

**RVDTs/RVITs - REMOVAL/INSTALLATION**

*EFFECTIVITY: AIRCRAFT WITH RVDTs/RVITs*

1. General

- A. This section gives the procedures to remove and install the FDR Rotary Variable Differential Transformers (RVDTs) or Rotary Variable Inductive Transformers (RVITs).
- B. The FDR RVDTs/RVITs give information about the position of the elevator, the rudder, and the aileron to the flight data recorder (FDR).
- C. There are five FDR RVDTs/RVITs on the aircraft, installed in these locations:
  - On the LH and RH aileron surfaces;
  - On the LH and RH elevators;
  - On the rudder.
- D. For aircraft POST-MOD. [S.B.145-55-0020](#), with mechanical gust lock, and without provisions for electromechanical gust lock, this section also gives the task to remove and install the elevator RVDT/RVIT support.
- E. You can use RVDTs or RVITs. But you cannot use mixed components on the elevator and aileron surfaces, when they must be used in pairs.
- F. 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               |
|------------------------------------|---|---------------------------|
| <a href="#">31-31-06-000-801-A</a> | FDR AILERON RVDTs/RVITs - REMOVAL       | AIRCRAFT WITH RVDTs/RVITs |
| <a href="#">31-31-06-400-801-A</a> | FDR AILERON RVDTs/RVITs - INSTALLATION  | AIRCRAFT WITH RVDTs/RVITs |
| <a href="#">31-31-06-000-802-A</a> | FDR ELEVATOR RVDTs/RVITs - REMOVAL      | AIRCRAFT WITH RVDTs/RVITs |
| <a href="#">31-31-06-400-802-A</a> | FDR ELEVATOR RVDTs/RVITs - INSTALLATION | AIRCRAFT WITH RVDTs/RVITs |
| <a href="#">31-31-06-000-803-A</a> | FDR RUDDER RVDT/RVIT - REMOVAL          | AIRCRAFT WITH RVDTs/RVITs |
| <a href="#">31-31-06-400-803-A</a> | FDR RUDDER RVDT/RVIT - INSTALLATION     | AIRCRAFT WITH RVDTs/RVITs |

(Continued)

| <i>TASK NUMBER</i> | <i>DESCRIPTION</i>                                 | <i>EFFECTIVITY</i>  |
|--------------------|--|---|
| 31-31-06-000-804-A | FDR ELEVATOR RVDTS/RVITS SUPPORT<br>- REMOVAL      | AIRCRAFT POST-MOD<br>SB 145-55-0020, WITH<br>MECHANICAL GUST<br>LOCK AND WITHOUT<br>PROVISIONS FOR<br>ELECTROMECHANICAL GUST LOCK |
| 31-31-06-400-804-A | FDR ELEVATOR RVDTS/RVITS SUPPORT<br>- INSTALLATION | AIRCRAFT POST-MOD<br>SB 145-55-0020, WITH<br>MECHANICAL GUST<br>LOCK AND WITHOUT<br>PROVISIONS FOR<br>ELECTROMECHANICAL GUST LOCK |
| 31-31-06-000-805-A | FDR ELEVATOR RVDTS/RVITS SUPPORT<br>- REMOVAL      | AIRCRAFT POST-MOD<br>S.B. 145-31-0045, WITH<br>ELECTROMECHANICAL GUST LOCK  |
| 31-31-06-400-805-A | FDR ELEVATOR RVDTS/RVITS SUPPORT<br>- INSTALLATION | AIRCRAFT POST-MOD<br>S.B. 145-31-0045, WITH<br>ELECTROMECHANICAL GUST LOCK  |

TASK 31-31-06-000-801-A

EFFECTIVITY: AIRCRAFT WITH RVDTS/RVITS

## 2. FDR AILERON RVDTS/RVITS - REMOVAL

### A. General

(1) This task gives the procedures to remove the LH and RH FDR aileron RVDTS/RVITS.

### B. References

| REFERENCE                                       | DESIGNATION                    |
|---|--------------------------------|
| AMM TASK 27-11-01-700-801-A/500                 | -                              |
| <a href="#">AMM TASK 57-56-03-000-801-A/400</a> | AILERON UPPER SHROUD - REMOVAL |

### C. Zones and Accesses

| ZONE | PANEL/DOOR | LOCATION                        |
|------|------------|---------------------------------|
| 573  |            | Wing, on the LH aileron surface |
| 673  |            | Wing, on the RH aileron surface |

### D. Tools and Equipment

| ITEM                    | DESCRIPTION                    | PURPOSE   | QTY |
|-------------------------|--------------------------------|---|-----|
| <a href="#">GSE 036</a> | Platform - Hydraulic, Aircraft | To get access to the work area on the LH and/or RH aileron surfaces |     |

### 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 | On the LH and/or RH aileron surface |

### I. Preparation

#### *SUBTASK 841-002-A*

- (1) On the circuit breaker panel, open the FDR circuit breaker (Location Tip: ESSENTIAL DC BUS 1/MISCELLANEOUS/FDR) and attach a DO-NOT-CLOSE tag to it.
- (2) Put up the hydraulic platform (GSE 036) at the necessary height.
- (3) Install a rig pin in the aileron wing sector (AMM TASK 27-11-01-700-801-A/500).

