1965/220

THE MARINE ENGINEERS EXAMINATION REGULATIONS 1961, AMENDMENT NO. 1

BERNARD FERGUSSON, Governor-General

ORDER IN COUNCIL

At the Government Buildings at Wellington this 20th day of December 1965

Present:

THE RIGHT HON. KEITH HOLYOAKE, C.H., PRESIDING IN COUNCIL

PURSUANT to the Shipping and Seamen Act 1952, His Excellency the Governor-General, acting by and with the advice and consent of the Executive Council, hereby makes the following regulations.

REGULATIONS

1. (1) These regulations may be cited as the Marine Engineers Examination Regulations 1961, Amendment No. 1, and shall be read with and deemed part of the Marine Engineers Examination Regulations 1961* (hereinafter referred to as the principal regulations).

(2) These regulations shall come into force on the 1st day of February 1966.

2. (1) Regulation 2 of the principal regulations is hereby amended by inserting in the definition of the term "certificate", after the words "regulation 6" the words "or regulation 60B or regulation 60C".

(2) Regulation 2 of the principal regulations is hereby further amended by inserting, after the definition of the term "certificate", the following definition:

" 'Prescribed form' means a form approved by the Minister under section 24 or section 502 of the Act:".

(3) Regulation 7 of the principal regulations is hereby amended by revoking subclause (2), and substituting the following subclause:

"(2) All certificates of competency, certificates of service, and endorsements shall be in the prescribed form."

(4) The principal regulations are hereby further amended—

(a) By omitting from subclause (3) of regulation 7 the words "in form 2 in the First Schedule to these regulations":

(b) By omitting from subclause (5) of regulation 7 the words "Endorsements under this subclause shall be in form 3 in the First Schedule to these regulations":

*S.R. 1961/37

(c) By omitting from subclause (3) of regulation 22 the words "according to form 4 in the First Schedule to these regulations", and substituting the words "in the prescribed form":

(d) By omitting from subclause (4) of regulation 42 the words "specimen form of testimonials set out in form 5 in the First Schedule to these regulations", and substituting the words "prescribed specimen form of testimonial":

(e) By omitting from subclause (2) of regulation 43 the words "specimen form of testimonial set out in form 6 in the First Schedule to these regulations", and substituting the words "prescribed specimen form of testimonial":

(f) By revoking the First Schedule.

3. Regulation 3 of the principal regulations is hereby amended by revoking subparagraph (13) of paragraph (b), and substituting the following paragraphs:

"(13) First-class diesel trawler engineer

"(14) Second-class diesel trawler engineer."

4. Regulation 9 of the principal regulations is hereby amended by revoking subclause (1), and substituting the following subclause:

"(1) Examinations for all marine engineers' certificates, except that for extra first-class, shall be held at the places and commence on the days specified hereunder:

Port	All Certificates of New Zealand Validity Only	First-class and Second-class Certificates Recognised Beyond New Zealand
Wellington	Tuesday after the third Monday in every month except January	Fourth Monday in every month except January
Auckland ..	Tuesday after the third Monday in January, March, May, July, September, November	Fourth Monday in January, March, May, July, September, November
Dunedin ..	Tuesday after the first Monday in March, June, September, December	Tuesday after the first Monday in March, June, September, December
Christchurch	Second Monday in March, June, September, December	Second Monday in March, June, September, December"

5. Regulation 9 of the principal regulations is hereby further amended by omitting from subclause (3) the words "marine engine driver", and substituting the words "second-class diesel trawler engineer".

6. (1) Regulation 10 of the principal regulations is hereby amended by inserting in subclause (2), after the words "New Zealand", the words "other than a certificate as first-class diesel trawler engineer".

(2) Regulation 10 of the principal regulations is hereby further amended by inserting, after subclause (2), the following subclause:

"(2A) The timetable for examinations for first-class diesel trawler engineer's certificate shall be as appears in the following table:

Day	Subject (This examination is not taken in parts)
First Day—	
Morning session	Engineering Knowledge – one paper of three hours
Afternoon session	Engineering Knowledge – one paper of three hours
Second Day—	
Morning session	Arithmetic – one paper of three hours"

7. (1) Regulation 13 of the principal regulations is hereby amended by revoking paragraph (j), and substituting the following paragraphs:

	£	s.	d.
"(j) First-class diesel trawler engineer	1	10	0
"(k) Second-class diesel trawler engineer	1	10	0
"(l) Certificate of service as first-class or second-class diesel trawler engineer	1	0	0"

(2) Regulation 13 of the principal regulations is hereby further amended by inserting, after the words "for examination", the words "or, as the case may be, applies for a certificate of service".

