



# The Parting Shot Jack Champaigne

2004048

## Reaching New Heights

Travel by air is one of the safest modes of transportation in the world today. With 100 years of experience, this record isn't without contributions by many people and organizations. Manufacturers and mechanics make things happen. Someone must validate their work. This issue of *The Shot Peener* pays tribute to the efforts by the FAA and NTSB, as well as others. These are the guardians of our safety in the sky.

We have seen an increase in activity recently regarding shot peening inspections and audits as reflected in increased sales of Almen gages and high-quality Almen strips and more on-site training classes and attendance at our workshops. EI has provided training for shot peening for over 14 years and trained and certified over 1,000 students. We also provide training for FAA inspectors and NADCAP auditors by special arrangement. I especially enjoyed visiting with Gary Martin (see page 4) at the 2003 Workshop in Scottsdale. Matt Thurber, editor of *Aviation Maintenance* magazine, had an exhibit booth that proved very popular to attendees.

We decided to include several reports relating to safety and shot peening to elaborate the importance of diligence in peening for aerospace applications. And, yes, you can be in big trouble if you don't follow the rules. You can go to jail.

When we reflect back into the history of shot peening, we find that some of the pioneering work was done by J.O. Almen at Buick Motor Division of General Motors. Problems with valve springs led to "shot blasting" for improved fatigue performance and development of a control system we know today as the Almen strip. In the early 1940s, Curtis Wright made tremendous strides during WW2 when standard materials had to be improved for aircraft engines. Metal Improvement, under the leadership of Henry Fuchs, evolved from these early efforts. So, it's fitting that we return to our roots by holding the 14th annual workshop on Shot Peening and Blast cleaning in Dearborn, Michigan. Our keynote speaker will be Sid Terry. He retired from Chrysler in 1980. Sid was actively involved in shot peening with a special emphasis on weight savings—don't miss his article on page 13. When you compare prices between 1986 and now and it doesn't take much imagination to see why there is a very strong incentive to reduce weight by shot peening.

The European workshop in Sweden this May will feature new emphasis on "How do I get started with shot peening?". Peening is often "designed-in" upon component origination. However, a lot of shot peening is applied after components that are put into service start to fail. This has often been called "rescue peening"... meaning that parts are failing and now you have to rescue them. Where do you start? By sitting in on the classes presented by Dr. John Cammett. His classes, "Theory of Peening" and "Applications of Peening" are very popular. Presentations on "Laser Shot Peening" and "The Importance of Job Shops" will be presented by Metal Improvement. Make your reservations now to attend the classes by the industry's leading authorities in shot peening. See pages 36 and 37 for more information on the workshop. Registration forms are included.

The Dearborn workshop in October will have a very pleasant surprise. We will be unveiling our progress with non-destructive testing. Yes, I said non-destructive testing. Now you can determine that a component has been peened properly. So, for all of the engineers that were reluctant to base their career on an "unknowable" technology, come to the Dearborn workshop and learn what's happening.

### Electronics Inc. Wants #1 Almen Gage

The drawing on the right is the only representation we have of a #1 Almen gage. Electronics Inc. would like a real one for our library and will trade a new TSP-3 Almen gage for a #1 gage in good condition—an original or replica.

If you have a #1 Almen gage, contact Jack Champaigne at 1-800-832-5653 (USA and Canada) or (574)256-5001 or send email to: [jack.champaigne@shotpeener.com](mailto:jack.champaigne@shotpeener.com)

