

Shot Peening Has Come a Long Way

1995054

This article has been reprinted from "Flightline/Aircraftman", the newsletter for the NAS Corpus Christi, Texas and Corpus Christi Army Depot.

It used to take one to two hours to do; now it takes about two minutes to shot peen a part. Thanks to a semi-automated (computer operated) shot peening machine and three dedicated shot peening operators: Martin Yglesias, Daniel P. Lazo and Jill Van Vleet.

Each part, shaft, gear, etc., requires a different program, said Lazo. "It's not just 'do it' anymore. We compete with contractors on each process, which is certified before being awarded," he said.

The average turnaround time for this procedure is about a week. Once the process is certified, the shot peening operation itself takes little time, said Yglesias.

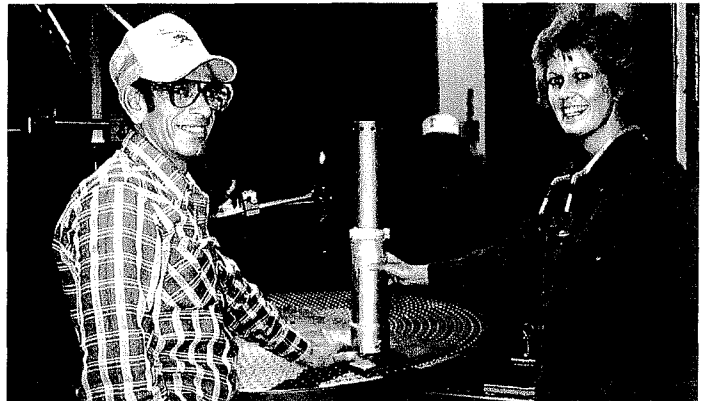
What is shot peening? Shot peening enhances the fatigue life of metal parts or components. Van Vleet said, "It's a process of bombarding metal parts with round cast-steel shot (or beads) under controlled conditions, which produces a layer of uniform compression."

"We do our own programming for each part. For example, engine nozzles used to be done on an old non-automated machine. Then it was decided not to do them anymore. The problem with the nozzles wasn't to change the metal density but to open the little blades so air could go through," she said.

Lazo added, "We had to figure out how we could do that. So we got the ATCOM engineers involved and developed a procedure and did a few tests."

Van Vleet said, "The first test was left in the shot peening machine for 15 minutes and it pretty well destroyed the nozzle. For the next test we left it in only two and half minutes and it was good." That compares to about two hours on the old machine.

Yglesias said, "The way of doing business has changed here. We are a self-supporting shop, competing with contractors for work. "Shot peening is an important process, which a lot of people just put aside. CCAD (Corpus Christi Army Depot) is becoming known throughout the helicopter industry as a top shot peening operation. We look at this as a challenge. It shows how much knowledge and professionalism we have at the depot," he said. ○



Daniel P. Lazo and Jill Van Vleet show off the semi-automated (computer operated) shot peening machine that can handle any job. (Editor's note: We were pleased to have Daniel Lazo and Jill Van Vleet attend the 1994 Shot Peening workshop.)

The Shot Peener Contest: We have a Winner!

Dwight E. Lutsko of Jet Wheelblast Equipment correctly answered our contest question: In what issue of *The Shot Peener* did advertising first appear and who were the advertisers? The answers are as follows:

- Vol. 2, No. 1
- Hydro Honing, East Hartford, Connecticut
- Amasteel (Ervin), Ann Arbor, Michigan
- Electronics Inc., Mishawaka, Indiana
- X-Cel Controls, Mishawaka, Indiana
- EMI, Inc., South Bend, Indiana
- Empire Abrasives, Ringham, Pennsylvania
- BCP, Ltd., Oakville, Ontario Canada
- Kraber Industries, Cleveland, Ohio
- Jet Wheelblast Equipment, Adrian, Michigan
- Metalworking Machinery Co., Gebsonia, Pennsylvania



Congratulations Dwight—we appreciate your ongoing interest and support of our publication!

Now here's another contest question: What company has placed the most advertising in *The Shot Peener*? (Excluding Electronics Incorporated.) The answer will appear in the next issue of the newsletter.

Fax us your answer or send it e-mail!
Fax: (219)256-5222 E-mail: shotpeener@aol.com

Be the first to send in the correct answer and win these valuable prizes!

- A Shot Peener Baseball Cap
- A Shot Peener Ball Point Pen
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