



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

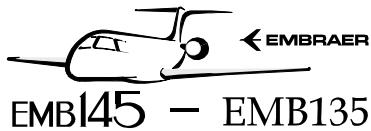
MAIN LANDING GEAR AUXILIARY DOOR ASSEMBLY - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to remove and install the auxiliary door assembly of the main landing gear.
- B. These procedures are applicable to the LH and RH Main Landing Gears (MLG).
- C. 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
32-10-07-000-801-A	AUXILIARY DOOR ASSEMBLY OF THE MAIN LANDING GEAR - REMOVAL	ALL
32-10-07-400-801-A	AUXILIARY DOOR ASSEMBLY OF THE MAIN LANDING GEAR - INSTALLATION	ALL



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 32-10-07-000-801-A

EFFECTIVITY: ALL

2. AUXILIARY DOOR ASSEMBLY OF THE MAIN LANDING GEAR - REMOVAL

A. General

- (1) This procedure gives the instructions to remove the auxiliary door assembly of the main landing gear.

B. References

REFERENCE	DESIGNATION
AMM TASK 32-00-01-910-801-A/200	LG SAFETY PIN - INSTALLATION AND REMOVAL
AMM TASK 32-49-02-000-801-A/400	WHEEL ASSEMBLY OF THE MAIN LANDING GEAR - REMOVAL
S.B.145-52-0047	-

C. Zones and Accesses

Not Applicable

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	RH or LH MLG Auxiliary door assembly
1	Helps the other technician	RH or LH MLG Auxiliary door assembly

I. Preparation

SUBTASK 841-002-A

- (1) On the Circuit Breaker Panel, open the ELEC PUMP 1 circuit breaker, and attach a DO-NOT-CLOSE tag to it.
- (2) Make sure that the pressure in hydraulic system 1 is fully released by actuating the rudder pedals to the LH and to the RH until the pressure drops to zero psi on the EICAS.
- (3) Make sure that the safety pins of the landing gears are installed ([AMM TASK 32-00-01-910-801-A/200](#)).
- (4) Remove the external wheel ([AMM TASK 32-49-02-000-801-A/400](#)).



