

# 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](#)})

## NOTES

1. This subclass covers the combination of generation and measurement of mechanical vibrations.
2. Attention is drawn to the Notes following the title of class [G01](#).

<b>1/00</b>	<b>Measuring {characteristics of} vibrations in solids by using direct conduction to the detector</b> ( <a href="#">G01H 9/00</a> , <a href="#">G01H 11/00</a> take precedence)	<b>7/00</b>	<b>Measuring reverberation time; {Room acoustic measurements}</b> (measuring absorption of vibrations in a material <a href="#">G01N</a> ; modifying acoustic properties to change reverberation time <a href="#">G10K</a> )
1/003	. {of rotating machines ( <a href="#">G01H 1/10</a> takes precedence)}		
1/006	. . {of the rotor of turbo machines}	<b>9/00</b>	<b>Measuring mechanical vibrations or ultrasonic, sonic or infrasonic waves by using radiation-sensitive means, e.g. optical means</b>
1/04	. of vibrations which are transverse to direction of propagation	9/002	. {for representing acoustic field distribution (sonar systems for imaging <a href="#">G01S 7/56</a> , <a href="#">G01S 15/89</a> ; acoustic holography <a href="#">G03H 3/00</a> )}
1/06	. . Frequency	9/004	. {using fibre optic sensors (light guides <a href="#">per se</a> <a href="#">G02B 6/00</a> , acousto-optical devices specially adapted for gating or modulating in optical wave guides <a href="#">G02F 1/125</a> )}
1/08	. . Amplitude	9/006	. . {the vibrations causing a variation in the relative position of the end of a fibre and another element}
1/10	. of torsional vibrations	9/008	. {by using ultrasonic waves (measuring position using ultrasonic waves <a href="#">G01S 15/02</a> )}
1/12	. of longitudinal or not specified vibrations	<b>11/00</b>	<b>Measuring mechanical vibrations or ultrasonic, sonic or infrasonic waves by detecting changes in electric or magnetic properties, {e.g. capacitance or reluctance}</b> (structural combination of musical instruments with microphones or other pick-up devices <a href="#">G10H 3/16</a> , <a href="#">G10H 3/18</a> , <a href="#">G10H 3/20</a> )
1/14	. . Frequency	11/02	. by magnetic means, e.g. reluctance
1/16	. . Amplitude	11/04	. . using magnetostrictive devices
<b>3/00</b>	<b>Measuring {characteristics of} vibrations by using a detector in a fluid</b> ( <a href="#">G01H 7/00</a> , <a href="#">G01H 9/00</a> , <a href="#">G01H 11/00</a> take precedence)	11/06	. by electric means
3/005	. {Testing or calibrating of detectors covered by the subgroups of <a href="#">G01H 3/00</a> (calibrating geophysical instruments, e.g. seismic receivers <a href="#">G01V 13/00</a> )}	11/08	. . using piezo-electric devices
3/04	. Frequency	<b>13/00</b>	<b>Measuring resonant frequency</b>
3/06	. . by electric means	<b>15/00</b>	<b>Measuring mechanical or acoustic impedance</b>
3/08	. . Analysing frequencies present in complex vibrations, e.g. comparing harmonics present {(acoustic presence detection <a href="#">G01V 1/001</a> )}	<b>17/00</b>	<b>Measuring mechanical vibrations or ultrasonic, sonic or infrasonic waves, not provided for in the preceding groups</b> { <a href="#">see provisionally also</a> <a href="#">G01H 1/00</a> }
3/10	. Amplitude; Power		
3/12	. . by electric means ( <a href="#">G01H 3/14</a> takes precedence)		
3/125	. . . {for representing acoustic field distribution (using optical means <a href="#">G01H 9/002</a> ; sonar systems for imaging <a href="#">G01S 7/56</a> , <a href="#">G01S 15/89</a> ; acoustic holography <a href="#">G03H 3/00</a> )}		
3/14	. . Measuring mean amplitude; Measuring mean power; Measuring time integral of power		
<b>5/00</b>	<b>Measuring propagation velocity of ultrasonic, sonic or infrasonic waves, {e.g. of pressure waves}</b>		