

1969/264

**THE ENGINE DRIVERS' EXAMINATION REGULATIONS 1952,
AMENDMENT NO. 5**

ARTHUR PORRITT, Governor-General

ORDER IN COUNCIL

At the Government House at Wellington this 15th day of December
1969

Present:

HIS EXCELLENCY THE GOVERNOR-GENERAL IN COUNCIL

PURSUANT to the Boilers, Lifts, and Cranes Act 1950, His Excellency the Governor-General, acting by and with the advice and consent of the Executive Council, hereby makes the following regulations.

ANALYSIS

- | | |
|--|--|
| 1. Title and commencement | 12. Locomotive and traction engine driver's certificate |
| 2. Dates and places of examination | 13. Locomotive engine driver's certificate |
| 3. Applications | 14. Traction engine driver's certificate |
| 4. Fees | 15. Regulations 33-35 revoked |
| 5. Return of fees | 16. Recognition of certificates from outside New Zealand |
| 6. References and testimonials | 17. Recognition of railway engine driver's certificates |
| 7. Failure in examination | 18. First Schedule |
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| 9. Steam winding engine driver's certificate | 20. Revocations Schedules |
| 10. Electric winding engine driver's certificate | |
| 11. Restricted winding engine driver's certificate | |

REGULATIONS

1. Title and commencement—(1) These regulations may be cited as the Engine Drivers' Examination Regulations 1952, Amendment No. 5, and shall be read together with and deemed part of the Engine Drivers' Examination Regulations 1952* (hereinafter referred to as the principal regulations).

(2) These regulations shall come into force on the 1st day of January 1970.

2. Dates and places of examination—The principal regulations are hereby amended by revoking regulation 12 (as amended by regulation 2 (1) of the Engine Drivers' Examination Regulations 1952, Amendment No. 2, regulation 2 (a) of the Engine-Divers' Examination Regulations 1952, Amendment No. 3, and regulations 3 and 4 of the Engine Drivers' Examination Regulations 1952, Amendment No. 4), and substituting the following regulation:

“12. (1) Examinations for the extra first-class stationary engineer's certificate and the first-class engine driver's certificate shall be held at Auckland, Wellington, Christchurch, and Dunedin commencing on the second Tuesday in February, May, August, and November and may, if necessary, be continued on days following those specified.

“(2) Examinations for certificates other than those specified in subclause (1) of this regulation shall be held at Whangarei, Auckland, Hamilton, Tauranga, Taupo, Napier, New Plymouth, Wanganui, Palmerston North, Wellington, Nelson, Greymouth, Christchurch, Timaru, Dunedin, and Invercargill on the second Tuesday in February, May, August, and November.

“(3) Examinations for the boiler attendant's certificate shall be held at Gisborne on the second Tuesday in May and November of each year.

“(4) In cases of emergency the Board may authorise examinations to be held at times and places other than those specified in subclauses (1) to (3) of this regulation.”

3. Applications—Regulation 13 of the principal regulations is hereby amended by omitting from subclause (1) the words “regulation 12 (1)”, and substituting the words “regulation 12 (2)”.

4. Fees—The principal regulations are hereby further amended by revoking regulation 14 (as amended by section 7 (1) of the Decimal Currency Act 1964), and substituting the following regulation:

“14. (1) Each application for examination shall be accompanied by the following fee appropriate to the certificate of competency:

	\$
Extra first-class stationary engineer (for all or any part of the examination)	8
First-class engine driver	8
Second-class engine driver	6
Winding engine driver (steam, electric, or hydraulic)	5
Locomotive and traction engine driver	5
Traction engine driver	5
Locomotive engine driver	5
Boiler attendant	5

“(2) Each application for replacement of any certificate of competency which has been lost or destroyed shall be accompanied by a fee of \$5.”

5. Return of fees—The principal regulations are hereby further amended by omitting from regulation 15 the words “shall be either returned to him”, and substituting the words “may be forfeited, or returned to the candidate,”.

6. References and testimonials—Regulation 16 of the principal regulations is hereby amended by revoking subclause (1), and substituting the following subclauses:

“(1) Subject to subclauses (2) and (5) of this regulation, proof of qualifying service shall take the form of a written statement by the person who was the applicant's employer during the period claimed as qualifying service. The statement shall set out the dates of duration of any lesser periods going to make up the total period of qualifying service, and shall, if the statement relates to an application for a boiler attendant's certificate, also state the number of hours actually served. Statements relating to service in connection with—

“(a) A boiler, shall state clearly the type and horsepower rating of the boiler:

“(b) An engine, shall state clearly the type, and the number and diameter of the cylinders, of the engine:

“(c) A turbine, shall state clearly the brake horsepower of the turbine.

“(1A) No service with electrically heated boilers or unfired steam pressure vessels shall be counted as qualifying service.”

7. Failure in examination—Regulation 22 of the principal regulations (as substituted by regulation 5 of the Engine Drivers' Examination Regulations 1952, Amendment No. 4) is hereby amended by adding the following subclause:

“(3) If any candidate on three occasions fails an examination for the same certificate of competency he shall, before again applying for examination for the same certificate, produce evidence of such further qualifying service as the Board thinks fit.”

8. New regulations—The principal regulations are hereby further amended by revoking regulations 24 to 26 together with all headings to those regulations, and substituting the following headings and regulations:

“QUALIFICATIONS REQUIRED FOR CERTIFICATES OF COMPETENCY

“STATIONARY ENGINES AND BOILERS

“*Extra First-class Stationary Engineer*

“24. (1) In accordance with the Act, an extra first-class stationary engineer's certificate entitles the holder to drive and have charge of any boiler, steam turbine, or stationary steam engine (other than a winding engine).

