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VERSION	EFFECTIVE DATE	DESCRIPTION OF REVISION(S)
001	2016.01	Module creation and release.
002	2016.08	Format update and minor content revisions.
003	2019.10	Refined content sequencing to Appendix 1.
003.1	2021.10	Corrected description of file types (Submodule 7, pages 3.15-3.16).
003.2	2023.04	Submodule 8 - Added content on <i>Friction</i> and <i>Mechanical lock blind rivet</i> procedures.
004	2024.01	Regulatory update for EASA 2023-989 Compliance.

Module was reorganized based upon the EASA 2023-989 subject criteria. Enhancements included in this version 004 are:

- 7.1 *Fuel Tank Safety* - topic added.
- 7.1 *Ballistic Parachutes* - topic added.
- 7.4 *Avionics Test Equipment* - topic moved to Modules 11, 12, and 13 per 2023-989.
- 7.7 *Connector Pin Wire Support* - topic added.
- 7.7 *Soldering Electrical Wires* - topic added.
- 7.7 *HIRF Protection Principles* - topic added.
- 7.8 *Special Purpose Rivets and Fasteners* - topic added.
- 7.9 *Visual Inspection of Springs* - topic added.
- 7.9 *Inspecting Squareness of Springs* - topic added.
- 7.13 *Cable Tension Regulators* - topic added.
- 7.13 *Cable Guides and Adjustment* - topic added.
- 7.14 *Additive Manufacturing* - topic added.
- 7.15 *Welding* - submodule deleted per 2023-989.
- 7.18 *Structural Repair Manuals* - topic added.
- 7.18 *Dye Penetrant Color Contrast* - topic added.
- 7.19 *HIRF Test Equipment* - topic added.
- 7.21 *Documentation and Communication* - new submodule added.

# MEASUREMENT STANDARDS

## SI Units

The measurements used in this book are presented with the International System of Units (SI) standards in all cases except when otherwise specified by ICAO (for example, altitude expressed in feet or performance numbers as specified by a manufacturer). The chart below can be used should your studies call for conversions into imperial numbers.

## Number Groups

This book uses the International Civil Aviation Organization (ICAO) standard of writing numbers. This method separates groups of 3 digits with a space, versus the European method by periods and the American method by commas.

For example, the number one million is expressed as:

ICAO Standard	1 000 000
European Standard	1.000.000
American Standard	1,000,000

## Prefixes

The prefixes used in the table below form names of the decimal equivalents in SI units.

## PREFIX AND SYMBOLS CHART

MULTIPLICATION FACTORS	PREFIX	SYMBOL
1 000 000 000 000 000 000 = 10 <sup>18</sup>	exa	E
1 000 000 000 000 000 = 10 <sup>15</sup>	peta	P
1 000 000 000 000 = 10 <sup>12</sup>	tera	T
1 000 000 000 = 10 <sup>9</sup>	giga	G
1 000 000 = 10 <sup>6</sup>	mega	M
1 000 = 10 <sup>3</sup>	kilo	k
100 = 10 <sup>2</sup>	hecto	h
10 = 10 <sup>1</sup>	deca	da
0.1 = 10 <sup>-1</sup>	deci	d
0.01 = 10 <sup>-2</sup>	centi	c
0.001 = 10 <sup>-3</sup>	milli	m
0.000 001 = 10 <sup>-6</sup>	micro	μ
0.000 000 001 = 10 <sup>-9</sup>	nano	n
0.000 000 000 001 = 10 <sup>-12</sup>	pico	p
0.000 000 000 000 001 = 10 <sup>-15</sup>	femto	f
0.000 000 000 000 000 001 = 10 <sup>-18</sup>	atto	a

