



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

BIN&PSU STRUCTURE - REMOVAL/INSTALLATION

EFFECTIVITY: ACFT MODEL(S) EMB-135

1. General

- A. This section gives the procedures to remove/install the bin and PSU structure tubes.
- B. The procedures in this section are given in the sequence below. The tasks identified with (♦) are part of the Scheduled Maintenance Requirements Document (SMRD).

TASK NUMBER	DESCRIPTION	EFFECTIVITY
25-22-07-000-802-A	BIN AND PSU STRUCTURE TUBES - REMOVAL	ACFT MODEL(S) EMB-135
25-22-07-400-802-A	BIN AND PSU STRUCTURE TUBES - INSTALLATION	ACFT MODEL(S) EMB-135



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 25-22-07-000-802-A

EFFECTIVITY: ACFT MODEL(S) EMB-135

2. BIN AND PSU STRUCTURE TUBES - REMOVAL

A. General

- (1) This task gives the procedures to remove the bin and PSU structure tubes.
- (2) The bin and PSU structure tubes are installed on the aircraft passenger-cabin ceiling structure zones 233, 234, 243, 244, 253, 254, 263, and 264.

B. References

REFERENCE	DESIGNATION
AMM TASK 25-22-01-000-802-A/400	-
AMM TASK 25-22-02-000-802-A/400	-
AMM TASK 25-22-03-000-801-A/400	OVERHEAD BIN - REMOVAL
AMM TASK 25-22-04-000-802-A/400	-

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	Passenger cabin

I. Preparation

SUBTASK 841-005-A

- (1) Make sure that the aircraft is safe for maintenance.
- (2) On the RH electrical power control/distribution box, open these circuit breakers and attach a DO-NOT-CLOSE tag to them:
 - (a) GALLEY (Location Tip: RB SERVBUS/GALLEY).
 - (b) GALLEY (Location Tip: RB SHED DC BUS2/GALLEY).
- (3) Remove the headliner, as applicable (AMM TASK 25-22-04-000-802-A/400).



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

- (4) Remove the overhead bins, as applicable ([AMM TASK 25-22-03-000-801-A/400](#)).
- (5) Remove the PSU structures, as applicable (AMM TASK 25-22-01-000-802-A/400) or (AMM TASK 25-22-02-000-802-A/400).

J. Bin and PSU Structure Tubes - Removal ([Figure 401](#))

SUBTASK 020-007-A

- (1) NOTE: For steps (1) through (19), see Figure 401, Sheet 2, DET. A.
Remove the bolt (4), washers (2), and nut (3) that attach the drag structure assembly (1).
- (2) Remove the drag structure assembly (1) from the aircraft structure.
- (3) Loosen nut (5).
- (4) Remove the bolt (9), washers (8), and nut (12).
- (5) Remove the male rod end (6) from the clevis (7).
- (6) Remove the spacer (11) and isolator collars (10) from the male rod end (6).
- (7) Remove the drag-link clevis assembly (13).
- (8) Remove the clevis (7) and washer (14) from the outboard tube assembly (19).
- (9) Remove the bolts (29) and (30), washers (27), and nut (28).
- (10) Remove the isolation collar (26).
- (11) Loosen the jam nut (32).
- (12) Remove the female rod end (31) from the male rod end (16).
- (13) Remove the rod end assembly (15) from the aircraft structure.
- (14) Remove the bolts (24) and (25), washers (21), and nut (20).
- (15) Remove the isolation collars (22).
- (16) Loosen the jam nut (33).
- (17) Remove the female rod end (23) from the male rod end (18).
- (18) Remove the rod end assembly (17) from the aircraft structure.
- (19) Slide the outboard tube assembly (19) out of the tube support assembly (38).
- (20) NOTE: For steps (20) through (27), see Figure 401, Sheet 3, DET. B.
Remove the bolt (45), washers (42), and nut (41).
- (21) Remove the isolation collars (43).
- (22) Loosen the jam nuts (39).



