

RNB Aviation's Recommendations **on Calibration of** **Chadwick – Helmuth Balance Equipment**

I've been asked on many occasions how often is the operator required to calibrate his Chadwick - Helmuth balance equipment. Unfortunately there is no simple answer. **Transport Canada in the Pacific region tells me that this equipment is in the same category as the rest of your tooling such as torque wrenches, vernier calipers, gauges, etc. If you've worded your MPM that your tooling is calibrated on an annual basis, then you're Chadwick – Helmuth equipment must be calibrated on an annual basis.** If your tooling is due for calibration on a bi-annual basis (every 2 years) then you're Chadwick – Helmuth equipment requires calibration on a bi-annual basis.

That's from Transport Canada's viewpoint in the Pacific Region. You may want to check with your local PMI for their opinion, as it may vary from region to region.

However, here is what we have found throughout the last 15 years of calibrating this equipment. If you're a small operator and you have three to four conscientious engineers operating the equipment and the equipment doesn't spend half its time being kicked around on the bus or another carrier, then you should be able to get away with a bi-annual calibration if you're MPM is worded accordingly.

Now, if you're a large operator with many engineers and the equipment is being shipped constantly on the bus or other carriers, then the equipment should be calibrated every 9 – 12 months at the latest.

Most of the operators feel that the 9 – 12 month time frame is too frequent and if the equipment is working fine why spend the money. This is a false economy because if the equipment is out of calibration and you take one or two runs more than normal to achieve the balance, then the money you have saved is more than spent on those extra runs. Not to mention the frustration for the engineers doing the track and balance.

Here are a few suggestions on care of your balance equipment;

- Have your QA Manager track your Chadwick – Helmuth equipment and have it calibrated as you would your torque wrenches.
- Don't attempt to repair this equipment in the field. Too often we find that some shops have attempted to repair a unit and caused more damage as they are not familiar with the equipment.
- Have your staff advise you if the track and balance has taken more runs than normal. That would be an indicator it's time to send it in. Don't wait until the unit fails completely.
- When sending the unit in for calibration or repair, if there is a problem, please identify the snag in as much detail as possible. "Inoperative", "doesn't work", "unserviceable" are not very helpful to the technician.
- When sending in the unit for repair or calibration, please send the complete kit. This includes the velo's, accelerometers, mag pick-up, cables, etc. Hardware such as the mag pick-up brackets, other brackets and charts are not required to be sent in.

On any recommendations or questions please contact Ron Breitenstein at the numbers on our home page.