

Title (en)
DEVICE AND METHOD FOR DETECTING DEFECTS IN A WOOD OR WOOD-BASED PRODUCT FROM ITS ACOUSTIC SIGNATURE

Title (de)
VORRICHTUNG UND VERFAHREN ZUR DETEKTION VON FEHLERN IN HOLZPRODUKTEN ODER AUF HOLZ BASIERENDEN PRODUKTEN AN HAND IHRER AKUSTISCHEN CHARAKTERISTIKA

Title (fr)
DISPOSITIF ET METHODE DE DETECTION DE DEFAUTS DANS UN PRODUIT EN BOIS OU A BASE DE BOIS A PARTIR DE SA SIGNATURE ACOUSTIQUE

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Abstract (en)
[origin: WO03027670A1] The invention concerns a device and a method for detecting defects (1) in an object (2) comprising means for locally exciting the surface (3) of the object (2) including at least a friction element (4), means for detecting the vibratory response of the object (2) and means for processing the detected signal. The friction elements (4) advantageously comprise brushes. The detection means include microphones (7) arranged proximate to brushes or accelerometers (7), coupled with said brushes. The signal processing means comprise an acquisition card (8) and a computer (10). Displacement means (11) cause the object (2) to move at constant speed relative to the excitation and detection means, or inversely. Said device and said method can advantageously be used for non-destructive industrial control of assembled solid wooden parts and wood-based products (tiles, panels, and the like) for fast detection of defects (delamination, blisters and the like).

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