## COMMON CONVERSIONS CHART

IMPERIAL	TO	SI (METRIC)
<b>Distance</b>		
1 Inch	is equal to	2.54 Centimeters
1 Foot	is equal to	0.304 Meters
1 (Statute) Mile	is equal to	1.609 Kilometers
<b>Weight</b>		
1 Pound	is equal to	0.454 Kilograms
<b>Volume</b>		
1 Quart	is equal to	0.946 Liters
1 Gallon	is equal to	3.785 Liters
<b>Temperature</b>		
° Fahrenheit	is equal to	(-17.778 Celsius (°C))
° Fahrenheit	is equal to	255.37 Kelvin (K)
<b>Area</b>		
1 Square Inch	is equal to	6.451 Square Centimeters
1 Square Foot	is equal to	0.093 Square Meters
1 Square Mile	is equal to	2.59 Square Kilometers
<b>Velocity</b>		
1 Foot Per Second	is equal to	0.304 Meters Per Second
1 Mile Per Hour	is equal to	1.609 Kilometers Per Hour
1 Knot	is equal to	1.852 Kilometers Per Hour

SI (METRIC)	TO	IMPERIAL
<b>Distance</b>		
1 Centimeter	is equal to	0.394 Inches
1 Meter	is equal to	3.28 Feet
1 Kilometer	is equal to	0.621 Miles
<b>Weight</b>		
1 Kilogram	is equal to	2.204 Pounds
<b>Volume</b>		
1 Liter	is equal to	1.057 Quarts
1 Liter	is equal to	0.264 Gallons
<b>Temperature</b>		
° Celsius (°C)	is equal to	33.8° Fahrenheit
° Kelvin (K)	is equal to	(-437.87 Fahrenheit)
<b>Area</b>		
1 Square Centimeter	is equal to	0.155 Square Inches
1 Square Meter	is equal to	10.764 Square Feet
1 Square Kilometer	is equal to	0.386 Square Miles
<b>Velocity</b>		
1 Meter Per Second	is equal to	3.281 Feet Per Second
1 Kilometer Per Hour	is equal to	0.621 Miles Per Hour
1 Kilometer Per Hour	is equal to	0.540 Knots

### Pressure

pounds per square inch (psi)	kiloPascals (kPa)	6.897
pounds per square inch (psi)	Pascals (Pa)	6.894

# BASIC KNOWLEDGE REQUIREMENTS

Qualification on basic subjects for each aircraft maintenance license category or subcategory is accomplished in accordance with the following matrix. Where applicable, subjects are indicated by an "X" in the column below the license heading.

EASA LICENSE CATEGORY CHART MODULE NUMBER AND TITLE		A1 Airplane Turbine	B1.1 Airplane Turbine	B1.2 Airplane Piston	B1.3 Helicopter Turbine	B1.4 Helicopter Piston	B2 Avionics
1	Mathematics	X	X	X	X	X	X
2	Physics	X	X	X	X	X	X
3	Electrical Fundamentals	X	X	X	X	X	X
4	Electronic Fundamentals		X	X	X	X	X
5	Digital Techniques, Electronic Instrument Systems	X	X	X	X	X	X
6	Materials and Hardware	X	X	X	X	X	X
7	Maintenance Practices	X	X	X	X	X	X
8	Basic Aerodynamics	X	X	X	X	X	X
9	Human Factors	X	X	X	X	X	X
10	Aviation Legislation	X	X	X	X	X	X
11	Aeroplane Aerodynamics, Structures and Systems	X	X				
12	Rotorcraft Aerodynamics, Structures and Systems				X	X	
13	Aircraft Aerodynamics, Structures and Systems						X
14	Propulsion						X
15	Gas Turbine Engine	X	X		X		
16	Piston Engine			X		X	
17	Propeller	X	X	X			

## Basic knowledge requirements as outlined in Part-66, Appendix I

The knowledge level indicators are defined on 3 levels as follows:

### Level 1

A familiarization with the principal elements of the subject.

Objectives:

- The applicant should be familiar with the basic elements of the subject.
- The applicant should be able to give a simple description of the whole subject, using common words and examples.
- The applicant should be able to use typical terms.

### Level 2

A general knowledge of the theoretical and practical aspects of the subject and an ability to apply that knowledge.