“(2) An applicant for examination for the extra first-class stationary engineer's certificate shall—

“(a) Be at least 21 years of age:

“(b) Hold a first-class engine driver's (or equivalent) certificate:

“(c) Forward with his application the prescribed fee:

“(d) Furnish a testimonial as required by regulation 16 (3) of these regulations:

“(e) Produce satisfactory proof of having worked for at least 5 years in the fitting or fitting and turning trade as an apprentice or a journeyman either in a workshop or workshops

where steam engines, steam turbines, or boilers are made or repaired, or on maintenance work associated with large boilers, steam engines, or steam turbines:

- “(f) Pass an examination the syllabus for which is set out in Part I of the Second Schedule to these regulations.

“First-class Engine Driver

“25. (1) In accordance with the Act, a first-class engine driver's certificate entitles the holder to drive and have charge of any boiler, steam turbine, or stationary steam engine (other than a winding engine).

“(2) An applicant for examination for the first-class engine driver's certificate shall—

“(a) Be at least 21 years of age:

“(b) Forward with his application the prescribed fee:

“(c) Furnish a testimonial as required by regulation 16 (3) of these regulations:

“(d) Produce satisfactory proof of one of the following service qualifications:

“(i) Service for at least 4 years in the fitting or fitting and turning trade as an apprentice or journeyman in a workshop or workshops where steam engines, steam turbines, or boilers are made or repaired, or on maintenance work associated with large boilers, steam engines, or steam turbines:

“(ii) Having for a period of 2 years, while holding a second-class engine driver's certificate or equivalent, had actual charge of, or fired and attended under the supervision of an engine driver holding an extra first-class or first-class engine driver's certificate, a boiler, or boilers, with a total capacity exceeding 200 horsepower:

“(iii) Having for a period of 5 years outside New Zealand been in actual charge of a boiler, or boilers, with a total capacity exceeding the New Zealand rating of 500 horsepower, and having passed the examination for the second-class engine driver's certificate:

“(e) Pass an examination the syllabus for which is set out in Part II of the Second Schedule to these regulations.

“Second-class Engine Driver

“26. (1) In accordance with the Act, a second-class engine driver's certificate entitles the holder to have charge of any steam boiler, or boilers, not exceeding a total capacity of 500 horsepower, to which no machinery is attached, except—

“(a) A steam stationary engine (other than a winding engine) the combined cylinder areas of which do not exceed 500 sq in.; or

“(b) A steam turbine not exceeding 1,000 brake horsepower in output.

“(2) An applicant for examination for a second-class engine driver's certificate shall—

“(a) Be at least 20 years of age:

“(b) Forward with his application the prescribed fee:

“(c) Furnish a testimonial as required by regulation 16 (3) of these regulations:

“(d) Produce satisfactory proof of one of the following service qualifications:

“(i) Service for at least 3 years in the fitting or fitting and turning trade as an apprentice or journeyman in a workshop or workshops where steam engines, steam turbines, or boilers are made or repaired, or on maintenance work associated with large boilers, steam engines, or steam turbines:

“(ii) Having for a period of 12 months, while holding a boiler attendant's certificate (or equivalent), either had actual charge of a boiler, or boilers, with a total capacity exceeding 15 horsepower or, under the supervision of an engine driver holding a second-class or higher engine driver's certificate, fired and attended a boiler, or boilers, with a total capacity exceeding 200 horsepower:

“(iii) Having for a period of 3 years outside New Zealand been in actual charge of a boiler, or boilers, with a total capacity exceeding the New Zealand rating of 200 horsepower, and having passed the examination for the boiler attendant's certificate:

“(e) Pass an examination the syllabus for which is set out in Part III of the Second Schedule to these regulations.

“Boiler Attendant

“26A. (1) In accordance with the Act, a boiler attendant's certificate entitles the holder to have charge of any steam boiler, or boilers, not exceeding a total capacity of 200 horsepower to which no machinery is attached, except—

“(a) A steam stationary engine (other than a winding engine) the combined cylinder areas of which do not exceed 180 sq in.; or

“(b) A steam turbine not exceeding 200 brake horsepower in output.

“(2) An applicant for examination for a boiler attendant's certificate shall—

“(a) Be at least 19 years of age:

“(b) Forward with his application form the prescribed fee:

“(c) Furnish a testimonial as required by regulation 16 (3) of these regulations:

“(d) Produce satisfactory proof of one of the following service qualifications—

“(i) Service for at least 2 years in the fitting or fitting and turning trade as an apprentice or journeyman in a workshop or workshops where steam engines, steam turbines, or boilers are made or repaired, or on maintenance work associated with large boilers, steam engines, or steam turbines:

“(ii) Having for a continuous period of 6 months, or for a period in the aggregate of 1,040 hours during 12 consecutive months, been in actual charge of a boiler not exceeding 15 horsepower, but not less than 3 horsepower, or, under the supervision of an engine driver holding an extra first-class, first-class, or second-class engine driver's certificate, fired and attended a boiler or boilers with a combined rating exceeding 15 horsepower:

“(e) Pass an examination the syllabus for which is set out in Part IV of the Second Schedule to these regulations.”

9. Steam winding engine driver's certificate—(1) Regulation 27 of the principal regulations is hereby amended by omitting from subclause (2) the words "second class engine driver's", and substituting the words "boiler attendant's".

