Duke FLYERS ASSOCIATION NEWS

Number 12-2 **August 2012**

Hosts: Ab and Wendy Fuoss

2012 FLY-IN

BRUNSWICK, MAINE

October 4-7, 2012

PRESIDENT	VICE PRESIDENT	NEWSLETTER
Earle Olson	Al Uhalt	Jim Gorman
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SPARE PARTS FOR YOUR DUKE

(2) Generators
(2) Starters
(2) Flap Motors
(1) Tach Generator
(2) Magnetos
(2) Landing Gear Motors

Above are located at Aircraft Systems, 5187 Falcon Road, Rockford, IL 61109. They will ship item to you by UPS or Federal Express. You return your part (same day) to them. They will overhaul, charging your credit card for work done, and then item becomes Association emergency part. Phone 815-399-0225.

Cowl Flap Actuator
Electric Boost Pump
Exhaust Transition Pipe
Lycoming Exhaust Pipe #77429
Prop Brush 3E1206-2
Recognition Bulbs DN25-5
A/C Door Actuator
Overhauled Turbo
Oil Cooler (new)
Engine Cylinder Assembly
Prop Spinner (Less Back Plate)
Pin-Nose Gear Up Lock

Above - contact Earle Olson @ P. O. Box 1043, Medina OH 44258
Phone 330-723-3210 (O) 330-723-9977 (FAX)

Windshields - Contact Gary Bongard @ 612-281-5158 (cell)

Pin-Nose Gear Up Lock **Beach part:** **60-8200-91**

Quite a few comments on web page that this is a critical part which causes major damage if it fails (2 engines, 2 props for starts).

Beech price $5,000.00 (that's right 5 K)

As a result, DFA through a lot of time and work reproduced it as an owner supplied part to the exact specifications as original. The price to members is $ 495.00. One Sale to-date.

WELCOME NEW MEMBERS

Keith Joseph
Canton, OH

Jim Davidson
Rustenburg, South Africa

Lynn Boyer
Huntsville, AL

Alfred Aaron P-211
Wilkesboro, NC

Wickham Zimmerman
Huntington Beach, CA

Glen Tillery P-516
Moriarty, NM

Michael Mohr P-595
Grand Prairie, Alberta Canada

Tony Caldwell
Oklahoma City, OK

Henry Nowakowski P-386
Ottawa Lake, MI

Unfortunate Accident

Gary Tillery informed us the sad news; member Pat Porter, his son and a friend were lost in a takeoff accident at Sedona, AZ on July 26th.

Pat was most willing to help Gary in his decision to purchase a Duke.

He competed in the 84 and 88 Olympics as a 10K meter runner. His wife Trish competed in the high jump in 88.

Our sincere condolences to Trish Porter and her daughter at this trying time.

COMMENTS FROM EARLE OLSON, *PRESIDENT*

Enclosed is your invitation to lots of fun and an eye opener tech session. Join us in Brunswick, ME (KBXM).

The colors will be magnificent as we picked this time to coincide with the fall panorama of maple trees season finale.

We have placed a story in this news letter that should make everyone take note. The potential for a fire in your Duke grows exponentially each hour you fly it. We strongly recommend that every owner get their cabin heater fuel pump replaced as soon as possible. We have located an FAA approved source for new pumps at $280.00 plus frt. We have one member that has an electric cabin heater and we are trying to locate the STC holder to see if that is an option. The pump is not easy to get to and the chances are very slim that you could get to it if it is leaking. You could only wait till the fuel in your left wing was gone and hope that a fire did not start before that happens.

This topic is just one we will cover in detail at the fly-in. We will get additional information on what to do if you end up with a split flap. All planes arriving, that wish, will receive a free magnesium corrosion inspection.

For all you new members, this is your chance to tap into the experiences of members that have thousands of hours flying Dukes and are anxious to share their knowledge with you so you can benefit from them.

Ab Fuoss has been working hard on this to make it one of the most enjoyable fly-ins ever.

Earle

HEY, WE NEED A HEATER, BUT NOT ONE *THAT'S* HOT!

By Earle Olson, President, DFA

One of our members, retired airline pilot Hughie DeMore (DFA #832), recently encountered a very serious problem while airborne in his 1982 Duke that may well be an incipient problem rampant throughout the Duke fleet as well as in other aircraft (and automobiles) also. Let him tell his story here in his own words and then read what your Association is doing about it.

