



## AIRCRAFT MAINTENANCE MANUAL

### BAGGAGE-DOOR LIFTING AND LOWERING MECHANISM - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

#### 1. General

- A. This section gives the procedures to remove and install the lifting and lowering mechanism of the baggage door.
- 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 |
|--------------------|---|-------------|
| 52-32-00-000-801-A | BAGGAGE-DOOR LIFTING AND LOWER-<br>ING MECHANISM - REMOVAL      | ALL         |
| 52-32-00-400-801-A | BAGGAGE-DOOR LIFTING AND LOWER-<br>ING MECHANISM - INSTALLATION | ALL         |



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TASK 52-32-00-000-801-A

EFFECTIVITY: ALL

2. BAGGAGE-DOOR LIFTING AND LOWERING MECHANISM - REMOVAL

## A. General

- (1) This task gives the instructions to remove the lifting and lowering mechanism of the baggage door.

## B. References

| REFERENCE                       | DESIGNATION  |
|---------------------------------|--|
| AMM TASK 25-51-01-000-801-A/400 | BAGGAGE COMPARTMENT LINING - REMOVAL               |
| AMM TASK 52-30-01-000-801-A/400 | BAGGAGE DOOR - REMOVAL                             |
| ITEM GSE 208                    | PIN ASSEMBLY                                       |
| ITEM GSE 213                    | PIN - COMPENSATING MECHANISM LOCKING, BAGGAGE DOOR |
| SB145-52-0012                   | -  |

## C. Zones and Accesses

| ZONE | PANEL/DOOR | LOCATION            |
|------|------------|---------------------|
| 271  |            | Baggage compartment |

## D. Tools and Equipment

| ITEM    | DESCRIPTION                        | PURPOSE                       | QTY |
|---------|------------------------------------|-------------------------------|-----|
| GSE 208 | Pin                                | To lock the support and gears |     |
| GSE 213 | Compensating-Mechanism Locking Pin | To lock the support and gears |     |

## 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              | Baggage compartment |
| 1   | Helps the other technician | Baggage compartment |

## I. Preparation

## SUBTASK 841-002-A

- (1) Open the baggage door as far as its upper stop.

- (2) Move the door up and put the lifting rod on the fuselage resting support.
- (3) Remove the upper forward and upper middle cargo-compartment liner panels from the baggage compartment ( [AMM TASK 25-51-01-000-801-A/400](#)). Refer to PRE-MOD [SB145-52-0012](#), to get access to the compensating mechanism.
- (4) Remove the screws and washers from the cover of the upper middle cargo-compartment liner (29 positions) and the screws and washers from the cover of the upper forward cargo-compartment liner (19 positions). Refer to POST-MOD [SB145-52-0012](#).
- (5) Pull the tension with your hands and, at the same time, lock the support and gears with a safety pin ([ITEM GSE 208](#)), ([ITEM GSE 213](#)).
- (6) Lock the mechanism with the safety pin. On aircraft PRE-MOD [SB145-52-0012](#), use GSE 213 and, on aircraft POST-MOD SB 145-52-0012, use GSE 208.

**WARNING: MAKE SURE THAT THE GEAR IS LOCKED. IF NOT, INJURY TO PERSONS CAN OCCUR.**

- (7) Remove the cotter pin, nut, washer, and bolt to disconnect the end of the cable from the support at the baggage-door structure ( [AMM TASK 52-30-01-000-801-A/400](#)).
- (8) Release the tension of the torsion bars of the compensating mechanism.

**WARNING: THE SUDDEN RETRACTION OF THE CABLE OF THE MECHANISM CAN CAUSE INJURY TO PERSONS AND DAMAGE TO MATERIAL.**

- (9) Pull the cable strongly and, at the same time, remove the safety pin and release the torsion bars.
- (10) Loosen the cable from the drum. Refer to ([Figure 401](#)) and ([Figure 404](#)).

J. Removal of the Torsion Bar

SUBTASK 020-002-A

**NOTE:** Make sure that the torsion bars are installed straightly.

- (1) On aircraft PRE-MOD [SB145-52-0012](#), remove the torsion bars ([Figure 402](#)) as follows:
  - (a) Remove the cotter pins (7), washers (6), straight pins (4), and clamps (5) to release the torsion bars (8) and (10) from the supports (11) (2 positions).
  - (b) If necessary, remove the nut (1) (3 positions), washer (2) (3 positions), and bolt (9) (3 positions) to remove the support (11) from the fuselage.
  - (c) Remove the cotter pins (21), washers (20), straight pins (27), and clamps (19) to release the torsion bars (8) and (10) from the support (23).
  - (d) If necessary, remove the nut (24) (3 positions), washers (25) (3 positions), and bolts (22) (3 positions) to remove the support (23) from the fuselage.
  - (e) Remove the cotter pins (44) and straight pins (45) (2 positions) to disconnect the end of the torsion bars (8) and (10) from the compensating mechanism.

