



Lifecycle

News and Information from Philadelphia Gear Corporation

Vol.4 Issue 1

In Gear

Asking customers yields great info

I'm pleased to announce that at the end of last year Philadelphia Gear was awarded multi-site ISO 9001 certification for all six of its locations nationwide (see article, pages 1-2).

An interesting feature of the new ISO standards is the requirement to communicate with your customers. Everyone familiar with ISO knows the need to have corrective action programs in place to respond to customer concerns, process breakdowns and quality incidents. There is now an additional imperative to create objective and measurable feedback opportunities where customer levels of satisfaction can be documented and acted upon.

In this way, companies can perform trend analysis of how they're performing in the eyes of their customers, even without a specific corrective action generated by a quality incident. Companies can then use this data to preempt issues that are on the customers' minds before they become larger problems.

To help PGC accomplish this, we hired a third party survey research team to conduct a survey of our customers and measure their levels of satisfaction with Philadelphia Gear.

By using random sampling, the research team solicited 910 individuals to take a Web-based survey over two-weeks. Overall, we had a 36% response rate, which indicates that our customers had both a high level of awareness and a high level of engagement with PGC. To put this in context, the survey industry considers a 10% response rate as successful and 15% as outstanding.

I'd like to share some of the best and worst of the findings. 87% of our customers said they'd be very likely to recommend us to another customer, and 83% told us they were very likely to use Philly Gear to solve their next gearing problem. However, only 40% rated our on-time delivery as very good or excellent, and only 37% rated availability of Philly Gear spare parts as very good or excellent.

This was our first time through this exercise and it provided us with insights on how we're performing for our customers, as well as gave us a baseline to measure our performance every year from here on out. It's a great start, and I want to thank everyone for sharing their opinions with us. In the end, it's this kind of feedback that will help us become the best gear solutions provider in the industry.



Carl Rapp

President & CEO
Philadelphia Gear Corporation

If you'd like to talk to Carl directly, please call (610) 265-3000.

Philadelphia Gear Completes ISO Certification for All Five Regional Service Centers

ISO-9001 recertification shows commitment to manufacturing and service excellence, coast-to-coast

This past winter, Philadelphia Gear completed its ISO-9001 (2000 Standard) certification for the Lynwood, California-based Western Service Center's quality management systems standards. Certification at the Lynwood facility is the final step in Philadelphia Gear's efforts to obtain ISO-9001 (2000 Standard) certification at each of its five regional service and manufacturing facilities across the United States.



Philadelphia Gear's Lynwood, CA facility received ISO-9001 certification in late '04

"Completing ISO certification at all five of our regional service centers shows our commitment to the manufacturing, calibration

Continued on page 2

Philadelphia Gear Extends Standard Warranty

Leading gear service provider improves upon already "best in industry" warranty

Philadelphia Gear is pleased to announce the extension of its "best in industry" standard warranty.

Philadelphia Gear's original standard warranty covered the first 12 months of operation after installation, even if the installation took up to six months to complete. The new "best in industry" warranty has been extended to a full two years – this, despite customer feedback revealing high satisfaction with the original 12/18 month warranty. The warranty extension is a reflection of Philadelphia Gear's confidence in its quality maintenance services and

systems in place at its five regional service centers throughout the United States.

"Extending our standard warranty by an additional six months is a significant statement in showing our commitment to customer service," says Carl Rapp, President

and CEO, Philadelphia Gear Corp. "We know our original standard warranty was already the best in the industry – extending it to a full two-year warranty only serves to separate us that much more from our competitors, providing our customers with a commitment to quality beyond their own expectations."

For more than a century, Philadelphia Gear has combined innovative engineering, expert manufacturing and technical field services to provide world-class gearing solutions and power transmission services through its five regional service centers. Each of these centers draw from 100-plus years of proprietary gearing information, allowing Philadelphia Gear to provide consistent quality service from coast to coast. 🌟

Philadelphia Gear Completes ISO Certification for All Five Regional Service Centers

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and design portions of our business – and ultimately, our strong commitment to our customers," says Rod Francis, Director of Quality for Philadelphia Gear.

Philadelphia Gear made the decision to certify each of the five regional service centers – located in Birmingham, Alabama; New Castle, Delaware; Mokena, Illinois; Houston, Texas; and the aforementioned Lynwood facility – during the company's own efforts to standardize and optimize the quality management practices in place at its regional centers.

"ISO certification lets our customers know that at each Philadelphia Gear facility they enter, the quality system in place at that facility is backed by the stringent, comprehensive, standardized and highly respected certification standards of the International Standards Organization (ISO)," notes Francis, who headed up the certification process. "It's a unique advantage to have over our competitors, and ultimately should only bolster the confidence our customers already have in trusting Philadelphia Gear with their mission-critical gearing equipment."



All five PGC facilities are ISO-9001 certified

ISO is a world-recognized quality standard, which companies can certify to by documenting as well as maintaining a quality system that complies with the international standard.

Doing business with an ISO certified company ensures that a system is in place to:

- Consistently produce quality products;
- Identify the cause of any nonconformance and take corrective and preventive actions;
- Continually improve performance through the analysis of quality processes and customer feedback.

