

# Rock star D.F. Barnes amps up prod

BY CORINNE LYNDS

Seven years ago D.F. Barnes Ltd. was little more than a family-run shop cradled in the natural harbour town of St. John's in Newfoundland and Labrador. Known for high-quality workmanship and a less than stellar safety record, it was a small company to which few people would have given a second thought.

Today, D.F. Barnes is on target to gross more than \$100 million in 2009. Indeed, a growing product lineup and impressive productivity gains, especially from its Orphan Industries subsidiary, are quickly making D.F. Barnes one of Newfoundland's great success stories.

It all started back in 2002, Doug Byrne, owner and operator of D.F. Barnes, decided it was time to retire. Not wanting to sell-off the family business to just anyone, he got on the horn and called his little brother in Virginia.

"It was a great chance to get back to Newfoundland at a time when it was showing a lot of promise. So I jumped at the opportunity," says Jerry Byrne, who owned a successful instrumentation business.

A manufacturer and fabricator for the oil and gas, marine, shipbuilding and offshore industrial sectors, D.F. Barnes focused on field services, custom fabrication and metal or composite product manufacturing.

"In 2002, we were really just a mom-and-pop shop on the waterfront. We hardly had a decent fax form," laughs Byrne. "But the company had a really good reputation for quality work, so I came back and started putting together an infrastructure."

He started out by installing basic systems to manage safety and quality. Although D.F. Barnes has always been well known for its high quality, the company was lacking in the safety department.

"We had a really horrible safety record, the worst safety record in our industry in Newfoundland and Labrador without a doubt," says Byrne.

As such when he took over the operation, he made safety the first order of business. After working closely with the Workers Compensation Board to implement safety training and standard procedures, D.F. Barnes has gone from worst safety record to best. In January, the company had logged 821 days without a lost-time injury.

Once the safety issues were under control, Byrne moved onto phase two of his business plan, which was implementing quality systems. This was a much easier challenge, as quality had long been the company's strong suit.

"We had always done quality work, we just didn't have the certifications in place," explains Byrne. As such, the D.F. Barnes team put together a quality initiative that led to ISO 9000, ISO 2000 and Canadian Welding Bureau (CWB) certification. With strong safety and quality systems set, the company had a strong, stable platform for growth. And grow it did.

In 2001/2002 gross revenue averaged roughly \$1 million per year. Since then, it has doubled every year. According to Byrne, it will do \$65 million this year, and



Art Garland, president of Orphan Industries Ltd., standing in front of the first Newfoundland-made LARS unit for local offshore use.

PHOTOS: D.F. BARNES

already has enough orders on the books for next year to put it well over \$100 million.

"We've gone from 10 or 12 people to more than 500 full-time jobs. It has been phenomenal growth, and we've done it mostly organically, basically going after opportunities that exist both here on the East Coast and in Alberta."

#### Western growth

Going after opportunities in Alberta has contributed significantly to the company's rapid growth. It's building tank and piping systems for CN Rail on the Horizon site, and Byrne says these projects account for

about 40% of the company's business and 40% to 50% of the company's workforce.

He attributes growing demand in Alberta to the company's high-quality workmanship. "The average failure rate for on-site welding is roughly 20% to 25 per cent. Our failure rate is less than one half of one per cent. We're able to do that because we're used to working in harsh environments."

A larger workforce and increased profits are not the only changes it has experienced over the past seven years. The company has diversified its offerings and added new business segments. It's now officially called the D.F. Barnes Group of Companies, and within that

# Activity at Orphan Industries

parent organization there are several smaller more specialized businesses.

They include: Buchans, which focuses on high-volume CNC machining; Extreme East Rigging Services Ltd., a company that focuses on safety and industrial equipment supply and service; GEC Installations Inc., a fabrication contractor for large projects in Alberta; NewTech Coatings, which offers painting, sandblasting and provides specialized coatings; and Orphan Industries Ltd., an export manufacturer of large-scale steel structures and systems, and the centre of D.F. Barnes lean campaign.

