

# Tool wear and breakage monitoring system - Automotive application

## Machining Valve seats

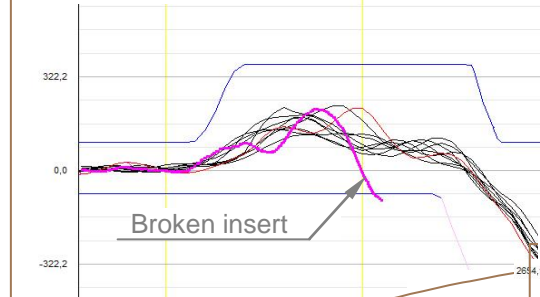
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Monitoring valve seat machining in cylinder heads on machining centers.

- ▶ Quality control
- ▶ Avoid scrap parts
- ▶ Optimize tool service life

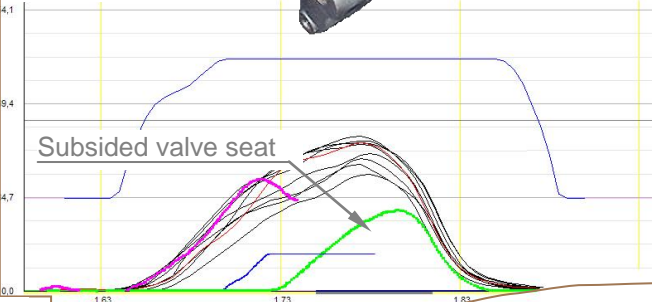
Valve seat machining is an important step in the fabrication of a cylinder head. The slightest mark on a valve seat can cause a decrease in pressure in the cylinder and consequently a reduction in engine power.

### Derivative



By monitoring the power derivative, the WattPilot detects even minor insert damage with high reliability and guarantees the close tolerances of all cylinder heads as well. **WattPilot assures the quality of your machining operations.**

### Power

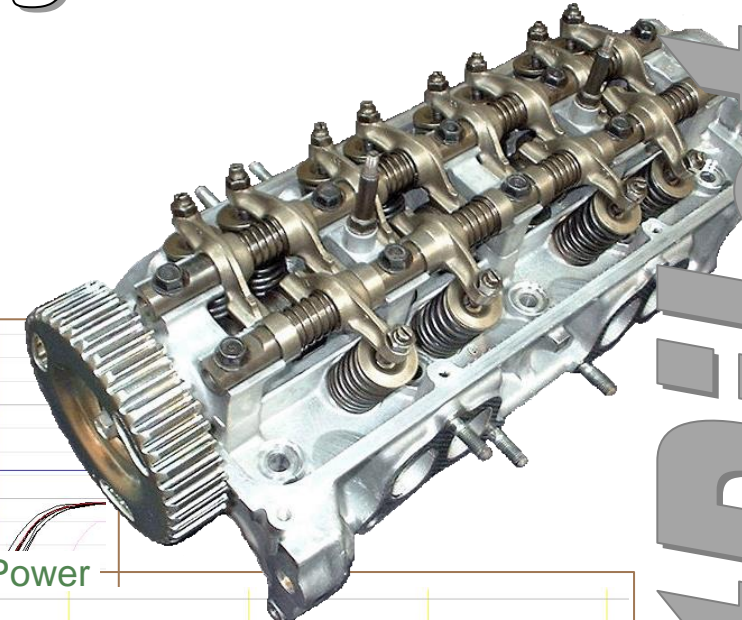


### Tool wear



To avoid making scrap motors even before assembling the motors, WattPilot examines every power curve in order to detect the slightest irregularities on the cylinder head (for example an excessive recess of the valve seat). **WattPilot eliminates scrap parts.**

Changing tools at a pre-determined service life inevitably leads to irregularities and, even worse, to insert breakage. As you approach the given tool change, the tool temperature increases significantly and the cutting tips warp. Tool management via wear monitoring allows optimal insert performance and a considerable reduction of scrap at the same time. **WattPilot optimizes tool service lifetime and lowers the cost of production.**



# WattPilot

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