(2) The said regulation 27 (as amended by section 7 (1) of the Decimal Currency Act 1964) is hereby further amended by omitting from paragraph (b) of subclause (3) the words "a fee of \$3", and substituting the words "the prescribed fee".

(3) The said regulation 27 is hereby further amended by omitting from subparagraph (v) of paragraph (g) of subclause (3) the words "second class engine driver's", and substituting the words "boiler attendant's".

10. Electric winding engine driver's certificate—Regulation 28 of the principal regulations (as amended by section 7 (1) of the Decimal Currency Act 1964) is hereby further amended by omitting from paragraph (b) of subclause (2) the words "a fee of \$3", and substituting the words "the prescribed fee".

11. Restricted winding engine driver's certificate—Regulation 29 of the principal regulations (as amended by section 7 (1) of the Decimal Currency Act 1964) is hereby amended by omitting from paragraph (b) of subclause (3) the words "a fee of \$3", and substituting the words "the prescribed fee".

12. Locomotive and traction engine driver's certificate—(1) Regulation 30 of the principal regulations is hereby amended by omitting from subclause (1) the words "second class engine driver's", and substituting the words "boiler attendant's".

(2) The said regulation 30 (as amended by section 7 (1) of the Decimal Currency Act 1964) is hereby further amended by omitting from paragraph (b) of subclause (2) the words "a fee of \$3", and substituting the words "the prescribed fee".

(3) The said regulation 30, as so amended, is hereby further amended by revoking subparagraph (vii) of paragraph (f) of subclause (2), and substituting the following subparagraph:

"(vii) The syllabus for examination for a boiler attendant's certificate as set out in Part IV of the Second Schedule to these regulations."

13. Locomotive engine driver's certificate—(1) Regulation 31 of the principal regulations is hereby amended by omitting from subclause (1) the words "second class engine driver's", and substituting the words "boiler attendant's".

(2) The said regulation 31 (as amended by section 7 (1) of the Decimal Currency Act 1964) is hereby further amended by omitting from paragraph (b) of subclause (2) the words "a fee of \$3", and substituting the words "the prescribed fee".

(3) The said regulation 31, as so amended, is hereby further amended by revoking subparagraph (vi) of paragraph (f) of subclause (2), and substituting the following subparagraph:

"(vi) The syllabus for examination for a boiler attendant's certificate as set out in Part IV of the Second Schedule to these regulations."

14. Traction engine driver's certificate—Regulation 32 of the principal regulations (as amended by section 7 (1) of the Decimal Currency Act 1964) is hereby further amended by omitting from paragraph (b) of subclause (2) the words "a fee of \$3", and substituting the words "the prescribed fee".

15. Regulations 33–35 revoked—The principal regulations are hereby further amended by revoking regulations 33 to 35, together with all headings to those regulations.

16. Recognition of certificates from outside New Zealand—Regulation 36 of the principal regulations (as amended by section 7 (1) of the Decimal Currency Act 1964) is hereby further amended by omitting from paragraph (c) of subclause (2) the words "a fee of \$3", and substituting the words "the prescribed fee".

17. Recognition of railway engine driver's certificates—(1) Regulation 37 is hereby amended by inserting in subclause (1), before the word "engine" in both places where it occurs, and also before the word "locomotive", the word "steam".

(2) The said regulation 37, as so amended, is hereby further amended by revoking subclause (2), and substituting the following subclause:

"(2) A person who has been employed as aforesaid as driver of a steam locomotive shall be entitled to receive a locomotive and traction engine driver's certificate, and a person who has been employed as driver of a stationary steam engine shall be entitled to receive a boiler attendant's certificate."

(3) The said regulation 37 is hereby further amended by omitting from subclause (4) the words "second class engine driver's" from both places where they occur, and substituting in each case the words "boiler attendant's", and also by inserting, before the word "locomotive" in subparagraph (iv) of paragraph (d), and before the word "engine" in subparagraph (iii) of paragraph (e), the word "steam" in each case.

18. First Schedule—The principal regulations are hereby further amended by revoking the First Schedule, and substituting the First Schedule set out in the First Schedule to these regulations.

19. Second Schedule—The Second Schedule to the principal regulations is hereby amended by adding, as Parts II, III, and IV, the Parts set out in the Second Schedule to these regulations.

20. Revocations—The following regulations are hereby consequentially revoked:

- (a) The Engine Drivers' Examination Regulations 1952, Amendment No. 2;
- (b) The Engine-Driver's Examination Regulations 1952, Amendment No. 3;
- (c) Regulations 3, 4, 6, and 7 of the Engine Drivers' Examination Regulations 1952, Amendment No. 4.