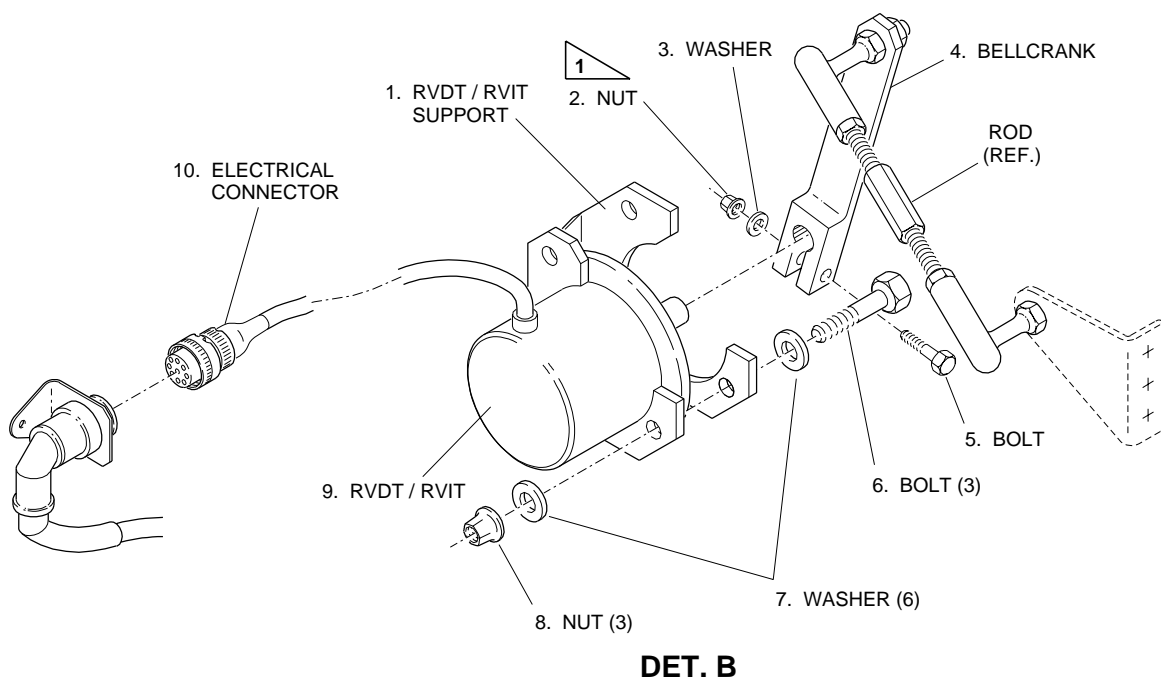
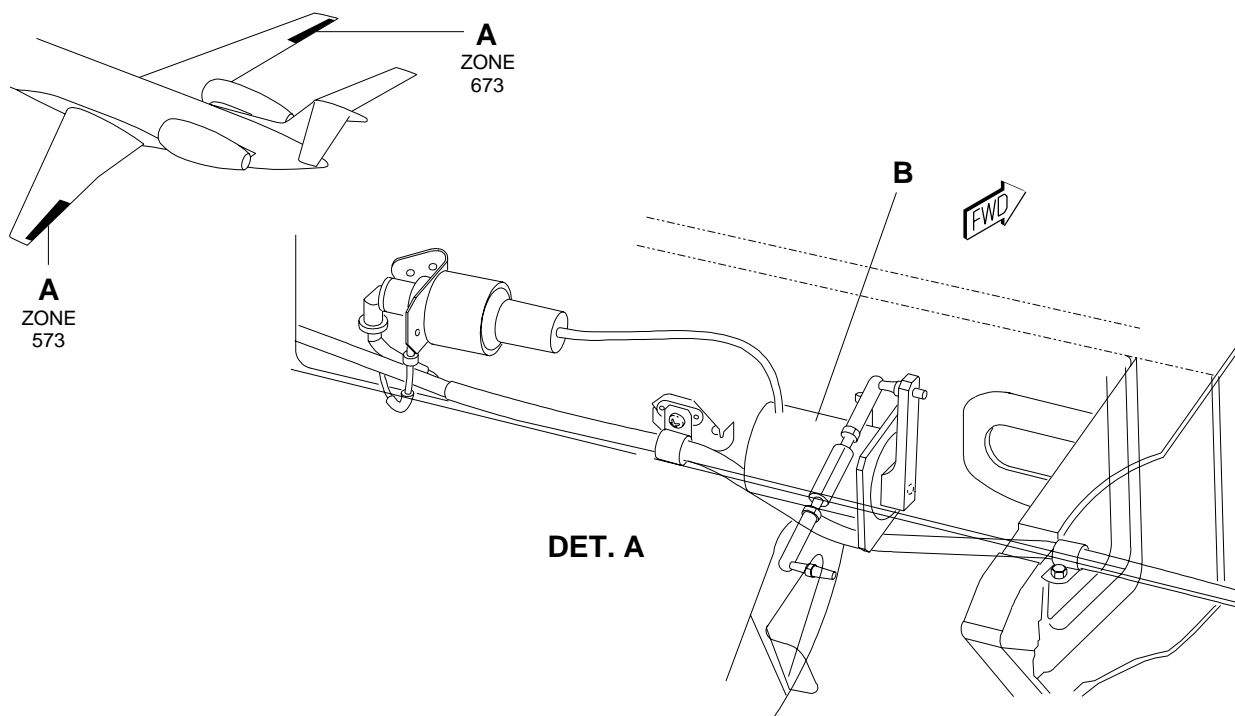
- (4) Remove the LH and/or RH aileron upper shrouds as applicable ([AMM TASK 57-56-03-000-801-A/400](#)).

J. Removal ([Figure 401](#))

*SUBTASK 020-002-A*

- (1) Disconnect the electrical connector (10).
- (2) Remove the bolt (5), washer (3), and nut (2) that attach the bellcrank (4) to the RVDT/RVIT (9).
- (3) Remove the bolt (6), washer (7), and nut (8) that attach the RVDT/RVIT (9) to its support (1).
- (4) Remove the RVDT/RVIT (9).

**EFFECTIVITY: AIRCRAFT WITH RVDTs/RVITs**  
FDR Aileron RVDTs/RVITs - Removal/Installation  
Figure 401



**1** APPLY TORQUE OF 4.52 - 5.08 Nm ( 40 - 45 lbf.in )

145AMM310118.MCE B

**TASK 31-31-06-400-801-A**

**EFFECTIVITY: AIRCRAFT WITH RVDTS/RVITS**

**3. FDR AILERON RVDTS/RVITS - INSTALLATION**

**A. General**

(1) This task gives the procedures to install the RH and LH FDR aileron RVDTS/RVITS.

**B. References**

| REFERENCE                                       | DESIGNATION                            |
|---|--|
| AMM TASK 27-11-01-700-801-A/500                 | -                                      |
| <a href="#">AMM TASK 31-31-00-700-801-A/500</a> | FLIGHT DATA RECORDER - FUNCTIONAL TEST |
| <a href="#">AMM TASK 31-31-00-700-804-A/500</a> | FLIGHT DATA RECORDER - FUNCTIONAL TEST |
| <a href="#">AMM TASK 31-31-06-820-801-A/500</a> | FDR AILERON RVDTS/RVITS - CALIBRATION  |
| <a href="#">AMM TASK 57-56-03-400-801-A/400</a> | AILERON UPPER SHROUD - INSTALLATION    |

**C. Zones and Accesses**

| ZONE | PANEL/DOOR | LOCATION                        |
|------|------------|---------------------------------|
| 573  |            | Wing, on the LH aileron surface |
| 673  |            | Wing, on the RH aileron surface |

**D. Tools and Equipment**

| ITEM                    | DESCRIPTION                    | PURPOSE   | QTY |
|-------------------------|--------------------------------|---|-----|
| <a href="#">GSE 036</a> | Platform - Hydraulic, Aircraft | To get access to the work area on the LH and/or RH aileron surfaces |     |

**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 | On the LH and/or RH aileron surface |

**I. Installation (Figure 401)**

**SUBTASK 420-002-A**

**CAUTION:** YOU CAN USE TWO RVDTS OR TWO RVITS ON THE AILERONS. DO NOT MIX RVDTS AND RVITS ON THE LEFT AND RIGHT AILERON SURFACES.

(1) Put the RVDT/RVIT (9) in its installation position.

- (2) Install the bolt (6), washer (7), and nut (8) that attach the RVDT/RVIT (9) to its support (1).
- (3) Install the bolt (5), washer (3), and nut (2) that connect the bellcrank (4) to the RVDT/RVIT (9). Apply a torque of 4.52 - 5.08 N.m (40 - 45 lbf.in) to the fasteners.
- (4) Connect the electrical connector (10).
- (5) Remove the rig pin of the aileron wing sector (AMM TASK 27-11-01-700-801-A/500).
- (6) Do the RVDT/RVIT adjustment ( [AMM TASK 31-31-06-820-801-A/500](#)).

J. Follow-on

*SUBTASK 842-002-A*

- (1) On the circuit breaker panel, remove the DO-NOT-CLOSE tag from the FDR circuit breaker (Location Tip: ESSENTIAL DC BUS 1/MISCELLANEOUS/FDR) and close it.
- (2) Do the flight-data-recorder functional test (FDR RVDT/RVIT parameters only) ( [AMM TASK 31-31-00-700-801-A/500](#) or [AMM TASK 31-31-00-700-804-A/500](#), as applicable).
- (3) Install the LH and/or RH aileron upper shrouds as applicable ([AMM TASK 57-56-03-400-801-A/400](#)).
- (4) Remove the hydraulic platform (GSE 036).

TASK 31-31-06-000-802-A

*EFFECTIVITY: AIRCRAFT WITH RVDTS/RVITS*

#### 4. FDR ELEVATOR RVDTS/RVITS - REMOVAL

##### A. General

(1) This task gives the procedures to remove the LH and RH FDR elevator RVDTS/RVITS.

##### B. References

| REFERENCE                                       | DESIGNATION   |
|---|---|
| AMM MPP 06-42-00/100                            | -   |
| <a href="#">AMM TASK 27-31-01-700-801-A/500</a> | TENSION OF THE ELEVATOR CONTROL CABLES - FUNCTIONAL CHECK |
| <a href="#">AMM TASK 55-36-00-000-801-A/400</a> | TAIL BOOM - REMOVAL                                       |

##### C. Zones and Accesses

| ZONE | PANEL/DOOR | LOCATION    |
|------|------------|-------------|
| 335  |            | LH elevator |
| 336  |            | RH elevator |

##### D. Tools and Equipment

| ITEM                    | DESCRIPTION                    | PURPOSE  | QTY |
|-------------------------|--------------------------------|--|-----|
| <a href="#">GSE 036</a> | Platform - Hydraulic, Aircraft | To get access to the work area on the LH and/or RH elevator surfaces |     |

##### 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 | On the LH and/or RH elevator |

##### I. Preparation

###### *SUBTASK 841-003-A*

- (1) On the circuit breaker panel, open the FDR circuit breaker (Location Tip: ESSENTIAL DC BUS 1/MISCELLANEOUS/FDR) and attach a DO-NOT-CLOSE tag to it.
- (2) Put up the hydraulic platform (GSE 036) at the necessary height.