EMB145 - EMB135

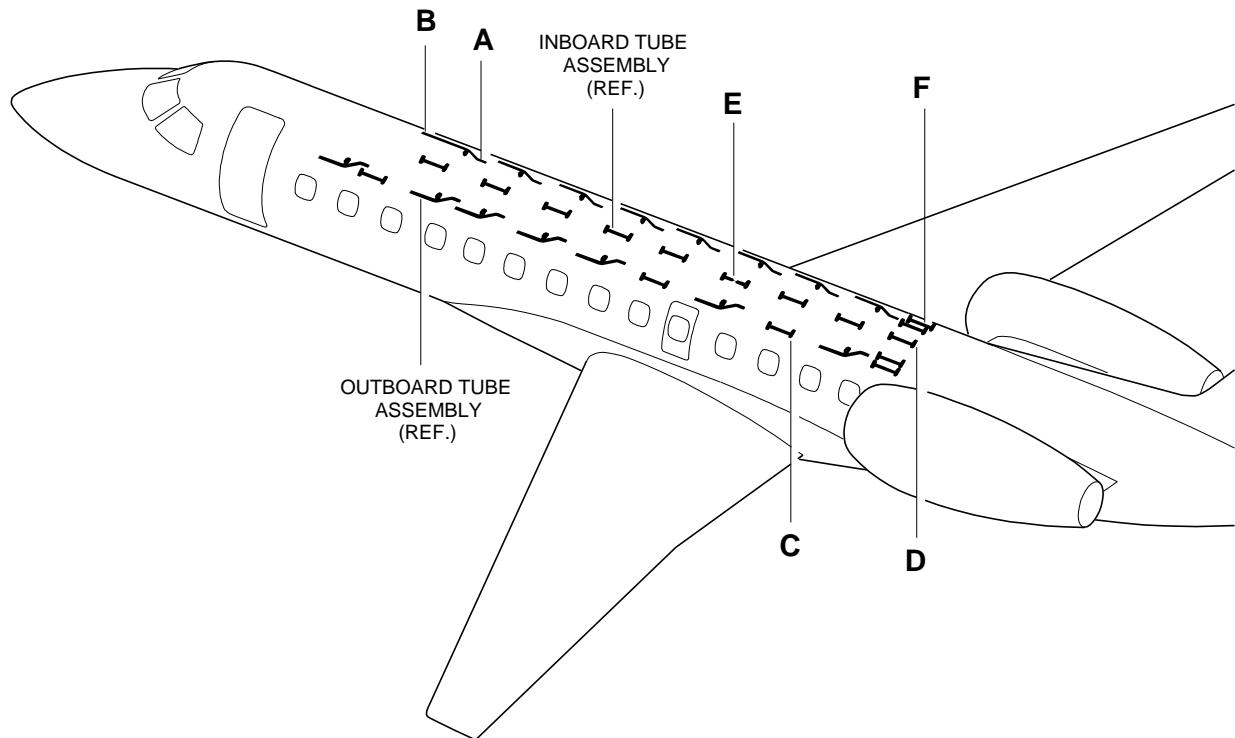
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- (23) Remove the female rod ends (44) and (40) from the rod end fittings (36).
- (24) Remove the retaining ring (37) from the rod end collar (35).
- (25) Remove the rod end fittings (36).
- (26) Remove the rod end collar (35).
- (27) Remove the tube support assembly (38) from the aircraft structure.
- (28) NOTE: For steps (28) through (39), see Figure 401, Sheet 4, DET. C.
Remove the bolt (65) and washer (64).
- (29) Remove the outboard tube assembly (59) from the rod end assemblies (60) and (62).
- (30) Remove the bolts (49), washers (47), and nut (46).
- (31) Remove the isolation collars (48).
- (32) Loosen the jam nut (58).
- (33) Remove the female rod end (50) from the male rod end (63).
- (34) Remove the rod end assembly (62) from the aircraft structure.
- (35) Remove the bolts (55) and (56), washers (52), and nut (51).
- (36) Remove the isolation collars (53).
- (37) Loosen the jam nut (57).
- (38) Remove the female rod end (54) from the male rod end (61).
- (39) Remove the rod end assembly (60) from the aircraft structure.
- (40) NOTE: For steps (40) through (48), see Figure 401, Sheet 5, DET. D and DET. E.
Remove the bolts (75) and washers (76).
- (41) Remove the inboard tube assembly (77) from the aircraft structure.
- (42) Remove the bolt (70), stud (68), and washers (67).
- (43) Remove the inboard tube assembly (69) from the aircraft structure.
- (44) Remove the remaining inboard tube assembly (66).
- (45) Move the bin support assembly (74) out of the inboard tube assemblies (77), (69) and (66).
- (46) Loosen the jam nut (72).
- (47) Remove the hanger support (73) from the rod end fitting (71).
- (48) Remove the bin support assembly (74).
- (49) NOTE: For steps (49) through (69), see Figure 401, Sheet 6, DET. F.

Remove the bolts (78) and washers (79).