Objectives:

- The applicant should be able to understand the theoretical fundamentals of the subject.
- The applicant should be able to give a general description of the subject using, as appropriate, typical examples.
- The applicant should be able to use mathematical formula in conjunction with physical laws describing the subject.
- The applicant should be able to read and understand sketches, drawings and schematics describing the subject.
- The applicant should be able to apply his knowledge in a practical manner using detailed procedures.

### Level 3

A detailed knowledge of the theoretical and practical aspects of the subject and a capacity to combine and apply the separate elements of knowledge in a logical and comprehensive manner.

Objectives:

- The applicant should know the theory of the subject and interrelationships with other subjects.
- The applicant should be able to give a detailed description of the subject using theoretical fundamentals and specific examples.
- The applicant should understand and be able to use mathematical formula related to the subject.
- The applicant should be able to read, understand and prepare sketches, simple drawings and schematics describing the subject.
- The applicant should be able to apply his knowledge in a practical manner using manufacturer's instructions.
- The applicant should be able to interpret results from various sources and measurements and apply corrective action where appropriate.

# PART 66 BASIC KNOWLEDGE REQUIREMENTS

SUBMODULE KNOWLEDGE DESCRIPTIONS		LEVEL
		B1
7.1	<p><b>Safety Precautions – Aircraft and Workshop</b> Aspects of safe working practices including precautions to be taken when working with electricity, gases (especially oxygen), oils, and chemicals. Fuel tank safety, fuel tank entry procedures and precautions. Awareness and precautions regarding aircraft equipped with ballistic recoverers systems. Also, instructions in the remedial action to be taken in the event of a fire or another accident with one or more of these hazards including knowledge of fire extinguishing agents.</p>	3
7.2	<p><b>Workshop Practices</b> Care of tools / drills and reamers, control of tools, use of workshop materials; Dimensions, allowances and tolerances, workmanship standards; Calibration of tools and equipment, calibration standards.</p>	3
7.3	<p><b>Tools</b> Common hand-tool types; Common power-tool types; Operation and use of precision-measuring tools; Lubrication equipment and methods; Operation, function, and use of electrical general test equipment.</p>	3
7.4	<b>Submodule reserved for future use.</b>	–
7.5	<p><b>Engineering Drawings, Diagrams, and Standards</b> Drawing types and diagrams, their symbols, dimensions, tolerances and projections; Identification of title block information; Microfilm, microfiche, and computerised presentations; Specification 100 of the Air Transport Association (ATA) of America; Aeronautical and other applicable standards including ISO, AN, MS, NAS and MIL; Wiring diagrams and schematic diagrams.</p>	2
7.6	<p><b>Fits and Clearances</b> Drill sizes for bolt holes, classes of fits; Common system for fits and clearances; Schedule of fits and clearances for aircraft and engines; Limits for bow, twist and wear; Standard methods for checking shafts, bearings, and other parts.</p>	2
7.7	<p><b>Electrical Wiring Interconnection System (EWIS)</b> Continuity, insulation and bonding techniques and testing; Use of crimp tools: hand and hydraulic operated; Testing of crimp joints; Connector pin removal and insertion; Coaxial cables: testing and installation precautions; Identification of wire types, their inspection criteria and damage tolerance; Wiring protection techniques: cable looming and loom support, cable clamps, protective sleeving techniques including heat shrink wrapping, shielding; High-Intensity Radiated Fields (HIRF) and protection principles; Soldering of electrical wires, EWIS installations, inspection, repair, maintenance, and cleanliness standards.</p>	3
7.8	<p><b>Riveting</b> Riveted joints, rivet spacing and pitch; Tools used for riveting and dimpling; Inspection of riveted joints.</p>	2
7.9	<p><b>Pipes and Hoses</b> Bending and belling/flaring aircraft pipes; Inspection and testing of aircraft pipes and hoses; Installation and clamping of pipes.</p>	2
7.10	<p><b>Springs</b> Inspection and testing of springs.</p>	2
7.11	<p><b>Bearings</b> Testing, cleaning and inspection of bearings; Lubrication requirements for bearings; Defects in bearings and their causes.</p>	2
7.12	<p><b>Transmissions</b> Inspection of gears, backlash; Inspection of belts and pulleys, chains and sprockets; Inspection of screw jacks, lever devices, push–pull rod systems.</p>	2

