

## B06B

**METHODS OR APPARATUS FOR GENERATING OR TRANSMITTING MECHANICAL VIBRATIONS OF INFRASONIC, SONIC, OR ULTRASONIC FREQUENCY, {e.g.} FOR PERFORMING MECHANICAL WORK IN GENERAL** (for particular applications, see the relevant subclasses, e.g. [B07B 1/40](#), [B23Q 17/12](#), [B24B 31/06](#); measurement of mechanical vibrations [G01H](#); in direction finding, locating, distance or velocity measuring [G01S](#); {generating seismic energy [G01V 1/02](#)}; control of mechanical vibrations in general [G05D](#); sound-producing devices, e.g. bells, sirens, whistles [G10K](#), {e.g. methods or devices for transmitting, conducting, or directing sound in general [G10K 11/00](#)}; generation of electrical oscillations [H03B](#); electromechanical resonators in general [H03H](#); electromechanical transducers {for communication techniques, e.g. microphones, speakers} [H04R](#))

### Definition statement

*This place covers:*

Processes or apparatus for generating mechanical vibrations of infrasonic, sonic, or ultrasonic frequency

Processes or apparatus specially adapted for transmitting mechanical vibrations of infrasonic, sonic, or ultrasonic frequency

### Relationships with other classification places

Subclass [B06B](#) covers arrangements for generating mechanical vibrations in solids, e.g. for the purpose of performing work.

Subclass [B06B](#) does not cover arrangements for generating mechanical vibration in fluids, which are covered in subclass [G10K](#)

Subclass [B06B 1/00](#) does not cover piezoelectric, electrostrictive, and magnetostrictive transducers used for communication, which are covered in [H04R](#)

Subclass [B06B 1/00](#) does not cover processes or apparatus peculiar to the manufacture of piezoelectric devices, electrostrictive devices, or magnetostrictive devices in general, or of parts thereof, which are covered in [H10N 30/00](#)

### References

#### Informative references

*Attention is drawn to the following places, which may be of interest for search:*

Surgical instruments	<a href="#">A61B 17/00</a>
Methods for treatment of the eyes using mechanical vibrations	<a href="#">A61F 9/00</a>
Percussion or vibration massage	<a href="#">A61H 23/00</a>
Mixers with shaking, oscillating or vibrating mechanisms	<a href="#">B01F 31/00</a>
Apparatus for spaying or atomising liquids using ultrasonic waves	<a href="#">B05B 17/06</a>
Cleaning using a fluid and ultrasonic vibrations	<a href="#">B08B 3/12</a>
Non-electric welding, making use of vibrations	<a href="#">B23K 20/10</a>
Joining using ultrasonic vibrations	<a href="#">B29C 65/08</a>

Using vibrations to aid when filling or emptying containers	<a href="#">B65D 88/66</a>
Investigating materials by the use of ultrasonic, sonic, or infrasonic waves	<a href="#">G01N 29/00</a>
Sonar systems	<a href="#">G01S 15/00</a>
Devices for damping sound in acoustic devices	<a href="#">G10K 11/002</a>
Resonators consisting of piezoelectric or electrostrictive material	<a href="#">H03H 9/15</a>
Magnetostrictive transducers used for communication	<a href="#">H04R 15/00</a>
Piezoelectric transducers used for communication	<a href="#">H04R 17/00</a>
Piezoelectric devices, electrostrictive devices, and magnetostrictive devices in general	<a href="#">H10N 30/00</a>

## **B06B 1/00**

### **Methods or apparatus for generating mechanical vibrations of infrasonic, sonic, or ultrasonic frequency**

#### **Definition statement**

*This place covers:*

Generating mechanical vibrations making use of electrical energy.

Generating mechanical vibrations making use of mechanical energy.

Generating mechanical vibrations wherein the vibrator is actuated by pressure fluid.

Generating mechanical vibrations making use of a vibrating fluid.

#### **Special rules of classification**

When classifying in subgroups [B06B 1/0207-B06B 1/0284](#) , Indexing Codes should also be accorded according to the Indexing Code scheme [B06B 2201/00 -B06B 2201/77](#)

#### **Synonyms and Keywords**

*In patent documents, the following abbreviations are often used:*

EMAT	Electromagnetic Acoustic Transducer
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## **B06B 1/04**

### **operating with electromagnetism (dynamo-electric motors with vibrating magnet, armature or coil system [H02K 33/00](#))**

#### **Definition statement**

*This place covers:*

EMATs

**B06B 1/0622****{on one surface}****Definition statement***This place covers:*

Matrices of rods; line arrays

**B06B 1/0651****{of circular shape}****Definition statement***This place covers:*

Spherical shape

**B06B 1/12****operating with systems involving reciprocating masses****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Electric motors with reciprocating, oscillating, or vibrating magnet, armature, or coil system	<a href="#">H02K 33/00</a>
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**B06B 1/16****operating with systems involving rotary unbalanced masses****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Electric motors using rotary unbalanced masses	<a href="#">H02K 7/06</a>
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**B06B 1/18****wherein the vibrator is actuated by pressure fluid ([B06B 1/20](#) takes precedence)****Definition statement***This place covers:*

Water-hammers

## B06B 3/00

**Methods or apparatus specially adapted for transmitting mechanical vibrations of infrasonic, sonic, or ultrasonic frequency**

### References

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

Devices for transmitting sound through solid bodies, e.g. wire	<a href="#">G10K 11/24</a>
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### Special rules of classification

[B06B 3/02](#) and [B06B 3/04](#) are not used for the classification of new documents

When classifying in subgroups [B06B 1/0207-B06B 1/0284](#) , Indexing Codes should also be accorded according to the Indexing Code scheme [B06B 2201/00 -B06B 2201/77](#)