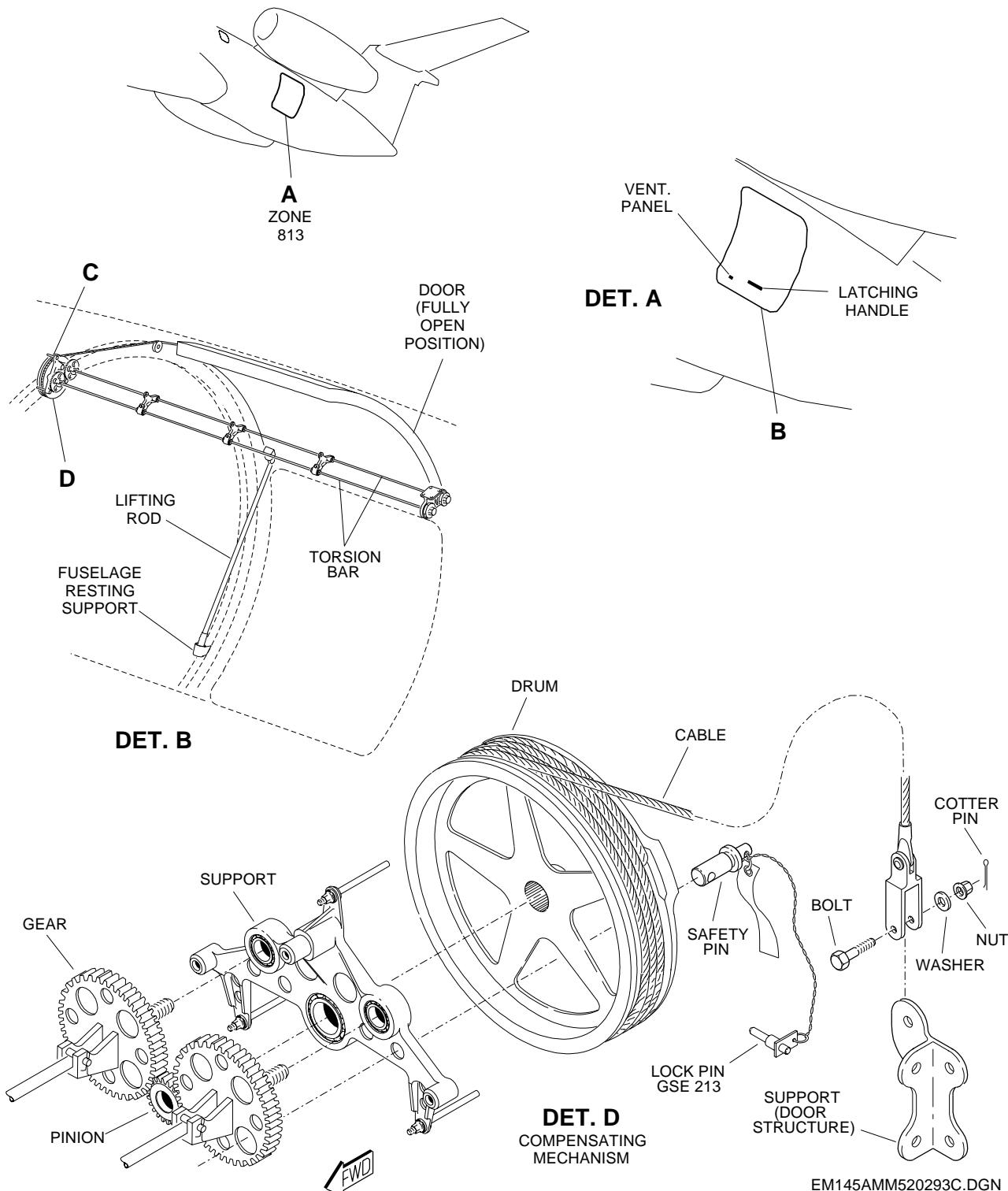


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- (f) If necessary, cut the lockwire (17), remove the nuts (16) and washers (15), and then remove the bushings (12) from the support (18) (2 positions).
  - (g) If necessary, remove the bolt (14) (4 positions) and washers (13) (4 positions) to remove the support (18) from the fuselage structure.
  - (h) Remove the torsion bars (8) and (10).
  - (i) Remove the three nuts (47), washers (48), and bolts (37) and (38) to disconnect the support (42) (3 positions) from the support at the fuselage structure.
  - (j) Remove the support (42) from the support at the fuselage structure.
  - (k) Remove the cotter pin (40) (2 positions), nut (39) (2 positions), and washers (41) (2 positions) to disconnect the gears (46) from the support (42).
  - (l) Remove the gears (46) (2 positions).
  - (m) If necessary, remove two guard pins, then remove the cotter pin (31), nut (30), washer (29), and bolt (28), and remove the pulley (32) from the fuselage structure.
  - (n) Remove the two guard pins (as applicable) from the pulley (32) and fuselage structure.
  - (o) Remove the cotter pin (33), nut (34), and washer (35) to disconnect the drum (36) from the support (42).
  - (p) Remove the pinion (43) from the support (42) that is attached to the support (42) and the compensating mechanism (drum) (36).
  - (q) Remove the compensating mechanism (drum) (36).
- (2) On aircraft POST-MOD [SB145-52-0012](#), remove the torsion bars ([Figure 404](#)) as follows:
- (a) Remove the cotter pins (7), washers (6), straight pins (4), and clamps (5) to release the torsion bars from the supports (11) (3 positions).
  - (b) If necessary, remove the nut (1) (3 positions), washer (2) (3 positions), and bolt (9) (3 positions) to remove the support (11) from the fuselage.
  - (c) Remove the cotter pins (21), washers (20), straight pins (27), and clamps (19) to release the torsion bars from the support (23) (3 positions).
  - (d) If necessary, remove the nut (24) (3 positions), washers (25) (3 positions) and bolts (22) (3 positions) to remove the support (23) from the fuselage.
  - (e) Remove the cotter pins (44) and straight pins (45) (6 positions) to disconnect the end of the torsion bars (3 positions) from the compensating mechanism.
  - (f) If necessary, cut the lockwire (17), remove the nuts (16) and washers (15), and then remove the bushings (12) from the support (18) (3 positions).
  - (g) If necessary, remove the bolt (14) (4 positions) and washers (13) (4 positions) to remove the support (18) from the fuselage structure.