It was launched two years ago to address potential export opportunities in manufacturing. D.F. Barnes had a strong relationship with Houston-based Oceanering International Inc. doing field service work, explains Sean McCarthy, director of continuous improvement for D.F. Barnes Group and operations manager for Orphan Industries. When the oil and gas company decided to begin manufacturing its own launch and recovery systems (LARS), Orphan Industries jumped at the opportunity.

"Oceanering went through a worldwide competition to seek out a fabricator for the LARS. They did a supplier audit of a number of different suppliers in the US, Asia and North America," says McCarthy. "That audit was based on best value—functions of quality, delivery, culture price and a number of other factors."

Orphan Industries got the contract for just five LARS units, but it was no small undertaking. As the name implies, a LARS deploys and recovers remotely operated vehicles (ROVs) used for sub-sea service and repair. Each unit is a 25,000-kilogram mechanical and hydraulic system that costs between \$350,000 and \$450,000.

## Lean thinking

Not long after this initial contract was established, Orphan Industries secured more contracts from Oceanering and quickly became one of its main suppliers.

"As the company was, for the most part, new in terms of contract manufacturing, one of the things that they wanted to get involved with was lean manufacturing, so they brought me in," explains McCarthy, who has an extensive background in continuous improvement with the Canadian Manufacturers & Exporters (CME) in Newfoundland and Labrador.

A subsequent contract, identified as a good candidate for lean initiatives that could be spread throughout the larger group of companies, was selected for a pilot project that began in August 2007.

"Basically we looked at what standard procedures needed to be put in place to ensure that the process is the same, no matter who is doing the welding or fitting," says McCarthy.

The first standard operating procedure he tackled was production of the LARS base structure. A new strategy was developed to ensure construction followed a logical, set procedure. "The idea is that we don't want to rely on people trying to recall from memory what was done the last time," explains McCarthy.

He also focused on how long it should take to do each specific job, and how all those detailed tasks worked together to achieve tact time.

The lean initiative was successful enough to win the 2007 Canadian Innovation Award for productivity improvement from Canadian Manufacturers & Exporters. Orphan Industries reduced its average manufacturing hours per LARS unit from 5,000-plus to 3,300. That's an increased efficiency of more than 30 per cent.

"The fact that Orphan applied the lean process to a manufacturing contract and then took that knowledge



Orphan Industries welder Greg Gulliver and millwright Randy Elms check out parts for one of the company's launch and recovery systems.

and applied it within other areas of their businesses made them a perfect candidate for the innovation award," says Lori Stone, manager of special events for the CME in Ottawa.

Now that Orphan Industries is operating on a lean platform, McCarthy will be busy implementing continuous improvement strategies through the rest of the D.F. Barnes companies.

"We're focusing on the administrative side, trying to look at the processes inside of that structure first. The second area being looked at is capital expenditure around the new building," he says. "And the third, is the Alberta operation, which we're calling lean project management."

The new building is a 25,000-square-foot fabrication

space that's being built in St. John's near the company's existing facilities. McCarthy and his team are currently looking for the best way to layout the new facility and integrate lean principles from the ground up.

"From Orphan's perspective, we'll quadruple the fabrication space. It will give us a better layout that will allow us to be more productive," adds McCarthy.

D.F. Barnes has come a long way since that Mom-and-Pop shop on the waterfront. With its diversified offerings, reputation for quality and ongoing lean initiatives, this East Coast success story still has a long way to grow.

Contact Corinne Lynds, editor of *AutoPlant* at [corinne.lynds@plant.rogers.com](mailto:corinne.lynds@plant.rogers.com).



ROSTA self-tensioning motorbases for all V-belt drives

- eliminates slippage
- maintenance free
- overload proof

... offer your belts a longer life time, install the ROSTA-base!

**ROSTA** 

ROSTA INC., 12 Douglas Road, Unit #6  
CA-Uxbridge, Ontario L9P 1S9  
Phone 905 852 19 29, Fax 905 852 18 61  
E-mail: [info@rosta-inc.com](mailto:info@rosta-inc.com)  
Internet: [www.rosta-inc.com](http://www.rosta-inc.com)