SCHEDULES

FIRST SCHEDULE

Reg. 18

NEW FIRST SCHEDULE TO THE PRINCIPAL REGULATIONS
"FIRST SCHEDULE"

MARINE DEPARTMENT
 NEW ZEALAND

Marine 376

APPLICATION FOR ENGINE DRIVER'S CERTIFICATE

IMPORTANT: Please read instructions carefully
 APPLICANT TO COMPLETE SECTIONS A, B, C, D, E.
 (A)—Certificate Required

Type of Certificate	Post Office to Which Certificate is to be Sent
Place of Examination	

(B) Name of Applicant

(1) Christian Names in Full		(2) Surname	(3) Address	
DATE OF BIRTH			PLACE OF BIRTH	
(4) Day of Month	(5) Month	(6) Year	(7) Name of Place	(8) Country in Which Situated

(C)—Particulars of Certificates Held and of Previous Failures

IF POSSESSED OF ANY CERTIFICATE, GIVE PARTICULARS			IF FAILED PREVIOUSLY FOR CERTIFICATE NOW REQUIRED, STATE HERE	
(9) No.	(10) Description and Class	(11) Date of Issue	(12) Place	(13) (Date)

(D)—Statement of Qualifying Service of Which Proof is Submitted Herewith

(14) Employer	(15) Address	DATES OF SERVICE		(18) Capacity in Which Employed	(19) If Driving or Attending to Steam Plant, State Here Particulars Including H.P. of Boilers, and Number and Diameter of Cylinders of Engines
		(16) From	(17) To		

(E)—Declaration by Applicant

I hereby apply for the above-mentioned certificate, and declare that the particulars contained in divisions (B), (C), and (D) of this form are correct, complete, and true to the best of my knowledge and belief. Signature of Applicant:..... Date:.....19....
--

(F)—Testimonial of Good Conduct and Sobriety

I have known Mr.....for at least 12 months immediately preceding the date of this application (as shown in section E of this form) and can certify to his good conduct and sobriety over that period.

Signed:.....
 Address:.....
 Date:.....

(After completion, this form, together with other necessary papers and the prescribed fee, is to be forwarded to the Secretary for Marine, Marine Department, P.O. Box 10142, Wellington, to reach him at least 21 days before the date of examination.)

TO BE COMPLETED BY APPLICANT

FIRST SCHEDULE—continued

HEAD OFFICE USE

(G)—Certificate as to Receipt of Fee

I certify that the fee of
has been received on Receipt No.

Receiver.
Date: 19....

(H)—Board of Examiners' Comments

.....
.....
.....
.....

(I)—Certificate of Examiner

Place of Examination

Date	Subject	Passed or Failed	Detailed Remarks Applicable to Subject Concerned

Examiner's General Comments

.....
.....
.....

EXAMINERS' USE

Personal Description of Candidate

Height		(27) Complexion	(28) Personal Marks or Peculiarities (if any)	Colour of	
(25) Feet	(26) Inches			(29) Hair	(30) Eyes

I certify that the above is a true account of the examination of this candidate for the certificate mentioned in division (A).
....., Examiner. Date: 19....

(J)—Approval for Issue of Certificate

A certificate may be issued to
.....
Chairman, Board of Examiners,
per
Date
Certificate issued
.....
Secretary of Board.

FIRST SCHEDULE—continued

Regulation 23

Marine 378

MARINE DEPARTMENT—NEW ZEALAND

APPLICATION FOR REPLACEMENT OF ENGINE DRIVER'S CERTIFICATE

(After completion, this form, together with the prescribed fee of \$5 is to be forwarded to the Secretary for Marine, Marine Department, P.O. Box 10142, Wellington.)

(A)—Name, etc., of Applicant

(1) Christian Names in Full		(2) Surname	(3) Address	

DATE OF BIRTH			PLACE OF BIRTH	
(4) Day	(5) Month	(6) Year	(7) Name of Place	(8) Country in Which Situated

Post Office to which certificate to be sent

(B)—Particulars of Certificate of Which Replacement Desired

(9) Number	(10) Description and Class	(11) Competency or Service	(12) Date of Issue	(13) If unable accurately to complete Columns (9) and (12), give here some information as to when Certificate obtained

(C)—Declaration to be Made by Applicant

CAUTION—Every person who makes a false representation for the purpose of obtaining a certificate is liable to imprisonment for a period not exceeding 2 years.

I, ⁽¹⁾, do solemnly and sincerely declare that—

1. My certificate, particulars of which are given in division (B) of this form, was lost* [destroyed] at, on ⁽²⁾ under the following circumstances: ⁽³⁾

*Indicate whether lost or destroyed.

2. Statements made herein, and in divisions (A) and (B) of this form are correct and true to the best of my knowledge and belief; and I make this solemn declaration conscientiously believing the same to be true, and by virtue of the Oaths and Declarations Act 1957.

Signature:

Declared at, this day of 19, before me—

Justice of the Peace or
 Solicitor or
 Other person authorised to take a
 statutory declaration.

(D)—Certificate as to Receipt of Fee

(For use by Department)

The fee of \$5 has been received this day, on Receipt No.

....., Receiver.

Date: 19....

Replacement certificate no. issued

FIRST SCHEDULE—continued

[Front]

NEW ZEALAND

[The Seal of the Marine
Department, N.Z.]

No.

CERTIFICATE OF COMPETENCY AS EXTRA FIRST-CLASS STATIONARY
ENGINEER

To

WHEREAS it has been reported to me that you have passed an examination and satisfied the Board of Examiners that you are duly qualified to hold a certificate as an Extra First-class Stationary Engineer, I do hereby, in pursuance of the Boilers, Lifts, and Cranes Act 1950, grant you this Certificate of Competency.

This certificate entitles the holder thereof to drive and have charge of any stationary steam engine (other than a winding engine), and of any stationary boiler.

Given under the seal of the Marine Department of New Zealand at Wellington, this day of 19.....

Registered:

....., Secretary for Marine.

[Back]

PERSONAL DESCRIPTION OF HOLDER OF CERTIFICATE AND THE DATE
AND PLACE OF HIS BIRTH

Height	Complexion	Personal Marks or Peculiarities (If Any)	Colour	
			Hair	Eyes
ft in.				
Date of Birth			Place of Birth	
Day	Month	Year	Town	Country

Signature of holder of certificate:

FIRST SCHEDULE—*continued*

[*Front*]

NEW ZEALAND

[The Seal of the Marine
Department, N.Z.]