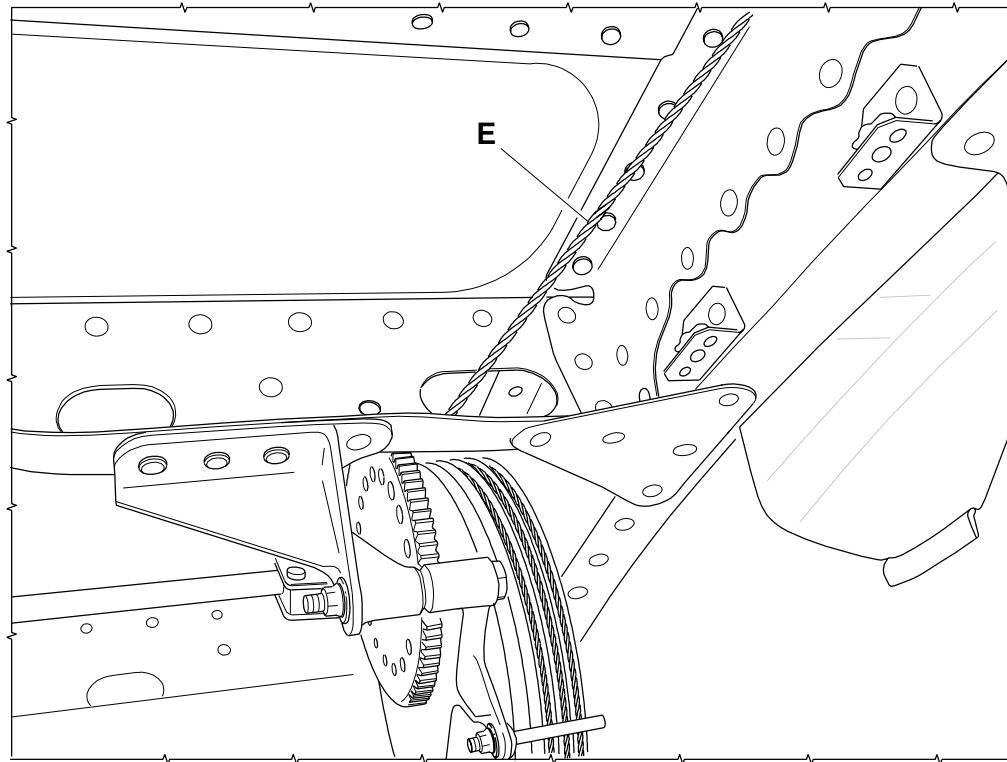
- (h) Remove the torsion bars (3 positions).
- (i) Remove the nuts (47), washers (48), and bolts (37), (38) to disconnect the support (42) (3 positions) from the support at the fuselage structure.
- (j) Remove the support (42) from the support at the fuselage structure.
- (k) Remove the cotter pin (40) (3 positions), nut (39) (3 positions), and washers (41) (3 positions) to disconnect the gears (46) from the support (42).
- (l) Remove the gears (46) (3 positions).
- (m) If necessary, remove two guard pins, then remove the cotter pin (31), nut (30), washer (29), and bolt (28), and remove the pulley (32) from the fuselage structure.
- (n) Remove the two guard pins (as applicable) from the pulley (32) and fuselage structure.
- (o) Remove the cotter pin (33), nut (34), and washer (35) to disconnect the drum (36) from the support (42).
- (p) Remove the pinion (43) from the support (42) that is attached to the support (42) and the compensating mechanism (drum) (36).
- (q) Remove the compensating mechanism (drum) (36).

**EFFECTIVITY: PRE-MOD SB 145-52-0012**
**Cable of the Compensating Mechanism - Removal/Installation**
**Figure 401 - Sheet 1**


