

Customer Insights on the FlapSpeed® PRO

THE ORIGINAL FLAPSPEED® CONTROLLER

was introduced in 2008 to provide more control and visibility to the flapper peening process. In the last few years, hundreds have been sold to OEMs, MROs, airlines and contract peening shops. A new version, the FlapSpeed® PRO, has been released and it offers several new features including an integrated saturation curve solver.

We invited two clients with much know-how in flapper peening to discuss their work and experience using the FlapSpeed® Controller and to give us their thoughts on the new FlapSpeed® PRO.

Olivier Gauthier is a Maintenance Supervisor at Nolinor Aviation, an air transport company that specialises in commercial charter flight. **Lance Welsh** is an Aircraft Maintenance Technician in a large MRO facility for military and commercial aircraft.

Interview with Olivier Gauthier

Hello Olivier, tell us about Nolinor

Nolinor is an airline operating mostly in Canada's Northern territories. We transport miners, workers, outfitters and cargo. Our pilots land on airfields, gravel roads, frozen lakes and often in extreme weather conditions. Nature offers enough



The FlapSpeed® PRO kit gets a lot of use at Nolinor. The Canadian airline now does all of their rotary-flap peening in-house and no longer depends on an outside resource.

challenges that we do not want our flight team to ever worry about their aircraft. Our fleet of Boeing 737-200 and Convairst 580 are scrutinized after each flight and when an aircraft leaves the hangars after maintenance we want to be sure it is in mint condition. We are very careful with our inspection and repairs.

What is a typical repair at Nolinor?

We do a thorough inspection when an aircraft comes in. We find corrosion on machined parts, extrusion, flap tracks and on primary structural components. After we document the locations that need repair, we remove the corrosion or damages by blending the components. After blending, we peen the parts. Some parts were not originally peened, like the extrusions, but after blending, these parts are peened, too. We normally have to peen at a 10A to 16A intensity.

How does a FlapSpeed® Controller help in your maintenance procedures?

We used to subcontract our flapper peening. We were dependant on the availability of the subcontractor and we did not have any way to confirm the quality of the work. At the end, I was the one signing off the aircraft but without any guaranty of quality of the repair. Our subcontractor would show up with a grinder and few consumables, and that was it.

After one questionable repair, we decided to acquire our own flapper peening equipment. On the Internet, we found



Olivier Gauthier, a Maintenance Supervisor at Nolinor, uses the FlapSpeed® PRO to peen a part after repair.

references to standard grinders and electric motors as well as the FlapSpeed® Controller. At first, we tried flapper peening with a standard grinder. We quickly realised that it was not giving us the repeatability, the reliability and the visibility we needed. That is when we contacted Shockform Aeronautique to learn more about their FlapSpeed® Controller. Having a way to measure and record the RPM during our repair was what we were looking for.

Investing in our own equipment not only allows us to take care of our peening repairs during major overhauls but also to make emergency repairs. We are able to get our aircraft back in service more quickly.

In addition, Shockform offered on-site training so it was a turnkey solution for us.

What features do you find the most useful in the FlapSpeed® Controller?

I like the time savings that the FlapSpeed® provides. Doing a saturation curve often takes more time than the repair itself. Using the FlapSpeed® Controller helps get the right RMP right away and the countdown timer allows us to use one operator instead of two. In the past, one operator would monitor the timer and the other performed the flapper peening. The countdown timer helps us make more productive use of our operators' time.

Using the FlapSpeed® helps us maintain the parameter and stability of the process, thus giving us a better feeling of security over our repairs. The USB Key allow us to print the repair data, with all the details of the job including repair order, name of operator, date, time, desired intensity, RPM selected and actual RPM. That is proof that the repairs were done under optimum conditions. We like that for audits.

What do you think of the new FlapSpeed® PRO?

I noticed that your new FlapSpeed® PRO has a built-in Saturation Curve Solver Software. How cool! Can you imagine all the time savings? You no longer have to write all the points and calculate the 10%! Now everything gets calculated and it gives you a graph that you can print with your data. This is awesome!

The new screen is also much bigger and in color so it is very nice to use. You also added the choice of magnetic correction for 3M and Boeing (.77). It is very nice since we do a lot of work on our Boeings.

I also like the small handpiece grinder and the fact that everything you need for flapper peening fits in one small case. You grab the FlapSpeed® PRO case and you are ready to go!

Insights from Lance Welch

I am employed by a Northeast Texas company that is a leading provider of a broad range of electronic systems used on military and commercial platforms. I am mostly involved with the repair, refurbish, and modifications of older Boeing aircraft. We also see occasional newer productions. The majority of flap peening I do is related to re-work of corroded aluminum

aircraft structures, generally in locations that would not be financially viable to shot peen. At the 2009 Electronics Inc. Shot Peening Workshop, I met Brigitte Labelle and Sylvain Forgues from Shockform Aeronautique Inc. After one demonstration, I knew the original FlapSpeed® Controller was the tool we needed, and I was right.

Upon receiving the FlapSpeed® PRO, I was impressed with the inventory of the kit. Everything needed for the task was at hand with no need to drag around multiple containers. The 25 ft. cord is also a big help. It doesn't even have to be fully extended to work properly. Plus the curve solver integrated with the system is a big time saver. No more searching for an open computer with a printer.

Next, as expected, the functionality of the machine is just as infallible as the original. Even with the extended and altered mandrel, performance was flawless. My overall rating would be 4.99873 out of 5. ●



*Lance Welch
Aircraft Maintenance
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