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

J. Removal

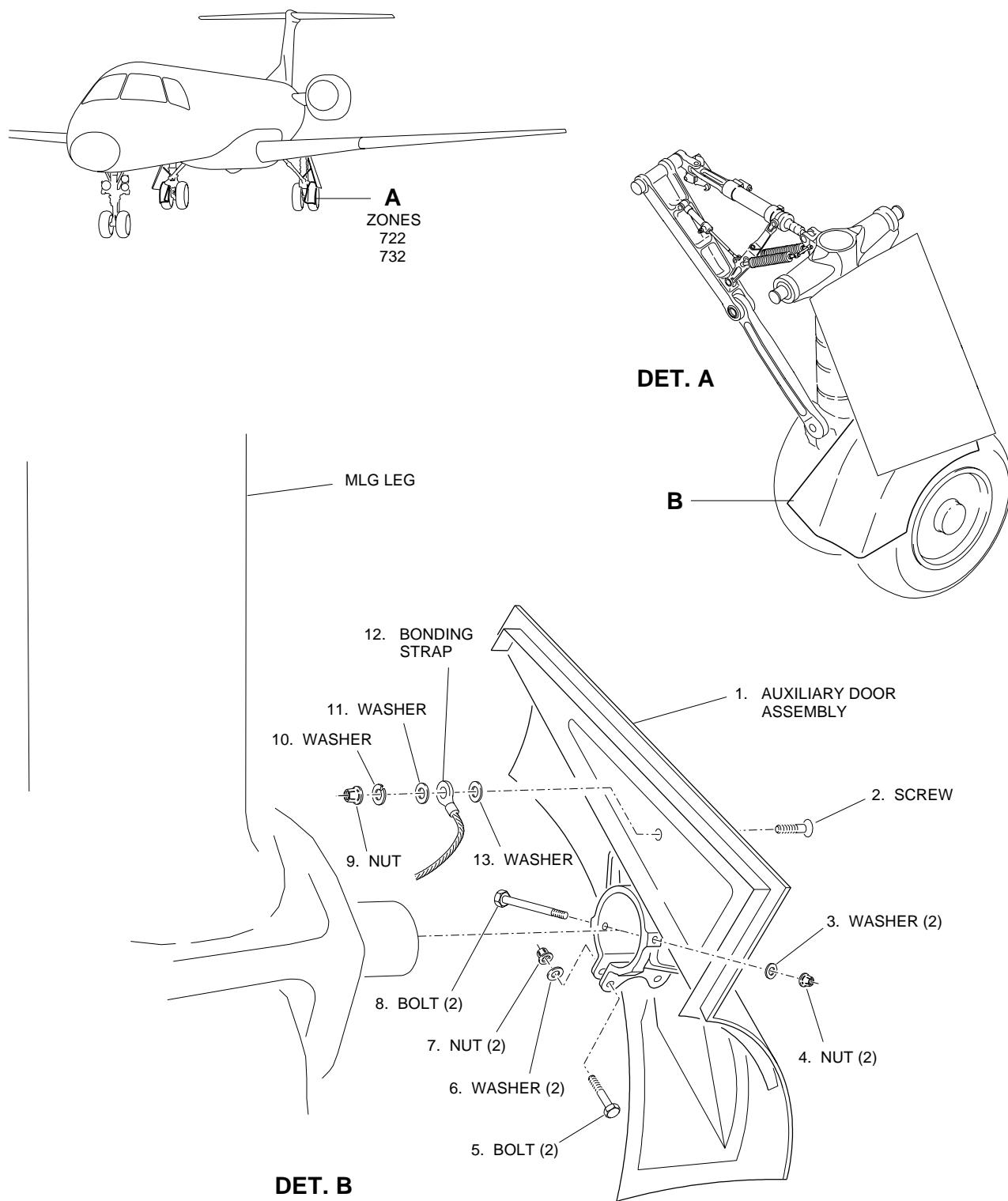
SUBTASK 020-002-A

- (1) (For aircraft PRE-MOD. [S.B.145-52-0047](#)). Refer to [Figure 401](#):
 - (a) Disconnect the end of the bonding strap (12) from the auxiliary door assembly (1). For this, remove the nut (9), washers (10), (11) and (13), and screw (2).
 - (b) Remove the nuts (4), washers (3), and bolts (8).
 - (c) Remove the nuts (7), washers (6), and bolts (5).
 - (d) Remove the auxiliary door assembly (1).
- (2) (For aircraft POST-MOD. [S.B.145-52-0047](#)). Refer to [Figure 402](#):
 - (a) Disconnect the end of the bonding strap (12) from the auxiliary door assembly (1). For this, remove the nut (9), washers (10), (11) and (13), and screw (2).
 - (b) Remove the nuts (4), washers (3) and (14), and bolts (8).
 - (c) Remove the nuts (7), washers (6), and bolts (5).
 - (d) Remove the auxiliary door assembly (1).

