

■ Crank Shaft Reluctor Wheel Testing: Verification of Reluctor Wheel Machining Using Laser Profiling

Highlights:

- Defect detection & classification
 - Notch too deep or shallow
 - Notch too wide or too narrow
 - Angular space between notches too great/ too small
 - Missing notches
- Comprehensive and graphical representation of test specimen
- 100% data storage for traceability and process control
- On-screen diagnostics for sensor alignment and/or calibration verification
- Password protected on-line
- PASS/FAIL criteria definition
- Utilizes sophisticated sensor array and mechanical fixture(s) for maximum accuracy and repeatability

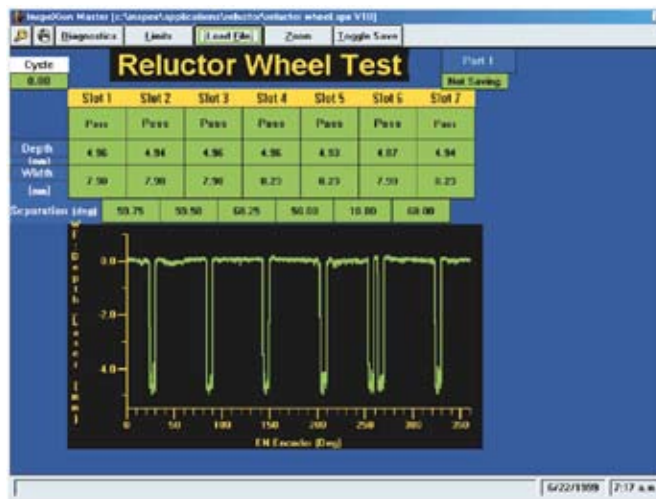
A Sciometric Test and Analysis System with InspecXion® Test and Analysis Software combined with a laser and an encoder allows manufacturers to verify reluctor wheel characteristics and quality.

The encoder and laser are used by the Sciometric system to provide an intuitive and accurate graph which illustrates defects such as improper notch depth, improper notch spacing and bad notch width. The laser and the encoder are such a powerful combination that they can even be used to calculate the curvature of the notching tool. Critical features are displayed on-screen and allow easy readings for station operators. PASS/FAIL messages are quickly communicated to the PLC. Parts can be tracked based on whether they passed or failed and waveforms can be saved for later review by engineering and quality control staff.



The Sciometric Test and Analysis System is also able to utilize its integrated networking support for information and data exchange with down stream assembly and test stations and repair bays, resulting in significant time and cost reductions. Comprehensive and graphical representation of specimen profile, user definable operator menu system, and on-screen setup and diagnostics rounds out a highly intuitive HMI and dependable solution to this unique application.

Reluctor Wheel verification is one of many testing applications Sciometric has implemented around the world to improve powertrain manufacturing quality.



InspecXion® Screen showing Radial Profile of Reluctor Wheel

AN148

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