



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

FRICTION LOCK ASSEMBLY - ADJUSTMENT/TEST

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to do the check and adjustment of the friction lock assembly.
- 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
76-11-04-700-801-A ♦	FRICTION LOCK ASSEMBLY - FUNCTIONAL CHECK	ALL
76-11-04-820-801-A	FRICTION LOCK ASSEMBLY - ADJUSTMENT	ALL



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 76-11-04-700-801-A

EFFECTIVITY: ALL

2. FRICTION LOCK ASSEMBLY - FUNCTIONAL CHECK

A. General

- (1) This task gives the instructions to measure the thrust-lever friction value and make sure that the friction lock assembly is correctly adjusted.

B. References

REFERENCE	DESIGNATION
AMM TASK 76-11-04-820-801-A/500	FRICTION LOCK ASSEMBLY - ADJUSTMENT

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
223		Control pedestal

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Dynamometer	To measure the thrust-lever friction value	

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	Cockpit

I. Preparation

SUBTASK 841-002-A

- (1) (For aircraft without thrust reverser) On the circuit breaker panel, open the circuit breakers below and attach DO-NOT-CLOSE tags to them:
- POWERPLANT - START 1/2.
 - POWERPLANT - FADEC 1A/2A - 1B/2B.
- (2) (For aircraft with thrust reverser) On the circuit breaker panel, open the circuit breakers below and attach DO-NOT-CLOSE tags to them:

- POWERPLANT - ELEC. IDLE STOP 1/2.
- POWERPLANT - THRUST REVERSER 1/2.
- POWERPLANT - START 1/2.
- POWERPLANT - FADEC 1A/2A - 1B/2B.

J. Functionally Check Friction Lock Assembly for Preload Value ([Figure 501](#))

SUBTASK 720-002-A

- (1) Put the dynamometer on the handle of the thrust lever, as shown in figure 501, and push the dynamometer.

NOTE: The thrust lever preload is measured in the range from "IDLE" to "MAX. POWER".

To do this check the friction knob must be fully released.

- (2) Read the preload value on the dynamometer dial. The preload value must be from 1.35 to 1.45 kgf (2.98 to 3.20 lbf) for the two thrust levers (0.70 kgf average for each lever), measured as shown in DET. A of [Figure 501](#).
- (3) If the reading of the preload value does not agree with the value given in step (2) above, do the friction lock assembly adjustment ([AMM TASK 76-11-04-820-801-A/500](#)).

