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TORQUE MEASUREMENT

Title (de)  
DREHMOMENTMESSUNG

Title (fr)  
MESURE DE COUPLE

Publication  
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Application  
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Abstract (en)  
[origin: WO0133180A1] A method and apparatus for measuring the torque transmitted by a member comprises a SAW device (66) secured to the member such that mechanical stress in the member due to torque transmitted thereby induces bending of the SAW device. Means are provided for measuring the change in resonant frequency of the SAW device induced by bending. In one embodiment, a hole (52) is formed in the member (50) and the SAW device is mounted in a pair of diametrically opposite slots provided in the hole (52). The SAW device comprises a substrate on which electrode pairs are laid down, the electrode pairs being in a position such that bending of the SAW device results in compression of the zone containing one electrode pair and tension in a zone comprising another electrode pair. In an alternative arrangement the member is formed with a recessed portion in the surface thereof and the SAW device is mounted in a pair of slots formed by opposite walls of the recess. The axis about which torque is applied preferably lies in or is substantially parallel to the plane of the SAW device.

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