Force Limiter

Functional Test

References

Reference	Title
AMM B787-A-29-11-00-24A-510B-A	Hydraulic System Power - Left – Deactivation
AMM B787-A-29-11-00-26A-510B-A	Hydraulic System Power - Right – Deactivation
AMM B787-A-29-11-00-32A-510B-A	Hydraulic System Power - Center – Deactivation
AMM B787-A-31-61-00-07A-110B-A	Primary Display System Show a Maintenance Page – Software Operation

Preliminary Requirements

Location Zones

Zone	Area
211	Flight Compartment, Left
212	Flight Compartment, Right

Procedure

1. **Force Limiter - Functional Test**

NOTE: This procedure is a scheduled maintenance task.

A. General

(1) Use this test to make sure that the force limiters operate correctly. The force limiters let one control wheel move if the other wheel is caught (jammed) and cannot move.

(2) This task is a CMR (certified maintenance requirement) task.

(3) In this procedure, clockwise and counterclockwise movement of the control wheels are as you see them from the pilots' seats.

(4) Two people are necessary to do this test. There must be a person at the captain's control wheel and a person at the first officer's control wheel.

B. Prepare for the Procedure

(1) Make sure that hydraulic power is not supplied. If it is necessary, do these tasks:

(a) Hydraulic System Power - Left - Deactivation, AMM B787-A-29-11-00-24A-510B-A.

(b) Hydraulic System Power - Right - Deactivation, AMM B787-A-29-11-00-26A-510B-A.

(c) Hydraulic System Power - Center - Deactivation, AMM B787-A-29-11-00-32A-510B-A.

(2) Do these steps to look at page 1 of the FLIGHT CONTROL maintenance pages:

(a) To look at page 1 of the FLIGHT CONTROL maintenance pages on a multifunction display (MFD) in the flight compartment, do this task: Primary Display System Show a Maintenance Page - Software Operation, AMM B787-A-31-61-00-07A-110B-A.

C. Procedure

(1) Move the captain's or the first officer's control wheel fully clockwise and counterclockwise to find how far the wheel will move.

(2) Examine the force transducers.

CAUTION: DO NOT USE THE RIGGING PINS TO HOLD THE CONTROL WHEELS. YOU CAN CAUSE DAMAGE TO THE RIGGING PIN HOLES WHEN YOU APPLY TORQUE DURING THIS TEST.

(a) Start with the control wheels at their 0° position.

(b) Turn the captain's control wheels about the center to small degrees.

1) Make sure that FORCE 2 and FDR for CAPT WHEEL and F/O WHEEL on the flight control maintenance display, is between 1.67 lbf (7.43 N) and -2.29 lbf (-10.19 N).

(3) Make sure that the force limiters start to release at the correct force.

(a) Continue to hold the first officer's control wheel in the 0° position.

(b) Move the captain's control wheel slowly clockwise.

1) Make sure that POSITION 1 for the CAPT WHEEL on the flight control maintenance display, is between 7.0° and 9.0°.

2) Make sure that FDR for the CAPT WHEEL on the flight control maintenance display, is between 130 lbf (578.27 N) and 170 lbf (756.20 N).

(c) Move the captain's control wheel slowly counterclockwise.

1) Make sure that POSITION 1 for the CAPT WHEEL on the flight control maintenance display, is between -7.0° and -9.0°.

2) Make sure that FDR for the CAPT WHEEL on the flight control maintenance display, is between -130 lbf (-578.27 N) and -170 lbf (-756.20 N).

(4) Make sure that the force limiters have the correct force at full travel.

(a) Turn the captain's control wheel fully clockwise until it is at its stop. Hold it in this position.

(b) Turn the first officer's control wheel fully counterclockwise until it is at its stop. Hold it in this position.

1) Make sure that POSITION 1 for CAPT WHEEL is more than 27.9 on the maintenance page.

2) Make sure that POSITION 1 for F/O WHEEL is less than -27.9 on the maintenance page.

3) Make sure that FDR for CAPT WHEEL is less than 500 lbf (2224 N) on the maintenance page.

4) Make sure that FDR for F/O WHEEL is more than -500 lbf (-2224 N) on the maintenance page.

(c) Turn the captain's control wheel fully counterclockwise until it is at its stop. Hold it in this position.

(d) Turn the first officer's control wheel fully clockwise until it is at its stop. Hold it in this position.

1) Make sure that POSITION 1 for CAPT WHEEL is less than -27.9 on the maintenance page.

2) Make sure that POSITION 1 for F/O WHEEL is more than 27.9 on the maintenance page.

3) Make sure that FDR for CAPT WHEEL is more than -500 lbf (-2224 N) on the maintenance page.

4) Make sure that FDR for F/O WHEEL is less than 500 lbf (2224 N) on the maintenance page.

(e) Slowly release the two wheels.

(5) Make sure that the two control wheels move together.

(a) Turn the captain's control wheel in each direction.

(b) Make sure that the captain's and the first officer's control wheels move together.