No.

CERTIFICATE OF COMPETENCY AS FIRST-CLASS ENGINE DRIVER

To

WHEREAS it has been reported to me that you have satisfied the Board of Examiners that you are duly qualified to fulfil the duties of First-class Engine Driver, I do hereby, in pursuance of the Boilers, Lifts, and Cranes Act 1950, grant you this Certificate of Competency.

This certificate entitles the holder thereof to drive and have charge of any stationary steam engine (other than a winding engine), and of any stationary boiler.

Given under the seal of the Marine Department of New Zealand, at Wellington, this day of 19.....

Registered:

....., Secretary for Marine.

Signature of holder of certificate:

[*Back*]

PERSONAL DESCRIPTION OF HOLDER OF CERTIFICATE AND THE DATE AND PLACE OF HIS BIRTH

Height	Complexion	Personal Marks or Peculiarities (If Any)	Colour	
			Hair	Eyes
ft in.				
Date of Birth			Place of Birth	
Day	Month	Year	Town	Country

FIRST SCHEDULE—*continued*

[*Front*]

NEW ZEALAND

[The Seal of the Marine
Department, N.Z.]

No.

CERTIFICATE OF COMPETENCY AS SECOND-CLASS ENGINE DRIVER

To

WHEREAS it has been reported to me that you have satisfied the Board of Examiners that you are duly qualified to fulfil the duties of Second-class Engine Driver, I do hereby, in pursuance of the Boilers, Lifts, and Cranes Act 1950, grant you this Certificate of Competency.

This certificate entitles the holder to have charge of any steam boiler, or boilers, not exceeding a total capacity of 500 horsepower to which no machinery is attached, except—

- (a) A steam stationary engine (other than a winding engine) the combined cylinder areas of which do not exceed 500 sq in.; or
- (b) A steam turbine not exceeding 1,000 brake horsepower in output.

Given under the seal of the Marine Department of New Zealand at Wellington, this day of 19.....

Registered:

....., Secretary for Marine.

[*Back*]

PERSONAL DESCRIPTION OF HOLDER OF CERTIFICATE AND THE DATE AND PLACE OF HIS BIRTH

Height	Complexion	Personal Marks or Peculiarities (If Any)	Colour	
			Hair	Eyes
ft in.				
Date of Birth			Place of Birth	
Day	Month	Year	Town	Country

Signature of holder of certificate:

FIRST SCHEDULE—*continued*

[*Front*]

NEW ZEALAND

[The Seal of the Marine
 Department, N.Z.]

No.

CERTIFICATE OF COMPETENCY AS BOILER ATTENDANT

To

WHEREAS it has been reported to me that you have satisfied the Board of Examiners that you are duly qualified to fulfil the duties of Boiler Attendant, I do hereby, in pursuance of the Boilers, Lifts, and Cranes Act 1950, grant you this Certificate of Competency.

This certificate entitles the holder to have charge of any steam boiler, or boilers, not exceeding a total capacity of 200 horsepower, to which no machinery is attached, except—

- (a) A steam stationary engine (other than a winding engine) the combined cylinder areas of which do not exceed 180 sq in.; or
- (b) A steam turbine not exceeding 200 brake horsepower in output.

Given under the seal of the Marine Department of New Zealand at Wellington, this day of 19.....
 Registered:

....., Secretary for Marine.

[*Back*]

PERSONAL DESCRIPTION OF HOLDER OF CERTIFICATE AND THE DATE AND PLACE OF HIS BIRTH

Height	Complexion	Personal Marks or Peculiarities (If Any)	Colour	
			Hair	Eyes
ft in.				
Date of Birth			Place of Birth	
Day	Month	Year	Town	Country

Signature of holder of certificate:

FIRST SCHEDULE—*continued*

[Front]

NEW ZEALAND

[The Seal of the Marine
Department, N.Z.]

No.

CERTIFICATE OF COMPETENCY AS LOCOMOTIVE AND TRACTION
ENGINE DRIVER

To

WHEREAS it has been reported to me that you have satisfied the Board of Examiners that you are duly qualified to fulfil the duties of Locomotive and Traction Engine Driver, I do hereby, in pursuance of the Boilers, Lifts, and Cranes Act 1950, grant you this Certificate of Competency.

This certificate entitles the holder thereof to drive and have charge of any steam engine propelled or moved from place to place by its own motive power or machinery. He is deemed also to be the holder of a boiler attendant's certificate.

Given under the seal of the Marine Department of New Zealand, at Wellington, this day of 19.....

Registered:

....., Secretary for Marine.

Signature of holder of certificate:

[Back]

PERSONAL DESCRIPTION OF HOLDER OF CERTIFICATE AND THE DATE
AND PLACE OF HIS BIRTH

Height	Complexion	Personal Marks or Peculiarities (If Any)	Colour	
			Hair	Eyes
ft in.				
Date of Birth			Place of Birth	
Day	Month	Year	Town	Country

FIRST SCHEDULE—*continued*

[*Front*]

NEW ZEALAND

[The Seal of the Marine
 Department, N.Z.]

No.

CERTIFICATE OF COMPETENCY AS STEAM WINDING ENGINE DRIVER

To

WHEREAS it has been reported to me that you have satisfied the Board of Examiners that you are duly qualified to fulfil the duties of Steam Winding Engine Driver, I do hereby, in pursuance of the Boilers, Lifts, and Cranes Act 1950, grant you this Certificate of Competency.

