

## SPRING TAB - ADJUSTMENT/TEST

*EFFECTIVITY: ALL*

1. General

- A. This section gives the procedures to do the adjustment of the backstops of the spring tab.
- 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
27-31-08-700-801-A	SPRING TAB - ADJUSTMENT	ALL

TASK 27-31-08-700-801-A

EFFECTIVITY: ALL

## 2. SPRING TAB - ADJUSTMENT

### A. General

(1) This task gives the procedures to do the adjustment of the backstops of the spring tab.

NOTE: The procedures are applicable to the left and right elevator surfaces.

### B. References

REFERENCE	DESIGNATION
AMM TASK 55-36-00-000-801-A/400	TAIL BOOM - REMOVAL
AMM TASK 55-36-00-400-801-A/400	TAIL BOOM - INSTALLATION
ITEM GSE 059	PROTRACTOR - CONTROL SURFACE DEFLECTION
ITEM GSE 070	PROTRACTOR - DIGITAL
ITEM GSE 196	CLAMP-LOCKING, ELEVATOR
ITEM GSE 202	WRENCH-STOP, SPRING TAB

### C. Zones and Accesses

Not Applicable

### D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 036	Hydraulic Platform	To get access to the elevators and spring tabs	
GSE 044	Ramp Headset	For communications	
GSE 058	Rig Pin Kit	To lock the elevator in the neutral position	
GSE 059	Protractor	To measure the spring tab deflections	
GSE 070	Digital Protractor	To measure the elevator deflections	
GSE 196	Elevator Lock Clamp	To lock the elevator in the neutral position	
GSE 202	Spring-Tab Stop Wrench	To adjust the bolt of the spring tab backstop	

### E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Screw, NASM(MS)24694-6 (or similar with #8-32UNC thread, 19/32 in. length)	To attach the base of GSE-059 to the air-craft	1

### F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
MS20995-C20	Lockwire	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Near the elevator area
1	Helps the other technician	Near the elevator area

I. Preparation

**SUBTASK 841-002-A**

- (1) Make sure that the aircraft is safe for maintenance.
- (2) Do not do other tasks on the elevator system.
- (3) Remove the rear faring from the tail boom ( [AMM TASK 55-36-00-000-801-A/400](#)).

J. Adjustment of the Spring Tab

**SUBTASK 720-002-A**

**WARNING: MAKE SURE THAT THERE ARE NO PERSONS AND/OR EQUIPMENT IN THE ELEVATOR TRAVEL AREA.**

- (1) Install [ITEM GSE 196](#) on the elevator surface ([Figure 502](#)).

**NOTE:** • The elevator-neutral-position locking device must be installed perpendicular to the elevator hinge line.

- Make sure that the spring tab is aligned with the elevator. If not, adjust the spring tab through its adjustable rods.

- (2) Install the rig pins on the elevator rear sectors ([Figure 501](#)).
- (3) Install protractor [ITEM GSE 059](#), with a double face adhesive tape, between elevator and spring tab and set it to zero ([Figure 502](#)).
- (4) Position the [ITEM GSE 070](#) on the elevator and set it to zero ([Figure 502](#)).
- (5) Remove [ITEM GSE 196](#) from the elevator.

**NOTE:** After removed [ITEM GSE 196](#), the [ITEM GSE 059](#) and [ITEM GSE 070](#) will show a small deflection due to the elevator weight. This deflection must be considered. Do not set the protractors to zero.

- (6) Do this procedure for the spring tab up position.
  - (a) Manually force the elevator surface up until you get the permitted value of spring tab deflection ([Table 501](#)). Refer to [Figure 502](#).

**NOTE:** • The movement must be smooth, without jerking that could cause reading oscillations.

- The permitted value of elevator deflection shown in the [Table 501](#) is only for reference. This value must be shown on the digital protractor ([ITEM GSE 070](#)) after step above. Refer to [Figure 504](#).

Table 501 - SPRING TAB UP POSITION

	ELEVATOR DEFLECTION	SPRING TAB DEFLECTION <sup>[1]</sup>
PERMITTED VALUE	2 degrees to 3 degrees	6.0 degrees to 6.5 degrees
FOUND VALUE		

[1] Applicable if you installed:  
 – a new elevator/spring tab assembly;  
 – a new spring tab only;  
 – a new elevator only;  
 – a spring tab removed from other aircraft;  
 – an elevator removed from other aircraft.

