.36 Instrument master switch. Set to OFF (See Fig.1).

4.37 External d.c. power supply. Set to OFF.

4.38 External a.c. power supply. Set to OFF.

4.39 Services and No.1 Controls hydraulic test trolleys. Stop.

4.40 Rear services system accumulator. Exhaust pressure by selecting Fuel ON and OFF.

4.41 No.1 Controls system. Exhaust pressure by operating tailplane control.

4.42 Tailplane PFCU. Fit locating pin (CH 91192) using No.1 Controls test trolley hand pump to neutralize tailplane.

4.43 No.1 Controls system exhaust connexion (Motor to left side diaphragm). (i) Disconnect. (ii) Blank aircraft open end. (iii) Fit slave pipe and route overboard (See Fig.2).

4.44 No.2 Controls system exhaust connexion (Motor to right side diaphragm). (i) Disconnect. (ii) Blank aircraft open end. (iii) Fit slave pipe and route overboard (See Fig.2).

4.45 No.1 Controls drain connexion to motor. (i) Disconnect. (ii) Blank aircraft open end. (iii) Fit slave pipe and route overboard (See Fig.3).

4.46 No.2 Controls system drain connexion to motor. (i) Disconnect. (ii) Blank aircraft open end. (iii) Fit slave pipe and route overboard (See Fig.3).

5. TESTING

5.1 No.1 Controls system. Pressurize to 3000 lbf/in².

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5. TESTING (Contd)

5.2 No.1 Controls system (i) Position together in
exhaust slave pipe and No.1 suitable container.
Controls system drain slave (ii) Measure quantity of fluid
pipe. (iii) Dispose of fluid collected.
(iv) Repeat items (i) and (ii).

NOTE: If quantity of fluid collected individually exceeds
600cc the motor valve leakage rate is in excess of
the permissible maximum and the tailplane PFCU must
be replaced.

5.3 No.1 Controls system test (i) Stop test trolley.
trolley. (ii) Exhaust pressure by
operating rudder only.

5.4 No.2 Controls system. Pressurize to 3000 lbf/in².

5.5 No.2 Controls system (i) Position together in
exhaust slave pipe and suitable container.
No.2 Controls system (ii) Measure quantity of fluid
drain slave pipe. (iii) Dispose of fluid collected.
(iv) Repeat Items (i) and (ii).

NOTE: If quantity of fluid collected individually exceeds
600cc the motor valve leakage rate is in excess of
the permissible maximum and the tailplane must be
replaced.

