

RUDDER CONTROL CABLES - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to remove and install the control cables of the rudder control system.
- 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
27-21-01-000-801-A	RUDDER CONTROL CABLES - REMOVAL	ALL
27-21-01-400-801-A	RUDDER CONTROL CABLES - INSTALLATION	ALL
27-21-01-000-802-A	AUTOPILOT CONTROL CABLE - REMOVAL	ALL
27-21-01-400-802-A	AUTOPILOT CONTROL CABLE - INSTALLATION	ALL

TASK 27-21-01-000-801-A

EFFECTIVITY: ALL

2. RUDDER CONTROL CABLES - REMOVAL

A. General

- (1) This procedure gives the instructions to remove the control cables of the rudder control system.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM MPP 06-41-02/100	-
AMM MPP 06-42-00/100	-
AMM MPP 28-00-00/200	- MAINTENANCE PRACTICES
AMM TASK 12-11-01-600-802-A/300	FUEL-TANK PRESSURE DEFUELING - SERVICING
AMM TASK 25-21-01-000-801-A/400	-
AMM TASK 25-27-02-000-801-A/400	-
AMM TASK 25-51-01-000-801-A/400	BAGGAGE COMPARTMENT LINING - REMOVAL
IPC 27-21-00	RUDDER PRIMARY MECHANICAL CONTROL

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
123	123BL	Below the cockpit floor
124		Below the cockpit floor
131		Below the passenger cabin floor
132		Below the passenger cabin floor
141		Below the passenger cabin floor
142		Below the passenger cabin floor
151		Below the passenger cabin floor
152		Below the passenger cabin floor
153		Below the passenger cabin floor
154		Below the passenger cabin floor
155	155BZ	LH Wing stub
155	155CZ	LH Wing stub
155	155FZ	LH Wing stub
155	155LZ	LH Wing stub
156	156BZ	RH Wing stub
156	156CZ	RH Wing stub
156	156FZ	RH Wing stub
156	156LZ	RH Wing stub

(Continued)

<i>ZONE</i>	<i>PANEL/DOOR</i>	<i>LOCATION</i>
161		Below the passenger cabin floor
162		Below the passenger cabin floor
171		Below the baggage compartment floor
172		Below the baggage compartment floor
192	192AL	Center lower fairing
192	192BR	Center lower fairing
193	193AL	Aft lower fairing
221	221GF	Below the cockpit floor
231	231BF	Below the passenger cabin floor
231	231FF	Below the passenger cabin floor
231	231GF	Below the passenger cabin floor
241	241BF	Below the passenger cabin floor
241	241DF	Below the passenger cabin floor
251	251BF	Below the passenger cabin floor
251	251DF	Below the passenger cabin floor
251	251FF	Below the passenger cabin floor
251	251HF	Below the passenger cabin floor
261	261BF	Below the passenger cabin floor
261	261DF	Below the passenger cabin floor
271	271AF	Baggage compartment floor
271	271BF	Baggage compartment floor
271	271CF	Baggage compartment floor
271	271DF	Rear electronic compartment floor
271	271EF	Rear electronic compartment floor
271		Baggage compartment ceiling
272		Baggage compartment ceiling
273		Baggage compartment ceiling
312	272DR	Structural area aft of rear pressure bulk-head
312	312AR	Structural area aft of rear pressure bulk-head
321	321	RH Tail boom

D. Tools and Equipment

<i>ITEM</i>	<i>DESCRIPTION</i>	<i>PURPOSE</i>	<i>QTY</i>
GSE 058	Kit, Rig Pins	To lock the rudder control system in the neutral position	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
Cotter pin	IPC 27-21-00	AR
Locking clip	IPC 27-21-00	AR
Pressure seal	IPC 27-21-00	8

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Below the floor of cockpit, passenger cabin, and baggage compartment
1	Helps the other technician	Below the floor of cockpit, passenger cabin, and baggage compartment

I. Preparation

SUBTASK 841-002-A

- (1) Make sure that the aircraft is safe for maintenance.
- (2) Make sure that the hydraulic system is not pressurized.

WARNING: BEFORE YOU DO THE TASK, OBEY THE SAFETY PRECAUTIONS GIVEN IN [AMM MPP 28-00-00/200](#) TO PREVENT INJURY TO PERSONS AND DAMAGE TO MATERIAL

- (3) Make sure that the aircraft is defueled ([AMM TASK 12-11-01-600-802-A/300](#)) for all wet stub wing.
- (4) On the Circuit Breaker Panel, open the AP1 circuit breaker and attach a DO-NOT-CLOSE tag to it.
- (5) Remove cockpit underfloor access hatch 123BL (AMM MPP 06-41-01/100).
- (6) Open door 272DR (AMM MPP 06-41-01/100).
- (7) Open door 312AR (AMM MPP 06-42-00/100).
- (8) Remove access panels 192AL, 192BR, 155BZ, 155CZ, 155FZ, 155LZ, 156BZ, 156CZ, 156FZ and 156LZ (AMM MPP 06-41-01/100).
- (9) Remove the passenger seats (AMM TASK 25-21-01-000-801-A/400).
- (10) Remove the cable protection shroud (AMM TASK 25-27-02-000-801-A/400).