EFFECTIVITY: PRE-MOD. S.B. 145-52-0047

Auxiliary Door Assembly of the Main Landing Gear - Removal/Installation

Figure 401



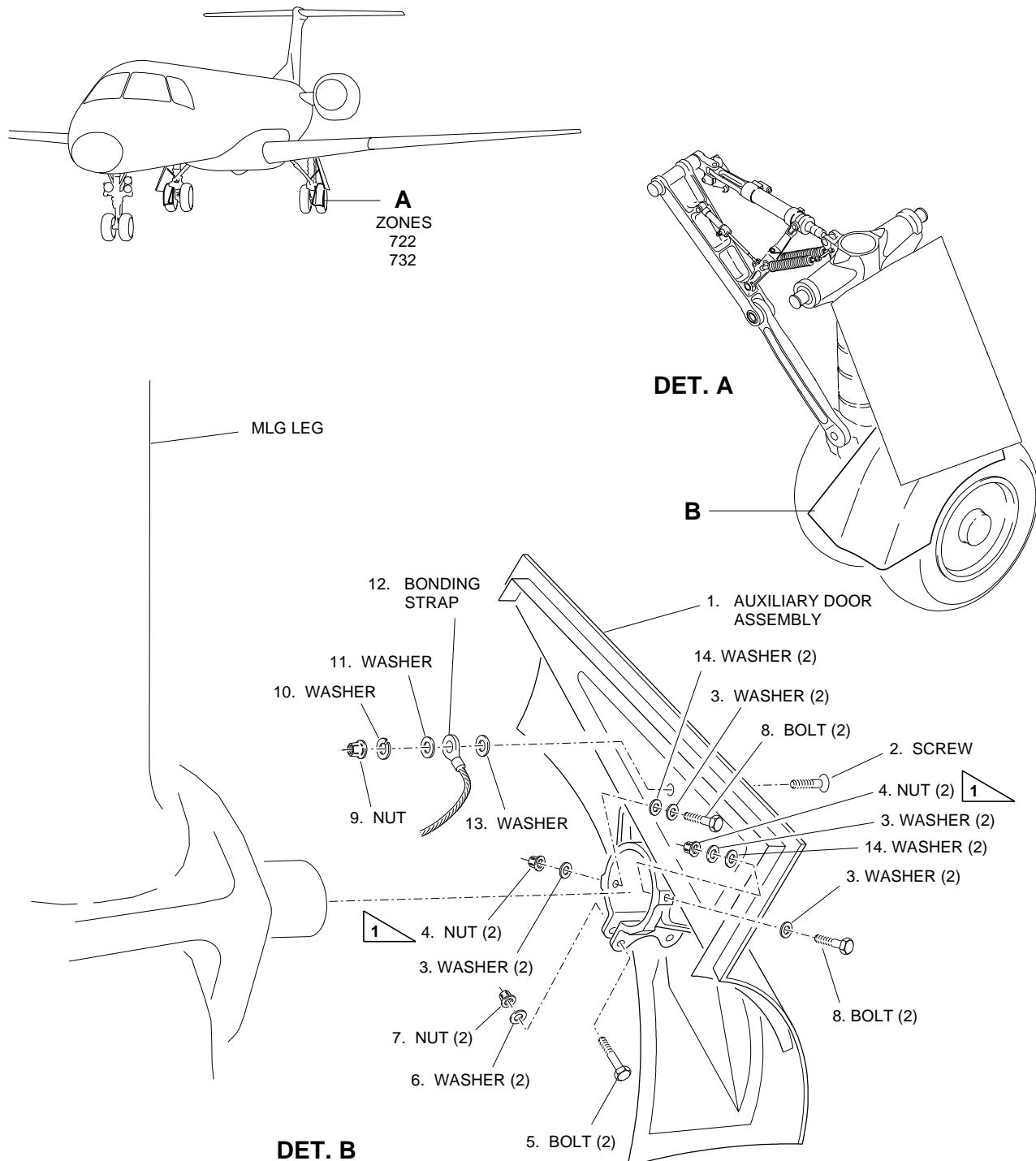
EM145AMM320128A.DGN



EFFECTIVITY: POST-MOD. S.B. 145-52-0047

Auxiliary Door Assembly of the Main Landing Gear - Removal/Installation

Figure 402



1

TIGHTENING TORQUE: (15.0 ± 1.4) Nm ((132.5 ± 12.5) lb.in)