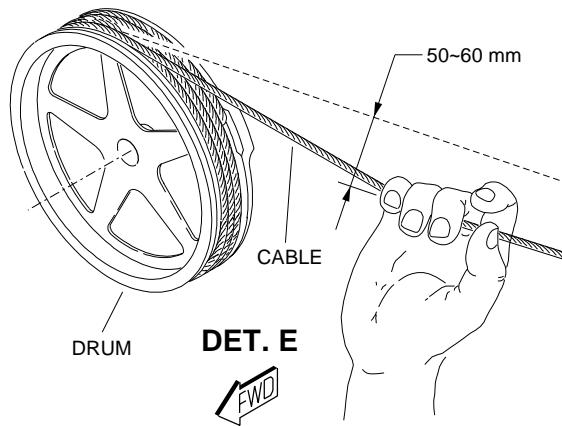
*EFFECTIVITY: PRE-MOD SB 145-52-0012*

Cable of the Compensating Mechanism - Removal/Installation

Figure 401 - Sheet 2



**DET. C**

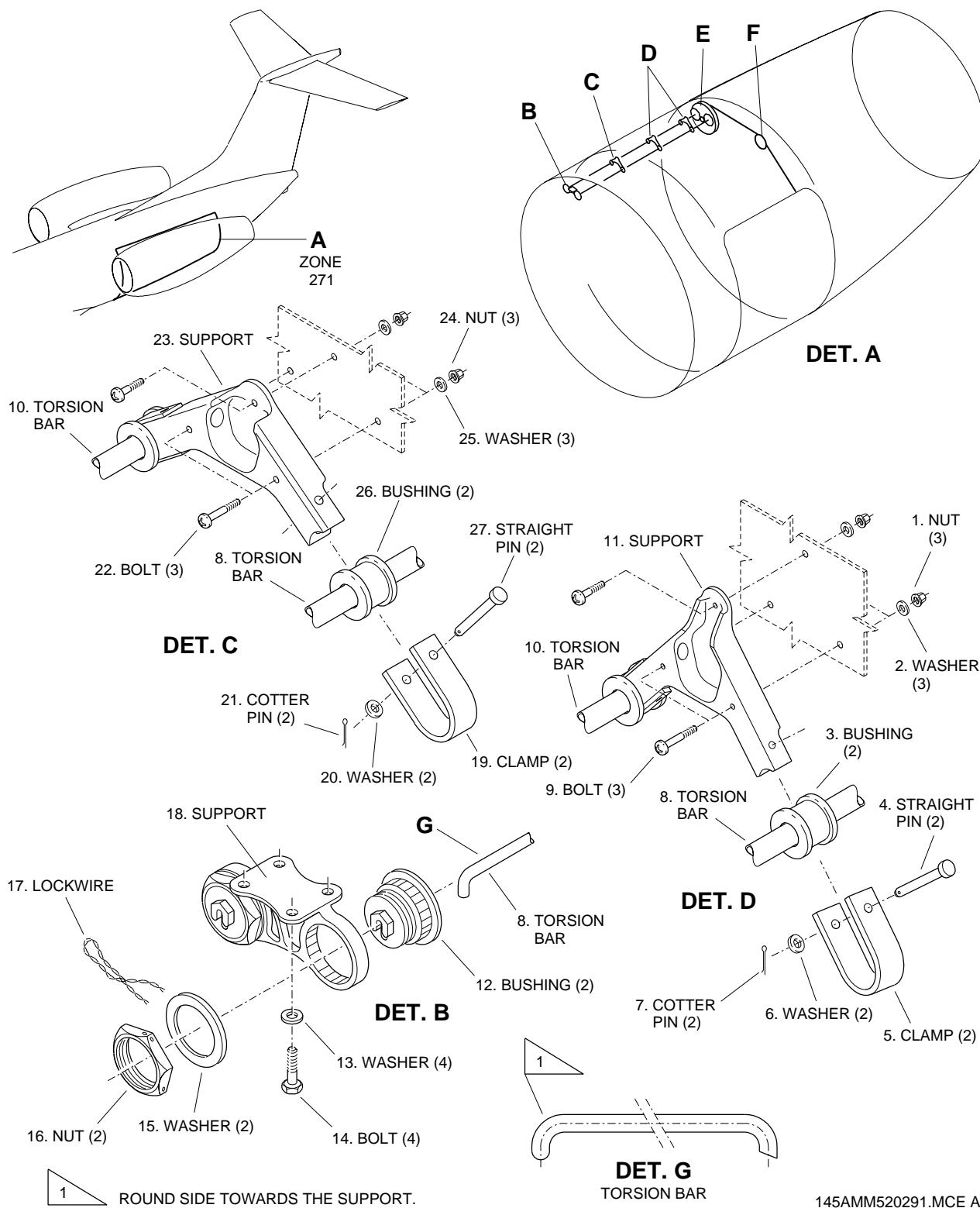


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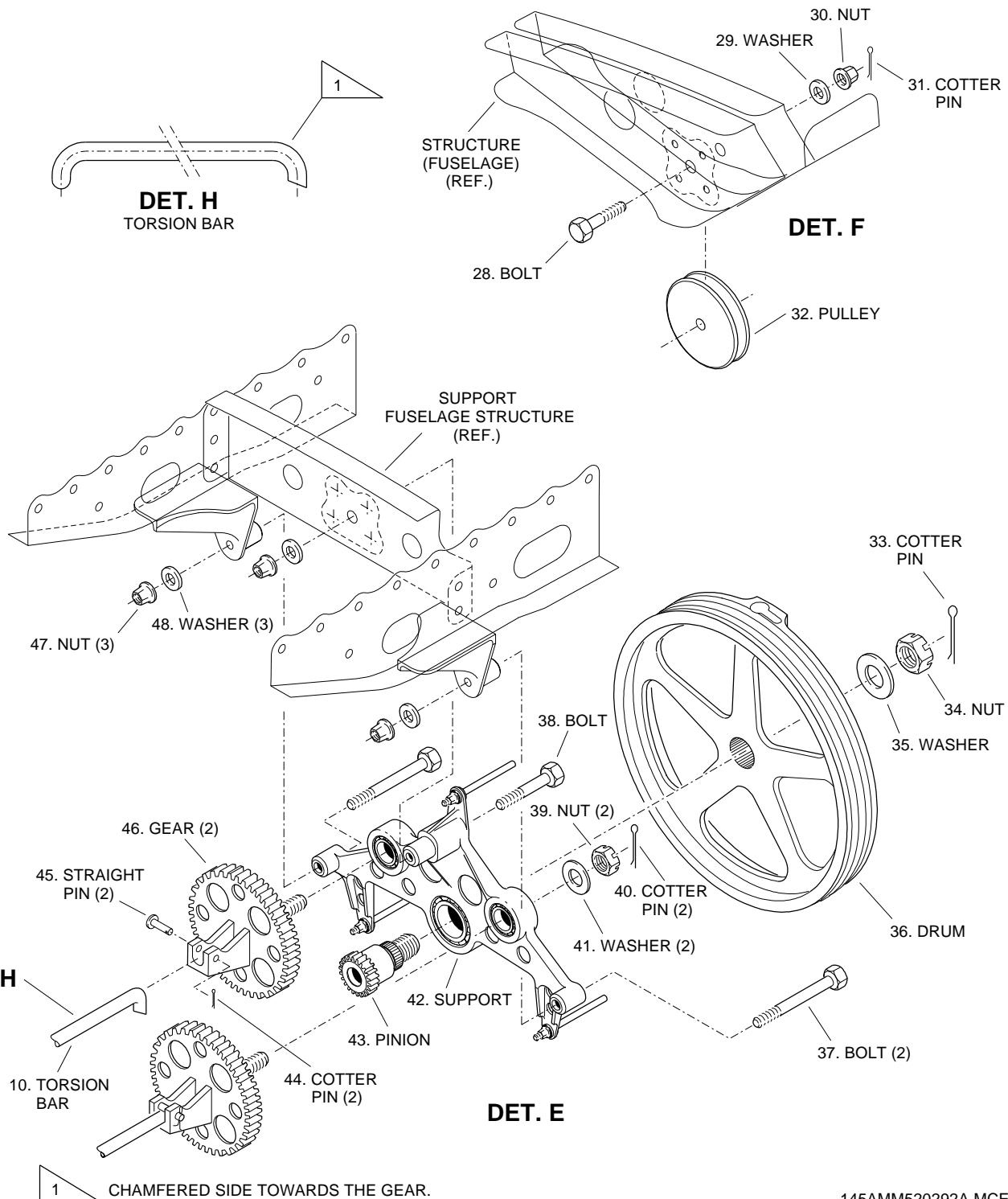
**EFFECTIVITY: PRE-MOD SB 145-52-0012**