# PART 66 BASIC KNOWLEDGE REQUIREMENTS

SUBMODULE KNOWLEDGE DESCRIPTIONS		LEVEL
		B1
7.13	<b>Control Cables</b> Swaging of end fittings; Inspection and testing of control cables; Bowden cables; aircraft flexible control systems.	2
7.14	<b>Material Handling</b>	2
7.14.1	<b>Sheet Metal</b> Marking out and calculation of bend allowance; Sheet metal working, including bending and forming; Inspection of sheet metal work.	
7.14.2	<b>Composite and Non-metallic</b> Bonding practices; Environmental conditions; Inspection methods.	
7.14.3	<b>Additive Manufacturing</b> Common additive manufacturing techniques and their influence on the mechanical properties of the finished part; Inspection of additive manufactured parts and common production failures.	
7.15	<b>Submodule reserved for future use.</b>	–
7.16	<b>Aircraft Weight and Balance</b> (a) Calculation of centre-of-gravity / balance limits: use of relevant documents. (b) Preparation of aircraft for weighing; Aircraft weighing.	2 2
7.17	<b>Aircraft Handling and Storage</b> Aircraft taxiing/towing and associated safety precautions; Aircraft jacking, chocking, securing and associated safety precautions; Aircraft storage methods; Refuelling/defuelling procedures; De-icing/anti-icing procedures; Electrical, hydraulic, and pneumatic ground supplies; Effects of environmental conditions on aircraft handling and operation.	2
7.18	<b>Disassembly, Inspection, Repair, and Assembly Techniques</b> (a) Types of defects and visual inspection techniques; Corrosion removal, assessment and reprotection; (b) General repair methods, structural repair manual; Ageing, fatigue, and corrosion control programmes; (c) Non-destructive inspection techniques including penetrant, radiographic, eddy current, magnetic particle, ultrasonic and borescope inspections; including practical training in colour contrast penetrant inspection; (d) Disassembly and reassembly techniques; (e) Troubleshooting techniques.	3 2 2 2 2
7.19	<b>Abnormal Events</b> (a) Inspections following lightning strikes and HIRF penetration; (b) Inspections following abnormal events such as heavy landings and flight through turbulence.	2 2
7.20	<b>Maintenance Procedures</b> Maintenance planning; Modification procedures; Stores procedures; Certification/release procedures; Interface with aircraft operation; Maintenance Inspection / Quality Control / Quality Assurance; Additional maintenance procedures; Control of life-limited components.	2
7.21	<b>Documentation and Communication</b> Documentation: elements and criteria for writing work reports, troubleshooting reports, and shift handover instructions. Communication: clear, comprehensive, and concise.	2

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FIRE CLASSES		EUROPEAN STANDARD	UNITED STATES STANDARD	SUITABLE SUPPRESSION
	Combustible Materials (Wood, Paper, Fabric, etc.)	Class A1/A2	Class A	Most Suppression Techniques
	Flammable Liquids	Class B	Class B	Dry Chemical or Halon
	Flammable Gases	Class C	Class B	Dry Chemical or Halon
	Flammable Metals	Class D	Class D	Specialist Suppression Required
	Electrical Fires	Class E	Class C	Same as Combustibles, but conductive agents such as water should not be used
	Cooking Oils and Fats	Class F	Class K	Removal of Oxygen

Table 1-1. Fire classes chart.



Figure 1-12. The fire triangle; all three elements shown are required for fire to occur.

