



AIRCRAFT
MAINTENANCE MANUAL

BAGGAGE-DOOR ACTUATING AND LOCKING MECHANISM - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to remove and install the actuating and locking mechanism of the baggage door.
- B. The procedures in this section are given in the sequence below. The tasks identified with (♦) are part of the Scheduled Maintenance Requirements Document (SMRD).

TASK NUMBER	DESCRIPTION	EFFECTIVITY
52-31-00-000-801-A	BAGGAGE-DOOR ACTUATING AND LOCKING MECHANISM - REMOVAL	ALL
52-31-00-400-801-A	BAGGAGE-DOOR ACTUATING AND LOCKING MECHANISM - INSTALLATION	ALL



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TASK 52-31-00-000-801-A

EFFECTIVITY: ALL

2. BAGGAGE-DOOR ACTUATING AND LOCKING MECHANISM - REMOVAL

A. General

- (1) This procedure gives the instructions to remove the actuating and locking mechanism of the baggage door.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-45-00/100	- COMPONENT LOCATION
AMM SDS 52-30-00/1	
AMM TASK 52-30-01-000-801-A/400	BAGGAGE DOOR - REMOVAL
AMM TASK 52-31-00-700-801-A/500	BAGGAGE-DOOR ACTUATING AND LOCKING MECHANISM - OPERATIONAL TEST/ADJUSTMENT
S.B.145-52-0012	-

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

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

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Baggage door
1	Helps the other technician	Baggage door

I. Preparation

SUBTASK 841-002-A

- (1) Open the baggage door up to its upper stop. Refer AMM SDS 52-30-00/1.



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

(2) On aircraft PRE-MOD. [S.B.145-52-0012](#), lock the mechanism with the safety pin GSE 213.

On aircraft POST-MOD. [S.B.145-52-0012](#), lock the mechanism with the safety pin GSE 208.

(3) Remove the baggage-door lining panels ([AMM MPP 06-45-00/100](#)).

(4) If you will remove the upper forward and aft lock bellcranks, remove the baggage door ([AMM TASK 52-30-01-000-801-A/400](#)).

J. Removal ([Figure 401](#)) ([Figure 403](#))

SUBTASK 020-002-A

(1) Disconnect the spring (1) from the upper bellcrank (2) (2 positions).

(2) Remove the guard pin (26) from the pulleys (3) (2 positions).

(3) Remove the guard pin (39) from the pulleys (37) in the area adjacent to the upper bellcrank (2) (2 positions).

(4) Remove the guard pin (40) from the pulleys (42) in the area adjacent to the lower bellcrank (4) (2 positions).

(5) Disconnect the turnbuckle (29) to disconnect the cables (28) and (50) (2 positions).

(6) Disconnect the turnbuckle (30) to disconnect the cables (36) and (49) (2 positions).

(7) Remove the pulleys (3) as follows:

NOTE: These procedures are applicable to the two pulley (3) assemblies.

(a) Remove the cotter pin (25), nut (24), washer (23), and bolt (27).

(b) Remove the two pulleys (3).

(8) Remove the gear box (5) as follows:

(a) Remove the nuts (6) and (20) and screws (7) and (21) to disconnect the torque tubes from the gear box (5).

(b) Remove the cotter pin (10), nut (11), washer (12), and bolt (14), and remove the actuating handle (13) together with the spring (16) and bushing (15).

(c) Remove the screws (8) (3 positions) and remove the plate (9).

(d) Remove the bolts (17) and washers (18) (11 positions) and remove the gear box (5) together with the shims (19) and (22).

(9) Disassemble the gear box as follows (refer to ([Figure 403](#))):

(a) Remove the cotter pin (12), nut (13), and shim (14), and discard the cotter pin (12).



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- (b) Remove the circlip (4), shim (5), shaft (7), washer (2) (if applicable), shim (3), crown wheel (1), washers (10), and shim (11) from the case (8).
 - (c) Remove the ball bearings (6) and (15) from the case (8).
 - (d) Remove the cotter pin (21), nut (22), washer (20), ball bearing (19), shims (18) and (16), pinion (17), bushing (23), shaft (26), and O-ring (9) from the case (8).
 - (e) Discard the cotter pin (21).
 - (f) Remove the bushings (25) from the shaft (26).
 - (g) Remove the ball bearing (24) from the bushing (23).
- (10) Remove the upper bellcranks (2) as follows:

NOTE: These procedures are applicable to the two upper bellcranks (2).

- (a) Remove the cotter pin (33), nut (32), and washer (31), and remove the bellcrank (34).
- (b) Remove the washer (35), pulleys (37), and bushing (38).
- (c) Remove the upper bellcrank (2).

- (11) Remove the lower bellcranks (4) as follows:

NOTE: These procedures are applicable to the two lower bellcranks (4).

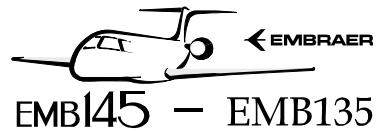
- (a) Remove the nut (46) and bolt (48) to disconnect the torque tube (47) from the lower bellcrank (4).
- (b) Remove the torque tube (47).
- (c) Remove the cotter pin (45), nut (44), and washer (43).
- (d) Remove the pulley (42) and bushing (41).
- (e) Remove the lower bellcrank (4).

