

MAIN DOOR - ADJUSTMENT/TEST

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

1. General

- A. This section gives the procedures to do the functional check and the adjustment of the main door.
- B. To correctly adjust the main door, obey the sequence of tasks that follow.
- C. For a correct operation of the door, the door actuating and locking mechanism must be clean and lubricated ([AMM TASK 52-11-00-600-801-A/300](#)).
- D. To open and close the door several times, pressurize hydraulic system 1 ([AMM TASK 29-10-00-860-801-A/200](#)).
- E. 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
52-10-01-820-801-A	MAIN DOOR INTERNAL ACTUATING HANDLE - TEST	AIRCRAFT WITH AIR-STAIRS DOOR
52-10-01-820-802-A	MAIN-DOOR STEP ACTUATING MECHANISM - ADJUSTMENT	AIRCRAFT WITH AIR-STAIRS DOOR
52-10-01-820-803-A	MAIN-DOOR INTERCONNECTING RODS - ADJUSTMENT	AIRCRAFT WITH AIR-STAIRS DOOR
52-10-01-820-804-A	MAIN-DOOR LOCKING-MECHANISM CAMS - TEST	AIRCRAFT WITH AIR-STAIRS DOOR
52-10-01-820-805-A	MAIN DOOR CABLES - ADJUSTMENT	AIRCRAFT WITH AIR-STAIRS DOOR
52-10-01-820-806-A	MAIN DOOR ROLLERS - ADJUSTMENT	AIRCRAFT WITH AIR-STAIRS DOOR
52-10-01-820-807-A	MAIN DOOR-TO-FUSELAGE SKIN GAP - ADJUSTMENT	AIRCRAFT WITH AIR-STAIRS DOOR
52-10-01-820-808-A	MAIN DOOR-TO-FUSELAGE SKIN STEP - ADJUSTMENT	AIRCRAFT WITH AIR-STAIRS DOOR
52-10-01-820-809-A	MAIN DOOR STOPS - ADJUSTMENT	AIRCRAFT WITH AIR-STAIRS DOOR
52-10-01-820-810-A	MAIN-DOOR FOLDING FLAP EDGE - ADJUSTMENT	AIRCRAFT WITH AIR-STAIRS DOOR
52-10-01-820-811-A	MAIN-DOOR FOLDING FLAP - ADJUSTMENT	AIRCRAFT WITH AIR-STAIRS DOOR



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 52-10-01-820-801-A

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

2. MAIN DOOR INTERNAL ACTUATING HANDLE - TEST

A. General

- (1) This task gives the procedure to do a test of the load necessary to open the main door from inside.

B. References

REFERENCE	DESIGNATION
AMM SDS 52-10-00/1	
AMM TASK 52-10-01-820-802-A/500	MAIN-DOOR STEP ACTUATING MECHANISM - ADJUSTMENT
FIM 52-11-00	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
811		Airstairs main door

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Dynamometer - 100 lb		

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	In the airstairs main door

I. Preparation

SUBTASK 841-002-A

- (1) Close and lock the main door ([AMM SDS 52-10-00/1](#)).

NOTE: • If the main door is incorrectly adjusted, it is possible that you cannot do the door closing and/or locking procedures. In this case, refer to the Fault Isolation Manual, chapter 52, or do the complete adjustment of the main

door. Obey the sequence of tasks that follow, from [AMM TASK 52-10-01-820-802-A/500](#) on.

- The step tread must be deployed before you close the main door.

J. Main Door Internal Actuating Handle - Test ([Figure 501](#))

SUBTASK 820-002-A

- (1) Cover the lower part of the internal handle with adhesive tape to protect the paint of the internal handle.

- (2) Pull the internal handle until the folding flap opens. Refer to [Figure 501](#); DET. A.

NOTE: Do not unlock the door.

- (3) Put the dynamometer against the internal handle, approximately 30 mm from the internal handle edge. Refer to [Figure 501](#); DET. B.

- (4) Use the dynamometer to push the internal handle from the open-folding flap position to the unlock-door position. Refer to [Figure 501](#); DET. B.

NOTE: Make sure that the dynamometer is perpendicular to the internal handle all along the handle travel.

- (5) Record the maximum load indicated on the dynamometer.

- (6) Do steps 2 to 5 again and again, a minimum of three times, to get the average load. The average load must not be more than 50 lb (22.68 kgf).

- (7) If the average load is more than 50 lb (22.68 Kgf), or if a smaller load is required, you must do the adjustment of the main door. Refer to FIM 52-11-00.

NOTE: If a lower average load is desired to ease/soften door operation, you must do the adjustment of the main door. Refer to FIM 52-11-00.

K. Follow-on

SUBTASK 842-002-A

- (1) Remove the adhesive tape from the internal handle.

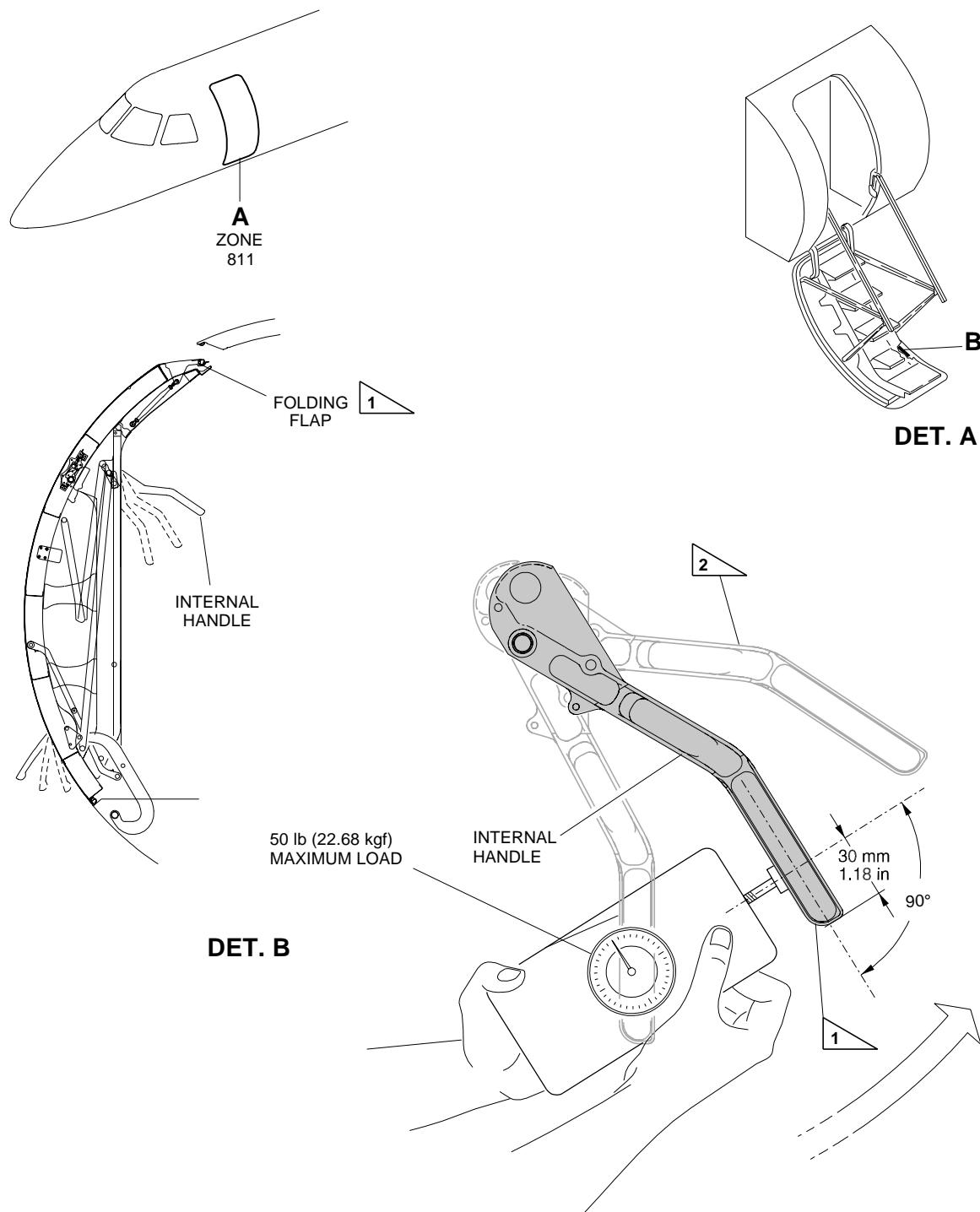
- (2) Close the main door ([AMM SDS 52-10-00/1](#)).

NOTE: The step tread must be deployed before you close the main door.

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

Load to Open the Airstairs Door from Inside - Test

Figure 501


1 LOCKED -DOOR POSITION, OPEN FOLDING FLAP.

2 UNLOCKED-DOOR POSITION.

EM145AMM520648C.DGN



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 52-10-01-820-802-A

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

3. MAIN-DOOR STEP ACTUATING MECHANISM - ADJUSTMENT

A. General

(1) This task gives the procedures to adjust the actuating mechanism of the main door step.

B. References

REFERENCE	DESIGNATION
AMM MPP 20-10-11/200	- MAINTENANCE PRACTICES
AMM SDS 52-10-00/1	
AMM TASK 25-23-04-000-801-A/400	MAIN-DOOR LINING PANEL - REMOVAL
AMM TASK 25-23-04-400-801-A/400	MAIN-DOOR LINING PANEL - INSTALLATION
AMM TASK 52-00-00-910-801-A/200	MAIN-DOOR - SUPPORTING
AMM TASK 52-10-03-400-801-A/400	MAIN DOOR FIRST SECOND AND THIRD STEPS - INSTALLATION
AMM TASK 52-11-05-400-801-A/400	MAIN DOOR INTERNAL ACTUATING HANDLE TORQUE TUBE - INSTALLATION

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
811	-	Main door

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Rig pin - 4.75 mm (3/16") in diameter and 100 mm (4") in length	Align the rig holes	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
MS20995C32	Lock Wire	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Near the main door

I. Preparation

SUBTASK 841-003-A

- (1) Open the main door ([AMM SDS 52-10-00/1](#)).
- (2) Support the door with a bench at the correct height ([AMM TASK 52-00-00-910-801-A/200](#)).
- (3) With the steps fully deployed, do a check of the spring of each step. They must not be tensioned or twisted. Refer to [Figure 502](#).
 - (a) A tensioned spring indicates that the shaft of the step or the spring support is wrongly installed. Remove the shaft of the step and install it back correctly ([AMM TASK 52-10-03-400-801-A/400](#) and/or [AMM TASK 52-11-05-400-801-A/400](#)).

J. Main-Door Step Actuating Mechanism - Adjustment ([Figure 503](#)) ([Figure 504](#)) ([Figure 505](#)) ([Figure 506](#))

SUBTASK 820-003-A

CAUTION: MAKE SURE THAT THE STEP ACTUATING ARM DOES NOT TOUCH THE ROLLER BACKSTOP ([Figure 503](#); SHEET 2; DET. D).

- (1) Make sure that the distance between the fold-out backstop and the door stop is between 88 mm (3.46 in) and 90 mm (3.54 in) ([Figure 503](#); Sheet 2; DET. D). If required, adjust the distance between the stops, as follows (refer to [Figure 503](#); Sheet 1 and 2):

NOTE: It is necessary to keep a minimum load on the roller backstop to prevent damage to the fold-out backstop.

- (a) Remove the thermoacoustic blanket (12).
 - (b) Loosen the bolts (10). It is not necessary to remove them.
 - (c) Move the fold-out backstop (11) upward or downward, as necessary, and tighten the bolts (10).
NOTE: The distance between the fold-out backstop (11) and the door stop must be between 88 mm (3.46 in) and 90 mm (3.54 in) ([Figure 503](#); Sheet 2; DET. D).
 - (d) Install the thermoacoustic blanket (12).
- (2) There are two different conditions in which the adjustment of the main-door step actuating mechanism can be done.
 - If there is a rig hole on the bellcrank ([Figure 504](#); DET. B), do [SUBTASK 820-004-A](#).
 - If there is no rig hole on the bellcrank ([Figure 504](#); DET. B), do [SUBTASK 820-005-A](#).

SUBTASK 820-004-A

EFFECTIVITY: FOR BELLCRANCK WITH RIG HOLE

- (3) Adjust the rod A as follows:

- (a) Remove the main door lining panel that covers the step support assembly rig hole ([Figure 504](#)) ([AMM TASK 25-23-04-000-801-A/400](#)).
- (b) Actuate the cams to the middle position. Refer to [Figure 512](#).
- (c) With the steps deployed, actuate both cams to the middle position ([Figure 512](#)) and put the internal handle in the locked position.
- (d) Install the rig pin (5) in the bellcrank rig hole and in the rig hole of the step support assembly, to do the check of the alignment of the mechanism. Refer to [Figure 504](#) and [Figure 505](#).
- (e) Remove the rig pin (5). Refer to [Figure 505](#).
 - 1 If the mechanism is not aligned, do as follows:
 - a Remove the lock wire (6), cotter pin (4), nut (3), washer (2) and bolt (8) from the rod A upper end ([Figure 505](#)).
 - b Align the bellcrank rig hole with the rig hole of the step support assembly ([Figure 504](#)).
 - c Install the rig pin (5) into the two holes ([Figure 505](#)).
 - d Adjust the length of the rod A to permit its installation to the bellcrank (7) ([Figure 505](#)).

NOTE: Do a check of the rod inspection holes ([AMM MPP 20-10-11/200](#)).
 - e Install the bolt (8), washer (2), nut (3), cotter pin (4) and lockwire (6) of the rod A upper end ([Figure 505](#)).
 - f Remove the rig pin (5) ([Figure 505](#)).

(4) Adjust the rod B as follows:

CAUTION: TO STOW ALL THE STEPS, YOU MUST PUSH THE FIRST AND THIRD STEPS AT THE SAME TIME. IF YOU DO NOT OBEY THIS PRECAUTION, THE STEP SPRINGS CAN BE BROKEN.

- (a) Push the first and the third steps, at the same time, to stow all the steps.
- (b) With the steps stowed, actuate both cams to the middle position ([Figure 512](#)) and put the internal handle in the locked position.
- (c) Make sure that the rod B rig hole (9) is aligned with the rig hole of the step actuating arm (7). For this, put a rig pin (8) into the two holes. Remove the rig pin (8) ([Figure 506](#)).

1 If the holes are not aligned, do as follows:

- a Remove the lockwire (1), cotter pin (5), nut (6), washer (4) and bolt (3) from the rod B lower end ([Figure 506](#)).
- b Align the rod B rig hole (9) with the rig hole of the step actuating arm (7) ([Figure 506](#)).

- c Install a rig pin (8) into the two holes ([Figure 506](#)).
- d Adjust the length of the rod B (9) to permit its installation to the bellcrank (2) ([Figure 506](#); DET. C).

NOTE: For bellcrank with rig hole ([Figure 504](#); DET. B) adjust the rod B length with the rig pin (8) inserted, regardless of dimensional references.

NOTE: Do a check of the rod inspection holes ([AMM MPP 20-10-11/200](#)).
- e Install the bolt (3), washer (4), nut (6), cotter pin (5) and lockwire (1) of the rod B lower end ([Figure 506](#)).
- f Remove the rig pin (8).

SUBTASK 820-005-A

EFFECTIVITY: FOR BELLCRANCK WITHOUT RIG HOLE

- (5) Adjust the rod B as follows:

CAUTION: TO STOW ALL THE STEPS, YOU MUST PUSH THE FIRST AND THIRD STEPS AT THE SAME TIME. IF YOU DO NOT OBEY THIS PRECAUTION, THE STEP SPRINGS CAN BE BROKEN.

- (a) Push the first and the third steps, at the same time, to stow all the steps.
- (b) With the steps stowed, actuate both cams to the middle position ([Figure 512](#)) and put the internal handle in the locked position.
- (c) Measure the rod B. Its length must be approx. 298 mm ([Figure 503](#); Sheet 1; VIEW C).

NOTE: For bellcrank without rig hole ([Figure 504](#); DET. B) the rod B length must be 298 mm.

- 1 If the length of the rod B is not approx. 298 mm, do as follows:

- a Remove the lockwire (1), cotter pin (5), nut (6), washer (4) and bolt (3) from the rod B lower end ([Figure 506](#)).
- b Adjust the length of the rod B (9) to 298 mm ([Figure 503](#) and [Figure 506](#)).

NOTE: Do a check of the rod inspection holes ([AMM MPP 20-10-11/200](#)).

- c Put rod B lower end on the bellcrank (2) and install the bolt (3), washer (4), nut (6), cotter pin (5) and lockwire (1) ([Figure 506](#)).

- (6) Adjust the rod A as follows:

CAUTION: TO STOW ALL THE STEPS, YOU MUST PUSH THE FIRST AND THIRD STEPS AT THE SAME TIME. IF YOU DO NOT OBEY THIS PRECAUTION, THE STEP SPRINGS CAN BE BROKEN.

- (a) Push the first and the third steps, at the same time, to stow all the steps.
- (b) With the steps stowed, actuate both cams to the middle position (Figure 512) and put the internal handle in the locked position.
- (c) Make sure that the rod B rig hole (9) is aligned with the rig hole of the step actuating arm (7). For this, put the rig pin (8) into the two holes. Remove the rig pin (8) ([Figure 506](#)).
 - 1 If the holes are not aligned, adjust the rod A as follows:
 - a Remove the lockwire (6), cotter pin (4), nut (3), washer (2) and bolt (8) from the rod A upper end ([Figure 505](#)).
 - b Install the rig pin (8) into the hole of the rod B (9) and into the hole of the step actuating arm (7) ([Figure 506](#)).
 - c Adjust the length of the rod A to permit its installation to the bellcrank (7) ([Figure 505](#)).

NOTE: Do a check of the rod inspection holes ([AMM MPP 20-10-11/200](#)).
 - d Put rod A upper end on the bellcrank (7) and install the bolt (8), washer (2), nut (3), cotter pin (4) and lockwire (6) ([Figure 505](#)).
 - e Remove the rig pin (8) ([Figure 506](#)).

K. Follow-on

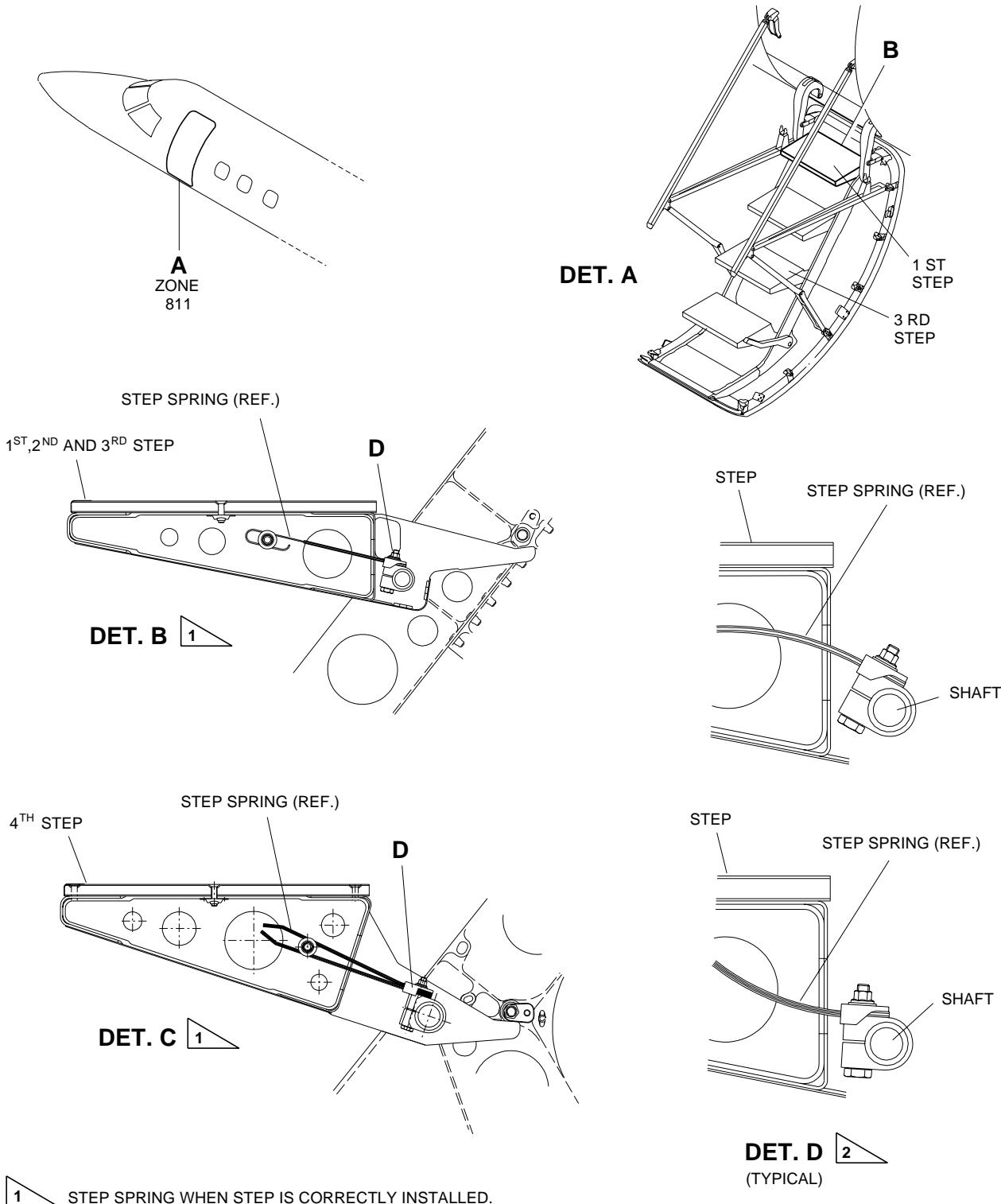
SUBTASK 842-003-A

- (1) Deploy the steps.
- (2) Do an operational check of the main door and observe the movement of the roller on the fold-out backstop. For this, open and close the main door. Refer to [AMM SDS 52-10-00/1](#).
- (3) If you will not do the complete adjustment of the main door and will not do the tasks below, do as follows:
 - (a) Install the main door lining panels ([AMM TASK 25-23-04-400-801-A/400](#)).
 - (b) Close the main door ([AMM SDS 52-10-00/1](#)).

