

DUNCAN INTELLIGENCE

More About Oil Pressure Fluctuations

•Ken Kuchenreuther

As mentioned in the last Duncan Intelligence, some PW 530A engines can be prone to oil pressure fluctuation squawks. I asked the readers of this publication to call me with any problems they may be having with this issue. Some of you called and verified that at least a few others are experiencing similar problems. Pratt & Whitney recommends that the oil level be checked 10 minutes after shutdown and also recommends that the oil level should then be maintained at mid-point between the "MIN" and "MAX" marks.

My feeling, after some recent testing, is that the oil level should be maintained so that at the end of a flight, it is above the "MIN" mark on the outboard sight glass to aid in preventing oil pressure fluctuations. I suspect that air ingestion at the oil pump suction tube may increase when the oil level is lower. I also found out that the reference pressure used for the oil pressure transmitter case is not steady and may be contributing to some fluctuations. If you are having pressure fluctuations no matter what the oil level, check this reference pressure with a test gauge.

If you would like to contribute an idea for this publication, or if you would like more information about this subject, please contact me at 269.969.8400 ext. 8486 or Ken.Kuchenreuther@DuncanAviation.com.

P&W 500 Series Preservation Schedule

•Ken Kuchenreuther

Due to recent developments in the industry, it has become necessary to mention the preservation schedule P&W has set up for these engines. This is just a quick note, consult the appropriate maintenance manual for the full accomplishment

instructions. From 0 to 7 days, engine may be left inactive if protected and humidity isn't excessive and there aren't extreme temperature changes producing condensation. For 8 to 28 days' inactivity, engine needs to be sealed off and humidity maintained at below 40%. During 29 to 90 days, you need to comply with the preceding two steps and preserve the fuel system. For more information, contact Ken Kuchenreuther at 269.969.8400 ext. 8486 or Ken.Kuchenreuther@DuncanAviation.com.

Fan Rotation

• By Ken Kuchenreuther

It is always a good idea to spin the fan before starting an engine. In the winter months it should become an even more important part of any preflight checks. Without the use of inlet covers, snow and/or rain can enter the inlet during a wait time. While the engine is still warm, the snow can melt and may puddle in the bottom of the low pressure compressor case. As the engine cools down in the cold weather, the puddle will very likely freeze and lock the fan. The best practice is to look in engine inlets and exhausts and spin fans just prior to entering the aircraft for a flight. Also, when starting the engines, you should verify N1 (fan) rotation prior to introducing fuel in any weather.

Correction to Summer 2004 Edition

In the article "Oil smell PW545A/ oil pressure fluctuations PW530," second paragraph, line 11 should read: "He told us that the fluctuations returned."

