

CHAP 1 AIRFRAME SP 16 AL 4 SHEET 1 OF 7	SERVICING PROCEDURE F53 T55	BAC F53 & T55 (SA) 5A3A Section 1 2nd Edition
Rudder Powered Flying Control Unit - Removal		AFSC 42152
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.		TIME EST 43151

SPECIAL TOOLS AND EQUIPMENT

Travel gauge (26DK/95286).

Locating pin (26DK/95127).

Auto-stabilizer neutral setting pin (26DK/95134).

Inflation rig (4G/1050542).

ASSOCIATED PROCEDURES

SP 603 (AF)

NOTE: Where reference is made to Rudder Neutral position, ascertain from Airframe Log Card any deviation from the standard detailed.

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1. PREPARATION

1.1 Aircraft.	(i) Raise on jacks until all wheels are clear of ground.
	(ii) Trestle at Frame 59.
	(iii) Trestle at Frame 44.

NOTE: Item 1.1 (iii) is applicable only if both engine hatches are removed.

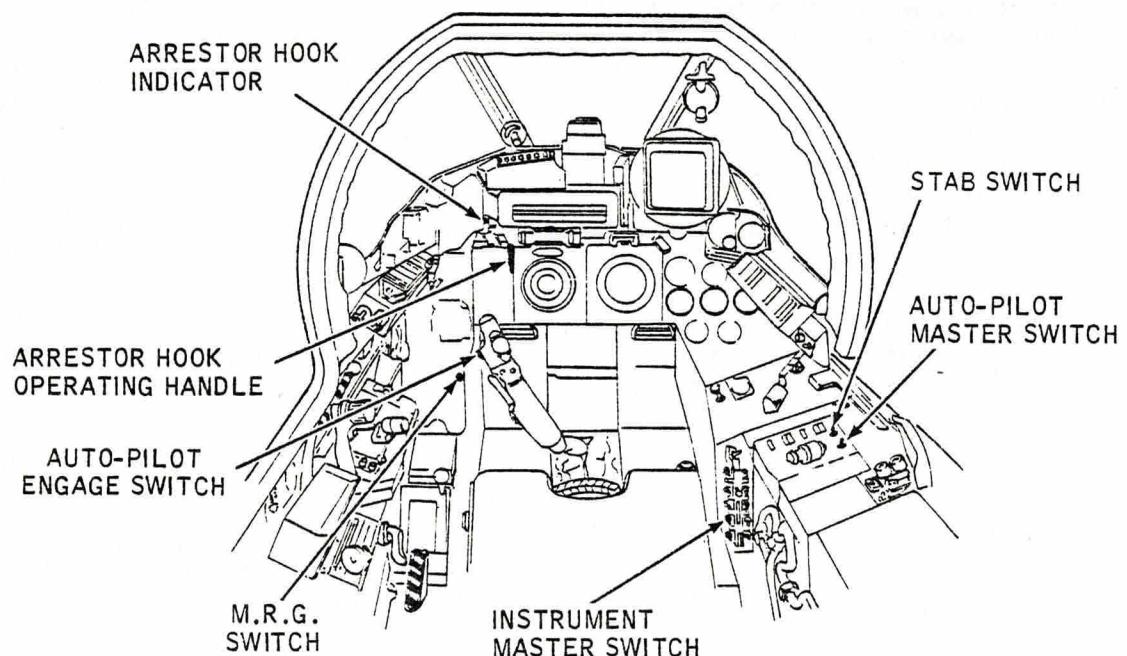
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2. PREPARATION