This certificate entitles the holder to drive and have charge of any steam, air, or hydraulic machinery used for winding purposes in a mine. He is deemed to be the holder of a boiler attendant's certificate, and may also drive and have charge of a steam traction engine, a steam locomotive, or a steam log hauling engine and its boiler.

Given under the seal of the Marine Department of New Zealand at Wellington, this day of 19.....

Registered:

....., Secretary for Marine.

[*Back*]

PERSONAL DESCRIPTION OF HOLDER OF CERTIFICATE AND THE DATE
 AND PLACE OF HIS BIRTH

Height	Complexion	Personal Marks or Peculiarities (If Any)	Colour	
			Hair	Eyes
ft in.				
Date of Birth			Place of Birth	
Day	Month	Year	Town	Country

Signature of holder of certificate:

FIRST SCHEDULE—*continued*

[Front]

NEW ZEALAND

[The Seal of the Marine
Department, N.Z.]

No.

CERTIFICATE OF COMPETENCY AS ELECTRIC WINDING ENGINE
DRIVER

To

WHEREAS it has been reported to me that you have satisfied the Board of Examiners that you are duly qualified to fulfil the duties of Electric Winding Engine Driver, I do hereby, in pursuance of the Boilers, Lifts, and Cranes Act 1950, grant you this Certificate of Competency.

This certificate entitles the holder to drive and have charge of any electrically driven machinery used for winding purposes in a mine.

Given under the seal of the Marine Department of New Zealand, at Wellington, this day of 19.....

Registered:

....., Secretary for Marine.

Signature of holder of certificate:

[Back]

PERSONAL DESCRIPTION OF HOLDER OF CERTIFICATE AND THE DATE
AND PLACE OF HIS BIRTH

Height	Complexion	Personal Marks or Peculiarities (If Any)	Colour	
			Hair	Eyes
ft in.				
Date of Birth			Place of Birth	
Day	Month	Year	Town	Country

FIRST SCHEDULE—*continued*

[*Front*]

NEW ZEALAND

[The Seal of the Marine
 Department, N.Z.]

No.

CERTIFICATE OF COMPETENCY

AS A

RESTRICTED WINDING ENGINE DRIVER

To

WHEREAS it has been reported to me that you have satisfied the Board of Examiners that you are duly qualified to fulfil the duties of a Restricted Winding Engine Driver, I do hereby, in pursuance of the Boilers, Lifts and Cranes Act 1950, grant you this Certificate of Competency.

This certificate entitles the holder to drive and have charge of.....

Given under the seal of the Marine Department of New Zealand, at Wellington, this day of, 19.....

Registered:

....., Secretary for Marine.

[*Back*]

PERSONAL DESCRIPTION OF HOLDER OF CERTIFICATE AND THE DATE AND PLACE OF HIS BIRTH

Height	Complexion	Personal Marks or Peculiarities (If Any)	Colour	
			Hair	Eyes
ft in.				
Date of Birth			Place of Birth	
Day	Month	Year	Town	Country

Signature of holder of certificate:

FIRST SCHEDULE—continued

[Front]

NEW ZEALAND

[The Seal of the Marine
Department, N.Z.]

No.

CERTIFICATE OF COMPETENCY AS LOCOMOTIVE ENGINE DRIVER

To

WHEREAS it has been reported to me that you have satisfied the Board of Examiners that you are duly qualified to fulfil the duties of Locomotive Engine Driver, I do hereby, in pursuance of the Boilers, Lifts, and Cranes Act 1950, grant you this Certificate of Competency.

This certificate entitles the holder to drive and have charge of any steam locomotive engine propelled or moved from place to place by its own motive power or machinery. He is deemed also to be the holder of a boiler attendant's certificate.

Given under the seal of the Marine Department of New Zealand, at Wellington, this day of 19.....

Registered:

....., Secretary for Marine.

Signature of holder of certificate:

[Back]

PERSONAL DESCRIPTION OF HOLDER OF CERTIFICATE AND THE DATE AND PLACE OF HIS BIRTH

Height	Complexion	Personal Marks or Peculiarities (If Any)	Colour	
			Hair	Eyes
ft in.				
Date of Birth			Place of Birth	
Day	Month	Year	Town	Country

FIRST SCHEDULE—*continued*

[*Front*]

NEW ZEALAND

[The Seal of the Marine
 Department, N.Z.]

No.

CERTIFICATE OF COMPETENCY AS TRACTION ENGINE DRIVER

To

WHEREAS it has been reported to me that you have satisfied the Board of Examiners that you are duly qualified to fulfil the duties of Traction Engine Driver, I do hereby, in pursuance of the Boilers, Lifts, and Cranes Act 1950, grant you this Certificate of Competency.

This certificate entitles the holder to drive and have charge of any steam traction engine propelled or moved from place to place by its own motive power or machinery. He may also drive and have charge, as a stationary engine, of any steam traction engine which he owns or is employed to drive as a traction engine.

Given under the seal of the Marine Department of New Zealand, at Wellington, this day of 19.....

Registered:

....., Secretary for Marine.