- (3) Install a rig pin in the elevator rear section ( [AMM TASK 27-31-01-700-801-A/500](#)).
- (4) For aircraft with Mechanical Gust Lock, without provisions for Electromechanical Gust Lock, remove the LH and/or RH seal fairing from the tail boom as applicable ( [AMM TASK 55-36-00-000-801-A/400](#)).
- (5) For aircraft with Electromechanical Gust Lock, or with provisions for it, remove access panel 335DB or 336DB (AMM MPP 06-42-00/100) for the LH or RH side, as applicable.

J. Removal ([Figure 402](#)) ([Figure 403](#))

*SUBTASK 020-003-A*

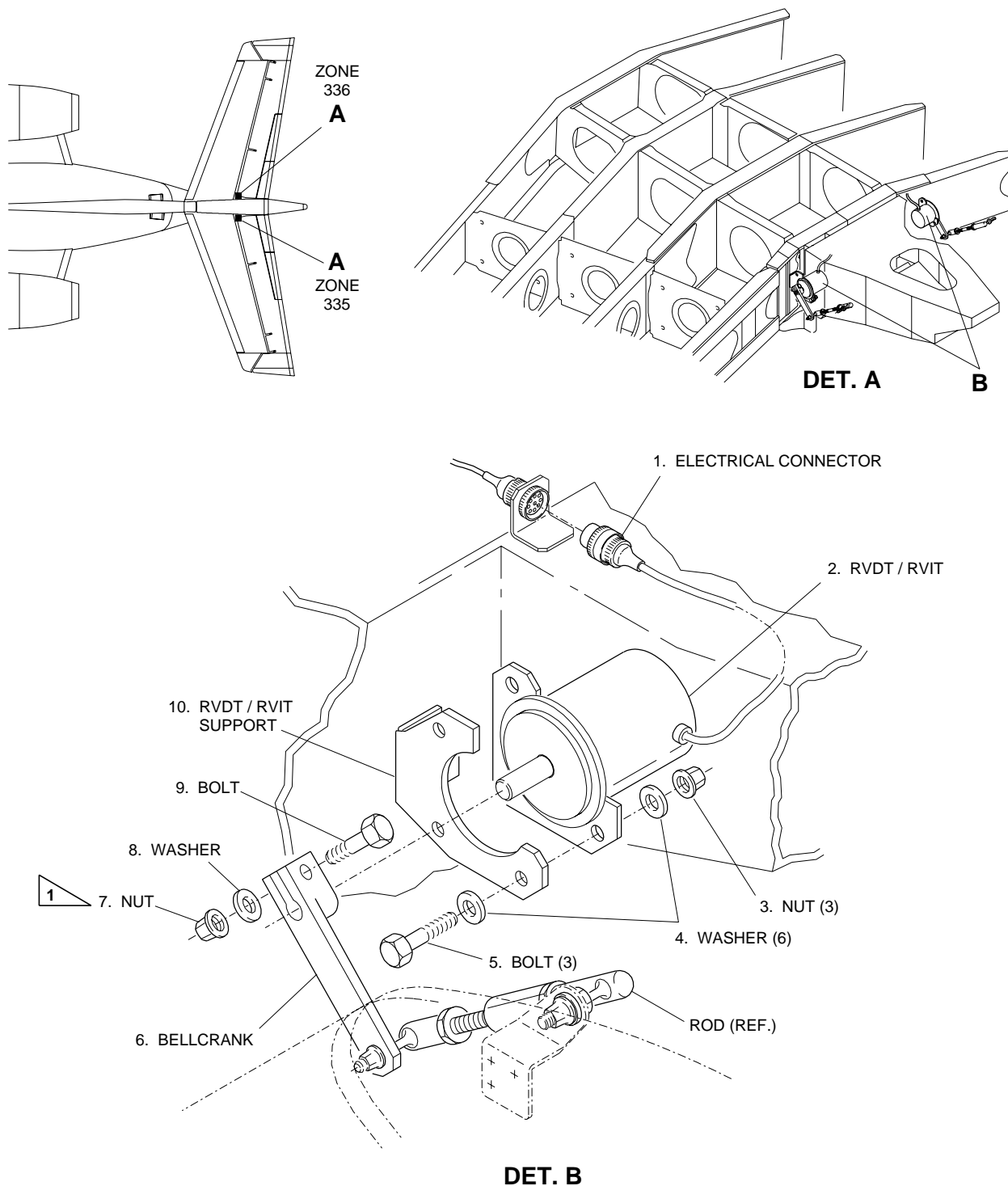
- (1) Disconnect the electrical connector (1).
- (2) For aircraft with Mechanical Gust Lock, without provisions for Electromechanical Gust Lock, ([Figure 402](#)), follow the steps:
  - (a) Remove the bolt (9), washer (8), and nut (7) that attach the bellcrank (6) to the RVDT/RVIT (2).
  - (b) Remove the bolt (5), washer (4), and nut (3) that attach the RVDT/RVIT (2) to its support (10).
- (3) For aircraft with Electromechanical Gust Lock, or with provisions for it, ([Figure 403](#)), follow the steps:
  - (a) Loosen the nut (5) that attach the bellcrank (6) to the RVDT/RVIT (2).

NOTE: If necessary, remove the access panel 335EB or 336EB (AMM MPP 06-42-00/100), as applicable, to get access to the bolt of the bellcrank (6).
  - (b) Loosen the bolt (4) of the clamp (7) that attach the RVDT/RVIT (2) to its support (3).
  - (c) Open the clamp of the RVDT/RVIT support.
- (4) Release the RVDT/RVIT shaft from the bellcrank (6).
- (5) Remove the RVDT/RVIT (2).