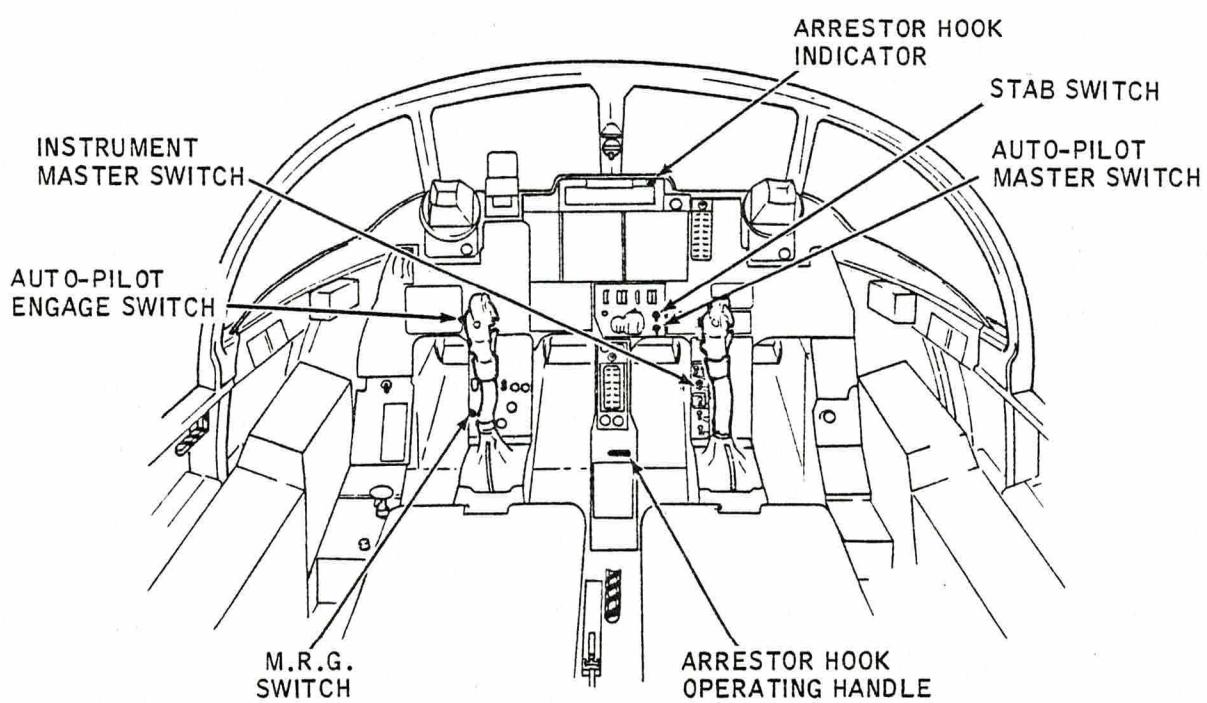
2.1 Ground air charging/ release connexion (Access panel 63P(left)).	Remove blank.
2.2 Services system hydraulic pressure.	Release pressure by operating brake lever.
2.3 Hydraulic test trolleys.	(i) Prime. (ii) Bleed.
2.4 No.1 Services ground test connexions (Access panel 45P(left)).	Connect hydraulic test trolley.
2.5 No.1 Controls ground test connexions (Access panel 45P(left)).	Connect hydraulic test trolley.

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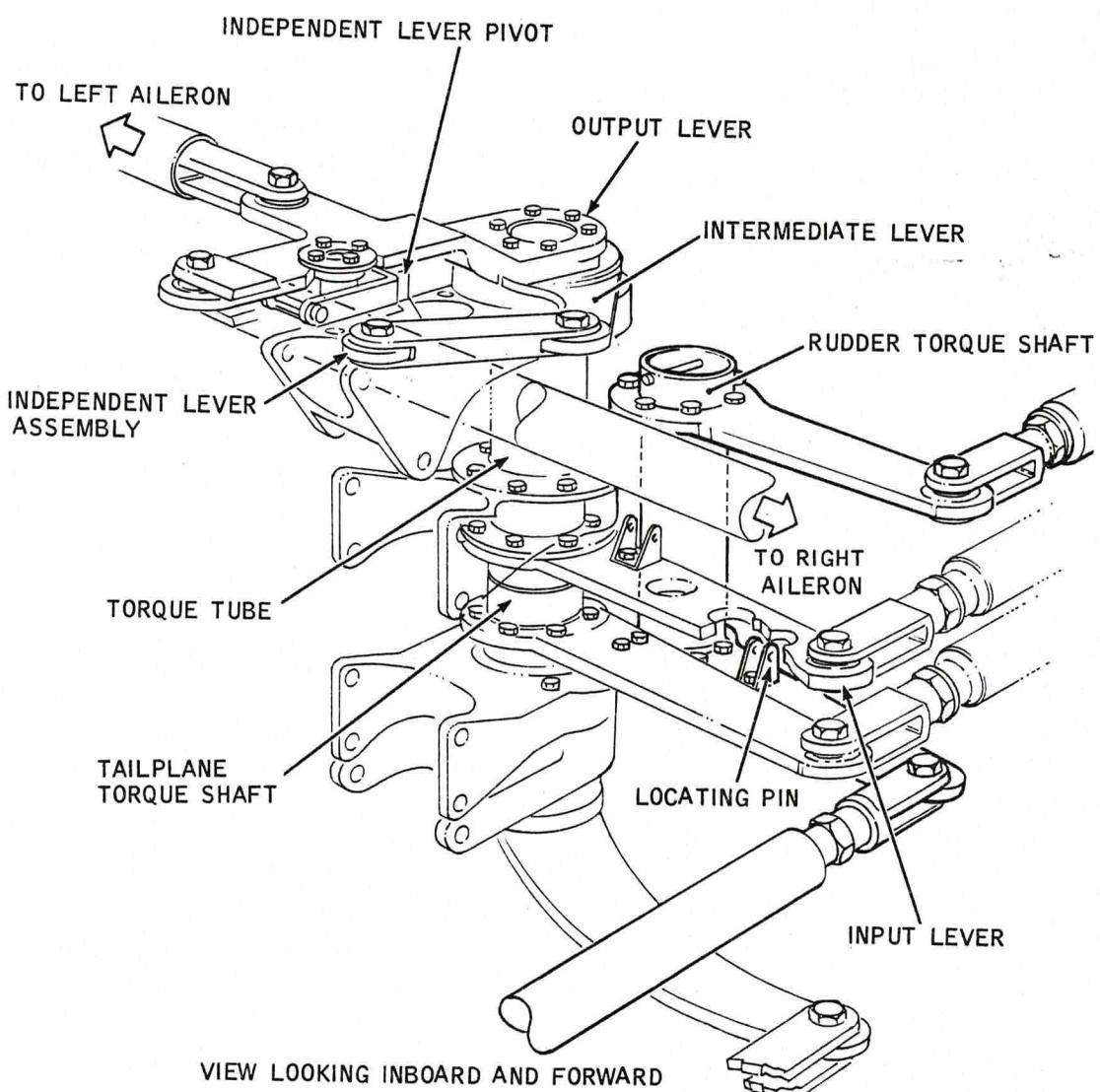


