

Newsletter – October 2016

BOOSTER VANE ASSEMBLIES

CFM56 series & GE90 series



Effective repairs solutions

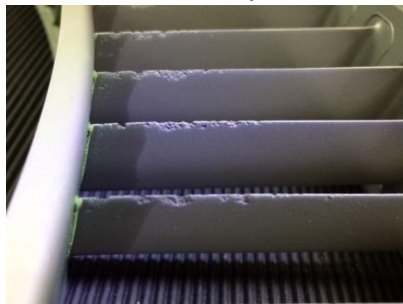
CRMA repairs around **500 booster vanes** per year, offering and developing new repairs to save booster vanes from being scrapped.

CRMA's REPAIRS SOLUTIONS

Anti-corrosion painting:

To prevent your booster from corrosion, CRMA recommends applying protection paint **SermeTel W** in accordance with **SB72-0454 & SB72-0506**.

This coating protects from the corrosion so that boosters can be repaired. Pictures below show scrapped boosters that are highly corroded, these boosters were not protected.



"Based on my experience as a production support engineer, specialized in the booster vane assemblies at CRMA, corrosion is the main cause of scrap for the CFM56-5B and CFM56-7B boosters. To address this issue, CRMA can offer painting solutions that were developed to prevent corrosion pits in accordance with SB72-0454 on all the CFM56-7B stages and SB72-0506 on the CFM56-5B stage 5.

Moreover, thanks to the introduction of repair 039 (or SB72-1031) on the CFM56-5B stages 2,3 and 4, all the parts can now be replaced (inner & outer shroud, vanes or nuts), therefore the boosters previously scrapped can now be repaired at CRMA."



Thibault REIG

Production support engineer

CFM56/GE90 booster & case specialist

Booster parts replacement:

CRMA is handling **REP039**, as an additional repair solution to REP060, allowing parts replacement of:

- Vanes,
- Outer & Inner Shroud,
- Nuts.

In 2015 50% of Booster Vanes were scrapped, requiring to purchase new ones for 120 000\$ each. With the introduction of REP039, **CFM56-5B boosters' scrap rate has been drastically cut.**

CRMA INDUSTRIAL CAPACITY for Booster Vanes

Room Temperature Vulcanizing (RTV) : silicone



REP 002: Inner shroud abrasible coating repair.

- Injection machine,
- Computer-controlled for high precision and repetitiveness of mixtures.

Thermal Spraying processes



- Four multi-coat robots (bi-processes: plasma and combustion flame),
- Two electrical arc installations for thermal spraying of metal coatings,
- Cold process TBC and polyester-coated aluminum.

Glass bead peening machine:



- Large capacity glass bead peening machine with a six-axis robot, plus one additional axis controlled by computer,
 - Automatic machine only supervised by an operator.
- It allows an absolute precision and repetitiveness for **anti-corrosion painting (SermeTel W)**.

