SOLOY AVIATION SOLUTIONS 2013 - A YEAR IN REVIEW

By Dave Stauffer

With 2013 officially in the logbook, I found myself glancing into the “rear view” mirror and reflecting on what can only be described as a very solid and positive year for all of us here at Soloy. An improving economy appears to be giving the global flying community a tailwind. Worldwide production appears to be on the upswing and with individuals and companies increasing aircraft use, decisions to invest in new aircraft or customs of global shipments.

Soloy completed a conversion and a 12 year inspection of the company’s AS350B2. The helicopter has been used throughout the year to develop and certify our new electronic engine management system.

Additionally, Soloy sold several of our portable heliports to customers in Alaska and Australia. 2013 was a monumental year for Soloy and we couldn’t have had the success without the hard working and dedicated employees we are so fortunate to have on our team. And yes, looking back at 2013 was an exciting year for Soloy and we couldn’t have had the success without the hard working and dedicated employees we are so fortunate to have on our team. And of course without our customers and supporters we wouldn’t get very far at all…so thank you from all of us at Soloy.

A BRIDGE BETWEEN DEPARTMENTS: DOUG HOPKINS

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Attention to details and being observant are two of Doug’s best qualities which he uses when coordinating between departments. A good memory for part numbers also helps. Someone can describe the part, and he’ll say, “Yes, we do have that,” knowing right where to find it.

Doug is in his 9th year at Soloy. He moved from Battle Creek, Michigan in 1998 where he developed a wide range of skills and versatility in diverse industries from zoological to commercial and residential facilities support. As bridges connect, Doug connected to Soloy through a friend who knew a long time Soloy employee and Doug was hired in the stockroom. Doug’s meticulous attention to detail and work ethics quickly moved him into a managerial position.

Asked about aviation, Doug finds it fascinating. He flew in his first helicopter being rescued from a bridge that makes it work. And support and his part in being a

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AIRCRAFT FOR SALE

1994 AS350SD2 S/N 2789, N350ST

Zero time since conversion and 12 year, Gold LTS101-700D-2, Soloy EMS engine panel. Cargo swing hook with load cell, Squirrel check, VR window, AFS filter.

1999 Soloy Cessna T206H MKII, N766ST, S/N T20608100

5 hours on new 250-B17F/2 engine.

UPCOMING SHOWS

HAI Heli-Expo

Feb 24 – 27

Anaheim, CA

Sun ’n Fun

Apr 1 – 6

Lakeland, FL

ALEA Expo 2014

Jul 16 – 19

Phoenix, AZ

EAA Airventure

Jul 28 – Aug 3

Oshkosh, WI

TURBINE TOPICS

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flew in a Soloy AS350 SD2.

A typical work day for Doug begins in the morning with Doug receiving and inspecting parts that arrive – checking to see that the received parts have the quality and accuracy of documentation and certification. By the afternoon he’s arranging logistics and ways to ship products. This could entail designing containers for fragile, odd shaped objects or completing the paperwork for carriers or customs of global shipments.

When it comes to his work, Doug explains as he organizes and oversees the stockroom and shipping employees, “Soloy has done a good job of diversifying.” That diversification is a good blend for Doug’s scrupulous and conscientious work habits. “I like the variety of tasks and being involved in many aspects of Soloy.” Doug is also proud of Soloy’s reputation for quality and support and his part in being a bridge that makes it work.

Outside of Soloy, Doug’s focus is on family. He and his wife like to take their four-year old daughter camping and hiking. At the ocean or east of the Cascade Mountains, being in nature is important to this family that will be expanding in the spring at the arrival of their second child.

The Hopkins on a nature walk with Nico
HONEYWELL ENGINE COMPRESSOR PROTECTION

By Nick Parkinson

The compressor is the heart of the engine. To allow maximum efficiency, it must compress a huge volume of air (20,000 pounds per hour) while consuming the lowest amount of energy possible from the Ng turbine (1000 horse power at max rated power). An efficient compressor will meet its requirements at Ng speeds and T4 temperatures well below the approved limits, ensuring maximum engine efficiency.

Each 100 hours of operation in harsh environments exposes this assembly to huge amounts of airborne particles which will erode or corrode the most robust components causing an increase in Ng rpm and T4 temperatures for any given power setting. As this condition advances, damage will eventually be found on all components that are exposed in the gas path throughout the engine including the combustion and turbine sections.

First in line for erosion or FOD is the axial compressor rotor. It is expensive – $25,425 – and has a long life of 15,000 hours and 25,000 cycles. If retired in a 15 cycle per hour operation the component cost is $1,65 per hour. If scrapped due to erosion at 1800 hours, the component cost is $14 per hour. Next in line is the stator at $11,665 and the Impeller at $48,698. The diffuser, RBSH, scroll turbine sections.

Regardless of the configuration of the available filters, all provide excellent levels of compressor protection. When compared to the costs of repair, the inlet barrier filters are a very low priced insurance.

The inlet barrier filter should be considered as a standard feature of the engine installation rather than an optional extra. 

Cross section of the AFS Donaldson inlet barrier filter for the Honeywell powered AS350’s.

First in line for erosion or FOD is the AFS Donaldson inlet barrier filter.