#### FLAMMABLE LIQUID AND GAS

The US system designates all liquid and gas fires as Class B. In the European/Australian system, flammable liquids are designated Class B having flash point less than 100°C; while gases are designated Class C. A solid stream of water should never be used because it can cause the fuel to scatter, spreading the flames. The most effective way to extinguish a liquid or gas fire is by inhibiting the chemical reaction of the fire with dry chemical and Halogenated agents.

#### ELECTRICAL

Electrical fires involve energized electrical equipment. The US system designates these Class C while the European/Australian system designates them Class E. This sort of fire may be caused by short-circuiting machinery or overloaded electrical cables. These fires are a hazard when using water or other conductive agents, as electricity may be conducted from the fire, through water, to the fire fighter's body, and then earth. If the fire is electrically energized, it can be fought with any agent rated for electrical fire such as carbon dioxide or dry chemical powder. Once electricity is shut off, it will generally become an ordinary combustible fire.

#### METAL

Class D fires involve combustible metals like lithium, potassium, and alkaline metals such as magnesium, and group 4 metals such as titanium and zirconium. Metal fires represent a unique hazard because people are often unaware of the characteristics and not properly prepared to fight them. Certain metals such as sodium burn in contact with air or water which exacerbates this risk. Generally speaking, masses of combustible metals do not represent great fire risks because heat is conducted away from hot spots so efficiently that the heat of combustion cannot be maintained. As so, significant heat energy is required to ignite a mass of metal. Generally, metal fires are a hazard when the metal is in the form of dust or shavings which combust more rapidly than large blocks. Care must be taken when extinguishing metal fires. Water and other common agents can excite metal fires and make them worse. Fire protection agencies recommend that metal fires be fought with dry powder that works by smothering and heat absorption. Different metals require different agents which cannot always be substituted for another. The most common agents are sodium chloride and graphite powder. Using a dry chemical extinguisher in error, in place of dry powder, can actually increase the intensity of a metal fire.

#### COOKING OILS

Fires that involve cooking oils are designated Class K. Though such fires are technically a subclass of the flammable liquids, the higher flash points are important enough to recognize separately. A class K extinguisher will smother the fire by turning the oil into a foam. A water mist can also extinguish such fires. As with Class B, a solid stream of water should never be used because it can cause the fuel to scatter.

#### EUROPEAN STANDARDS

The European classification system EN-13501-1 further breaks down these designations as:

- Fire behavior:
- Class A1 (highest level)

- Class A2 (not burnable materials)
- Class B (flammable materials)
- Class C (normal flammable materials)
- Class D (normal flammable materials)
- Class E (normal flammable materials)
- Class F (not classified materials)

Smoke development:

- Class S1 (very limited smoke development)
- Class S2 (limited smoke development)
- Class S3 (no demands on smoke development)

Burning droplets:

- Class D0 (no burning droplets or particles)
- Class D1 (limited burning droplets)
- Class D2 (no demands on burning droplets)

## FIRE EXTINGUISHERS

Water extinguishers are the best type to use on Class A fires. Water has two effects on fire: it deprives fire of oxygen and cools the material being burned.

Since most petroleum products float on water, water-type fire extinguishers are not recommended for Class B fires.

Extreme caution must be used when fighting electrical fires with water-type extinguishers. Not only must all electrical power be removed or shut off to the burning area, but residual electricity in capacitors, coils, and so forth must be considered to prevent severe injury and possibly death from electrical shock.

Never use water-type fire extinguishers on Class D fires. Because metals burn at extremely high temperatures, the cooling effect of water causes an explosive expansion of the metal. Water fire extinguishers are operated in a variety of ways. Some are hand pumped, while some are pressurized.

The pressurized types of extinguishers may have a gas charge stored in the container with the water, or it may contain a "soda-acid" container where acid is spilled into a container of soda inside the extinguisher. The chemical reaction of the soda and the acid causes pressure to build inside the fire extinguisher, forcing the water out.

Carbon Dioxide (CO<sub>2</sub>) extinguishers are used for Class A, B, C electrical fires, by extinguishing the fire by depriving it of oxygen. [Figure 1-13] Additionally, like water-type extinguishers, CO<sub>2</sub> cools the burning material.

