SERVO TAB - ADJUSTMENT/TEST

EFFECTIVITY: ALL

1. General

A. This section gives the procedures to do the operational check of the elevator spring tab and servo tab, and gives the procedure to do an inspection of the servo tab deflection.

B. The procedures in this section are given in the sequence below. The tasks identified with (♦) are part of the Scheduled Maintenance Requirements Document (SMRD).

TASK NUMBER	*DESCRIPTION*	*EFFECTIVITY*
27-31-04-700-801-A ♦	SPRING AND SERVO TABS - OPERATIONAL CHECK	ALL
27-31-04-700-802-A	SERVO-TAB - DEFLECTION	ALL

TASK 27-31-04-700-801-A
EFFECTIVITY: ALL

2. SPRING AND SERVO TABS - OPERATIONAL CHECK

A. General

(1) This task gives the procedures to do the operational check of the elevator spring and servo tabs.

B. Zones and Accesses

Not Applicable

C. Tools and Equipment

ITEM	*DESCRIPTION*	*PURPOSE*	*QTY*
GSE 044	Head Set, Ramp	For communications	

D. Auxiliary Items

Not Applicable

E. Consumable Materials

Not Applicable

F. Expandable Parts

Not Applicable

G. Persons Recommended

QTY	*FUNCTION*	*PLACE*
1	Does the task	Cockpit
1	Does the task	Outside the aircraft

H. Preparation

SUBTASK 841-002-A

(1) Make sure that the aircraft is safe for maintenance.

I. Operationally Check Spring and Servo Tabs (Figure 501)

SUBTASK 710-002-A

(1) Do a check of the spring and servo tab movement.

(a) Move the pilot control column fully forward.

Result:

1 The elevator trailing edge moves down and the servo tab trailing edge moves up.

(b) Move the pilot control column fully rearward.

Result:

1 The elevator trailing edge moves up and the servo tab trailing edge moves down.

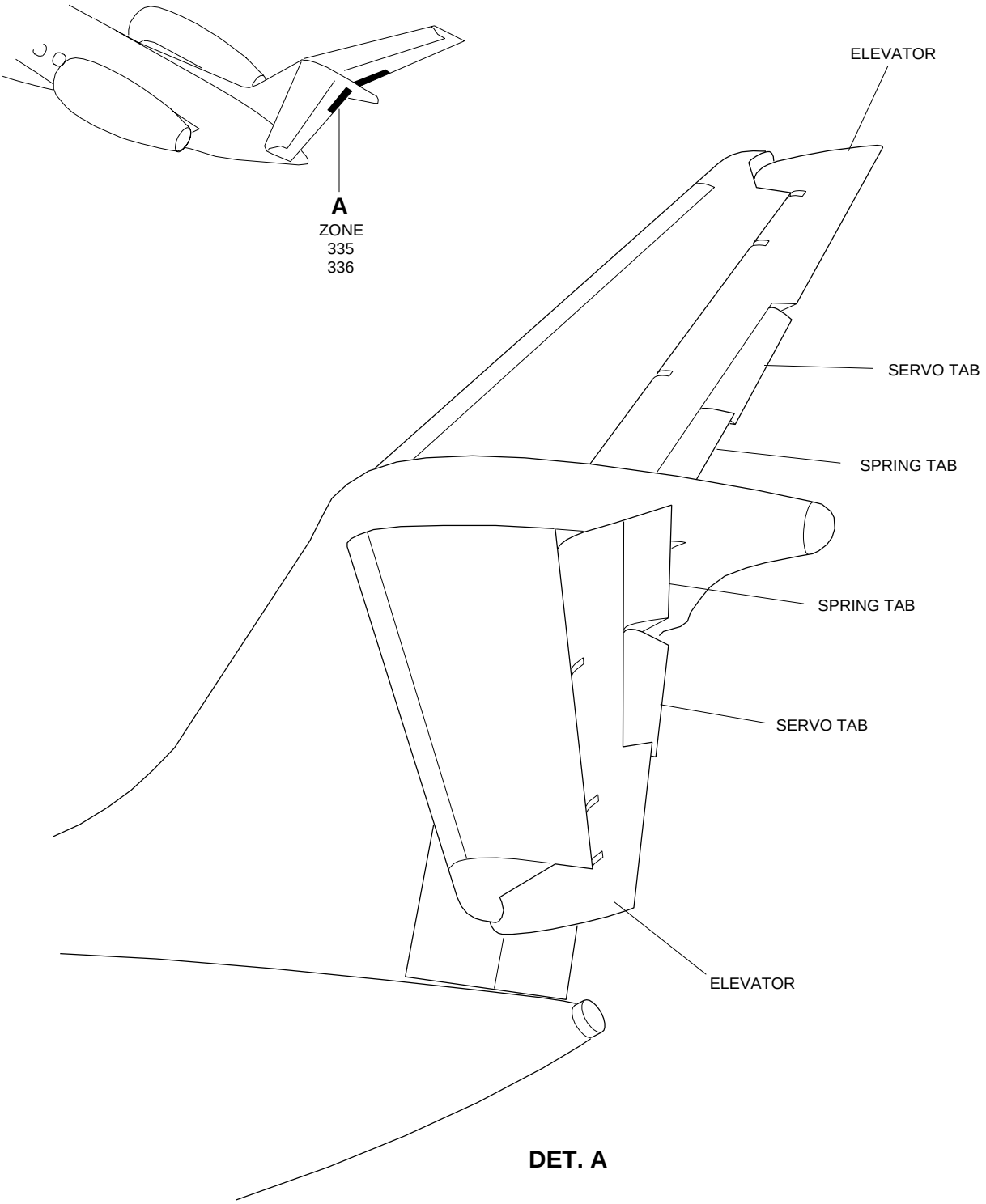
(c) Use force to move the pilot control column in the two directions many times. Do not stop the movement.

