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[1957.

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Crown Law Department,  
Perth, 6th March, 1957.

THE undermentioned regulations made under the provisions of the Inspection of Machinery Act, 1921, and amended from time to time prior to the 25th September, 1956, are reprinted, as so amended, pursuant to the Reprinting of Regulations Act, 1954, by authority of the Minister for Justice.

(Sgd.) R. C. GREEN,  
Under Secretary for Law.

Reprinted pursuant to the Reprinting of Regulations Act, 1954, by authority of the Minister dated 6th March, 1957.

### INSPECTION OF MACHINERY ACT, 1921.

#### Regulations.

[As published in the *Government Gazette* on the 1st day of July, 1922, and incorporating amendments thereto published in the *Government Gazette* on the 29th September, 1922; 24th November, 1922; 1st December, 1922; 16th November, 1923; 1st February, 1924; 31st July, 1925; 19th February, 1926; 13th May, 1927; 4th November, 1927; 9th March, 1928; 20th July, 1934; 21st June, 1935; 24th November, 1939; 26th September, 1941; 16th January, 1942; 29th October, 1948; 6th May, 1949; 16th September, 1949; 27th July, 1951, and 18th May, 1956; and reprinted pursuant to the Reprinting of Regulations Act, 1954.]

G.G. 1/7/22,  
p. 1248.

#### REGULATIONS RELATING TO THE EXAMINATION AND QUALIFICATIONS OF APPLICANTS FOR THE POSITION OF INSPECTOR OF MACHINERY.

Reg. 1  
Amended  
G.G. 4/11/27,  
p. 2465.

1. The Official Application Forms, as prescribed herein, can be procured from the Public Service Commissioner, Perth, from whom any further reasonable particulars can be obtained. No application will be entertained unless sent in on official form. Application must be accompanied by copies of all original references relating to practical engineering experience, dealing with the construction, design, and maintenance of engines and boilers; also as to character and educational attainments. These will be retained for record purposes. Original testimonials must be produced if required.

Reg. 2  
Amended  
G.G. 4/11/27,  
p. 2465.

2. Each candidate, before he can be considered eligible for examination, must lodge an examination fee of 20s. and furnish satisfactory evidence—

- (a) that neither his hearing nor his eyesight is defective;
- (b) that his health is good; affections of the heart or chest will disqualify;
- (c) that he is not under the age of 28 years, or over the age of 45;
- (d) that he has served an Engineering Apprenticeship of at least five years, during which time he has been engaged in the actual manufacture and repair of engines, boilers, and machinery, and that he has had engineering experience, of a satisfactory character, subsequent to apprenticeship.

3. The examination will be held in Perth on a date which the Minister shall from time to time determine, and such examination shall be conducted by a Board of Examiners consisting of the Chief Inspector of Machinery, who shall be Chairman, and two qualified persons appointed by the Minister. Any two members of the Board shall be a quorum.

4. The Board may, at its discretion, reject any candidate prior to examination who, in its opinion, is not in possession of the necessary qualifications.

5. Each candidate shall receive at least seven days' notice of the date and place appointed for the examination; such date shall also be duly advertised in the *Government Gazette*.

6. The examination will commence at 10 a.m. on the date appointed, and all candidates are required to appear at the examination room punctually five minutes before the appointed time. Each candidate is requested to have with him his original references for the Board's perusal.

7. Each candidate will be supplied with the stationery required for the examination, but shall provide himself with drawing instruments.

8. Candidate's attention is particularly drawn to the following:—

- (a) Each answer must be numbered in the margin to correspond with that given on the question paper.
- (b) All answers must be legibly written in ink and workings must be shown, otherwise no marks will be allowed.
- (c) One side of the paper only to be written on.
- (d) The candidate must affix his signature to the top of each sheet of paper containing his answers, and sheets must be consecutively numbered.

9. No candidate will be allowed to bring into the examination room any book or paper.

10. No person will be allowed into the room during the examination other than those whose duties require them to be present.

11. Silence is to be observed during the examination, and any candidate found copying or communicating in any way with another, or who behaves in a disorderly or improper manner in or about the room, will be requested to leave the building and will be debarred from appearing at the same examination.