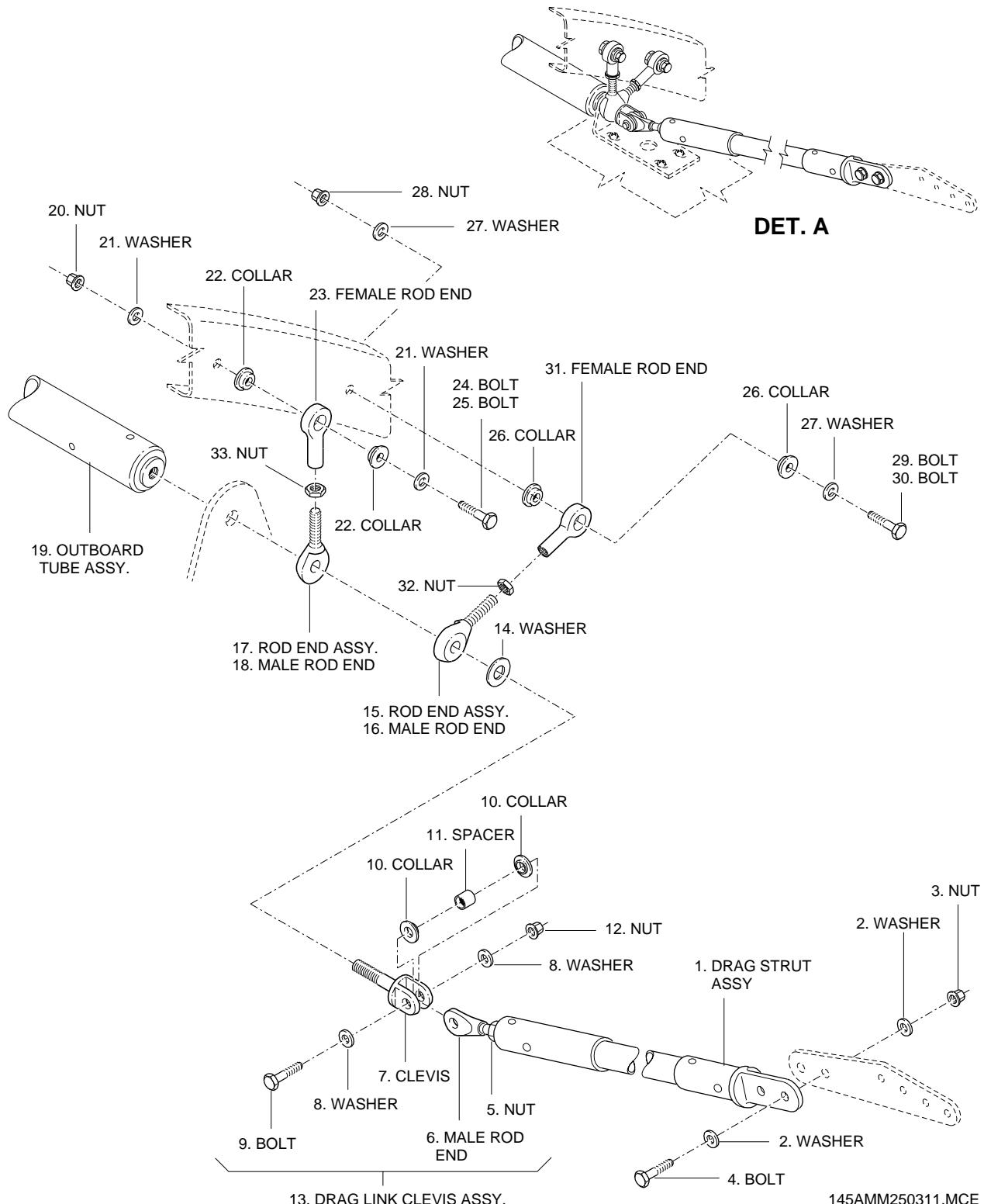
- (50) Remove the outboard tube assembly (83) from the aircraft structure.
- (51) Remove the bolt (92) and washer (93).
- (52) Move the outboard tube assembly (103) out of the rod support-tube assembly (104).
- (53) Move the tube support assemblies (94) and (97) out of the outboard tube assembly (83).
- (54) Remove the retaining ring (90).
- (55) Remove the tube collar (88) from the hanger support (89).
- (56) Remove the retaining ring (82).
- (57) Remove the tube collar (80) from the hanger support (81).
- (58) Loosen the jam nut (91).
- (59) Remove the male rod ends (95) and (98) from the hanger supports (89) and (81).
- (60) Remove the tube support assemblies (94) and (97).
- (61) Remove the spring pin (87) from the rod support-tube assembly (104) and the outboard tube assembly (83).
- (62) Move the outboard tube assemblies (83) and (103) out of the rod support-tube assembly (104).
- (63) Remove the retaining ring (84).
- (64) Remove the tube collar (86) from the hanger support (85).
- (65) Remove the retaining ring (100).
- (66) Remove the rod end collar (102).
- (67) Loosen the jam nut (96).
- (68) Remove the rod end fittings (101) from the hanger supports (85) and (99).
- (69) Remove the rod support-tube assembly (104).

EFFECTIVITY: ACFT MODEL(S) EMB-135
Bin and PSU Structure Tube - Removal/Installation
Figure 401 - Sheet 1