Result:

1 The spring tabs move according to the elevator while the servo tabs move to the opposite to it.

EFFECTIVITY: ALL

Spring and Servo Tab - Check
Figure 501



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TASK 27-31-04-700-802-A
EFFECTIVITY: ALL

3. SERVO-TAB - DEFLECTION

A. General

(1) This task gives the procedures to do an inspection of the servo tab deflection.

B. References

REFERENCE	*DESIGNATION*
AMM TASK 27-30-00-700-801-A/500	ELEVATOR CALIBRATION WITH CONTROL-COLUMN POSITION TRANSDUCERS
AMM TASK 55-22-01-000-801-A/400	SERVO AND SPRING-TAB SUPPORTS - REMOVAL
AMM TASK 55-22-01-400-801-A/400	SERVO AND SPRING-TAB SUPPORTS - INSTALLATION

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

ITEM	*DESCRIPTION*	*PURPOSE*	*QTY*
GSE 036	Hydraulic Platform	To get access to the elevator	
GSE 070	Digital Protractor	Measure the servo-tab deflections	
GSE 196	Elevator lock clamp	To lock the elevator in the neutral position	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	*FUNCTION*	*PLACE*
1	Does the task	Horizontal stabilizer
1	Helps the other technician	Horizontal stabilizer

I. Preparation

SUBTASK 841-003-A

(1) Make sure that the aircraft is safe for maintenance.

(2) Install GSE 196 to the elevator near the servo tab (Figure 502).

J. Inspect of the Servo Tab Deflection (Figure 501)

SUBTASK 720-002-A

(1) Do the procedure below, to find the deflection of the servo tab:

(a) Install the digital protractor (GSE 070) to the elevator in point A1 (Figure 503).

(b) Set the digital protractor to zero.

(c) Move the digital protractor from point A1 to point A2 (Figure 503).

(d) Write the value d1 shown on the digital protractor in Table 501.

(e) Do steps (a) thru (d) to find the values d2 and d3.

NOTE:
- The measurement d2 refers to points B1 and B2 as shown in Figure 503.
- The measurement d3 refers to points C1 and C2 as shown in Figure 503.

Table 501 - SERVO TAB DEFLECTIONS

Deflection	**d1**	**d2**	**d3**
Point measured	**A1 and A2**	**B1 and B2**	**C1 and C2**
Value of GSE 070			
Average			

(f) Find the average value between d1, d2, and d3.

d = (d1 + d2 + d3)/3

(g) The mean value of step (f) is the servo tab deflection. The maximum deflection permitted for the servo tab is 0.0 ± 0.5 degrees.

