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Decitre

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(54) **METHOD FOR MANUFACTURING A TESTING HEAD OF A NON-DESTRUCTIVE TESTING SENSOR BASED ON EDDY CURRENTS**

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(58) **Field of Classification Search**

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See application file for complete search history.

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(57) **ABSTRACT**

A method for manufacturing a testing head of a non-destructive testing sensor based on eddy currents includes: optimizing a geometric design of coils of the testing head based on a criterion for minimizing an electromotive force induced in at least one coil having a receiving function and/or maximizing a variation, due to presence of a standard defect to be detected in a part to be inspected, of the induced electromotive force; optimizing the geometric design of the coils further based on at least one criterion for optimizing a further variation, due to a variation in distance between the testing head and the part to be inspected, of the induced electromotive force; optimizing geometric dimensions of each of the coils; and manufacturing the testing head in accordance with the geometric design of the coils carrying out the optimization.

10 Claims, 4 Drawing Sheets