- (11) Remove floor panels 221GF, 231BF, 231FF, 231GF, 241BF, 241DF, 251BF, 251DF, 251FF, 251HF, 261BF, 261DF, 271AF, 271BF, 271CF, 271DF and 271EF (AMM MPP 06-41-02/100).
- (12) Remove the baggage compartment ceiling ([AMM TASK 25-51-01-000-801-A/400](#)).
- (13) Install the rig pins to the rudder control system to lock it in the neutral position.

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

SUBTASK 020-002-A

CAUTION: IDENTIFY THE POSITIONS OF THE CONTROL CABLES TO INSTALL THEM AGAIN IN THE SAME POSITIONS.

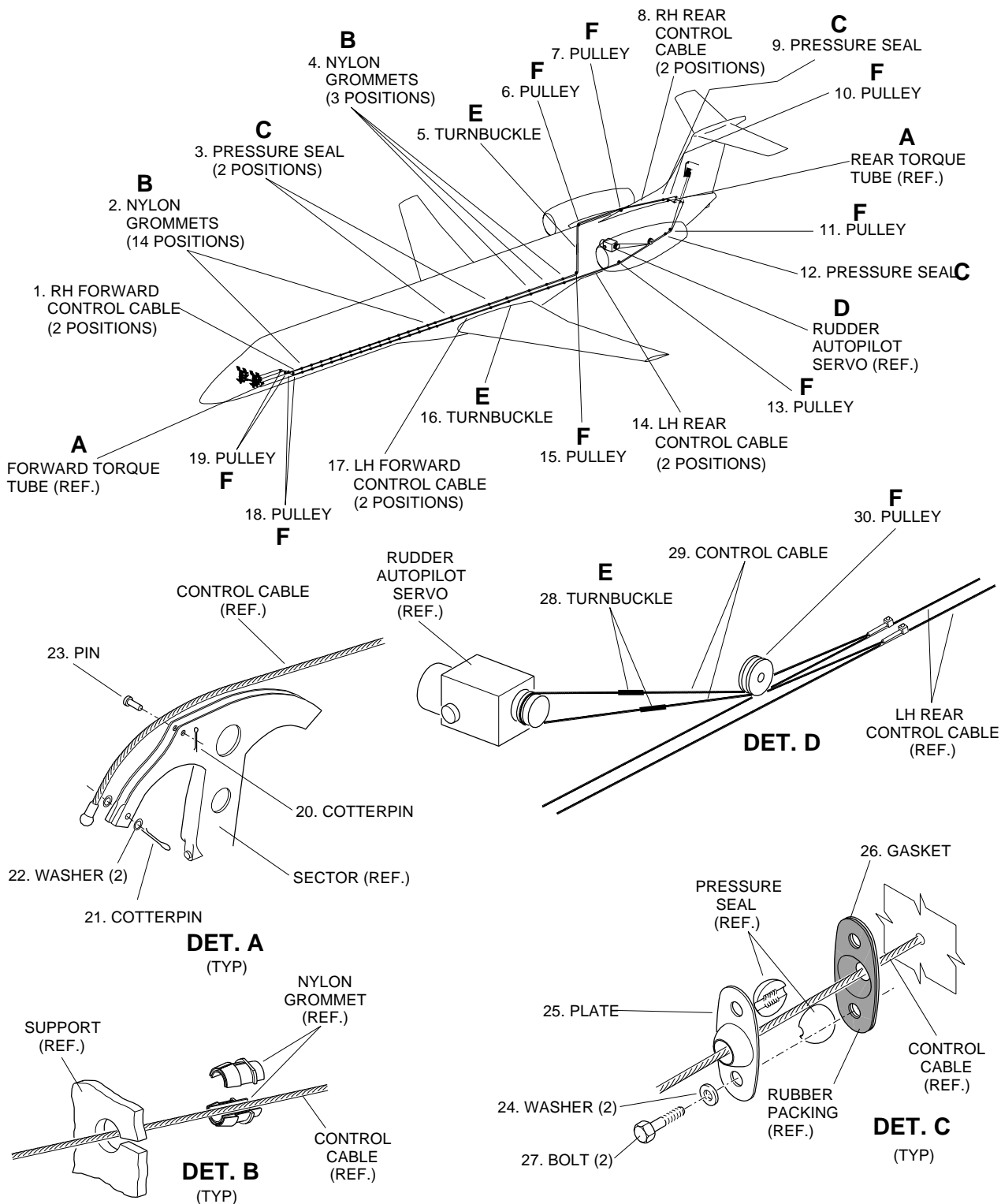
- (1) Remove the LH forward control cables (17) as follows:
NOTE: These procedures are applicable to the two LH forward control cables (17).
 - (a) Release the tension of the LH forward control cable (17).
 - (b) Remove the cable guard (32) (DET. F) from the pulleys (19) and (18).
 - (c) Disconnect the end of the LH forward control cable (17) from the LH rear control cable (14). To do this, remove and discard the locking clips (31) (DET. E) and disconnect the turnbuckle (16).
 - (d) Disconnect the other end of the LH forward control cable (17) from the sector at the forward torque tube. To do this, remove and discard the cotter pins (20) and (21) and remove pin (23) and washers (22) (refer to DET. A).
 - (e) Remove the grommets (2) (14 positions) and (4) (3 positions) and release the LH forward control cable (17) from the supports.
 - (f) Remove the two bolts (27) and washers (24), plate (25), pressure seal (3) and gasket (26) (2 positions) (DET. C). Discard the pressure seal (3).
 - (g) Remove the LH forward control cable (17).
- (2) Remove the LH rear control cable (14) as follows:
NOTE: These procedures are applicable to the two LH rear control cables (14).
 - (a) Release the tension of the LH rear control cable (14).
 - (b) Remove the cable guard (32) (DET. F) from the pulleys (11) and (13).
 - (c) Disconnect the end of the LH rear control cable (14) from the LH forward control cable (17). To do this, remove and discard the locking clips (31) (DET. E) and disconnect the turnbuckle (16).
 - (d) Disconnect the other end of the LH rear control cable (14) from the sector at the rear torque tube. To do this, remove and discard the cotter pins (20) and (21) and remove pin (23) and washers (22) (refer to DET. A).
 - (e) Remove the cable guard (32) (DET. F) from the pulley (30) (DET. D).