**EFFECTIVITY: AIRCRAFT WITH RVDTs/RVITs AND MECHANICAL GUST LOCK WITHOUT PROVISIONS FOR ELECTROMECH. GUST LOCK**

FDR Elevator RVDTs/RVITs - Removal/Installation

Figure 402



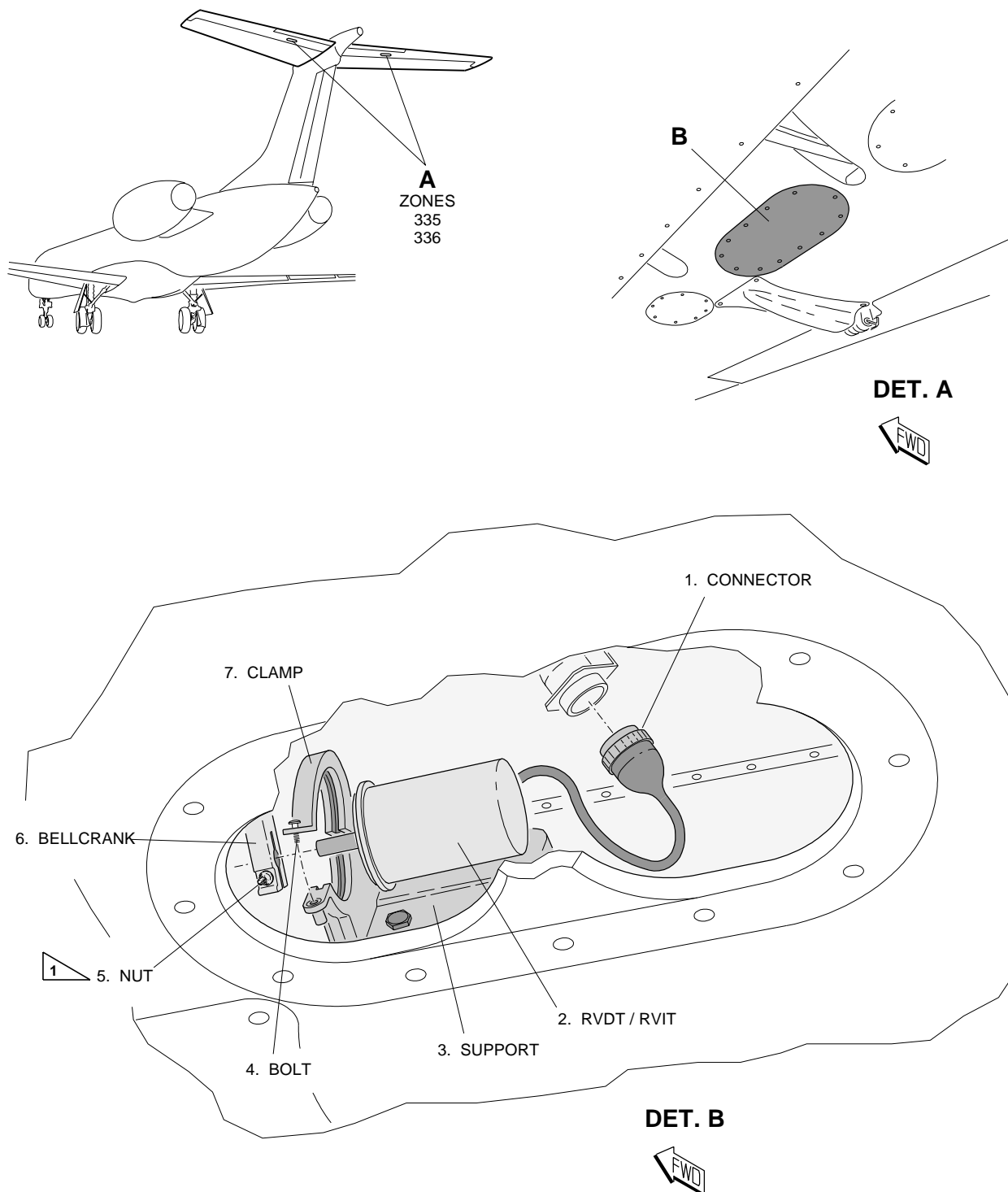
1 APPLY TORQUE OF 4.52 - 5.08 Nm ( 40 - 45 lbf.in )

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EFFECTIVITY: AIRCRAFT WITH RVDTs/RVITS AND ELECTROMECHANICAL GUST LOCK OR WITH PROVISIONS FOR IT

FDR Elevator RVDTs/RVITs - Removal/Installation

Figure 403



1 APPLY TORQUE OF 2.82 – 3.38 Nm (25 – 30 lbf.in).

EM145AMM310152C.DGN

**TASK 31-31-06-400-802-A**

**EFFECTIVITY: AIRCRAFT WITH RVDTS/RVITS**

**5. FDR ELEVATOR RVDTS/RVITS - INSTALLATION**

**A. General**

(1) This task gives the procedures to install the LH and RH FDR elevator RVDTS/RVITS.

**B. References**

| REFERENCE                                       | DESIGNATION   |
|---|---|
| AMM MPP 06-42-00/100                            | -   |
| <a href="#">AMM TASK 27-31-01-700-801-A/500</a> | TENSION OF THE ELEVATOR CONTROL CABLES - FUNCTIONAL CHECK |
| <a href="#">AMM TASK 31-31-00-700-801-A/500</a> | FLIGHT DATA RECORDER - FUNCTIONAL TEST                    |
| <a href="#">AMM TASK 31-31-00-700-804-A/500</a> | FLIGHT DATA RECORDER - FUNCTIONAL TEST                    |
| <a href="#">AMM TASK 31-31-06-820-802-A/500</a> | FDR ELEVATOR RVDTS/RVITS - CALIBRATION                    |
| <a href="#">AMM TASK 55-36-00-400-801-A/400</a> | TAIL BOOM - INSTALLATION                                  |

**C. Zones and Accesses**

| ZONE | PANEL/DOOR | LOCATION    |
|------|------------|-------------|
| 335  |            | LH elevator |
| 336  |            | RH elevator |

**D. Tools and Equipment**

| ITEM                    | DESCRIPTION                    | PURPOSE  | QTY |
|-------------------------|--------------------------------|--|-----|
| <a href="#">GSE 036</a> | Platform - Hydraulic, Aircraft | To get access to the work area on the LH and/or RH elevator surfaces |     |

**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 | On the LH and/or RH elevator |

I. Installation (Figure 402) (Figure 403)

*SUBTASK 420-003-A*

**CAUTION:** YOU CAN USE TWO RVDTs OR TWO RVITs ON THE ELEVATOR. DO NOT MIX RVDTs AND RVITs ON THE LEFT AND RIGHT ELEVATOR SURFACES.

- (1) With a screwdriver, align the two red reference marks on the RVDT/RVIT shaft and body.
- (2) Put the RVDT/RVIT (2) in its installation position.
- (3) Connect the RVDT/RVIT shaft to the bellcrank (6).
- (4) For aircraft with Mechanical Gust Lock, without provisions for Electromechanical Gust Lock (Figure 402), follow the steps:
  - (a) Install the bolt (5), washer (4), and nut (3) that attach the RVDT/RVIT (2) to its support (10).
  - (b) Install the bolt (9), washer (8), and nut (7) that connect the bellcrank (6) to the RVDT/RVIT (2). Apply a torque of 4.52 - 5.08 N.m (40 - 45 lbf.in) to the fasteners.
- (5) For aircraft with Electromechanical Gust Lock, or with provisions for it (Figure 403), follow the steps:
  - (a) Tighten the bolt (4) of the clamp (7) that attach the RVDT/RVIT (2) to its support (3).

**NOTE:** When you tighten the nut (5) that connects the bellcrank (6) to the RVDT/RVIT (2), try to install the bellcrank (6) as far from the clamp (7) as possible, but not more than 2.8 mm. This is not to let the bellcrank (6) touch the clamp (7).
  - (b) Tighten the nut (5) that connect the bellcrank (6) to the RVDT/RVIT (2). Apply a torque of 2.82 - 3.38 N.m (25 - 30 lbf.in) to the fasteners.

**NOTE:** If necessary, remove the access panel 335EB or 336EB (AMM MPP 06-42-00/100), as applicable, to get access to the bolt of the bellcrank (6).
- (6) Connect the electrical connector (1).

**NOTE:** When you install the connector, make sure that its cable is not too curved, to prevent chafing.
- (7) Remove the rig pin of the elevator rear section ( [AMM TASK 27-31-01-700-801-A/500](#)).
- (8) Do the RVDT/RVIT adjustment ( [AMM TASK 31-31-06-820-802-A/500](#)).

J. Follow-on

*SUBTASK 842-003-A*

- (1) On the circuit breaker panel, remove the DO-NOT-CLOSE tag from the FDR circuit breaker (Location Tip: ESSENTIAL DC BUS 1/MISCELLANEOUS/FDR) and close it.

- (2) Do the flight-data-recorder functional test (FDR RVDT/RVIT parameters only) ( [AMM TASK 31-31-00-700-801-A/500](#) or [AMM TASK 31-31-00-700-804-A/500](#), as applicable).
- (3) For aircraft with Mechanical Gust Lock, without provisions for Electromechanical Gust Lock, install the LH and/or RH seal fairing from the tail boom as applicable ( [AMM TASK 55-36-00-400-801-A/400](#)).
- (4) For aircraft with Electromechanical Gust Lock, or with provisions for it, install the access panel 335DB or 336DB (AMM MPP 06-42-00/100), for LH or RH side, as applicable.
- (5) Remove the hydraulic platform (GSE 036).

