Title (en)

NONDESTRUCTIVE MEASUREMENT OF COMPOSITE MATERIALS

Publication

EP 0341244 A4 19910410 (EN)

Application

EP 87907889 A 19871110

Priority

US 8702914 W 19871110

Abstract (en)

[origin: WO8904524A1] An apparatus (110) for performing ultrasonic measurements of compliant material specimens (18) includes a pair of facing (114, 116) but spaced apart ultrasonic transducers between which the specimen (18) is placed, and which transmits signals (114) into the specimen and receives signals (116) from the specimen, a structure (124) which presses the transducers against the opposite surfaces of the specimen with a reproducibly controllable force so that the same compressive force may be applied for successive measurements, a gauge (125) that measures the separation of the two transducers, and a controller (122) which drives the transmitting transducer and receives the signals from the receiving transducer. Using this apparatus, the weight fractions of the phases of a composite material working specimen are determined nondestructively by first performing a sufficient number of nondestructive and destructive calibration measurements on the properties of calibration specimens. The information learned from the calibration specimens is used in combination with similar nondestructive measurements of the working specimen to determine the fractions of the phases therein, without damaging the working specimen.

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CPC (source: EP)

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Citation (search report)

- No further relevant documents have been disclosed.
- See references of WO 8904524A1

Designated contracting state (EPC)

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