Table 502

The maximum deflection permitted
0.0 ± 0.5 degrees

(2) If the deflection found is out of the limit, do the procedure below:

(a) Do the adjustment of the servo tab deflection by adding or removing shims on the servo tab support. Refer to AMM TASK 55-22-01-000-801-A/400 or AMM TASK 55-22-01-400-801-A/400

NOTE: It is not necessary to do the elevator balancing after removal or installation of shims.

(b) Do the elevator calibration with the control-column position transducers (AMM TASK 27-30-00-700-801-A/500).

K. Follow-on

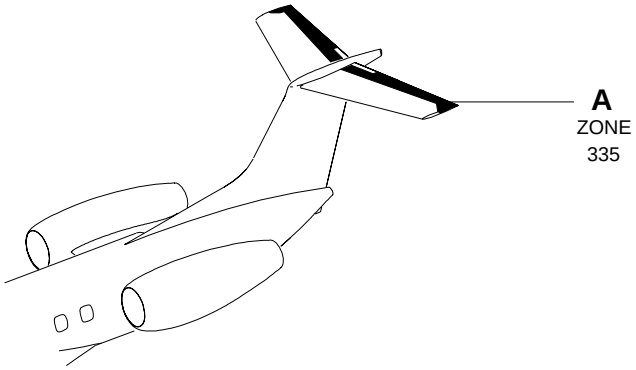
SUBTASK 842-002-A

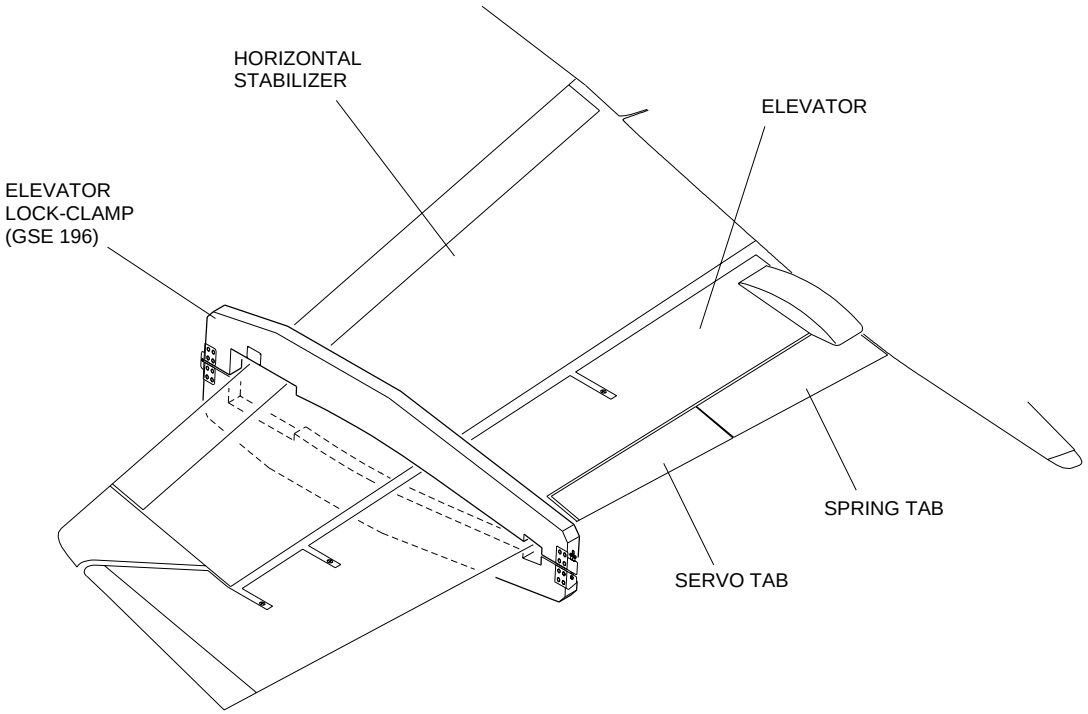
(1) Remove GSE 070 from the elevator.