K. Follow-on

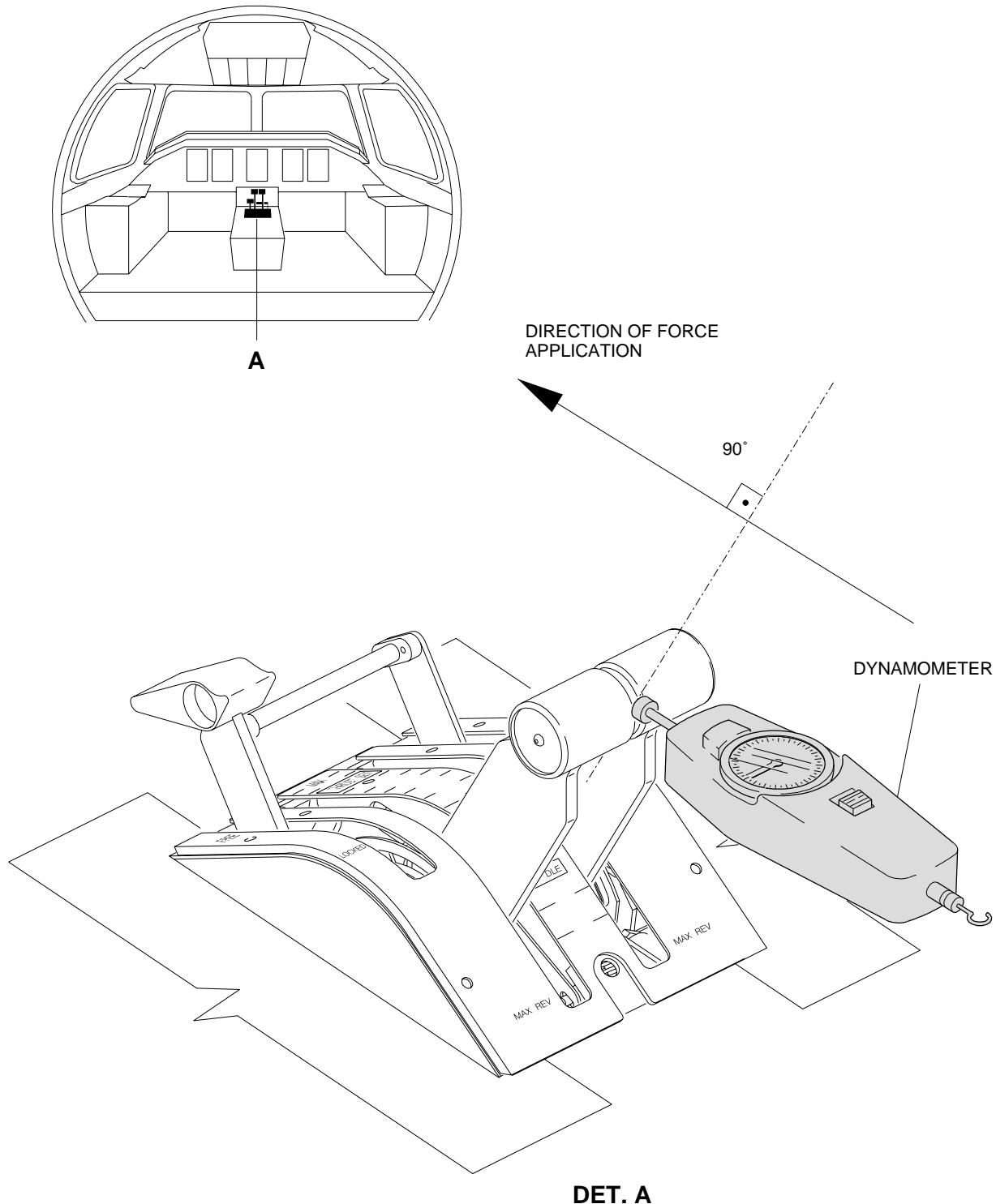
SUBTASK 842-002-A

- (1) (For aircraft without thrust reverser) On the circuit breaker panel, close the circuit breakers below and remove the DO-NOT-CLOSE tags from them:
 - POWERPLANT - START 1/2.
 - POWERPLANT - FADEC 1A/2A - 1B/2B.
- (2) (For aircraft with thrust reverser) On the circuit breaker panel, close the circuit breakers below and remove the DO-NOT-CLOSE tags from them:
 - POWERPLANT - ELEC. IDLE STOP 1/2.
 - POWERPLANT - THRUST REVERSER 1/2.
 - POWERPLANT - START 1/2.
 - POWERPLANT - FADEC 1A/2A - 1B/2B.

EFFECTIVITY: ALL

Inspection of the Friction Lock Assembly - Component Locations

Figure 501



145AMM760029.MCE B



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 76-11-04-820-801-A

EFFECTIVITY: ALL

3. FRICTION LOCK ASSEMBLY - ADJUSTMENT

A. General

- (1) This task gives the instructions adjust the friction lock assembly until the minimum thrust-lever friction value is got.
- (2) There is only one adjustment for the two thrust levers.

B. References

REFERENCE	DESIGNATION
AMM TASK 76-11-04-000-801-A/400	FRICTION LOCK ASSEMBLY - REMOVAL
AMM TASK 76-11-04-400-801-A/400	FRICTION LOCK ASSEMBLY - INSTALLATION
AMM TASK 76-11-04-700-801-A/500	FRICTION LOCK ASSEMBLY - FUNCTIONAL CHECK
AMM TASK 76-11-05-000-801-A/400	CONTROL STAND MASK - REMOVAL
AMM TASK 76-11-05-400-801-A/400	CONTROL STAND MASK - INSTALLATION

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
223	-	Control pedestal

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	Cockpit

I. Preparation

SUBTASK 841-003-A

- (1) (For aircraft without thrust reverser) On the circuit breaker panel, open the circuit breakers below and attach DO-NOT-CLOSE tags to them:
 - POWERPLANT - START 1/2.
 - POWERPLANT - FADEC 1A/2A - 1B/2B.

- LIGHTS - PEDESTAL PANEL.
- (2) (For aircraft with thrust reverser) On the circuit breaker panel, open the circuit breakers below and attach DO-NOT-CLOSE tags to them:
- POWERPLANT - ELEC. IDLE STOP 1/2.
 - POWERPLANT - THRUST REVERSER 1/2.
 - POWERPLANT - START 1/2.
 - POWERPLANT - FADEC 1A/2A - 1B/2B.
 - LIGHTS - PEDESTAL PANEL.
- (3) Do the friction lock assembly inspection ([AMM TASK 76-11-04-700-801-A/500](#)).
- (4) Remove the control stand mask ([AMM TASK 76-11-05-000-801-A/400](#)).

J. Adjustment (Figure 502)

SUBTASK 820-002-A

- (1) If the preload measured in the friction lock assembly inspection is not within 1.40 ± 0.05 kgf (3.09 ± 0.11 lbf) (for the two thrust levers) range, do as follows:
- (a) Preload of less than 1.35 kgf (2.98 lbf) (for the two thrust levers):
- 1 Tighten the self locking nut (1) until the preload is at the correct value.
- NOTE: If the self-locking nut (1) is already fully tightened, remove the friction lock assembly (2) ([AMM TASK 76-11-04-000-801-A/400](#)), replace the friction block (3), install the friction lock assembly (2) ([AMM TASK 76-11-04-400-801-A/400](#)), and do the friction lock assembly inspection ([AMM TASK 76-11-04-700-801-A/500](#)).
- (b) Preload of more than 1.45 kgf (3.20 lbf) (for the two thrust levers):
- 1 Loosen the self-locking nut (1) until the preload is at the correct value.