[*Back*]

PERSONAL DESCRIPTION OF HOLDER OF CERTIFICATE AND THE DATE AND PLACE OF HIS BIRTH

Height	Complexion	Personal Marks or Peculiarities (If Any)	Colour	
			Hair	Eyes
ft in.				
Date of Birth			Place of Birth	
Day	Month	Year	Town	Country

Signature of holder of certificate:

Reg. 19

SECOND SCHEDULE

NEW PARTS TO THE SECOND SCHEDULE TO THE PRINCIPAL
REGULATIONS

"PART II

SYLLABUS FOR EXAMINATION AS FIRST-CLASS ENGINE DRIVER

Practical Mathematics and Applied Mechanics(One paper of $2\frac{1}{2}$ hours duration)

The questions will be concerned with—

- (a) Use of the imperial and metric systems for calculations involving length, area, volume, weight, velocity, motion, and time:
- (b) Use of fractions, factors, multiples, and decimals:
- (c) Relationship of percentages to fractions, decimals, and numerical values:
- (d) Calculation of logarithms, squares, cubes, square roots, average values, and proportional values:
- (e) Use of logarithms:
- (f) Calculation of areas and volumes of figures bounded by straight lines. The calculation of irregular areas and volumes by use of Simpson's rule and the mid-ordinate rule:
- (g) Conversion of units from the metric system to the imperial system and the reverse operation:
- (h) Use of straight line formulae to determine points on a given line or its extensions and the intercepts of two lines:
- (i) Solution of simple simultaneous equations:
- (j) Solution of simple quadratic equations:
- (k) Use of symbolic expression and substitution in formulae:
- (l) Use of brackets:
- (m) Use of the six primary trigonometrical ratios, and their application to practical problems:
- (n) Forces, moments, couples, and work. Graphic representation of work and calculations from force distance diagrams. Moments of forces, resultant moments, principle of moments, couples:
- (o) Mass and density. Relative density. The determination of densities of solids and liquids. The principle of Archimedes:
- (p) Composition and resolution of forces and the application to forces in equilibrium and determination of the resultants. The triangle of forces. The use and application of Bow's Notation to solve simple force diagrams:
- (q) Newton's Laws of motion:
- (r) Velocity ratio, mechanical advantage, and efficiency of simple machines and the solution of problems concerning such as the lever, inclined plane, screw, simple and compound wheel and axle, rope pulleys, Weston's differential pulley, worm and worm wheel, belt drivers, crab winches, compound levers, gear drives, and hydraulic jacks:
- (s) Friction laws, coefficients of friction, energy, and power loss due to friction:
- (t) Momentum in a straight line. The momentum equation. Rate of change of momentum in a straight line:

SECOND SCHEDULE—*continued*

- (u) Energy. Kinetic energy in straight line motion. The energy equation. Potential energy. Conservation of energy. Centrifugal force:
- (v) Motion on an inclined plane:
- (w) The simple pendulum. Simple harmonic motion:
- (x) Angular velocity and acceleration. Use of moment of inertia and radius of gyration. Kinetic energy and angular momentum. Torque and angular acceleration:
- (y) Power. Transmission of motion and power. Simple mechanisms. Indicated and brake horsepower. Efficiency. Calculation of indicated and brake horsepower of steam and internal combustion engines. Measurement of brake horsepower. Work done by torque. Horsepower transmission by shafting, gearing, and belts. Belt tensions:
- (z) Strength of materials. The bending of beams, simple supported and cantilevered under point loads, uniformly distributed loads and a combination of each:
 - (aa) Shear force and bending moment diagrams:
 - (bb) Stress, strain, and the modules of elasticity. Hooke's Law:
 - (cc) Strain gauges. Moments of inertia of simple beam sections:
 - (dd) Determination of stress in solid shafts in torsion:
 - (ee) Bending and torsion formulae:
 - (ff) Simple testing of materials and the properties of those in more common use:
 - (gg) Resisting torque. Shaft couplings and their bolt location for given stress or operating conditions:
 - (hh) Relationship between pressure of a liquid and depth. Total thrust and centre of pressure of water on a vertical wall. Resultant force. Head and energy of water. Force of a jet of liquid. The Pelton wheel. Calculation of horsepower. Lift and force pumps. Transmission of pressure through a liquid. The hydraulic press.

Engineering Knowledge

(One paper of $2\frac{1}{2}$ hours duration. The candidate is expected to supplement his answers by the use of appropriate sketches and diagrams and answer in more detail than a candidate for an examination of a lower grade.)

Questions will be concerned with—

- (a) Methods of manufacture and processing of steel and steel alloys.
The properties of the more common engineering materials:
- (b) Welding principles and methods:
- (c) Principles of construction and operation of various types of boilers including water tube types, the horizontal shell-furnace and return tube types, shell types, locomotive types, vertical types, and other types of boiler in use such as forced circulation boilers:
- (d) Principles of construction and operation of steam turbines, steam engines, their fittings and ancillary equipment such as pumps and condensers:

SECOND SCHEDULE—*continued*

- (e) Principles of construction and operation of boiler fittings and ancillary equipment such as superheaters, economisers, safety valves, stop valves, feed water controllers, level alarms, feed water heaters, deaerators, desuperheaters, and feed filters:
- (f) Properties of superheated steam, saturated steam and higher temperature hot water, and their particular uses and disadvantages:
- (g) Properties of various solid, liquid and gaseous fuels, their preparation for burning, and the various methods of firing used:
- (h) Determination of the calorific values of solid, liquid, and gaseous fuel and the significance of the values obtained:
- (i) Steam, feed water, and fuel circuits.

