

Solutions@Mecmesin Automotive Fuel Pumps

Specification

One of the largest automotive parts manufacturers in the Czech Republic, part of a major group, required a number of its component parts tested under high loads. One of these is a fuel pump assembly, where a compression spring maintains its contact with the top and bottom of the fuel tank. Quality assurance required testing of the spring's characteristics throughout its normal compression. Whilst the company had been using previously acquired Mecmesin test equipment, they now required something with a higher load-testing capacity.

Solution

A Mecmesin MultiTest 10-*i* with twin columns and interchangeable 2500 N intelligent loadcell provides the range and capacity for fuel pump assembly testing and to develop wider applications. It is computer-driven with Mecmesin's Emperor™ control and dynamic logging software. This has enabled the company to programme test sequences with parameters and tolerances that indicate an immediate visual pass/fail status against internal standards. The real-time graphical display also shows the spring's full-travel hysteresis characteristics of force vs displacement. All results can be saved and exported for analysis.



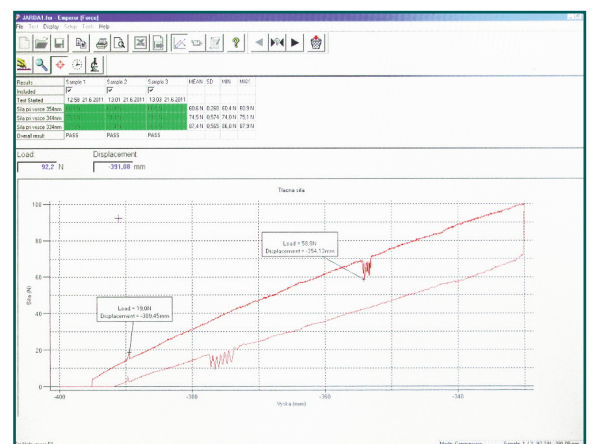
The complete system with a pump assembly under test

System

- MultiTest 10-*i* twin column test stand
- 2500 N S-Beam intelligent loadcell
- Standard test probes

Other Automotive Solutions

- Airbag Connector Pull Test
- Car Door Closing Energy Tester
- Car Window Sliding Force Tester
- Dashboard Button Testing
- Electrical Harness Terminal Testing
- Seat-Belt Locking Device Test
- Soldered Flexi-Circuits Tensile Test
- Torque Tester for Windows & Sunroofs



Graphical representation of spring compression and release, with annotation

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