Never use CO<sub>2</sub> on Class D fires. As with water extinguishers, the cooling effect of CO<sub>2</sub> on the hot metal can cause explosive expansion of the metal.

When using CO<sub>2</sub> fire extinguishers, all parts of the extinguisher can become extremely cold, and remain so for a short time after operation. Wear protective equipment or take other precautions to prevent cold injury (such as frostbite) from occurring. Extreme caution must be used when operating CO<sub>2</sub> fire extinguishers in closed or confined areas. Not only can the fire be deprived of oxygen, but so too can the operator.



Figure 1-13. Carbon dioxide fire extinguisher.

CO<sub>2</sub> fire extinguishers generally use the self-expelling method of operation. This means that the CO<sub>2</sub> has sufficient pressure at normal operating pressure to expel itself. This pressure is held inside the container by some type of seal or frangible disk, which is broken or punctured by a firing mechanism, usually a pin. This means that once the seal or disk is broken, pressure in the container is released, and the fire extinguisher is spent, requiring replacement. [Figure 1-14]

Halogenated hydrocarbon extinguishers are most effective on Class B and C electrical fires. They can be used on Class A and D fires but they are less effective. Halogenated hydrocarbon, (commonly called Freon™ by the industry), are numbered according to chemical formulas with Halon™ numbers.

Carbon tetrachloride (Halon 104), chemical formula CCl<sub>4</sub>, has a toxicity rating of 3. As such, it is extremely toxic. [Figure 1-15]

Hydrochloric acid vapor, chlorine and phosgene gas are produced whenever carbon tetrachloride is used on ordinary fires. The amount of phosgene gas is increased whenever carbon tetrachloride is brought in direct contact with hot metal, certain chemicals, or continuing electrical arcs. It is not approved for any fire extinguishing use. Old containers of Halon 104 found in or around shops or hangars should be disposed of in accordance with regulations and local laws and ordinances.

Methyl bromide (Halon 1001), chemical formula CH<sub>3</sub>Br, is a liquefied gas with a UL toxicity rating of 2. This chemical is very toxic, it is corrosive to aluminum alloys, magnesium, and zinc. Halon 1001 is not recommended for aircraft use.

Chlorobromomethane (Halon 1011), chemical formula CH<sub>2</sub>ClBr, is a liquefied gas with a UL toxicity rating of 3. Like methyl bromide, Halon 1011 is not recommended for aircraft use. Dibromodifluoromethane (Halon 1202), chemical formula CBr<sub>2</sub>F<sub>2</sub>, has a UL toxicity rating of 4. Halon 1202 is not recommended for aircraft use.

Bromochlorodifluoromethane (Halon 1211), chemical formula CBrClF<sub>2</sub>, is a liquefied gas with a UL toxicity rating of 5. It is colorless, noncorrosive and evaporates rapidly, leaving no residue. It does not freeze or cause cold burns, and will not harm fabrics,

Extinguishing Materials	Class of Fire				Self-Generating	Self-Expelling	Cartridge of N <sub>2</sub> Cylinder	Stored Pressure
	Combustibles	Liquids/Gas	Electrical	Metals				
Water and Anti-Freeze	X						X	X
Soda-Acid (water)	X				X			
Wetting Agent	X						X	
Foam	X	X			X			
Loaded Stream	X	X+					X	X
Multipurpose Dry Chemical	X+	X	X				X	X
Carbon Dioxide		X+	X			X		
Dry Chemical		X	X				X	X
Bromotrifluoromethane—Halon 1301		X	X			X		
Bromochlorodifluoromethane—Halon 1211		X	X					X
Dry Powder (Metal Fires)				X			X	

+ Smaller sizes of these extinguishers are not recognized for use on these classes of fires.

Figure 1-14. Extinguisher operation and methods of expelling.

