

Carbide Band Analysis

Image Analysis Report **175b**

Sample Description

Steel Grade CSN 414209 (bearing steel).

Purpose of Analysis

Demonstrate the ability of the image analyzer to discriminate and measure the carbide bands according to DIN 17230.

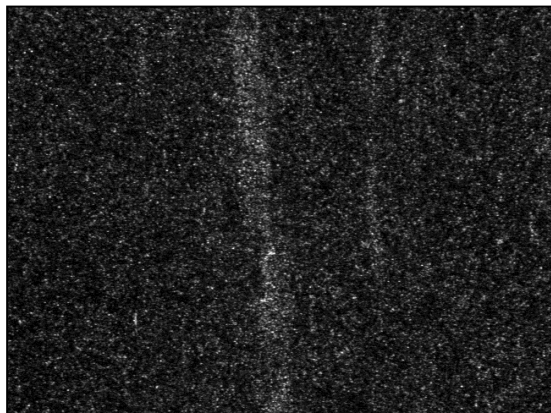


Figure 1: Original image.

Procedure (continued)

These results can be exported to Excel and automatically compared to DIN 17230 chart (column 6 and 7). Since several objects were sectioned by the field of view, a tiling was applied to make a final reconstitution.

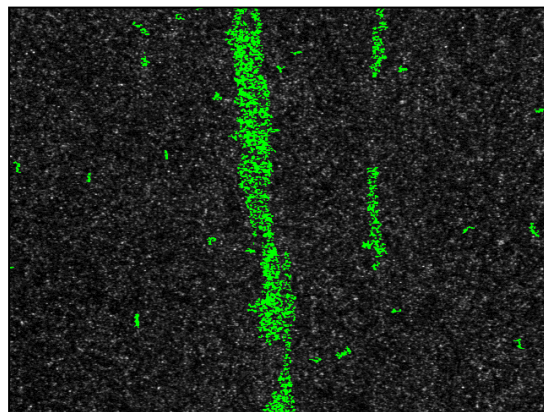


Figure 2: Final detection of carbide bands in the green bitplane.

Procedure

For each field, the total area of carbides was calculated (FLDM3). To perform length and width measurements, carbides were joined into red bitplane (OBJM2).

Equipment

Image Analysis

System:

Clemex Vision PE

Stage:

Motorized Marzhauser

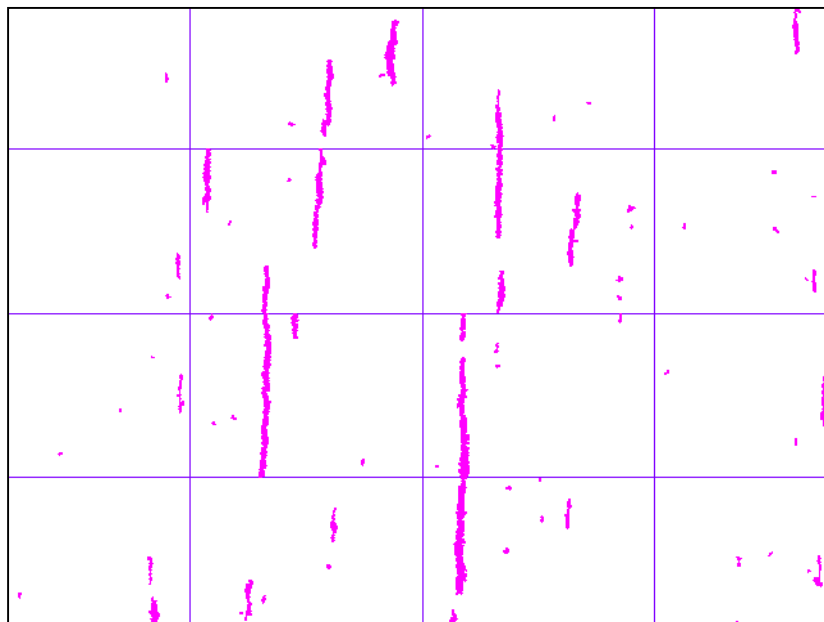


Figure 3: Tiling of the carbide bands allowing a more realistic length measurement (OBJM4).