SUBTASK 020-004-A (Figure 404)

- (12) Remove the upper forward and aft lock bellcranks (8) as follows:
- (a) Close and lock the cargo door mechanisms.
 - (b) Release the tension from the cables assembly (4) and (20). Refer to [AMM TASK 52-31-00-700-801-A/500](#).
 - (c) Remove the spring (2) as follows:

NOTE: Identify the orientation of the spring (2) before its removal to make sure that you will install it in the same position.

- 1 Release the tension from the spring (2) by disengaging it from the upper pulley (1) and pulley (3).
- 2 Remove the spring (2).



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- (d) Remove and discard the cotter pin (3) from the pin (2).
- (e) Remove the pin (2) and washer (17) to release the cable assembly (4) from the bellcrank (8).
- (f) Remove and discard the cotter pin (22) from the pin (1).
- (g) Remove the pin (1), washers (19) and (21), and pulley (18) to release the cable assembly (20) from the bellcrank (8).
- (h) Remove the nut (6), washer (7) and screw (10) from the bellcrank (8).
- (i) Release the nut (13), washer (14) and screw (15) to release the tension from the lock (16).
- (j) Move the shaft (11) to the side so that you can remove the washer (9) and retaining ring (5).
- (k) Move the shaft (11) to the side so that you can remove the spacer (12), washers (as applicable) and bellcrank (8).

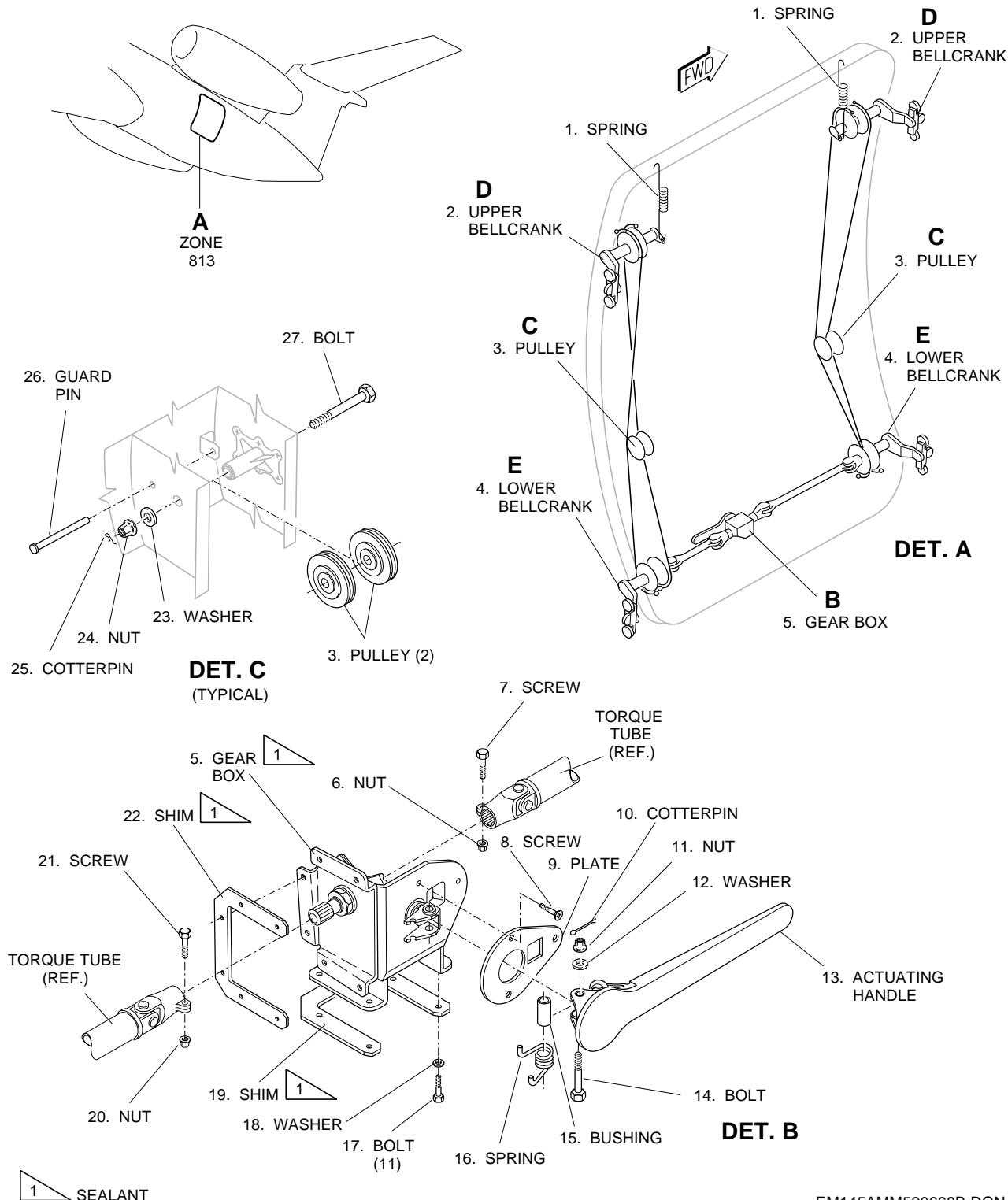
NOTE: Identify the orientation of the bellcrank (8) on the shaft (11) and count the number of washers (if existing) between the bellcrank (8) and spacer (12) before its removal to make sure that you will install it in the same position.