Lifting and Lowering Mechanism - Removal/Installation

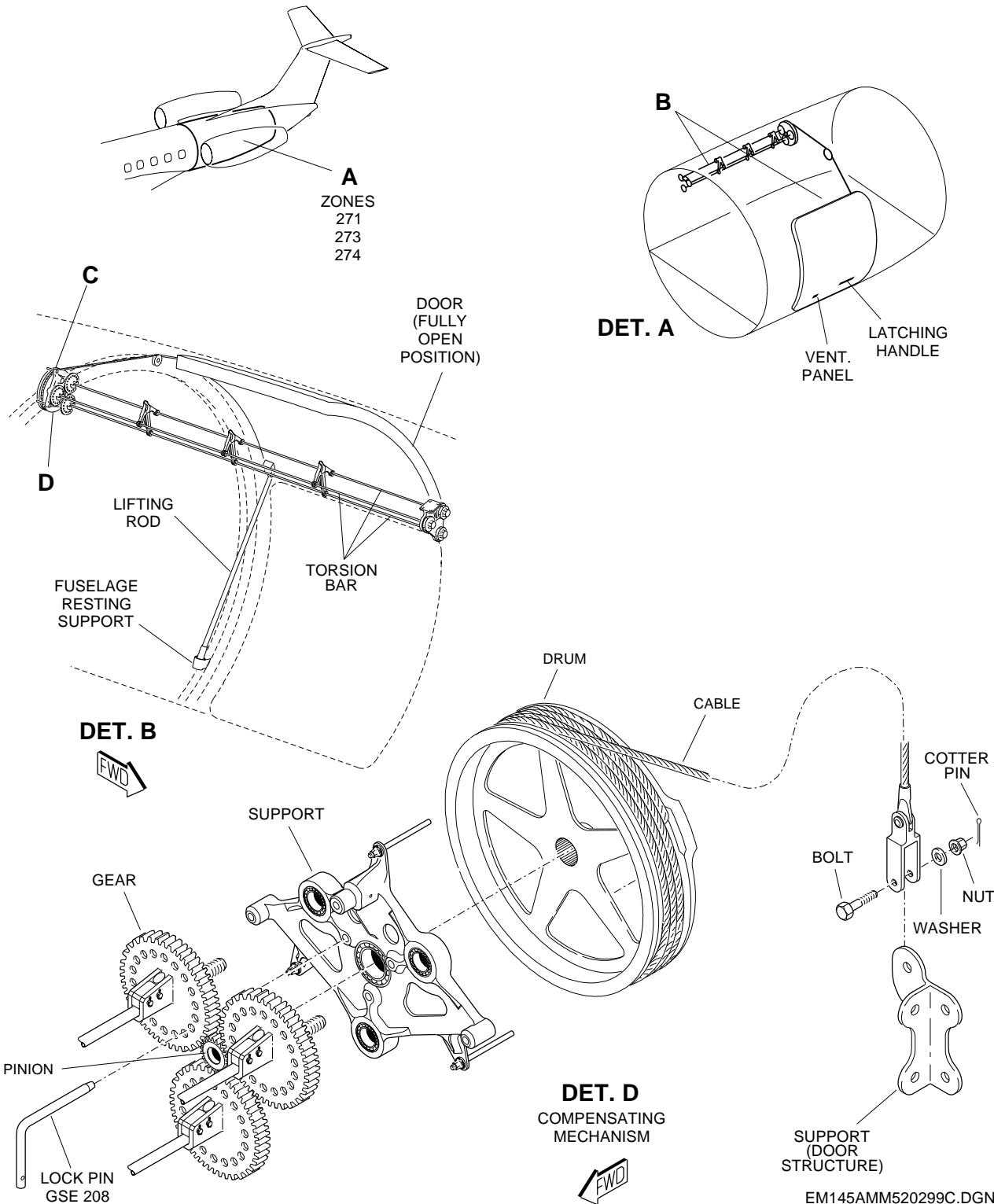
Figure 402 - Sheet 1



**EFFECTIVITY: PRE-MOD SB 145-52-0012**  
**Lifting and Lowering Mechanism - Removal/Installation**  
**Figure 402 - Sheet 2**



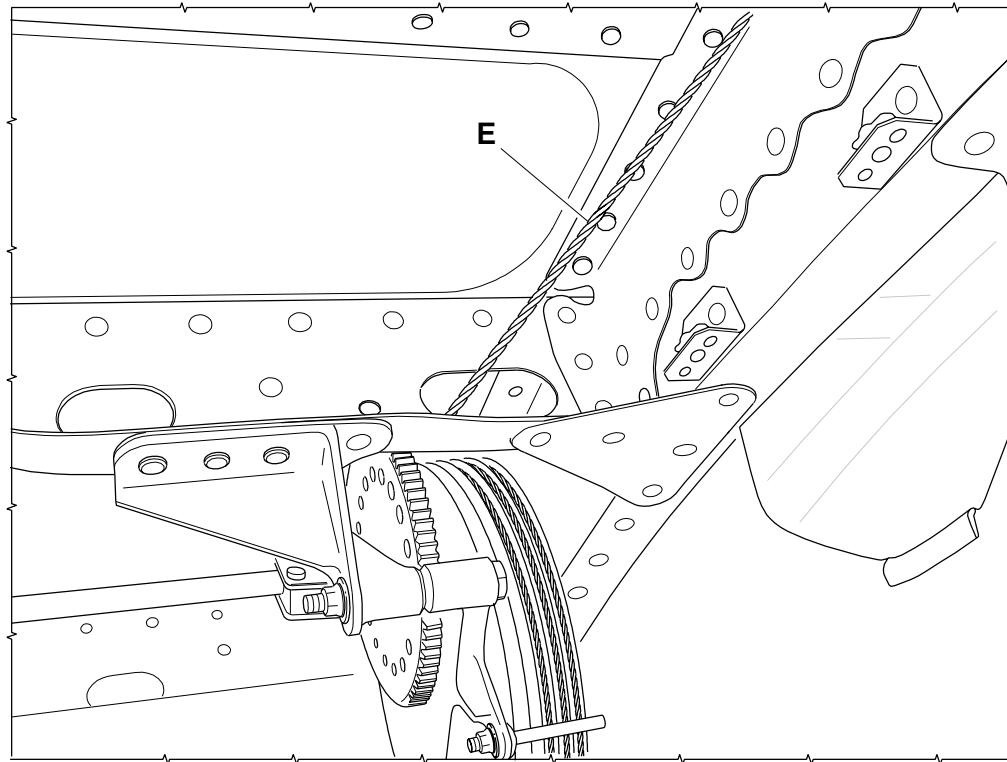
145AMM520292A.MCE

**EFFECTIVITY: POST-MOD SB 145-52-0012**
**Cable of the Compensating Mechanism - Removal/Installation**
**Figure 403 - Sheet 1**


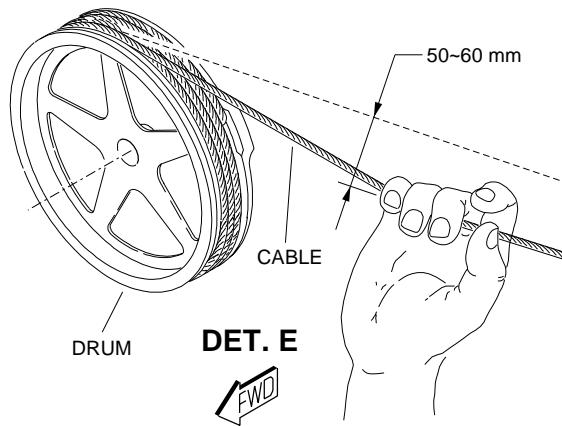
**EFFECTIVITY: POST-MOD SB 145-52-0012**