K. Follow-on

SUBTASK 842-003-A

- (1) Do the friction lock assembly inspection ([AMM TASK 76-11-04-700-801-A/500](#)).
- (2) Install the control stand mask ([AMM TASK 76-11-05-400-801-A/400](#)).
- (3) (For aircraft without thrust reverser) On the circuit breaker panel, close the circuit breakers below and remove the DO-NOT-CLOSE tags from them:
- POWERPLANT - START 1/2.
 - POWERPLANT - FADEC 1A/2A - 1B/2B.
 - LIGHTS - PEDESTAL PANEL.
- (4) (For aircraft with thrust reverser) On the circuit breaker panel, close the circuit breakers below and remove the DO-NOT-CLOSE tags from them:



EMB145 - EMB135

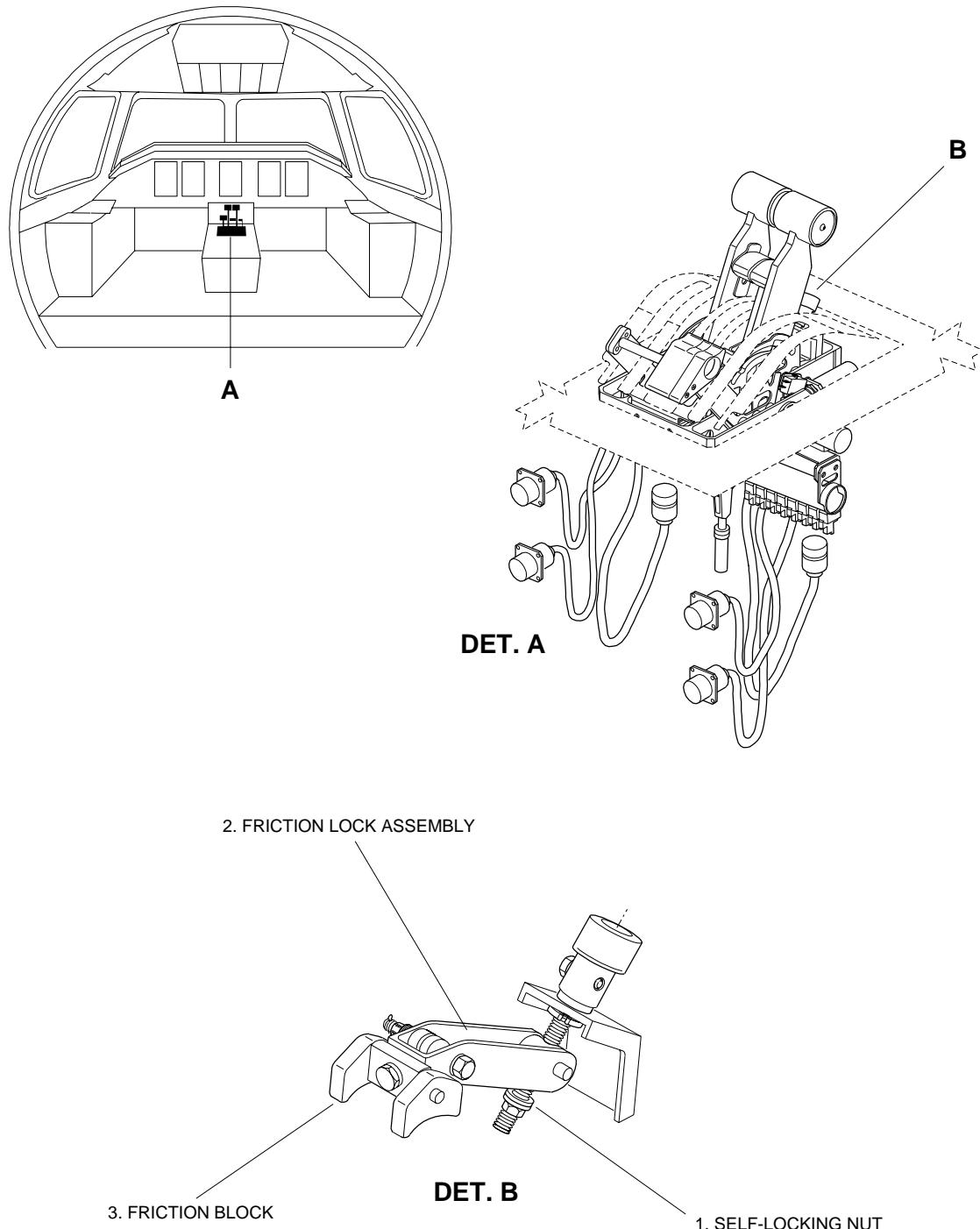
AIRCRAFT
MAINTENANCE MANUAL

- POWERPLANT - ELEC. IDLE STOP 1/2.
- POWERPLANT - THRUST REVERSER 1/2.
- POWERPLANT - START 1/2.
- POWERPLANT - FADEC 1A/2A - 1B/2B.
- LIGHTS - PEDESTAL PANEL.

EFFECTIVITY: ALL

Friction Lock Assembly - Adjustment/Test

Figure 502



145AMM760036.MCE A