TASK 31-31-06-000-803-A

EFFECTIVITY: AIRCRAFT WITH RVDTS/RVITS

6. FDR RUDDER RVDT/RVIT - REMOVAL

A. General

(1) This task gives the procedures to remove the FDR rudder RVDT/RVIT.

B. References

| REFERENCE                       | DESIGNATION |
|---------------------------------|-------------|
| AMM MPP 06-42-00/100            | -           |
| AMM TASK 27-21-01-700-801-A/500 | -           |

C. Zones and Accesses

| ZONE | PANEL/DOOR | LOCATION |
|------|------------|----------|
| 325  | 325CL      | Rudder   |
| 325  | 325JR      | Rudder   |

D. Tools and Equipment

| ITEM                    | DESCRIPTION                    | PURPOSE                                      | QTY |
|-------------------------|--------------------------------|--|-----|
| <a href="#">GSE 036</a> | Platform - Hydraulic, Aircraft | To get access to the work area on the rudder |     |

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 | On the rudder |

I. Preparation

**SUBTASK 841-004-A**

- (1) On the circuit breaker panel, open the FDR circuit breaker (Location Tip: ESSENTIAL DC BUS 1/MISCELLANEOUS/FDR) and attach a DO-NOT-CLOSE tag to it.
- (2) Put up the hydraulic platform (GSE 036) at the necessary height.
- (3) Install a rig pin in the rudder rear torque tube (AMM TASK 27-21-01-700-801-A/500).
- (4) Remove access panels 325CL and 325JR (AMM MPP 06-42-00/100).

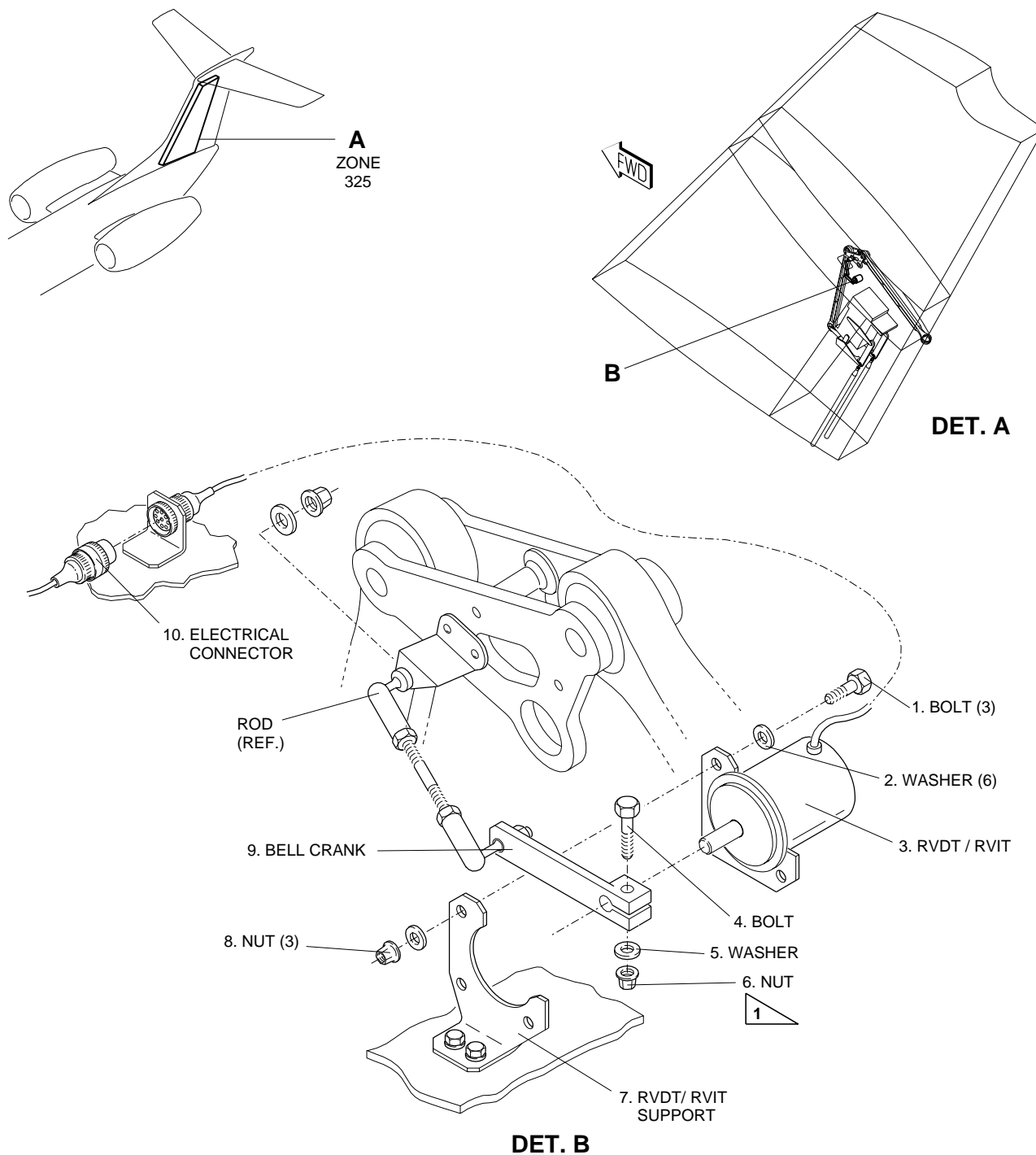
J. Removal

*SUBTASK 020-004-A*

- (1) Disconnect the electrical connector (10).
- (2) Remove the bolt (4), washer (5), and nut (6) that attach the bellcrank (9) to the RVDT/RVIT (3).
- (3) Remove the bolt (1), washer (2), and nut (8) that attach the RVDT/RVIT (3) to its support (7).
- (4) Remove the RVDT/RVIT (3).



**EFFECTIVITY: AIRCRAFT WITH RVDTs/RVITs**  
FDR Rudder RVDT/RVIT - Removal/Installation  
Figure 404



1 APPLY TORQUE OF 4.52 - 5.08 Nm ( 40 - 45 lbf.in )

145AMM310116.MCE B

## TASK 31-31-06-400-803-A

EFFECTIVITY: AIRCRAFT WITH RVDTs/RVITS

### 7. FDR RUDDER RVDT/RVIT - INSTALLATION

#### A. General

(1) This task gives the procedures to install the RH and LH FDR Rudder RVDT/RVIT.

#### B. References

| REFERENCE                                       | DESIGNATION                            |
|---|--|
| AMM MPP 06-42-00/100                            | -                                      |
| AMM TASK 27-21-01-700-801-A/500                 | -                                      |
| <a href="#">AMM TASK 31-31-00-700-801-A/500</a> | FLIGHT DATA RECORDER - FUNCTIONAL TEST |
| <a href="#">AMM TASK 31-31-00-700-804-A/500</a> | FLIGHT DATA RECORDER - FUNCTIONAL TEST |
| <a href="#">AMM TASK 31-31-06-820-803-A/500</a> | FDR RUDDER RVDT/RVIT - CALIBRATION     |

#### C. Zones and Accesses

| ZONE | PANEL/DOOR | LOCATION |
|------|------------|----------|
| 325  | 325CL      | Rudder   |
| 325  | 325JR      | Rudder   |

#### D. Tools and Equipment

| ITEM                    | DESCRIPTION                    | PURPOSE                                      | QTY |
|-------------------------|--------------------------------|--|-----|
| <a href="#">GSE 036</a> | Platform - Hydraulic, Aircraft | To get access to the work area on the rudder |     |

#### 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 | On the rudder |

#### I. Installation

##### *SUBTASK 420-004-A*

(1) Put the RVDT/RVIT (3) in its installation position.