12. Opposite each question appearing on the set paper the full number of marks allowed will appear.

13. No candidate shall, during the examination, leave the room without permission.

14. The syllabus of examination shall be as follows:—

- (a) Arithmetic, including vulgar and decimal fractions, extraction of square and cube roots, calculations of areas, volumes, etc., elementary algebra including simple and quadratic equations, and the application of formulæ relating to power, efficiency and economy of engines, boilers, pumps, and such other mechanical structures as this Act may apply to.
- (b) Mechanical drawing to scale, also freehand working sketches of one or more of the principal parts of any piece of machinery or boiler with the necessary dimensions.
- (c) Construction and working of different kinds of steam engines, including steam turbines, and internal combustion engines used for railway, marine, mining, or factory purposes, including different fittings and valve gears, and the relative merits of each.
- (d) Surface condensation, superheating, and working of steam expansively.
- (e) The indicator, its purposes and parts, and how to arrive at the deductions to be drawn from Indicator Diagrams. The setting and adjustment of admission and exhaust valves.
- (f) The various standard designs of boilers now in general use. Methods of modern setting, and the disadvantages of inferior setting.
- (g) The formulæ relating to the design of boilers for giving maximum working pressures, the construction of riveted seams, the stresses on stays, the resistance to pressure of flat and curved surfaces. The construction and object of the various fittings, valves, etc., used in connection with steam boilers.

- (h) Description and causes of corrosion, pitting and grooving as found in various types of boilers, and the methods generally in use for the prevention of such defects.
- (i) The causes leading to formation of scale, the precipitation of salts and other foreign matter; the effect of scale, oil or other fatty substances on heating surfaces and the precautionary measures usually adopted in respect thereto.
- (j) A general knowledge of the construction and management of electric motors, dynamos, internal combustion engines, suction gas producers, and steam turbines.
- (k) The direct, torsional, and bending stresses of round and rectangular sections. The breaking or working loads of chains and ropes, and the application of the necessary formulæ.

15. The Board may, in addition to the foregoing syllabus, require any candidate to submit to a *viva voce* examination, and to write a complete report on the condition, repairs and alterations necessary to any machinery or boiler erected, to which the provisions of the Inspection of Machinery Act, 1921, apply.

16. The Minister, on the recommendation of the Board, may reject any candidate upon any ground he deems advisable.

Western Australia.

*Inspection of Machinery Act, 1921.*

APPLICATION FORM FOR POSITION OF INSPECTOR OF  
MACHINERY.

Place.....  
Date.....

The Public Service Commissioner,  
Perth.

Sir,

I beg to apply for a position as an Inspector of Machinery under the above Act, and I append hereto the undermentioned particulars for the information of the Board of Examiners.

	(These particulars are to be filled in by applicant.)
1. Name in full.	
2. Date and place of birth.	
3. Where educated.	
4. State for what subjects school certificates or diplomas held.	

—————	(These particulars are to be filled in by applicant.)
5. To what particular branch or branches of Mechanical Engineering were you trained?	
6. State if you were indentured. Where and by whom were you trained? For what period? Give dates.	
7. Present occupation and in what capacity. Give name of employer.	
8. Give precisely to date your experience, and in what capacities employed from expiration of apprenticeship, also state responsible positions you have held. This information to be supported by documentary evidence if possible.	
9. State if ever employed in a Drawing Office, and if so, where, and for what period.	
10. Submit samples of your drawings and sketches, if available, giving number and list.	
11. State if ever employed as an Inspector of Machinery and Boilers, if so, by whom, and for what period.	
12. Quote and submit copies of any certificates held, either for Mechanics, Mathematics, Freehand, Mechanical Drawing, etc. Give list of testimonials as to character, etc., in space provided below.	
13. State if ever directly in charge of machinery, including management of steam engines, boilers, electric generators and motors, and internal combustion engines, either on land or sea. Full particulars to be given.	

I declare the above particulars to be substantially true and correct in every respect.

I have the honour to be,

Sir,

Yours obediently,

(Signature of applicant).....

(Address).....

## LIST OF TESTIMONIALS, ETC., ENCLOSED.

No.	Description.	No.	Description.

N.B.—All copies of testimonials and certificates will be retained for record purposes.

G.G. 1/2/24,  
p. 177.

## REGULATIONS RELATING TO WINDING ENGINES.

(Section 17, Subsection 5.)