8. Regulation 20 of the principal regulations is hereby amended by inserting in subclause (1), after the word "ship", the words "or the examination for first-class diesel trawler engineer".

9. Regulation 22 of the principal regulations is hereby amended—

(a) By inserting in subclause (1), after the word "subjects", the words "or British protected persons":

(b) By omitting from subclause (2) the words "not a British subject", and substituting the words "neither a British subject nor a British protected person":

(c) By omitting from subclause (3) the words "it is granted", and substituting the words "the first certificate is granted":

(d) By inserting in subclause (3), after the words "British subject", the words "or a British protected person":

(e) By inserting in subclause (4), after the words "British subject", the words "or a British protected person":

(f) By omitting from subclause (5) the words "not a British subject", and substituting the words "neither a British subject nor a British protected person".

10. The principal regulations are hereby further amended by revoking regulation 51, and substituting the following regulation:

"51. **Remission of sea service**—A candidate who passes Part A of the second-class examination or Part A of the first-class examination before commencing the period of sea service required to qualify him to sit Part B of those examinations shall be granted a remission of qualifying sea service as follows:

"(a) Those who pass or gain exemption before starting qualifying sea service, three months:

"(b) Those who pass or gain exemption before completing nine months' qualifying sea service, two months:

"(c) Those who pass or gain exemption before completing fifteen months' qualifying sea service, one month.

11. The principal regulations are hereby further amended by revoking regulation 60, and substituting the following regulations:

"60. **Second-class diesel trawler engineer**—(1) A candidate for a certificate as second-class diesel trawler engineer must be not less than 19 years of age.

"(2) He must produce proof of—

"(a) Having been in charge, or having assisted in the care, of the engines of a motorship for a period of not less than three years; or

"(b) Having served for not less than two years as an apprentice fitter or mechanic and in addition not less than one year as engineer or motorman on the engines of a motorship; or

"(c) Having served not less than four years as apprentice fitter or mechanic on suitable work.

"(3) He must submit a satisfactory testimonial vouching for his good conduct and sobriety covering a period of not less than one year immediately before the date of his application to be examined.

"(4) The examination shall be an oral one and the questions shall be covered by the following syllabus:

"(a) *Four-stroke and two-stroke petrol and diesel engines*—Cycle of events taking place in the cylinders:

"(b) *Petrol engines*—Resetting of magneto or battery ignition system without witness marks:

"(c) *Carburettor*—How it operates and how to deal with stoppage of petrol:

"(d) *Diesel engines*—Fundamental difference between petrol and diesel engines. Exact temperatures and pressures not required:

"(e) *All engines petrol and diesel*—How lubrication of the various bearings is carried out. What may cause failure and how to deal with same. Trace path of lubricating oil from sump back to sump. Where loss of oil could occur:

"(f) *Cooling water*—Trace path. Cause of failure and how to deal with it. Overheating and how to proceed:

"(g) *Pumps*—Type of pump frequently employed to pump water or oil:

"(h) *Fuel pumps*—Action of fuel pumps and how quantity of oil per stroke is controlled:

"(i) *Starting*—System used in small engines and care to ensure no water in cylinders:

"(j) *Preparing engine for sea*—A full and complete answer desirable:

"(k) *Engine parts and functions*—Support of propellor shaft, fixing of propellor. Function of thrust. How reversing is carried out. Object of tappet clearance:

"(l) *Precautions against fire and explosion*—Management of engine room. Cleanliness, no accumulation of oil and rubbish. Ventilation of closed spaces. Upkeep of fire-fighting equipment. Care necessary when opening fuel tanks. Gauze wire over oil-tank air pipes. Care necessary with gas or oil cooking apparatus. Flash point of an oil:

"(m) *Dynamos, motors, batteries*—Care and upkeep:

"(n) *Bilge pumps*—How they operate and how to deal with failure:

"(o) *Trawl winches*—'Take off' and independently driven winches. Attention required:

"(p) *Spare gear, oil reserves, tools, makers' handbooks, etc.*—Equipment and stores considered necessary for the trip in view.

"60A. **First-class diesel trawler engineer**—(1) A candidate for a certificate as first-class diesel trawler engineer must be not less than 21 years of age.

