

# DUNCAN INTELLIGENCE

Dedicated to "Perfecting the Craft" • Edited by Ed Johnson • Fall '99

## Always Preload Your Torque Wench

Preloading a torque wrench is an important process in overall accuracy of these tools. It must be performed each time the torque wrench is used after periods of non-use or whenever torque direction is changed.

There are several reasons for preloading your torque wrench. First, it will set internal components so that when force is applied, torque begins immediately with no internal settling. Second, it distributes lubrication to moving internal parts. The final reason is the hysteresis characteristic of the steel, initial stress should be applied to the steel in order to moderate the hysteresis presence.

How to do it:

1. Set torque wrench between 50% & 100% of full scale.
2. Mount torque drive in a stationary fixture (i.e. socket welded to bench, vise).
3. Exercise the torque wrench 3-5 times in the direction you will be verifying.
4. Perform torque measurement.

Remember to store torque wrenches (Click-type) in the low setting. Otherwise calibration will be needed at shorter intervals.

Contact Duncan's Calibrations Lab for additional info at 800.228.4277.

## Gyro Heads Up!

Honeywell, recommends a specific time when you may and may not move your aircraft after you have had your gyro operating. Honeywell believes that you can move your aircraft up to 10 minutes after shutting down the gyro without causing any damage. After 10 minutes, they recommend waiting 15 minutes in order to give the gyro time to spin down sufficiently as to not cause damage to its internal components. Gyros can be damaged easily.

Honeywell recommends these guidelines to extend the life of your gyro. If you must move your aircraft and it's been more than 10 minutes, turn on ship's power in order to spin up the gyro before moving it.

For more info, contact Joe Austin in BTL at 800.525.2376, E-mail Joe at [joe\\_austin@duncanaviation.com](mailto:joe_austin@duncanaviation.com) or contact Ed Johnson in LNK at 800.228.4277, E-mail Ed at [ed\\_johnson@duncanaviation.com](mailto:ed_johnson@duncanaviation.com)

## Does Your Aircraft Have A Load Split At Idle?

The Cessna Maintenance Manual (Chapter 24) states that both engines must operate at 60% N2 before an accurate check can occur. At a power setting lower than 60% N2, the generators do not have enough RPMs, along with the generator control unit, to maintain a constant voltage and current output to supply all the systems you have selected. Once the power levels are above the 60% setting, the generator control unit will correctly adjust and maintain the correct voltage and current output. The manual states that any amperage split greater than 40 amps at 60% N2 power, be troubleshot and fixed.

For more info, contact Joe Austin in BTL at 800.525.2376, E-mail Joe at [joe\\_austin@duncanaviation.com](mailto:joe_austin@duncanaviation.com) or contact Ed Johnson in LNK at 800.228.4277, E-mail Ed at [ed\\_johnson@duncanaviation.com](mailto:ed_johnson@duncanaviation.com)

## It's Time To Get Your Boots Ready For Winter

Winter is several months away, but now is the time to check the various de-ice/anti-ice systems on your aircraft. This is particularly true of pneumatic de-ice boots. It's likely these boots have not been used for months. Damage from rocks and other debris is also likely. Boots should be inflated, checked for damage and repaired if necessary. There are two repair kits available from CPD, a pinhole repair kit (P/N 74-451-AE) for repair of small holes and a universal repair kit (P/N 74-451-AA) for repair of larger holes/tears. Boots should also be cleaned and either Icx or Age-Master #1 applied to protect them from deterioration by ozone, sunlight and weathering. Icx also helps improve ice shedding capabilities of the boots. Auto paste waxes and floor wax should never be applied to aircraft de-ice boots.

DUNCAN AVIATION



*For Citation technical info, we have the experts. Our Citation Team consists of tech reps and technicians with experience in airframe/engine, interior/exterior completions, avionics installations, component repair and parts.*

In Lincoln, NE, contact **Tim Klenke** at **402.475.2611** or **800.228.4277**

In Battle Creek, MI, contact **Roger Courey** at **616.969.8400** or **800.525.2376**

**Stop by and see us at booth # 5064 during the NBAA in Atlanta.**