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

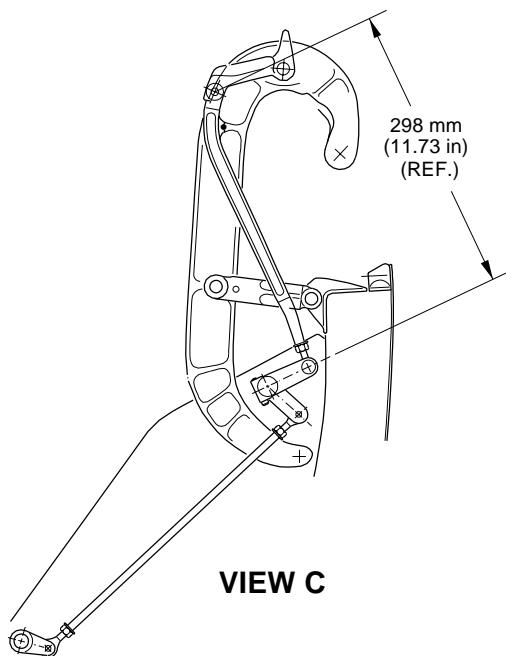
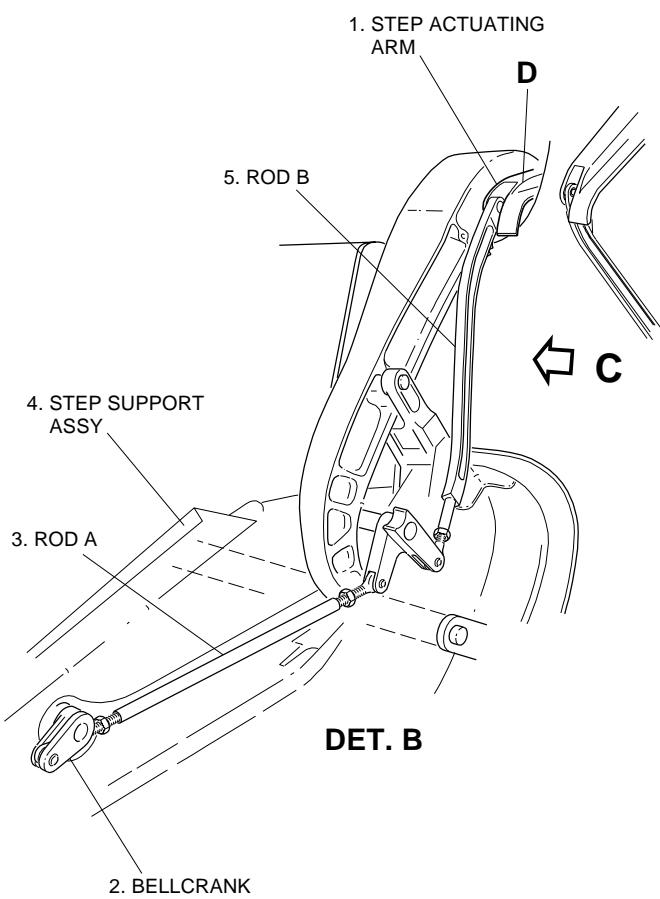
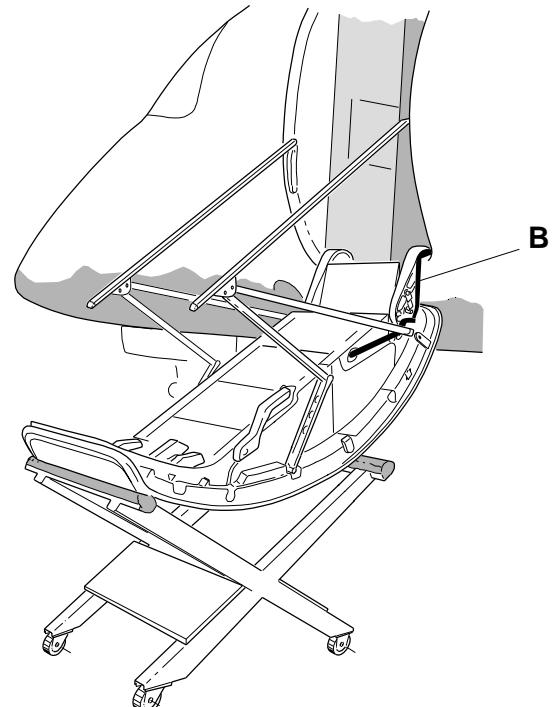
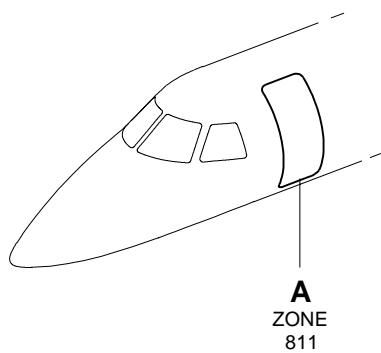
Step Spring

Figure 502



EM145AMM520792A.DGN

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR
Step Fold-out Backstop and Rod B Length - Adjustment
Figure 503 - Sheet 1



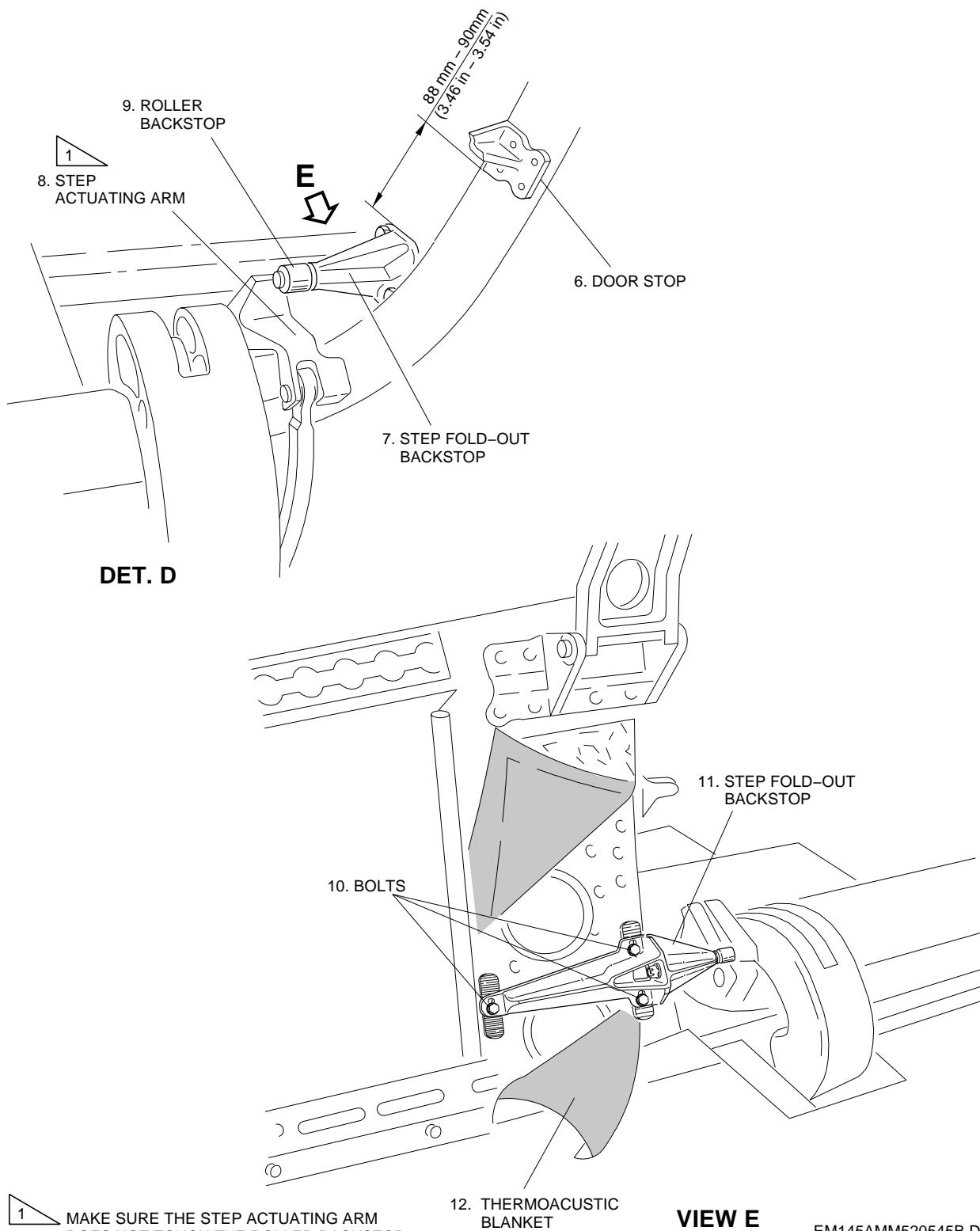
MAKE SURE THE STEP ACTUATING ARM DOES NOT TOUCH THE ROLLER BACKSTOP.

EM145AMM520622C.DGN

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

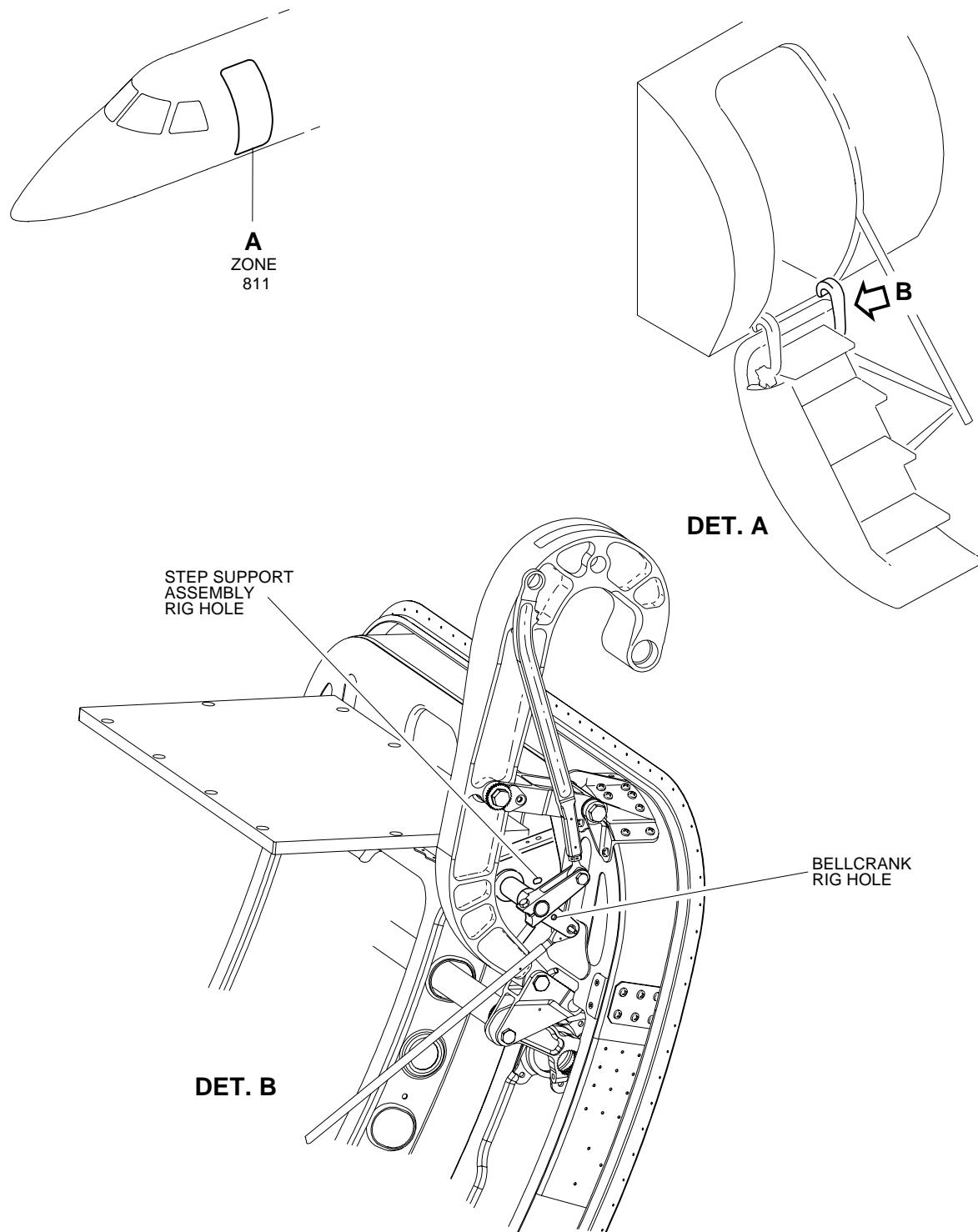
Step Fold-out Backstop and Rod B Length - Adjustment

Figure 503 - Sheet 2



EM145AMM520545B.DGN

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR
Bellcrank - Rig Hole
Figure 504

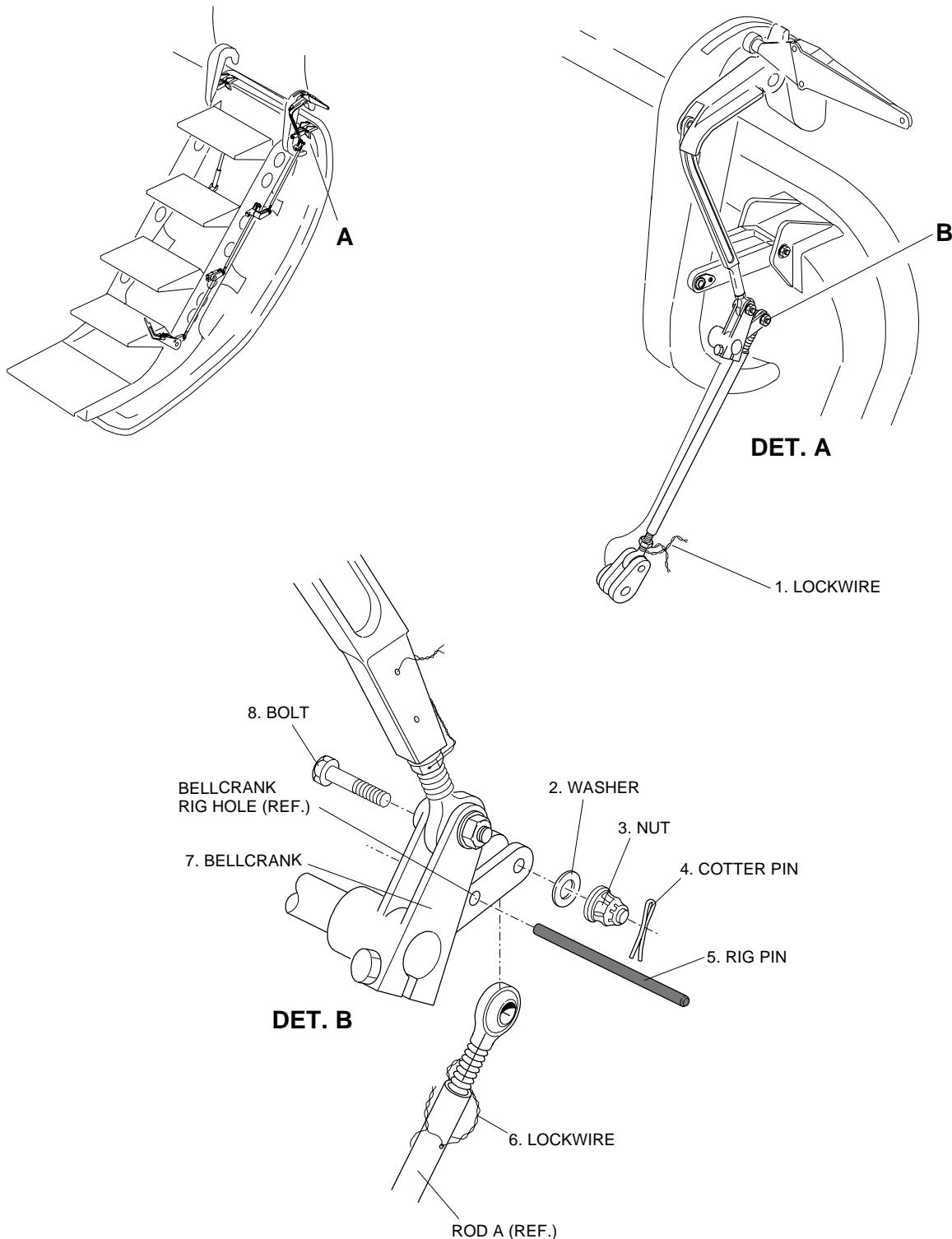


EM145AMM520627A.DGN

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

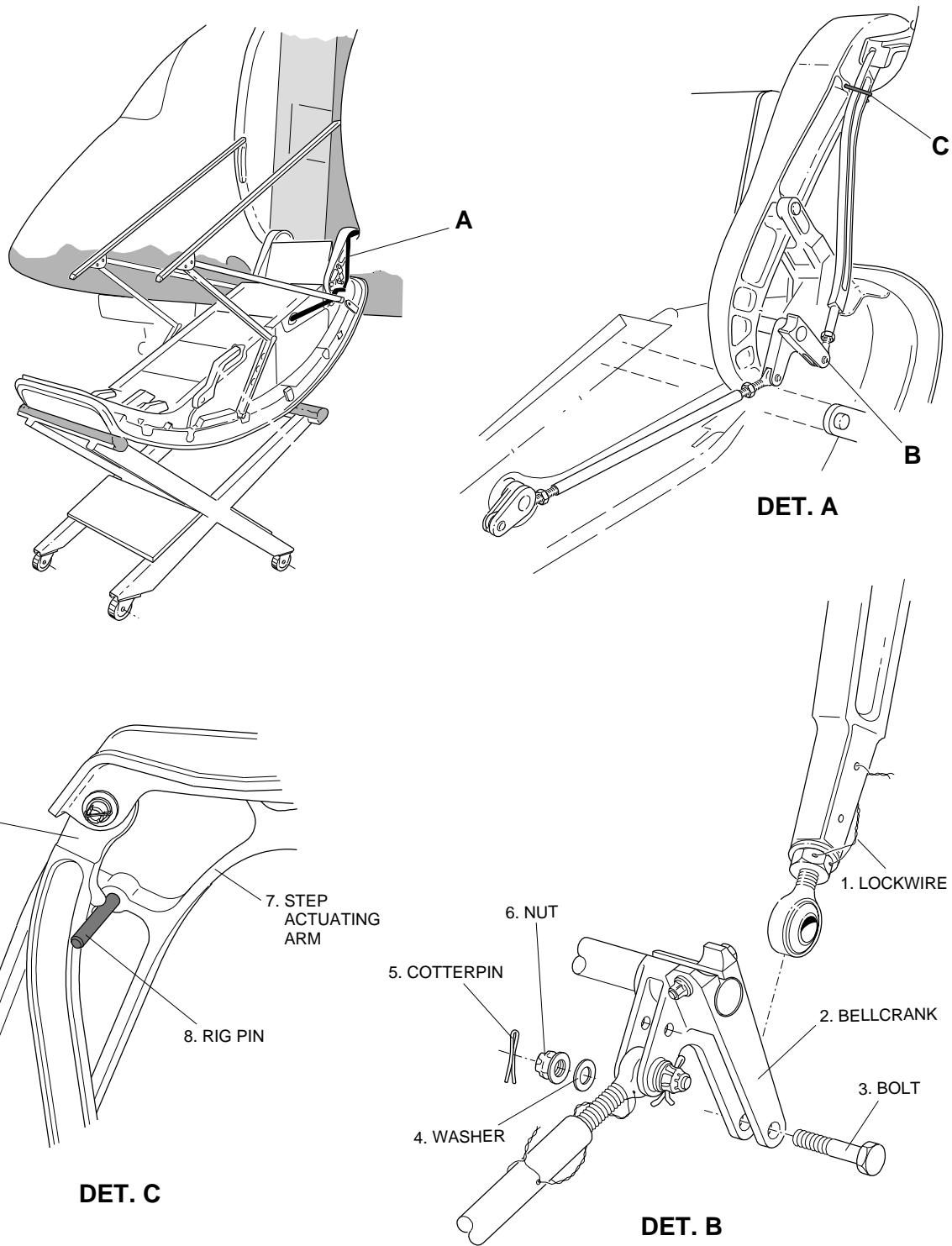
Rod A - Adjustment

Figure 505



EM145AMM520364D.DGN

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR
Rod B - Adjustment
Figure 506



145AMM520363.MCE A



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 52-10-01-820-803-A

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

4. MAIN-DOOR INTERCONNECTING RODS - ADJUSTMENT

A. General

- (1) This task gives the procedures to adjust the interconnecting rods of the main-door locking and actuating mechanism.
- (2) The interconnecting rods II, III and IV are already adjusted if the rig pins A, B and C can be inserted in the locking and actuating mechanism.
- (3) The adjustment of the length of the interconnecting rod I, cause the adjustment of the alignment of the external handle.
- (4) The adjustment of the length of the interconnecting rods V, cause the adjustment of the folding flap, as given in [AMM TASK 52-10-01-820-811-A/500](#).

B. References

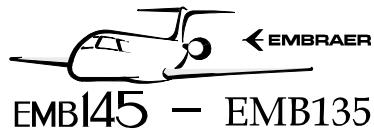
REFERENCE	DESIGNATION
AMM MPP 20-10-11/200	- MAINTENANCE PRACTICES
AMM SDS 52-10-00/1	
AMM TASK 25-23-04-000-801-A/400	MAIN-DOOR LINING PANEL - REMOVAL
AMM TASK 25-23-04-400-801-A/400	MAIN-DOOR LINING PANEL - INSTALLATION
AMM TASK 52-00-00-910-801-A/200	MAIN-DOOR - SUPPORTING
AMM TASK 52-10-01-820-804-A/500	MAIN-DOOR LOCKING-MECHANISM CAMS - TEST
AMM TASK 52-10-01-820-811-A/500	MAIN-DOOR FOLDING FLAP - ADJUSTMENT
AMM TASK 52-11-01-000-801-A/400	MAIN DOOR INTERNAL ACTUATING-HANDLE - REMOVAL
AMM TASK 52-11-01-400-801-A/400	MAIN DOOR INTERNAL ACTUATING HANDLE - INSTALLATION
IPC 52-11-00	MAIN DOOR - ACTUATING AND LOCKING MECHANISM
SB145-52-0029	-

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Rig pin A (8 mm in diameter and 250 mm in length)	To rig the rods	
Commercially available	Rig pin B (8 mm in diameter and 100 mm in length)	To rig the internal handle	
Commercially available	Rig pin C (8 mm in diameter and 500 mm in length)	To rig the rods	



AIRCRAFT MAINTENANCE MANUAL

(Continued)

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Rig pin D (4.75 mm (3/16") in diameter and 100 mm (4") in length)	To rig the cams	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
MS20995-C32	Lockwire	AR

G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
Cotter pin	IPC 52-11-00	AR

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Main door

I. Preparation

SUBTASK 841-004-A

- (1) Make sure that the main door is open ([AMM SDS 52-10-00/1](#)).
- (2) Make sure that the main door is supported with a bench at the correct height ([AMM TASK 52-00-00-910-801-A/200](#)).
- (3) Remove the internal handle ([AMM TASK 52-11-01-000-801-A/400](#)).
- (4) Remove the main door lining panels ([AMM TASK 25-23-04-000-801-A/400](#)).

CAUTION: WHEN YOU INSTALL THE INTERNAL HANDLE, MAKE SURE THAT THE KEY ON THE HANDLE FITS THE SLOT ON THE SHAFT. IF YOU DO NOT OBEY THIS PRECAUTION, DAMAGE TO THE HANDLE SPLINES CAN OCCUR.

- (5) Install back the internal handle ([AMM TASK 52-11-01-400-801-A/400](#)).

J. Main-Door Interconnecting Rods - Adjustment (Figure 507) (Figure 508) (Figure 509) (Figure 510) (Figure 511)

SUBTASK 820-006-A

- (1) With the steps deployed, actuate both cams to the middle position (Figure 512) and put the internal handle in the locked position.
- (2) Make sure that the internal handle is correctly installed on the torque tube ([AMM TASK 52-11-01-400-801-A/400](#)).

