

SUBJECT: HYDRAULIC RESERVOIR LUBRICATION AFTER LONG RESTING TIME

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1. SL APPLICABILITY

Information presented in this Service Letter is applicable to the EMB-500 (Phenom 100E and 100EV) aircraft.

2. VALIDITY

This SL remains valid until it is superseded or cancelled by a subsequent revision.

3. PURPOSE

Present information related to procedures and tasks aiming at providing better lubrication to the Hydraulic Reservoir on ground.

4. COMPLIANCE

This Service Letter is for informational purposes only.

5. REFERENCES

AMM - Main Hydraulic System - Depressurization.

6. MATERIAL INFORMATION

None.

7. DESCRIPTION

Embraer has received reports of hydraulic low pressure when the troubleshooting drives the hydraulic motor pump replacement. As part of the investigation, a contributor to the issue may be the hydraulic reservoir, mainly when the aircraft is parked for 3 days or more. This condition may cause an internal dryness in the reservoir, which may lead to difficulty in the movement of internal components. Consequently, this situation may affect the hydraulic motor pump proper operation.

As a mitigation action, if the aircraft is parked for a period of at least 3 days, Embraer recommends performing the following steps in order to better lubricate the hydraulic reservoir on ground as a good practice to increase the system reliability.

1. Move the aircraft to a wide-open area.
2. Put the wheel chocks against the LG wheels.
3. Apply the parking brake and make sure that the brake lamp indication stays ON.
4. With engines running in Idle and prior to releasing the aircraft for taxi out, fully depressurize the normal brake system accumulator:

- a. On the HYDRAULIC control panel, set the "HYD PUMP" switch to OFF.
- b. Fully push the brake pedals (brake pedals fully applied) and keep them in this position for 3 minutes.

NOTE: This step will result in loss of normal brake capacity. Make sure that the wheel chocks are correctly positioned and that there are at least 2400 psi of available pressure at the emergency brake accumulator.

5. Set the "HYD PUMP" switch to AUTO position for system pressurization up to 3000 psi.
6. Check for the emergency/parking-brake accumulator pressure above 2400 psi.
7. Repeat steps 4 to 6 two more times.

This procedure will allow the rested reservoir to get its internal seals, piston and wall correctly lubricated prior to the flight.