


EASA	COMMENT RESPONSE DOCUMENT
	EASA PAD No. 09-126 [Published on 16 October 2009 and officially closed for comments on 16 November 2009]

Commenter 1 :Air France — David Lepère - 13/11/2009

Comment # 1

AFR would like to highlight that to require installation of pressure switches post modification SB A330-28-3111 only on some positions increase significantly the difficulties due to the following aspect to secure the EASA requirements.

Logistical aspect :

The pressure switches HTE69000-1 can be installed on all Airbus family (A330 - A340 - A320 family), and the pressure switches FRH100002A (post mod) can not be installed on A320 family, consequently the old pressure switches HTE69000-1 can not be cancelled to the spare parts stock and will be always available on the market.

Organisation aspect to implement this modification :

In order to secure at the best level an AD all the components affected by an EASA AD must be tracked and the S/N at each A/C location should be known. Nevertheless, the Airbus delivery document at the origin Aircraft does not include the pressure switches (P/N, S/N, location).

Human factor aspect :

Regarding the location of the main pump pressure switches (location affected by the AD) and the stand by pump pressure switch (location not affected by the AD) there is a possibility to install a pre mod part on location affected by the AD requirement. Of course the IPC will have to reflect the AD requirements but the documentation are not always clear and could conduct to potential human factor error. Could it be possible to confirm that the human factor are always analysed during the definition of an EASA AD.

Consequently and to allow to operator to secure at the best level the EASA requirement, AFR request to review the new standard of pressure switches design. AFR request to physically on A/C (or component support) forbid the installation of old pressure switch to location affected by the AD requirement.

EASA response:

Point 1: Logistical aspect :

The extension of the applicability of the new P/N (FRH100002A) to the A320 family was analysed and was found as non necessary as no specific issue has been reported up to now.

Point 2: Organisation aspect to implement this modification :

No tracking at S/N level is required, as it is not a quality issue. The AD requires to embody the P/N FRH100002A pressure switch on main pumps (4 switches).

In order to know if an A/C is equipped with the new standard of pressure switch (P/N FRH100002A), the operator has to check on the AIR if the MOD 56705 ("FUEL - MAIN FUEL PUMP SYSTEM - INTRODUCE NEW PRESSURE SWITCH TO IMPROVE TEMPERATURE PERFORMANCE") is embodied. The embodiment in production started on MSN 916.

This modification affects 9 pressure switches:

- 6 on Wing (main pumps (4) and Stand by pumps (2))*
- 1 on Trim Tank*
- 2 on Centre Tank*

Point 3: Human factor aspect :

This aspect has been taken into consideration for the risk assessment. The potential unsafe condition that has been considered involved all four pressure switches. The installation of a wrong P/N due to human error on one, two or three locations requested by the AD does not lead to an unsafe condition. In any case, in order to minimize the risk of possible human errors, it is foreseen to replace the new standard of pressure switch also on the stand-by pumps.

Point 4:

As stated in point 3, human factor error has been taken into account to ensure the aircraft safety. If a physical change on aircraft (or component support) is introduced in order to prohibit the installation of old pressure switches in locations affected by the AD requirements, this would cancel the interchangeability of this item on all other locations on LR fleet. In addition, such change would also require at least a tank entry to be done. This would generate additional safety risks.