(2) Remove GSE 196 from the elevator.

EFFECTIVITY: ALL

Elevator Lock Clamp - Installation
Figure 502





DET. A

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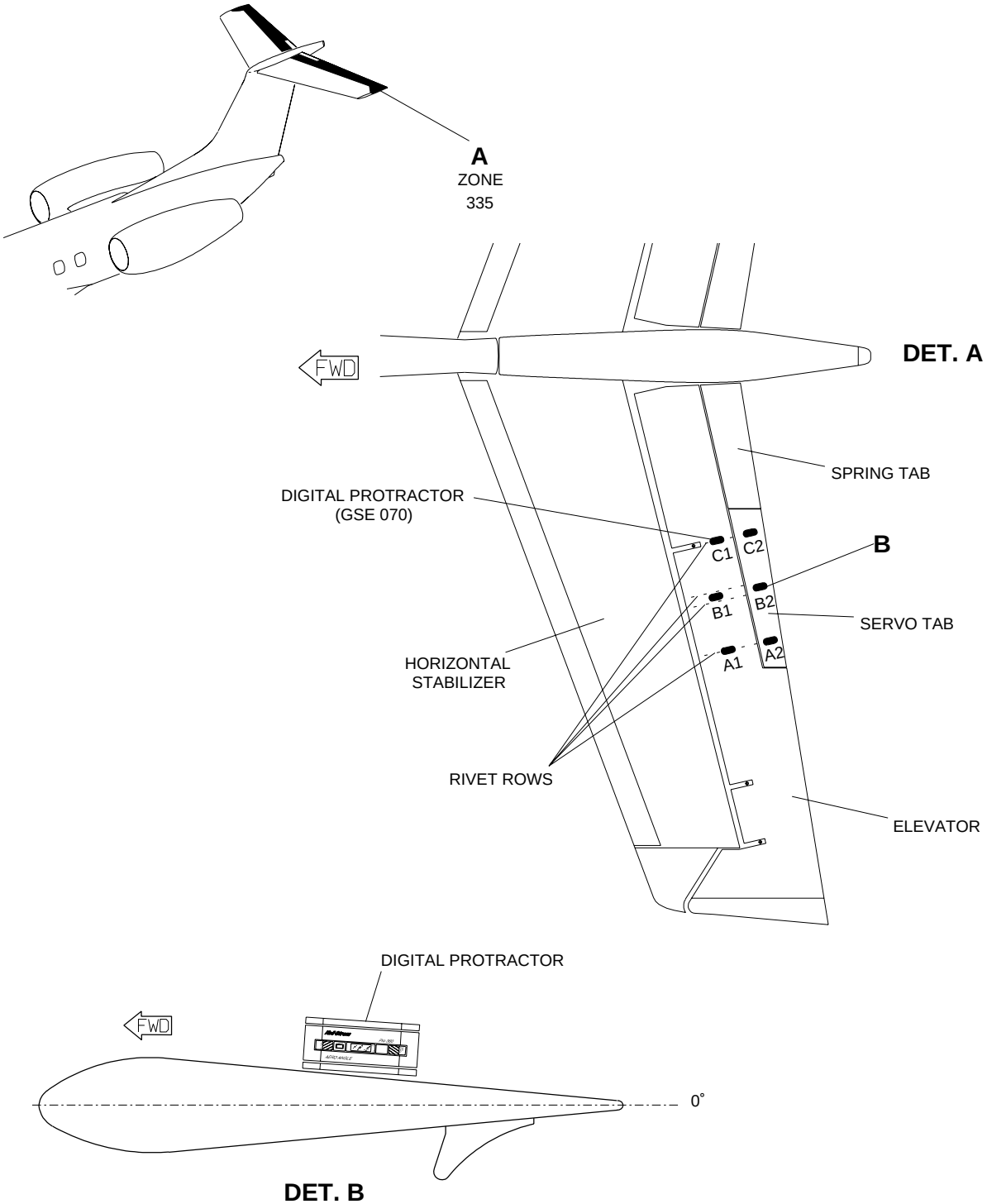
EFFECTIVITY: ALL

Digital Protractor Installation Points
Figure 503



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