5.6 No.2 Control system. (i) Stop test trolley.
(ii) Exhaust pressure by
operating rudder only.

6. GENERAL

6.1 Nos.1 and 2 Controls Remove.
systems exhaust slave pipes.

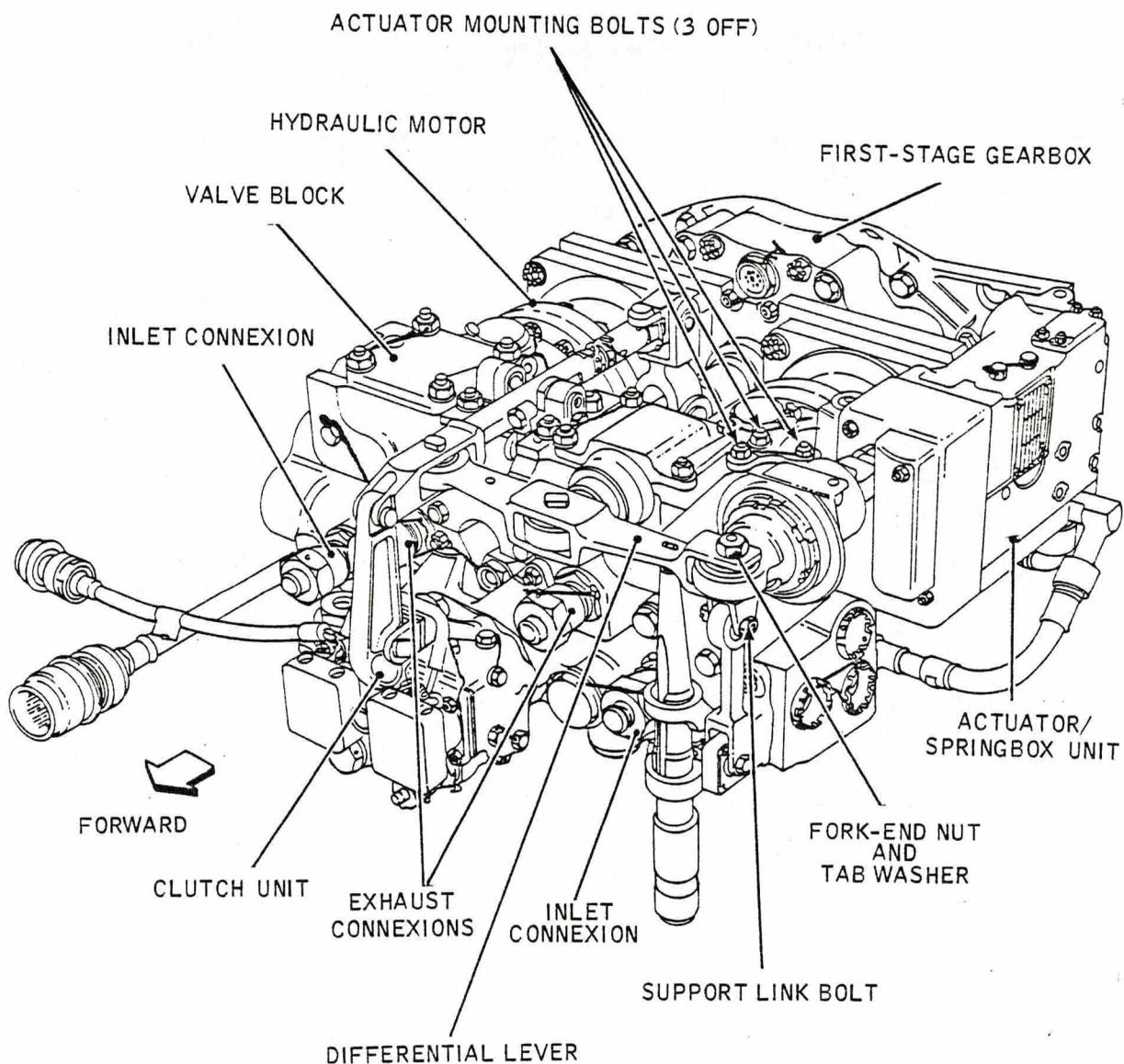
6.2 Nos.1 and 2 Controls Remove.
systems drain slave pipes.

6.3 Nos 1 and 2 Controls (i) Remove blank.
systems drain connexions. (ii) Connect to motor.
(iii) Tighten and wirelock.

6.4 Nos 1 and 2 Controls (i) Remove blank from aircraft
systems exhaust connexions. end.
(ii) Connect to motor
(iii) Tighten and
wirelock.

