

- (f) He must pass a creditable examination as to the construction and details of a non-condensing engine, and give an explanation of the use of each part.
- (g) He must be able to give a satisfactory description of the construction of the different kinds of boilers used in steamers plying only within harbours, rivers, and lakes, or other inland navigable waters, and which are fitted with non-condensing machinery, the area of cylinder or combined area of cylinders of propelling machinery of which does not exceed 200 circular inches, and must explain the use and management of the feed and safety valves, brine-cock, and all connections.

#### FAILURES.

33. If the applicant fails in practical knowledge, he may not present himself for examination for three months from date of failure. If he fails in arithmetic, he may come up again for examination at any time.

#### ENGINEERS OF SMALL-POWERED VESSELS PROPELLED BY OIL, GAS, ETC.

34. These regulations shall apply only to engineers of small-powered ships propelled by gas, oil, fluid, electricity, or other mechanical power than steam.

35. There are two grades of certificates for sea-going vessels—viz., first-class and second-class engineers' certificates; and one grade for restricted limits.

36. Certificates of competency will be granted to those persons who pass the requisite examinations and otherwise comply with the requisite conditions. For this purpose Examiners have been appointed, and arrangements have been made for holding the examinations at the places and times specified in rule 8.

Provided that in case of emergency the Examiners may examine candidates at other than the prescribed periods.

#### QUALIFYING SERVICE REQUIRED FOR SEA-GOING ENGINEERS' COMPETENCY CERTIFICATE (OIL, ETC.), (SMALL-POWERED VESSELS).

37. For a second-class certificate of competency an applicant must have been employed as an apprentice at the making and repairing of engines for two years, or must have tended machinery for two years (not necessarily as an apprentice) in any factory or workshop, or been engaged at work of a similar nature, or been employed about the propelling machinery of a ship, outside restricted limits, for two years (tending machinery must include charge of engine and boiler); and if he obtains his certificate it will enable him to take charge of engines of which the collective horse-power does not exceed 60 brake horse-power.

38. An applicant for a first-class certificate must have not less than three years' shop service at the making and repairing of engines as an apprentice, or at work of a similar nature, or have held a second-class competency certificate, and been employed on board a sea-going ship, outside restricted limits, to which these regulations apply, for one year, and have been in possession of a second-class certificate of competency for the whole of the time; and if he obtains his first-class certificate it will enable him to take charge of the engines of any ship to which these regulations apply.

39. An applicant for a certificate of competency within restricted limits shall not be required to show any qualifying service.

#### SECOND-CLASS CERTIFICATE (OIL, ETC.), (SMALL-POWERED VESSELS).

40. A second-class certificate under these regulations will entitle the holder to take charge of any vessel propelled by gas, oil, fluid, electricity, or other mechanical power than steam, whose machinery does not exceed 60 brake horse-power, and the candidate must comply with the following conditions:—

- (a) He must be at least twenty years of age.
- (b) He must have been employed as an apprentice at the making and repairing of engines for two years, or have been tending machinery for two years, which includes charge of engine and boiler in any factory or workshop, or at work of a similar nature, or have been employed about the propelling machinery of any sea-going vessel outside restricted limits for two years.