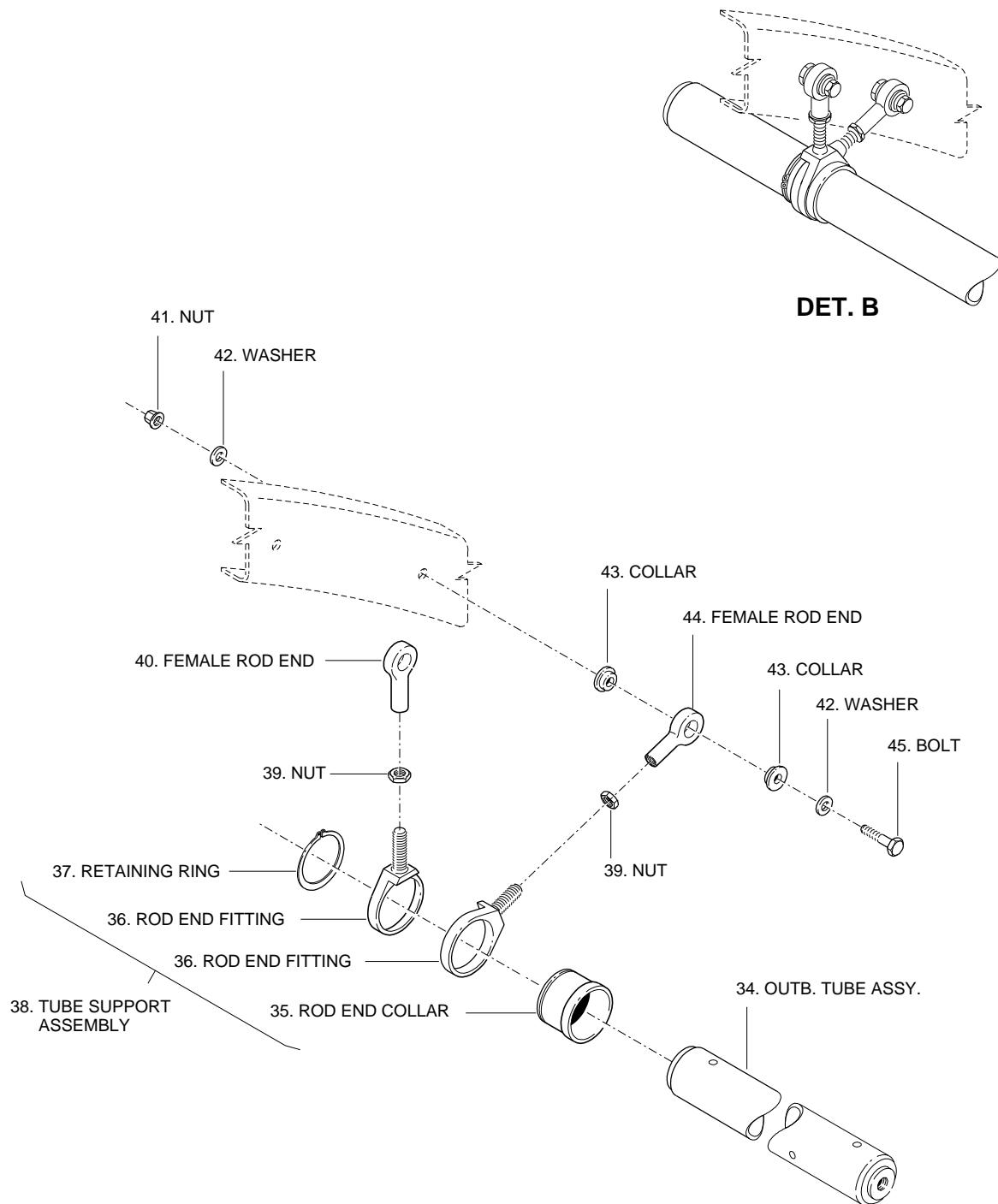


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EFFECTIVITY: ACFT MODEL(S) EMB-135
Bin and PSU Structure Tube - Removal/Installation
Figure 401 - Sheet 2

