

## TECHNICAL REQUIREMENTS OF OILY WATER SEPARATOR

1. **General Duty**. Oily Water Separators, preferably plate or coalescer type, has oil content meter and alarms for continuous monitoring of oil in the dirty water of 5 TPH capacity. The separator will separate out fuel and oil from the dirty water. The pump is to be capable of delivering bilge water contaminated with oil and other impurities from the bilge well to the oily water separator at the rate of 5TPH.
2. **Function of Oily Water Separator as per IMO: MARPOL 73/78 Annex I**. The requirements of Annex I of the International Convention for Prevention of Pollution from Ships MARPOL 73/78 relating to pollution prevention equipment for ships are set out in regulation 16. Regulation 16(5) stipulates that the oil content of the effluent from 15ppm Bilge Separators should not exceed 15 ppm. The 15 ppm Bilge Alarm shall activate to indicate when this level cannot be maintained and initiate automatic stop of overboard discharge of oily mixtures where applicable.
3. The equipment consists of following sub-assemblies: -
  - (a) 15 ppm Bilge Separator.
  - (b) 15 ppm Bilge Alarm.
  - (c) Bilge Pump.
4. **15 ppm Bilge Separators**. The separators are used in conjunction with oily bilge water and ballast water from fuel oil tanks, as these are of a low or medium capacity, and are conditioned by the need to avoid discharging oil mixtures with oil content more than 15 ppm of the mixture. It should be understood that a 15 ppm Bilge Separator must be capable of handling any oily mixtures from the machinery space bilges and be expected to be effective over the complete range of oils which might be carried on board ship, and deal satisfactorily with oil of very high relative density, or with a mixture presented to it as an emulsion. Cleansing agents, emulsifiers, solvents or surfactants used for cleaning purposes may cause the bilge water to emulsify. Proper measures should be taken to minimize the presence of these substances in the bilges of a ship. With the possibility of emulsified bilge water always present, the 15ppm Bilge Separator must be capable of separating the oil from the emulsion to produce an effluent with an oil content not exceeding 15 ppm.
5. **Bilge Alarm**. The 15 ppm Bilge Alarm should record date, time, alarm status and operating status of the 15 ppm Bilge Separator. The recording device should also store data for at least eighteen months and should be able to display or print a protocol for official inspections as required. In the event the 15 ppm Bilge Alarm is replaced, means should be provided to ensure the data recorded remains available on board for 18 months (computer unit). Oil content monitor is to have option setting value at 5 ppm & 15 ppm.
6. **Discharge Pump** The equipment shall have pump capacity of 5TPH @ 5 bars discharging treated bilge Water overboard.
7. **Control & Monitoring**.
  - (a) Indication of equipment running status is to be provided on the control panel. Control panel should indicate trips which caused shutdown of the equipment.
  - (b) The pump starter or remote start-stop facility is to be located adjacent to the pump's local instrumentation so that the operator is immediately aware of whether or not the pump has picked up suction.
  - (c) The equipment will be controlled by a remote control computer (IPMS) system. The IPMS will interface with the equipment through standard digital and / or analogue signals.