"ISO recertification shows an ability to consistently provide service that meet regulatory and world standards," notes Francis. "Having such a system in place is critical for gearing manufacture and repair, where often one-thousandth of an inch can mean the difference between properly functioning gearing and failure." 🌟

PGC Avoids Costly Teardown at New Jersey Plant

Careful inspection helps customer avoid unnecessary maintenance

During a major outage at a nuclear plant in New Jersey, Philadelphia Gear was asked to perform a gearbox inspection to determine if there were any indications that the gearbox needed to be torn down for overhaul. Plant management defined a "major outage" as one in which a complete turbine tear-down has to occur after a defined number of hours of operation.

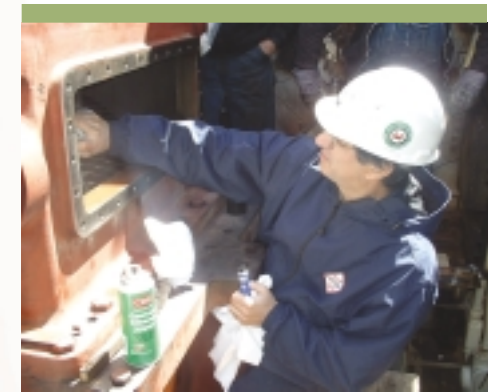
The GE load-boxes were first installed in 1989 and are used as peaking units. When necessary, they also act as the emergency power supply for the main power plant. Philadelphia Gear – represented in this case by Andy Pomerantz and Bill McCloy – was checking to see if there was any difference between the contact from that check, which would be the current condition, and the wear pattern seen by the polishing on the teeth, which could possibly reflect a past condition. Variation between the two patterns would indicate a bearing problem.

When they arrived, they found the turbine and generator disassembled, the roof of the load gear enclosure removed, and the gear uncoupled on both ends. GE reported that there had been a significant exhaust leak into the enclosure, and a considerable

clean up had taken place to remove the black oily coating. The millwrights were in the process of installing the centering ring, with some difficulty.

The inspection cover was removed, and the gear elements inspected. The high-speed shaft was rotated to allow observation of all teeth on both members. The pinion and gear teeth were found to be in excellent condition, with light polishing from load, and the original tooth finishing marks clearly visible. The tooth contact pattern favored the apex on both helices, with indications of contact visible to the out-board crown breaks. There were scattered marks on the teeth that were either the result of some foreign material in the oil, or from corrosion etching. In either case, this condition did not represent a significant threat to the reliability of the gear as long as steps were taken to insure that the drive received clean lubrication in the future.

According to individuals at the site, there were not any indications of an operational problem with the gearbox prior to the power outage. However, there were also no documented readings of temperature or vibration that could be used by the PGC



Using dye and gear-marking compound, Pomerantz checks the tooth contact pattern of the load box

staff on-site to provide any assurance of proper operation.

McCloy and Pomerantz checked the contact pattern using an application of Prussian blue (soft blue) on one member, and a spray-on gear-marking compound on the other. After applying the compound, they rotated the unit by "baring it over" and then documented the result. As it turned out, the soft blue check exactly corresponded with the polished areas on the teeth.

As a result of the inspection and, ultimately, Philadelphia Gear's gearbox expertise, the customer was able to avoid a costly tear-down of their load-box. 🌟

GET THE FULL STORY FOR FREE.



Call Philadelphia Gear at any time for expert inspection and repair of gearboxes. And send for your **free** white paper on effective lubrication systems. Simply complete this card and mail today to the following address:

Lubrication Paper | c/o Philadelphia Gear Corp. | One Montgomery Plaza, Suite 700 | Norristown, PA 19401
Or fax to Michelle Banks at 610-337-5637

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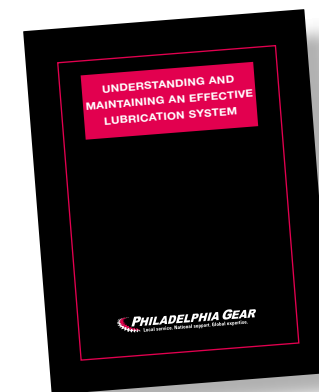
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Gear Notes

New with Philadelphia Gear...

Chris White has joined Philadelphia Gear as Regional Sales Manager in the Western region. White reports to Tony Tartaglio, GM of PGC's Lynwood, CA facility, and is responsible for sales efforts on the west coast, as well as Arizona, Colorado, Utah, Nevada and Wyoming. White has more than twenty years of sales experience, most recently with Andover Controls and Siemens, where he served in both cases as the Western Regional Sales Manager.

Kevin Peck has joined Philadelphia Gear as a sales representative for the Western region. He will be responsible for developing and servicing Energy market accounts in Colorado, Wyoming, Idaho and Utah, and will report to Chris White. Peck has nearly twenty years of sales experience, most recently with Regal-Beloit, where

he served as the Rocky Mountain states territory sales manager for the Grove Gear Division. Prior to that, Peck held the position of account manager for the Whisler Bearing Company.

Power-Gen Forecast Bright...

As the economy improves, the electric power industry is seeing light at the end of the tunnel. New generation is needed to meet future energy demands, as well as to replace units retired by the end of the decade. The majority of new generating units have come in the form of natural gas-fired combustion turbine generating (CTG) plants – however, a variety of fuels including coal, renewable, and nuclear, are under study to provide a diverse fuel base for new generating units and guard against the volatile nature of natural gas prices.

Calendar of Events

- **Power-Gen Europe**
Milan, Italy
June 28-30
- **Coal-Gen**
San Antonio, TX
August 17-19
- **Turbomachinery Symposium**
Houston, TX
September 13-15
- **Canada Power**
Toronto, CN
September 27-29
- **Power-Gen International**
Las Vegas, NV
December 6-8