20th Low Plasticity Burnishing System Shipped for Commercial Aircraft Engine Application

THE 20TH TURNKEY production system for application of low plasticity burnishing (LPB®) has been shipped from Cincinnati-based Lambda Technologies to Michigan, where it will be installed and used to improve the fatigue performance of commercial jet engine fan blades.

This is the fourth complete set of LPB production machinery installed at this facility. Seven more production systems for commercial engines are expected to ship in the near future. The majority of these machines will process commercial engine blades or integrally bladed rotors/bladed disks. Lambda currently has equipment in the field processing both commercial and military jet engines, propeller bores, landing gear, LPB production systems serving other industries.

Invented in 1996 and accepted by the FAA in 2009 for the repair and alteration of commercial aircraft structural and engine components, Lambda Technologies' LPB surface enhancement process provides a deep layer of compressive residual stress to mitigate fatigue, fretting, stress corrosion cracking (SCC), pitting and foreign object damage (FOD) in the critical areas of metallic components without altering either the material or design. LPB treated parts remain original OEM equipment, but with improved life and performance. "LPB gives designers and engineers a new tool to use to their advantage in design. Now compression can be designed into the part to improve the performance of both new and existing parts", said Dr. N. Jayaraman, Director of Materials Research for Lambda. "We are very excited to continue benefiting the commercial aircraft community."

For additional information on Lambda Technologies or the LPB process, contact us at (513) 561-0883 or visit www.lambdatechs.com. Visit our website for more information about our testing capabilities, accreditations, or other publications.