- (f) Disconnect the control cable (29) from the control cable of the rudder autopilot servo. To do this, remove and discard the locking clips (31) (DET. E) and disconnect the turnbuckle (28).
 - (g) Remove the two bolts (27) and washers (24), plate (25), pressure seal (12) and gasket (26) (DET. C). Discard the pressure seal (12).
 - (h) Remove the LH rear control cable (14).
- (3) Remove the RH forward control cable (1) as follows:
- NOTE: These procedures are applicable to the two RH forward control cables (1).
- (a) Release the tension of the RH forward control cable (1).
 - (b) Remove the cable guard (32) (DET. F) from the pulleys (19), (18) and (15).
 - (c) Disconnect the end of the RH forward control cable (1) from the RH rear control cable (8). To do this, remove and discard the locking clips (31) (DET. E) and disconnect the turnbuckle (5).
 - (d) Disconnect the other end of the RH forward control cable (1) from the sector at the forward torque tube. To do this, remove and discard the cotter pins (20) and (21) and remove pin (23) and washers (22) (refer to DET. A).
 - (e) Remove the grommets (2) (14 positions) and (4) (3 positions) and release the RH forward control cable (1) from the supports. Refer to DET. B.
 - (f) Remove the two bolts (27) and washers (24), plate (25), pressure seal (3) and gasket (26) (DET. C). Discard the pressure seal (3).
 - (g) Remove the RH forward control cable (1).
- (4) Remove the RH rear control cable (8) as follows:
- NOTE: These procedures are applicable to the two RH rear control cables (8).
- (a) Release the tension of the RH rear control cable (8).
 - (b) Remove the cable guard (32) (DET. F) from the pulleys (6), (7) and (10).
 - (c) Disconnect the end of the RH rear control cable (8) from the RH forward control cable (1). To do this, remove and discard the locking clips (31) (DET. E) and disconnect the turnbuckle (5).
 - (d) Disconnect the other end of the RH rear control cable (8) from the sector at the rear torque tube. To do this, remove and discard the cotter pins (20) and (21) and remove pin (23) and washers (22) (refer to DET. A).
 - (e) Remove the two bolts (27) and washers (24), plate (25), pressure seal (9) and gasket (26) (DET. C). Discard the pressure seal (9).
 - (f) Remove the RH rear control cable (8).