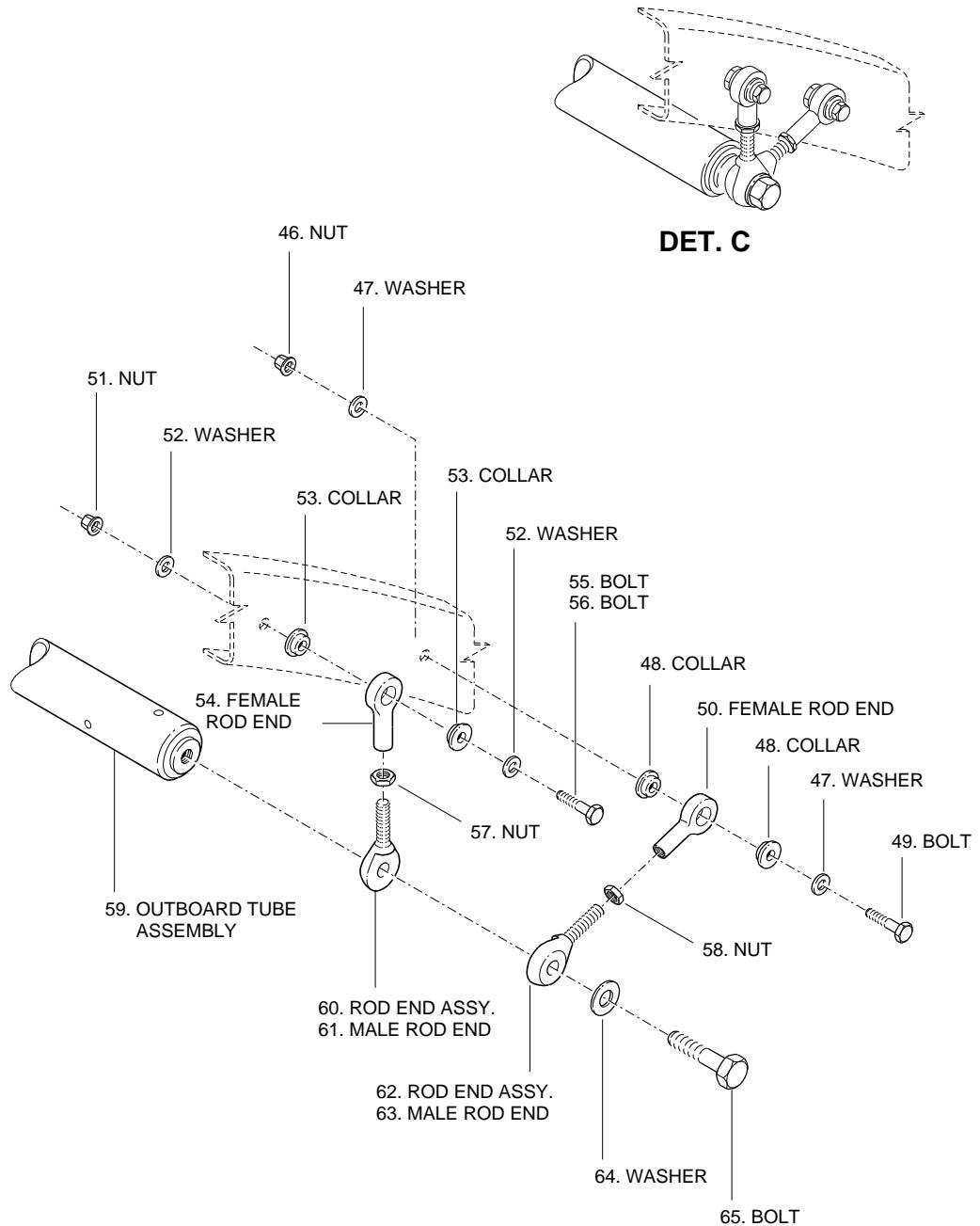


EFFECTIVITY: ACFT MODEL(S) EMB-135
 Bin and PSU Structure Tube - Removal/Installation
 Figure 401 - Sheet 3



