

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

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

G01M

- 3/36
 - • by detecting change in dimensions of the structure being tested
- 3/38
 - by using light (G01M 3/02 takes precedence)
- 3/40
 - by using electric means, e.g. by observing electric discharges
- 5/00 Investigating the elasticity of structures, e.g. deflection of bridges or aircraft wings**
(G01M 9/00 takes precedence)
- 7/00 Vibration-testing of structures; Shock-testing of structures** (G01M 9/00 takes precedence)
 - 7/02
 - Vibration-testing [5]
 - 7/04
 - • Monodirectional test stands [5]
 - 7/06
 - • Multidirectional test stands [5]
 - 7/08
 - Shock-testing [5]
- 9/00 Aerodynamic testing; Arrangements in or on wind tunnels**
 - 9/02
 - Wind tunnels [5]
 - 9/04
 - • Details [5]
 - 9/06
 - Measuring arrangements specially adapted for aerodynamic testing [5]
 - 9/08
 - Aerodynamic models [5]
- 10/00 Hydrodynamic testing; Arrangements in or on ship-testing tanks or water tunnels**
- 11/00 Testing of optical apparatus; Testing structures by optical methods not otherwise provided for**
 - 11/02
 - Testing of optical properties
 - 11/04
 - • Optical benches
 - 11/06
 - • Testing of alignment of vehicle head-light devices
 - 11/08
 - Testing of mechanical properties
- 13/00 Testing of machine parts**
 - 13/02
 - Testing of gearing or of transmission mechanisms
 - 13/04
 - Testing of bearings
- 15/00 Testing of engines [4]**
 - 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)
 - 17/007
 - of wheeled or endless-tracked vehicles (G01M 17/08 takes precedence) [6]
 - 17/013
 - • of wheels [6]
 - 17/02
 - • of tyres [6]
 - 17/03
 - • of endless-tracks [6]
 - 17/04
 - • of suspension or of damping [6]
 - 17/06
 - • of steering behaviour; of rolling behaviour [6]
 - 17/08
 - of railway vehicles [6]
 - 17/10
 - • of suspensions, axles or wheels [6]
- 99/00 Subject matter not provided for in other groups of this subclass [2011.01]**