

SICOR

Speed Induced Current on Rails

More safety and effectiveness in railway maintenance

Testing the rail head for exposed and hidden material damage

SICOR - records the dynamic electromagnetic reciprocal effect of a constant magnetic field applied to the rail head. For the detection of:

HeadChecks:

with a more precise determination of the damage depth

Squats:

recording hidden defects beyond 10 mm

Weldings:

as well as other electrical/magnetic inhomogeneities



The **SICOR**-procedure does not function without relative motion between the test sensors and the object being tested. **SICOR** is neither an eddy current procedure nor a procedure which uses magnetic flux fields resulting from material separation.

Eddy current signals and leakage flux signals are present even when the magnetised test object is inactive, which does not apply to the **SICOR** procedure.

The sensor records the time-dependent course of the magnetic permeability of the object surface during the magnetisation and demagnetisation as a dynamic procedure (movement of the test object, magnetisation and demagnetisation using a local magnetic field).

This course of time varies if a material separation, either starting from the surface or hidden underneath the surface, is running through the magnetising field.