Cable of the Compensating Mechanism - Removal/Installation

Figure 403 - Sheet 2



**DET. C**

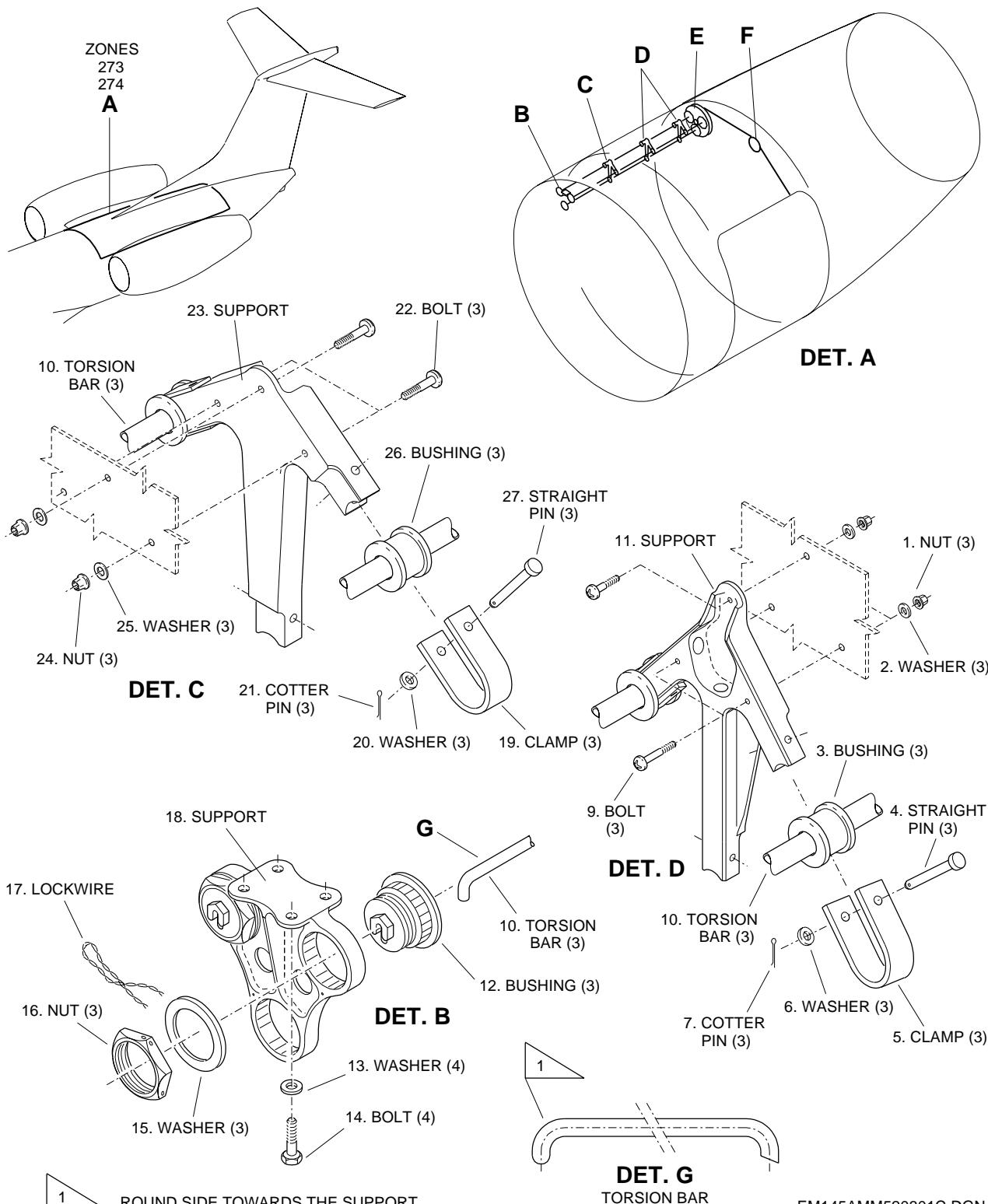


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**EFFECTIVITY: POST-MOD SB 145-52-0012**