- (2) Install the bolt (1), washer (2), and nut (8) that attach the RVDT/RVIT (3) to its support (7).
- (3) Install the bolt (4), washer (5), and nut (6) that connect the bellcrank (9) to the RVDT/RVIT (3). Apply a torque of 4.52 - 5.08 N.m (40 - 45 lbf.in) to the fasteners.
- (4) Connect the electrical connector (10).
- (5) Remove the rig pin of the rudder rear torque tube (AMM TASK 27-21-01-700-801-A/500).
- (6) Do the RVDT/RVIT adjustment ( [AMM TASK 31-31-06-820-803-A/500](#)).

J. Follow-on

*SUBTASK 842-004-A*

- (1) On the circuit breaker panel, remove the DO-NOT-CLOSE tag from the FDR circuit breaker (Location Tip: ESSENTIAL DC BUS 1/MISCELLANEOUS/FDR) and close it.
- (2) Do the flight-data-recorder functional test (FDR RVDT/RVIT parameters only) ( [AMM TASK 31-31-00-700-801-A/500](#) or [AMM TASK 31-31-00-700-804-A/500](#), as applicable).
- (3) Install access panels 325CL and 325JR (AMM MPP 06-42-00/100).
- (4) Remove the hydraulic platform (GSE 036).

TASK 31-31-06-000-804-A

EFFECTIVITY: AIRCRAFT POST-MOD SB 145-55-0020, WITH MECHANICAL GUST LOCK AND WITHOUT PROVISIONS FOR ELECTROMECHANICAL GUST LOCK

8. FDR ELEVATOR RVDTs/RVITS SUPPORT - REMOVAL

A. General

- (1) This task gives the procedures to remove the LH and RH FDR elevator RVDTs/RVITS support.
- (2) On aircraft POST-MOD. [S.B.145-55-0020](#), this support is attached to the elevator through bolts, positioned on the elevator internal edge.

B. References

| REFERENCE                                       | DESIGNATION   |
|---|---|
| <a href="#">AMM TASK 27-31-01-700-801-A/500</a> | TENSION OF THE ELEVATOR CONTROL CABLES - FUNCTIONAL CHECK |
| <a href="#">AMM TASK 55-36-00-000-801-A/400</a> | TAIL BOOM - REMOVAL                                       |
| <a href="#">S.B.145-55-0020</a>                 | -   |

C. Zones and Accesses

| ZONE | PANEL/DOOR | LOCATION    |
|------|------------|-------------|
| 335  |            | LH elevator |
| 336  |            | RH elevator |

D. Tools and Equipment

| ITEM                    | DESCRIPTION                    | PURPOSE  | QTY |
|-------------------------|--------------------------------|--|-----|
| <a href="#">GSE 036</a> | Platform - Hydraulic, Aircraft | To get access to the work area on the LH and/or RH elevator surfaces |     |

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 | On the LH and/or RH elevator |

I. Preparation

*SUBTASK 841-005-A*

- (1) On the circuit breaker panel, open the FDR circuit breaker (Location Tip: ESSENTIAL DC BUS 1/MISCELLANEOUS/FDR) and attach a DO-NOT-CLOSE tag to it.
- (2) Put up the hydraulic platform (GSE 036) at the necessary height.
- (3) Install a rig pin in the elevator rear section ( [AMM TASK 27-31-01-700-801-A/500](#)).
- (4) Remove the tail boom ( [AMM TASK 55-36-00-000-801-A/400](#)).

J. Removal

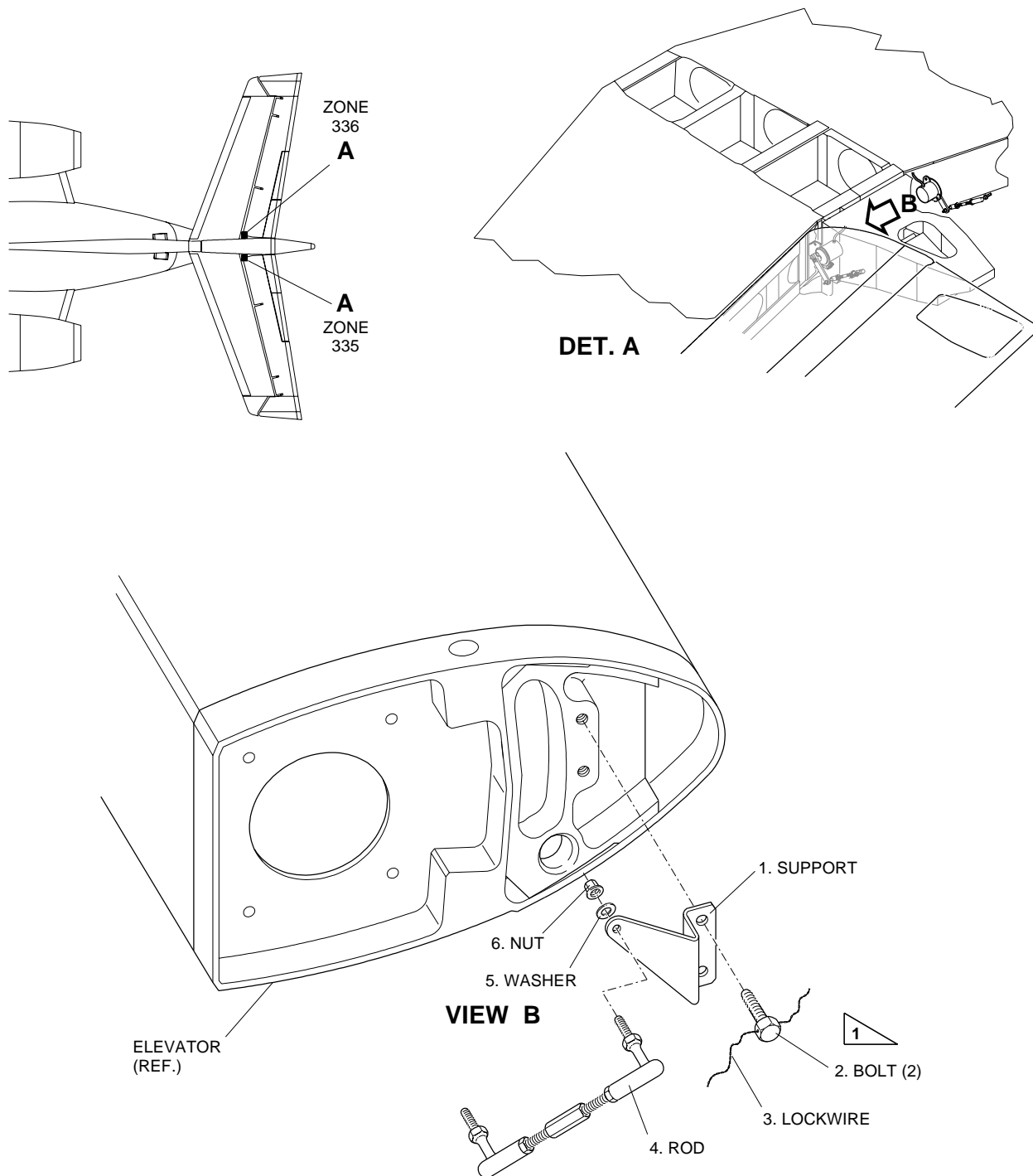
*SUBTASK 020-005-A*

- (1) Remove the nut (6) and the washer (5) that attach the rod (4) to the support (1).  
NOTE: Make sure to keep the extension of the rod unchanged.
- (2) Release the rod (4) from the support (1).
- (3) Cut the lockwire (3) from the bolts (2).
- (4) Remove the two bolts (2) that attach the support (1) to the elevator.
- (5) Remove the support (1).

EFFECTIVITY: ACFT W/ RVDTs/RVITS POST-MOD SB 145-55-0020 W/ MECH GUST LOCK AND W/O PROV FOR ELECTROMECH GUST LOCK

FDR Elevator RVDTs/RVITs Support - Removal/Installation

Figure 405



1 TORQUE OF 2.26–2.83 Nm (20–25 lbf.in)

145AMM310226B.MCE

TASK 31-31-06-400-804-A

**EFFECTIVITY: AIRCRAFT POST-MOD SB 145-55-0020, WITH MECHANICAL GUST LOCK AND WITHOUT PROVISIONS FOR ELECTROMECHANICAL GUST LOCK**

9. FDR ELEVATOR RVDTs/RVITS SUPPORT - INSTALLATION

A. General

- (1) This task gives the procedures to install the LH and RH FDR elevator RVDTs/RVITS support.
- (2) On aircraft POST-MOD. [S.B.145-55-0020](#), this support is attached to the elevator through bolts, positioned on the elevator internal edge.

