

## SECTION G — PHYSICS

### G01 MEASURING; TESTING

#### G01M TESTING STATIC OR DYNAMIC BALANCE OF MACHINES OR STRUCTURES; TESTING OF STRUCTURES OR APPARATUS, NOT OTHERWISE PROVIDED FOR

##### Note(s)

Attention is drawn to the Notes following the title of class G01.

##### Subclass index

TESTING STATIC OR DYNAMIC BALANCE OF MACHINES OR STRUCTURES.....	1/00
INVESTIGATING FLUID-TIGHTNESS; ELASTICITY.....	3/00, 5/00
VIBRATION- OR SHOCK-TESTING.....	7/00
SPECIAL APPLICATIONS	
Aerodynamic; hydrodynamic testing.....	9/00, 10/00
Optical testing.....	11/00
Mechanical or engine testing.....	13/00, 15/00, 17/00
SUBJECT MATTER NOT PROVIDED FOR IN OTHER GROUPS OF THIS SUBCLASS.....	99/00

<b>1/00</b>	<b>Testing static or dynamic balance of machines or structures [1, 2006.01]</b>	1/36	• • by adjusting position of masses built-in the body to be tested [1, 2006.01]
1/02	• Details of balancing machines or devices [1, 2006.01]	1/38	• Combined machines or devices for both determining and correcting unbalance [1, 2006.01]
1/04	• • Adaptation of bearing support assemblies for receiving the body to be tested [1, 2006.01]	<b>3/00</b>	<b>Investigating fluid tightness of structures [1, 2006.01]</b>
1/06	• • Adaptation of drive assemblies for receiving the body to be tested [1, 2006.01]	3/02	• by using fluid or vacuum [1, 2006.01]
1/08	• • Instruments for indicating directly the magnitude and phase of the unbalance [1, 2006.01]	3/04	• • by detecting the presence of fluid at the leakage point [1, 2006.01]
1/10	• Determining the moment of inertia [1, 2006.01]	3/06	• • • by observing bubbles in a liquid pool [1, 2006.01]
1/12	• Static balancing; Determining position of centre of gravity (by determining unbalance G01M 1/14) [1, 2006.01]	3/08	• • • for pipes, cables, or tubes; for pipe joints or seals; for valves [1, 2006.01]
1/14	• Determining unbalance (G01M 1/30, G01M 1/38 take precedence) [1, 2006.01]	3/10	• • • for containers, e.g. radiators [1, 2006.01]
1/16	• • by oscillating or rotating the body to be tested [1, 2006.01]	3/12	• • • by observing elastic covers or coatings, e.g. soapy water [1, 2006.01]
1/18	• • • and running the body down from a speed greater than normal [1, 2006.01]	3/14	• • • for pipes, cables, or tubes; for pipe joints or seals; for valves [1, 2006.01]
1/20	• • • and applying external forces compensating forces due to unbalance [1, 2006.01]	3/16	• • • using electric detection means (G01M 3/06, G01M 3/12, G01M 3/20, G01M 3/24, G01M 3/26 take precedence) [1, 2006.01]
1/22	• • • and converting vibrations due to unbalance into electric variables [1, 2006.01]	3/18	• • • for pipes, cables, or tubes; for pipe joints or seals; for valves [1, 2006.01]
1/24	• • • Performing balancing on elastic shafts, e.g. for crankshafts [1, 2006.01]	3/20	• • • using special tracer materials, e.g. dye, fluorescent material, radioactive material [1, 2006.01]
1/26	• • • with special adaptations for marking, e.g. by drilling [1, 2006.01]	3/22	• • • for pipes, cables, or tubes; for pipe joints or seals; for valves [1, 2006.01]
1/28	• • • with special adaptations for determining unbalance of the body <i>in situ</i> , e.g. of vehicle wheels [1, 2006.01]	3/24	• • • using infrasonic, sonic, or ultrasonic vibrations [1, 2006.01]
1/30	• Compensating unbalance (G01M 1/38 takes precedence) [1, 2006.01]	3/26	• • by measuring rate of loss or gain of fluid, e.g. by pressure-responsive devices, by flow detectors [1, 2, 2006.01]
1/32	• • by adding material to the body to be tested, e.g. by correcting-weights [1, 2006.01]	3/28	• • • for pipes, cables, or tubes; for pipe joints or seals; for valves [1, 2, 2006.01]
1/34	• • by removing material from the body to be tested, e.g. from the tread of tyres [1, 2006.01]		

