

AMMV24 MARINE AUXILIARY MACHINERY-II

UNIT-1 OPERATION & MAINTENANCE

- 1.1 Prevention of oil, garbage, sewage, air pollution and IMO requirement as per MARPOL act.
- 1.2 Operation, construction, maintenance of oil water separator both manual and automatic versions.
- 1.3 Construction, operation, maintenance of incinerator and the of sewage plant.

UNIT-2 THEORY OF OIL PURIFICATION /AIR COMPRESSAOR

- 2.1 Construction, operation, maintenance of fuel oil and lub oil purifiers, clarifiers together with self de sludge operation.
- 2.2 Theory of air compression and uses of compressed air on board.
- 2.3 Construction, operation, maintenance of main air compress and emergency air compressors.
- 2.4 Types of bow thrusters, operation, maintenance of the same and Deck machinery, operation, maintenance of cargo winches, windless mooring winches.

UNIT-3 METHODS OF SHAFT ALIGNMENT

- 3.1 Construction, operation, maintenance of - thrust block.
- 3.2 Intermediate shaft. Construction, operation,
- 3.3 Maintenance stern tube and stern tube bearing both water cooled and oil cooled together with sealing glands.
- 3.4 Stresses in shafting, i.e. intermediate shaft, thrust shaft and screw shaft.

UNIT-4 DRY DOCKING

- 4.1 Preparation and procedure to dry docking vessel.
- 4.2 .Maintenance of hull, underwater fittings and machine maintenance and repairs during dry dock Removal and maintenance of rudder and propeller.
- 4.3 Removal and maintenance of tail shaft and stern tube bearing.

UNIT-5 MAINTAINENCE AND REPAIR AT MANAGEMENT LEVEL, LEADERSHIP AND MANAGERIAL SKILLS

- 5.1 Theory of marine Eng. Practice and maintenance of machinery, dealing with wear and tear, both electrical and mechanical., Alignment of components, temporary and permanent repairs.
- 5.2 Detection of machinery malfunction and action to prevent damage.
- 5.3 Planned maintenance, preventive maintenance, condition monitoring, Principles of tribology, dry docking, risk assessment, trials and safe working practices.

References Books:

1. D.K. Sanyal, “ Principle and practices of Marine Diesel Engine” 2nd Edition, Bhandarkar Publication, Mumbai, 1998
2. MARPOL 73/78, IMO Publications, 2001.
3. Wood Yard , Doug, “Pounder”s Marine Diesel Engine” 7thedition, Butter Worths Heinemann Publications ,London 2001