

BELAC NEWS

A Chromalloy Joint Venture Company

From the President of BELAC LLC

In today's free market — where industry forces drive maintenance departments to use the most cost-effective yet safe, reliable and authorized materials and processes — airlines seize every opportunity to remain competitive.

Many of the world's leading airlines rely on BELAC High Pressure Turbine (HPT) engine blades to drive cost savings through their maintenance departments, putting real dollars — up to 40 percent off OEM catalog pricing — back into their operations.

In its report, "Aviation Safety, Repair, Alteration and Fabrication Study," the Federal Aviation Administration (FAA) states there is "no difference" in the airworthiness of parts produced by an original equipment manufacturer and FAA-approved parts produced by a Parts Manufacturer Approval (PMA) holder.

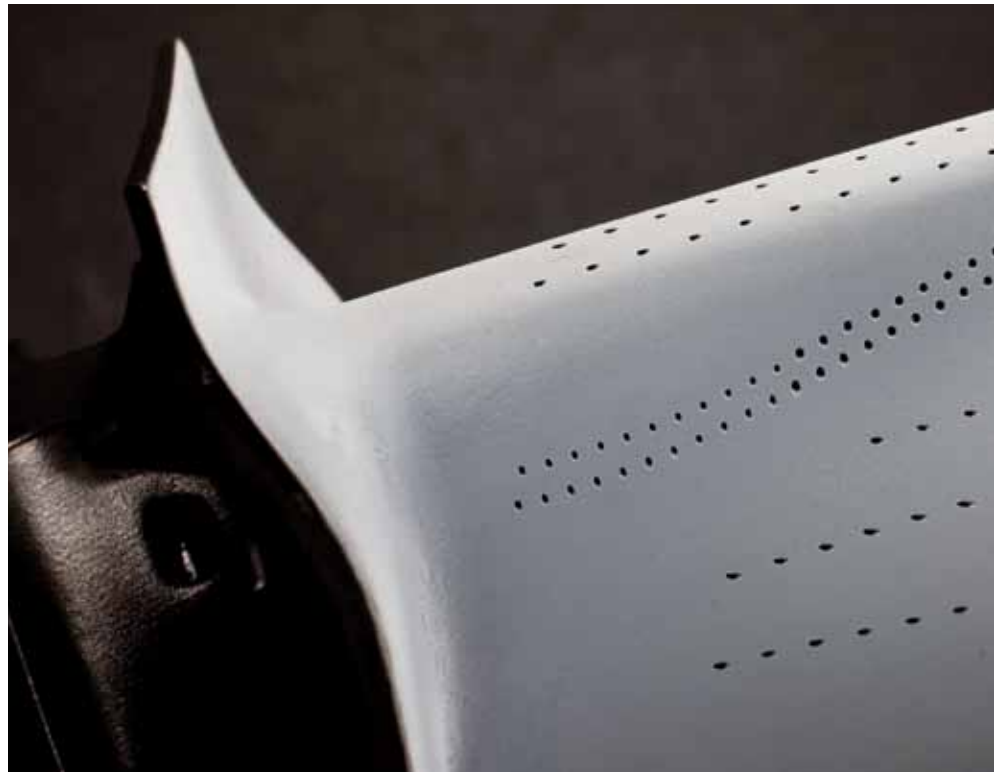
Yet I'm told original equipment manufacturer representatives work to convince operators not to use PMA parts in their turbine engines. They claim the parts are unreliable and unsafe. Further, should an operator choose PMA parts, the OEM representatives maintain they will stop honoring existing warranty agreements.

The FAA has determined that PMA parts are equivalent to OEM equipment.

Millions of flight hours attest to the airworthiness of BELAC HPT blades.

Choices and alternatives drive the free market — and keep it competitive. Why wait?

Chong Yi
President



BELAC planning first-stage PW4000 HPT blade production

Following its recent FAA authorization, BELAC is working with customers to enter into agreements for deliveries of the industry's first PW4000 High Pressure Turbine (HPT) engine blades.



"Following our announcement this year and communication with the air carriers, BELAC has received inquiries from PW4000 operators for these HPT blades," said Chong Yi, President.

