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(54) Title: CLEARANCE AND WEAR DETERMINATION APPARATUS

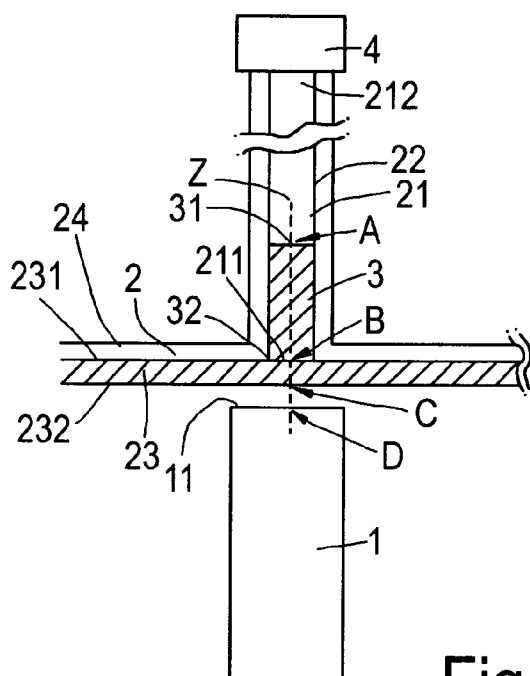


Fig.1

(57) Abstract: Apparatus is provided for determining the clearance between a member and a casing surface over and relative to which the member moves, e.g. in a gas turbine engine. The apparatus includes a main waveguide and a reference element that is provided at a position intermediate the proximal and distal ends, or at the distal end, of the waveguide. The transmitter/receiver is arranged to transmit an electromagnetic signal through the main waveguide and receive (i) a first portion of the electromagnetic signal reflected from the reference element, (ii) a second portion of the electromagnetic signal reflected from the casing surface, and (iii) a third portion of the electromagnetic signal reflected from the member, allowing the relative positioning of the reference element, the casing surface and the member to be simultaneously determined.



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