"(2) He must produce proof of—

"(a) Not less than five years' experience with the engines of a motorship of which not less than two years must have been in charge; or

"(b) Not less than five years' service as a mechanic, and in addition not less than one and a half years in charge of the engines of a motorship.

"(3) He must produce a satisfactory testimonial of good character and sobriety covering a period of not less than one year immediately before the date of his application to be examined.

"(4) The examination shall comprise one written paper dealing with simple arithmetic, two written engineering knowledge papers, and an oral examination.

"(5) The arithmetic paper shall deal with simple problems on capacities of tanks, consumption of fuel, engine and ship speed, and elementary questions dealing with areas, volumes, and weights.

"(6) The engineering knowledge questions for first-class certificate shall be covered by the syllabus for the second-class examination, but a higher standard of answer shall be demanded. In addition there may be questions on refrigeration, power steering, air compressors, and other auxiliaries found in fishing boats operating beyond 200 miles from the New Zealand coast.

"(7) If the candidate fails in practical knowledge, he may not present himself for examination for two months from the date of failure. If he fails in arithmetic, he may come up again for examination at any time.

"60B. **Certificates of service as second-class diesel trawler engineer**—A certificate of service as second-class diesel trawler engineer may be granted to persons who—

"(a) Make application for such a certificate to the Secretary for Marine before the 1st day of February 1968; and

"(b) Are at least 19 years of age; and

"(c) Have before the 1st day of February 1966 had not less than three years' experience with the engines of a motorship going to sea beyond restricted limits, including not less than one year in charge; and

"(d) Produce a satisfactory testimonial of good character and sobriety covering a period of not less than one year immediately preceding his application for the certificate.

"60C. **Certificates of service as first-class diesel trawler engineer**—A certificate of service as first-class diesel trawler engineer may be granted to persons who—

"(a) Make application for such a certificate to the Secretary for Marine before the 1st day of February 1968; and

"(b) Are at least 21 years of age; and

"(c) Have before the 1st day of February 1966 had not less than five years' experience with the engines of a motorship, including not less than two years in charge of the engines of a motorship going to sea beyond 200 miles from the New Zealand coast; and

"(d) Produce a satisfactory testimonial of good character and sobriety covering a period of not less than one year immediately preceding his application for the certificate."

12. Regulation 64 of the principal regulations is hereby amended by revoking subclause (10), and substituting the following subclause:

"(10) The syllabus for the examination shall be the syllabus set out in the Fifth Schedule to these regulations, so far as applicable."

13. Regulation 65 of the principal regulations is hereby amended by revoking subclause (6), and substituting the following subclause:

"(6) The syllabus for the examination shall be the syllabus set out in the Sixth Schedule to these regulations, so far as applicable."

14. Regulation 66 of the principal regulations is hereby amended by revoking subclause (9), and substituting the following subclause:

"(9) The syllabus for the examination shall be the syllabus set out in the Fifth Schedule to these regulations, so far as applicable."

15. The principal regulations are hereby further amended by adding the Fifth and Sixth Schedules set out in the Schedule to these regulations.

SCHEDULE

FIFTH AND SIXTH SCHEDULES TO PRINCIPAL REGULATIONS

"FIFTH SCHEDULE

SYLLABUSES FOR THIRD-CLASS STEAM AND SECOND-CLASS COASTAL MOTOR EXAMINATIONS

[NOTE—All of Part A and the General Engineering Knowledge paper of Part B are common to both examinations.]

"PART A

"PRACTICAL MATHEMATICS

(One paper of two and one-half hours. All six questions to be attempted)

(a) Application of areas and volumes to problems such as the weight of engine parts. Specific gravity. Simpson's first rule applied to areas and volumes.

(b) Force. Gravitational units. Force as a vector. Triangle and polygon of forces. Moment of a force. Moments of areas and volumes. Centroids and centres of gravity (limited to geometrical shapes). Inclined plane.

(c) Laws of friction for dry surfaces. Coefficient of friction. Angle of friction. Energy and power lost due to friction in plain bearings.

(d) Linear and angular motions. Equations for displacement, velocity, and uniform acceleration. Relative velocities in one plane only.

SCHEDULE—*continued*

(e) Velocity ratio, mechanical advantage, and efficiency of the following machines: Wheel and axle, rope pulley blocks, screw jack, Warwick screw, hydraulic jack, crab winches. Power transmitted by belt and gear drives.