In July 2009 BELAC received Parts Manufacturer Approval (PMA) to produce Stage 1 PW4000 blades. The HPT blades offer fleet aircraft operators and their maintenance departments significant cost savings over original equipment manufacturer (OEM) parts.

"Operators have a choice when replacing their turbine blades," Yi said. "More operators and their maintenance departments are turning to FAA-approved replacement parts to help them drive their costs down — and that multiplies over the life of the aircraft and the aircraft fleet."

The company's engine HPT blades already in service have accumulated more than 200 million flight hours. 🌐



BELAC reaches CFM56-3 HPT blade delivery milestone

BELAC has delivered the 200th set of CFM56-3 High Pressure Turbine (HPT) blades to air carriers worldwide.



“This is a significant milestone that demonstrates BELAC CFM56-3 HPT blades deliver superior performance and outstanding reliability,” said Chong Yi, President. “Our 18 customers operating globally have benefitted significantly from the cost savings of these turbine engine blades as an alternative to new original equipment blades and replacements for non-repairable blades.”

BELAC received FAA authorization to produce the CFM56-3 HPT blades in 2002. The company delivered its first set of HPT blades in 2002 to a global airline carrier. The blades were installed in the engine during a heavy maintenance overhaul.

“BELAC FAA-approved HPT blades have demonstrated superior on-wing maintainability and lower overhaul costs when removed from service and inspected,” Yi said.

CFM56-3 engine operators using the HPT blades have logged a combined total of more than 100 million flight hours. A single set of CFM56-3 HPT blades totals 72 — and more than 14,500 blades are currently in service.

“Performance has been exceptional and operators continue to capture significant maintenance cost savings,” Yi said.

BELAC is a Chromalloy joint venture with three global air carriers. 🌐

Thermal Imaging ensures superior coating quality

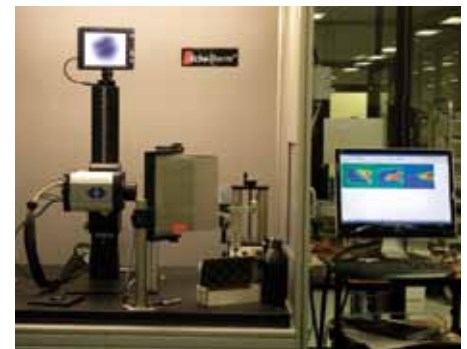
When Thermal Barrier Coatings are applied to the High Pressure Turbine (HPT) blades of an aircraft engine, the power system’s operational performance and fuel efficiency increase significantly. The ceramic coating, designed to insulate the blades from high temperatures during operation of the aircraft, allows the engine to burn hotter and produce greater thrust.

As a result of this significant performance enhancement, Thermal Barrier Coatings are a key element of today’s leading aircraft engine.

BELAC, a producer of FAA-approved HPT blades with Thermal Barrier Coatings, ensures superior quality and reliability of the blades and ceramic coating through patented processes, extreme testing and duplicate inspections.

To ensure superior quality and reliability of HPT blades, BELAC employs a Thermal Wave Imaging process to inspect the blade that has been coated with a Thermal Barrier Coating to establish that the coating is 100 percent to standard.

For example, the BELAC Thermal Wave Inspection will identify if the coating is de-bonded from the metal surface during processing.



It works in the following way. Thermal Wave Inspection is a brief pulse of light that heats the surface of the HPT blade, while an infrared camera records changes in the ceramic coating surface temperature. As the HPT blade cools, the ceramic coating surface temperature, which would be affected by internal flaws such as de-bonds, voids or inclusions, would slow the heat diffusion into the metal. Advanced thermal reconstruction algorithms are applied to this infrared imaging data to detect sub-surface defects.

To ensure superior HPT blades that feature a Thermal Barrier Coating, only those parts meeting the BELAC rigorous quality standards are delivered to turbine engine operators. 🌐



For information about pricing and availability, contact

Patti Holland
BELAC LLC
420 Commerce Blvd.
Oldsmar, Florida 34677

Phone: 813-749-3200
Fax: 813-749-3201
E-mail: sales@belac.com