The following Regulations shall not apply to Holman Hoists. The Regulations shall also not apply to other similar small winding engines with cylinders not exceeding six (6) inches in diameter used for hoisting less than two hundred (200) feet, except when required by the Inspector, by notice in writing, that they shall so apply in whole or in part as specified by him.

*New Winding Engines.*

1. Every new winding engine erected after the 1st February, 1924, shall be capable of raising the maximum unbalanced load from the greatest depth required, with the cranks in the worst starting positions, and shall be fitted with the following:—

*Depth Indicators.*

- (a) An efficient depth indicator, approved by the Inspector, shall be fitted to his satisfaction to each drum with marks spaced in such a way that the engine-driver can have no doubt when the cage or skip is within one revolution of the drum from the desired stopping place.

Provided that in the case of engines having one drum fixed and a loose one, not used for winding, one indicator on the fixed drum shall suffice.

And provided also that any winding engine as defined, operating from one level only, may be exempted from being fitted with an indicator at the discretion of the Inspector.

*Brakes.*

- (b) Each drum shall be fitted with a brake capable of holding double the maximum gross load when men are carried, without any slip.
- (c) Post brakes shall be fitted to all winding engines, the cylinders of which exceed eight (8) inches in diameter.
- (d) All engines operating at a depth greater than one thousand (1,000) feet shall be fitted with gravity brakes so arranged that they can be released by the engine-driver by the application of steam, air, or electricity, as the case may be, and that they will automatically apply in the event of total or partial failure or cessation of operation from any cause of the power used for driving the winding engine.

*Valves.*

- (e) Starting valves (or switches in the case of winding drums operated by electricity) of an efficient type shall be fitted to all winding engines used for raising or lowering men.
- (f) As the retardation of a winding engine by steam (or air) is of vital consequence in view of brake failure, the cut-off of such engines shall be arranged so as to effectually retard the engine's maximum descending load. The cut-off may be made variable as the speed of the engine increases, but must be so governed that in cases of emergency the *full* cut-off shall be immediately available.

Note.—Any second-hand winding engine imported into the State after 1st February, 1924, shall be considered as a "New Winding Engine," and any winding engine which was registered in the State prior to the above date, and which is to be re-erected on another lease, may, if the conditions under which it has to work with regard to depth, load, etc., are in the opinion of the Inspector more severe than where it formerly worked, be considered as a new winding engine.

*New and Existing Winding Engines.**Brakes.*

2. (a) Foot brakes shall be so fitted and adjusted that there is at all times ample clearance between the end of the foot lever and the platform or floor, and such lever shall be provided with a satisfactory device, operated by the engine-driver's foot only, which will ensure the lever being retained in position when the brake is fully applied and the driver's foot is removed.

(b) Brakes applied or released by steam or compressed air shall be so adjusted as to prevent contact between the piston and the cylinder end, and ample clearance shall be provided in the cylinder to allow for normal wear of the brake.

(c) Every brake shall be so arranged that, whether the engine is at work or at rest, it can be easily and safely manipulated by the engine-driver when standing at the levers controlling the engine.

(d) It shall be the duty of the certificated engine-driver on each shift to see that the brakes on his engine are in proper working adjustment before handing over to his successor on the next shift. It shall also be the duty of the engine-driver taking over to satisfy himself thoroughly that the brakes are in such proper adjustment.

(e) The brakes on every winding engine shall be tested by an Inspector at least once yearly. In the case of engines erected after 1st February, 1924, one brake on each drum shall be capable of holding twice the maximum gross load when men are carried, without slip, and in the case of engines erected before above date, one and a half times the maximum gross load when men are carried. (In computing this load one man to be taken as equal to 150 lb.)

*Starting Valves.*

(f) Starting valves (or switches in the case of winding drums operated by electricity) of an efficient type shall be fitted to all winding engines used for raising and lowering men, within three (3) months of the coming into operation of these Regulations.

*Clutches.*

(g) The operating gear of the clutch of the drum shall be provided with locking gear to prevent inadvertent withdrawal of the clutch.

(h) The driver of a winding engine shall not unclutch a drum from which men may be suspended. Lowering men or material from an unclutched drum is prohibited.

*Testing Winding Engines after Repairs.*

(i) After any stoppage for ordinary maintenance repairs which might by any possibility affect the safe running of a winding engine, the engine shall not be used for raising or lowering persons until a satisfactory trial has been made by the engine-driver.