**CAUTION:** DO NOT FORCE THE BOLT AGAINST THE BACKSTOP

- (b) If necessary, adjust with [ITEM GSE 202](#) the adjusting bolt of the spring tab until it touches the backstop and the found values of [Table 501](#) can not be changed. Refer to [Figure 503](#).
- (7) Do this procedure for the spring tab down position.
- (a) Manually force the elevator surface down until you get the permitted value of spring tab deflection ([Table 502](#)). Refer to [Figure 502](#).

- NOTE:**
- The movement must be smooth, without jerking that could cause reading oscillations.
  - The permitted value of elevator deflection shown in the [Table 502](#) is only for reference. This value must be shown on the digital protractor ([ITEM GSE 070](#)) after step above. Refer to [Figure 504](#).

Table 502 - SPRING TAB DOWN POSITION

	ELEVATOR DEFLECTION	SPRING TAB DEFLECTION <sup>[1]</sup>
PERMITTED VALUE	4.3 degrees to 5.3 degrees	12.0 degrees to 13.5 degrees
FOUND VALUE		

[1] Applicable if you installed:  
 – a new elevator/spring tab assembly;  
 – a new spring tab only;  
 – a new elevator only;  
 – a spring tab removed from other aircraft;  
 – an elevator removed from other aircraft.

**CAUTION:** DO NOT FORCE THE BOLT AGAINST THE BACKSTOP.

- (b) If necessary, adjust with [ITEM GSE 202](#) the adjusting bolt of the spring tab until it touches the backstop and the found values of [Table 502](#) can not be changed. Refer to [Figure 503](#).

(c) Lockwire the upper and lower adjusting bolts of the spring tab.

(8) Do steps 1 thru 8 for the other elevator surface.

