

DON'T GET RUN OVER WITH TOO MUCH BUSINESS

By Stacy L. Whitman

While not getting enough business presents obvious problems, getting more business than you can handle can also be a challenge. Transwest Mining Systems, a full-service electro-mechanical service company located just outside Vancouver, B.C., has been facing such a challenge, as the mining industry in northwest Canada grows and has increasing electromechanical demands.

Transwest, a division of KCL West Holdings, Inc. – itself a part of Komatsu Ltd. – has several divisions across British Columbia, Alberta, and the Northwest Territories that supply

and serve the open-pit mining in northwest Canada, such as Fort McMurray and Thunder Bay diamond mines and tar sands mines.

Transwest Mining Systems, a full-service electromechanical service company located just outside Vancouver, B.C., has been facing the challenge of having more business than it can handle, as the mining industry in northwest Canada grows and has increasing electromechanical demands.

From off-highway trucks to drills to hydraulic shovels, “we really do it all,” says operations manager Rod Allen.

Though the rest of the company’s locations sell much more equipment than they perform electromechanical service, in the Port Coquitlam division, business is 85% electro-mechanical service, and most of the motors they serve might be the largest many have ever seen.

“We have a lot of machines with a specific purpose,” Allen says, because mining is a unique environment, requiring equipment tailored to its needs – not only unique, but very large in physical size alone, requiring a shop with the capacity to lift, move, and work on them.

HEAVY CAPACITY NEEDED

The 20,000 square foot shop built on three to four acres has six cranes with a 40,000 pound total capacity (the largest crane can hold up to 10,000 pounds). At 12 feet high on the main frame, it’s “not high enough,” says Strohan McEwan, electrical service foreman. A 500-ton tilt-head press allows Transwest to say there’s “not a shaft made yet we can’t bend,” says McEwan. Three ovens – two of which are accessible from both sides – can handle even the largest motors. They also have a Vibraport 30 (Schenck) balancing pedestal, capable of holding 5,000 lbs. The biggest motor they’ve ever had come in was a Goliath crane motor, at 5,000 hp.

The VPI tank is 47" tall by 59" in diameter (Though the tank might not be thought large enough to serve the motors Transwest usually services). McEwan says that they usually VPI coils individually rather than in assembly, so even the largest of motors can be served. They also use the tank for armatures and generally anything else that needs it.

One challenge currently is testing ability. The company has no limitations on when they can draw power from the

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utility, McEwan notes, but they're very limited by a low supply – the tapped autotransformer supplies a maximum of 112 kVA for AC motors. 300 amp/750 V variable DC supply. "We've run 1,000 hp at no load by starting at a low voltage and accelerating," he says, but have been unable to test with a load. They also have no medium voltage (2,300-4,160 V) capacity.

"Yet," he says.

BRANCHING OUT

In addition to mining, the company finds "a lot of synergies" in other industries, such as railroad work, mostly in the form of motor rewinds for locomotives. Transwest is a GE-certified facility, which allows it to get a lot of work referred to them through the manufacturer – it's only one of four facilities in North America that does warranty work on off-highway drive system rotating equipment. Among other things, the unionized shop works on coil redesign on GE DC drive systems. It also has repair maintenance contracts with several mining companies and sells parts and off-highway trucks around the world.

"We sell anywhere," Allen says, to companies in countries all over the world – Chile, Bosnia, India, China, and several U.S. companies.



The Port Coquitlam division began in the early 1970s as a company called Dynaquip Engineering, which was purchased by Rivtow. Over a number of years, the company went through several name changes until it finally became known as Transwest Mining Systems.

The rewind shop is packed full, using every possible bit of floor space for projects in progress. To serve these projects, Transwest built its own testing facility for balancing and spin seasoning armatures. Though most of the motors in mining are DC, many are "going over to AC," Allen says, noting the trend for motors to be smaller and smaller. However, they still see quite a majority of equipment like the 1,800 kVA traction alternator from an 830E Kumatsu 240 ton haul truck, an off-highway dump truck. On such large-trucks, each axle is driven by an electric motor built into each wheel in the trucks Transwest serves, about 1,000 hp per motor.

INVENTORY MANAGEMENT

The company doesn't just repair and rewind motors, though. They also have a warehouse in which anything from parts to whole wheel motors are kept for clients, because mining is an industry that needs a quick turnaround. "We try to keep a large selection at a good price," says Allen, which is sometimes a challenge.

"We collect spare parts from mines shutting down," and sometimes if a customer sends in something for service that ends up not working, they replace the machine but store the parts from the broken-down machine at no cost, to keep the client's later repair costs down.

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