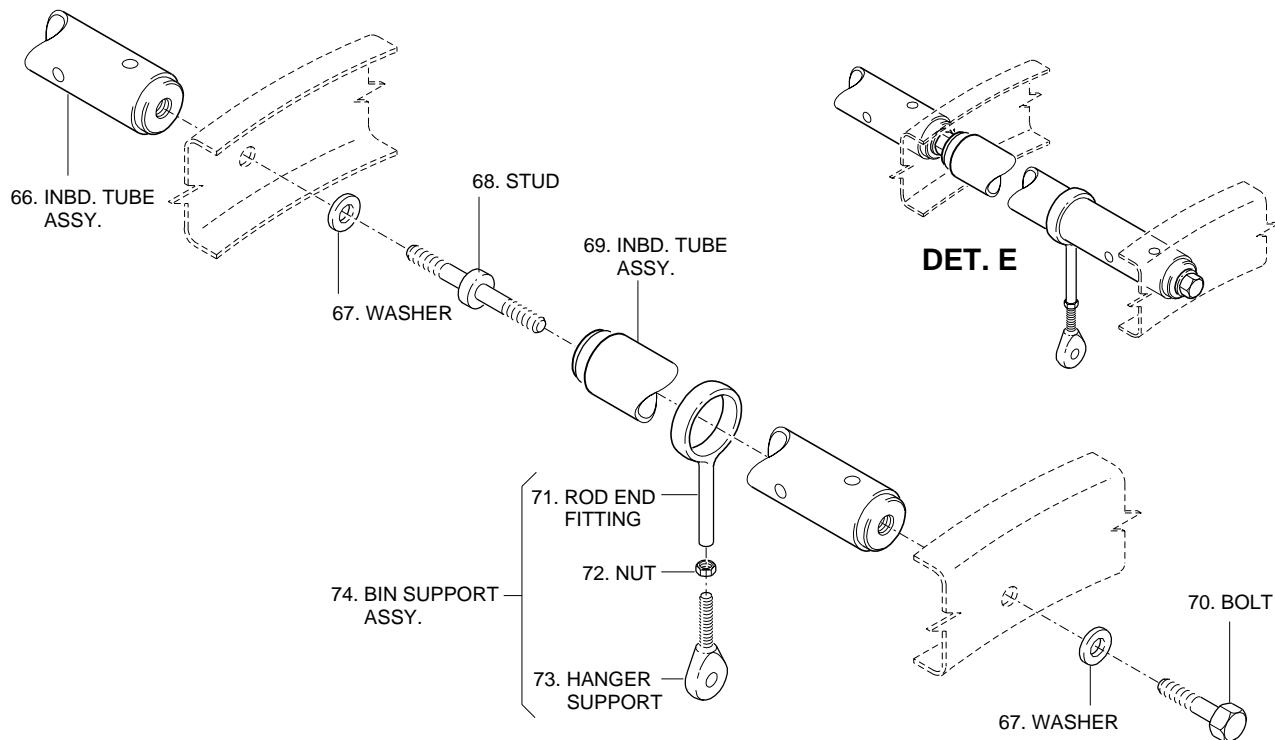
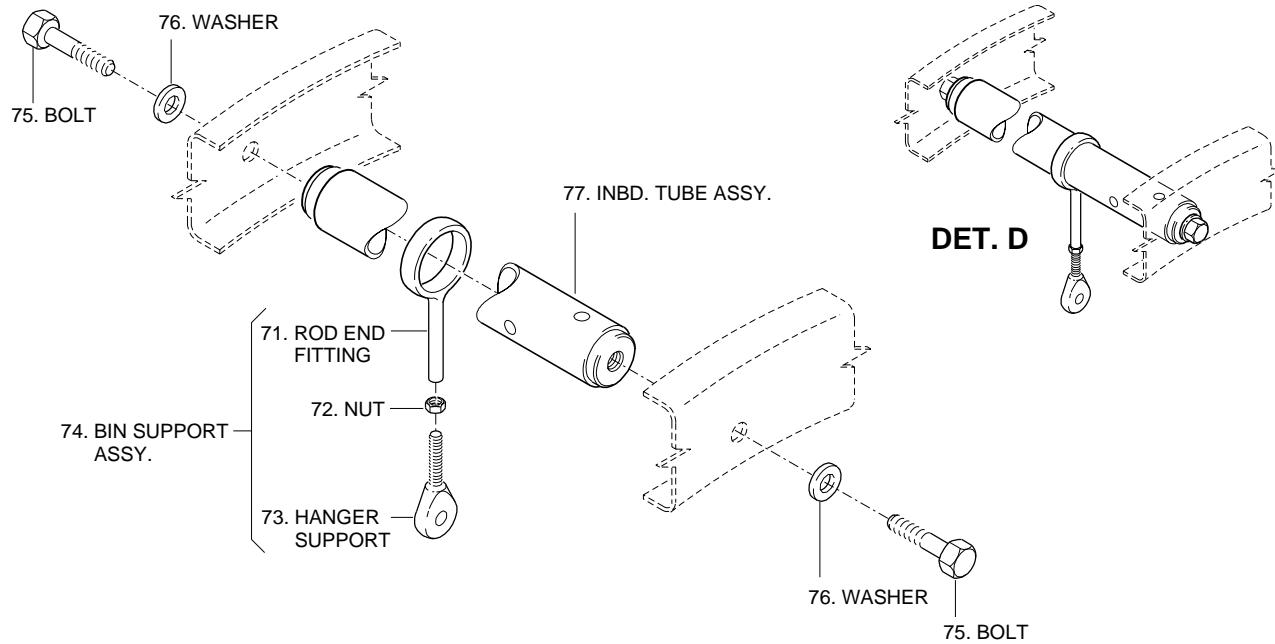
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EFFECTIVITY: ACFT MODEL(S) EMB-135
 Bin and PSU Structure Tube - Removal/Installation
 Figure 401 - Sheet 4