- (l) Remove the bellcrank (8).

EFFECTIVITY: ALL

Actuating and Locking Mechanism - Removal/Installation

Figure 401 - Sheet 1

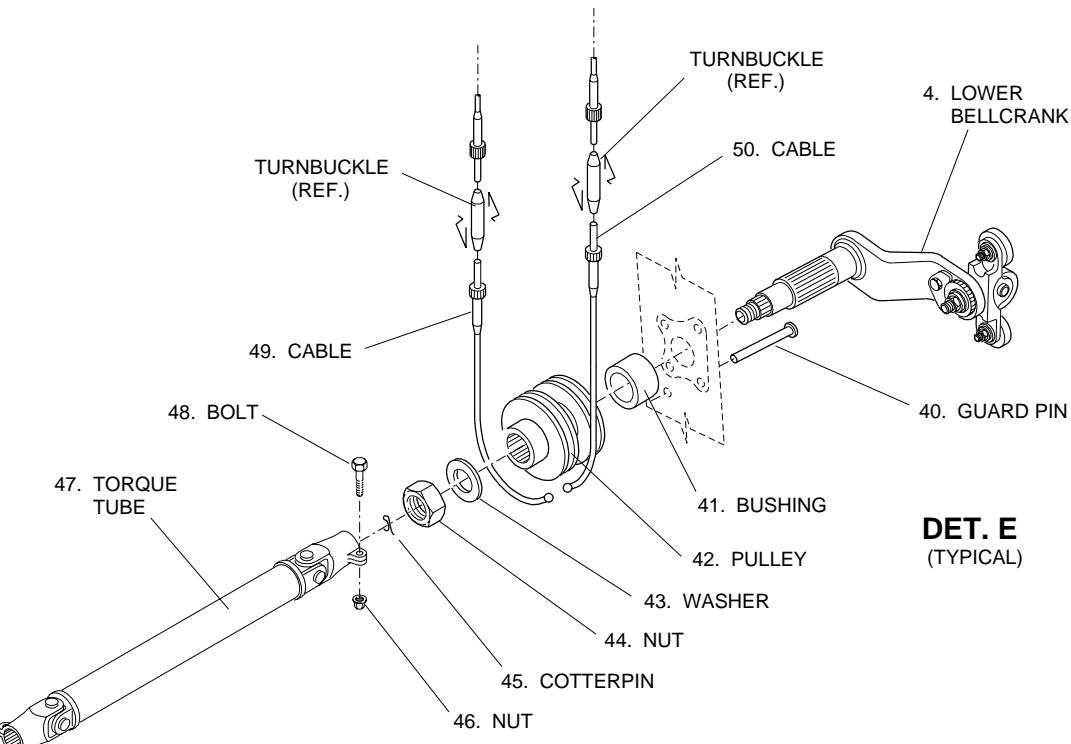
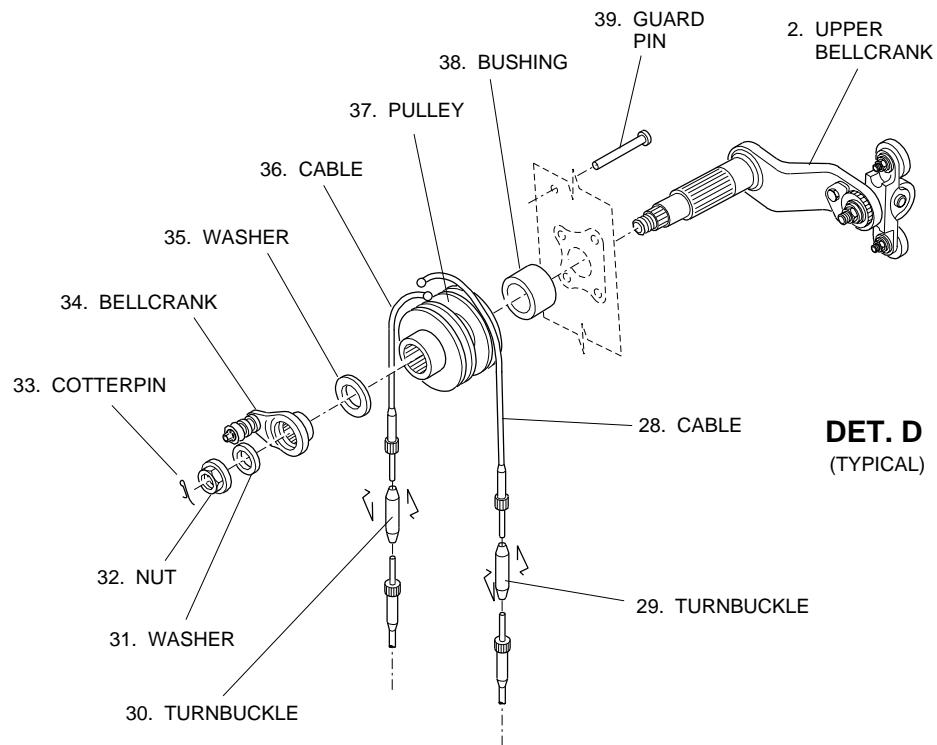