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INSTRUMENT AND AUTOPILOT SWITCHES
FIGURE 1

Continued

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NON-LINEAR GEARING MECHANISM

FIGURE 2

Continued Overleaf

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2. PREPARATION (Contd)

2.6 Hydraulic reservoirs (Services and No.1 Controls system). Replenish (SP 603 (AF)).

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

2.8 Access panels 86S (right) and 84S (right). Remove.

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

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

2.11 MRG Switch. Set to OFF (See Fig.1).

2.12 STAB Switch. Set to OFF (See Fig.1).

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

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

2.15 Autopilot master switch (On controller). Set to ON (See Fig. 1).

2.16 Rudder auto-stabilizer actuator. (i) Set to neutral using aircraft hand pump. (ii) Check neutral using setting pin (26DK/95134).

2.17 Rudder auto-stabilizer actuator. Remove setting pin.

2.18 Rudder travel gauge. Fit (26DK/95286).

2.19 Main undercarriage. Ensure ground locks fitted.

2.20 Nose undercarriage. Remove ground lock.

2.21 Pitot/Static test set. Connect.

Continued

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2. PREPARATION (Contd)

2.22 Pitot/Static system. Pressurize to equivalent of 165 Kt.

2.23 Undercarriage lever. Select to UP.

2.24 Services test trolley. Using test trolley hand pump raise nose undercarriage until indication lamp is out.

2.25 Services system. Pressurize to 3000 lbf/in².

2.26 Pitot/Static system. Pressurize to equivalent of 650 Kt.

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

2.28 Feel selector. Ensure set to IN.

2.29 Rudder trim. Trim to neutral ensuring indication on gauge is correct.

2.30 Rudder control system vertical torque shaft (Access panel 26S(right,F53), (Access panel 20S(right,T55)). Fit locating pin (26DK/95127) (See Fig.2).

