

# Case Study

## Fast Turnaround for a Fertilizer Plant

**Sulzer Turbo Services Canada was called upon to assist in a major turnaround for a fertilizer plant. The company was requested to perform an emergency disassembly and inspection on a hot gas expander that was not performing correctly after a rebuild by the OEM.**

The customer called upon the newly-built facility in Edmonton to expedite a complete disassembly, inspection and evaluation of the expander. The Field Service Division of Sulzer Hickham was included in the turnaround project and they were overseeing all the field operations,



Unit set up for disassembly.

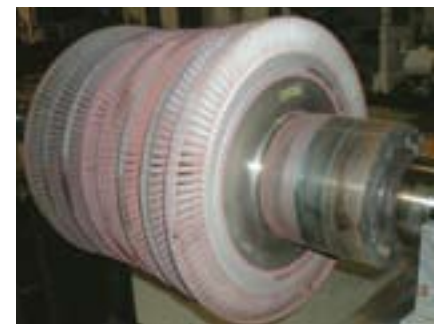
which included initial inspections and removal of the units from the field. The Edmonton shop committed all its efforts and went into action to assist the customer, working a 24 hour day



Disassembly of the expander.

to get the inspections completed and to diagnose any problems that were present. Technical representation from Sulzer Hickham La Porte was called upon and was present at the Sulzer Edmonton facility the following day. A customer representative was also dispatched to the Edmonton facility to follow the progress of the project and to work with Sulzer Turbo Services employees. Initial inspections indicated excessive thrust running clearance, along with expansion settings on the case not to specification, galling on the inner case fits to the diaphragms, and improperly manufactured locking fasteners on the inner main case. The disassembly and inspection of case parts and the rotor, including Non-

Destructive Testing, was performed in two days, which was a substantial feat considering the scope of work to be performed. All incoming inspection findings were reviewed with all parties involved; Sulzer Turbo Services Canada, Sulzer Hickham La Porte, Sulzer Hickham Field Services, and the client. Numerous conference calls to discuss the issues at hand and a scope of repairs were agreed upon by all parties. Scheduling was of the



Rotor inspections being performed.

utmost priority, with 3 companies of Sulzer working together, plans were discussed to complete the repairs needed, re-build the complete unit, and get the unit back to the customer as quickly as possible, with the standard



Checking seal clearances during re-assembly.

Sulzer quality and professionalism the customer had experienced with past Sulzer Hickham projects in the USA. The Edmonton facility continued to work around the clock to facilitate the repairs needed. Working closely with the customer, the Field Services Division, and with Sulzer Hickham, the repairs and re-build of the machine were completed in four days which was two days ahead of the originally estimated completion date.



Coupling end bearing housing after re-build.

All parties involved played an important role in completing the project ahead of schedule.



Re-built machine on shippin skid - ready for transport

Seamless communications and technical discussions between Sulzer Hickham and Sulzer Turbo Services

Canada once again proved the excellent cooperation between the two companies to the benefit of the customer who enjoyed our un-divided commitment to produce a quality product.

*Mike Higginbotham  
Sulzer Turbo Services Canada*