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EFFECTIVITY: ALL

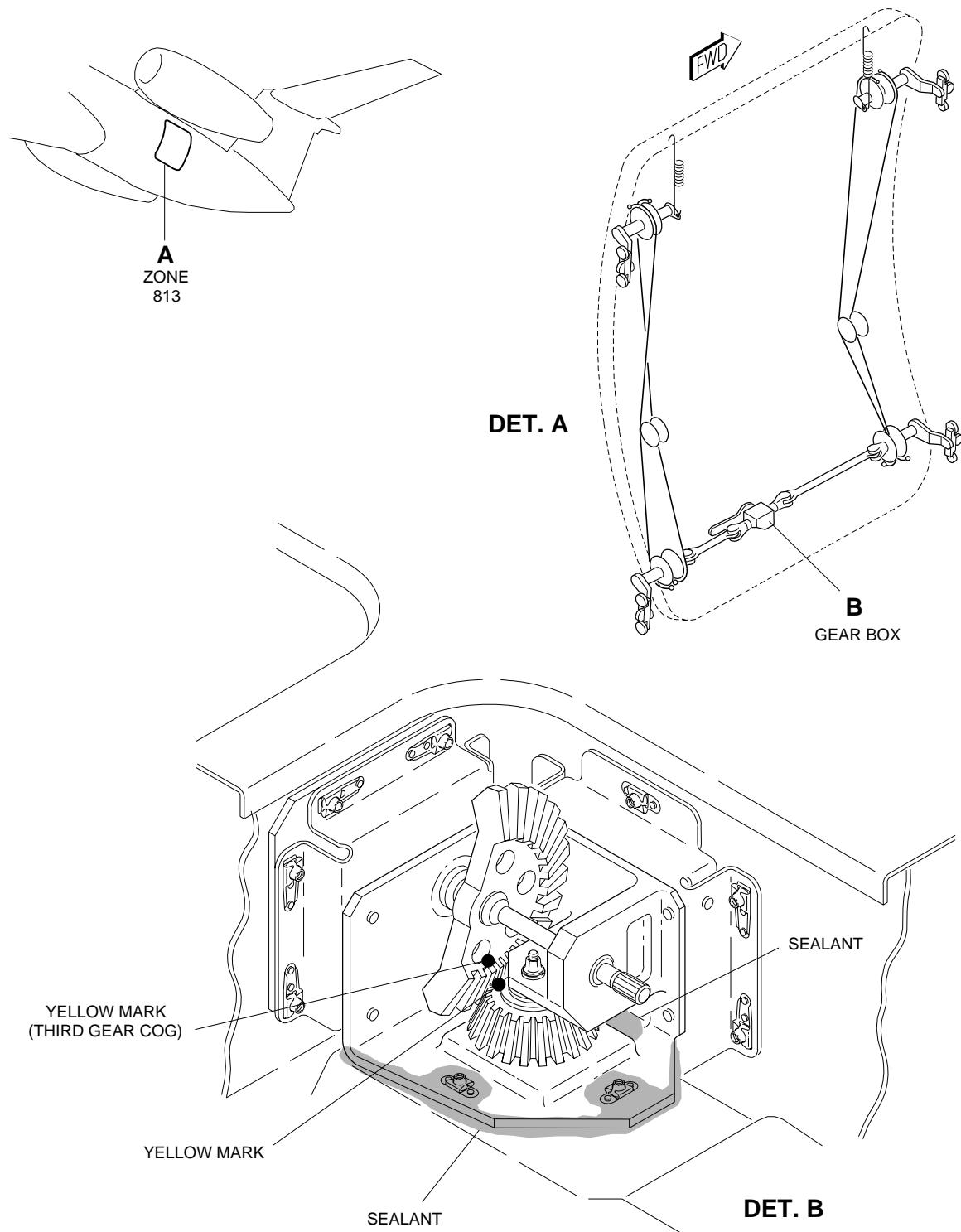
Actuating and Locking Mechanism - Removal/Installation