EFFECTIVITY: ALL

Control Cables of the Rudder Control System - Removal/Installation

Figure 401 - Sheet 1

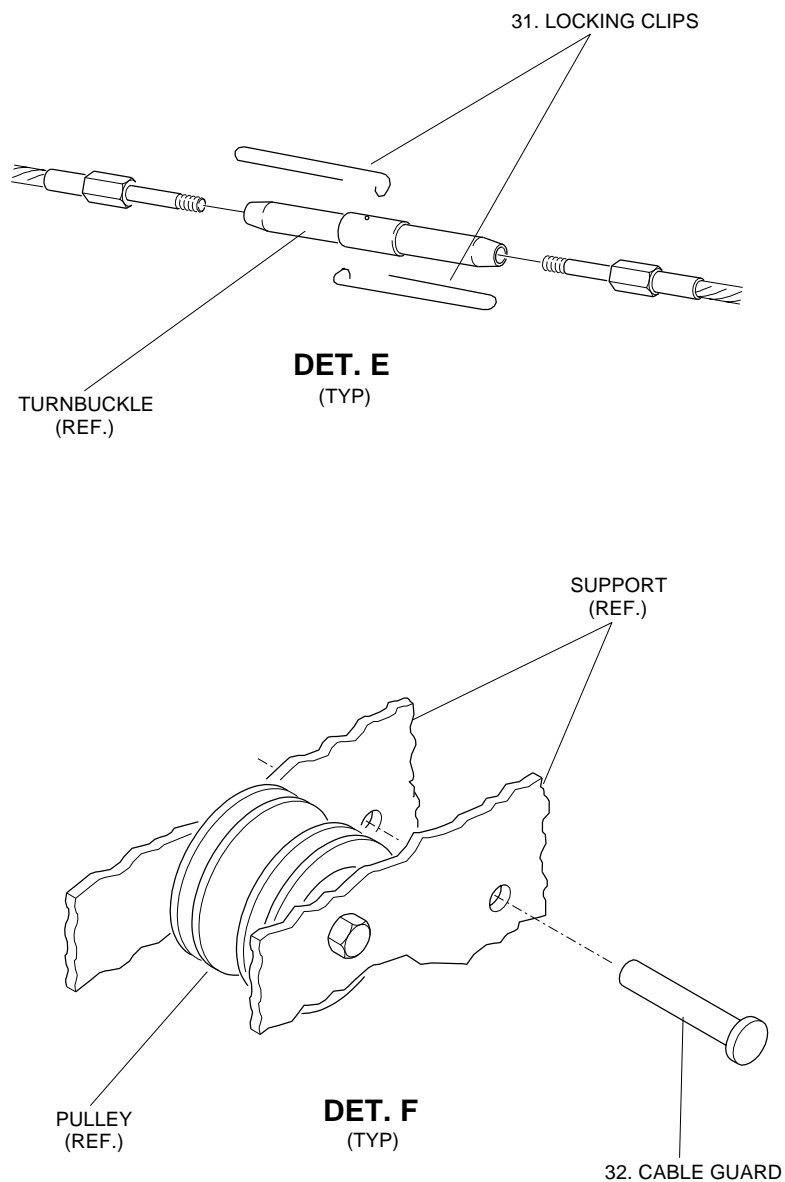


EM145AMM270273C.DGN

EFFECTIVITY: ALL

Control Cables of the Rudder Control System - Removal/Installation

Figure 401 - Sheet 2



EM145AMM270274A.DGN

TASK 27-21-01-400-801-A
EFFECTIVITY: ALL

3. RUDDER CONTROL CABLES - INSTALLATION

A. General

- (1) This procedure gives the instructions to install the control cables of the rudder control system.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM MPP 06-41-02/100	-
AMM MPP 06-42-00/100	-
AMM TASK 12-11-01-600-801-A/300	FUEL-TANK PRESSURE REFUELING - SERVICING
AMM TASK 25-21-01-400-801-A/400	-
AMM TASK 25-27-02-400-801-A/400	-
AMM TASK 25-51-01-400-801-A/400	BAGGAGE COMPARTMENT LINING - INSTALLATION
AMM TASK 27-20-00-700-801-A/500	ADJUSTMENT OF THE RUDDER NEUTRAL POSITION AND DEFLECTIONS OF RUDDER I AND RUDDER II
AMM TASK 27-21-01-700-801-A/500	-
AMM TASK 27-21-01-700-802-A/500	-
AMM TASK 28-41-00-200-801-A/600	-
IPC 27-21-00	RUDDER PRIMARY MECHANICAL CONTROL

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
123	123BL	Below the cockpit floor
124		Below the cockpit floor
131		Below the passenger cabin floor
132		Below the passenger cabin floor
141		Below the passenger cabin floor
142		Below the passenger cabin floor
151		Below the passenger cabin floor
152		Below the passenger cabin floor
153		Below the passenger cabin floor
154		Below the passenger cabin floor
155	155BZ	LH Wing stub
155	155CZ	LH Wing stub
155	155FZ	LH Wing stub
155	155LZ	LH Wing stub

(Continued)

<i>ZONE</i>	<i>PANEL/DOOR</i>	<i>LOCATION</i>
156	156BZ	RH Wing stub
156	156CZ	RH Wing stub
156	156FZ	RH Wing stub
156	156LZ	RH Wing stub
161		Below the passenger cabin floor
162		Below the passenger cabin floor
171		Below the baggage compartment floor
172		Below the baggage compartment floor
192	192AL	Center lower fairing
192	192BR	Center lower fairing
193	193AL	Aft lower fairing
271		Baggage compartment ceiling
272		Baggage compartment ceiling
273		Baggage compartment ceiling
312	272DR	Structural area aft of rear pressure bulk-head
312	312AR	Structural area aft of rear pressure bulk-head
321	321	RH Tail boom

D. Tools and Equipment

<i>ITEM</i>	<i>DESCRIPTION</i>	<i>PURPOSE</i>	<i>QTY</i>
GSE 058	Kit, Rig Pins	To lock the rudder control system in the neutral position	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expendable Parts

<i>ITEM</i>	<i>IPC REFERENCE (VENDOR REFERENCE)</i>	<i>QTY</i>
Cotter pin	IPC 27-21-00	AR
Locking clip	IPC 27-21-00	AR
Pressure seal	IPC 27-21-00	8

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Below the floor of cockpit, passenger cabin, and baggage compartment
1	Helps the other technician	Below the floor of cockpit, passenger cabin, and baggage compartment

I. Installation (Figure 402) (Figure 401)

SUBTASK 420-002-A

CAUTION: THE CONTROL CABLES MUST BE INSTALLED IN THE SAME POSITIONS AS THOSE THEY WERE REMOVED FROM. REFER TO THEIR IDENTIFICATION POSITIONS.