(f) Direct stress and strain. Shear stress. Hooke's law. Young's modulus. Ultimate tensile stress. Yield stress. Limit of proportionality. Percentage elongation and reduction of area. Working stress. Factor of safety.

(g) Cantilevers and simple supported beams with concentrated and distributed loading. Calculation of shear forces and bending moments.

(h) Circumferential and longitudinal stress in thin cylinders and spherical shells. Joint efficiency.

(i) Archimedes principle. Equilibrium of floating bodies. Pump horsepower and efficiency.

(j) Temperature and thermometric scales. Conversion from Centigrade to Fahrenheit and vice versa. Linear expansion due to temperature change.

(k) Heat units: B.Th.U, C.H.U. and gram-calorie. Specific heat. Mechanical equivalent of heat. Heat equivalent of horsepower.

(l) Heat and temperature problems involving the mixture of not more than two substances. Water equivalent.

(m) Boyle's and Charles' laws for perfect gases. Combined equation. Absolute temperature.

(n) Sensible and latent heat. Wet, dry-saturated, and superheated steam, and the quantities of heat involved. Use of abridged steam tables. Specific volume of steam under various conditions. Equivalent evaporation.

(o) Engine-indicated and brake horsepower. Mechanical efficiency. Determination of crankshaft torque.

(p) Solid and liquid fuels. Calorific value. Fuel consumption in terms of power developed.

(q) Change of boiler density due to contaminated feed water.

(r) Electrical units: ampere ohm and volt. Ohm's law. Simple series and parallel circuits. Power and energy. Joule's equivalent. Machine efficiency. Specific resistance. Temperature coefficient of resistance.

(s) Displacement of ships. Wetted surface. Block, mid-section, prismatic and waterplane area co-efficients. Tons per inch immersion.

(t) Relation between speeds of vessels and their fuel consumption assuming that resistance varies as $(\text{speed})^n$. Elementary treatment of propeller: Pitch, slip.

"Working Drawings

(One question of three and one-half hours.)

The drawing paper shall consist of a test of the ability of the candidates to apply the principles of projection. The candidates shall be required to produce drawings to scale and thoroughly understand the principles of projection. They shall be required to draw a plan, elevation, or section, or a combination of these views, of a piece of marine machinery from an isometric view or views supplied. All the required information for the completion of the drawing shall be given on the question paper.

SCHEDULE—*continued*

"PART B

"ENGINEERING KNOWLEDGE

(General paper of two and one-half hours for both third-class steam and second-class coastal motor candidates. All six questions to be attempted) The questions will be concerned with—

(a) Constituents and properties of the more common materials used in marine engineering. Basic welding and heat-treatment processes. Manufacture of simple components.

(b) The properties of steam, fuels, lubricants, and other liquids and gases used aboard ship.

(c) Elementary principles of steam engines, turbines, boilers, I.C. engines, refrigerators, pumps, and other auxiliaries used aboard ship.

(d) Simple constructional details of marine engines, boilers, thrust block, and shafting. Methods of maintenance and repair. Equipment for determination of I.H.P. and B.H.P.

(e) The dissolved solids in seawater and their effect in boilers and evaporators.

(f) The constructional details and use of pressure gauges, thermometers, pyrometers, barometers, salinometers, and hydrometers.

(g) Precautions against fire or explosion due to coal, oil, or gas. The dangers of oil or gas leakage, particularly in bilges and other unventilated spaces. The action of wire-gauze diaphragms.

(h) Methods of dealing with fire aboard ship. Construction and operation of portable fire extinguishers.

(i) The construction and maintenance of primary and secondary electric cells.

(j) Basic principles and construction of ammeters and voltmeters. The use of fuses and circuit breakers.

(k) Basic principles and simple constructional details of electrical generators and motors. The need for motor starters.

(l) Explanation of the more common shipbuilding terms. Simple sketches and descriptions of rudders, propellers, sterntubes, and ships' side valves.

(m) Precautions before entering fuel and D.B. tanks.

"Specialised Paper for Third-class Steam Only

(Paper of two and one-half hours. All six questions to be attempted.)

In addition to items (a) to (m), all third-class steam candidates are required to know—

(n) Construction and testing of boiler water-level gauge glasses.

(o) Simple constructional details of boilers in general use, tank, and watertube, riveted and welded.