Figure 401 - Sheet 2



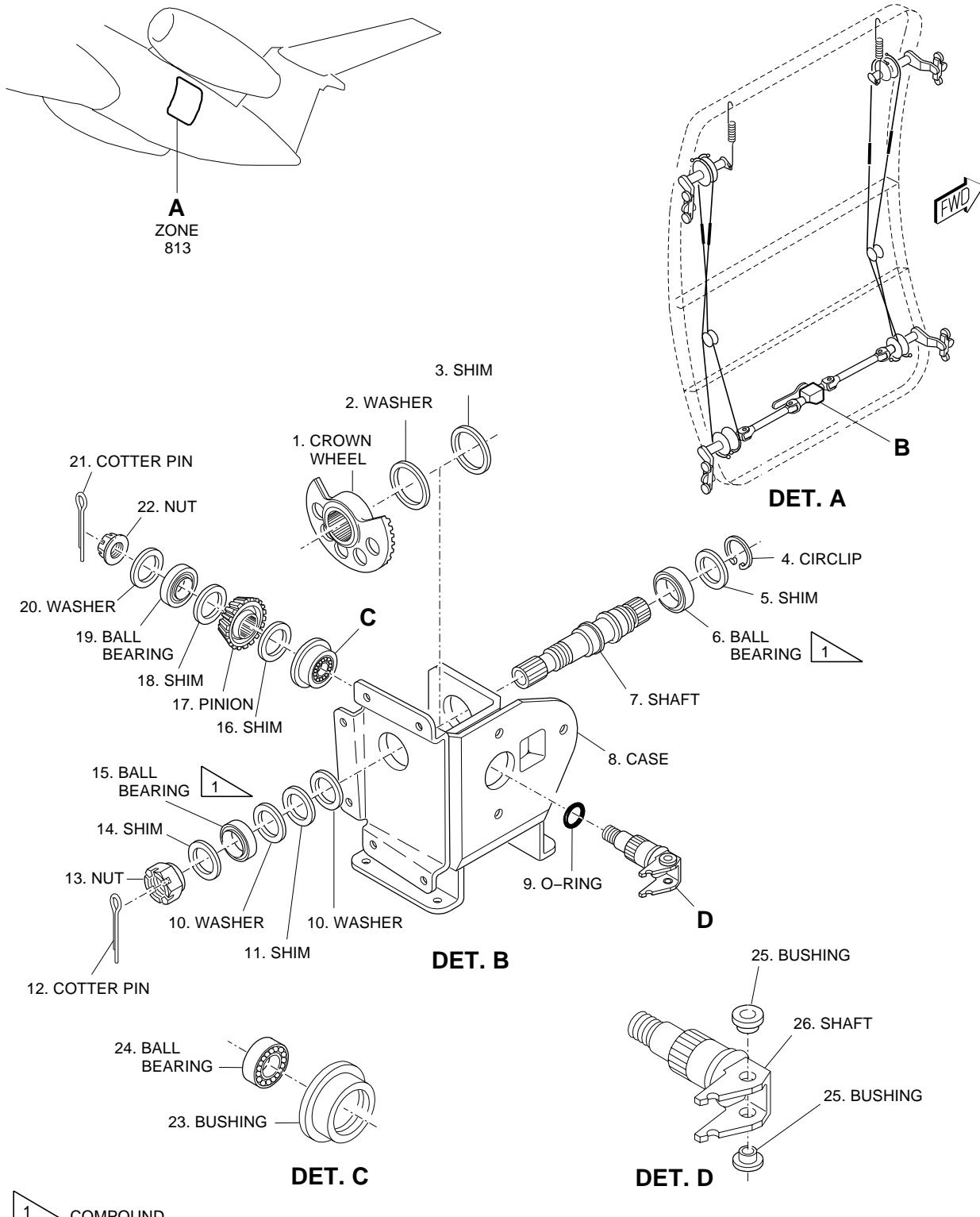
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EFFECTIVITY: ALL
Gear Box - Installation
Figure 402

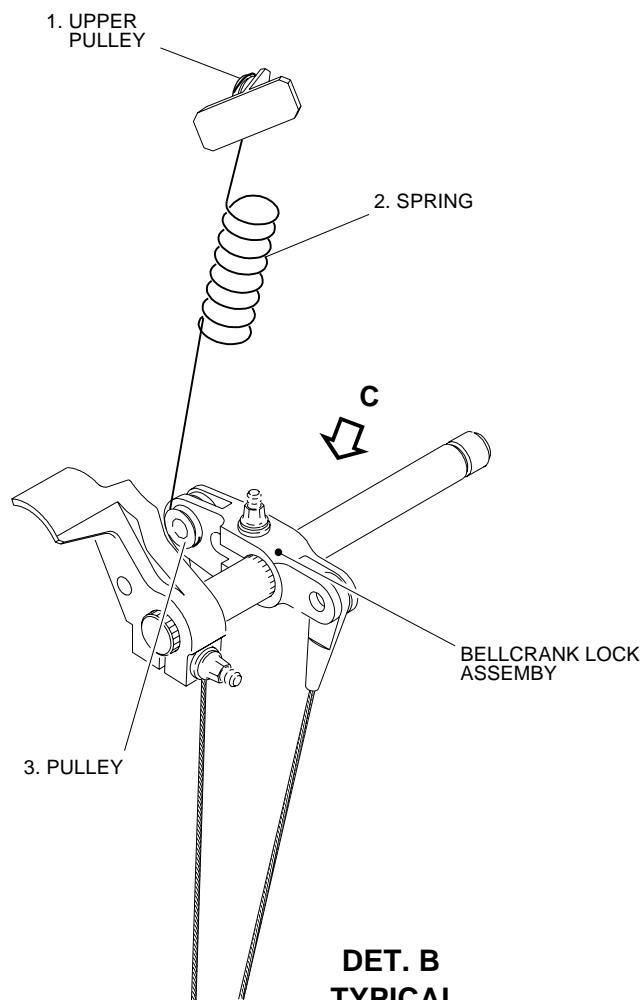
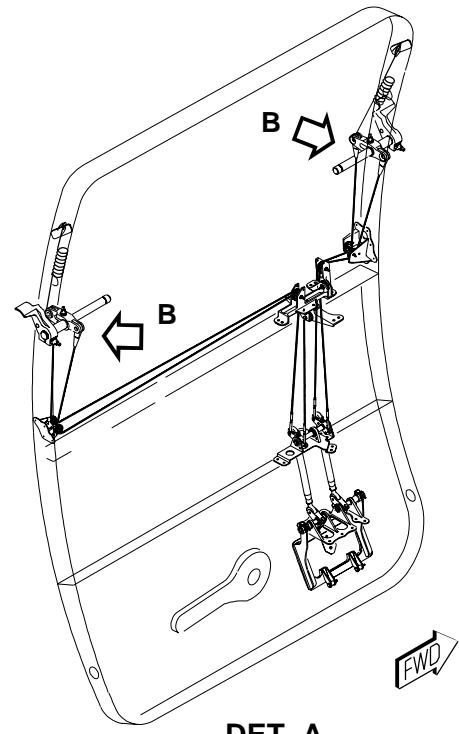
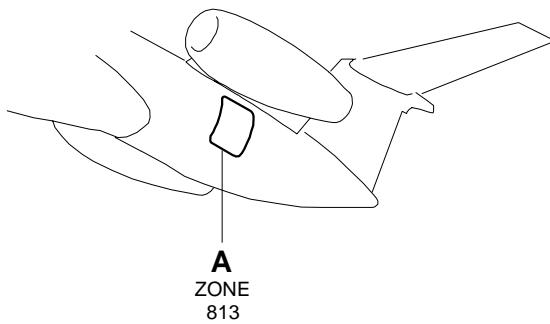


