DTect-IT Monitors Tool Wear and Breakage of a 2.7mm Drill and 3.05mm Reamer

RESULTS - INSTALL 9111

CHALLENGE

This automotive manufacturer was using a competitor's product to try and monitor a very small drill and reamer cutting cast aluminum. They noticed the monitoring system was slowing the process and adding several seconds to the cycle time for every part.

TECHNOLOGY

DTect-IT

SOLUTION

The customer needed a better solution, so they implemented Caron Engineering's versatile sensor monitoring suite, DTect-IT. Using DTect-IT the customer is now successfully monitoring breakage and wear on the drill and reamer that create this hole (pictured right).

For this application, DTect-IT uses a high precision power sensor to measure the cutting loads of the 2.7mm drill and 3.05mm precision reamer, (with the reamer enlarging the hole by .08mm).

DTect-IT is efficiently identifying broken, missing, and worn tools with no negative impact on the part cycle time.

RESULTS

- *Successfully detecting broken, missing, and worn micro-tools*
- *No additional cycle time was added using real-time monitoring*

INDUSTRY

Automotive

MACHINE TYPE

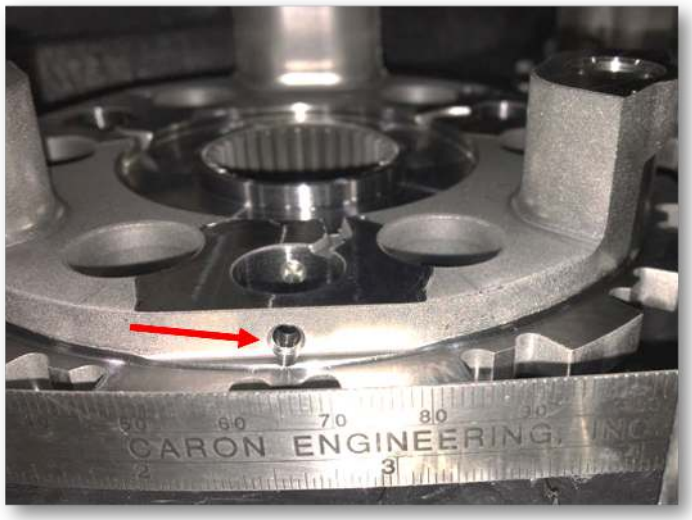
Mill-Turn

MATERIAL

Cast Aluminum

TOOLING

2.7mm Drill, 3.05mm Reamer



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