- (1) Install the LH forward control cable (17) as follows:

NOTE: These procedures are applicable to the two LH forward control cables (17).

- (a) Connect the end of the LH forward control cable (17) to the sector at the forward torque tube with washers (22), pin (23) and new cotter pins (20) and (21) (refer to DET. A).
- (b) Put the LH forward control cable (17) on the pulleys (19) and (18).
- (c) Put the LH forward control cable (17) in the supports along the fuselage (17 positions).
- (d) Put the LH forward control cable (17) through the wing stub and put the gaskets (26) and plates (25) on it.
- (e) Connect the other end of the LH forward control cable (17) to the LH rear control cable (14) through the turnbuckle (16).
- (f) If the pulleys are of the cable guarded type, install the cable guard (32) (DET. F) to the pulleys (19) and (18).
- (g) Put a new pressure seal between the plate (25) and gasket (26) on the control cable. Refer to DET. C.

NOTE: To prevent air leakage, make sure that the rubber with smaller diameter of the control cable is turned to the semi-sphere seal.

- (h) Finger-tighten the bolts of the pressure seal (27) with their washers (24).
- (i) Install the grommets (2) (14 positions) and (4) (3 positions) in the supports along the fuselage. Refer to DET. B.
- (j) Make sure that there is no interference between the LH forward rudder control cable and the forward aileron torque tube. Refer to Figure 402.

- (2) Install the LH rear control cable (14) as follows:

NOTE: • These procedures are applicable to the two LH rear control cables (14).

- During the cables installation, make sure that the control cables are not twisted.

- Connect the end of the LH rear control cable (14) to the sector at the rear torque tube with washers (22), pin (23) and new cotter pins (20) and (21) (refer to DET. A).
- Put the LH rear control cable (14) on the pulley (11).
- Put the gasket (26) and plate (25) on the LH rear control cable (14).
- Put the LH rear control cable (14) on the pulley (13).
- Connect the other end of the LH rear control cable (14) to the LH forward control cable (17) through the turnbuckle (16).

NOTE: Make sure that the control cables are not twisted.

- Install the cable guard (32) (DET. F) to the pulleys (11) and (13).
- Put a new pressure seal between the plate (25) and gasket (26) on the control cable. Refer to DET. C.

NOTE: To prevent air leakage, make sure that the rubber with smaller diameter of the control cable is turned to the semi-sphere seal.

- Finger-tighten the bolts of the pressure seal (27) with its washers (24).

- Install the RH forward control cable (1) as follows:

NOTE: These procedures are applicable to the two RH forward control cables (1).

- Connect the end of the RH forward control cable (1) to the sector at the forward torque tube with washers (22), pin (23) and new cotter pins (20) and (21) (refer to DET. A).
- Put the RH forward control cable (1) on the pulleys (19) and (18).
- Put the RH forward control cable (1) in the supports along the fuselage (17 positions).
- Put the RH forward control cable (1) through the wing stub and put the gaskets (26) and plates (25) on it.
- Put the RH forward control cable (1) on the pulley (15).
- Connect the other end of the RH forward control cable (1) to the RH rear control cable (8) through the turnbuckle (5).
- If the pulleys are of the cable guarded type, install the cable guard (32) (DET. F) to the pulleys (19), (18) and (15).
- Put a new pressure seal between the plate (25) and gasket (26) on the control cable. Refer to DET. C.
- Finger-tighten the bolts (27) with their washers (24).

- (j) Install the grommets (2) (14 positions) and (4) (3 positions) in the supports along the fuselage. Refer to DET. B.
- (k) Make sure that there is no interference between the RH forward rudder control cable and the forward aileron torque tube. Refer to [Figure 402](#).
- (4) Install the RH rear control cable (8) as follows:
- NOTE:**
- These procedures are applicable to the two RH rear control cables (8).
 - During the cables installation, make sure that the control cables are not twisted.
- (a) Connect the end of the RH rear control cable (8) to the sector at the rear torque tube with washers (22), pin (23) and new cotter pins (20) and (21) (refer to DET. A).
- (b) Put the RH rear control cable (8) on the pulley (10).
- (c) Put the gasket (26) and plate (25) on the RH rear control cable (8).
- NOTE:** To prevent air leakage, make sure that the rubber with smaller diameter of the control cable is turned to the semi-sphere seal.
- (d) Put the RH rear control cable (8) on the pulleys (7) and (6).
- (e) Connect the other end of the RH rear control cable (8) to the RH forward control cable (1) through the turnbuckle (5).
- NOTE:** Make sure that the control cables are not twisted.
- (f) Put a new pressure seal between the plate (25) and gasket (26) on the control cable. Refer to DET. C.
- (g) Finger-tighten the bolts (27) with their washers (24).
- (h) Install the cable guard (32) to the pulleys (10), (7) and (6).
- (5) Using the turnbuckle, stretch the control cable, but do not apply final tension at this time.
- (6) Remove the rig pins from the rudder control system.
- (7) Move the rudder pedal to the left and right to align the pressure seals with the cable.
- (8) Tighten the bolt (27) until it touches the structure surface and turn the bolt (27) by a 1/4 turn more.
- NOTE:** Make sure that the pressure seals are aligned with the cable and there is no friction between the control cable and the plate to prevent jamming and wear.
- (9) Install the rig pins from the rudder control system.
- (10) Put the control cable (29) on the pulley (30). Refer to DET. D.
- (11) Install the cable guard (32) (DET. F) to the pulley (30) (DET. D).