Group	Definition	Examples
6 (Least toxic)	Gases or vapors which in concentrations up to 20% by volume for durations of exposure of up to approximately 2 hours do not appear to produce injury.	Bromotrifluoromethane (Halon 1301)
5a	Gases or vapors much less toxic than Group 4 but more toxic than Group 6.	Carbon Dioxide
4	Gases or vapors which in concentrations of the order of 2 to 2½% for durations of exposure of up to approximately 2 hours are lethal or produce serious injury.	Dibromodifluoromethane (Halon 1202)
3	Gases or vapors which in concentrations of the order of 2 to 2½% for durations of exposure of the order of 1 hour are lethal or produce serious injury.	Bromochloromethane (Halon 1011) Carbon Tetrachloride (Halon 104)
2	Gases or vapors which in concentrations of approximately ½ to 1% for durations of exposure of up to approximately ½ hour are lethal or produce serious injury.	Methyl Bromide (Halon 1001)

Figure 1-15. Toxicity chart.

metals or other materials it contacts. It acts rapidly on fires by producing a heavy blanketing mist that eliminates oxygen from the fire source. But more importantly, it interferes chemically with the combustion process of the fire. It has outstanding properties in preventing reflash after the fire has been extinguished.

Bromotrifluoromethane (Halon 1301), chemical formula CF<sub>3</sub>Br, is also a liquefied gas with a UL toxicity rating of 6. It has all the characteristics of Halon 1211. A significant difference between

the two is that Halon 1211 forms a spray similar to CO<sub>2</sub>, while Halon 1301 has a vapor spray that is more difficult to direct.

Note: Environmental Agencies have restricted Halon to its 1986 production level due to its effect on the ozone layer. Dry powder extinguishers, while effective on Class B, C electrical fires, are the best for use on Class D fires.

The method of operation of dry powder fire extinguishers varies

from gas cartridge charges, or stored pressure within the container which forces the powder charge out of the container, to tossing the powder on the fire by hand, by scooping pails or buckets of the powder from large containers or barrels.

Dry powder is not recommended for aircraft use (except on metal fires as a fire extinguisher) because the leftover chemical residues and dust often make cleanup difficult, and can damage electronic or other delicate equipment.

### IDENTIFYING FIRE EXTINGUISHERS

Fire extinguishers should be marked to indicate suitability for a particular class of fire. The markings on **Figure 1-16** should be placed on the fire extinguisher and in a conspicuous place in the vicinity of the fire extinguisher. When the location is marked, however extreme care must be taken to ensure that the fire extinguisher kept at that location is in fact the type depicted by the marking. In other words, if a location is marked for a Class B

fire extinguisher, ensure that the fire extinguisher in that location is in fact suitable for Class B fires. Markings should be applied by decalcomanias (decals), painting, or similar methods. They should be legible and as durable as necessary for the location. For example, markings used outside need to be more durable than those in the hangar or office spaces.

Where markings are applied to the extinguisher, they should be located on the front of the shell (if one is installed) above or below the extinguisher nameplate. Markings should be large enough and in a form that is easily seen and identifiable by the average person with average eyesight at a distance of at least 3 feet.

Where markings are applied to wall panels, and so forth, in the vicinity of extinguishers, they should be large enough and in a form that is easily seen and identifiable by the average person with average eyesight, at a distance of at least 25 feet. [Figure 1-17 and 1-18]

