

AMMV25 SHIP'S FIRE PREVENTION AND CONTROL

UNIT-1 FIRE PROTECTION BUILT IN SHIPS

- 1.1 SOLAS convention, requirements in respect of materials of construction and design of ships, (class A, B, type BHDS), fire detection and extinction systems, fire test,
- 1.2 Escape means, electrical installations, ventilation system and venting system for tankers.
- 1.3 Statutory requirements for fire-fighting systems and equipment's on different vessels, fire doors & fire zones.

UNIT-2 DETECTION AND SAFETY SYSTEMS

- 2.1 Fire safety precautions on cargo ships, tankers and passenger ships during working.
- 2.2 Types of detectors, selection of fire detectors and alarm systems and their operational limits.
- 2.3 Commissioning and periodic testing of sensors and detection system.
- 2.4 Description of various systems fitted on ships.

UNIT-3 FIRE FIGHTING EQUIPMENT

- 3.1 Fire pumps, hydrants and hoses, couplings, nozzles and international shore connection, construction, operation and merits of different types of portable,
- 3.2 Non-portable and fixed fire extinguishers installations for ships, properties of chemicals used, water-mist fire suppression system.
- 3.3 Advantages of various fire extinguishing agents including vaporizing fluids and their suitability for ship's use. " control of class A, C & class D fires,
- 3.4 Combustion products & their effects on life safety.

UNIT-4 FIRE CONTROL

- 4.1 Action required and practical techniques adopted for extinguishing fires in accommodation, machinery spaces, boiler rooms, cargo holds, galley, etc.
- 4.2 Fire fighting in port and dry dock. Procedure for re-entry after putting off fire, Rescue operations from affected compartments. First aid, fire organization on ships, shipboard organization for fire and emergencies.
- 4.3 Combustion products and their effects on life safety, fire signal and muster. Fire drill. Leadership and duties, Fire control plan, human behaviour.

UNIT-5 SAFETY MEASURES

- 5.1 Special safety measures for preventing, fighting fire in tankers, chemical carriers, oil rigs, supply vessels, and fire fighting ships - Safe working practice with respect to fire on board ships and first aid for hazards arising from fire in ships.

References Books:

1. D.G. Shipping, Fire Fighting Appliances Rules (1969/1990), 3rd edition published by Bhandarkar Publications, Mumbai, 1996
2. IMO, SOLAS (Safety of Life At Sea) 3rd Edition, International Maritime Organization, London, UK, 2001.