- (3) Remove the interconnecting rod I from the intermediate torque tube, to allow the insertion of the rig pin A, as follows (refer to [Figure 507](#); DET. C):
 - (a) Remove and discard the cotter pin (1).
 - (b) Remove the nut (2), washer (3), and bolt (4).
- (4) Install the rig pin B in the internal handle ([Figure 509](#) or [Figure 510](#)).
 - (a) If the rig pin B cannot be inserted in the internal handle, do as follows:
 - 1 Release the rods II, IV and III, as described in the steps 5, 6 and 7, respectively.
 - 2 Install rig pins A, B and C ([Figure 508](#), and [Figure 509](#) or [Figure 510](#), as applicable).
 - 3 Adjust the rods II, IV and III, as described in the steps 5, 6 and 7, respectively.
 - (b) If the rig pin B can be inserted in the internal handle, do as follows:
 - 1 Install the rig pin B ([Figure 509](#) or [Figure 510](#)).
 - 2 Do a check of rods II, IV and III, and adjust them if necessary, as given in steps 5, 6 and 7, respectively.
- (5) Do a check of the interconnecting rod II ([Figure 507](#); DET. D) as follows:
 - (a) Make sure that the rig pin B is installed in the internal handle ([Figure 509](#) or [Figure 510](#)).
 - (b) Install the rig pin A ([Figure 508](#)).
 - (c) If the rig pins A and B can be installed, the rod II does not need to be adjusted.
If rig pin A cannot be inserted, adjust rod II as follows:
 - 1 Remove and discard the cotter pin (18). Refer to [Figure 507](#);DET. D.
 - 2 Remove the nut (17), washer (16), and bolt (15). Refer to [Figure 507](#); DET. D.
 - 3 Turn the rod end (51) to increase or decrease the length of interconnecting rod II as follows (refer to [Figure 507](#); DET. H):

NOTE: Do a check of the rod inspection holes ([AMM MPP 20-10-11/200](#)).

 - a Loosen the jam nut (52).
 - b To increase the length, turn the rod end (51) counterclockwise, and to decrease the length, turn the rod end (51) clockwise.
 - c NOTE: Make sure that the holes of the rod ends and of the bellcranks are aligned.

Tighten the jam nut (52) of interconnecting rod II.

- 4 Safety jam nut (52) of interconnecting rod II. Refer to [Figure 507](#).
 - 5 Install the bolt (15), washer (16), nut (17), and a new cotter pin (18). Refer to [Figure 507](#); DET. D.
 - 6 Leave the rig pins A and B installed ([Figure 508](#), and [Figure 509](#) or [Figure 510](#)).
- (6) Do a check of the interconnecting rod IV ([Figure 507](#); DET. F) as follows:
- (a) Make sure that rig pin B is installed ([Figure 509](#) or [Figure 510](#)).
 - (b) Install the rig pin C ([Figure 509](#) or [Figure 510](#), as applicable).
 - (c) If the rig pins B and C can be installed, the rod IV do not need to be adjusted.
If rig pin C cannot be inserted, adjust rod IV as follows:
 - 1 Remove and discard the cotter pin (28). Refer to [Figure 507](#); DET. F.
 - 2 Remove the nut (29), washer (30), and bolt (31).
 - 3 Turn the rod end (68) and/or the adjusting bushing (66) to increase or decrease the length of interconnecting rod IV (64) as follows (refer to [Figure 507](#); DET. L):

NOTE: Do a check of the rod inspection holes ([AMM MPP 20-10-11/200](#)).

 - a Loosen the jam nut (67) or (65).
 - b To increase the length, turn the rod end (68) and/or the adjusting bushing (66) counterclockwise, and to decrease the length, turn them clockwise.

NOTE: Do a check of the rod inspection holes ([AMM MPP 20-10-11/200](#)).

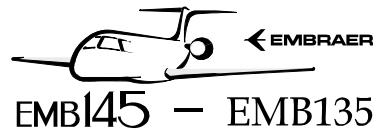
 - c NOTE: Make sure that the holes of the rod ends and of the bellcranks are aligned.
Tighten the jam nut (67) and (65) of interconnecting rod IV (64).
- 4 Safety jam nut (67) and/or (65) ([Figure 507](#)) of interconnecting rod IV (64).
 - 5 Install the bolt (31), washer (30), nut (29), and a new cotter pin (28). Refer to [Figure 507](#); DET. F.
 - 6 For aircraft POST-MOD [SB145-52-0029](#), do as follows (refer to [Figure 510](#); DET. C):
 - a Tighten the bolt until it touches the cam .
 - b Tighten the bolt nut.
 - 7 Keep the rig pins A, B and C installed ([Figure 508](#), and [Figure 510](#) or [Figure 509](#), as applicable).

- (7) Do a check of the interconnecting rod III ([Figure 507](#); DET. E) as follows:
- Make sure that the rig pins A, B and C are installed ([Figure 508](#), and [Figure 510](#) or [Figure 509](#), as applicable).
 - Install rig pin D to the cam ([Figure 508](#); DET. C).
 - Remove and discard the cotter pin (22). Refer to [Figure 507](#); DET. E.
 - Remove the nut (21), washer (20), and bolt (19). Refer to [Figure 507](#); DET. E.
 - Turn the rod end (59) and/or adjusting bushing (61) to increase or decrease the length of interconnecting rod III (63) as follows (refer to [Figure 507](#); DET. J):
 - Loosen the jam nut (60) or (62).
 - To increase the length, turn the rod end (59) and/or adjusting bushing (61) counterclockwise, and to decrease the length, turn them clockwise.

NOTE: Do a check of the rod inspection holes ([AMM MPP 20-10-11/200](#)).

 - Adjust the cams of the locking mechanism, as described in [AMM TASK 52-10-01-820-804-A/500](#).
 - Tighten the jam nut (60) and/or (62), as applicable, of interconnecting rod III (63).
 - NOTE:** Make sure that the holes of the rod ends and of the bellcranks are aligned.
Safety jam nut (60) and/or (62) of interconnecting rod III (63). Refer to [Figure 507](#); DET. J.
 - Install the bolt (24), washer (25), nut (26), and a new cotter pin (27). Refer to [Figure 507](#).
- (8) Do a check of the interconnecting rod I ([Figure 507](#); DET. C) as follows:
- NOTE:** The adjustment of the length of the interconnecting rod I causes the adjustment of the alignment of the external handle ([Figure 511](#)).
- Remove the rig pin A. Refer to [Figure 508](#).
 - Make sure that the rig pins B and C are installed. Refer to [Figure 510](#) or [Figure 509](#), as applicable.
 - Turn the rod end (58) to increase or decrease the length of interconnecting rod I (54), as follows (refer to [Figure 507](#); DET. H):
 - Loosen the jam nut (57).
 - To increase the length, turn the rod end counterclockwise.
 - To decrease the length, turn the rod end clockwise.

NOTE: • Make sure that the main-door external actuating handle is aligned with the main door loft line or the step is 1.0 mm



maximum underflush to the door loft line. Refer to [Figure 511](#); DET. D.

- Do a check of the rod inspection holes ([AMM MPP 20-10-11/200](#)).

- 4 NOTE: Make sure that the holes of the rod ends and of the bellcranks are aligned.

Tighten the jam nut (57) of interconnecting rod I (54).

- (d) Install the bolt (4), washer (3), nut (2), and a new cotter pin (1). Refer to [Figure 507](#); DET. C.

- (e) Close and lock the door through the internal handle and do a check of the external handle alignment ([Figure 511](#); DET. D).

NOTE: The step tread must be deployed before you close the main door.

- (f) If the external handle is aligned, open the door and safety jam nut (57) of interconnecting rod I (54). Refer to [Figure 507](#); DET. H.

K. Follow-on

SUBTASK 842-004-A

- (1) Remove the rig pins A, B, C and D ([Figure 508](#), and [Figure 510](#) or [Figure 509](#), as applicable).

- (2) With the door on the bench, do an operational check of the main door and observe the movement of the rods. For this, lock and unlock the main door. Refer to [AMM SDS 52-10-00/1](#).

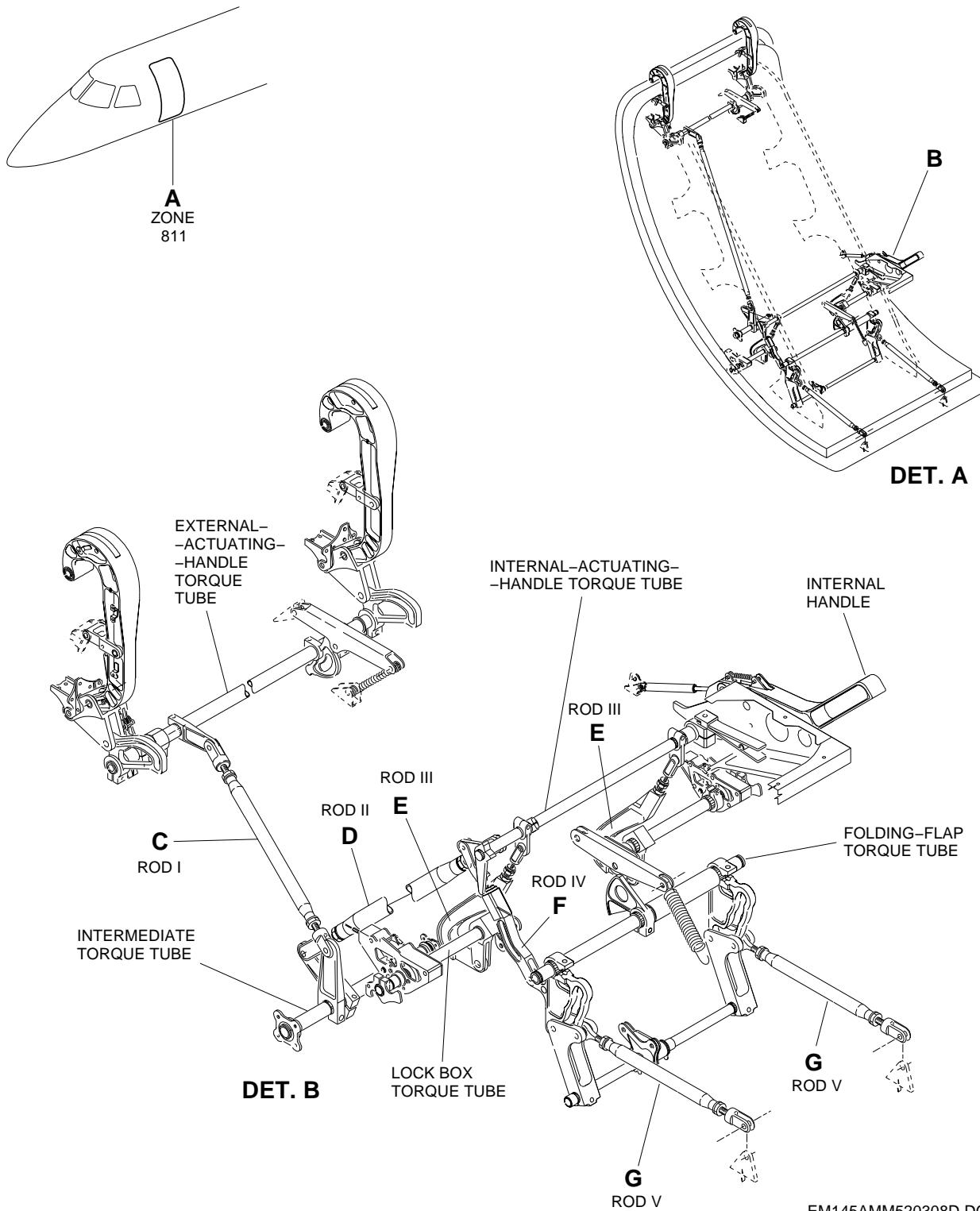
- (3) If you will not do the complete adjustment of the main door and will not do the tasks below, do as follows:

- (a) Install the main door lining panels ([AMM TASK 25-23-04-400-801-A/400](#)).

- (b) Close the main door ([AMM SDS 52-10-00/1](#)).

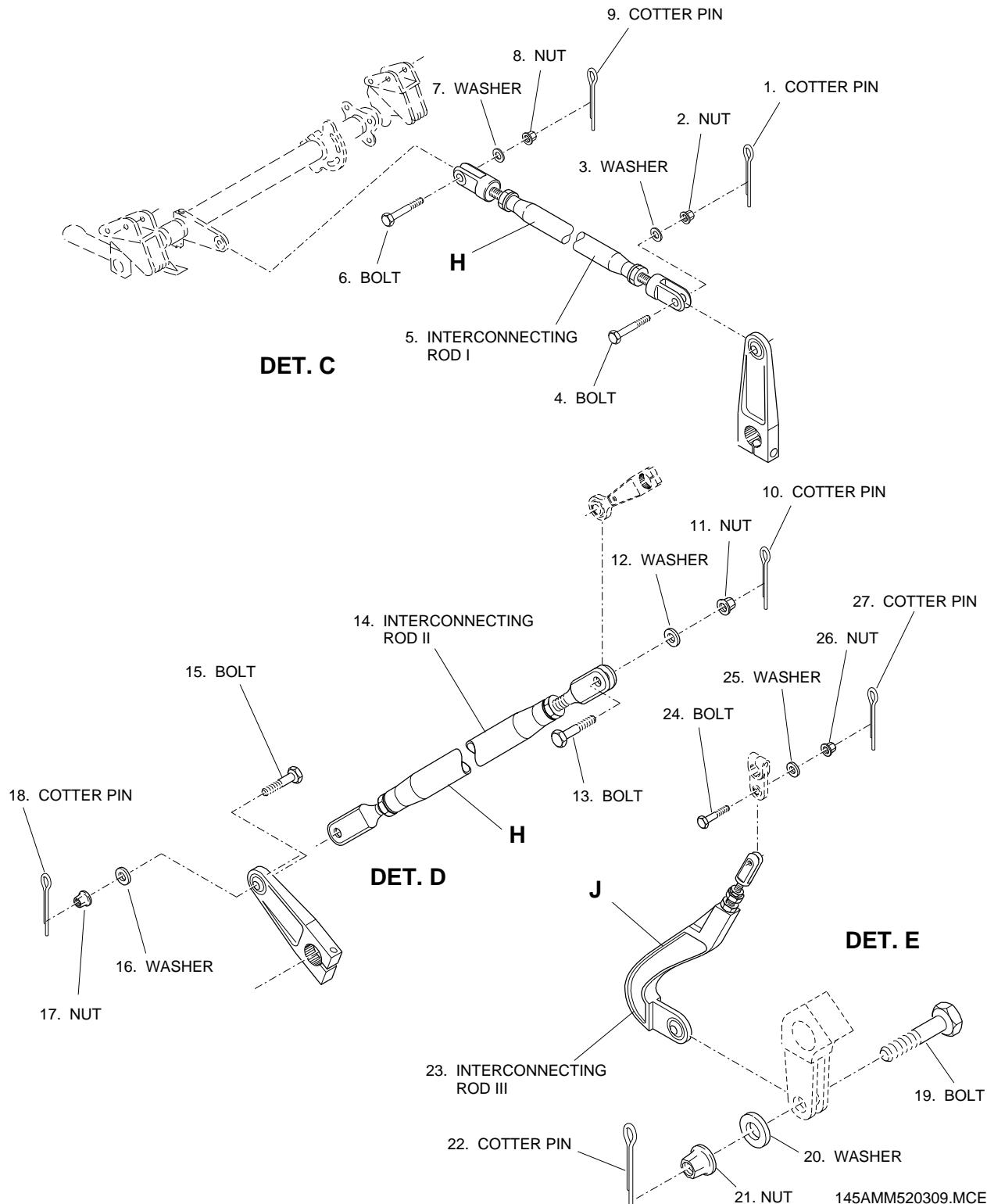
NOTE: The step tread must be deployed before you close the main door.

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR
Main-Door Interconnecting Rods - Removal/Installation
Figure 507 - Sheet 1

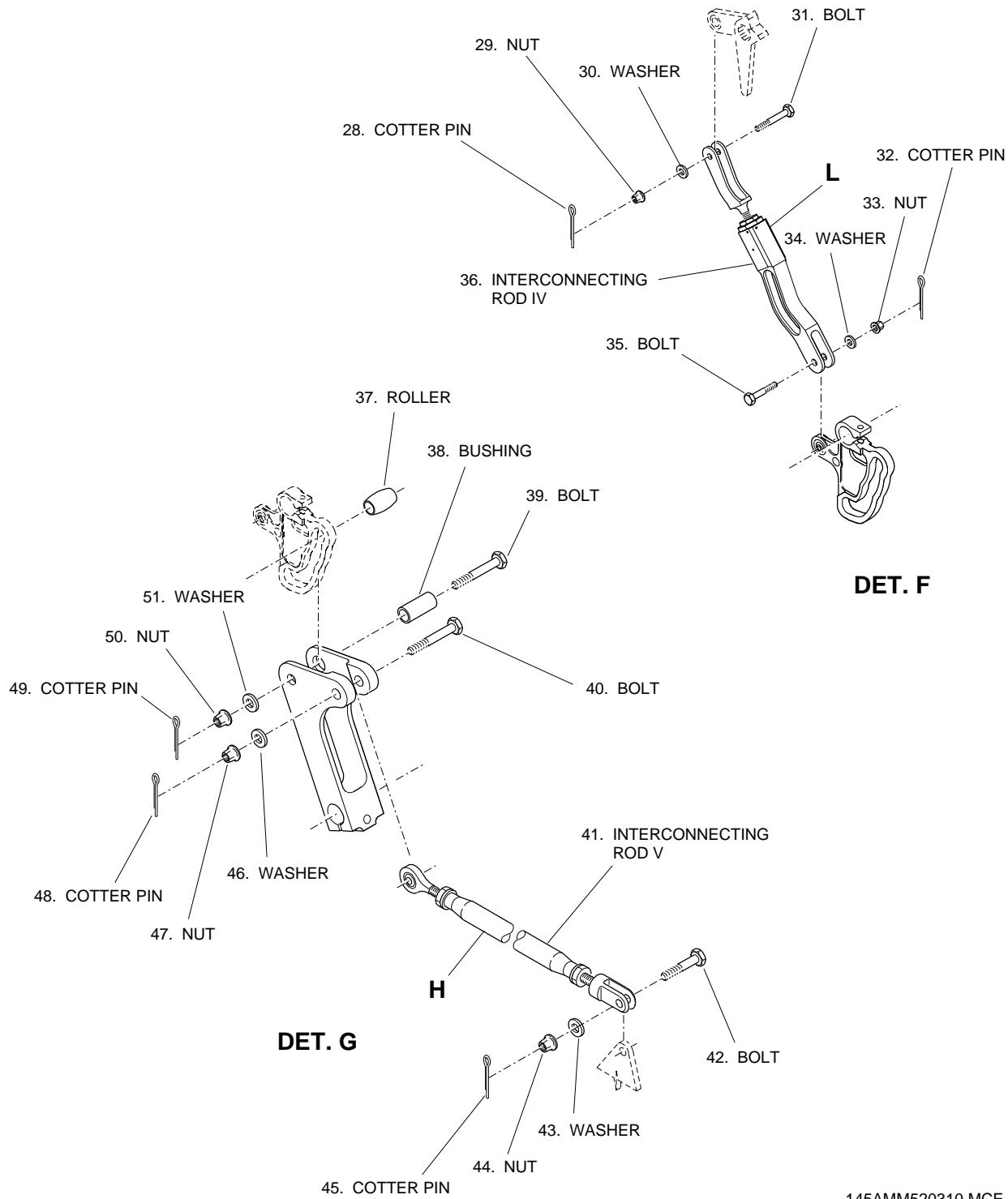


EM145AMM520308D.DGN

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR
Main-Door Interconnecting Rods - Removal/Installation
Figure 507 - Sheet 2

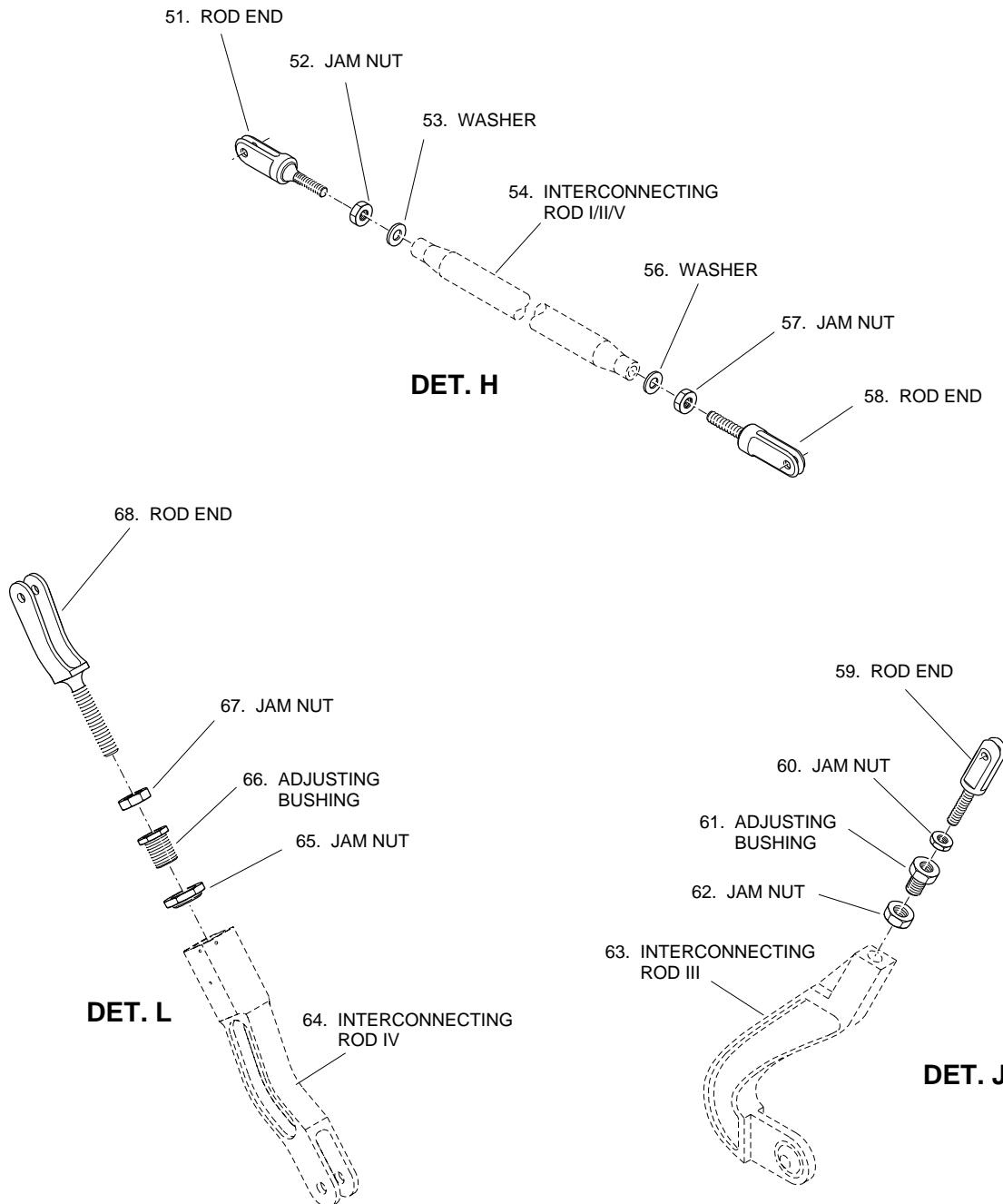


EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR
Main-Door Interconnecting Rods - Removal/Installation
Figure 507 - Sheet 3