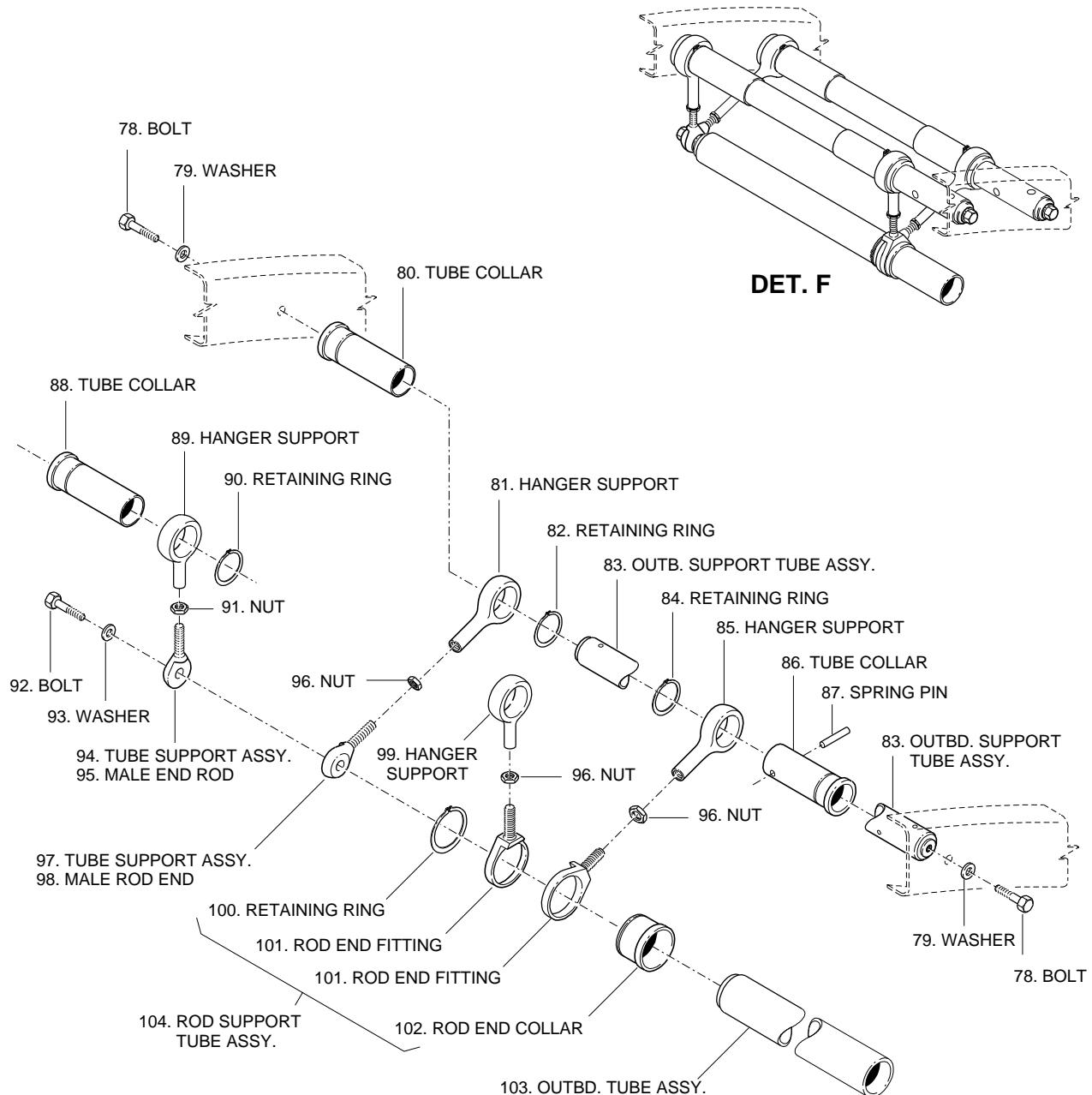
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EFFECTIVITY: ACFT MODEL(S) EMB-135
 Bin and PSU Structure Tube - Removal/Installation
 Figure 401 - Sheet 5

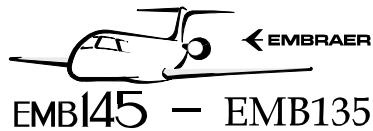


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EFFECTIVITY: ACFT MODEL(S) EMB-135
Bin and PSU Structure Tube - Removal/Installation
Figure 401 - Sheet 6



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EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 25-22-07-400-802-A

EFFECTIVITY: ACFT MODEL(S) EMB-135

3. BIN AND PSU STRUCTURE TUBES - INSTALLATION

A. General

- (1) This task gives the procedures to install the bin and PSU structure tubes.
- (2) The bin and PSU structure tubes are installed on the aircraft passenger-cabin ceiling structure zones 233, 234, 243, 244, 253, 254, 263 and 264.

B. References

REFERENCE	DESIGNATION
AMM TASK 25-22-01-400-802-A/400	-
AMM TASK 25-22-02-400-802-A/400	-
AMM TASK 25-22-03-400-801-A/400	OVERHEAD BIN - INSTALLATION
AMM TASK 25-22-04-400-802-A/400	-
AMM TASK 25-22-07-200-801-A/600	-

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

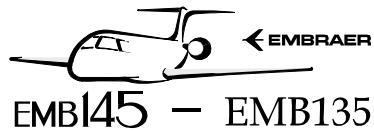
H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Passenger cabin

I. Installation

SUBTASK 420-007-A

- NOTE:
- Before the installation, do an inspection check on the inboard and outboard tubes (AMM TASK 25-22-07-200-801-A/600).
 - For all steps below, during the installation, the tube assemblies, the bin support assemblies, and the rod end assemblies must be adjusted to level the structure tubes parallel to the aircraft ceiling structure. There are jam nuts to lock the adjustment.



AIRCRAFT
MAINTENANCE MANUAL

- For steps (1) through (18), see Figure 401, Sheet 6, DET. F.

