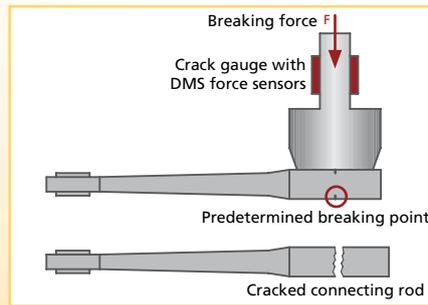
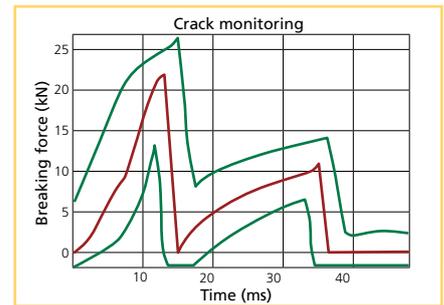




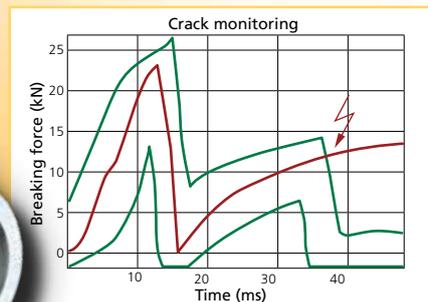
Machining procedure



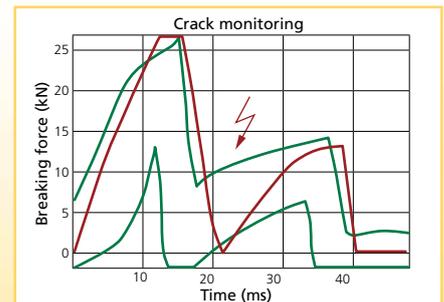
Fault-free cracking process



Second break defective



Predetermined break notch too small



KOMET® BRINKHAUS ToolScope Process monitoring during connecting rod cracking

The cracking of connecting rods has become established as a manufacturing technology in many companies

In combustion engines, the connecting rod is the link between the piston and the crankshaft. For installation reasons, a split connecting rod (connecting rod and cap) is normally used when the connection to the crankshaft is made. Cracking makes it possible to manufacture connecting rods precisely and quickly by means of notching and cracking the small end of the connecting rod rather than sawing it open.

Cracking is on the increase

Cracking has been used in the manufacture of connecting rods for many years. In order to do this, the small end of the connecting rod is scored in defined locations using a laser, for example. Then it is opened up in a defined way by means of cracking at the predetermined breaking point. The advantages of the procedure are obvious. The separating procedure requires much less time, and the two halves (connecting rod and cap) are a perfect fit for each other.

Monitoring during cracking

The cracking process is normally extremely controlled. However, various problems can occur during the process that make the connecting rod unusable. The KOMET® BRINKHAUS ToolScope makes continuous monitoring of the process variables possible.

BENEFITS for you:

- Breaking force monitoring when cracking connecting rods
- Detection of a defective break: The connecting rod usually breaks at the predetermined breaking points. Because of missing or erroneous notching, the second break does not occur.
- Drawing conclusions about the quality of the notching from the previous step of the process
- Monitoring and assurance of the quality of the connecting rods that are produced
- Sampling at over 1 kHz