



ATA 29 – Hydraulic power: inspection of hydraulic tube and supports.

This Special Airworthiness Bulletin (BEA) is intended to alert the civil aviation community to some events reported by the operators about hydraulic line supports broken at wing region of the airplane.

This bulletin is informative, and the recommendations herein are not mandatory. Up to this time, there is no airworthiness concern that would warrant an Airworthiness Directive (AD) according to Regulamento Brasileiro da Aviação Civil (RBAC) nº 39.

Applicability:

EMBRAER S.A. airplanes model ERJ 190-300 and ERJ 190-400, as identified in Embraer Service Bulletin N. 190E2-29-0004, original issue, dated February 29, 2024.

Description:

It has been reported the occurrence of broken hydraulic tube supports (brackets) in the region of the spar III of the Left-Hand (LH) and Right-Hand (RH) wing of the airplane, although without any hydraulic line leakage.

The associated root cause was the incorrect torque application to the Engine Drive Pump (EDP) discharge pressure tubes in the airplane production line, which has caused the pre-loaded condition of the tube and consequently breakage of some of the correspondent supports or clamps.

As result, the manufacturer proposed corrective actions were:

- a) Revision of the hydraulic line's installation procedures in the airplane production line.
- b) Revision of the Aircraft Maintenance Manual (AMM) for tubes repair and replacement, as applicable.
- c) The issuance of a Service Bulletin (SB) for the fleet.

The field solution presents detailed the instructions and procedures to carry out a General Visual Inspection (GVI) of the support assemblies and clamps to check the hydraulic tubes for pre-loaded condition, replacing the broken support assemblies and clamps with new ones with the same Part Number (P/N), as applicable.

In addition, the SB also has detailed instructions and procedures to proper loosening and torque procedure, including the tools to prevent the movement on hydraulic fittings at tubes ends.

Recommendations:

Inspection of the hydraulic tube for pre-load condition and of the hydraulic tube supports for breakage, correcting them, according to the detailed instructions and procedures described in the Embraer SB No. 190E2-29-0004, original issue, dated February 29, 2024

References:

EMBRAER Service Bulletin (SB) No. 190E2-29-0004, original issue, dated February 29, 2024.

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