## UK Patent Application

(19) GB (11) 2 458 836 (13) A

(43) Date of Printing by UK Office

07.10.2009

(21) Application No:

0911857.1

(22) Date of Filing:

28.01.2008

(30) Priority Data:

(31) 102007004223 (32) 27.01.2007

(33) **DE** 

(86) International Application Data: PCT/GB2008/000288 En 28.01.2008

International Publication Data:

International Publication Data: WO2008/090370 En 31.07.2008

(71) Applicant(s):

Innospection Group Limited Unit 1, Howemoss Avenue, Kirkhill Industrial Estate, Aberdeen, AB21 0GP, United Kingdom

(72) Inventor(s):

**Andreas Boenisch** 

(74) Agent and/or Address for Service:
Lincoln IP
Riverside House, Riverside Drive,
Aberdeen, AB11 7LH, United Kingdom

(51) INT CL: **G01N 27/90** (2006.01)

(56) Documents Cited by ISA:

EP 0301906 A2

US 5117182 A

US 4955235 A

SADEK H. M. "NDE technologies for the examination of heat exchangers and boiler tubes-principles, advantages and limitations" INSIGHT, vol. 48, no. 3, 1 March 2006, pages 181-183.

(58) Field of Search by ISA:

INT CL G01N

Other: EPO-Internal, WPI Data, COMPENDEX, INSPEC.

- (54) Abstract Title: Method and apparatus for non destructive testing
- (57) A method and apparatus in which at least two different test phases are performed on a test object, selected from: conventional eddy current testing, partial saturation eddy current testing, and ultrasonic testing. Measurement data sets are obtained from the at least two different test phases, with each measurement data set comprising measurement data corresponding to a plurality of test positions. The data sets are combined in a data processing means and the combined measurement data is processed to evaluate a damage condition of the test object. In a preferred embodiment, all of conventional eddy current testing, partial saturation eddy current testing, and ultrasonic testing are performed. The apparatus may be provided in two or more sub-assemblies, of which one may be an internal test tool and one may be an external tool. Alternatively, the apparatus may be capable of carrying out all three of the test phases.