145AMM520310.MCE

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR
Main-Door Interconnecting Rods - Removal/Installation
Figure 507 - Sheet 4

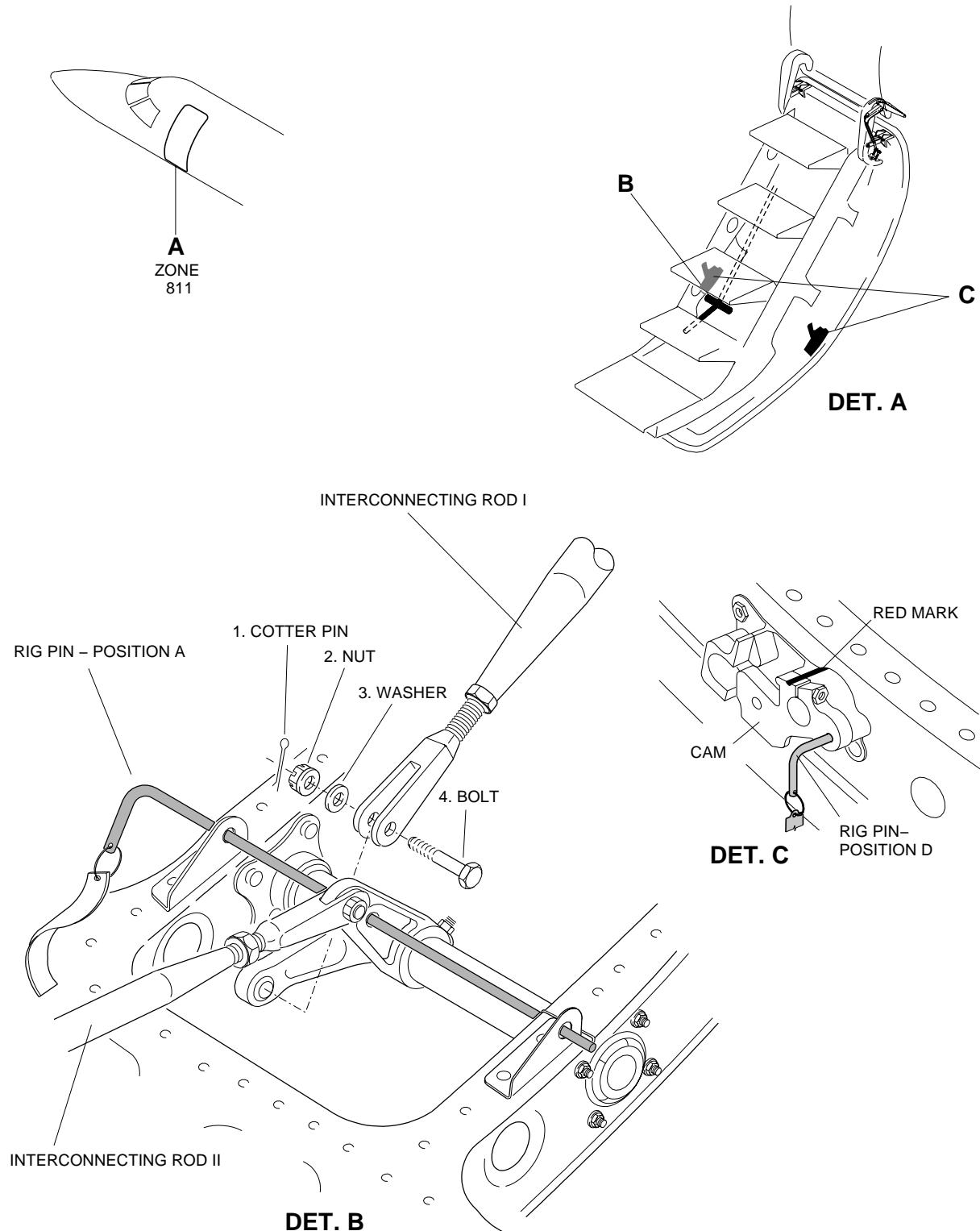


145AMM520311.MCE

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

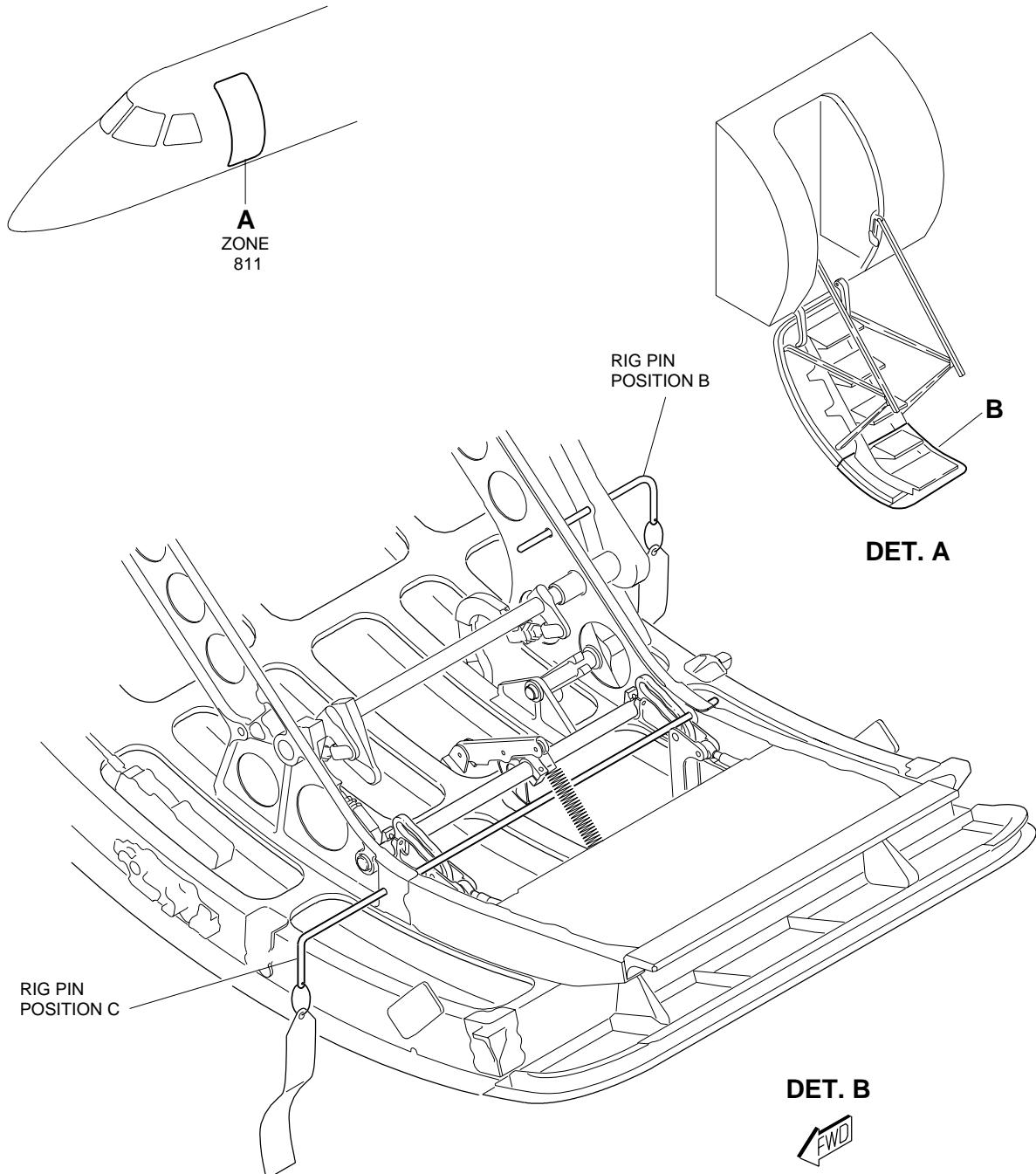
Rig Pins - Removal/Installation

Figure 508



EM145AMM520315C.DGN

EFFECTIVITY: PRE-MOD SB 145-52-0029
Rig Pins - Removal/Installation
Figure 509

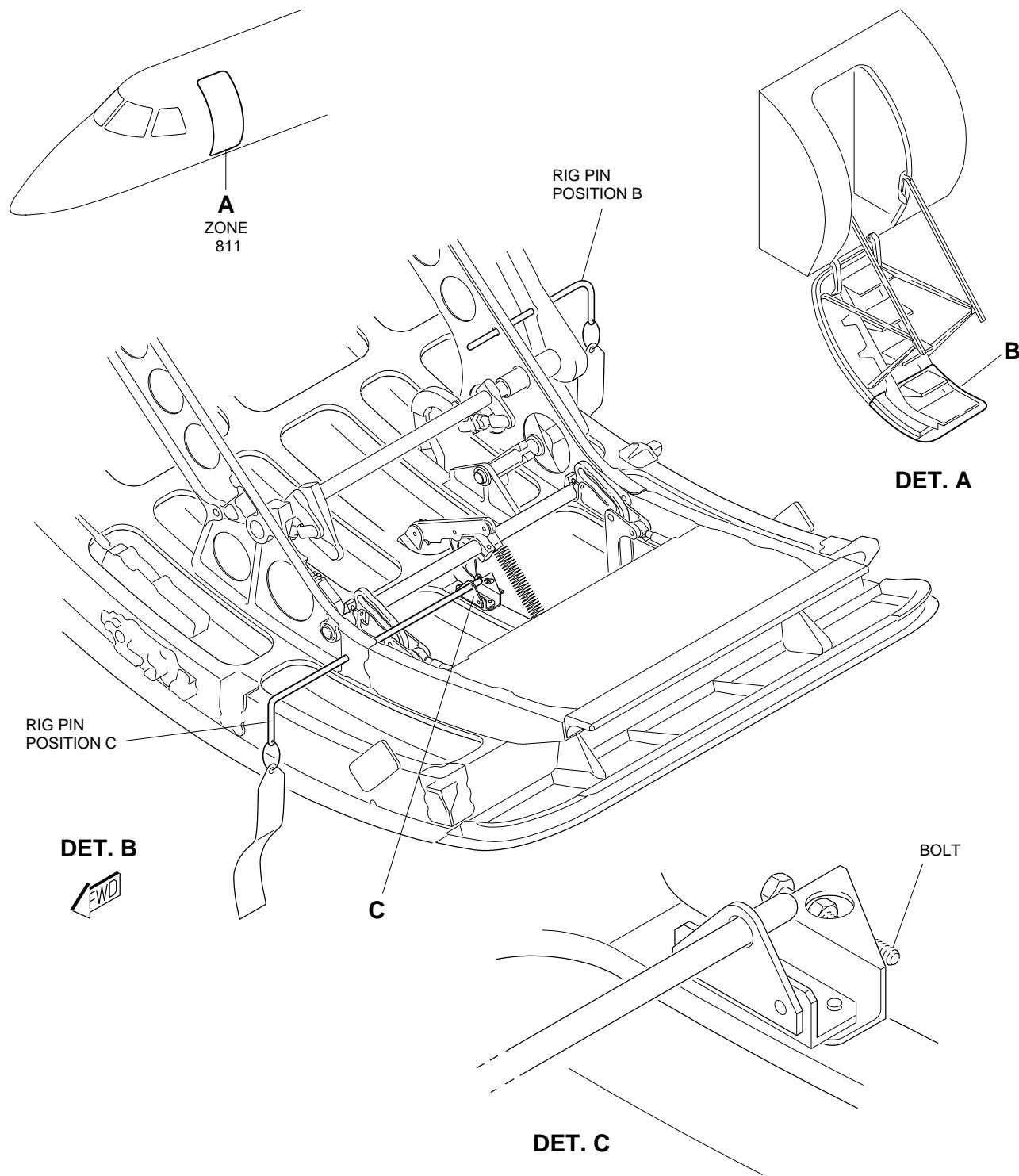


145AMM520316.MCE C

EFFECTIVITY: POST-MOD SB 145-52-0029

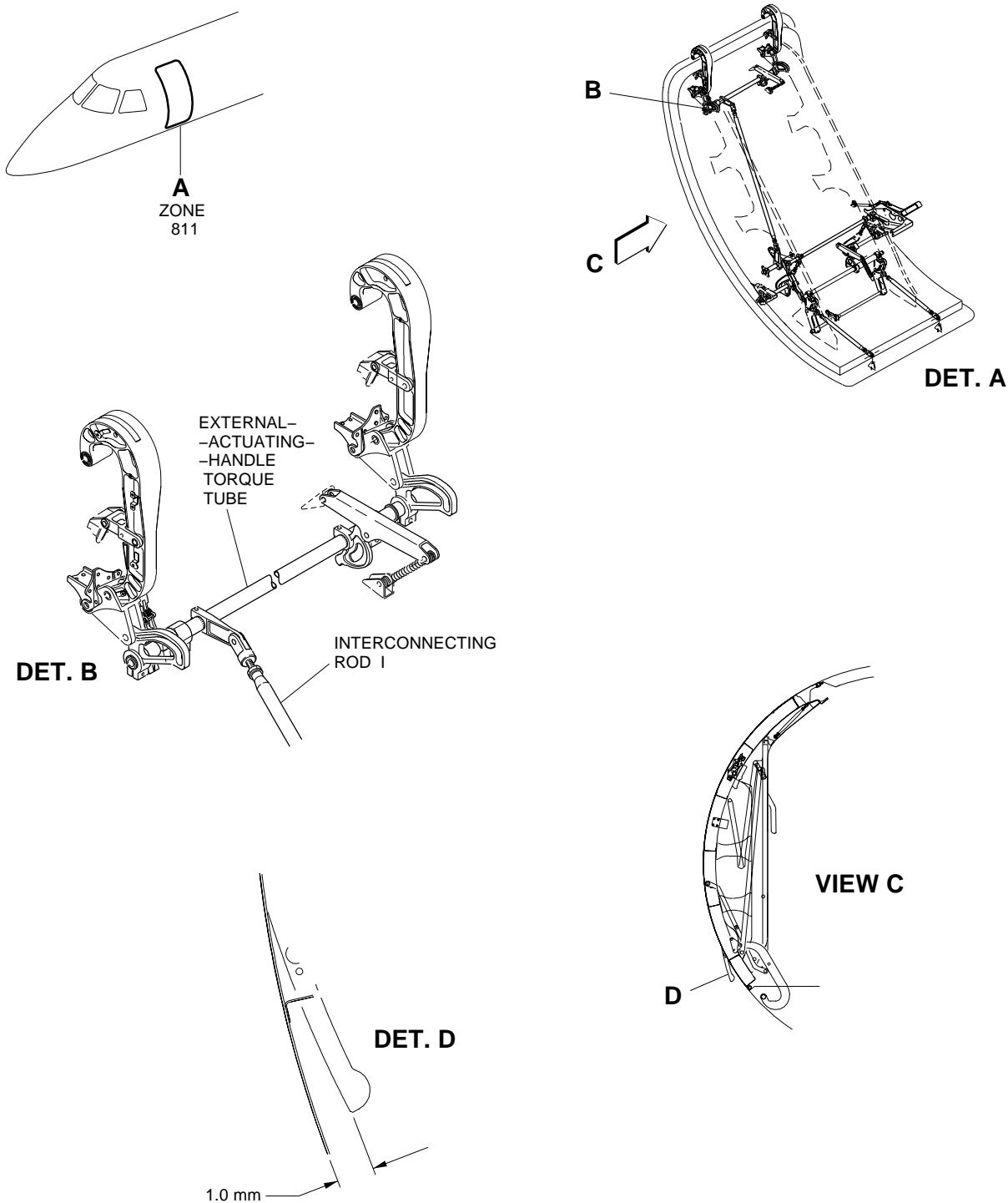
Rig Pins - Removal/Installation

Figure 510

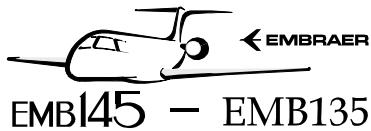


145AMM520478.MCE

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR
Main-Door External Actuating Handle - Adjustment/Test
Figure 511



EM145AMM520320D.DGN



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 52-10-01-820-804-A

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

5. MAIN-DOOR LOCKING-MECHANISM CAMS - TEST

A. General

- (1) This task gives the procedure to do a test of the load necessary to actuate the cams of the locking mechanism of the main door.
- (2) If the load is more than the acceptable, the door can be hard to open/close. If the load is less than the acceptable, the cams can be unintentionally actuated and the mechanism locked.

B. References

REFERENCE	DESIGNATION
AMM MPP 20-10-11/200	- MAINTENANCE PRACTICES
AMM SDS 52-10-00/1	
AMM TASK 25-23-04-000-801-A/400	MAIN-DOOR LINING PANEL - REMOVAL
AMM TASK 25-23-04-400-801-A/400	MAIN-DOOR LINING PANEL - INSTALLATION
AMM TASK 52-10-01-820-803-A/500	MAIN-DOOR INTERCONNECTING RODS - ADJUSTMENT

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
811		Airstairs main door

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Dynamometer - 100 lb		

E. Auxiliary Items

Not Applicable

F. Consumable Materials

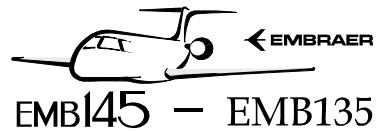
Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Main door



I. Preparation

SUBTASK 841-005-A

- (1) Make sure that the main door is open ([AMM SDS 52-10-00/1](#)).

J. Main-Door Locking-Mechanism Cams - Adjustment ([Figure 512](#))

SUBTASK 820-007-A

- (1) With the steps deployed, leave the internal handle in the unlocked position.

NOTE: The cams have to be in the 0° position.

- (2) With a hook at one side of the dynamometer, put the hook against the cam and pull the dynamometer until the cam stays in the middle position. Refer to [Figure 512](#).

NOTE: The cam will stay in the middle position after a click.

- (3) Look at the value shown on the dynamometer. The value must be between 5 and 8 Kgf, approximately.

SUBTASK 820-008-A

- (4) If the cam load is out of tolerance (5 - 8 Kgf), do these steps:

(a) Make sure that the main door lining panels are removed ([AMM TASK 25-23-04-000-801-A/400](#)).

(b) Adjust the length of the respective interconnecting rod III, as described in [AMM TASK 52-10-01-820-803-A/500](#).

NOTE: There are two interconnecting rod III, one for each cam.

1 To increase the load, shorten the interconnecting rod III; and to decrease the load, enlarge the interconnecting rod III.

NOTE: Do a check of the rod inspection holes ([AMM MPP 20-10-11/200](#)).

(c) Do the check with the dynamometer again.

(d) Look at the value shown on the dynamometer. The value must be between 5 and 8 Kgf, approximately. If not, do the adjustment again.

(e) With your hands, turn back the cams to the 0° position. Refer to [Figure 512](#).

K. Follow-on

SUBTASK 842-005-A

- (1) If you will not do the complete adjustment of the main door and will not do the tasks below, do as follows:

(a) Install the main door lining panels ([AMM TASK 25-23-04-400-801-A/400](#)).

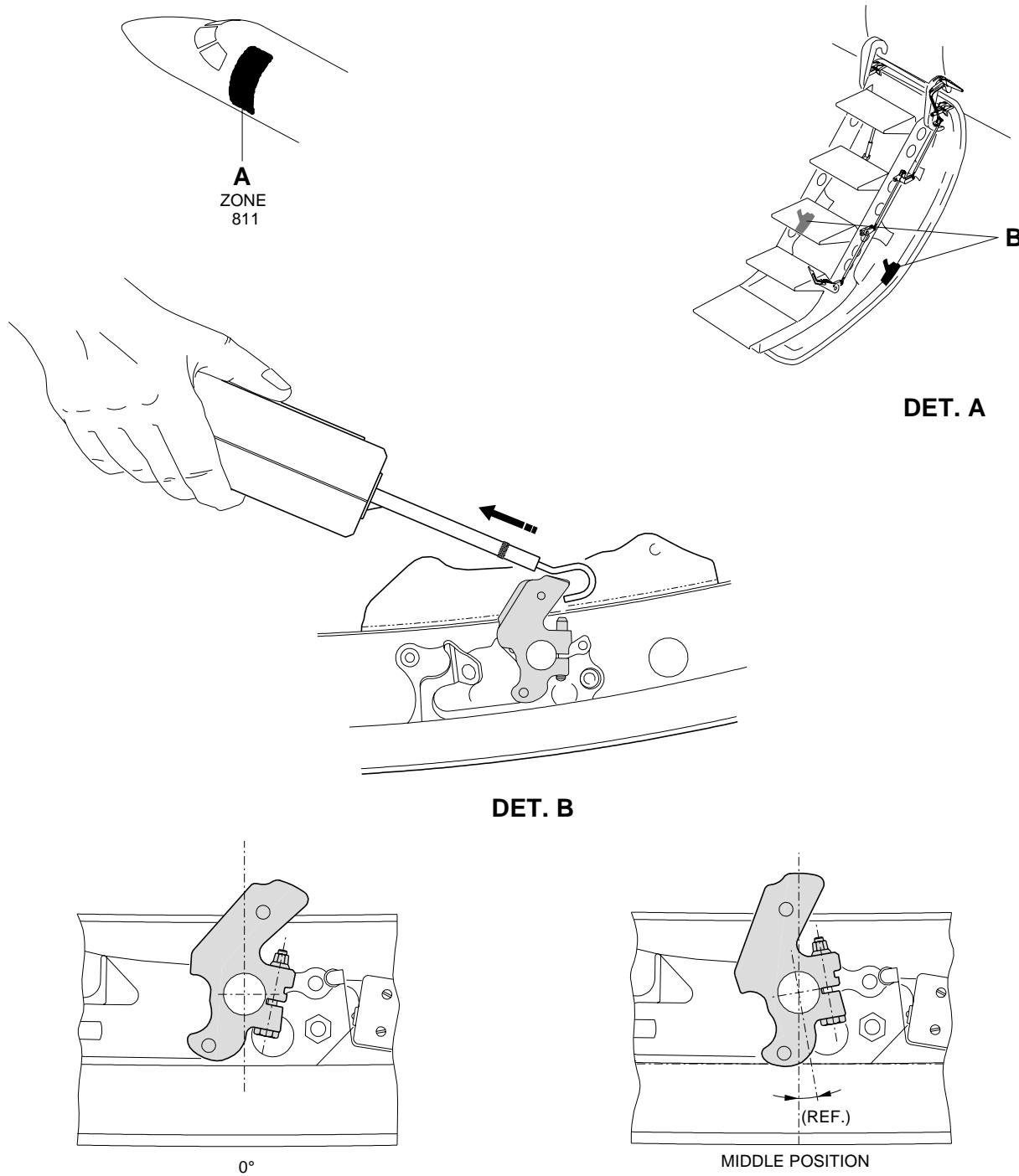
(b) Close the main door ([AMM SDS 52-10-00/1](#)).

NOTE: The step tread must be deployed before you close the main door.

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

Main-Door Locking-Mechanism Cams - Adjustment

Figure 512



CAM POSITION WHEN THE DOOR IS
OPEN AND ON A BENCH.
(BEFORE YOU PULL IT WITH A DYNAMOMETER)

CAM POSITION AFTER YOU PULL IT
WITH A DYNAMOMETER

EM145AMM520559B.DGN

TASK 52-10-01-820-805-A
EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR
6. MAIN DOOR CABLES - ADJUSTMENT
A. General

- (1) This task gives the procedures to adjust the cables of the lock boxes and the cables of the internal and external handles of the main door.