K. Follow-on

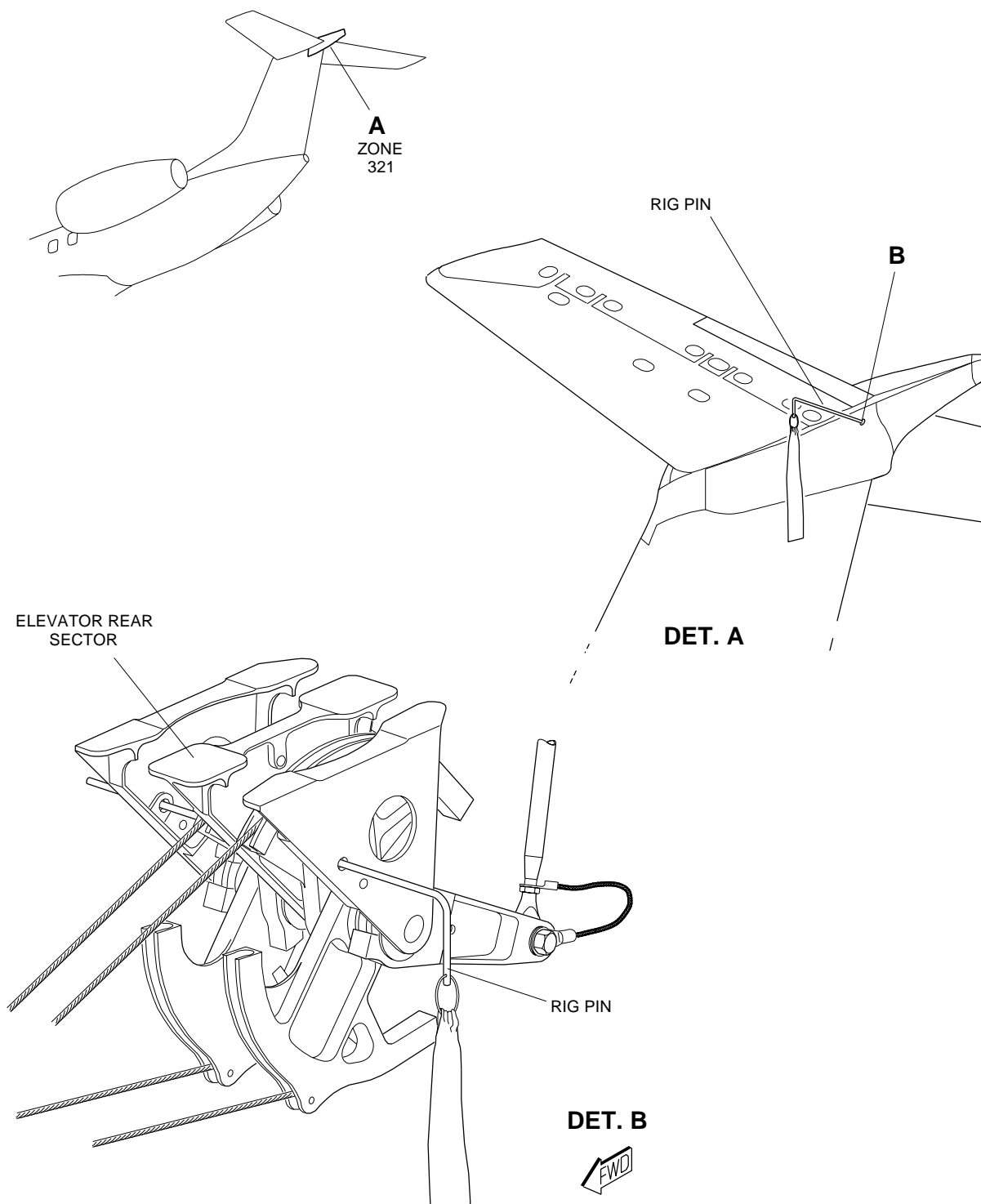
*SUBTASK 842-002-A*

- (1) Remove the rig pins from the elevator rear sector.
- (2) Remove all GSEs.
- (3) Install the rear faring to the tail boom ( [AMM TASK 55-36-00-400-801-A/400](#)).