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EFFECTIVITY: ALL
Gear Box - Disassembly/Assembly
Figure 403



EM145AMM520646C.DGN

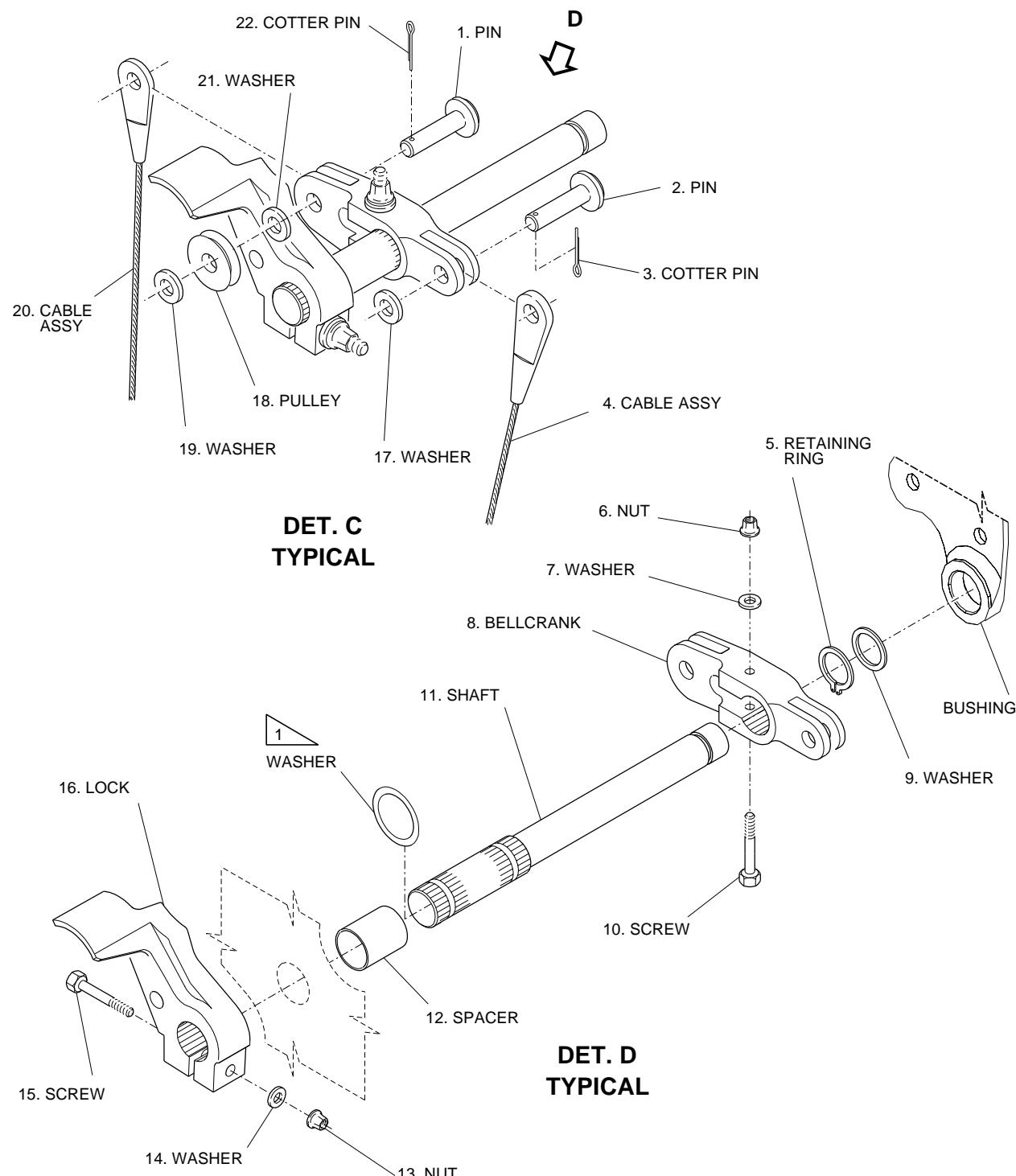
EFFECTIVITY: ALL
Cargo Door Upper Forward and Aft Lock Bellcranks - Removal/Installation
Figure 404 - Sheet 1