B. References

REFERENCE	DESIGNATION
AMM SDS 52-10-00/1	
AMM TASK 25-23-04-000-801-A/400	MAIN-DOOR LINING PANEL - REMOVAL
AMM TASK 25-23-04-400-801-A/400	MAIN-DOOR LINING PANEL - INSTALLATION
AMM TASK 52-00-00-910-801-A/200	MAIN-DOOR - SUPPORTING
AMM TASK 52-11-00-600-801-A/300	MAIN-DOOR ACTUATING AND LOCKING MECHANISM - LUBRICATION
AMM TASK 52-73-00-700-801-A/500	AIRSTAIRS MAIN DOOR WARNING MESSAGE - OPERATIONALLY CHECK

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
811		Airstairs door

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Rig Pin (4.75 mm (3/16") in diameter and 100 mm (4") in length)	To rig the mixer	
Commercially available	Rig pin (8 mm in diameter and 100 mm in length)	To rig the internal handle	

E. Auxiliary Items

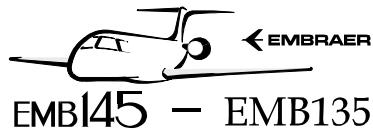
Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
MS20995-C32	lock wire	AR
MS20995-C20	Lock Wire	AR
MS3367-4-9	Tie-down strap	AR
MIL-G-46886	Molykote grease	AR

G. Expandable Parts

Not Applicable



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Main door

I. Preparation ([Figure 515](#)) ([Figure 509](#)) ([Figure 510](#))

SUBTASK 841-006-A

- (1) Make sure that the main door is open ([AMM SDS 52-10-00/1](#)).
- (2) Make sure that the main door is supported with a bench at the correct height ([AMM TASK 52-00-00-910-801-A/200](#)).
- (3) Make sure that the main door lining panels are removed ([AMM TASK 25-23-04-000-801-A/400](#)).
- (4) Examine the main components such as mixer, supports, cables, nuts, and lock boxes, and the mechanism for integrity (no friction, interference, or corrosion points).
- (5) Do a check to see which cable is the cause of the malfunction of the mechanism. For this, turn the internal handle many times and see the movement of the cables and locks.
- (6) Actuate both cams to the middle position ([Figure 512](#)) and put the internal handle in the locked position.
- (7) Install the rig pin (1) in the bellcrank assembly of the mixer (2). Refer to [Figure 515](#).
- (8) Install the rig pin B in the internal handle. Refer to ([Figure 509](#)) or ([Figure 510](#)).

J. Main Door Cables - Test ([Figure 513](#)) ([Figure 514](#)) ([Figure 515](#))

SUBTASK 820-009-A

- (1) The four cables of the door are ([Figure 513](#)):
 1. Cable A: is the internal handle cable.
 2. Cable B: is the external handle cable.
 3. Cable C: is the rear lock box cable.
 4. Cable D: is the front lock box cable.
- (2) Do a check of the tension of each cable with your finger. Do as follows:
 - (a) Do a check of the front lock box cable (cable D) and the rear lock box cable (cable C), as follows (refer to [Figure 513](#)):
 - 1 With the internal handle in the locked position, the red marks (3) of the lock boxes (4) must be aligned (refer to [Figure 515](#)). If they are not aligned, adjust the tension of the cables C and/or D as given in [SUBTASK 820-010-A](#).
 - 2 Touch the two cables of the lock boxes, one at a time, and make sure that the red mark (3) moves, on each lock box. Refer to [Figure 515](#).

3 If the red marks (3) move, cables C and D do not need to be adjusted. Refer to [Figure 515](#).

4 If the red marks (3) do not move, adjust the tension of the cables C and/or D as given in [SUBTASK 820-010-A](#). Refer to [Figure 515](#).

NOTE: The cables C and D must have the same tension.

(b) Do a check of the internal handle cable (cable A) and the external handle cable (cable B), as follows (refer to [Figure 513](#)):

1 Touch the internal handle cable (cable A) and the external handle cable (cable B) and compare the tension:

- The external handle cable (cable B) must be more tensioned than the internal handle cable (cable A) and the lock box cables C and D.
- The internal handle cable (cable A) must be less tensioned than the external handle cable (cable B) and the lock box cables C and D.

NOTE: You can compare the tension of the internal handle cable (cable A) with the external handle cable (cable B), at the mixer (2). The difference between them must be 3 to 5 mm. Refer to [Figure 515](#); DET. B.

2 If necessary, adjust cables A and/or B as given in [SUBTASK 820-010-A](#).

K. Main Door Cables - Adjustment ([Figure 513](#)) ([Figure 514](#)) ([Figure 515](#))

[SUBTASK 820-010-A](#)

(1) Adjust the internal handle cable (cable A), external handle cable (cable B), rear lock box cable (cable C), and front lock box cable (cable D) as follows (refer to [Figure 514](#)):

(a) For cable with cable cover (6): cut and remove the thinner lock wire (5) that attaches the cable cover (6) to the cable nut. Refer to [Figure 514](#); Sheet 2; DET. D.

CAUTION: FOR DOORS EQUIPPED WITH PROTECTIVE BOOT, BE CAREFUL NOT TO CAUSE DAMAGE TO THE BOOTS WHEN YOU HANDLE THEM.

(b) Remove and discard the lockwires of nuts (1) and (2) ([Figure 514](#); Sheet 2; DET. C).

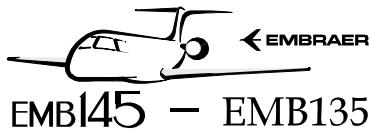
(c) Turn the nuts (1) and (2) ([Figure 514](#); Sheet 2; DET. C) as necessary to adjust the cable.

NOTE: For cable with protective boot (3): it is not necessary to move the protective boots.

(d) Tighten the internal handle cable nuts (1) and (2) ([Figure 514](#); Sheet 2; DET. C).

NOTE: A minimum of two threads of all cable end-fittings must come out from the nuts.

(e) Make sure that the red marks (3) of the lock boxes (4) are aligned. Refer to [Figure 515](#); DET. C.



AIRCRAFT MAINTENANCE MANUAL

- (2) Remove the rig pin (1) from the bellcrank assembly of the mixer (2). Refer to [Figure 515](#).
- (3) Remove the rig pin B from the internal handle. Refer to ([Figure 509](#)) or ([Figure 510](#)).
- (4) Make sure that the internal handle is in the unlocked position and the step tread is deployed.
- (5) Hold the door while you remove the bench and lower the door, slowly.
- (6) Close and lock, unlock and open the door with the internal and external handles, to make sure that the door operates correctly ([AMM SDS 52-10-00/1](#)). Make sure that the locks (3) of the two lock boxes move at the same time when you actuate one of the handles (refer to [Figure 515](#)). Also make sure that the door locks and the two handles operate correctly.

NOTE: The step tread must be deployed before you close the main door.

- (7) Do an operational check of the main - door warning message ([AMM TASK 52-73-00-700-801-A/500](#)).
- (8) Do the cable test again ([SUBTASK 820-009-A](#)).
- (9) Install new lockwires to the nuts (1) and (2) ([Figure 514](#); Sheet 2; DET. C).
- (10) For cables with protective boots: lubricate the protective boots (3) if necessary ([AMM TASK 52-11-00-600-801-A/300](#)). Refer to [Figure 514](#); Sheet 2; DET. C.
- (11) For cable with cable cover (6): install the cable cover (6) and a new thinnerlock wire (5) to attach the cable cover (6) to the cable nuts. Refer to [Figure 514](#); Sheet 2; DET. D.

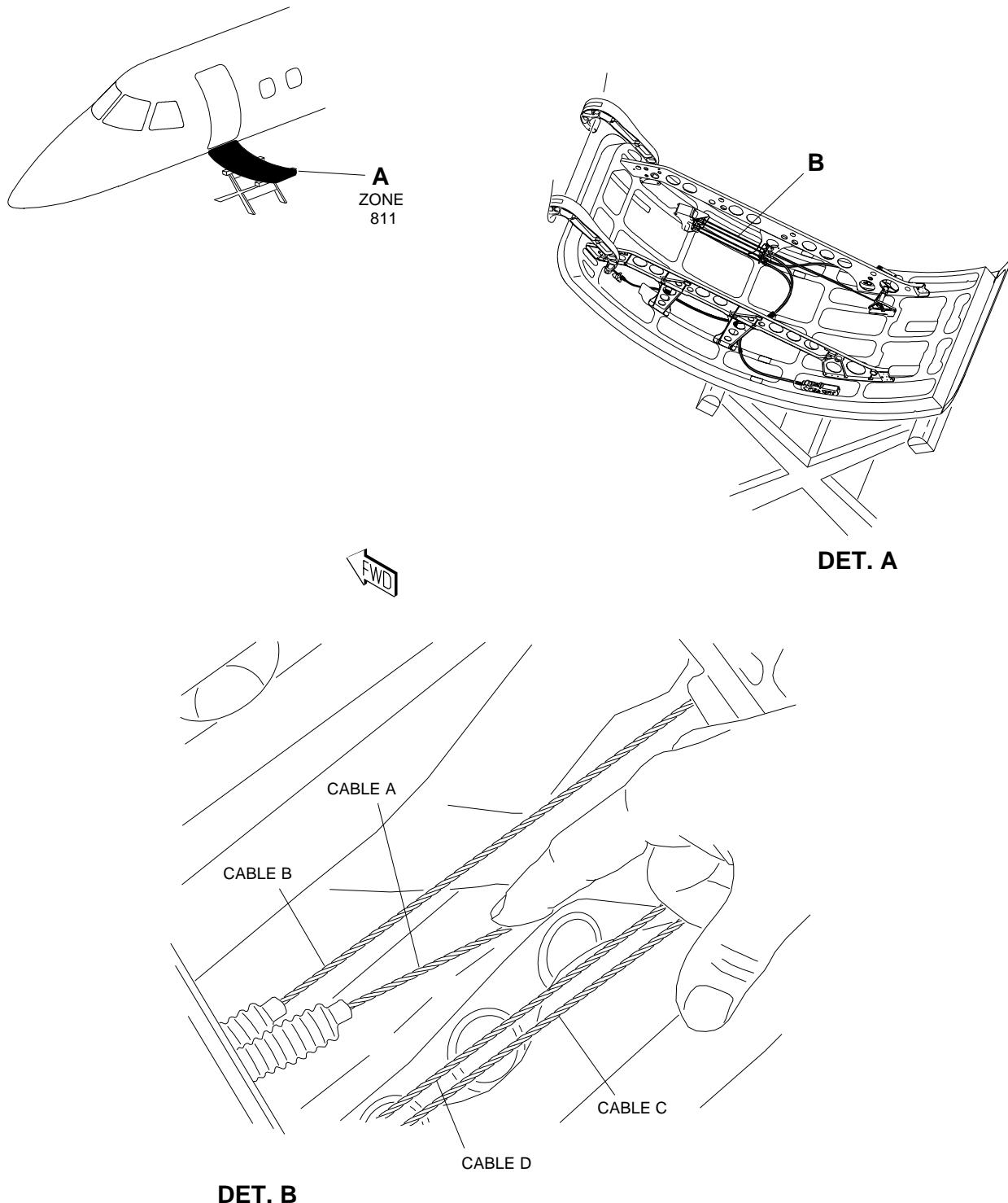
L. Follow-on

SUBTASK 842-006-A

- (1) Install the main door lining panels ([AMM TASK 25-23-04-400-801-A/400](#)).
- (2) Close the main door ([AMM SDS 52-10-00/1](#)).

NOTE: The step tread must be deployed before you close the main door.

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR
Cable Tension
Figure 513

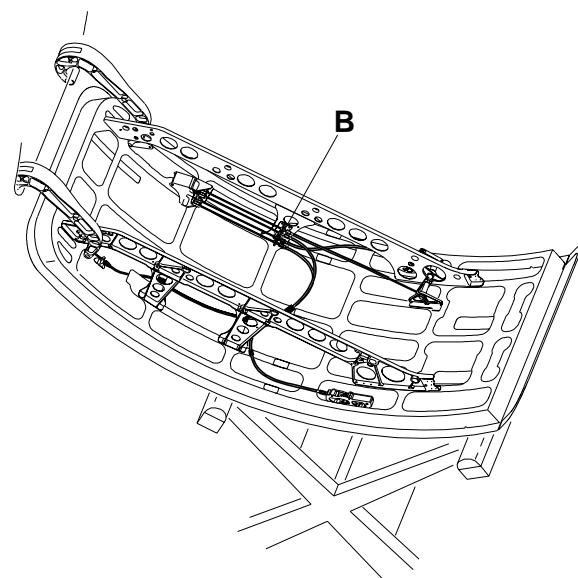
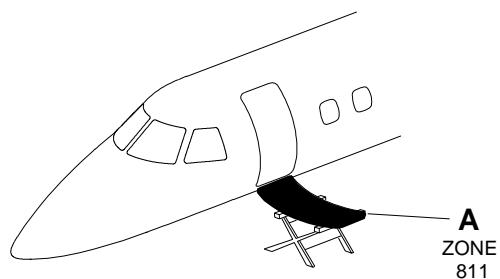


EM145AMM520654A.DGN

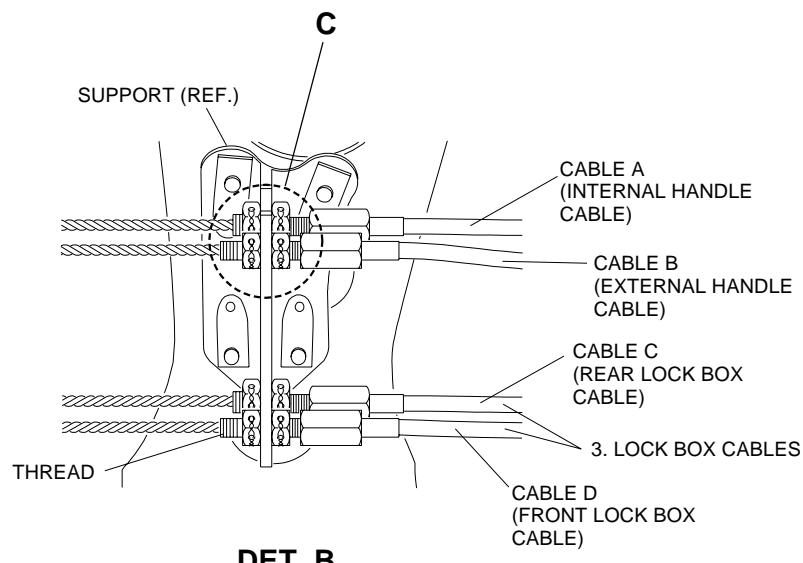
EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

Main Door Cables - Adjustment

Figure 514 - Sheet 1



DET. A



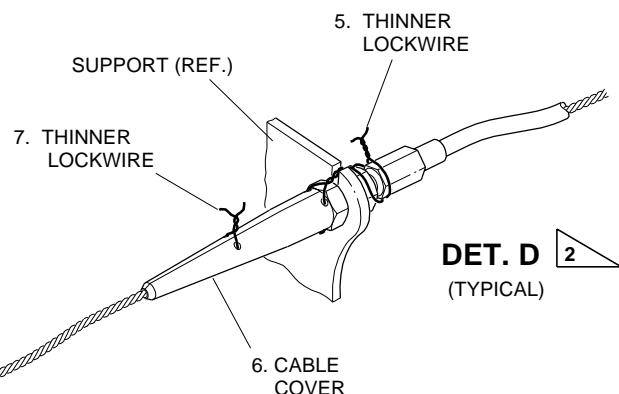
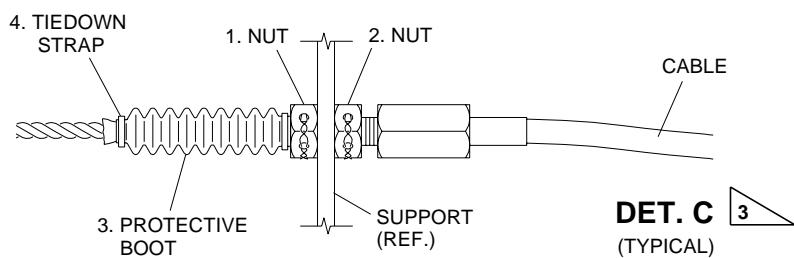
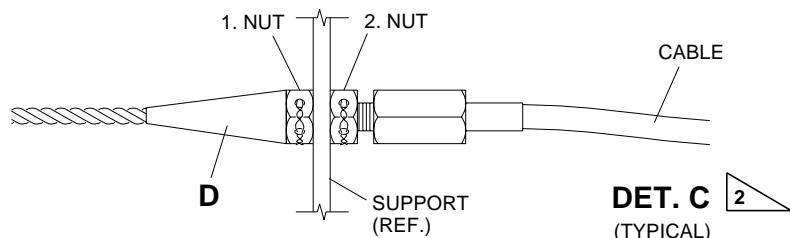
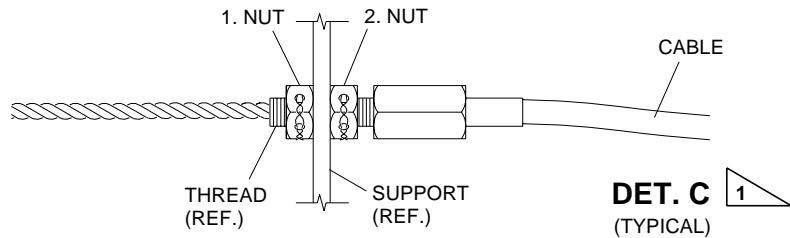
DET. B

EM145AMM520372B.DGN

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

Main Door Cables - Adjustment

Figure 514 - Sheet 2



1 CABLE WITHOUT PROTECTIVE BOOT

2 CABLE WITH CABLE COVER

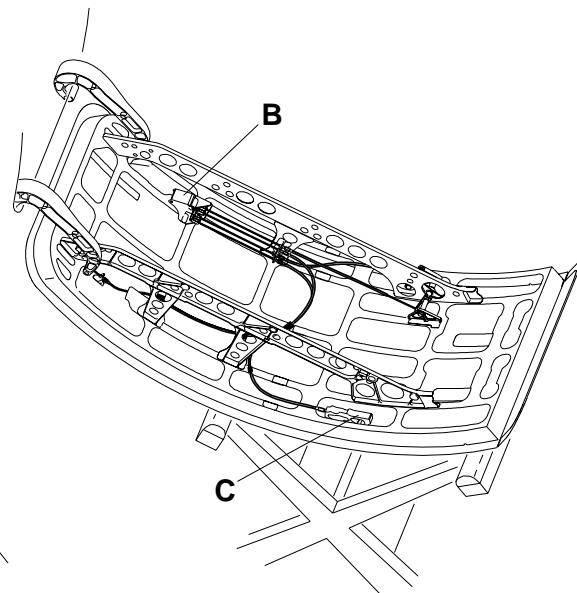
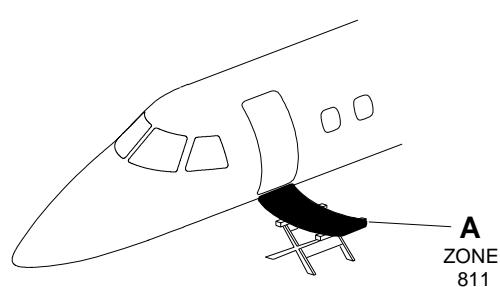
3 CABLE WITH PROTECTIVE BOOT

EM145AMM520653A.DGN

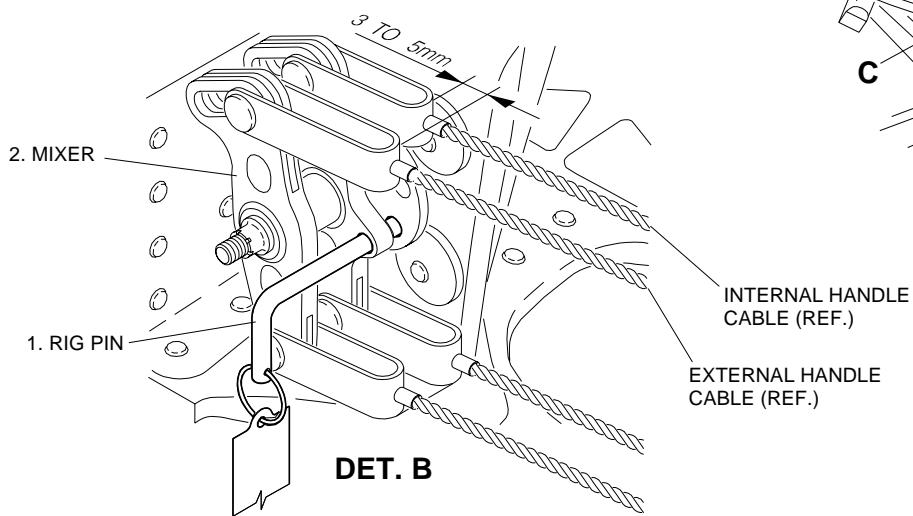
EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

Rig Pin and Red Mark

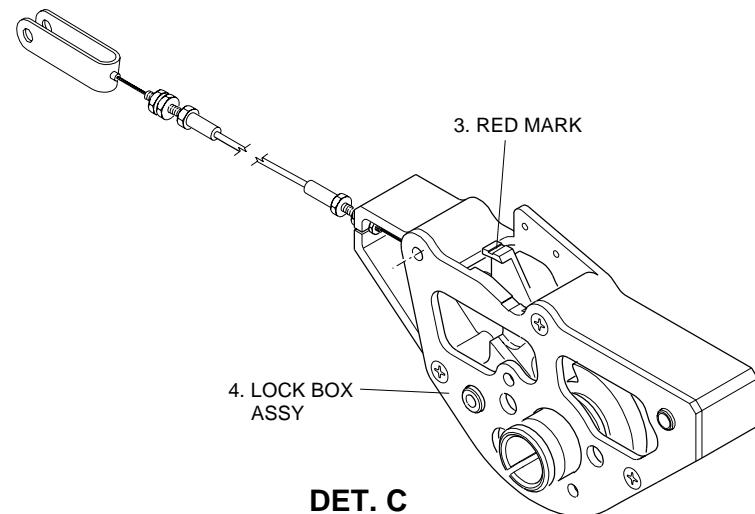
Figure 515



DET. A

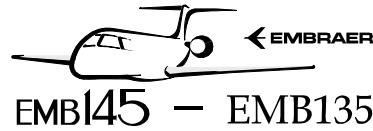


DET. B



DET. C

EM145AMM520373B.DGN



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 52-10-01-820-806-A

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

7. MAIN DOOR ROLLERS - ADJUSTMENT

A. General

- (1) This task gives the procedures to adjust the rollers of the main door.

B. References

REFERENCE	DESIGNATION
AMM SDS 52-10-00/1	
AMM TASK 53-21-02-600-801-A/300	MAIN-DOOR FRAME ROLLERS - LUBRICATION

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
811		Main door

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
MIL-C-16173, GR3	WD40 Lubricant	AR
ASTM D 740	Methyl-Ethyl-Ketone (MEK) Solvent	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Main door

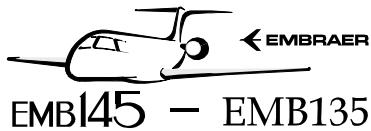
I. Preparation

SUBTASK 841-007-A

- (1) Put the aircraft on the landing gears.