2.31 Rudder. Ensure neutral.

2.32 Rudder control system vertical torque shaft. Remove Locating Pin.

2.33 Pitot/Static system. Release pressure and remove test set.

2.34 Undercarriage lever. Select to DOWN.

2.35 Nose undercarriage. Fit ground lock.

2.36 Autopilot master switch (On controller). Set to OFF.

2.37 Instrument master switch. Set to OFF.

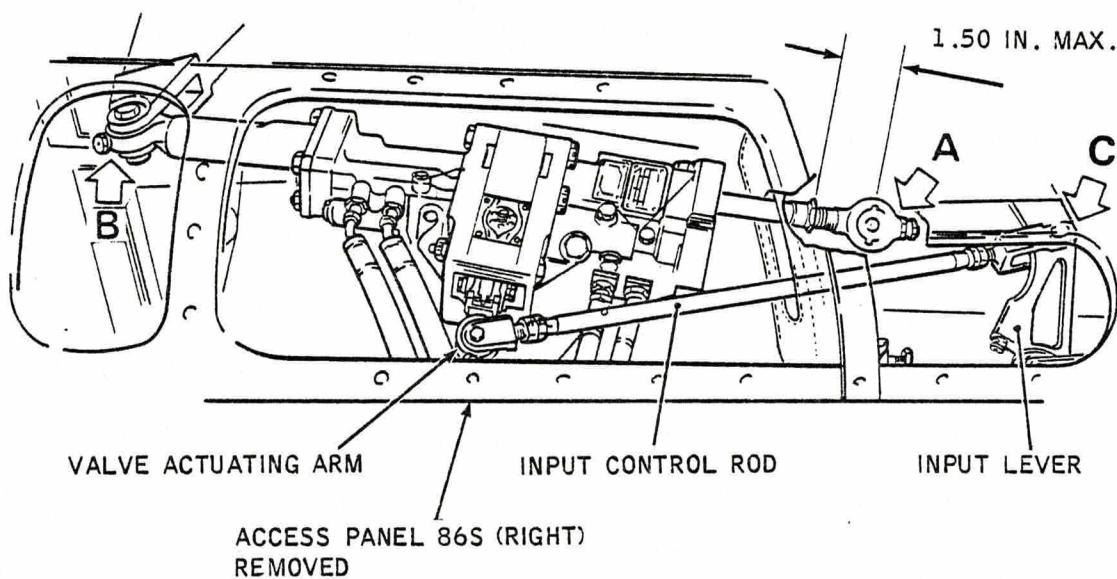
2.38 External d.c. power supply. Set to OFF.

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

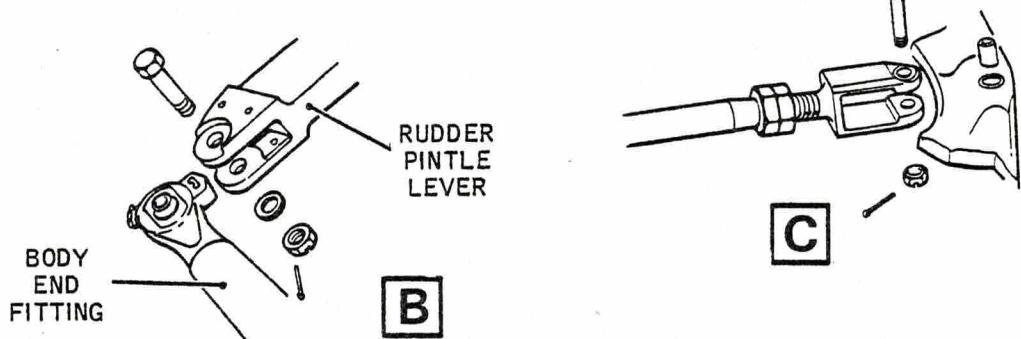
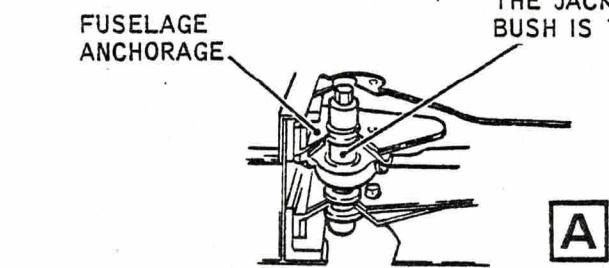
2.40 Services and No.1 Controls hydraulic test trolleys. STOP.

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CARE MUST BE TAKEN, WHEN FITTING THE JACK, TO ENSURE THAT THE SMALLER BUSH IS TOWARDS THE OUTSIDE SKIN.



NOTE: WITH THE PFCU IN THE NEUTRAL POSITION, IT IS ESSENTIAL THAT THE ATTACHMENT OF THE INPUT CONTROL ROD IS SUCH THAT, VIEWED ALONG THE CENTRE LINE OF THE ROD, THE FORK-ENDS ARE VISUALLY SET PARALLEL TO THE INPUT LEVER AND TO THE VALVE ACTUATING ARM RESPECTIVELY.

PFCU INSTALLATION

FIGURE 3

Continued

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2. PREPARATION (Contd)

2.41 Rear services system accumulator. Exhaust pressure by selecting feel in and out.

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

2.43 Tyre inflation rig (4G/1050542). (i) Remove.
(ii) Ensure all air is released and fit and tighten blank.

3. REMOVAL

3.1 Rudder PFCU input control rod (See Fig.3). Disconnect at PFCU.

3.2 Rudder PFCU (See Fig.3). (i) Support.
(ii) Disconnect from pintle lever.
(iii) Disconnect from fuselage anchorage.
(iv) Disconnect hydraulic unions and fit blanks.
(v) Remove.

4. COMPLETION

4.1 Rudder PFCU. Record pin centre length.

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