

HYDRAULIC FLUID PURIFICATION RIGS

Reference

ATA 29

AC Type A300, A300-600, A310, A318, A319, A320, A321, A330, A340, A380

Status draft, March 2014

Audience Operators

Applicability

All Airbus aircraft

Introduction

The purpose of this SIL is to advise Operators that several Hydraulic Purifiers can be used for recycling hydraulic fluid when this fluid has been contaminated with water, chlorinated solvents, air or particles.

Operating Principle

The portable purifier removes water, air and volatile solvents using a vacuum dehydration process. It removes solid particulate contaminant using a high efficiency filter element.

Performance

The efficiency of these fluid purifiers has been demonstrated through laboratory tests and direct tests on A/C whenever applicable. They successfully decontaminate hydraulic fluids complying with NSA307110 standard (refer to SIL 29-030), without degrading or altering other fluid properties.

The purifier is Ground Support Equipment (GSE). It can be connected in several ways:-

- 1) In maintenance facilities, to a separate drum containing hydraulic fluid flushed from the A/C hydraulic system.
- 2) In parallel to a hydraulic ground cart when connected to the A/C hydraulic system via the ground connectors.
- 3) Direct to the aircraft. The HSPA181 purifier is equipped with a high pressure hydraulic pump and therefore can pressurize the A/C hydraulic systems using the ground connections of A300, A300-600, A310, A320 Family and A330/A340 A/C Families. It can be used with restrictions on A380 and A350 since it operates with 3000 psi.

The performance of the fluid purifier rigs and their processing time vary with respect to the starting levels of contamination, the volume of fluid in the concerned hydraulic system or in the drum and the desired finishing levels.

References

Pall P/N: HSPA181-380J* Portable Fluid Purifier (connect to aircraft)

* the P/N suffix may vary depending on the voltage and electrical frequency

The procedures for use of the purifier are given in the AMM:

Aircraft	AMM Task	Description
A300-A310	12-36-29	Cleaning of Hydraulic System Fluid (Using PALL Purifier)
A320 Family	12-36-29-615-001-A	Clean the Fluid in the Green Hydraulic System
	12-36-29-615-002-A	Clean the Fluid in the Yellow Hydraulic System
	12-36-29-615-003-A	Clean the Fluid in the Blue Hydraulic System
A330/A340 Family	12-36-29-615-801-A	Clean the Fluid in the Green Hydraulic System (with the Pall Purifier)
	12-36-29-615-802-A	Clean the Fluid in the Blue Hydraulic System (with the Pall Purifier)
	12-36-29-615-803-A	Clean the Fluid in the Yellow Hydraulic System (with the Pall Purifier).
A380	29-11-00-611-809-A	Clean the Fluid in the Green Hydraulic System (with the Pall Purifier)
	29-13-00-611-808-A	Clean the Fluid in the Yellow Hydraulic System (with the Pall Purifier).

Procurement Information

Purchase orders relating to the purifiers may be submitted to:

Americas	Mid-east, Europe and Africa	Asia	China
Pall Aerospace 10540 Ridge Road New Port Richey, FL 34654 USA aerospace@pall.com	Pall GmbH Luftfahrttechnik Philipp-Reis Strasse 6 63303 Dreieich Germany aerospace@pall.com	Pall Filtration Pte Ltd #05-09/15 East Wing, The Capricorn, Singapore Science Park II 117528 Singapore sgcustomerservice@pall.com	Pall China Beijing Office No.12 Hongda Road (south) BDA, Beijing 100176 China aerospace@pall.com

or

Pall's authorised airline distributor:

Americas	Mid-east, Europe and Africa	Asia	China
Satair USA Inc. 3993 Tradeport Drive Atlanta GA 33054 satairinc@satair.com	Satair A/S Amager Landevej 147A DK-2770 Kastrup Denmark. info@satair.com	Satair Pte Ltd. 12 Seletar Aerospace Link Singapore 797553 info@satair.com	Satair (Beijing) Co Ltd. No.5 Tianzhu Airport Industrial Zone 101312 Beijing China infochn@satair.com

NSA307110 Information

List of qualified products

Fluid	Fluid	Fluid	Aircraft Program						Restriction/ Recommendation
Name	Manufacturer	Type	A300, A310	A318, A319, A320, A321	A330, A340	A380	A350	A320Neo	
Hyjet IV-A PLUS	ExxonMobil	Low density, Type IV	X	X	X	X	X	X	
Skydrol LD4	Solutia	Low density, Type IV	X	X	X	X	X	X	
Skydrol 500B-4	Solutia	High density, Type IV	X	X	X	FORBIDDEN	FORBIDDEN	FORBIDDEN	Forbidden for A380, A350 & A320Neo
Hyjet V	ExxonMobil	Low density, Type V	X	X	X	X	X	X	Preferred product for A380, A350 & A320Neo
Skydrol PE-5	Solutia	Low density, Type V	X	X	X	X	X	X	Preferred product for A380, A350 & A320Neo

Please refer to SIL 29-090 for more information regarding Hydraulic Fluids to be used on Airbus Aircrafts.