NON-DESTRUCTIVE CRACK AND STRUCTURE TESTING OF CAMS AND CAMSHAFTS

Cracks or structural deviations in cams and camshafts can cause severe engine damage. Eddy current testing reliably detects defects and material variations.

THE CHALLENGE

Cams and camshafts are key components of combustion engines and are exposed to high mechanical loads. Surface cracks or structural deviations can impair valve timing and lead to severe engine damage. Reliable non-destructive crack and structure testing during production is essential to detect defects early and ensure continuous quality assurance for forged and sintered components.

THE SOLUTION

FOERSTER provides automated 100 percent inspection using STATOGRAPH for crack detection combined with MECA-PROBES and standard probes. Multiple critical areas can be tested simultaneously. For hardness and microstructure verification, MAGNATEST with encircling coils is integrated. Complete camshafts are scanned by rotation, enabling full circumferential inspection of cam and bearing surfaces.

THE RESULT

The system enables reliable detection of surface cracks and verification of material and structural properties within one automated process. Simultaneous use of multiple probes increases coverage and throughput. Optional microstructure testing and zone-based evaluation enhance defect classification. Integrated documentation supports stable production processes and consistent component quality.

THE PRODUCTS

STATOGRAPH CM+ / CM

Crack testing of complex workpieces with eddy current

SPECIAL SENSORS

Defect testing with special geometries

MAGNATEST D

Magneto-inductive testing of metallic components for material properties

MAGNATEST SENSORS

Sensors for magnetic induction testing of metallic materials in the automotive and aviation sectors and for semi-finished products

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