EFFECTIVITY:: ALL

Rig Pins - Located

Figure 501

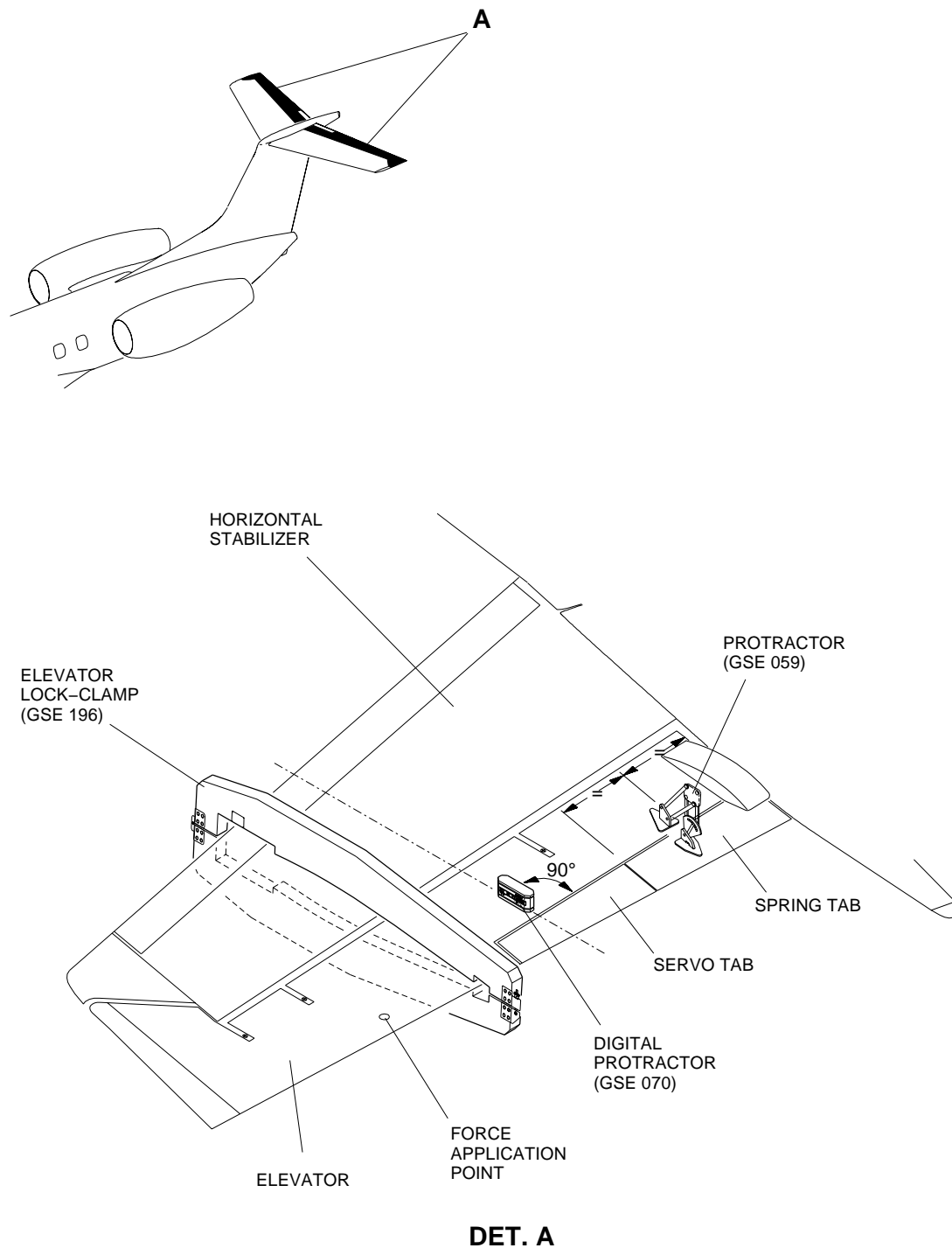


EM145AMM270549A.DGN

EFFECTIVITY:: ALL

GSEs - Location

Figure 502

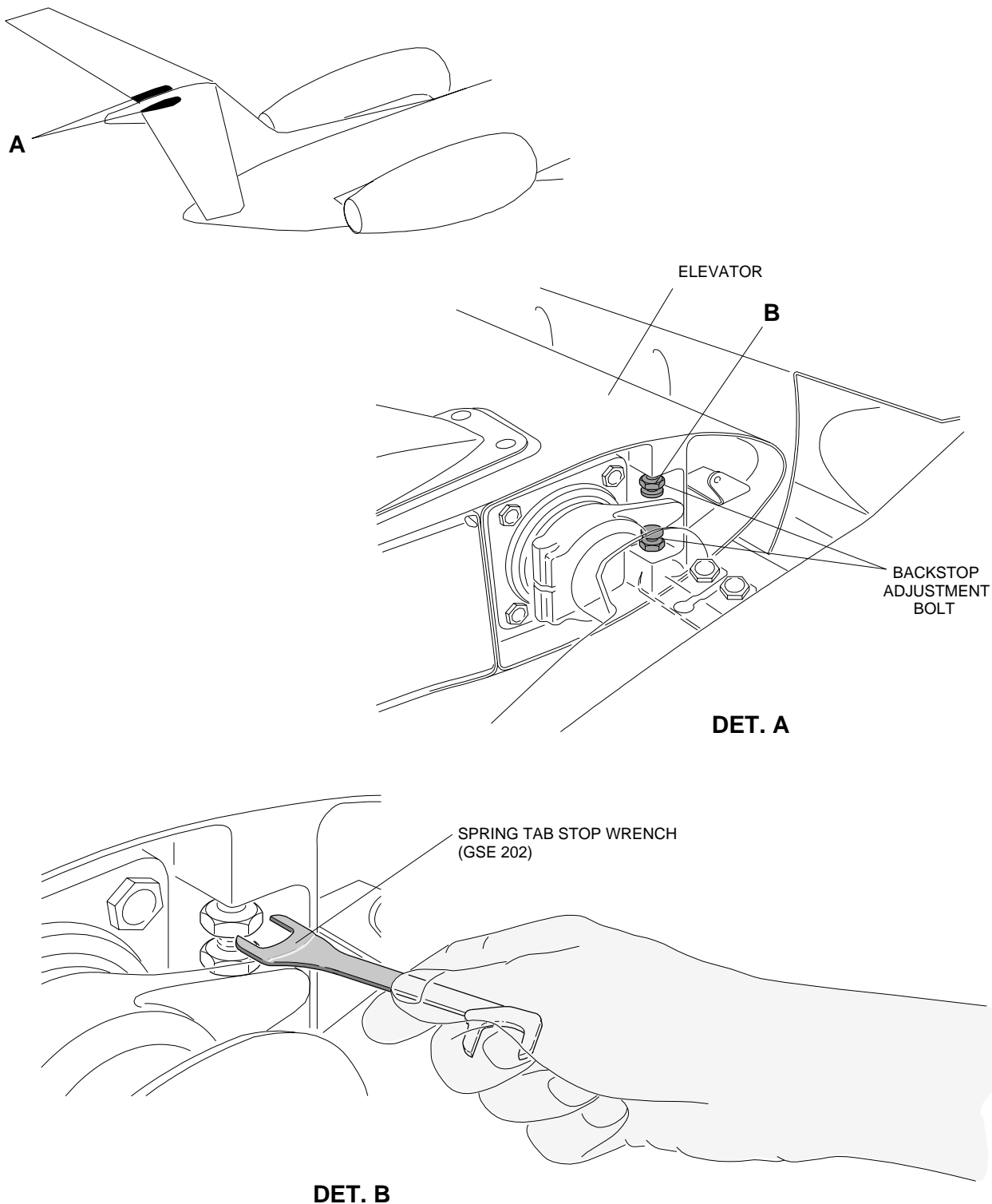


145AMM270461B.MCE