NOTE: This procedure can be done with the aircraft on jacks. However, it is strongly recommended that this procedure be done with the aircraft on the landing gears.

- (2) Make sure that the main door is open ([AMM SDS 52-10-00/1](#)).



AIRCRAFT MAINTENANCE MANUAL

J. Main Door Upper Rollers - Adjustment ([Figure 516](#)) ([Figure 521](#))

SUBTASK 820-011-A

- (1) Close the door carefully to ensure the free movement of the rollers into the tracks.

NOTE: The upper rollers must not touch the tacks.

- (2) If the upper rollers touch the tracks, adjust the upper rollers as follows (refer to [Figure 516](#)):

- (a) Open the main door ([AMM SDS 52-10-00/1](#)).

- (b) Loosen the bolts (4), and move the support (5) upward or downward as necessary to align the roller with the track.

- (c) Tighten the bolts (4).

NOTE: The door cannot be locked with the upper rollers released. It may cause a jamming of the door.

- (3) Close and lock the main door to make sure that there is a gap between the bolts (2) and the web of the track. If the bolt (2) rubs the web of the track, do as follows (refer to [Figure 516](#)):

NOTE: The step tread must be deployed before you close the main door.

- (a) Open the main door.

- (b) Remove the bolt (2) and shims (3).

- (c) Lubricate the roller ([AMM TASK 53-21-02-600-801-A/300](#)):

WARNING: BE CAREFUL WHEN YOU USE THE METHYL-ETHYL-KETONE (MEK). PUT ON SAFETY GOGGLES, PROTECTIVE GLOVES AND CLOTHING. DO NOT BREATHE THE GAS. DO THE WORK IN AN AREA WHICH HAS A GOOD FLOW OF AIR. THE METHYL-ETHYL-KETONE (MEK) IS POISONOUS AND HIGHLY FLAMMABLE.

- 1 Clean the roller internal surface and the roller support with methyl-ethyl-ketone (MEK) (ASTM-D-740) or similar solvent.

- 2 Lubricate the roller internal surface and the roller support with the WD40 spray lubricant.

- (d) Remove the shims (3) from the bolt (2) as necessary for the bolt (2) does not touch the web of the track.

- (e) Install the bolt (2) and shims (3), as applicable.

- (4) Close the door and carefully try to lock it. When the stops start to align with the stop seats ([Figure 521](#)); DET. B) (lower rollers at the point shown in ([Figure 521](#)); DET. C), hold the handle in this position and make sure that there is a gap between the stop and the stop seat surfaces.

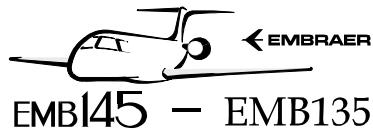
- (5) If a stop touches the stop seat, remove all the shims from that stop as follows (refer to (Figure 521), DET. D):
 - (a) Remove the nut (4), screw (1), shims (3) and stop (2) from the support.
 - (b) Install the stop (2), screw (1) and nut (4) at the support.
- (6) After you remove the shims (3), if the stop (2) still touches the stop seat when you lock the door, do as follows (refer to (Figure 521); DET. D):
 - (a) Open the main door ([AMM SDS 52-10-00/1](#)).
 - (b) Loosen the bolts (4), and move the support (5) slightly inward. Refer to [Figure 516](#).
 - (c) Tighten the bolts (4). Refer to [Figure 516](#).

NOTE: The door cannot be locked with the upper rollers released. It may cause a jamming of the door.

K. Main Door Lower Rollers - Adjustment ([Figure 516](#)) ([Figure 517](#)) ([Figure 521](#))

SUBTASK 820-012-A

- (1) Close the door carefully to ensure the free movement of the lower rollers into the tracks. Lock the door.
NOTE: The step tread must be deployed before you close the main door.
- (2) Touch the lower rollers with your finger and try to turn them. They must turn freely.
- (3) If the lower rollers are locked against the tracks, adjust the lower rollers as follows (refer to [Figure 516](#)):
 - (a) Open the main door ([AMM SDS 52-10-00/1](#)).
 - (b) Loosen the bolts (4), and move the support (5) in the required direction.
NOTE: The two lower rollers must be at the same height, in relation with their tracks.
 - (c) Tighten the bolts (4).
NOTE: The door cannot be locked with the upper rollers released. It may cause a jamming of the door.
- (4) Close and lock the main door to make sure that there is a gap between the bolts and the web of the track ([Figure 517](#); DET. B). If the bolt rubs the web of the track, do as follows:
NOTE: The step tread must be deployed before you close the main door.
 - (a) Open the main door.
 - (b) Remove the bolt (2) and shims (3). Refer to [Figure 516](#).
 - (c) Lubricate the roller ([AMM TASK 53-21-02-600-801-A/300](#)):



AIRCRAFT
MAINTENANCE MANUAL

WARNING: BE CAREFUL WHEN YOU USE THE METHYL-ETHYL-KETONE (MEK). PUT ON SAFETY GOGGLES, PROTECTIVE GLOVES AND CLOTHING. DO NOT BREATHE THE GAS. DO THE WORK IN AN AREA WHICH HAS A GOOD FLOW OF AIR. THE METHYL-ETHYL-KETONE (MEK) IS POISONOUS AND HIGHLY FLAMMABLE.

- 1 Clean the roller internal surface and the roller support with methyl-ethyl-ketone (MEK) (ASTM-D-740) or similar solvent.
 - 2 Lubricate the roller internal surface and the roller support with the WD40 spray lubricant.
- (d) Remove the shims (3) from the bolt (2) as necessary for the bolt (2) not to touch the web of the track. Refer to [Figure 516](#).
- (e) Install the bolt (2) and shims (3), as applicable. Refer to [Figure 516](#).

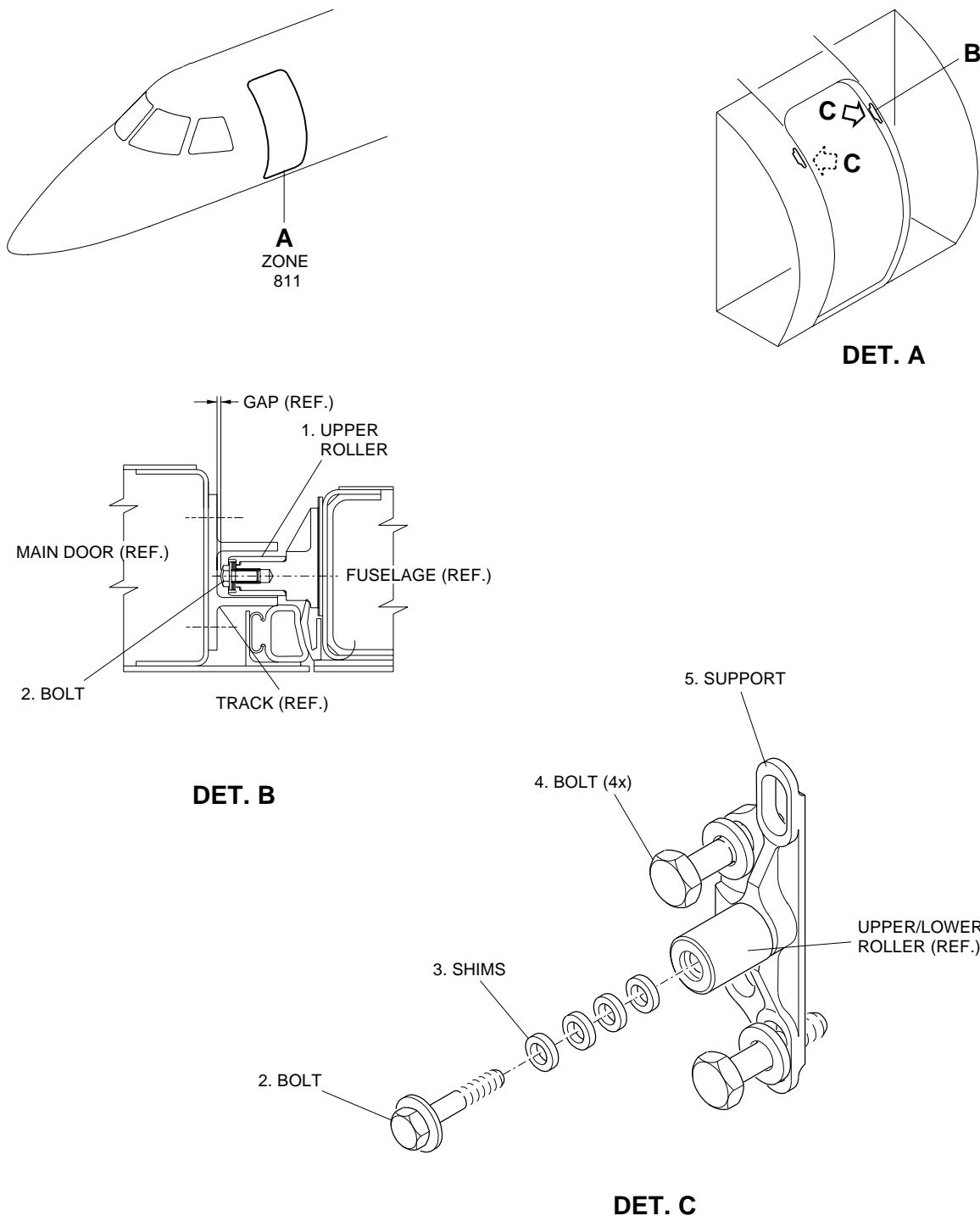
L. Follow-on

SUBTASK 842-007-A

- (1) Close the main door ([AMM SDS 52-10-00/1](#)).

NOTE: The step tread must be deployed before you close the main door.

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR
Upper Roller and Rollers Length - Adjustment
Figure 516

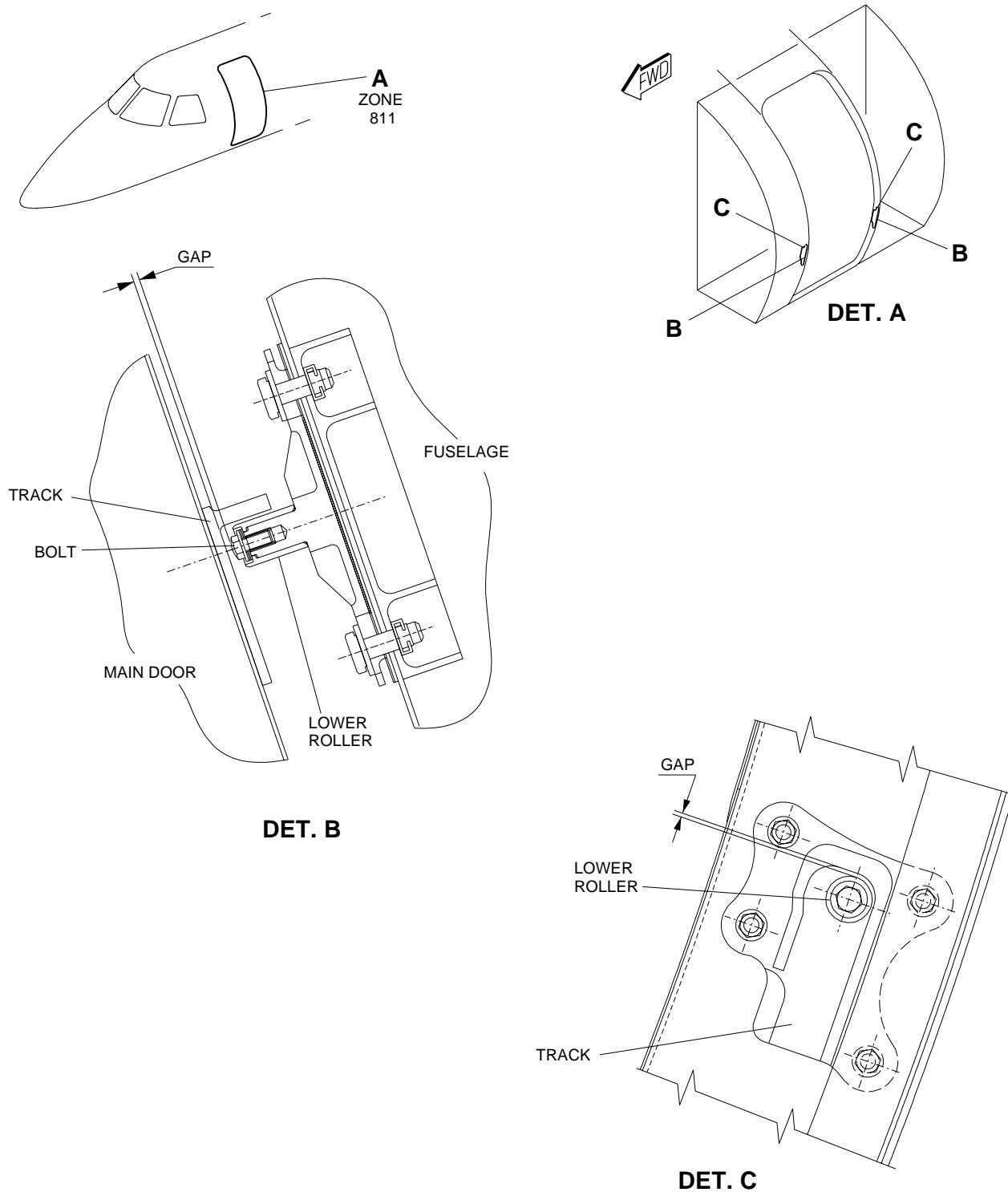


EM145AMM520652A.DGN

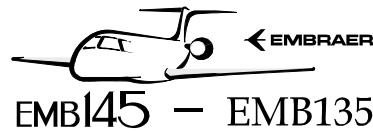
EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

Lower Roller - Adjustment

Figure 517



EM145AMM520650A.DGN



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 52-10-01-820-807-A

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

8. MAIN DOOR-TO-FUSELAGE SKIN GAP - ADJUSTMENT

A. General

(1) This task gives the procedures to adjust the main door-to-fuselage skin gap.

B. References

REFERENCE	DESIGNATION
AMM SDS 52-10-00/1	
AMM TASK 52-10-01-820-806-A/500	MAIN DOOR ROLLERS - ADJUSTMENT
AMM TASK 52-10-01-820-808-A/500	MAIN DOOR-TO-FUSELAGE SKIN STEP - ADJUSTMENT
AMM TASK 52-10-01-820-810-A/500	MAIN-DOOR FOLDING FLAP EDGE - ADJUSTMENT
AMM TASK 52-11-04-400-801-A/400	MAIN-DOOR FOLDING FLAP - INSTALLATION
IPC 52-10-00	MAIN DOOR

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
811		Main door

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

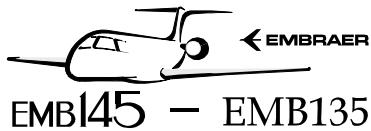
SPECIFICATION (BRAND)	DESCRIPTION	QTY
Commercially Available	Adhesive Tape	AR

G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
Shim	IPC 52-10-00	AR

H. Persons Recommended

QTY	FUNCTION	PLACE
2	Do the task	Main door



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

I. Preparation

SUBTASK 841-008-A

- (1) Put the aircraft on the landing gears.

NOTE: This procedure can be done with the aircraft on jacks. However, it is strongly recommended that this procedure be done with the aircraft on the landing gears.

J. Main Door-to-Fuselage Skin Gap - Test ([Figure 518](#))

SUBTASK 820-013-A

- (1) Do a check of the gaps of the main door as follows:

- (a) The folding flap edge must be installed at the door ([AMM TASK 52-11-04-400-801-A/400](#)).
- (b) Open the main door ([AMM SDS 52-10-00/1](#)).
- (c) Identify the check points with adhesive tape on the fuselage skin. Check points 1 to 10 are aligned with the stop seats (refer to Figure 521, DET. B). Check points 11 and 12 are located 120 mm below the folding flap top. Check points 13 and 14 are located in the vertical center line of the door, as shown in [Figure 518](#).
- (d) Close and lock the main door ([AMM SDS 52-10-00/1](#)).

NOTE: The step tread must be deployed before you close the main door.

- (e) Measure the gaps between the door contour and the frame on the fuselage structure, at the check points, and compare them with the values shown in [Table 501](#).

NOTE: Keep the parallelism on one of the sides of the main door.

Table 501 - PERMITTED GAPS - AIRCRAFT DEPRESSURIZED

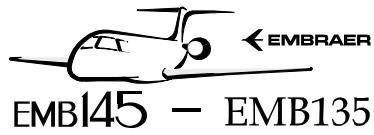
Points	Minimum permitted gap (mm)	Maximum permitted gap (mm)
1 to 10, 13 and 14	1.0	5.0
11 and 12	4.0	7.0

- (f) If the gaps between the door contour and the frame are correct, the door gap does not need to be adjusted.
- (g) If the gaps between the door contour and the frame are not correct, adjust the gap as follows:
 - 1 Adjust the main door-to-fuselage skin gap, at points 1 to 10, and 14, with the eccentric bolt ([SUBTASK 820-014-A](#)).
 - 2 Adjust the gap of the folding flap edge, at points 11, 12 and 13, as described in [AMM TASK 52-10-01-820-810-A/500](#), only if the gaps at points 1 to 10, and 14, are in the tolerance, or after you adjust them ([SUBTASK 820-014-A](#)).

- K. Main Door-to-Fuselage Skin Gap, at Points 1 to 10, and 14 /Eccentric Bolt ([Figure 518](#)) ([Figure 519](#)) ([Figure 520](#))

SUBTASK 820-014-A

- (1) Open the door ([AMM SDS 52-10-00/1](#)).
- (2) Remove the screws (4), upper lateral guide seats (5) and the rubber spacers from the fuselage. Refer to [Figure 520](#).
- (3) Close the main door, but do not lock it.
NOTE: The step tread must be deployed before you close the main door.
- (4) Remove the screw (3) and the lock (2) of each eccentric bolt (1), and make a reference mark on each eccentric bolt head to show its original position in relation to the bellcrank. Refer to [Figure 519](#).
- (5) Turn the eccentric bolt (1) to adjust the gap of the door. Refer to [Figure 519](#).
NOTE: As the eccentric bolt is turned, the upper rollers can become incorrectly adjusted.
- (6) Lock the door and measure the gaps at the points shown in [Table 501](#). Refer to [Figure 518](#).
- (7) If the gaps are in the tolerance shown in [Table 501](#), install the lock (2) and screw (3) of the eccentric bolt (1). Refer to [Figure 519](#).
- (8) Do a check of the upper and lower rollers and, if necessary, adjust them ([AMM TASK 52-10-01-820-806-A/500](#)).
- (9) Open the door and install the upper lateral guide seats (5), the rubber spacers and screws (4) to the fuselage. Refer to [Figure 520](#).
- (10) Close the main door, but do not lock it, and measure the gaps of the upper lateral guides as follows:
 - (a) The door must close freely between the two upper lateral guide seats or slightly touch one of them. Refer to [Figure 520](#).
 - (b) The gap must be 0.0 to 1.0 mm on one side and 0.2 to 0.5 mm on the other side.
 - (c) If an adjustment is necessary, do as follows:
 - 1 To increase the gap of the upper lateral guides, tighten the screws (4) of the upper lateral guide seats (5).
 - 2 To decrease the gap of the upper lateral guides, loosen the screws (4) of the upper lateral guide seats (5).
- (11) Close and lock the main door, and do a check of the gap between the door contour and the frame again. Refer to [Table 501](#).



AIRCRAFT MAINTENANCE MANUAL

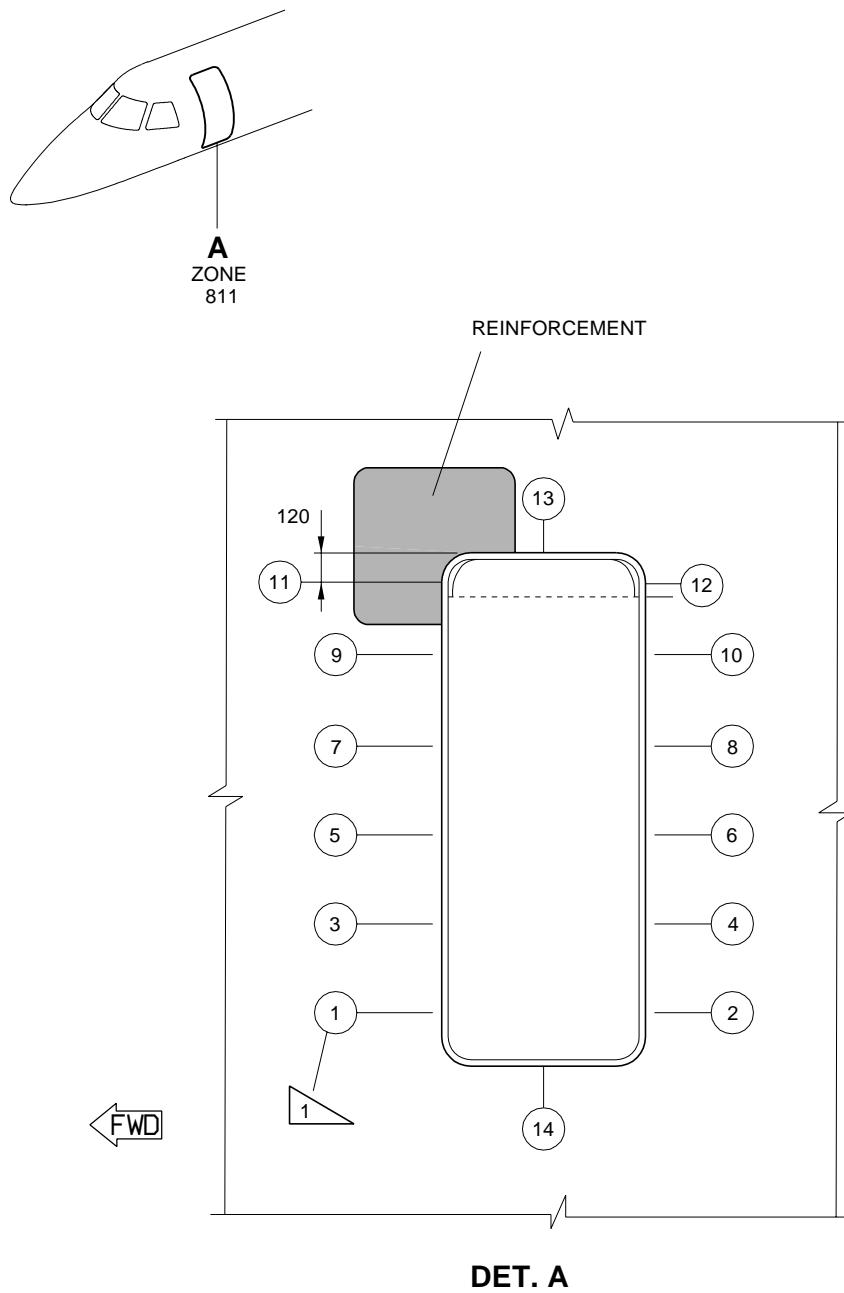
L. Follow-on

SUBTASK 842-008-A

- (1) If you will not do the adjustment of the main door-to-fuselage skin step ([AMM TASK 52-10-01-820-808-A/500](#)), remove the adhesive tape.
- (2) Close and lock the main door ([AMM SDS 52-10-00/1](#)).