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- 3/30 • • • • using progressive displacement of one fluid by another [1, 2, 2006.01]
- 3/32 • • • for containers, e.g. radiators [1, 2, 2006.01]
- 3/34 • • • • by testing the possibility of maintaining the vacuum in containers, e.g. in can-testing machines [1, 2, 2006.01]
- 3/36 • • by detecting change in dimensions of the structure being tested [1, 2006.01]
- 3/38 • by using light (G01M 3/02 takes precedence) [1, 2006.01]
- 3/40 • by using electric means, e.g. by observing electric discharges [1, 2006.01]
  
- 5/00 Investigating the elasticity of structures, e.g. deflection of bridges or aircraft wings (G01M 9/00 takes precedence) [1, 2006.01]**
  
- 7/00 Vibration-testing of structures; Shock-testing of structures (G01M 9/00 takes precedence) [1, 2006.01]**
  - 7/02 • Vibration-testing [5, 2006.01]
  - 7/04 • • Monodirectional test stands [5, 2006.01]
  - 7/06 • • Multidirectional test stands [5, 2006.01]
  - 7/08 • Shock-testing [5, 2006.01]
  
- 9/00 Aerodynamic testing; Arrangements in or on wind tunnels [1, 2006.01]**
  - 9/02 • Wind tunnels [5, 2006.01]
  - 9/04 • • Details [5, 2006.01]
  - 9/06 • Measuring arrangements specially adapted for aerodynamic testing [5, 2006.01]
  - 9/08 • Aerodynamic models [5, 2006.01]
  
- 10/00 Hydrodynamic testing; Arrangements in or on ship-testing tanks or water tunnels [1, 2006.01]**
  
- 11/00 Testing of optical apparatus; Testing structures by optical methods not otherwise provided for [1, 2006.01]**
  - 11/02 • Testing of optical properties [1, 2006.01]
  - 11/04 • • Optical benches [1, 2006.01]
  - 11/06 • • Testing of alignment of vehicle head-light devices [1, 2006.01]
  - 11/08 • Testing of mechanical properties [1, 2006.01]

- 13/00 Testing of machine parts [1, 2006.01]**
  - 13/02 • Testing of gearing or of transmission mechanisms [1, 2006.01]
  - 13/04 • Testing of bearings [1, 2006.01]
  
- 15/00 Testing of engines [1, 4, 2006.01]**
  - 15/02 • Details or accessories of testing apparatus [2006.01]
  - 15/04 • Testing of internal-combustion engines, e.g. diagnostic testing of piston engines [2006.01]
  - 15/05 • • by combined monitoring of two or more different engine parameters [2006.01]
  
- Note(s) [2006.01]**

Group G01M 15/05 takes precedence over groups G01M 15/06-G01M 15/12.

  - 15/06 • • by monitoring positions of pistons or cranks [2006.01]
  - 15/08 • • by monitoring pressure in cylinders [2006.01]
  - 15/09 • • by monitoring pressure in fluid ducts, e.g. in lubrication or cooling parts [2006.01]
  - 15/10 • • by monitoring exhaust gases [2006.01]
  - 15/11 • • by detecting misfire [2006.01]
  - 15/12 • • by monitoring vibrations [2006.01]
  - 15/14 • Testing of gas-turbine plants or jet-propulsion plants [2006.01]
  
- 17/00 Testing of vehicles (G01M 15/00 takes precedence; testing fluid tightness G01M 3/00; testing elastic properties of bodies or chassis, e.g. torsion-testing, G01M 5/00; testing alignment of vehicle head-lighting devices G01M 11/06) [1, 2006.01]**
  - 17/007 • of wheeled or endless-tracked vehicles (G01M 17/08 takes precedence) [6, 2006.01]
  - 17/013 • • of wheels [6, 2006.01]
  - 17/02 • • of tyres [1, 6, 2006.01]
  - 17/03 • • of endless-tracks [6, 2006.01]
  - 17/04 • • of suspension or of damping [1, 6, 2006.01]
  - 17/06 • • of steering behaviour; of rolling behaviour [1, 6, 2006.01]
  - 17/08 • of railway vehicles [6, 2006.01]
  - 17/10 • • of suspensions, axles or wheels [6, 2006.01]
  
- 99/00 Subject matter not provided for in other groups of this subclass [2011.01]**