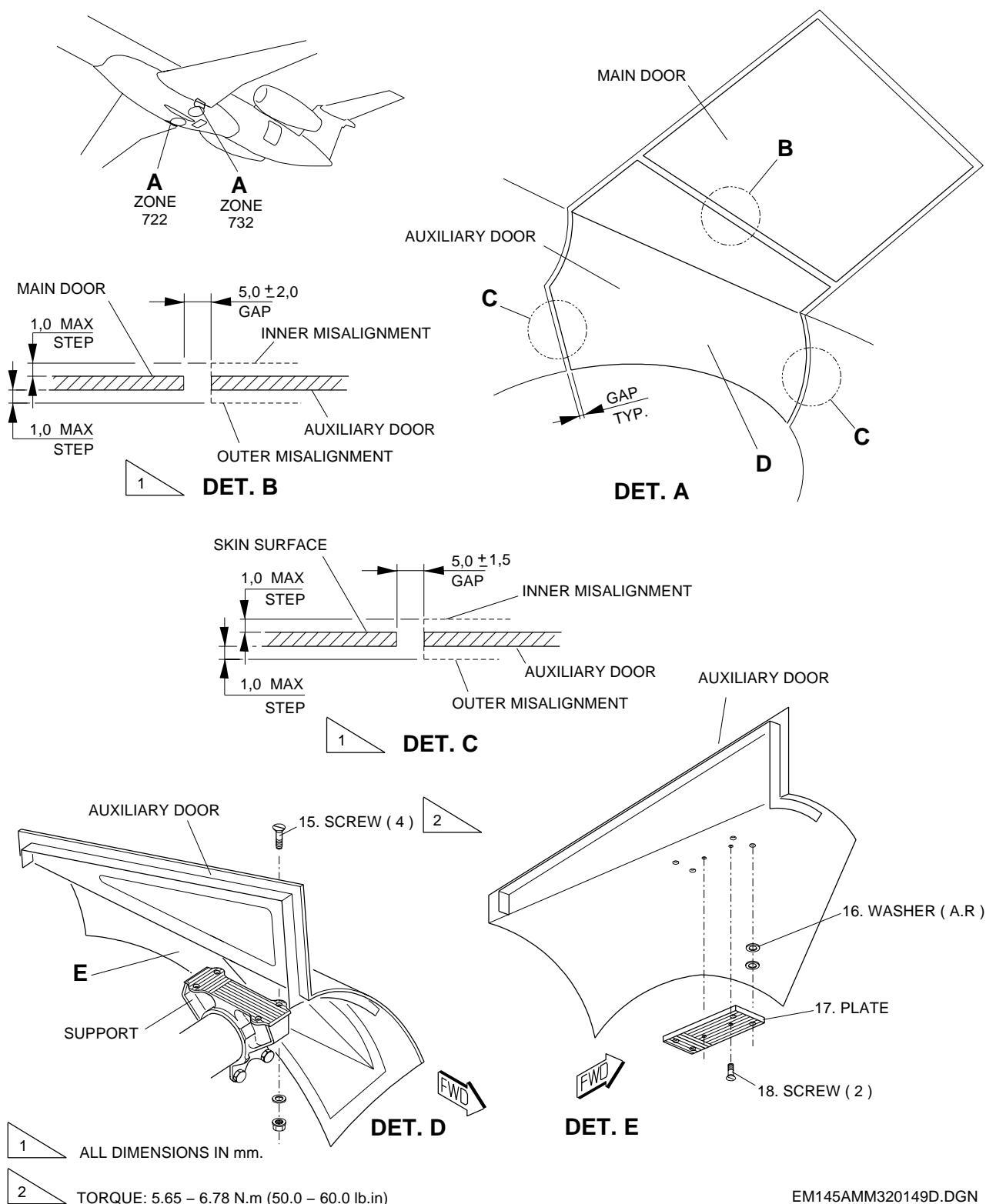
THE TIGHTENING TORQUE VALUE INCLUDES THE DRAG TORQUE VALUE