- (12) Connect the control cable (29) to the control cable of the rudder autopilot servo through the turnbuckle (28). Refer to DET. D.

J. Follow-on

SUBTASK 842-002-A

- (1) Remove the rig pins from the rudder control system.
- (2) Apply tension to the control cables of the rudder control system. Refer to AMM TASK 27-21-01-700-801-A/500.

NOTE: For new cables, check the tension of the rudder control cable according to the interval determined in the MRB.

- (3) Apply tension to the control cables of the rudder autopilot system (AMM TASK 27-21-01-700-802-A/500).
- (4) Install new locking clips (31) (refer to Figure 401, DET. E) to the turnbuckles of the rudder control cables.
- (5) On the Circuit Breaker Panel, close the AP1 circuit breaker and remove the DO-NOT-CLOSE tag from it.
- (6) Do a check on the rudder control system ([AMM TASK 27-20-00-700-801-A/500](#)).
- (7) Do an inspection on the fuel quantity indication harness (AMM TASK 28-41-00-200-801-A/600).

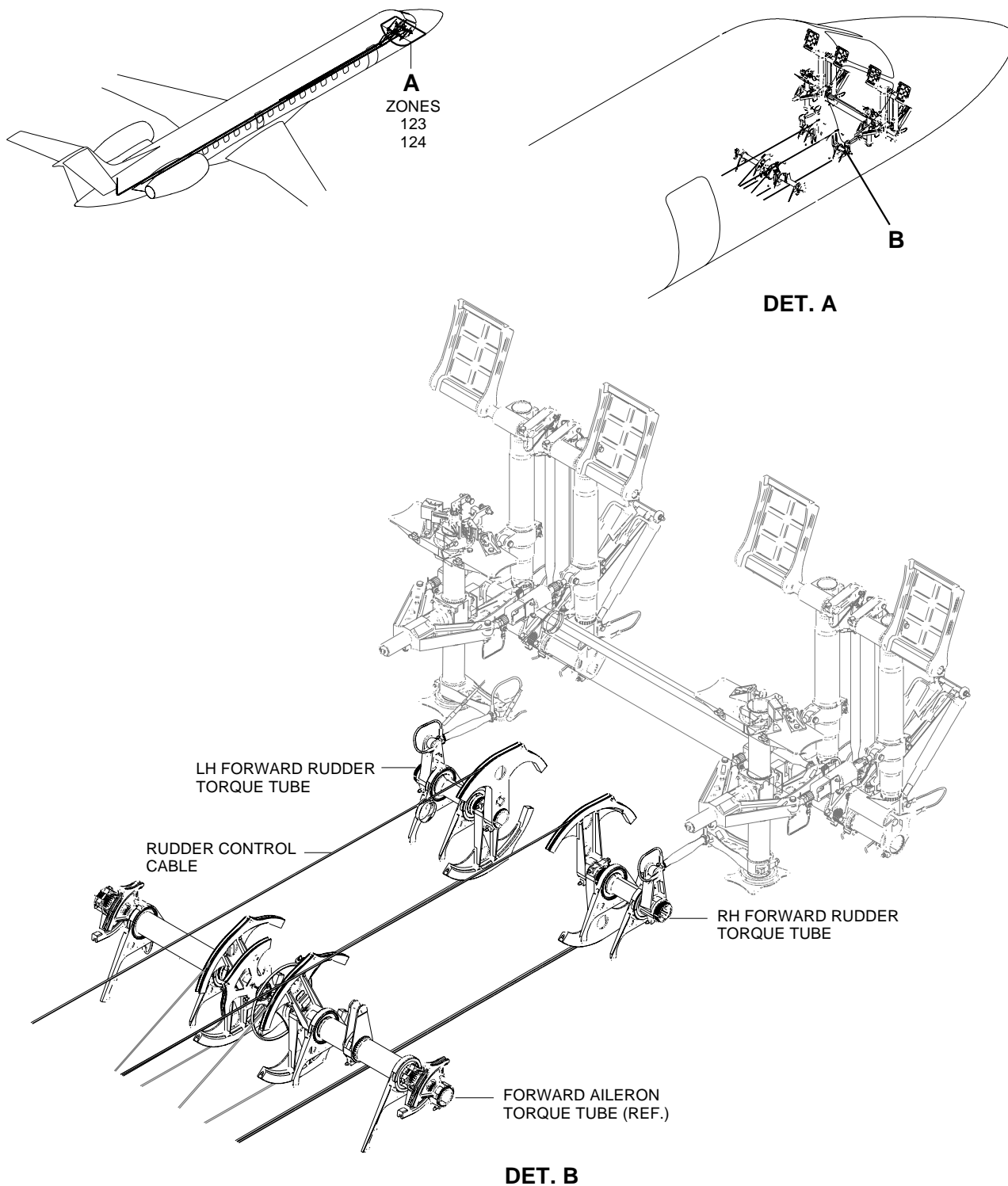
NOTE: The inspection of fuel quantity indication harness is a part of Critical Design Configuration Control Limitations (CDCCL) in the Airworthiness Limitations (Section 6) of the Maintenance Review Board Report (MRB).