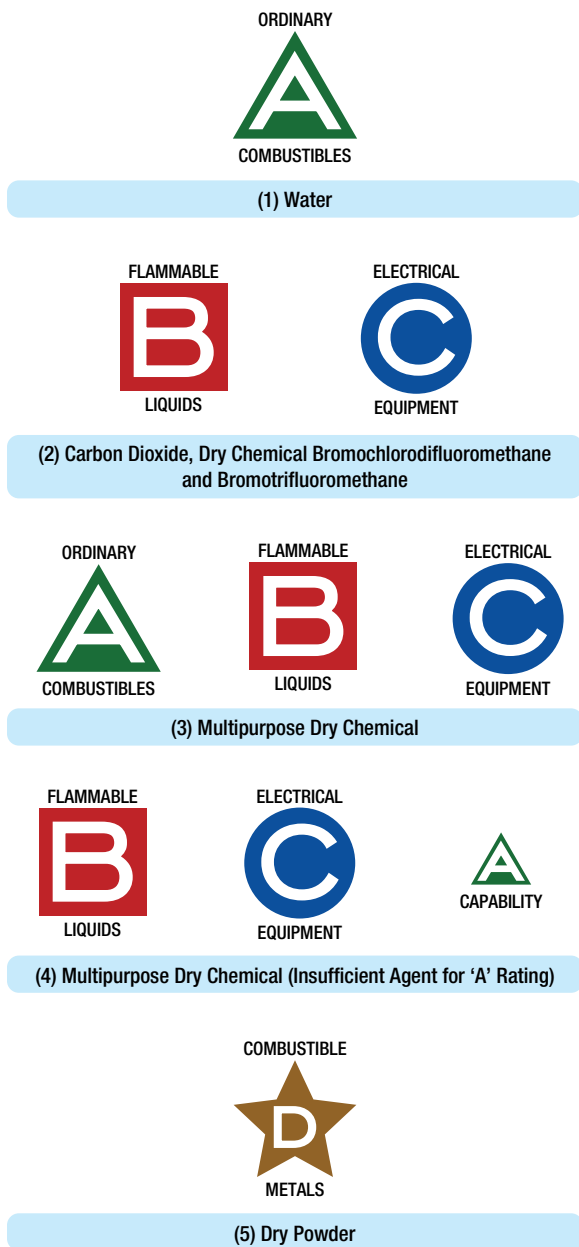


Figure 1-16. Typical extinguisher markings.

### INSPECTION OF FIRE EXTINGUISHERS

Fire extinguishers should be checked periodically using a checklist. If a checklist is unavailable, check the following as a minimum:

- Proper location of appropriate extinguisher
- Safety seals unbroken

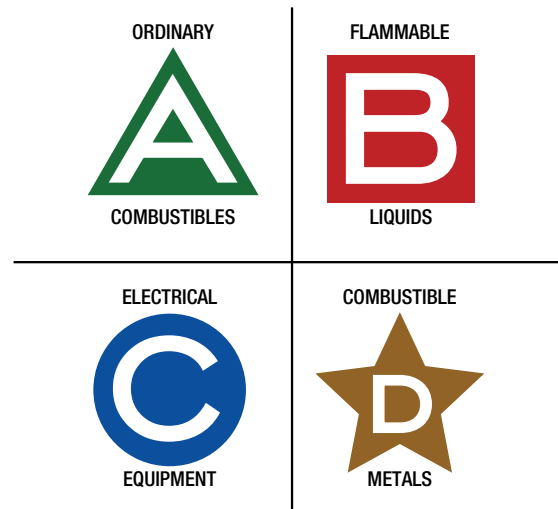


Figure 1-17. United States identification codes of fire extinguishers.

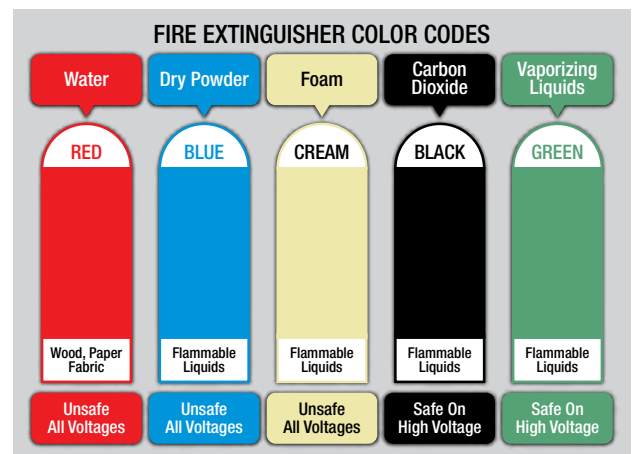


Figure 1-18. European and Australian identification codes of fire extinguishers.