EFFECTIVITY:: ALL

Adjustment of the Spring Tab Backstop

Figure 503



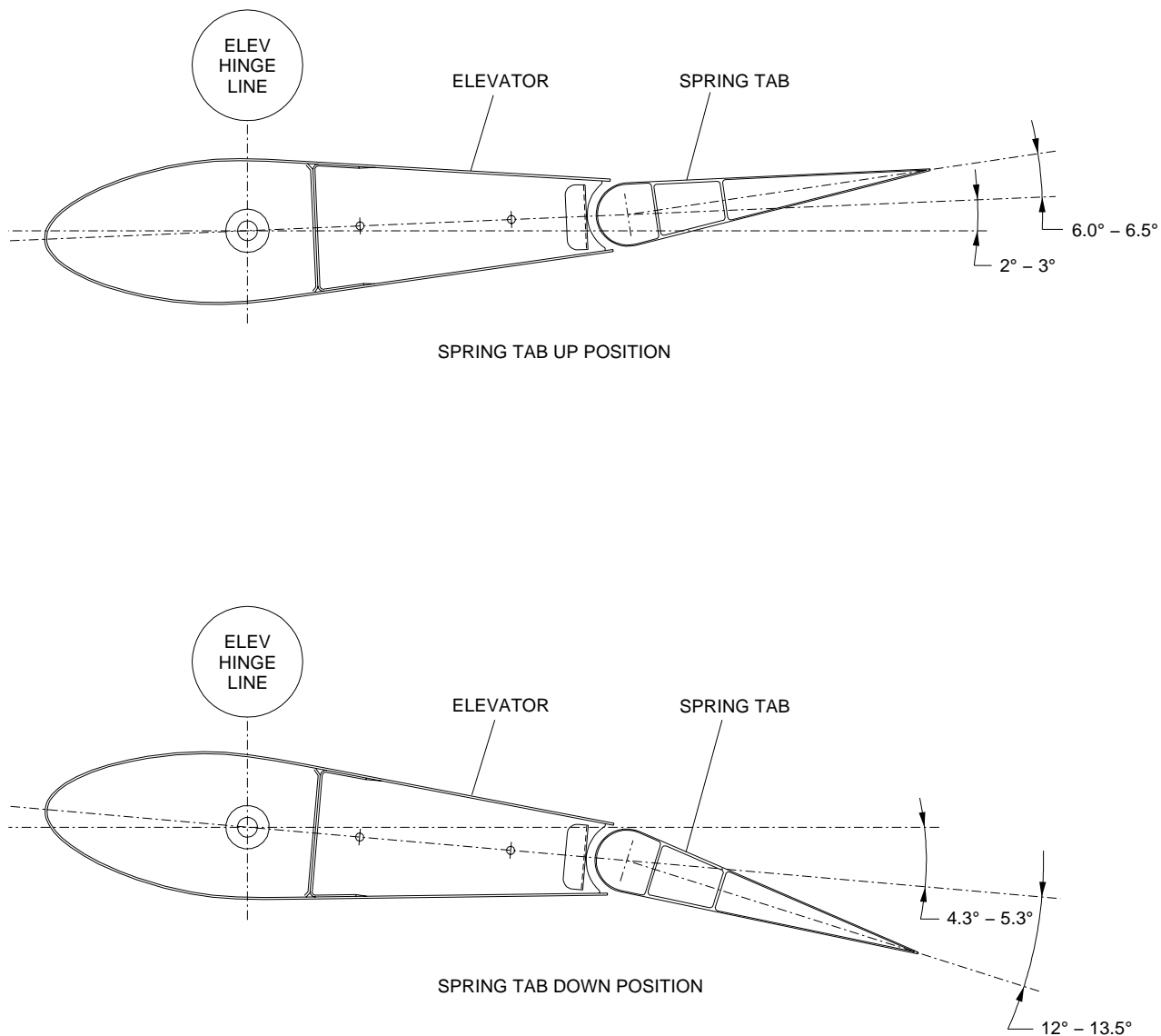
145AMM270464.MCE B



EFFECTIVITY:: ALL

Elevator and Spring Tab deflection

Figure 504



EM145AMM270693C.DGN

