

## **Conference Proceedings**

### **I. Papers**

#### **RESIDUAL STRESS EVALUATION IN ABB POWER PLANT TURBINE BLADES**

B. Augustyniak, M. Chmielewski, W. Kielczynski  
- Technical University of Gdansk, Poland  
K. Pozarowski, M. Ojrzynski  
- ABB-Zamech Ltd, Elblag, Poland

#### **INSPECTION OF AIRCRAFT LANDING GEAR COMPONENTS USING THE BARKHAUSEN NOISE TECHNIQUE.**

G. A. Cooper  
- Dr J.H. Burgoyne and Partners, Consulting Scientists and Engineers, London, UK  
H. Halls  
- Hawker Pacific Aerospace Ltd, Heathrow Airport, Hounslow, UK

#### **CONTACT FATIGUE DAMAGE MEASUREMENT OF BALL AXIAL BEARINGS BY MEANS OF BARKHAUSEN NOISE**

Donzella G., Solazzi L.  
- Università di Brescia, Dipartimento di Ingegneria Meccanica, Brescia, Italy

#### **APPLICATIONS OF BARKHAUSEN NOISE ANALYSIS (BNA), A REVIEW OF THREE CASES HAVING INDUSTRIAL SIGNIFICANCE**

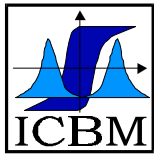
Robert M. Fix  
- American Stress Technologies, Inc. Pittsburgh, PA, USA

#### **PROCESS IMPROVEMENT FOR CRANKSHAFTS GRINDING USING BNA**

J.F. Hallet  
- Caterpillar Belgium, Charleroi (Gosselies)

#### **COMBINED NDT TESTING OF CAMSHAFTS**

R. Hillmann  
- Daimler-Benz AG, Stuttgart, Germany



## **INTRODUCTION TO MICROMAGNETIC TECHNIQUES**

**B. Karpuschewski**

- Institute for Production Engineering and Machine Tools, University of Hannover

## **CHARACTERISATION OF FATIGUE OF CYCLICALLY LOADED WELDED JOINTS BY MICROMAGNETIC TESTING AND X-RAY DIFFRACTION**

**C. Lachmann, Th. Nitschke-Pagel, H. Wohlfahrt**

- Institute of Welding Technology, Technical University of Braunschweig

## **MICROMAGNETIC IN-PROCESS SURFACE INTEGRITY ANALYSIS OF GROUND WORKPIECES**

**B. Karpuschewski; T. Mandrysch**

- Institute for Production Engineering and Machine Tools, University of Hannover

## **INVESTIGATIONS ON GROUND PARTS USING BARKHAUSEN NOISE, XRD AND METALLOGRAPHIC METHODS**

**W. Nierlich,**

- SKF Schweinfurt

## **RESIDUAL STRESS DETERMINATION OF FERROMAGNETIC SHEETS**

**H.K. Tönshoff, B. Karpuschewski, I. Oberbeck-Spintig**

- Institute for Production Engineering and Machine Tools, University of Hannover

## **APPLICATION OF BARKHAUSEN NOISE MEASUREMENTS IN FAILURE ANALYSIS AND FAILURE PREVENTION**

**Hans Richter**

- WIWEB-120, Erding, Germany

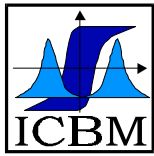
## **MODELING OF ANGULAR DEPENDENCE OF BARKHAUSEN EFFECT FOR THE BIAXIAL LOAD STATE**

**M.J. Sablik**

- Southwest Research Institute, San Antonio, Texas, USA

**B. Augustyniak and M. Chmielewski**

- Technical University of Gdansk, POLAND



## DETECTION OF GRINDING DAMAGE IN HARDENED GEAR STEELS USING BARKHAUSEN NOISE ANALYSIS

B.A. Shaw, T.R. Hyde, J.T. Evans

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University of Newcastle, Newcastle upon Tyne, U.K.

M.F. Rose

- MoD (Navy), Ships Support Agency, Bath, U.K.

## PHYSICAL BASIS OF MICROMAGNETIC METHODS AND SENSOR SYSTEMS AND THEIR APPLICATION AREAS

W. A. Theiner

- Fraunhofer Institut für ZfP, Universität Saarbrücken, Germany

## II. Posters

### GRINDING BURNS DETECTION ON AIRCRAFT ENGINES PINIONS FACES AND BEARINGS

Norbert Quemerais

- Hispano Suiza

### ANALYSIS OF VARIOUS DEGREES OF COLD DEFORMATION DEEP-DRAWING STEEL BASED ON BARKHAUSEN NOISE

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### USING THE BARKHAUSEN EFFECT FOR THE INSPECTION OF HIGH STRENGTH STEEL AIRCRAFT COMPONENTS.

Harry Halls. I Eng. AMRAeS. Minst NDT.

- Hawker Pacific Aerospace Ltd, Heathrow Airport, Hounslow, UK

### DETECTION OF THERMAL DAMAGE IN STEEL COMPONENTS AFTER GRINDING USING THE MAGNETIC BARKHAUSEN NOISE METHOD

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