

AD Notice on Franklin

If you own a Franklin engine, the FAA has issued AD# 2002-18-51 on August 27, 2002 for the PZL Franklin 6A-350 series engines regarding a mandatory aircraft grounding until removal of the fuel pump diaphragm type AC4886 and replacement with the PLL-7 fuel pump. PZL-Rzeszow has issued Service Bulletin on August 2002 number PZL-F/71/2002 which covers the mandatory fuel pump replacement, and how to obtain the replacement fuel pump. Be sure to get both of these documents.

Another bulletin is expected to be issued covering the replacement procedures.

Your replacement fuel pump may be free if your engine was manufactured by PZL. They have set up the following email address for a replacement fuel pump:

pump_replacement@wskpzlrz.pl

Be sure to give the pertinent info like your engine model number, engine serial number, who you bought your engine from, etc.

If you don't have email, send a fax to: 011 48 17 854 0725

Gear Up Landings

In spite of all we do, there just doesn't seem to be any way we can prevent the possibility of a gear up landing on our RG's. There are, however, several things the builder/flyer can do to minimize the chances.

One of the simplest solutions, it would seem, would be to have a warning horn coupled to the throttle and a landing gear micro switch to warn us of a gear that isn't down and locked. ALL our RG Velocity aircraft have the necessary components to make this work and a

wiring diagram to go with it. If we don't install it, then a gear up landing is going to happen some time. Notice, I didn't say "might" happen, it is "going" to happen. We have had too many builders call and say they "accidentally" landed with the gear up and locked. When ask if the warning horn was working, I often get the answer that they didn't install one because they never thought it would happen to them. Another common answer after a gear up landing is that they had the horn installed but it didn't work. Let me tell you what I have been doing for the past 35 years flying retract gear aircraft and, "knock on wood," have never had a gear up landing. yet.

I always, repeat, always, pull the throttle back on downwind, prior to putting the gear down, and check to see if the horn is actually working. Once I can honestly say I have a working gear horn, I then can advance the throttle to mute the horn and then put the gear switch down and check for two (or three) in the green. This procedure is not used if I am on an instrument approach as I will drop the gear at the final approach fix or on glideslope intercept to establish the proper descent profile. It isn't difficult to understand that without a power reduction when crossing the final approach fix or on intercept of the glideslope, I will not be coming down. No power changes here, just dropping the gear will set up the proper glide angle. This is the perfect reminder to lower the gear and always check for the green lights. If all you do is push the nose over to maintain a glideslope capture, you will almost immediately accelerate to a speed far beyond the normal approach speed. I usually fly at the 120 knot approach plate recommended speed and can easily

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Safety Corner

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achieve the desired descent angle once the gear is down and locked.

I flew a customers XL RG a couple weeks ago and found the airplane to be almost perfect with one glaring exception. The builder had installed some Bose noise canceling headsets and when I pulled the power back to check for the gear horn, NOTHING. The gear horn was installed behind the panel and was a low volume horn that would not get through the headsets. Even with the headsets removed, the horn was barely audible. Radio Shack sells a very loud horn that has an adjustable front plate that can muffle the sound somewhat. This horn will drive you out of the airplane. You can also couple the horn output through the audio panel or intercom and this should be done if the horn cannot be heard easily.

Another area we see here that could cause a gear up landing is very poor or no maintenance on the gear system. Let me say it is far cheaper to check the gear often than replace a propeller once. This is especially true of those of you who had your airplane built by someone else or have purchased a flying Velocity RG. The system is not infallible and needs to be checked often if you are going to survive years of RG flying. Most of the airplanes we have going through our shop need work on the gear system. Either the cables are too tight, too loose, the hydraulic ram spacer is the wrong length, the gear rubs in places it shouldn't, the pulleys don't move properly, the gear sockets have too much play in them, the gear pivot spacers have been left out and on and on. Just doing a retract test is not enough.

We have had at least one gear up landing caused by using a tire that was slightly larger than the one originally installed. The tire stuck in the wheel well and would not release. A good rule of thumb is to

always do a retract check on the ground whenever new tires are installed. We have seen cases here where there is a noticeable difference between two tires coming from the same manufacturer. When you do a retract test, have someone who is knowledgeable in the airplane looking for things that are not correct. Does the gear rub in places it shouldn't? Are there noticeable noises that should not be there? Is it possible for something to "hang up," because, if it is possible, it will. In looking at the nose gear, can the fork catch on the upper edge of the guides? Will the fork catch on the nose gear opening? Are there any noticeable cracks in the gusset plates? Is there any excessive side to side play?

Remember always GUMP. G is for gas (including fuel pump), U is for undercarriage (down with green lights), M is for mixture (full rich) and P is for propeller (takeoff position). Remember, just saying the word is not enough, you must react to each letter by verification that the act is complete. Putting the gear switch in the down position is not enough. Verify that the gear actually goes down by observing the green lights. We have more than one pilot that "assumed" the gear was down because he put the switch in the down position.

What if I do everything right and the gear doesn't come down? Don't panic! There are several things you can do to get the gear down and locked. The most common cause is pressure build-up in the hydraulic system that causes both the "up" pressure switch and the "down" pressure switch to open. This results in the pump motor not running when you select either up or down. The cause of this is the altitude and temperature changes. Sometimes you can clear the system by moving the dump valve to the open and then closed position. A better solution is to install a momentary push button switch near the gear switch and wire it directly to the down solenoid. With the gear switch in the down position, simply push the switch for a couple

seconds to get the pump running. This will purge the system and it will then work OK. Our pre-wire gear system has this momentary switch mounted on the front panel and is labeled "reset." Let us know if you want to install this switch in your aircraft and we will send you the wiring information. It is really not difficult to install and should be a part of every RG Velocity.

If the pump still refuses to run, use the dump valve. Remember, the dump valve should be reset to the closed position after the gear is down and locked. This is to help lock in the hydraulic fluid so that the nose gear will not collapse if the overcenter linkage is not "overcenter." If you don't have an access hole in the keel just below the nose gear overcenter linkage, you should put two in now. This will allow you to use your finger or a short rod to reach into the keel and force the nose gear overcenter linkage to the locked position. If this access hole is on both sides of the keel, it will allow you to insert the short rod, (we use a 3/4" wood dowel) all the way through the keel to "lock" the overcenter linkage. This dowel has a double duty as we paint it black and then calibrate it in 5 gallon increments for a preflight check of the fuel quantity.

As an added benefit, I always hold the false bulkhead that covers the rear of the airplane in place using Velcro. This allows me to pull this cover away from the front of the gear so I can visually check on the gear system should I not get the main gear down light. If a cable is hanging up, or some other obstacle is holding the gear from going down, I then can reach back and free the gear up.

If a gear just will not go down and a gear up landing is inevitable, don't panic. If it is just the nose gear, make a normal approach and as smooth a touchdown as possible keeping the nose in about the same position as it would be if the gear were down. As speed is bled off, con-

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