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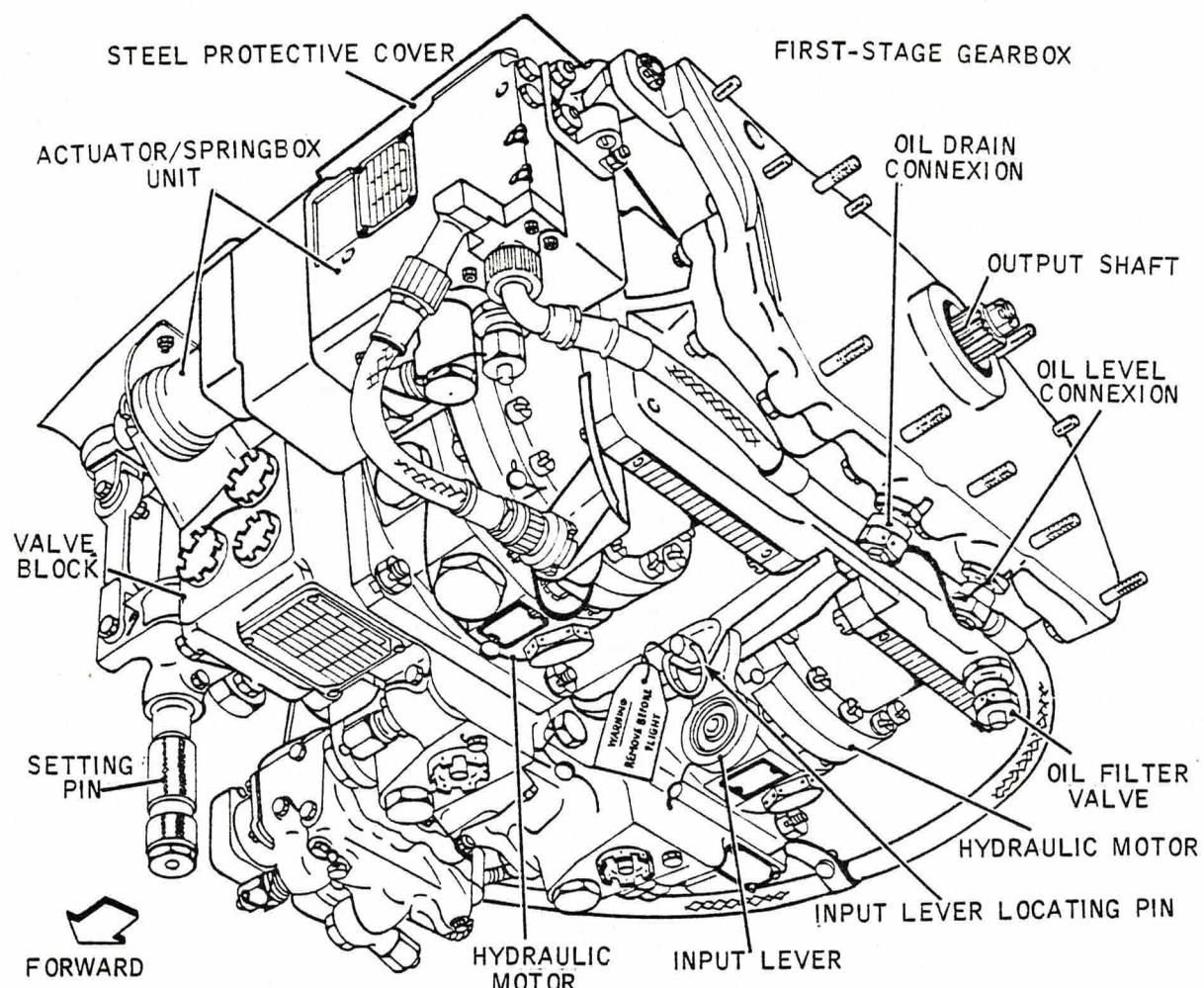
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TORQUE CONVERTER TYPE 455T - PROTECTION COVER REMOVED
FIGURE 2

Continued Overleaf

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TORQUE CONVERTER TYPE 455T - UNDERSIDE VIEW
FIGURE 3

Continued

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6. GENERAL (Contd)

6.5 Tailplane PFCU. Remove locating pin (CH/91192).

6.6 Nos. 1 and 2 Controls Bleed (SP 152(AF)).
systems.

6.7 Tailplane flying control Test (SP 114(AF)).
system.

43171/42172 (INSPECTOR)

7. INSPECTION STAGE

7.1 Inspect installation. Independent check of:
(i) Assembly and locking.
(ii) Function.

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8. COMPLETION

8.1 Walkway. Remove.

8.2 Tailplane motor Refit.
protective cover.

8.3 Tailplane motor heat Refit.
shields.

8.4 Bolster. Refit.

8.5 Drain channels. Refit.

8.6 Access panels 93 and 103. Refit.

8.7 External d.c. power supply. Disconnect.

8.8 External a.c. power supply. Disconnect.

8.9 Pitot/Static test set. Disconnect.

8.10 Tyre inflation rig (4G/1050542).
(i) Disconnect at ground air charging/release connexion.
(ii) Fit blank and wirelock.

8.11 Hydraulic test trolleys.
(i) Disconnect.
(ii) Remove.

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8. COMPLETION (Contd)

8.12 Hydraulic pump quick release connexions (Services & No.1 Controls), (Access panel 45P(left)). (i) Reconnect to aircraft. (ii) Wirelock.

8.13 Hydraulic pump quick release connexions (No.2 Controls), (Access panel 67P (left)). (i) Reconnect to aircraft. (ii) Wirelock.

8.14 Hydraulic reservoirs. Replenish (SP 603(AF)).

8.15 Access panels. Refit.

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9. COMPLETION

9.1 No.1 reheat jet pipe. Refit (SP 6(P)).

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10. COMPLETION

10.1 Arrestor hook. Reset (SP 142(AF)).

NOTE: All wirelocking to be of 22 SWG stainless steel unless otherwise stated.



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