B. References

| REFERENCE                                       | DESIGNATION                            |
|---|--|
| <a href="#">AMM TASK 31-31-06-820-802-A/500</a> | FDR ELEVATOR RVDTs/RVITS - CALIBRATION |
| <a href="#">AMM TASK 55-36-00-400-801-A/400</a> | TAIL BOOM - INSTALLATION               |
| <a href="#">S.B.145-55-0020</a>                 | -                                      |

C. Zones and Accesses

| ZONE | PANEL/DOOR | LOCATION    |
|------|------------|-------------|
| 335  |            | LH elevator |
| 336  |            | RH elevator |

D. Tools and Equipment

| ITEM                    | DESCRIPTION                    | PURPOSE  | QTY |
|-------------------------|--------------------------------|--|-----|
| <a href="#">GSE 036</a> | Platform - Hydraulic, Aircraft | To get access to the work area on the LH and/or RH elevator surfaces |     |

E. Auxiliary Items

Not Applicable

F. Consumable Materials

| SPECIFICATION<br>(BRAND) | DESCRIPTION | QTY |
|--------------------------|-------------|-----|
| P/N MS20995C20           | Lockwire    | AR  |

G. Expandable Parts

Not Applicable

H. Persons Recommended

| QTY | FUNCTION      | PLACE                        |
|-----|---------------|------------------------------|
| 1   | Does the task | On the LH and/or RH elevator |

I. Installation

*SUBTASK 420-005-A*

- (1) Put the support (1) on the elevator, on its installation position.
- (2) Tighten the two bolts (2) which attach the support (1) to the elevator.
- (3) Safety with lockwire (3) the two bolts (2).
- (4) Reconnect the rod (4) to the support (1), and attach the washer (5) and the nut (6).

NOTE: Make sure to keep the extension of the rod unchanged.

J. Follow-on

*SUBTASK 842-005-A*

- (1) On the circuit breaker panel, remove the DO-NOT-CLOSE tag from the FDR circuit breaker (Location Tip: ESSENTIAL DC BUS 1/MISCELLANEOUS/FDR) and close it.
- (2) Do the elevator RVDT/RVIT adjustment ( [AMM TASK 31-31-06-820-802-A/500](#)).
- (3) Install the tail boom ( [AMM TASK 55-36-00-400-801-A/400](#)).
- (4) Remove the hydraulic platform (GSE 036).



TASK 31-31-06-000-805-A

EFFECTIVITY: AIRCRAFT POST-MOD S.B. 145-31-0045, WITH ELECTROMECHANICAL GUST LOCK

10. FDR ELEVATOR RVDTS/RVITS SUPPORT - REMOVAL

A. General

- (1) This task gives the procedures to remove the LH and RH FDR elevator RVDTS/RVITS supports.

B. References

| REFERENCE                                       | DESIGNATION                        |
|---|------------------------------------|
| AMM MPP 06-42-00/100                            | -                                  |
| <a href="#">AMM TASK 31-31-06-000-802-A/400</a> | FDR ELEVATOR RVDTS/RVITS - REMOVAL |

C. Zones and Accesses

| ZONE | PANEL/DOOR | LOCATION    |
|------|------------|-------------|
| 335  |            | LH elevator |
| 336  |            | RH elevator |

D. Tools and Equipment

| ITEM                    | DESCRIPTION                    | PURPOSE  | QTY |
|-------------------------|--------------------------------|--|-----|
| <a href="#">GSE 036</a> | Platform - Hydraulic, Aircraft | To get access to the work area at the LH and/or RH elevator surfaces |     |

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 | On the LH and/or RH elevator |

I. Preparation

**SUBTASK 841-006-A**

- (1) On the circuit breaker panel, open the FDR circuit breaker (Location Tip: ESSENTIAL DC BUS 1/MISCELLANEOUS/FDR) and attach a DO-NOT-CLOSE tag to it.
- (2) Put up the hydraulic platform (GSE 036) at the necessary height.

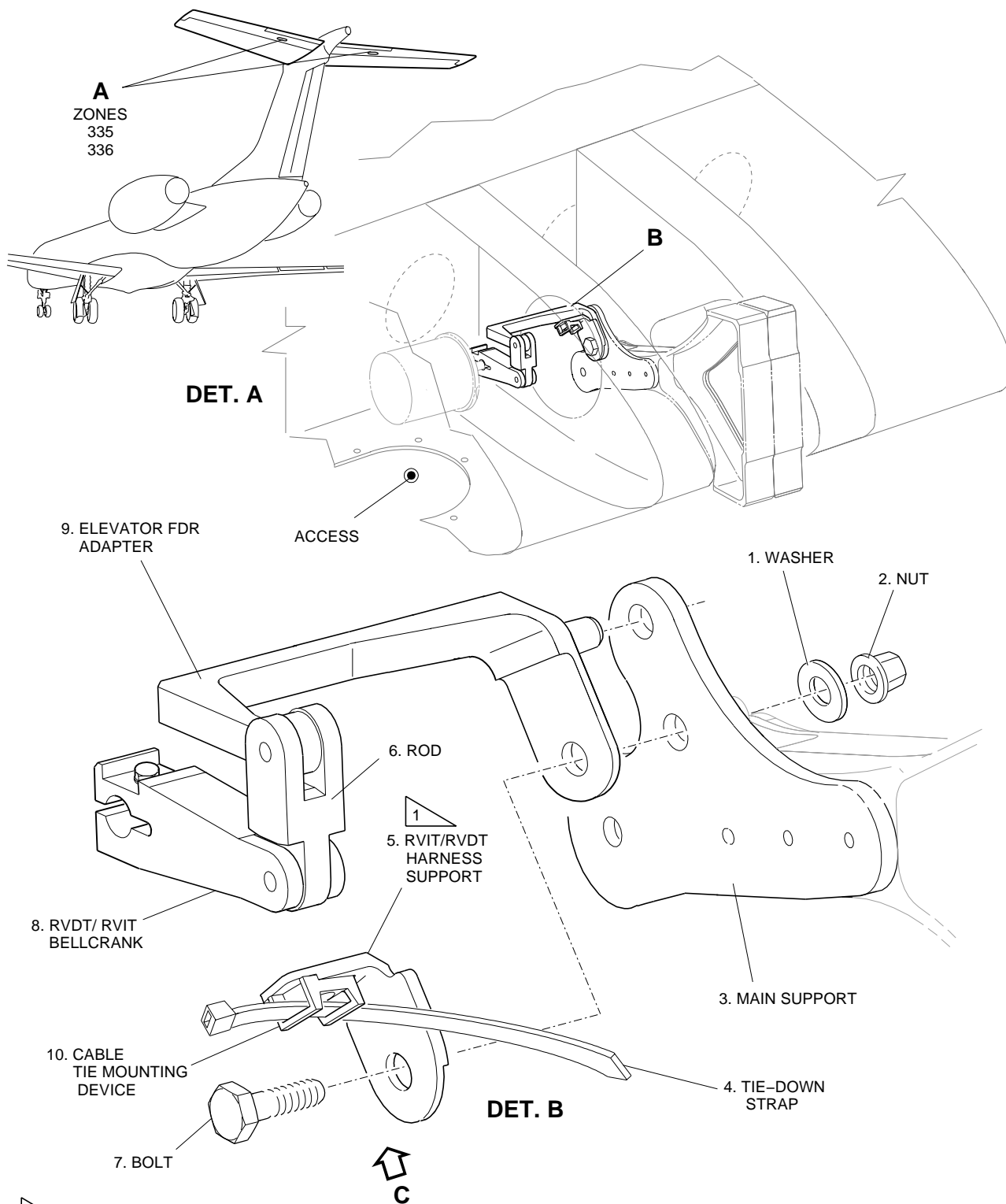
- (3) Remove access panels 335DB, 335EB, 336DB, and 336EB (AMM MPP 06-42-00/100) for the RH and/or LH sides, as applicable.
- (4) Remove the RVIT/RVDT ( [AMM TASK 31-31-06-000-802-A/400](#)).

