



Key Benefits

- Automatic control sequences
- Unlimited number of spreadsheet style test schedules, test data etc.
- Increased unmanned running
- Continual monitoring for alarm conditions
- Automatic calibration tracking

Eye to the future | Window on the world

Summary

The system was designed to automate the running of a gearbox durability test rig so that unmanned endurance tests could be carried out safely. Signals being monitored include vibration, speeds, torques, and temperatures at various locations around the test bed.

In the event of a failure in the gearbox the system will shut the rig down in a controlled manner. The exact nature of the shutdown will depend upon the type of failure and the speed at which the rig needs to be stopped to minimise damage. The last few minutes of running are also made available in the form of a shutdown log so that an engineer can analyse the exact nature of the failure.

Spreadsheet style test schedules are used to defined the test profile. Each contains a number of phases, with a defined length or number of revolutions. For each phase the required input speed, input torque, gear number, gear ratios, logging requirements, and alarm limits to be applied, are defined. In addition, the required box temperatures are controlled by two software controllers.

Equipment Used

- Intel based Pentium PC using
Microsoft Windows NT 4
Light Pen Operator Interface
- 1 x ABB Torque Controller
- 1 x ABB Speed Controller
- Plug in cards included
4 x PCL-818HG 8 Ch A/I,
1 Ch A/O, 16 Ch D/I,
16 Ch D/O
1 x PCL-833 3 Ch Quad/I



If you would like to find out more about this application, please contact the sales office who will put you in touch with the original Systems Integrator.