- (1) Install the jam nut (96) on the rod end fittings (101).
- (2) Install the rod end fittings (101) on the hanger supports (85) and (99).
- (3) Install the tube collar (86) on the hanger support (85).
- (4) Attach it with the retaining ring (84).
- (5) Move the outboard tube assembly (83) through the rod support-tube assembly (104).
- (6) Install the spring pin (87) through the rod support-tube assembly (104) and the outboard tube assembly (83).
- (7) Install the rod support-tube assembly (104).
- (8) Install the jam nuts (91) and (96) on the male rod ends (95) and (98).
- (9) Install the male rod ends (95) and (98) on the hanger supports (89) and (81).
- (10) Install the tube collars (88) and (86) on the hanger supports (89) and (81).
- (11) Attach them with the retaining rings (90) and (82).
- (12) Move the tube support assemblies (94) and (97) on the outboard support-tube assembly (83).
- (13) Install the tube support assemblies (94) and (97).
- (14) Move the outboard tube assembly (103) on the rod support-tube assembly (104).
- (15) Attach them with the bolts (92) and washers (93).
- (16) Install the outboard tube assembly (83) on the aircraft structure.
- (17) Attach them with the bolts (78) and washers (79).
- (18) Tighten the jam nuts (91) and (96).
- (19) NOTE: For steps (19) through (27), see Figure 401, Sheet 5, DET. D and DET. E.
Install the jam nut (72) on the hanger support (73).
- (20) Install the hanger support (73) on the rod end fitting (71).
- (21) Move the bin support assembly (74) on the inboard tube assembly (69).
- (22) Move the bin support assembly (74) on the inboard tube assembly (77).
- (23) Tighten the jam nut (72).
- (24) Install the bin support assembly (74).
- (25) Install the inboard tube assembly (66).



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

- (26) Install the inboard tube assembly (69) and attach it with the bolt (70), stud (68), and washers (67).
- (27) Install the inboard tube assembly (77) on the aircraft structure and attach it with the bolts (75) and washers (76).
- (28) NOTE: For steps (28) through (41), see Figure 401, Sheet 4, DET. C.
Install the jam nut (57) on the male rod end (61).
- (29) Install the female rod end (54) on the male rod end (61).
- (30) Install the isolation collars (53) on the rod end assembly (60).
- (31) Install the rod end assembly (60) used with the outboard tube assembly (59).
- (32) Attach it with the bolts (55) and (56), washers (52), and nut (51).
- (33) Install the jam nut (58) on the male rod end (63).
- (34) Install the rod end (50) on the male rod end (63).
- (35) Install the isolation collars (48) on the rod end assembly (62).
- (36) Install the rod end assembly (62) used with the outboard tube assembly (59).
- (37) Attach it with the bolts (49), washers (47), and nut (46).
- (38) Tighten the jam nuts (58) and (57).
- (39) Install the rod end assemblies (60) and (62).
- (40) Install the outboard tube assembly (59) on the rod end assemblies (60) and (62).
- (41) Attach them with the bolt (65) and washer (64).
- (42) NOTE: For steps (42) through (49), see Figure 401, Sheet 3, DET. B.
Install the rod end collar (35) through the rod end fittings (36).
- (43) Attach it with the retaining ring (37).
- (44) Install the jam nut (39) on the rod end fittings (36).
- (45) Install the female rod ends (44) and (40) on the rod end fittings (36).
- (46) Install the isolation collars (43) on the female rod ends (44) and (40).
- (47) Attach them with the bolts (45), washers (42), and nut (41).
- (48) Tighten the jam nut (39).
- (49) Install the support tube assembly (38) on aircraft structure.
- (50) NOTE: For steps (50) through (68), see Figure 401, Sheet 2, DET. A.
Move the outboard tube assembly (19) through the support tube assembly (38).

- (51) Install the jam nut (33) on the male rod end (18).
- (52) Install the female rod end (23) on the male rod end (18).
- (53) Install the isolation collars (22) on the female rod end (23).
- (54) Attach them with the bolts (24) and (25), washers (21), and nut (20).
- (55) Tighten the jam nut (33).
- (56) Install the rod end assembly (17) used with the drag-link clevis assembly (13).
- (57) Tighten the jam nut (32).
- (58) Install the isolation collars (26) on the female rod end (31).
- (59) Attach them with the bolts (29) and (30), washers (27), and nut (28).
- (60) Install the rod end assembly (15) used with the drag-link clevis assembly (13).
- (61) **NOTE:** During installation, the drag-link clevis assembly (13) must be adjusted to align with the male rod end (6).
Install the jam nut (5) on the male rod end (6).
- (62) Install the male rod end (6) on the drag structure assembly (1).
- (63) Install the clevis (7) and washer (14) on the outboard tube assembly (19).
- (64) Install the spacer (11) and isolator collars (10) on the male rod end (6).
- (65) Install the male rod end (6) in the clevis (7).
- (66) Attach with it the bolt (9), washers (8), and nut (12).
- (67) Install the drag link clevis assembly (13).
- (68) Attach the drag structure assembly (1) to the aircraft structure with the bolt (4), washers (2), and nut (3).

J. Follow-on

SUBTASK 842-005-A

- (1) Install the PSU structures, as applicable (AMM TASK 25-22-01-400-802-A/400) or (AMM TASK 25-22-02-400-802-A/400).
- (2) Install the overhead bins, as applicable ([AMM TASK 25-22-03-400-801-A/400](#)).
- (3) Install the headliner, as applicable (AMM TASK 25-22-04-400-802-A/400).
- (4) On the RH electrical power control/distribution box, close these circuit breakers and remove the DO-NOT-CLOSE tag from them:
 - (a) GALLEY (Location Tip: RB SERVBUS/GALLEY).
 - (b) GALLEY (Location Tip: RB SHED DC BUS2/GALLEY).