Lifting and Lowering Mechanism - Removal/Installation

Figure 404 - Sheet 1

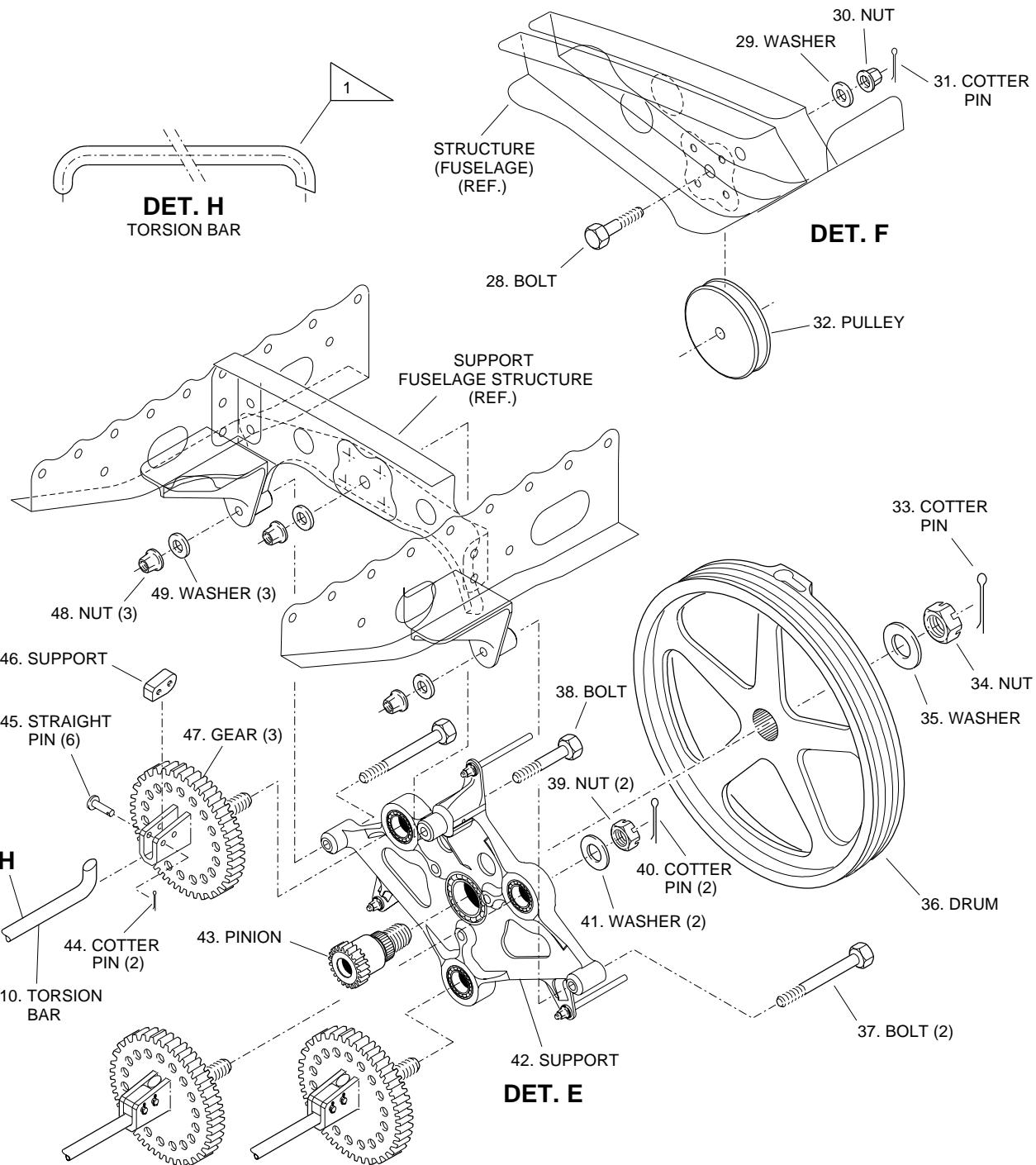


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**EFFECTIVITY: POST-MOD SB 145-52-0012**

Lifting and Lowering Mechanism - Removal/Installation

Figure 404 - Sheet 2



1 CHAMFERED SIDE TOWARDS THE GEAR.

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TASK 52-32-00-400-801-A

EFFECTIVITY: ALL

3. BAGGAGE-DOOR LIFTING AND LOWERING MECHANISM - INSTALLATION

A. General

- (1) This task gives the instructions to install the lifting and lowering mechanism of the baggage door.

B. References

| REFERENCE                       | DESIGNATION  |
|---------------------------------|--|
| AMM TASK 25-51-01-400-801-A/400 | BAGGAGE COMPARTMENT LINING - INSTALLATION  |
| AMM TASK 52-30-01-400-801-A/400 | BAGGAGE DOOR - INSTALLATION  |
| AMM TASK 52-32-00-200-801-A/600 | BAGGAGE DOOR LIFTING AND LOWERING MECHANISM FOR GENERAL CONDITION AND TORSION BAR FOR TORSION - INSPECTION/CHECK |
| AMM TASK 52-32-00-820-801-A/500 | BAGGAGE-DOOR LIFTING AND LOWERING MECHANISM - ADJUSTMENT/TEST  |
| IPC 52-32-00                    | BAGGAGE DOOR - LIFTING AND LOWERING SYSTEM   |
| SB145-52-0012                   | -  |

C. Zones and Accesses

| ZONE | PANEL/DOOR | LOCATION            |
|------|------------|---------------------|
| 271  |            | Baggage compartment |

D. Tools and Equipment

| ITEM    | DESCRIPTION                        | PURPOSE                       | QTY |
|---------|------------------------------------|-------------------------------|-----|
| GSE 208 | Pin                                | To lock the support and gears |     |
| GSE 213 | Compensating-Mechanism Locking Pin | To lock the support and gears |     |

E. Auxiliary Items

Not Applicable

F. Consumable Materials

| SPECIFICATION<br>(BRAND) | DESCRIPTION | QTY |
|--------------------------|-------------|-----|
| MS20995C32               | Lockwire    | AR  |

G. Expendable Parts

| ITEM       | IPC REFERENCE<br>(VENDOR REFERENCE) | QTY |
|------------|-------------------------------------|-----|
| Cotter pin | IPC 52-32-00                        | 9   |

**H. Persons Recommended**

| <i>QTY</i> | <i>FUNCTION</i>            | <i>PLACE</i>        |
|------------|----------------------------|---------------------|
| 1          | Does the task              | Baggage compartment |
| 1          | Helps the other technician | Baggage compartment |

**I. Installation**
**SUBTASK 420-002-A**

- (1) On aircraft PRE-MOD **SB145-52-0012**, install the torsion bars (Figure 402) as follows:
  - (a) Put the pinion (43) on the support (42).
  - (b) Put the gears (46) (2 positions) on the support (42).
  - (c) Install the washers (41) (2 positions), nut (39) (2 positions), and cotter pin (40) (2 positions), to attach the gears (46) on the support (42).
  - (d) Put the support (42) on the support at the fuselage structure.
  - (e) Install the bolts (37) and (38) (3 positions), washers (48) (3 positions), and nut (47) (3 positions), to attach the support (42) to the support at the fuselage structure.
  - (f) Put the compensating mechanism (drum) (36) on the support (42).
  - (g) Install the washer (35), nut (34), and new cotter pin (33), to attach the drum (36) to the support (42).
  - (h) Put the torsion bars (8) and (10) on the supports (11) and (23), with their ends in the gears (46) and at the support (18).
  - (i) Install the straight pins (45) (2 positions) to attach the ends of the torsion bars (8) and (10), to the compensating mechanism and gears (46) and then install new cotter pins (44).
  - (j) Install the bushings (12) (if they were removed) on the support (18), to connect the ends of the torsion bars (8) and (10), and then install washers (15) and nut (16) (2 positions).
 

**NOTE:** Make sure that the bushings (12) on the torsion bars (8) and (10) are correctly set on the support (18).
  - (k) Safety the nuts (16) (2 positions) and the support (18) with the lockwire (17).
  - (l) Attach the torsion bars (8) and (10) to the supports (11) with the clamps (5) (2 positions), straight pin (4) (2 positions), washers (6) (2 positions), and new cotter pins (7) (2 positions).
  - (m) Attach the torsion bars (8) and (10) to the support (23) with the clamps (19) (2 positions), straight pin (27) (2 positions), washers (20) (2 positions), and new cotter pins (21) (2 positions).
  - (n) Install the two guard pins and cable at the pulley (32) in the installation position at the fuselage structure.