"I was flying home in my Duke from a week-long pleasure trip to Puerto Penasco, Mexico with my wife and my former airline first officer, Mike Wood, and his wife. We were descending into Yuma, Arizona, about 3 p.m. to clear U.S. customs. On final about 1,000 feet AGL, the cabin depressurized as we had preselected. We were all immediately assaulted by an overwhelming odor of fuel. The fumes got stronger as we continued the approach; however, I was able to land the aircraft satisfactorily.

On rollout after landing, I discovered I had no left brake. I was able to clear the runway to a taxiway, but unable to proceed any farther due to the brake failure. I attempted, but was unable, to contact either the Control Tower or the FBO. It was Presidents' Day, February 20th, of this year. I was surprised to find the Tower shut down and only a skeleton crew at the FBO; so, Mike exited the airplane to assess the situation. He immediately motioned me to shut down the engines, which I did. I joined him outside and saw fuel running from the left wing root down the fuselage. I returned to the airplane and attempted to stop the flow by turning off the fuel with no results; the leak was apparently outboard of the fuel shutoff valve. I called Customs & Immigration on my cell phone and informed them of our plight. They contacted the FBO (Million Air) who towed the airplane to their facility, still spilling fuel.

At the ramp, the Million Air people became quite excited over the possible fire hazard and began removing inspection plates and fairing and attempted to collect the still-leaking fuel in five-gallon containers. In February, it was dark by then and close to five hours after we landed, they located the problem: The end-cap had come off the combustion heater fuel pump which is located at the left forward wing root under the wing-fuselage fairing and allowed (we later determined) about 25 gallons of fuel to escape. Around 11 p.m., the maintenance crew finally affected a temporary fix and we were able to leave for a hotel in town. We were so incredibly grateful for the FBO's skilled assistance!

The following morning, work on the plane continued. We located and purchased a new fuel pump and were able to leave Yuma for Phoenix around 3 p.m. Our wives were less than jubilant to board the airplane after listening to the Million Air maintenance crew's comments that we were "lucky to be alive" as we could not have survived a fire spawned by a fuel leak in the area it occurred; and that if we had been using the heater when the leak occurred, a fire would surely have ensued. Thankfully, the remainder of our flight to Phoenix was uneventful, even including the left brake which worked fine once the fuel dried out of it."

Hughie DeMore (DFA 832)

Hughie called DFA VP Al Uhalt following the incident and described the episode. They were in complete accord that the occurrence was every bit as serious as Hughie had described and that this could be a harbinger of a real problem fleet wide. Al called me and I agreed. I found that the pump was made by Fadec (now Fadec/Purolator) and is used on a number of different airplanes and automobiles not only for combustion heaters but, in many cases, as the primary fuel pump. The engineer explained that the pump end cap is held in place by internal pressure from the compressed cap seal on over-center type locking slots in the cap. No other locking or safety measure is required and their pumps are FAA PMA approved as supplied to Beechcraft and others. If not changed since our airplanes were produced, however, our pumps were manufactured as much as 46 years ago with even the newest of them at least 30 years old. They have done Trojan service for us over the years, but even Fadec was surprised we have not had some kind of a problem with them before now. There is a filter screen inside the pump; they said, that should be changed periodically (probably more so with automotive use than in aviation) and the end cap seal changed with it. With the pump (aircraft heater) being used on practically every high-altitude flight as well as in the winter months, it is probable the motor bearings need service by now also. Before the conversation was ended, we were convinced that safety of flight dictates we should change out the entire pump in the Duke fleet wide.

The pump in question is no longer manufactured. Motor Components LLC (a division of Fadec/Purolator) made the last run of these pumps formerly supplied to Beechcraft. The DFA has located a supplier. The pumps are FAA PMA approved. Beech part number is #476284. There is no requirement for any additional type of end cap locking mechanism beyond that supplied. DFA however feels it would be wise to either safety wire the end cap or epoxy it in place. Aircraft Heating and Electrical, Inc in California has them in stock for $280.00 plus frt. Freight should be under $15.00. The telephone number is 530 246 4328. The part number they have is AHE05D92. They have a few on hand but will get more to meet our needs for them.

Your FBO will probably need about 16 hours to change this pump out. Imagine if you were on a hot Ramp like Hughie trying to stop the fuel from running all over the ramp. Next, your concern would be a fire and hoping the EPA doesn't see it. This is why we think you should seriously replace your pump.