

**CPC****COOPERATIVE PATENT CLASSIFICATION****G01H**

**MEASUREMENT OF MECHANICAL VIBRATIONS OR ULTRASONIC, SONIC OR INFRASONIC WAVES** (generation of mechanical vibrations without measurement [B06B](#), [G10K](#); measuring position, direction or velocity of an object [G01C](#), [G01S](#); measuring quasi-steady pressure of a fluid [G01L 7/00](#); determining unbalance [G01M 1/14](#); determining properties of material by sonic or ultrasonic waves transmitted therethrough [G01N](#); systems using the reflection or reradiation of acoustic waves, e.g. acoustic imaging, [G01S 15/00](#); seismology, seismic prospecting, acoustic prospecting [G01V 1/00](#); acousto-optical devices per se [G02F](#); obtaining records by techniques analogous to photography using ultrasonic, sonic or infrasonic waves [G03B 42/06](#); speech analysis or synthesis, speech recognition [G10L](#); information storage based on relative movement between record carrier and transducer [G11B](#); piezo-electric, electrostrictive or magnetostrictive elements in general [H01L](#); manufacture of electromechanical resonators by processes which include measurement of frequency with consequential modification of the resonator [H03H 3/00](#), { [H03H 3/007](#), [H03H 9/00](#)})

**NOTE**

This subclass covers the combination of generation and measurement of mechanical vibrations.

Attention is drawn to the Notes following the title of class [G01](#).

**G01H 1/00**

**Measuring {characteristics of} vibrations in solids by using direct conduction to the detector** ([G01H 9/00](#), [G01H 11/00](#) take precedence)

[G01H 1/003](#)

- . {of rotating machines ([G01H 1/10](#) takes precedence)}

[G01H 1/006](#)

- .. {of the rotor of turbo machines}

[G01H 1/04](#)

- . of vibrations which are transverse to direction of propagation

[G01H 1/06](#)

- .. Frequency

[G01H 1/08](#)

- .. Amplitude

[G01H 1/10](#)

- . of torsional vibrations

[G01H 1/12](#)

- . of longitudinal or not specified vibrations

[G01H 1/14](#)

- .. Frequency

[G01H 1/16](#)

- .. Amplitude

**G01H 3/00**

**Measuring {characteristics of} vibrations by using a detector in a fluid** ([G01H 7/00](#), [G01H 9/00](#), [G01H 11/00](#) take precedence)

[G01H 3/005](#)

- . {Testing or calibrating of detectors covered by the subgroups of [G01H 3/00](#) (calibrating geophysical instruments, e.g. seismic receivers [G01V 13/00](#))}

[G01H 3/04](#)

- . Frequency

[G01H 3/06](#)

- .. by electric means

[G01H 3/08](#)

- .. Analysing frequencies present in complex vibrations, e.g. comparing harmonics present {(acoustic presence detection [G01V 1/001](#))}

- G01H 3/10 . Amplitude; Power
- G01H 3/12 . . by electric means ([G01H 3/14](#) takes precedence)
- G01H 3/125 . . . {for representing acoustic field distribution (using optical means [G01H 9/002](#); sonar systems for imaging [G01S 7/56](#), [G01S 15/89](#); acoustic holography [G03H 3/00](#))}
- G01H 3/14 . . Measuring mean amplitude; Measuring mean power; Measuring time integral of power
- G01H 5/00 Measuring propagation velocity of ultrasonic, sonic or infrasonic waves, {e.g. of pressure waves}**
- G01H 7/00 Measuring reverberation time; {Room acoustic measurements}** (measuring absorption of vibrations in a material [G01N](#); modifying acoustic properties to change reverberation time [G10K](#))
- G01H 9/00 Measuring mechanical vibrations or ultrasonic, sonic or infrasonic waves by using radiation-sensitive means, e.g. optical means**
- G01H 9/002 . {for representing acoustic field distribution (sonar systems for imaging [G01S 7/56](#), [G01S 15/89](#); acoustic holography [G03H 3/00](#))}
- G01H 9/004 . {using fibre optic sensors (light guides per se [G02B 6/00](#), acousto-optical devices specially adapted for gating or modulating in optical wave guides [G02F 1/125](#))}
- G01H 9/006 . . {the vibrations causing a variation in the relative position of the end of a fibre and another element}
- G01H 9/008 . {by using ultrasonic waves (measuring position using ultrasonic waves [G01S 15/02](#))}
- G01H 11/00 Measuring mechanical vibrations or ultrasonic, sonic or infrasonic waves by detecting changes in electric or magnetic properties, {e.g. capacitance or reluctance}** (structural combination of musical instruments with microphones or other pick-up devices [G10H 3/16](#), [G10H 3/18](#), [G10H 3/20](#))
- G01H 11/02 . by magnetic means e.g. reluctance
- G01H 11/04 . . using magnetostrictive devices
- G01H 11/06 . by electric means
- G01H 11/08 . . using piezo-electric devices
- G01H 13/00 Measuring resonant frequency**
- G01H 15/00 Measuring mechanical or acoustic impedance**
- G01H 17/00 Measuring mechanical vibrations or ultrasonic, sonic or infrasonic waves, not provided for in the preceding groups {see provisionally also [G01H 1/00](#)}**