

## University of Leeds Classification of Books

# Mechanical Engineering

### **[A General]**

- A-0.02 Series
- A-0.04 Bibliography
- A-0.19 Dictionaries
- A-1 Handbooks
- A-2 Collected works
- A-3 Engineering Science Data (ESDU)
- A-5 Engineering training
- A-6 Biography and History
- A-7 R & D, innovation
- A-8 Appropriate technology *See also Engineering C-9*

### **[B Mathematics for mechanical engineers]**

- B-0 General
- B-1 Statistical analysis, probability
- B-5 Dimensional analysis in mechanical engineering & tolerancing
- B-30 Computers

### **[C Graphics and numerical analysis]**

- C-0 General
- C-1 Numerical analysis
- C-2 Graphical analysis
- C-3 Geometrical drawing

### **[D Nuclear engineering]**

- D-0 General (including descriptive and power studies)
- D-1 [Nuclear physics *No longer used : see Physics E-2]*
- D-2 General reactor theory
- D-3 Reactors (thermal)
- D-4 Reactors (fast)
- D-5 Reactors (fusion)
- D-6 Instrument and radiation measurement
- D-7 Safety (of nuclear plants)
- D-8 Material properties, nuclear waste



<b>[E</b>	<b>Thermodynamics]</b>	
E-0	General	<i>For chemical industry: see Chemical Engineering A-4.5</i>
E-1	Thermodynamic properties	
E-2	Thermodynamics (engineering)	
E-3	[Thermodynamics (physical)	<i>No new books – see Chemistry</i>
E-4	[Thermodynamics (chemical)	<i>No new books – see Chemistry</i>
E-5	[Temperature measurement	<i>No new books – see Physics</i>
E-6	Flame and combustion	
E-7	Internal combustion engines (reciprocating), Automobile engineering	
E-8	Internal combustion engines (rotary), Turbines, Turbomachinery	
E-8.5	Jet engines	
E-9	Compressors (rotary)	
E-10	Compressors (reciprocating)	
E-11	Steam engines (reciprocating)	
E-12	Steam turbines	
E-13	Steam raising; Boilers	
E-14	Condensation	
E-15	Refrigeration	
E-16	Heat pump	
E-17	Heat transfer (general); Mass transfer; Heat exchangers	
E-18	Heat transfer (radiation)	
E-19	Heat transfer (conduction)	
E-20	Heat transfer (convection)	
<b>[F</b>	<b>Fluid mechanics]</b>	
F-0	General	<i>For chemical industry: see Chemical Engineering B</i>
F-1	Incompressible fluid flow	
F-2	Compressible fluid flow (aerodynamics and gas dynamics)	
F-3	Viscous flow theory	
F-3.1	Boundary layer theory	
F-4	Turbulence, vortex, vortices, cavitation	
F-5	Magneto-hydrodynamics	
F-6	Fluid machinery (rotational); Pumps	
F-7	Fluid machinery (reciprocating)	
F-8	Flow measurement	
F-9	Testing techniques (wind tunnels etc)	
<b>[G</b>	<b>Lubrication and contact]</b>	
G-0	General	
G-1	Friction and Wear	
G-2	Fluid Film	
G-3	Bearings	
G-4	Lubricants	
<b>[H</b>	<b>Theory of machines]</b>	
H-0	General	
H-1	Dynamics	
H-1.1	Balancing	
H-2	Kinematics	
H-3	Mechanical vibrations	
H-4	[Control engineering]	<i>No longer used– see Electrical Engineering Z</i>
H-5	Machine elements	
H-5.1	Gears	

<b>[J</b>	<b>Strength of materials]</b>
	<i>See also Materials</i>
J-0	General, engineering mechanics
J-1	Elasticity
J-1.1	Thermal stresses
J-2	Plasticity
J-3	Flow, fracture mechanics
J-3.1	Fatigue: design, structures, testing, strength of materials
J-3.2	Creep
J-3.3	Brittle behaviour
J-4.1	Experimental stress analysis
J-5	Shipbuilding
J-7	Engineering structures; Aircraft; Hovercraft; Hydrofoils

<b>[K</b>	<b>Product engineering]</b>
K-0	General; Prototyping; Concurrent engineering
K-1	Metrology
K-1.1	Inspection
K-1.2	Quality control, including statistical quality control
K-1.3	Limits and fits
K-2	Workshop practice (general)
K-3	[Foundry Processes] <i>No longer used : see Materials D</i>
K-4	[Plastic formation processes] <i>No longer used : see Materials E</i>
K-5	Ultrasonics and electro-erosion
K-6	Metal cutting processes
K-7	Metal joining processes
K-8	Assembly processes
K-9	Electro-deposition
K-10	Machine tools
K-11	Production management; Reliability <i>See also Engineering C-1</i>
K-12	Engineering economic analysis
K-13	Automation, CAM, CIM (Computer Aided Manufacture, Computer Integrated Manufacture); Mobile robots <i>Robotics generally : see Computer Studies S-2.09</i>
K-14	Cybernetics and ergonomics; Bioengineering; Biomechanics <i>See also Engineering B-5</i>
K-15	Motion study

<b>[L</b>	<b>Design]</b>
L-0	General, CAD (Computer Aided Design) <i>See also Chemical Engineering R-2</i>
L-1	Mechanical drawing
L-2	Specifications (excluding BSI specifications)

**M-0 Miscellaneous**

<b>[N</b>	<b>Experimental methods, techniques &amp; equipment]</b>
N-0	General; Fault diagnosis
N-1	Electronic
N-2	Photographic
N-3	Optical
N-4	Pressure measurement and recording