- (8) Install floor panels 221GF, 231BF, 231FF, 231GF, 241BF, 241DF, 251BF, 251DF, 251FF, 251HF, 261BF, 261DF, 271AF, 271BF, 271CF, 271DF, and 271EF (AMM MPP 06-41-02/100).
- (9) Install the cable protection shroud (AMM TASK 25-27-02-400-801-A/400).
- (10) Install the passenger seats (AMM TASK 25-21-01-400-801-A/400).
- (11) Install the baggage compartment ceiling ([AMM TASK 25-51-01-400-801-A/400](#)).
- (12) Install cockpit underfloor access hatch 123BL (AMM MPP 06-41-01/100).
- (13) Close door 272DR (AMM MPP 06-41-01/100).
- (14) Close door 312AR (AMM MPP 06-42-00/100).
- (15) Install access panels 192AL, 192BR, 155BZ, 155CZ, 155FZ, 155LZ, 156BZ, 156CZ, 156FZ and 156LZ (AMM MPP 06-41-01/100).
- (16) Refuel the aircraft with wet stub wing. Refer to [AMM TASK 12-11-01-600-801-A/300](#)

EFFECTIVITY: ALL

Control Cables of the Rudder Control System - Installation

Figure 402



EM145AMM270872A.DGN

TASK 27-21-01-000-802-A

EFFECTIVITY: ALL

4. AUTOPILOT CONTROL CABLE - REMOVAL

A. General

- (1) This procedure gives the instructions to remove the control cables of the autopilot control system.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
IPC 22-10-05	RUDDER SERVO
IPC 27-21-00	RUDDER PRIMARY MECHANICAL CONTROL

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
123	123BL	Area below the cockpit floor
271	271EF	Rear fuselage
272	272DR	Rear electronic compartment

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 058	Kit, rig pins, flight controls	To lock the rudder system in the neutral position	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
Cotter pin	IPC 27-21-00	AR
Locking clip	IPC 22-10-05	4

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Fuselage
1	Helps the other technician	Fuselage

I. Preparation

SUBTASK 841-003-A

- (1) On the Circuit Breaker Panel, open the AP1 circuit breaker and attach a DO-NOT-CLOSE tag to it.
- (2) Remove cockpit underfloor access hatch 123BL (AMM MPP 06-41-01/100).
- (3) Remove access door 272DR (AMM MPP 06-41-01/100).
- (4) Remove access door 271EF (AMM MPP 06-41-01/100).
- (5) Install the rig pins to the rudder control system to lock it in the neutral position.

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

SUBTASK 020-003-A

CAUTION: IDENTIFY THE POSITIONS OF THE CONTROL CABLES TO INSTALL THEM AGAIN IN THE SAME POSITIONS.