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EFFECTIVITY: ALL

Auxiliary Door Assembly of the Main Landing Gear - Removal/Installation

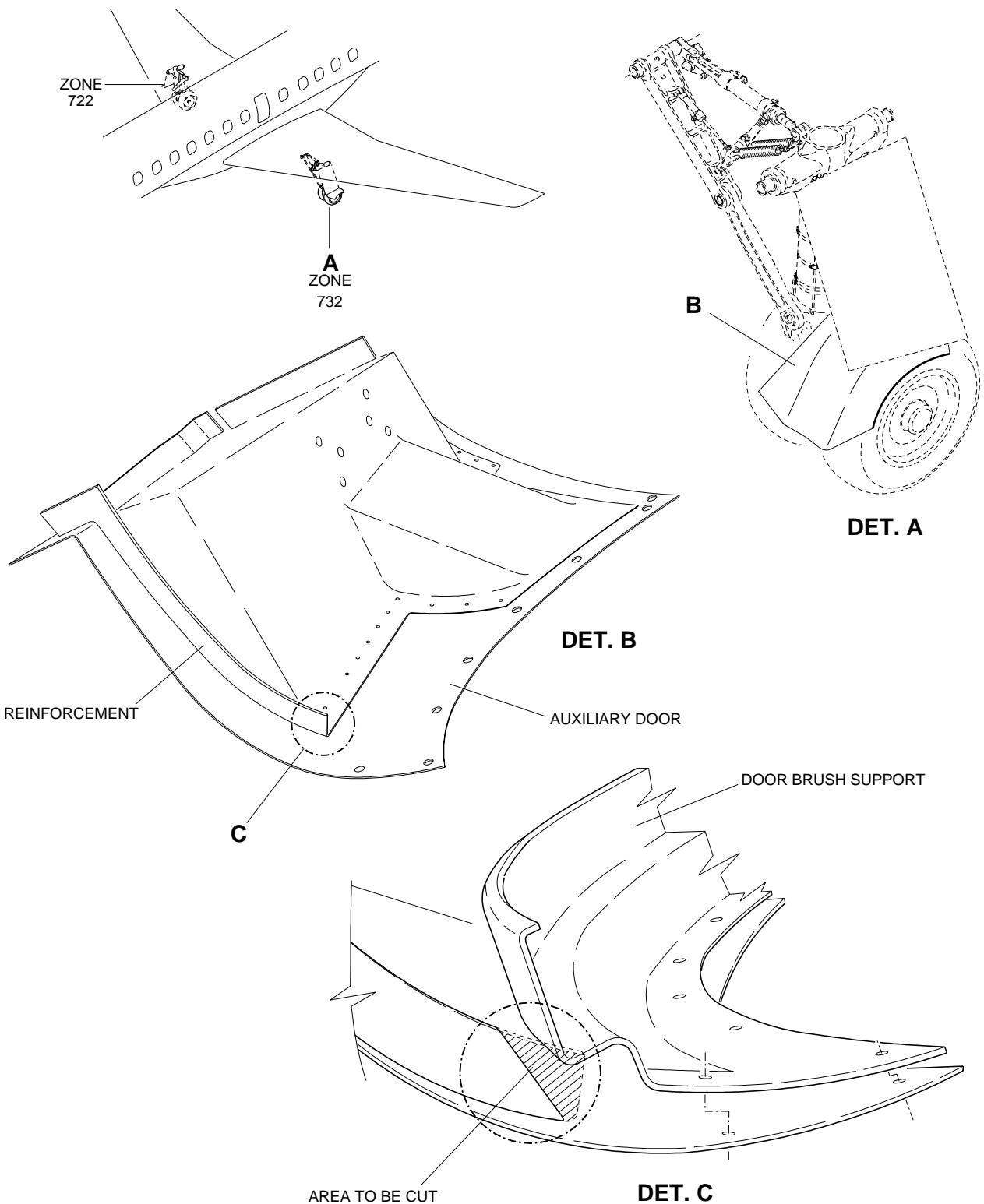
Figure 403



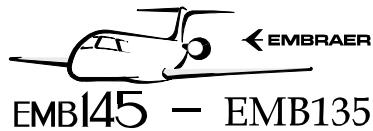
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EFFECTIVITY: ALL

Auxiliary Door Assembly of the MLG - Drilling
Figure 404



145AMM320356.MCE



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 32-10-07-400-801-A

EFFECTIVITY: ALL

3. AUXILIARY DOOR ASSEMBLY OF THE MAIN LANDING GEAR - INSTALLATION

A. General

- (1) This procedure gives the instructions to install the auxiliary door assembly of the main landing gear.

B. References

REFERENCE	DESIGNATION
AMM TASK 07-10-00-500-801-A/200	-
AMM TASK 20-13-21-910-801-A/200	TYPES OF ELECTRICAL BONDING AND SURFACE PREPARATION - STANDARD PROCEDURES
AMM TASK 32-00-01-910-801-A/200	LG SAFETY PIN - INSTALLATION AND REMOVAL
AMM TASK 32-10-06-400-801-A/400	MAIN DOOR ASSEMBLY OF THE MAIN LANDING GEAR - INSTALLATION
AMM TASK 32-30-00-700-801-A/500	EXTENSION AND RETRACTION SYSTEM - OPERATIONAL CHECK
AMM TASK 32-49-02-000-801-A/400	WHEEL ASSEMBLY OF THE MAIN LANDING GEAR - REMOVAL
AMM TASK 32-49-02-400-801-A/400	WHEEL ASSEMBLY OF THE MAIN LANDING GEAR - INSTALLATION
AMM TASK 53-04-11-400-801-A/400	AERODYNAMIC SEALING BRUSHES - INSTALLATION
S.B.145-52-0047	-

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

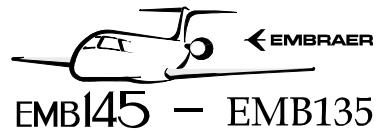
SPECIFICATION (BRAND)	DESCRIPTION	QTY
MEP 09-060	Corrosion Inhibiting Compound, Non-Chromate (CA-1000) AR	

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	RH or LH MLG Auxiliary door assembly



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

(Continued)