(p) The use and management of boilers with special reference to boiler fittings and mountings. Precautions necessary when raising steam and blowing down and when operating stop valves.

SCHEDULE—*continued*

(q) Elementary knowledge of boiler draught and oil-fuel burning equipment.

(r) Basic knowledge and main constructional details of steam engines and turbines, condensers, evaporators, feed water-heaters and filters, and other associated equipment.

(s) Elementary knowledge of engine slide and piston valves.

"Specialised Paper for Second-class Coastal Motor Candidates Only

(Paper of two and one-half hours. All six questions to be attempted.)

In addition to items (a) to (m), all second-class coastal motor candidates are required to know—

(t) Basic principles of the internal-combustion engine, main constructional details of engines in general use.

(u) The attention required in the operation and maintenance of I.C. engines, with particular reference to safety devices.

(v) Methods of starting and reversing I.C. engines.

(w) Construction and operation of engine-fuel mechanisms, such as pumps, injectors, and carburettors.

(x) Methods of lubricating and cooling the various engine parts.

(y) The care and attention required in the use of air compressors.

(z) Principles of coil and magneto ignition.

"SIXTH SCHEDULE

"SYLLABUS FOR FIRST-CLASS COASTAL MOTOR EXAMINATION

"PART A

"PRACTICAL MATHEMATICS

(Two papers of three hours each. All six questions to be attempted.)

The questions shall be concerned with—

(a) Application of areas and volumes to problems dealing mainly with the weight of engine parts. Simpson's first rule as applied to areas and volumes.

(b) Force. Gravitational units. Force as a vector. Triangle and polygon of forces. Moments of forces, areas, and volumes. Centroids and centres of gravity (limited to geometrical shapes). Conditions for the equilibrium of solids.

(c) Laws of friction for dry surfaces. Coefficient of friction. Angle of friction. Friction on the inclined plane. Energy and power lost due to friction in plain bearings.

(d) Linear and angular motion. Equations for displacement, velocity, and uniform acceleration. Relative velocities in one plane only.

SCHEDULE—*continued*

(e) Velocity ratio, mechanical advantage, and efficiency of simple machines.

(f) Direct stress, and strain. Shear stress. Hooke's law. Young's modulus. Limit of proportionality. Yield stress. Ultimate tensile stress. Percentage elongation and reduction of area. Factor of safety. Stress due to restricted expansion or contraction of single members.

(g) Cantilevers and simply supported beams with concentrated and distributed loading. Calculation of shear forces and bending moments. Stress due to bending, given the fundamental formulae.

(h) Torque and stress relationship in circular shafts, given the fundamental formulae. Determination of engine crankshaft torque. Power transmitted by shafts, coupling bolts, gear, and belt drives. Centrifugal force.

(i) Circumferential and longitudinal stress in thin cylinders and spherical shells. Joint efficiency.

(j) Archimedes' principle. Equilibrium of floating bodies. Specific gravity. Variation of fluid pressure with depth. Total force due to liquid pressure on horizontal and vertical immersed surfaces. Pump horsepower and efficiency.

(k) Temperature and thermometric scales. Conversion from Centigrade to Fahrenheit and vice versa.

(l) Heat units. Specific heat. Mechanical equivalent of heat. Heat equivalent of horsepower.

(m) Heat and temperature problems involving the mixture of not more than two substances. Water equivalent.

(n) Boyle's and Charles' laws for perfect gases. Combined equation. Absolute temperature. Isothermal and adiabatic expansion and compression. Specific heats Cp and Cv.

(o) Sensible and latent heat. Wet, dry-saturated, and superheated steam and the quantities of heat involved. Use of abridged steam tables. Specific volume of steam under various conditions. Equivalent evaporation.

(p) Engine-indicated and brake horsepower. Mechanical efficiency. Indicated and brake thermal efficiencies.

(q) Liquid fuels. Higher and lower calorific values. Fuel consumption in terms of power developed.

(r) Change of boiler and evaporator densities due to contaminated feed.

(s) Refrigerating effect. Capacity of refrigerating machines expressed as 'tons of ice per 24 hours from and at 32°F.'

(t) Electrical units. Ohm's law. Simple series and parallel circuits with sources of E.M.F. and resistance. Current distribution in simple circuits. Difference between E.M.F. and P.D. power and energy. Relationship between heat, mechanical and electrical units. Joule's equivalent. Conductor resistance, effect of length, area, material and temperature. Specific resistance. Temperature coefficient of resistance.