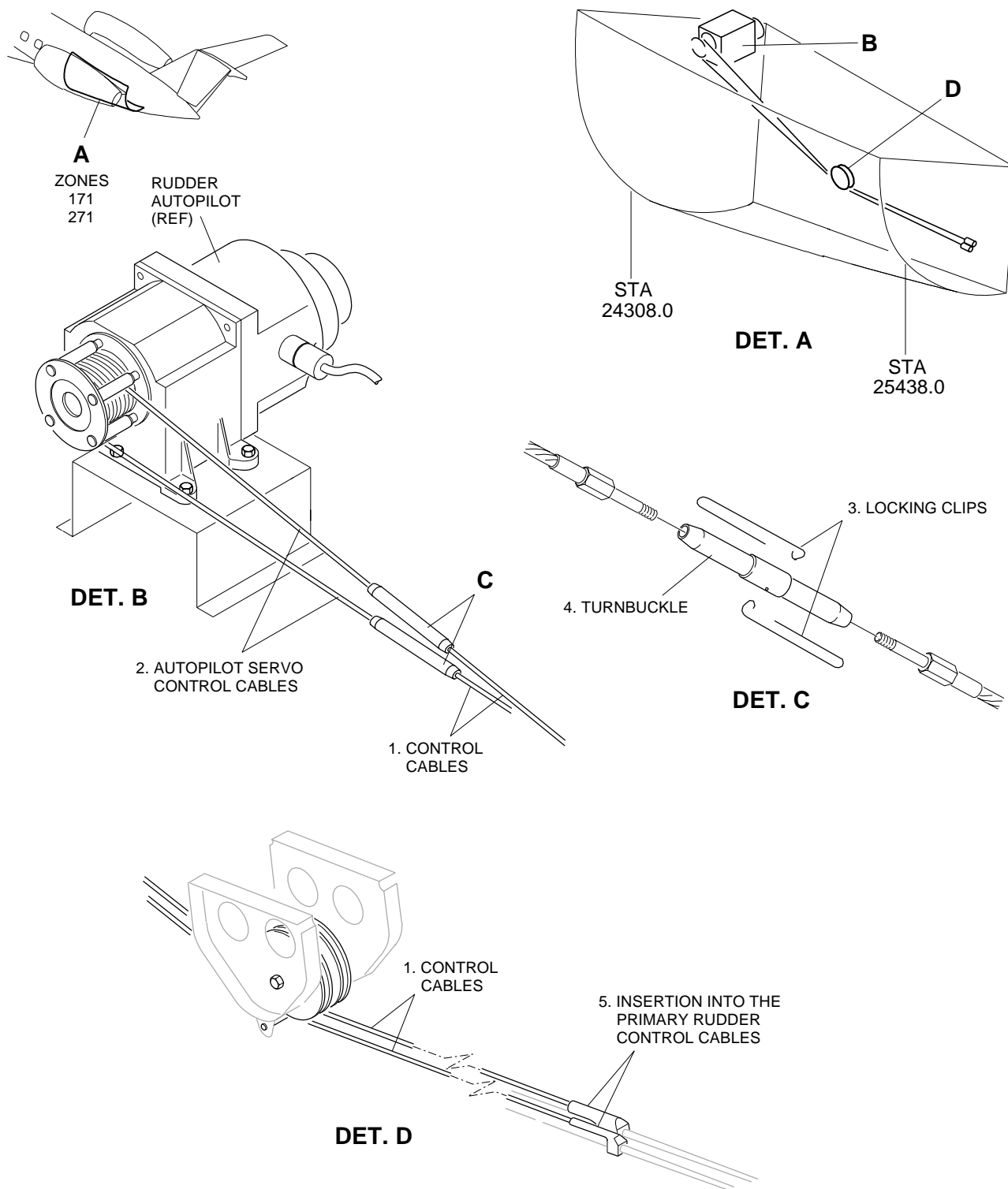
NOTE: These procedures are applicable to the two autopilot control cables (1).

- (1) Release the tension of the autopilot rudder control cables (1).
- (2) Disconnect the end of the autopilot rudder control cables (1) from the autopilot servo control cables (3). For this, remove and discard the locking clips (2) and disconnect the turnbuckle (4).
- (3) Disconnect the other end of the autopilot rudder control cables (1) from the point of the insertion into the primary rudder control cables, refer to DET. D.
- (4) Remove the autopilot rudder control cables (1).

EFFECTIVITY: ALL

Autopilot Control Cable - Installation

Figure 403



EM145AMM270802A.DGN

TASK 27-21-01-400-802-A
EFFECTIVITY: ALL

5. AUTOPILOT CONTROL CABLE - INSTALLATION

A. General

- (1) This procedure gives the instructions to install the control cables of the autopilot control system.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM TASK 27-21-01-700-802-A/500	-
IPC 22-10-05	RUDDER SERVO
IPC 27-21-00	RUDDER PRIMARY MECHANICAL CONTROL

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
123	123BL	Area below the cockpit floor
271	271EF	Rear fuselage
272	272DR	Rear electronic compartment

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 058	Kit, rig pins, flight controls	To lock the rudder system in the neutral position	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
Cotter pin	IPC 27-21-00	AR
Locking clip	IPC 22-10-05	4

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Fuselage
1	Helps the other technician	Fuselage

I. Installation (Figure 403)

SUBTASK 420-003-A

CAUTION: THE CONTROL CABLES MUST BE INSTALLED IN THE SAME POSITIONS AS THOSE THEY WERE REMOVED FROM. REFER TO THEIR IDENTIFICATION POSITIONS.

- NOTE:**
- These procedures are applicable to the two autopilot rudder control cables (1).
 - Make sure that the rudder main control cables are installed and adjusted.

- (1) Connect the end of the autopilot rudder control cables (1) to the point of the insertion into the primary rudder control cable, refer to DET. D.
- (2) Connect the other end of the autopilot rudder control cables (1) to the autopilot servo control cables (3) through the turnbuckle (4).

J. Follow-on

SUBTASK 842-003-A

- (1) Remove the rig pins from the rudder control system.
- (2) Apply tension to the control cables of the autopilot control system (AMM TASK 27-21-01-700-802-A/500).
- (3) Install new locking clips (2) to the turnbuckle (4). Refer to DET. C.
- (4) On the Circuit Breaker Panel, close the AP1 circuit breaker and remove the DO-NOT-CLOSE tag from it.
- (5) Install cockpit underfloor access hatch 123BL (AMM MPP 06-41-01/100).
- (6) Install access door 271EF 271EF (AMM MPP 06-41-01/100).
- (7) Install access door 272DR 272DR (AMM MPP 06-41-01/100).