QTY	FUNCTION	PLACE
1	Helps the other technician	RH or LH MLG Auxiliary door assembly

I. Preparation

SUBTASK 841-003-A

- (1) If a new door is to be installed and it does not have attachment holes for the door brush support, do as follows:
 - (a) Cut the excess material as necessary for the correct adjustments to the door reinforcement. Refer to Figure 404, DET. C.
NOTE: This reinforcement can cause an interference of the door brush support with the auxiliary door during their assemblage.
 - (b) Use the door brush support as a template and transfer the related holes to the auxiliary door.
 - (c) Drill the holes with a 7/32-inch dia. drill bit and make a 130° countersink.
 - (d) Install the aerodynamic sealing brush. Refer to [AMM TASK 53-04-11-400-801-A/400](#).

J. Installation (Figure 401)

SUBTASK 420-002-A

- (1) (For aircraft PRE-MOD. [S.B.145-52-0047](#)). Refer to (Figure 401) and Figure 403:
 - (a) Before install the auxiliary door, do the previous adjustments to avoid damage to the door/fuselage, as follows:
 - 1 Without retract the landing gear, manually put the new auxiliary door in position on the fuselage.
 - 2 Verify if the auxiliary door contour fits onto wing stub bay.
 - 3 If it not fits, trim the auxiliary door contour as necessary to guarantee the minimum gap to avoid interference and damage during landing gear retraction.
 - 4 Fully lift the aircraft on jacks. Refer to AMM TASK 07-10-00-500-801-A/200.
 - 5 Remove the external (OUTBD) wheel assembly ([AMM TASK 32-49-02-000-801-A/400](#)).
 - 6 Install the support on the new auxiliary door with four washers (16).
 - 7 Connect the rods of the main door of the main landing gear ([AMM TASK 32-10-06-400-801-A/400](#)).
 - 8 On the Circuit Breaker Panel, close the ELEC PUMP 1 circuit breaker and remove the DO-NOT-CLOSE tag from it.
 - 9 Energize the aircraft.

- 10 Remove the safety pins from the landing gears.
 - 11 Do the retraction of the landing gear ([AMM TASK 32-30-00-700-801-A/500](#)).
 - 12 With the landing gear locked in the UP position, manually put the auxiliary door in position on the pivoting shaft and make sure that the gaps and the alignment of the auxiliary door assembly are correct. Refer to Figure 403.
 - a If necessary, remove washers to get the right gaps.
 - 13 Remove the auxiliary door.
 - 14 Do the extension of the landing gear ([AMM TASK 32-30-00-700-801-A/500](#)).
 - 15 Install the safety pins on the landing gears.
- (b) Apply corrosion inhibiting compound (CA-1000) to the pivoting shaft at the landing gear leg.
- (c) Put the auxiliary door assembly (1) in position on the pivoting shaft at the landing gear leg.
- (d) Align the holes of the auxiliary door assembly (1) with the holes of the pivot and install the bolts (8), washers (3), and nuts (4).
- (e) Install the bolts (5), washers (6), and nuts (7).
- (f) Connect the bonding strap end (12) to the auxiliary door assembly (1) ([AMM TASK 20-13-21-910-801-A/200](#)).
- (g) Remove the safety pins from the landing gears.
- (h) Do the retraction of the landing gear ([AMM TASK 32-30-00-700-801-A/500](#)).
- (i) With the landing gear locked in the UP position, make sure that the gaps and the alignment of the auxiliary door assembly are correct. Refer to Figure 403.
- (j) If necessary, adjust the gaps or alignments of the auxiliary door assembly. For this, move the door assembly as shown in steps below.
- 1 To move the auxiliary door assembly to the wing tip or to the wing root, do these steps:
 - a Remove the four screws (15) and remove the auxiliary door assembly.
 - b Carefully remove the two screws (18) and the plate (17).
 - c To move the auxiliary door assembly toward the wing root, remove the washers (16) as necessary.
 - d To move the auxiliary door assembly toward the wing tip, add new washers (16) as necessary.
 - e After the adjustment, install the plate (17), and the screws (18).

f Tighten the screw (18).

g Install the auxiliary door assembly.

- 2 To move the auxiliary door assembly forward and rearward or up and down, do these steps:
- a Release the four screws (15).
 - b Move the auxiliary door as necessary.
 - c Tighten the screws (15) and apply a torque of 5.65 - 6.78 N.m (50 - 60 lb.in).