EM145AMM520829A.DGN

EFFECTIVITY: ALL

Cargo Door Upper Forward and Aft Lock Bellcranks - Removal/Installation

Figure 404 - Sheet 2



 IF INSTALLED, KEEP THE SAME NUMBER OF WASHER(S) BETWEEN THE BELLCRANK AND SPACER TO PREVENT INTERFERENCE BETWEEN THE CABLES ASSEMBLY WITH THE DOOR STRUCTURE.

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TASK 52-31-00-400-801-A

EFFECTIVITY: ALL

3. BAGGAGE-DOOR ACTUATING AND LOCKING MECHANISM - INSTALLATION

A. General

- (1) This procedure gives the instructions to install the actuating and locking mechanism of the baggage door.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-45-00/100	- COMPONENT LOCATION
AMM TASK 52-30-01-400-801-A/400	BAGGAGE DOOR - INSTALLATION
AMM TASK 52-31-00-600-801-A/300	BAGGAGE DOOR - LUBRICATION
AMM TASK 52-31-00-700-801-A/500	BAGGAGE-DOOR ACTUATING AND LOCKING MECHANISM - OPERATIONAL TEST/ADJUSTMENT
IPC 52-31-00	BAGGAGE DOOR - ACTUATING LOCKING SYSTEM

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Tensiometer (Range: 0-80 lb)	To apply tension to the cables	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
MEP 09-060	Corrosion-Inhibiting Compound (CA-1000)	AR
MEP 10-046	Corrosion-Inhibiting Compound	AR
AMS-S-8802	PR-1422 B-2 Sealant	AR
MIL-PRF-81733	P/S 870 C-12 Interface Sealant	AR

G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
Cotter pin	IPC 52-31-00	7

H. Persons Recommended

<i>QTY</i>	<i>FUNCTION</i>	<i>PLACE</i>
1	Does the task	Baggage door
1	Helps the other technician	Baggage door

I. Installation (Figure 401) (Figure 402) (Figure 403)
SUBTASK 420-002-A

- (1) Install the pulley (3) assemblies in the baggage door as follows:

NOTE: These procedures are applicable to the two pulley (3) assemblies.

- (a) Put the two pulleys (3) on the baggage door structure.

- (b) Install the bolt (27), washer (23), nut (24), and cotter pin (25).

- (2) Assemble the gear box as follows (refer to (Figure 403)):

- (a) Install the bushings (25) on the shaft (26).

- (b) Install the O-ring (9) on the shaft (26).

- (c) Install the ball bearing (24) in the bushing (23).

- (d) Install the bushing (23) in the case (8).

- (e) Put the crown wheel (1), washer (2) (if applicable) and shim (3) in position in the case (8).

- (f) Install the shaft (7) in the case (8).

NOTE: For a correct alignment, let the yellow mark on the crown wheel tooth stay between the two yellow marks on the pinion teeth (refer to (Figure 402)).

- (g) Install the ball bearings (6), shim (5), and ring (4).

- 1 Apply MEP 10-046 CIC (corrosion-inhibitive compound) on all the contour of the ball bearings (6).

- (h) Install the washers (10), shims (11) and (14), ball bearing (15) and nut (13).

- 1 Apply MEP 10-046 CIC (corrosion-inhibitive compound) on all the contour of the ball bearings (15).

NOTE: Adjust the shims (5), (3), (11) and (14) to permit the free movement of the shaft (26). Make sure that the shaft (7) does not touch the shaft (26).

- (i) Use the torque wrench to torque the nut (13) from 1.0 N.m (8.85 lb.in) to 1.2 N.m (10.62 lb.in).

- (j) Install a new cotter pin (12).

- (k) Install the shaft (26) in the case (8).

- (l) Install the shims (16) and (18), pinion (17), ball bearing (19), washer (20) and nut (22).

NOTE: Adjust the shims (16) and (18) to permit the free movement of the shaft (26).

- (m) Use the torque wrench to torque the nut (22) from 0.4 N.m (3.54 lb.in) to 0.6 N.m (5.31 lb.in).

- (n) Install a new cotter pin (21).

- (o) Lubricate crown wheel (1) and pinion (7) with Aeroshell grease 7.

- (3) Install the gear box (5) in the baggage door as follows:

- (a) Apply interface sealant P/S 870 C-12 and put the gear box (5) and shims (19) and (22) in the baggage door structure.

- (b) Install the bolts (17) and washers (18) (11 positions) to attach the gear box (5) to the structure of the baggage door.