(u) Displacement of ships. Wetted surface. Block, mid-section, prismatic, and waterplane area coefficients. Tons per inch immersion.

(v) Relationship between speeds of vessels, their thrust horsepower and fuel consumption, assuming that resistance varies as $(\text{speed})^n$. Admiralty and fuel coefficients. Elementary treatment of propeller.

SCHEDULE—*continued*

"Working Drawing

(One question of six hours.)

The drawing paper shall consist of a test of the ability of the candidates to apply the principles of projection. The candidates shall be required to produce drawings to scale and thoroughly understand the principles of projection involved. They shall be required to draw a plan, elevation, or section, or a combination of these views, of a piece of marine machinery from an isometric view or views supplied. All the required information for the completion of the drawing shall be given on the question paper.

"PART B

"ENGINEERING KNOWLEDGE

(Two papers of three hours each. All six questions to be attempted.)

The questions shall be concerned with—

(a) Constituents and properties of the more common materials used in marine engineering. Manufacture of various components.

(b) The properties of steam, fuels, lubricants and other liquids, vapours, and gases used aboard ship.

(c) Working principles and main constructional details of I.C. engines in general use.

(d) Construction and operation of engine-fuel pumps, injectors, and carburettors.

(e) Methods of supercharging and scavenging I.C. engines.

(f) Means employed for starting and reversing I.C. engines.

(g) Methods of lubricating and cooling I.C. engine parts.

(h) Determination of engine I.H.P. and B.H.P. Faults detected by the examination of indicator diagrams.

(i) Working principles and constructional details of pumps fitted in ships. General requirements concerning feed, fuel, bilge, and ballast pumping systems.

(j) The constructional arrangement, details, and working of steering gears, air compressors and receivers, refrigerating, and other auxiliary machinery used aboard ship.

(k) Constructional details and management of auxiliary steam-boilers, their fittings and mountings, with special reference to water gauges and safety valves.

(l) Methods of dealing with the wear and tear of machinery and boilers. The correction of defects due to flaws in material or accident. Temporary and permanent repairs.

(m) Equipment used in the preparation of fuel and the care of lubricating oil.

(n) The principles, constructional details, and use of pressure gauges, pyrometers, and other instruments commonly used by engineers aboard ship.

(o) Precautions against fire or explosion due to oil or gas. Flashpoint. The dangers of oil or gas leakage, particularly in bilges and other unventilated spaces.

SCHEDULE—*continued*

(p) Methods of dealing with fire. Action and maintenance of fire-extinguishing apparatus.

(q) Constructional details of D.C. generators and motors. Lap and wave winding. Action of commutator. Methods of supplying field. Parallel operation of generators. Need for motor starters and their construction.

(r) D.C. circuits. Action of fuses and circuit breakers. Use of earth lamps.

(s) Principle and construction of switchboard indicating instruments. Simple ohmmeter and insulation testing.

(t) Basic principles of A.C. circuits and equipment.

(u) Construction and maintenance of primary and secondary electric cells.

(v) Explanation of more common shipbuilding terms. Sketches and descriptions of thrustblocks, shafting, propellers, sterntubes, rudders, and structural members in ordinary types of steel ships. Machinery-seating arrangements.

(w) Precautions before entering D.B. tanks.

(x) Drydocking and maintenance of underwater fittings.

(y) The administrative duties of a chief engineer. Reports to owners."

T. J. SHERRARD,
Clerk of the Executive Council.

EXPLANATORY NOTE

This note is not part of the regulations, but is intended to indicate their general effect.

These regulations make provision for the following matters:

(a) Provision is made for the holding of examinations for certificates of competency as first-class diesel trawler engineer and second-class diesel trawler engineer. The qualifications of candidates and the syllabuses for those certificates are prescribed.

(b) Provision is made for the granting of certificates of service as first-class diesel trawler engineer and second-class diesel trawler engineer.

(c) New timetables for examinations for all marine engineers' certificates are prescribed.

(d) Provision is made for British protected persons to be granted certificates.

(e) The provisions of regulation 51 of the principal regulations (relating to remissions of sea-service) are amended.

(f) New syllabuses are prescribed for the examinations for certificates of competency as third-class steam engineer, second-class coastal motor engineer, and first-class coastal motor engineer.

Issued under the authority of the Regulations Act 1936.
Date of notification in *Gazette:* 22 December 1965.
These regulations are administered in the Marine Department.