- (o) Install the bolt (28), washer (29), nut (30), and a new cotter pin (31), to attach the pulley (32).

**WARNING: AN ACCIDENTAL RETRACTION OF THE CABLE OF THE MECHANISM CAN CAUSE INJURY TO PERSONS AND DAMAGE TO MATERIAL. USE THE SAFETY PIN TO LOCK THE COMPENSATING MECHANISM.**

**WARNING: IMPROPER ROUTING OF CABLE CAN RESULT IN DAMAGE TO STRUCTURAL COMPONENTS AND AIRCRAFT WIRING.**

- (p) Install the bolt, nut, washer, and new cotter pin to connect the end of the cable to the support at the baggage door structure ( [AMM TASK 52-30-01-400-801-A/400](#)).

NOTE: Make sure that the cargo door is open and properly supported before you route the counterbalance cable.

- (q) Check if the aft cable is wound clockwise on the cable drum. Route the cable from the cable drum through the hole in stringer 4r, which is positioned directly above the cable drum when it is installed on the pinion (43) on the support (42). Make sure that the cable clearly passes over all wire bundles, fire extinguisher piping and control cables. Route the cable to the top of pulley (32) and under the two pin pulley guards (IPC 52-32-00, fig 12 item 40).

NOTE: It is possible that you have to remove the pin pulley guards, to route the cable over the pulley (32); install pin pulley guards after routing cable over pulley (32).

- (r) From pulley (32) route cable to cargo door, make sure that the cable passes under any hydraulic lines and control cables that you can find between pulley (32) and cargo door.
- (s) Connect the end of the cable to attach the support at the door structure.

- (2) On aircraft POST-MOD [SB145-52-0012](#), install the torsion bars (Figure 404) as follows:

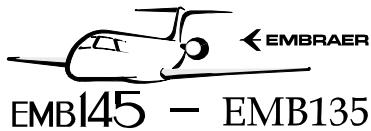
- (a) Put the pinion (43) on the support (42).
- (b) Put the gears (46) (3 positions) on the support (42).
- (c) Install the washers (41) (3 positions), nut (39) (3 positions), and cotter pin (40) (3 positions), to attach the gears (46) on the support (42).
- (d) Put the support (42) on the support at the fuselage structure.
- (e) Install the bolts (37) and (38) (3 positions), washers (48) (3 positions), and nut (47) (3 positions), to attach the support (42) to the support at the fuselage structure.
- (f) Put the compensating mechanism (drum) (36) on the support (42).
- (g) Install the washer (35), nut (34), and new cotter pin (33), to attach the drum (36) to the support (42).

- (h) Install bolts (22) (3 positions), washers (25) (3 positions), and nut (24) (3 positions) (If they were removed) to attach the support (23) at the fuselage structure.
- (i) Install bolts (9) (3 positions), washers (2) (3 positions), and nut (1) (3 positions) (If they were removed) to attach the support (11) at the fuselage structure.
- (j) Install bolts (14) (4 positions), washers (13) (4 positions) (If they were removed) to attach the support (18) at the fuselage structure.
- (k) Put the torsion bars (10) on the supports (11) and (23), with their ends in the gears (46) and at the support (18).
- (l) Install the straight pins (45) (6 positions) to attach the ends of the torsion bars (10), to the compensating mechanism and gears (46) and then install new cotter pins (44).
- (m) Install the bushings (12) (if they were removed) on the support (18), to connect the ends of the torsion bars (10), and then install washers (15) and nut (16) (3 positions).
 

**NOTE:** Make sure that the bushings (12) on the torsion bars (10) are correctly set on the support (18).
- (n) Safety the nuts (16 ) (3 positions) and the support (18) with the lockwire (17).
- (o) Attach the torsion bars (10) to the supports (11) with the clamps (5) (3 positions), straight pin (4) (3 positions), washers (6) (3 positions), and new cotter pins (7) (3 positions).
- (p) Attach the torsion bars (10) to the support (23) with the clamps (19) (3 positions), straight pin (27) (3 positions), washers (20) (3 positions), and new cotter pins (21) (3 positions).
- (q) Install the two guard pins and cable at the pulley (32) in the installation position at the fuselage structure.
- (r) Install the bolt (28), washer (29), nut (30), and a new cotter pin (31), to attach the pulley (32).

**WARNING: AN ACCIDENTAL RETRACTION OF THE CABLE OF THE MECHANISM CAN CAUSE INJURY TO PERSONS AND DAMAGE TO MATERIAL. USE THE SAFETY PIN TO LOCK THE COMPENSATING MECHANISM.**

- (s) Install the bolt, nut, washer, and new cotter pin, to connect the end of the cable to the support at the baggage-door structure ( [AMM TASK 52-30-01-400-801-A/400](#) ).
- (t) Connect the end of the cable to attach the support at the door structure.



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J. Follow-on

SUBTASK 842-002-A

- (1) Pull the tension cable with your hands and, at the same time, remove the safety pin from the support and gears.
- (2) Remove the safety pin from the compensating mechanism (Figure 401) and (Figure 404).
- (3) Do an inspection on the baggage door torsion bars, on aircraft PRE-MOD [SB145-52-0012](#) ([AMM TASK 52-32-00-200-801-A/600](#)).
- (4) If necessary, adjust the lifting and lowering mechanism of the baggage door ([AMM TASK 52-32-00-820-801-A/500](#)).
- (5) Do an operational check on the baggage door.
- (6) Install the upper forward and upper middle cargo-compartment liner panels of the baggage compartment ([AMM TASK 25-51-01-400-801-A/400](#)). Refer to PRE-MOD [SB145-52-0012](#).
- (7) Install the screws and washers of the cover of the upper middle cargo-compartment liner (29 positions) and the screws and washers of the cover of the upper forward cargo-compartment liner (19 positions). Refer to POST-MOD [SB145-52-0012](#).

**WARNING: TO CLOSE THE BAGGAGE DOOR, DO NOT LET THAT IT FREELY FALLS,  
TO PREVENT DAMAGE TO MATERIAL AND INJURY TO PERSONS.**

- (8) Close the baggage door.