## GENERAL.

3. (a) In case of all winding engines coming under the provisions of these Regulations, it shall be obligatory on the Manager or some competent person appointed by him to examine all reasonably accessible mechanism carefully at least once a week. The condition in which such appliances are found, any repairs or adjustments carried out, etc., shall be entered in ink in the Engineer's Record Book, and signed and dated by the responsible person who made the inspection. This Record Book shall be open at all reasonable times to the examination of the Inspector, and of the winding engine-drivers employed on the mine, and of any other person authorised by the Minister.

(b) Such bolts, pins, and other fittings of drums, brakes, and clutches, as might be a source of danger in the event of their becoming loose, shall be rendered secure by means of suitable locking devices.

(c) All winding engine gear shall be kept as clean as practicable to the satisfaction of the Inspector.

(d) In the case of existing plants and new winding engines, an uninterrupted view of the shaft at the surface brace should be provided wherever practicable, and where impracticable such approved indicators shall be fitted in lieu thereof, as in the opinion of the Inspector will efficiently provide for safety.

Notification  
of alteration.

(e) During the currency of a certificate granted for any winding engine, if the owner desires to increase the load or make any structural alterations to the said engine, the District Inspector of Machinery shall be notified in writing and full particulars given of the intended alterations.

(f) In the event of any overwind, or any accident to a winding engine, including any failure of motive power, engine running out of control, fracture of any part, failure of brake efficiency, any overwinding prevention device or depth indicator, the Manager shall report in writing within (24) twenty-four hours to the District Inspector of Machinery.

4. A printed copy of the Regulations dealing with winding engines shall be posted in the engine room of every winding engine by which men are raised or lowered.

G.G. 1/2/24,  
p. 180.

## ENGINE-DRIVERS' ENGINE ROOM RECORD BOOK.

1. In every engine room where steam or internal combustion engines, are used, the owner shall supply a Record Book, in the form prescribed, in which the certificated engine-driver in charge on each shift shall record any peculiarities in the running of the engine, or defects in either engines, boilers, or their accessories under his charge which he considers warrant repairs or alterations. Each and every entry shall be properly signed and dated by the



certificated engine-driver in charge of each shift. The Manager, engineer, or other responsible person shall examine any entry that shall be made daily, and record in a suitable manner any repairs or alterations that have been effected; such entry shall be signed and dated by the Manager, engineer, or other responsible person. This Regulation shall also apply to locomotives, and the Record Book shall be kept in the running shed and such entries as above indicated made by the responsible persons aforesaid.

2. In the case of winding engines, in addition to the provisions contained in Regulation 1, every driver shall at the end of his shift make an entry in the Engine-drivers' Engine Room Record Book regarding any defects in the working of the engine, brakes, clutches, reversing gear, depth indicators, and control generally.

Provided that where two or three drivers are employed on the same engine in rotation of shifts, any defect in the working of the machinery recorded in the Record Book shall be confirmed or otherwise by the driver or drivers who followed the driver making the original entry.

3. The Engine-drivers' Engine Room Record Book shall at all times be available for perusal by the Inspector of the District and shall be kept in the following form:—

Owner's name.....  
 Name of Factory, Mine, etc..... Locality.....  
 Name of Engine Room.....  
 Main particulars of Engines, Condensers, Pumps, etc.,  
 therein.....  
 (e.g., Battery engine Compd., 10 in. and 18 in. x 36 in.  
 Makers.....  
 Electric Lighting Trip. Expn. Eng. Allen & Co.....  
 Condensers, Pumps, etc.....)

Date.	Renewals or repairs required and general remarks.	Certificated Engine-driver's Signature.	Remarks re repairs, etc., by Manager or Engineer, and date when repairs completed.	Signature of Manager or Engineer.

EXTENSION OF MACHINERY CERTIFICATES.  
 (Section 42.)

G.G. 1/7/22,  
 p. 1255.

Applicants for extension of duration of any certificate issued for machinery shall make their application and declaration on the form prescribed hereunder. (Such forms can be obtained from the office of the Chief Inspector of Machinery, Perth.)

*Inspection of Machinery Act, 1921.*

APPLICATION FOR EXTENSION OF MACHINERY  
 CERTIFICATE.  
 (Section 42.)

Place.....  
 Date.....

To the Chief Inspector of Machinery,  
 Mines Department, Perth.

Sir.