NOTE: The step tread must be deployed before you close the main door.

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR
Gap and Step Points
Figure 518



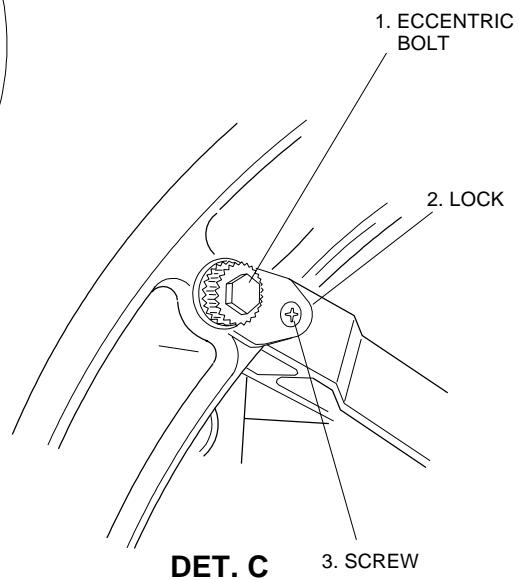
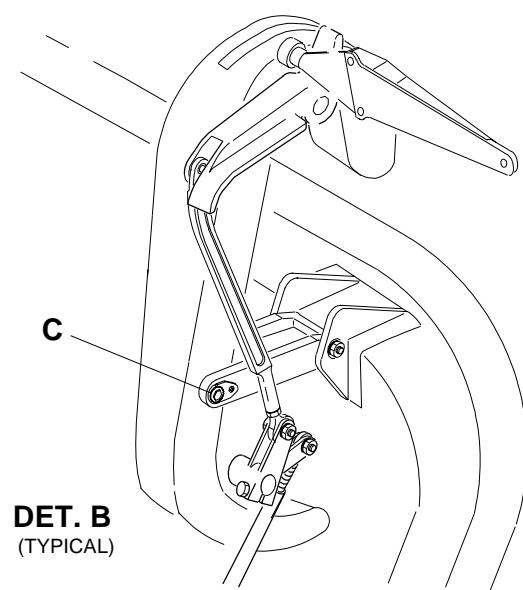
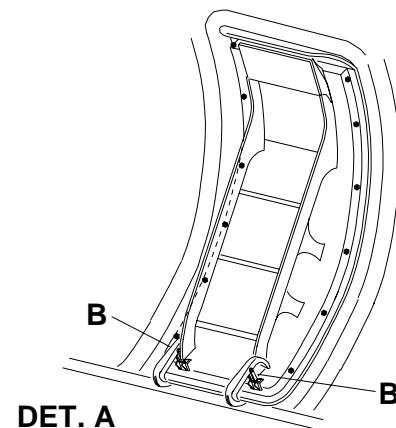
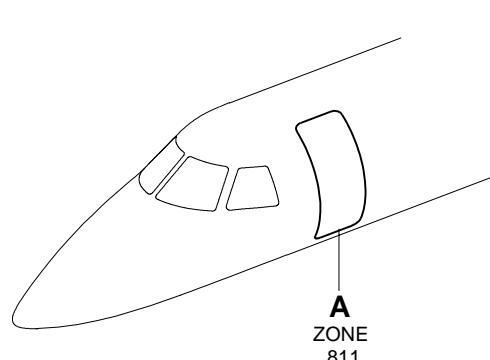
CHECK POINTS 1 TO 12 ARE ALIGNED WITH THE STOP SEATS.
 CHECK POINTS 13 AND 14 ARE LOCATED IN THE VERTICAL CENTER LINE OF THE DOOR.

EM145AMM520226E.DGN

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

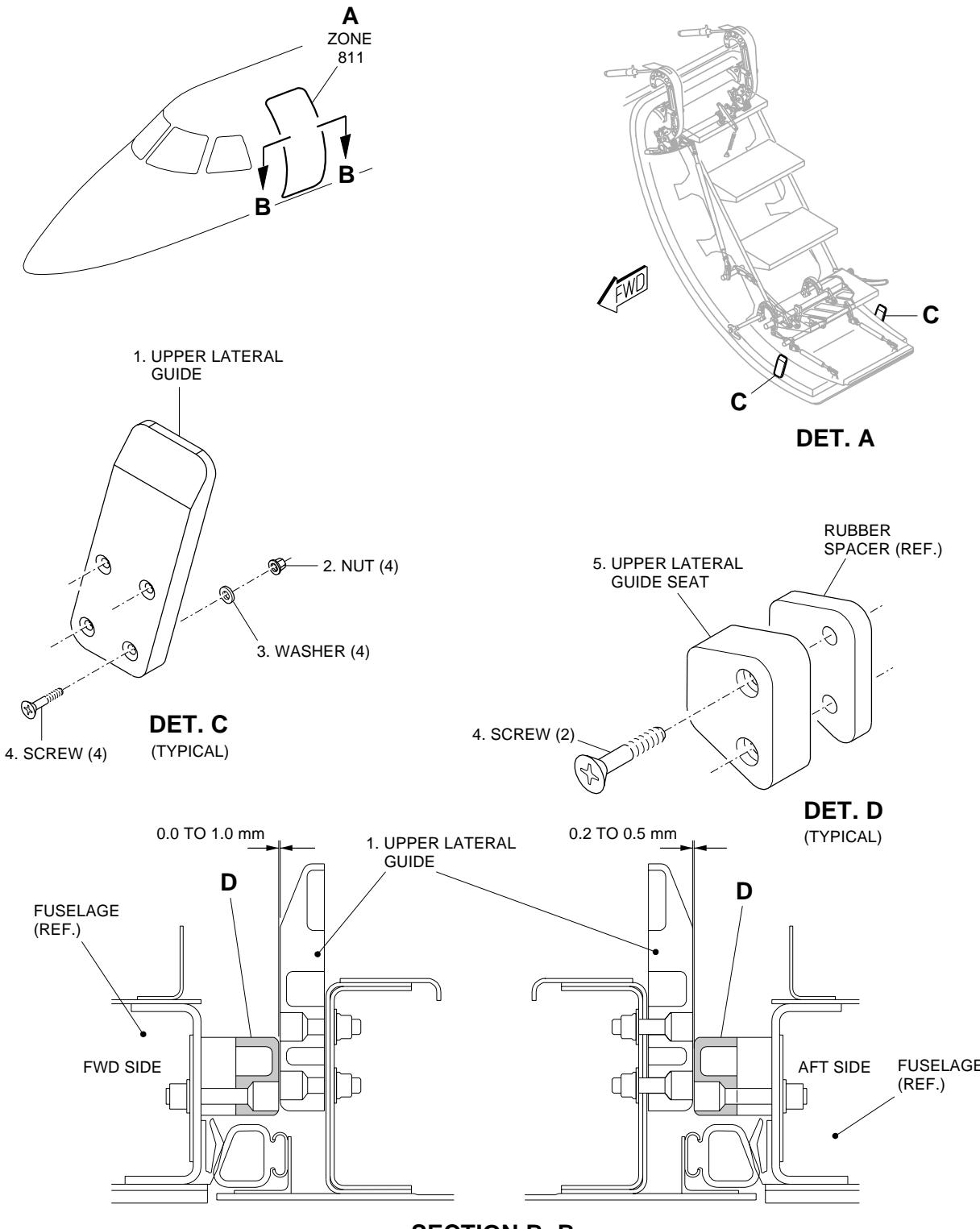
Eccentric Bolt

Figure 519



EM145AMM520161E.DGN

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR
Upper Lateral Guides
Figure 520





EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 52-10-01-820-808-A

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

9. MAIN DOOR-TO-FUSELAGE SKIN STEP - ADJUSTMENT

A. General

(1) This task gives the procedures to adjust the rollers of the main door.

B. References

REFERENCE	DESIGNATION
AMM SDS 52-10-00/1	
AMM TASK 52-10-01-820-806-A/500	MAIN DOOR ROLLERS - ADJUSTMENT
AMM TASK 52-10-01-820-807-A/500	MAIN DOOR-TO-FUSELAGE SKIN GAP - ADJUSTMENT
AMM TASK 52-10-01-820-809-A/500	MAIN DOOR STOPS - ADJUSTMENT
AMM TASK 52-11-04-000-801-A/400	MAIN-DOOR FOLDING FLAP - REMOVAL
AMM TASK 52-11-04-400-801-A/400	MAIN-DOOR FOLDING FLAP - INSTALLATION

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
811		Airstairs door

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
Commercially Available	Adhesive Tape	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Main door

I. Preparation

SUBTASK 841-009-A

(1) Put the aircraft on the landing gears.

NOTE: This procedure can be done with the aircraft on jacks. However, it is strongly recommended that this procedure be done with the aircraft on the landing gears.

- (2) If the folding flap edge, or the folding flap, is a new one, remove the folding flap edge ([AMM TASK 52-11-04-400-801-A/400](#)) to avoid interference as it is not adjusted yet.

J. Main Door-to-Fuselage Skin Step - Adjustment

SUBTASK 820-015-A

- (1) If the adjustment of the main door-to-fuselage skin gap was not done, the check points are not marked on the fuselage, do as follows:
 - (a) Open the door ([AMM SDS 52-10-00/1](#)).
 - (b) Identify the check points with adhesive tape on the fuselage skin. Check points 1 to 10 are aligned with the stop seats (refer to Figure 521, DET. B). Check points 11 and 12 are located 120 mm below the folding flap top. Check points 13 and 14 are located in the vertical center line of the door, as shown in Figure 518.
- (2) Close and lock the main door ([AMM SDS 52-10-00/1](#)).

NOTE: The step tread must be deployed before you close the main door.

- (3) Measure the steps between the door contour and the fuselage loft line and compare them with the values shown in Table 502.

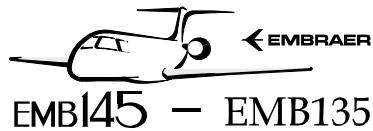
NOTE: If the door has a new folding flap edge ([AMM TASK 52-11-04-400-801-A/400](#)), it must not be installed on the door, and the measurement at points 12 and 13 will be done after the installation of the folding flap edge.

Table 502 - PERMITTED STEPS - AIRCRAFT DEPRESSURIZED

Points	Minimum permitted step (mm)	Maximum permitted step (mm)
1 to 10	- 0.5	- 4.0
12	0.0	- 5.0
13	- 4.5	- 9.5
14	0.0	- 3.0

NOTE: • The negative sign of the step value means that the door is underflush to the fuselage skin line.
 • The step at point 11 does not need to be measured because of the reinforcement interference.

- (4) If the step values are in the tolerance, it is not necessary to adjust the step.
- (5) If a discrepancy is found, do as follows:
 - (a) Displace the lower and upper rollers, either inward or outward as required. Release the rollers as described in [AMM TASK 52-10-01-820-806-A/500](#).



EMB145 – EMB135

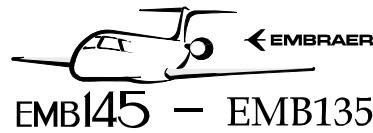
AIRCRAFT
MAINTENANCE MANUAL

- (b) For points 1 to 4 and 14, the step can be adjusted by the lower rollers. If it is not sufficient, try to adjust the steps at these points by turning the eccentric bolts ([AMM TASK 52-10-01-820-807-A/500](#)).
- (c) Close the door carefully to ensure the free movement of the rollers into the tracks ([AMM TASK 52-10-01-820-806-A/500](#)).
- (d) Lock the door and touch the lower rollers with your finger and try to turn them. They must turn freely ([AMM TASK 52-10-01-820-806-A/500](#)).
- (e) Do the adjustment of the door stops ([AMM TASK 52-10-01-820-809-A/500](#)).

K. Follow-on

SUBTASK 842-009-A

- (1) Remove the adhesive tape from the check points.
- (2) Install the folding flap edge, if applicable ([AMM TASK 52-11-04-000-801-A/400](#)).



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 52-10-01-820-809-A

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

10. MAIN DOOR STOPS - ADJUSTMENT

A. General

- (1) This task gives the procedures to adjust the stops of the main door.

B. References

REFERENCE	DESIGNATION
AMM SDS 52-10-00/1	
AMM TASK 52-10-01-820-806-A/500	MAIN DOOR ROLLERS - ADJUSTMENT
AMM TASK 52-10-01-820-808-A/500	MAIN DOOR-TO-FUSELAGE SKIN STEP - ADJUSTMENT
SRM 53-21-15/101	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
811		Airstairs door

D. Tools and Equipment

Not Applicable

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	Main door

I. Preparation

SUBTASK 841-010-A

- (1) Put the aircraft on the landing gears.

NOTE: This procedure can be done with the aircraft on jacks. However, it is strongly recommended that this procedure be done with the aircraft on the landing gears.

- (2) Make sure that the main door-to-fuselage skin step is already checked (AMM TASK 52-10-01-820-808-A/500).

- (3) Make sure that the rollers are already adjusted ([AMM TASK 52-10-01-820-806-A/500](#)).

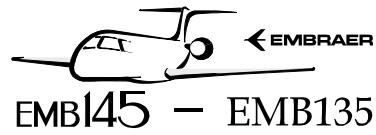
NOTE: After you adjust the rollers to set the door to the correct step, some stops can interfere with the stop seat when the door is closed. Remove shims from those stops, as described below, to eliminate the interference.

- (4) Open the main door ([AMM SDS 52-10-00/1](#)).

J. Main Door Stops - Adjustment ([Figure 521](#)) ([Figure 522](#))

SUBTASK 820-016-A

- (1) Examine the stop seats for wear (SRM 53-21-15/101).
- (2) Close the door and carefully try to lock it. When the stops start to face the stop seats ([Figure 521](#); DET. B) (lower rollers at the point shown in [Figure 521](#); DET. C), hold the handle in this position.
- (3) Do a check of the gap between the stop and the stop seat surfaces. It must be between 0.2 and 0.5 mm ([Figure 522](#); DET. B), including the stop of [Figure 522](#); DET. D.
- (4) If you find the specified gap on all stops, there is no need for adjustment.
- (5) If a stop is out of tolerance, adjust its gap as follows:
 - (a) Open the door ([AMM SDS 52-10-00/1](#)).
 - (b) Adjust the stops (10x) ([Figure 521](#); DET. D) as follows:
 - 1 Remove the nut (4), screw (1), shims (3) and stop (2) from the support.
 - 2 Remove or install more shims (3) as necessary.
 - 3 Install the shims (3), if applicable, stop (2), screw (1) and nut (4) at the support.
 - (c) Adjust the stop (2x) ([Figure 522](#); DET. D) as follows:
 - 1 Remove the nut (2), washer (1), screw (5), shims (3) and backstop (4) from the support.
 - 2 Remove or install more shims (3) as necessary.
 - 3 Install the shims (3), if applicable, backstop (4), screw (5), washer (1) and nut (2) at the support.
 - (d) Close the door and carefully try to lock it. When the stops start to face the stop seats ([Figure 521](#); DET. B) (lower rollers at the point shown in [Figure 521](#); DET. C), hold the handle in this position.
 - (e) Do a check of the gap between the stop and the stop seat surfaces. It must be between 0.2 and 0.5 mm ([Figure 522](#); DET. B), including the stop of [Figure 522](#); DET. D.



AIRCRAFT
MAINTENANCE MANUAL

- (f) Do a check of the main door-to-fuselage skin step ([AMM TASK 52-10-01-820-808-A/500](#)).

K. Follow-on

SUBTASK 842-010-A

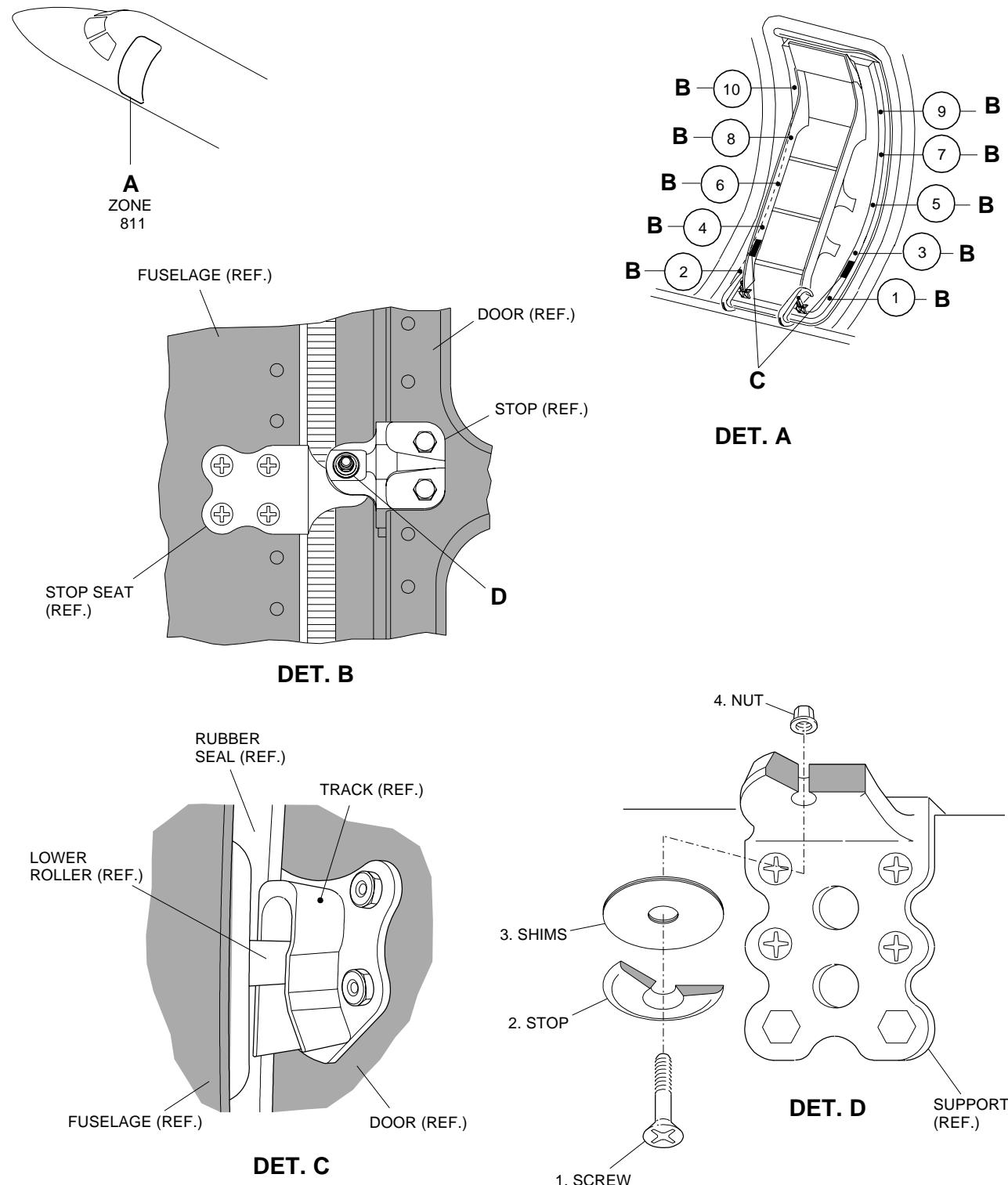
- (1) Close the main door ([AMM SDS 52-10-00/1](#)).

NOTE: The step tread must be deployed before you close the main door.

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

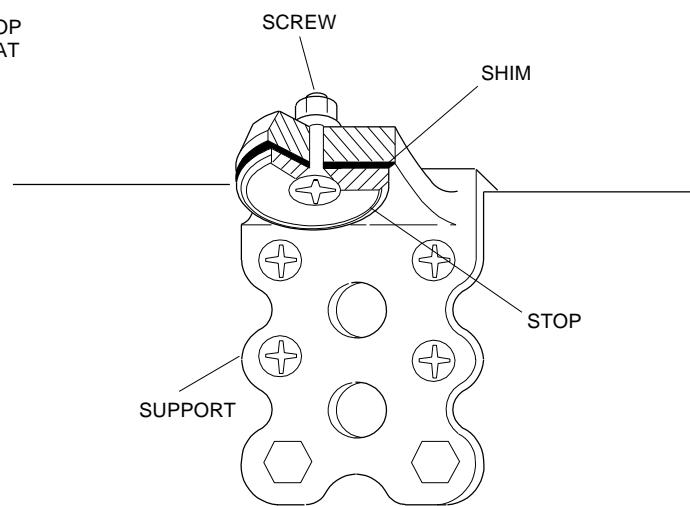
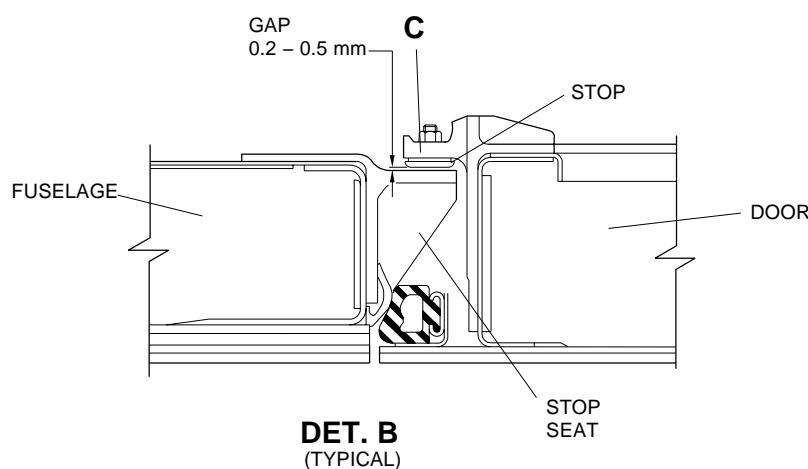
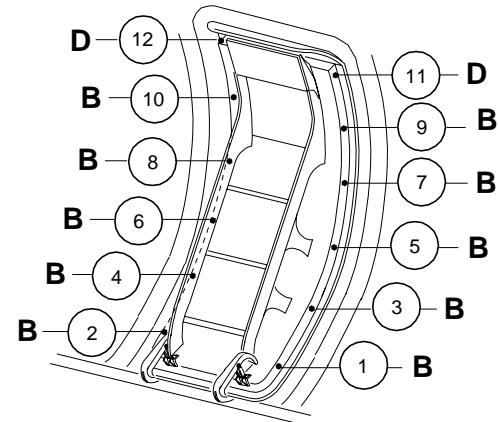
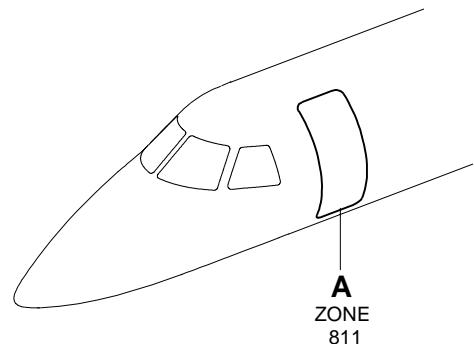
Roller and Stop Position - Adjustment

Figure 521



EM145AMM520651A.DGN

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR
 Gap of the Stop- Adjustment
 Figure 522 - Sheet 1