(2) (For aircraft POST-MOD. [S.B.145-52-0047](#)). Refer to Figure 402 and Figure 403:

- (a) Before install the auxiliary door, do the previous adjustments to avoid damage to the door/fuselage, as follows:
- 1 Without retract the landing gear, manually put the new auxiliary door in position on the fuselage.
 - 2 Verify if the auxiliary door contour fits onto wing stub bay.
 - 3 If it not fits, trim the auxiliary door contour as necessary to guarantee the minimum gap to avoid interference and damage during landing gear retraction.
 - 4 Fully lift the aircraft on jacks. Refer to AMM TASK 07-10-00-500-801-A/200.
 - 5 Remove the external (OUTBD) wheel assembly ([AMM TASK 32-49-02-000-801-A/400](#)).
 - 6 Install the support on the new auxiliary door with four washers (16).
 - 7 Connect the rods of the main door of the main landing gear ([AMM TASK 32-10-06-400-801-A/400](#)).
 - 8 On the Circuit Breaker Panel, close the ELEC PUMP 1 circuit breaker and remove the DO-NOT-CLOSE tag from it.
 - 9 Energize the aircraft.
 - 10 Remove the safety pins from the landing gears.
 - 11 Do the retraction of the landing gear ([AMM TASK 32-30-00-700-801-A/500](#)).
 - 12 With the landing gear locked in the UP position, manually put the auxiliary door in position on the pivoting shaft and make sure that the gaps and the alignment of the auxiliary door assembly are correct. Refer to Figure 403.
 - a If necessary, remove washers to get the right gaps.
 - 13 Remove the auxiliary door.

14 Do the extension of the landing gear ([AMM TASK 32-30-00-700-801-A/500](#)).

15 Install the safety pins on the landing gears.

- (b) Apply corrosion inhibiting compound (CA-1000) to the pivoting shaft at the landing gear leg.
- (c) Put the auxiliary door assembly (1) in position on the pivoting shaft at the landing gear leg.
- (d) Align the holes of the auxiliary door assembly (1) and the holes of the pivot and install the bolts (8), washers (3) and (14), and nuts (4).

NOTE: Apply a tightening torque of $(15.0 \pm 1.4 \text{ N.m})$ ($132.5 \pm 12.5 \text{ lb.in}$). The tightening torque value includes the drag torque value.

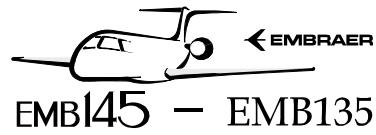
- (e) Install the bolts (5), washers (6), and nuts (7).
- (f) Connect the bonding strap end (12) to the auxiliary door assembly (1) ([AMM TASK 20-13-21-910-801-A/200](#)).
- (g) Remove the safety pins from the landing gears.
- (h) Do the retraction of the landing gear ([AMM TASK 32-30-00-700-801-A/500](#)).
- (i) With the landing gear locked in the UP position, make sure that the gaps and the alignment of the auxiliary door assembly are correct. Refer to Figure 403.
- (j) If necessary, adjust the gaps or alignments of the auxiliary door assembly. For this, move the door assembly as shown in steps below.

1 To move the auxiliary door assembly to the wing tip or to the wing root, do these steps:

- a Remove the four screws (15) and remove the auxiliary door assembly.
- b Carefully remove the two screws (18) and the plate (17).
- c To move the auxiliary door assembly toward the wing root, remove the washers (16) as necessary.
- d To move the auxiliary door assembly toward the wing tip, add new washers (16) as necessary.
- e After the adjustment, install the plate (17), and the screws (18).
- f Tighten the screw (18).
- g Install the auxiliary door assembly.

2 To move the auxiliary door assembly forward and rearward or up and down, do these steps:

- a Release the four screws (15).
- b Move the auxiliary door as necessary.



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

- c Tighten the screws (15) and apply a torque of 5.65 - 6.78 N.m (50 - 60 lb.in).

K. Follow-on

SUBTASK 842-002-A

- (1) Install the landing gear safety pins ([AMM TASK 32-00-01-910-801-A/200](#)).
- (2) Install the external wheel ([AMM TASK 32-49-02-400-801-A/400](#)).
- (3) Lower the aircraft and remove the jacks.

