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Spring Test Video Transcript

- 0:05 I'm Paul Johnson with Dexter Precision. I'm going to demonstrate testing an automotive valve spring using our DS50 servo press. This test has two acceptance criteria.
- 0:16 The first is the spring's free height. The second is the spring rate.
- 0:21 I've programmed the press's integrated data acquisition and evaluation software to check these values.
- 0:27 I've defined two force versus position windows that the evaluation software will monitor during the test. I've also set the machine to check the force at the end of the press operation and ensure that it is within limits.
- 0:38 I set the program to stop the press and retract the ram if the spring fails any test criteria.
- 0:44 If you want to see how this is programmed check our or servo press programming video.
- 0:48 This is the spring test tool. It's a round steel arbor that has a pilot diameter that fits inside the spring. It mounts in the servo press ram.
- 1:00 This is the spring test fixture. It's a steel cylinder with a counter bored pocket that locates the spring. It mounts on the servo press base.
- 1:11 I'll load the program.
- 1:18 I'm going to test ten springs. The machine plots the test data as it runs. At the end of each test it displays either operation passed or, in the case of the last part, operation failed.

- 2:05 Here's a closeup of the springs being tested. You can see that there are two test windows drawn on the chart. One is in the lower left corner. The other is near the center. These define the acceptable force versus position criteria. You can also see the live force, position, speed, and time data on the display.
- 2:49 Our servo presses can perform a wide variety of assembly and test operations. For more information check us out at dexterprecision.com.