I hereby declare that the machinery registered under No.....  
 and for which a certificate, No..... was last issued on.....

has not been materially altered or added to, and that it has been at all times kept in good repair, efficiently guarded, and fit to be safely used for the purpose for which it was intended.

I therefore request that the duration of the certificate be extended as provided in Section 42 of the Inspection of Machinery Act, 1921.

I enclose\*.....for the amount of the prescribed fee of.....

Yours faithfully,

(Signature).....

(Address).....

\*Insert Cash, Money Order, Cheque, or Postal Note.

*Note.*—If payment is made by cheque please add necessary *bank exchange*. All cheques, money orders, and postal notes to be crossed and made payable to the "Chief Inspector of Machinery," *not* to any individual.

G.G. 1/7/22,  
p. 1255.

#### BOILERS. (Section 24.)

Boiler  
setting,  
flue doors,  
etc.

1. Every boiler having external flues shall have suitable doors fitted to such flues to facilitate cleaning and inspection. The doors must be fitted to metal frames built in the encasing material, and must be of such a size, that a man of average build can pass through them easily.

2. All external flues must be built in such a manner as to permit an average sized man passing through them for cleaning or inspection purposes.

*Note.*—For plans for the setting of Cornish and Lancashire boilers, see prescribed fees.

G.G. 1/7/22,  
p. 1255.

#### STEAM JACKETED VESSELS.

All steam jacketed vessels used under steam pressure for boiling, heating, or disinfection purposes, the owner shall cause to have a metal plate affixed thereto with the official registered number legibly stamped thereon, to the approval of the Inspector, providing that it is impracticable to stamp the vessel itself without damaging its structure.

G.G. 1/7/22,  
p. 1256,  
amended by  
G.G. 29/2/22,  
p. 1856;  
G.G. 24/11/22,  
p. 2185;  
G.G. 29/10/48,  
p. 2576;  
G.G. 6/5/49,  
p. 932;  
G.G. 27/7/51,  
p. 2083;  
G.G. 18/5/56,  
p. 1228.

#### REGULATION CHARGES.

(Section 36)

##### *Boilers.*

For the purpose of determining fees to be charged for inspecting any boiler, three-quarters of a square foot of the fire grate surface shall be deemed equal to one horsepower for boilers of the multitubular and locomotive types and one square foot of fire-grate surface for other classes of boilers.

Flash type boilers with no definite firegrate area, fees to be charged on evaporative capacity.

The horsepower of an electrically heated boiler shall be deemed equal to the electric power in kilowatts per hour multiplied by 0.0856.

The horsepower of a boiler of any other type which has no grate or no clearly defined grate area may be deemed to be equal to the horsepower of a boiler of a similar size and type which has a grate.

For every inspection of a "boiler" and before the granting of any certificate or report, the following fees shall be paid:—

	£	s.	d.
For every boiler, not otherwise defined and not exceeding 3 h.p. ....	15	0	0
For every boiler, not otherwise defined over 3 h.p. and not exceeding 6 h.p. ....	1	5	0
Provided that, with the exception of the first inspection, or any inspection for sale purposes, the fee for the inspection of a boiler not exceeding 6 h.p. which is used solely for the purposes of the apicultural or dairy industry by a bona fide apiarist or a bona fide producer of milk or cream, as the case may be, shall be ....	10	0	0
For every boiler not otherwise defined over 6 h.p. and not exceeding 12 h.p. ....	1	15	0
For every boiler, not otherwise defined over 12 h.p. and not exceeding 20 h.p. ....	2	15	0
For every boiler, not otherwise defined over 20 h.p. and not exceeding 40 h.p. ....	3	15	0
For every boiler, not otherwise defined over 40 h.p. and not exceeding 80 h.p. ....	4	10	0
For every boiler, not otherwise defined over 80 h.p. ....	5	0	0
For every locomotive, traction engine or road roller boiler—			
Not exceeding 8 h.p. ....	1	15	0
Over 8 h.p. and not exceeding 15 h.p. ....	3	0	0
Over 15 h.p. ....	3	15	0
For every flash type boiler with no defined firegrate—			
Up to 1,000 lb. per hour evaporation ....	1	0	0
Exceeding 1,000 lb. and not exceeding 2,000 lb. per hour evaporation ....	2	0	0
Exceeding 2,000 lb. and not exceeding 3,000 lb. per hour evaporation ....	3	0	0
Exceeding 3,000 lb. per hour evaporation ....	4	0	0