J. Removal

*SUBTASK 020-006-A*

- (1) Remove the tiedown straps that attach the harness to the Elevator FDR Adapter.
- (2) Remove the nut (2), the washer (1), the bolt (4) and the FDR harness support (3), and then, carefully disconnect the elevator FDR adapter from the main support.

**EFFECTIVITY: AIRCRAFT WITH RVDTS/RVITS AND WITH ELECTROMECH GUST LOCK**  
FDR Elevator RVDTS/RVITs Support - Removal/Installation  
Figure 406



1 POST-MOD SB 145-31-0045.

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TASK 31-31-06-400-805-A

**EFFECTIVITY: AIRCRAFT POST-MOD S.B. 145-31-0045, WITH ELECTROMECHANICAL GUST LOCK**

## 11. FDR ELEVATOR RVDTs/RVITS SUPPORT - INSTALLATION

### A. General

(1) This task gives the procedures to install the LH and RH FDR elevator RVDT/RVIT supports.

### B. References

| REFERENCE                                       | DESIGNATION                             |
|---|---|
| AMM MPP 06-42-00/100                            | -                                       |
| <a href="#">AMM TASK 31-31-06-400-802-A/400</a> | FDR ELEVATOR RVDTs/RVITS - INSTALLATION |
| <a href="#">AMM TASK 31-31-06-820-802-A/500</a> | FDR ELEVATOR RVDTs/RVITS - CALIBRATION  |

### C. Zones and Accesses

| ZONE | PANEL/DOOR | LOCATION    |
|------|------------|-------------|
| 335  |            | LH elevator |
| 336  |            | RH elevator |

### D. Tools and Equipment

| ITEM                    | DESCRIPTION                    | PURPOSE  | QTY |
|-------------------------|--------------------------------|--|-----|
| <a href="#">GSE 036</a> | Platform - Hydraulic, Aircraft | To get access to the work area at the LH and/or RH elevator surfaces |     |

### 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 | On the LH and/or RH elevator |

I. Installation ([Figure 407](#)) (Figure 406)

*SUBTASK 420-006-A*

**CAUTION:** BE SURE TO ASSEMBLE THE ELEVATOR RVDT/RVIT HARNESS SUPPORT ON THE CORRECT ELEVATOR SIDE. THE CABLE TIE MOUNTING DEVICE (1) AXIS IS LIGHTLY TURNED INBOARD IN RELATION TO THE HARNESS SUPPORT (2) AXIS. REFER TO FIGURE 407. IF YOU ASSEMBLE THE HARNESS SUPPORT ON THE INCORRECT SIDE, THERE CAN BE CHAFING OF THE RVDT/RVIT HARNESS AGAINST METALLIC PARTS AND DAMAGE TO THE HARNESS CAN OCCUR.

- (1) Carefully install the elevator FDR adapter (9) to the main support, already attached with the bellcrank (8), the rod (6), RVIT/RVDT harness support (3), the bolt (7) and the tiedown strap (4).

**NOTE:** Use access panels 335EB or 336EB, as applicable, to make the elevator FDR adapter attachment to the main support easier.

- (2) When you install the assembly made up of the FDR adapter (9), the bellcrank (8), the rod (6), the RVIT/RVDT harness support (5), the bolt (7), and the tiedown strap (4), keep all the parts attached and install the bolt (4) in the main support hole.
- (3) Install the washer (1) and the nut (2) that attach the elevator FDR adapter (6) to the main support.

**NOTE:** Open access panels 335DB or 336DB and 335EB or 336EB, as applicable, and then hold the rod (7) and tighten the nut (2).

- (4) Install the bushing and tighten the tiedown strap (4) to attach the harness to the RVIT/RVDT harness support (5).

J. Follow-on

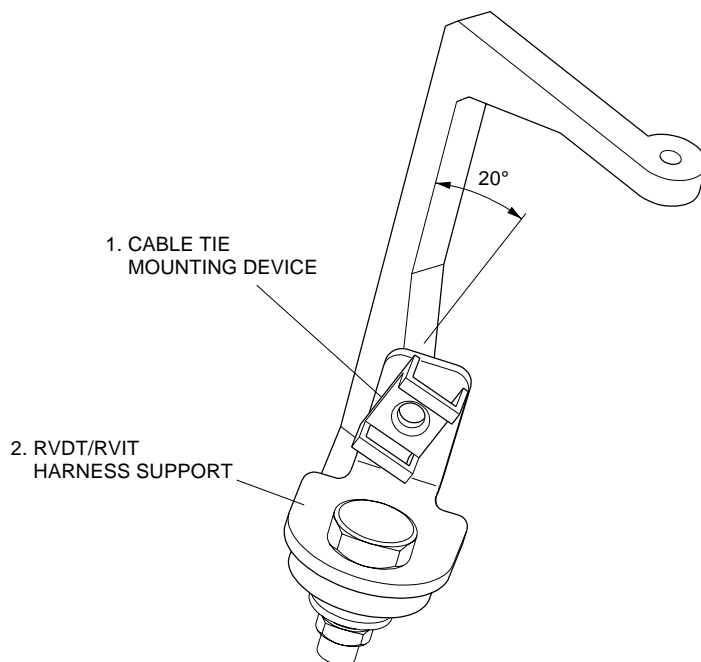
*SUBTASK 842-006-A*

- (1) On the circuit breaker panel, remove the DO-NOT-CLOSE tag from the FDR circuit breaker (Location Tip: ESSENTIAL DC BUS 1/MISCELLANEOUS/FDR) and close it.
- (2) Install the RVIT/RVDT ( [AMM TASK 31-31-06-400-802-A/400](#)).
- (3) Do the elevator RVDT/RVIT adjustment ( [AMM TASK 31-31-06-820-802-A/500](#)).
- (4) Install access panels 335DB, 335EB, 336DB and 336EB (AMM MPP 06-42-00/100) for the RH and LH side, as applicable.
- (5) Remove the hydraulic platform (GSE 036).

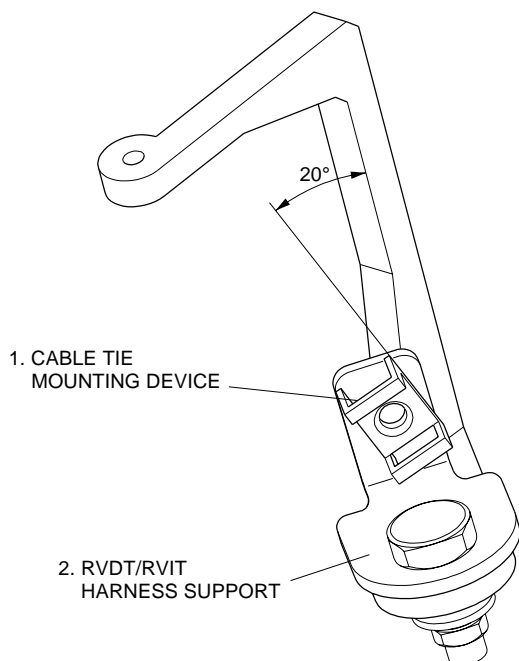
*EFFECTIVITY: AIRCRAFT WITH RVDTs/RVITs AND WITH ELECTROMECH GUST LOCK*

Elevator RVDTs/RVITs Harness Support/Cable Tie Mounting Device

Figure 407



**DET. C**  
LH ELEVATOR RVDT/RVIT  
HARNESS SUPPORT



**DET. C**  
RH ELEVATOR RVDT/RVIT  
HARNESS SUPPORT

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