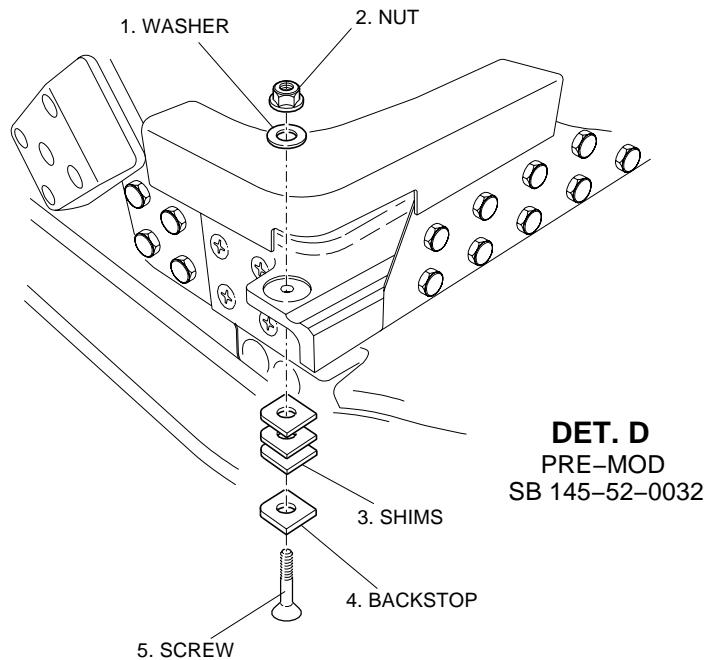


EM145AMM520162H.DGN

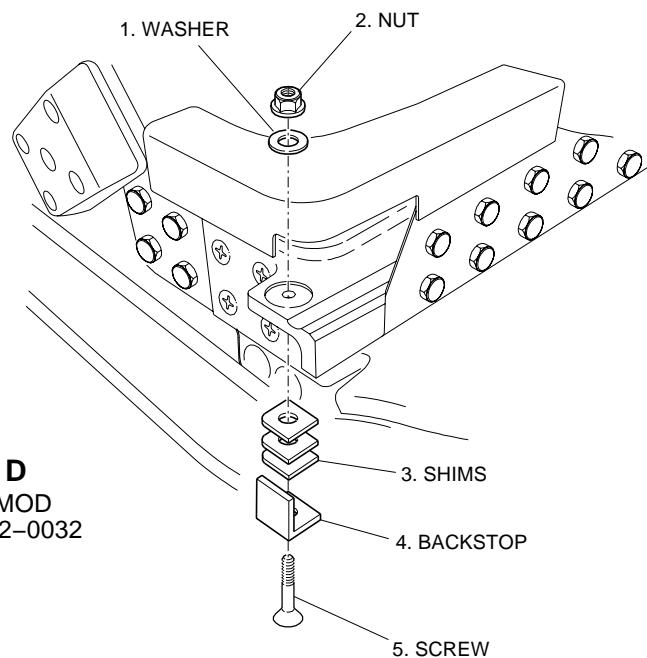
EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

Gap of the Stop- Adjustment

Figure 522 - Sheet 2

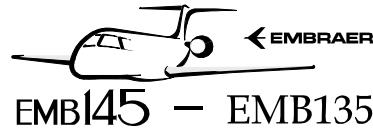


DET. D
PRE-MOD
SB 145-52-0032



DET. D
POST-MOD
SB 145-52-0032

EM145AMM520476B.DGN



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 52-10-01-820-810-A

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

11. MAIN-DOOR FOLDING FLAP EDGE - ADJUSTMENT

A. General

- (1) This task gives the procedures to adjust the folding flap edge of the main door.
- (2) The new folding flap edge is oversized to permit the adjustment of the gap between the folding flap edge and the fuselage skin. The old folding flap edge can be adjusted with the same procedure, and must be discarded if the gap is more than that specified.

B. References

REFERENCE	DESIGNATION
AMM SDS 52-10-00/1	
AMM TASK 52-10-01-820-807-A/500	MAIN DOOR-TO-FUSELAGE SKIN GAP - ADJUSTMENT
AMM TASK 52-11-04-400-801-A/400	MAIN-DOOR FOLDING FLAP - INSTALLATION

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
811		Airstairs door

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Workstand	To get access to the airstairs main door	1

E. Auxiliary Items

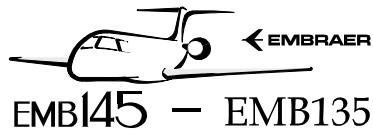
ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	File	To adjust the folding flap edge	1

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
Commercially available	Masking tape	AR

G. Expandable Parts

Not Applicable



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Main door

I. Preparation

SUBTASK 841-011-A

- (1) The main door-to-fuselage skin gap must be in the tolerance range ([AMM TASK 52-10-01-820-807-A/500](#)).
- (2) Close and lock the main door ([AMM SDS 52-10-00/1](#)).

NOTE: The step tread must be deployed before you close the main door.

J. Main-Door Folding Flap Edge - Adjustment ([Figure 523](#)) ([Figure 524](#))

SUBTASK 820-017-A

- (1) Attach the folding flap edge with a minimum of three screws to hold it in the correct position.
- (2) Draw a line along the folding flap edge contour to mark the correct gap between the door contour and the frame on the fuselage at points 11,12 and 13. Refer to [Figure 523](#) and [Figure 524](#). Do a check of the gap as given in [AMM TASK 52-10-01-820-807-A/500](#), Table 501.

NOTE: If the gap between the folding flap edge and the fuselage skin is more than that specified, replace the folding flap edge, and do this task again.

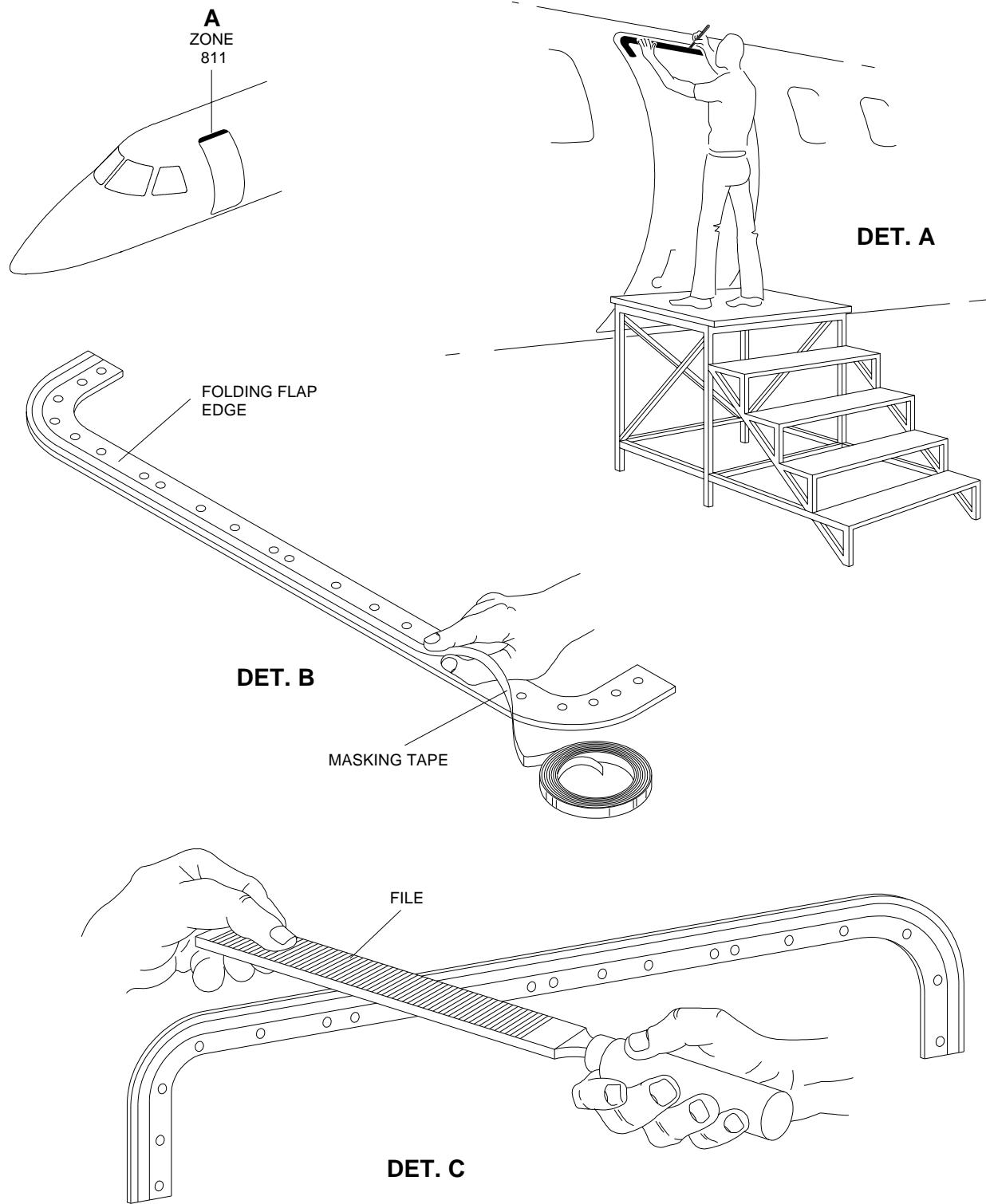
- (3) Remove the folding flap edge.
- (4) Use a narrow masking tape along the folding flap edge contour as a guide for the filing operation. Refer to [Figure 523](#).
- (5) File the folding flap edge following the tape limits. Refer to [Figure 523](#).
- (6) Attach the reworked folding flap edge with a minimum of three screws to hold it in the correct position.
- (7) Do a check of the gap at points 11,12 and 13. Refer to [AMM TASK 52-10-01-820-807-A/500](#) and [Figure 523](#).
- (8) Remove the masking tape.
- (9) Finish the reworked areas per CPM - Chapter 51.

K. Follow-on

SUBTASK 842-011-A

- (1) Install the folding flap edge ([AMM TASK 52-11-04-400-801-A/400](#)).

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR
Folding Flap Edge - Adjust
Figure 523

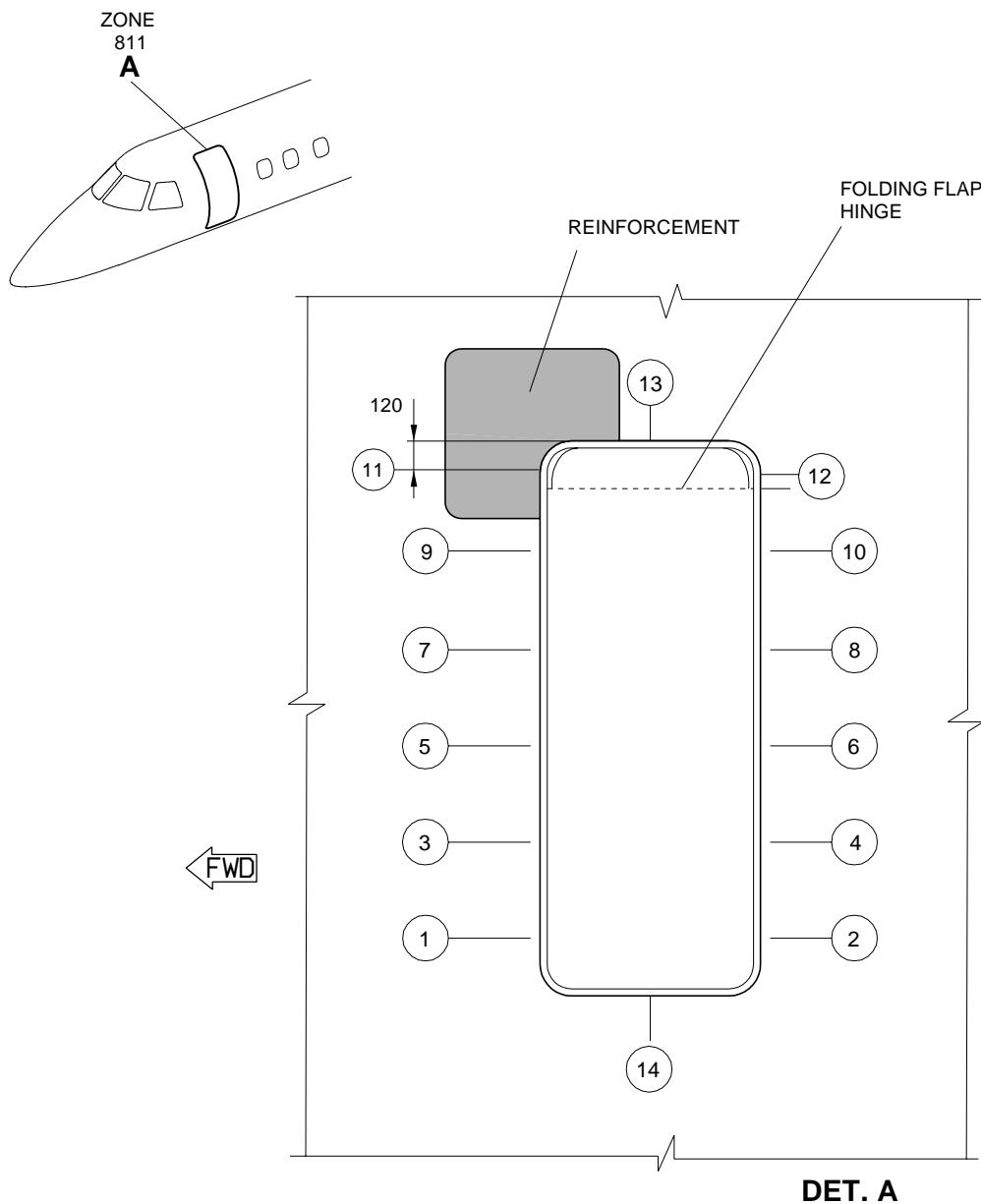


EM145AMM520360A.DGN

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

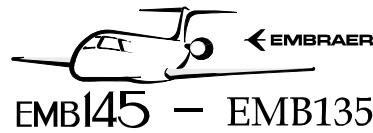
Folding Flap-to-Fuselage Skin Gap

Figure 524



AIRCRAFT UNLOADED		
REFERENCE POINTS	GAP (mm)	
	MAX	MIN
01 TO 10 13 AND 14	5.0	1.0
11 AND 12	7.0	5.0

EM145AMM520361B.DGN



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 52-10-01-820-811-A

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR

12. MAIN-DOOR FOLDING FLAP - ADJUSTMENT

A. General

(1) This task gives the procedures to adjust the folding flap of the main door.

B. References

REFERENCE	DESIGNATION
AMM MPP 20-10-11/200	- MAINTENANCE PRACTICES
AMM SDS 52-10-00/1	
AMM TASK 25-23-04-000-801-A/400	MAIN-DOOR LINING PANEL - REMOVAL
AMM TASK 25-23-04-400-801-A/400	MAIN-DOOR LINING PANEL - INSTALLATION
AMM TASK 52-10-01-820-808-A/500	MAIN DOOR-TO-FUSELAGE SKIN STEP - ADJUSTMENT
AMM TASK 52-10-02-000-801-A/400	MAIN-DOOR STEP-TREAD LINING PANEL - REMOVAL
IPC 52-10-00	MAIN DOOR
TASK 25-10-02-000-801-A	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
811		Airstairs main door

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

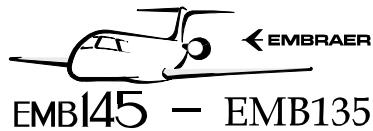
Not Applicable

G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
Lock Wire	IPC 52-10-00	AR
Cotter pin	IPC 52-10-00	AR

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Main door



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

I. Preparation

SUBTASK 841-012-A

- (1) The main door-to-fuselage skin step must be in the tolerance range ([AMM TASK 52-10-01-820-808-A/500](#)).
- (2) Close and lock the main door ([AMM SDS 52-10-00/1](#)).

NOTE: The step tread must be deployed before you close the main door.

J. Main-Door Folding Flap - Test

SUBTASK 820-018-A

- (1) Unlock and lock the main door to make sure that the load necessary to lock the door, at the end of the internal handle travel, is not too much.
 - (a) If the load at the end of the internal handle travel, is too much, do a check of the steps as given below, and shorten the actuating rods of the folding flap as given in [SUBTASK 820-019-A](#).
- (2) Do a check of the steps at points 12 and 13, and compare with the values shown in Table 502, in [AMM TASK 52-10-01-820-808-A/500](#).
 - (a) If discrepancies are found, adjust the length of the actuating rods of the folding flap as given in [SUBTASK 820-019-A](#).

K. Main-Door Folding Flap - Adjustment ([Figure 525](#))

SUBTASK 820-019-A

- (1) Adjust the length of the actuating rods of the folding flap as follows ([Figure 525](#)):

NOTE: The adjustment can be done on the lower actuating rod terminal and/or the upper actuating rod terminal.

- (a) To adjust the upper actuating rod terminal, do as follows:
 - 1 Remove the fifth step tread lining panel (the lowest when the main door is open) ([AMM TASK 52-10-02-000-801-A/400](#)).
 - 2 Remove and discard the cotter pin (11) and lock wire (2), from each actuating rod.
 - 3 Remove the nut (10), washer (9) and bolt (1), from each actuating rod.
 - 4 Loosen the jam nut (8) of each actuating rod.
- (b) To adjust the lower actuating rod terminal, do as follows:
 - 1 Make sure that the lining panels are removed from the main door ([AMM TASK 25-23-04-000-801-A/400](#)).
 - 2 Remove and discard the cotter pin (5) from each actuating rod.
 - 3 Remove the nut (4), washer (3), and bolt (6), from each actuating rod.
 - 4 Loosen the jam nut (7) of each actuating rod.

- (c) Push the folding flap until it touches the fuselage frame and hold it in this position.
- (d) Turn the upper and/or lower actuating rod terminal to increase or decrease its length, as follows:

NOTE: When you can insert the bolt in the rod terminal again, with the folding flap pushed against the fuselage, the length of the rod is adjusted.

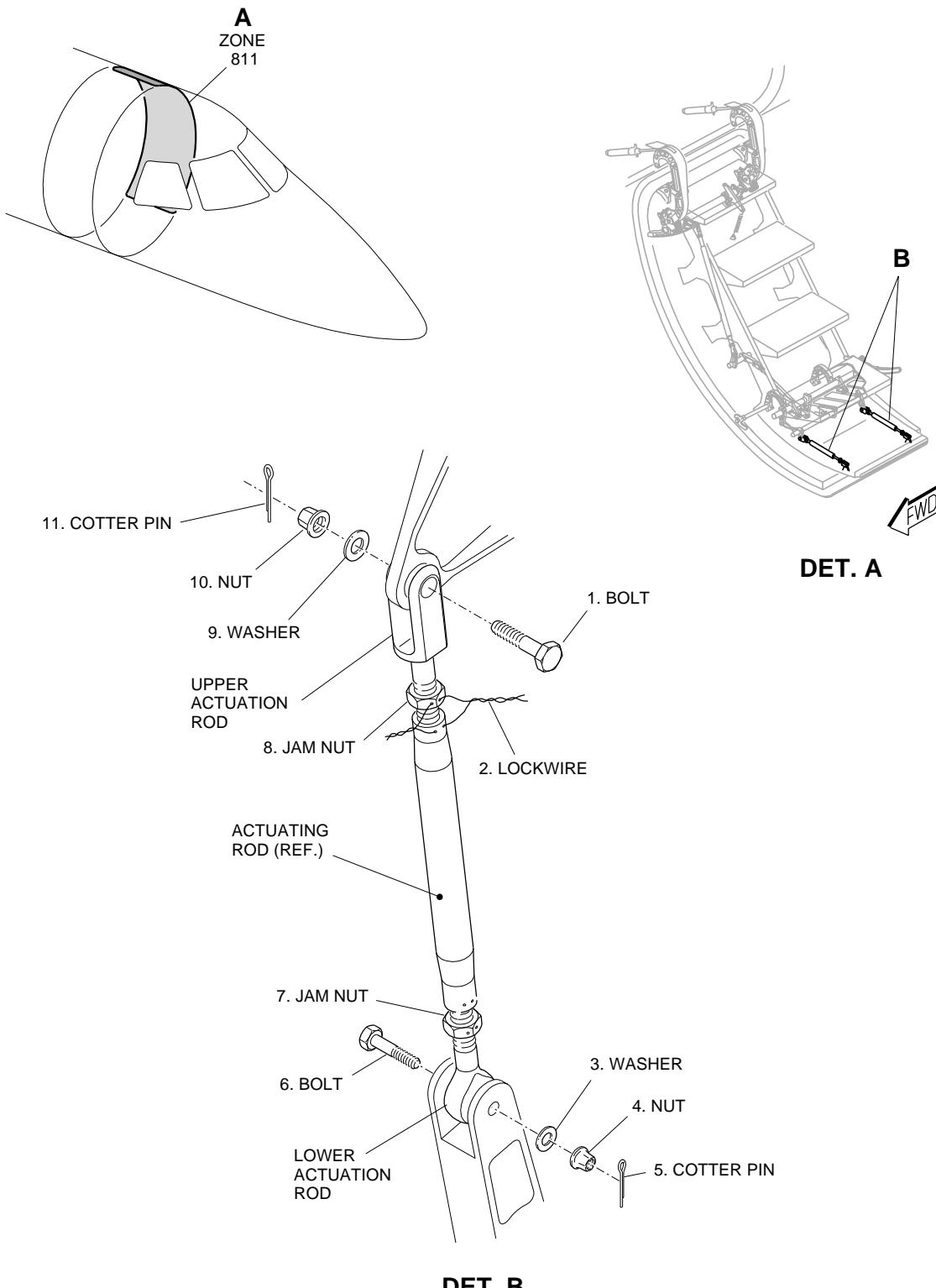
 - 1 To increase the length of the actuating rods, turn it counterclockwise.
 - 2 To decrease the length of the actuating rods, turn it clockwise.

NOTE: Do a check of the rod inspection holes ([AMM MPP 20-10-11/200](#)).
- (e) Install the upper actuating rod terminal at the folding flap, as follows:
 - 1 Install the bolt (1), washer (9) and nut (10).
- (f) Install the lower actuating rod terminal at the folding flap, as follows:
 - 1 Install the bolt (6), washer (3) and nut (4).
- (g) Unlock and lock the main door to make sure that the folding flap operates correctly ([AMM SDS 52-10-00/1](#)).
- (h) Do a check to see if the steps at points 12 and 13, agree with the values specified in [AMM TASK 52-10-01-820-808-A/500](#).
- (i) Unlock and lock the main door again to make sure that the load necessary to lock the door, at the end of the internal handle travel, is not too much.
- (j) If all adjustments are correct, tighten the jam nuts (7) and/or (8), as applicable.
- (k) Install new cotter pin (5) and/or (11), and newlock wire (2), as applicable.

L. Follow-on

SUBTASK 842-012-A

- (1) Install the fifth step tread lining panel (TASK 25-10-02-000-801-A), if applicable.
- (2) Install the lining panels of the main door ([AMM TASK 25-23-04-400-801-A/400](#)).
- (3) Unlock and lock the main door to make sure that the load necessary to lock the door, at the end of the internal handle travel, is correct.

EFFECTIVITY: AIRCRAFT WITH AIRSTAIRS DOOR
Folding Flap - Adjustment
Figure 525


EM145AMM520649A.DGN