Boiler Management

(One paper of 2½ hours duration)

The questions will be concerned with—

- (a) Legal requirements affecting boiler owners and operating staff concerning boiler and steam plant operation, survey requirements, and repair:
- (b) Requirements concerning the fitting of gauge glasses, safety valves, low water alarms, and cut outs:
- (c) Requirements concerning maintenance and testing of various fittings and controls on boilers:
- (d) Operation, reading, and repair of the various types of gauge glasses:
- (e) Methods of feed water purity control and the effect of various impurities in the water:
- (f) Causes, effects, and remedies for scale and corrosion. Formation of scales and deposits:
- (g) Combustion of solid, liquid, and gaseous fuels:
- (h) Precautions necessary when raising steam and operating stop valves. The dangers, causes, and prevention of water hammer:
- (i) Meaning and calculation of boiler evaporation rates and boiler horsepower:
- (j) Construction and operation of types of fire extinguishers in common use and the purposes for which particular types are suitable:
- (k) Maintenance required on boilers, steam turbines and steam engines, the defects which may develop and the manner by which they are detected:
- (l) Safety provisions and requirements such as are applied to boiler and steam installations covering both the equipment and the personnel.

Engineering Drawing

(One paper of 3 hours duration)

The syllabus for this examination is the same as for the syllabus for the examination in engineering drawing for second-class engine drivers, but a much higher standard of competency is required of the candidate

SECOND SCHEDULE—*continued*

for this examination who will be expected to answer questions of greater complexity. The candidate will also be expected to construct an helix to required proportions.

Oral Examination

The oral examination may cover any matter in the syllabus for written examination. Emphasis will be mainly on the subjects of Engineering Knowledge and Boiler Management to determine the candidate's awareness of safety requirements.

“PART III

SYLLABUS FOR EXAMINATION AS SECOND-CLASS ENGINE DRIVER

Practical Mathematics

(One paper of 1½ hours duration. The use of logarithms is optional)

The questions will be concerned with—

- (a) Use of addition, subtraction, multiplication, division, proportion, fractions, percentages, factors, decimals, squares, cubes and the extraction of square roots:
- (b) Use of the imperial and metric systems for calculations involving length, area, volume, weight, velocity and time:
- (c) Calculation of areas and volumes of figures bounded by straight lines. Calculation of irregular areas and volumes by use of Simpson's rule and the mid-ordinate rule:
- (d) Conversion of units from the metric system to the imperial system and the reverse operation:
- (e) Use of brackets and the general transposition of formulae.

Engineering Knowledge

(One paper of 1½ hours duration. The candidate is expected to supplement his answers by the use of appropriate sketches and diagrams.)

The questions will be concerned with—

- (a) Safety requirements and provisions relating to the operation of turbines and engines:
- (b) Properties of the more common engineering materials, the manner by which they are produced, the way in which they are formed into engineering components and their particular advantages and disadvantages in engineering work:
- (c) Principles of construction and operation of the various types of boilers, steam turbines, steam engines and their fittings, and ancillary equipment:
- (d) Steam, feed water, and fuel circuits:
- (e) Operation, reading, and repair of the various types of gauge glasses:
- (f) Causes, effects, and remedies for scale and corrosion:
- (g) Precautions necessary when raising steam and operating stop valves. The dangers, causes, and prevention of water hammer:
- (h) Maintenance required on boilers, steam turbines, and steam engines. Defects which may develop in them and the ways by which they are detected.

SECOND SCHEDULE—*continued**Drawing*

(One paper of 2 hours duration)

The candidate should be familiar with the use of drawing instruments and also drawing equipment such as the drawing board, T-squares, set squares, scale rules, protractors, and french curves:

He should also understand and be able to use the various types of standard lines, notes, lettering, and figures, etc., used to amplify the drawing itself.

The drawing examination will be concerned with the production of an accurate scale drawing illustrating some part of a boiler, turbine, or machinery in sufficient detail for its practical manufacture and will include the following:

First and third angle projection. The use and understanding of oblique and isometric drawings and freehand sketches:

Views and half views, half and full sections:

Construction of an ellipse to the required proportions:

Drawings including drawings of fastenings with a knowledge of the proportions of screw threads, set screws, keys and keyways, nuts and bolts, locknuts, castlenuts, split pins, etc.:

Drawings including drawings of riveted joints and welded joints and their general proportions.

Oral Examination

The oral examination may cover any matter in the syllabus for written examination. Emphasis will be mainly on the subject of Engineering Knowledge to determine the candidate's awareness of safety requirements.

"PART IV

SYLLABUS FOR EXAMINATION AS BOILER ATTENDANT

The candidate is expected to show by oral examination that he is familiar with all types of boilers and that he can describe—

- (a) The construction and operation of the various types of boiler, steam turbines, steam engines, their fittings, and ancillary equipment:
- (b) Steam, feed water, and fuel circuits:
- (c) The operation, reading, and repair of the various types of gauge glasses:
- (d) The causes, effects, and remedies for scale and corrosion:
- (e) The precautions necessary when raising steam and operating stop valves. The dangers, causes, and prevention of water hammer:
- (f) Maintenance required on boilers, steam turbines, and steam engines. Defects which may develop and the ways in which they are detected."

P. J. BROOKS,
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 amend the Engine Drivers' Examination Regulations 1952 and come into force on 1 January 1970. A new scale of examination fees is prescribed. A certificate of competency will be available for boiler attendants. Syllabi are prescribed for the first-class and second-class engine drivers examinations, and a syllabus is also prescribed for the boiler attendants examination.

Issued under the authority of the Regulations Act 1936.
Date of notification in *Gazette*: 18 December 1969.
These regulations are administered in the Marine Department.