

ACOUSTIC INSPECTION DEVICE AND METHOD OF OPERATION

ABSTRACT

An acoustic inspection device (100) and an associated method (200) for inspecting a component (102) are provided. The acoustic inspection device (100) is portable and includes an acoustic transmitter (104) and receiver that may be placed on opposite sides of an inspection region on the surface (132) of the component (102). The acoustic transmitter (104) has an array of acoustic transducers (140) for generating an acoustic wave (130) that travels along a surface (132) of the component (102) and the acoustic receiver (106) has an array of acoustic transducers (140) for receiving that acoustic wave (130). A controller (126) determines at least one surface (132) characteristic of the component (102) from the measured acoustic wave (130), such as its crystalline structure or grain size.

[Figure 1]