- (c) Put the plate (9) on the skin of the baggage door and attach it with the screws (8) (3 positions).

- (d) Apply sealant PR1422 B-2 on the screw ends and nuts, and along the contour of the support of the gear box (5). Refer to (Figure 402).

- (e) Put the bushing (15), spring (16), and actuating handle (13), and attach them with the bolt (14), washer (12), nut (11), and cotter pin (10).

- (f) Make sure that the gear wheel and pinion of the gear box (5) are engaged correctly. Refer to (Figure 402).

NOTE: The yellow marks of the gear wheel and pinion must be aligned.

- (g) Keep the gear box (5) with the gear wheel and pinion aligned.

- (h) Put the torque tubes (47) (2 positions, refer to DET. E) on the shafts of the gear box and attach them with the screws (7) and (21), and nuts (6) and (20).

- (4) Install the lower bellcranks (4) as follows:

NOTE: These procedures are applicable to the two lower bellcranks (4).

- (a) Install the pulleys (42) and bushing (41) in the baggage door structure.

- (b) Put the lower bellcrank (4) in the baggage door structure.

- (c) Install the washer (43), nut (44), and cotter pin (45) to attach the lower bellcrank (4).

- (d) Connect the torque tube (47) to the shaft of the lower bellcrank (4).

- (e) Install the bolt (48) and nut (46) to attach the torque tube (47).

- (5) Install the upper bellcranks (2) as follows:

NOTE: These procedures are applicable to the two upper bellcranks (2).

- (a) Install the pulleys (37) and bushing (38) in the baggage door structure.
- (b) Put the upper bellcrank (2) in the baggage door structure.
- (c) Put the washer (35) and bellcrank (34) on the shaft of the upper bellcrank (2).
- (d) Install the washer (31), nut (32), and cotter pin (33) to attach the upper bellcrank (2).
- (6) Connect the turnbuckle (30) to connect the cables (36) and (49) (2 positions).
- (7) Connect the turnbuckle (29) to connect the cables (28) and (50) (2 positions).
- (8) Install the guard pin (40) of the pulleys (42) in the area adjacent to the lower bellcrank (4) (2 positions).
- (9) Install the guard pin (39) of the pulleys (37) in the area adjacent to the upper bellcrank (2) (2 positions).
- (10) Install the guard pin (26) of the pulleys (3) (2 positions).
- (11) Connect the spring (1) to the upper bellcrank (2) (2 positions).

SUBTASK 420-004-A

- (12) Install the upper forward and aft lock bellcranks (8) as follows (Figure 404):

WARNING: MAKE SURE THAT THE SPLINES OF THE SHAFT AND BELLCRANK ARE ALIGNED DURING INSTALLATION. DO NOT USE FORCE WHEN YOU ASSEMBLE THESE PARTS. THIS IS TO PREVENT DAMAGE TO THE PARTS.

- (a) Move the shaft (11) to the side so that you can install the spacer (12), washers (as applicable) and bellcrank (8).

NOTE: Install the bellcrank (8) in the same orientation and with the same number of washers (if existing) between the bellcrank (8) and spacer (12) as it was before the removal procedure.

- (b) Install the retaining ring (5) and washer (9) on the shaft (11).
- (c) Move the shaft (11) until it engages in the lock (16) and bushing.

NOTE: Make sure that one side is engaged in the lock (16) and that the opposite side is engaged in the bushing.

WARNING: MAKE SURE THAT THE SLOT HOLES OF THE SHAFT AND BELLCRANK ARE ALIGNED DURING INSTALLATION. DO NOT USE FORCE WHEN YOU ASSEMBLE THESE PARTS. THIS IS TO PREVENT DAMAGE TO THE PARTS.

- (d) Install the screw (10), washer (7) and nut (6) to attach the bellcrank (8) to the shaft (11).



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- (e) Attach the screw (15), washer (14) and nut (13) to safety the lock (16) on the shaft (11).
- (f) Put the cable assembly (20) in position on the bellcrank (8).
- (g) Install the pin (1), washers (19) and (21), and pulley (18) to install the cable assembly (20) on the bellcrank (8).
- (h) Safety the pin (1) with the cotter pin (22).
- (i) Put the cable assembly (4) in position on the bellcrank (8).
- (j) Install the pin (2) and washer (17) to install the cable assembly (4) on the bellcrank (8).
- (k) Safety the pin (2) with the cotter pin (3).
- (l) Put the spring (2) in position on the assembly and install it on the upper pulley (1) and pulley (3).

NOTE: Install the spring (2) in the same orientation as it was before the removal procedure.

J. Follow-on

SUBTASK 842-002-A

- (1) Apply a tension of 70 ± 5 lb to the cables of the actuating and locking mechanism of the baggage door, with the baggage door closed.
- (2) Lubricate the gear box of the baggage door ([AMM TASK 52-31-00-600-801-A/300](#)).
- (3) Install the baggage door ([AMM TASK 52-30-01-400-801-A/400](#)).
- (4) Do an operational check of the actuating and locking mechanism of the baggage door ([AMM TASK 52-31-00-700-801-A/500](#)).
- (5) Install the lining panels of the baggage door ([AMM MPP 06-45-00/100](#)).
- (6) Close the baggage door.