*Digesters, Steam Cookers, Sterilising Retorts, etc.*

For every digester under steam pressure used for trade purposes, and not exceeding 50 cubic feet capacity ....	1	5	0
Over 50 cubic feet capacity ....	2	0	0
Cooking or sterilising retorts under steam pressure and not exceeding 25 cubic feet capacity ....	10	0	0
Over 25 cubic feet capacity ....	1	0	0

*Vulcanisers.*

	£	s.	d.
For every vulcaniser used under steam pressure and used for trade purposes ....	15	0	0

*Sterilisers and Small Boilers.*

For every autoclave, steriliser, or small boiler which is constructed of non ferrous or corrosion resistant metals and is heated by steam or electricity, or is fired by oil or gas, the following fees shall be paid:—			
For every autoclave, steriliser or small boiler, not exceeding 18in. diameter ....	7	6	0
For every autoclave, steriliser or small boiler over 18in. but not exceeding 36in. diameter ....	12	6	0
For every autoclave, steriliser or small boiler over 36in. diameter ....	1	0	0

*Steam-jacketed Vessels.*

For every steam-jacketed vessel not exceeding 18in. diameter	12	6
For every steam-jacketed vessel over 18in. diameter and not exceeding 36in. diameter	1	0 0
For every steam-jacketed vessel over 36in. diameter	1	5 0

*Receivers, for Compressed Air or Gas.*

For every receiver over five cubic feet capacity and not exceeding 20 cubic feet	12	6
For every receiver over 20 cubic feet capacity and not exceeding 40 cubic feet	1	5 0
For every receiver over 40 cubic feet capacity	2	0 0

*Note.*—"Containers used for transport" are not considered as "receivers." See Acts, section 2 subsection (b).

*Machinery, not worked by steam.*

For every inspection and before the granting of any certificate for any group of machinery to which this Act applies, other than by a prime mover with the exception of winding engines and lifts hereinafter provided, the following fees shall be paid:—

For machinery driven by an electric motor or motors the power or aggregate power of which—

	£	s.	d.
Is 1 h.p. and does not exceed 5 h.p.	0	5	0
Exceeds 5 h.p. and does not exceed 10 h.p.	0	10	0
Exceeds 10 h.p. and does not exceed 20 h.p.	0	15	0
Exceeds 20 h.p. and does not exceed 40 h.p.	1	0	0
Exceeds 40 h.p. and does not exceed 60 h.p.	1	10	0
Exceeds 60 h.p. and does not exceed 100 h.p.	2	0	0
Exceeds 100 h.p. and does not exceed 200 h.p.	4	0	0
Exceeds 200 h.p. and does not exceed 300 h.p.	6	0	0
Exceeds 300 h.p. and does not exceed 400 h.p.	8	0	0
Exceeds 400 h.p. and does not exceed 500 h.p.	10	0	0
Exceeds 500 h.p. and does not exceed 600 h.p.	12	0	0
Exceeds 600 h.p. and does not exceed 700 h.p.	14	0	0
Exceeds 700 h.p. and does not exceed 800 h.p.	16	0	0
Exceeds 800 h.p. and does not exceed 1,000 h.p.	18	0	0
Exceeds 1,000 h.p.	20	0	0

For every inspection and before the granting of any certificates for any machinery driven by a prime mover to which this Act applies, worked other than by steam with the exception of winding engines and lifts hereinafter provided for, the following fees shall be paid:—

For every gas, oil, air or hydraulic engine used as a prime mover, the power of which—

	£	s.	d.
Is 1 h.p. and does not exceed 5 h.p.	0	5	0
Exceeds 5 h.p. and does not exceed 10 h.p.	0	10	0
Exceeds 10 h.p. and does not exceed 20 h.p.	0	15	0
Exceeds 20 h.p. and does not exceed 40 h.p.	1	0	0
Exceeds 40 h.p. and does not exceed 60 h.p.	1	5	0
Exceeds 60 h.p. and does not exceed 100 h.p.	1	10	0
Exceeds 100 h.p. and does not exceed 200 h.p.	2	0	0
Exceeds 200 h.p. and does not exceed 400 h.p.	2	10	0
Exceeds 400 h.p. and does not exceed 600 h.p.	3	0	0
Exceeds 600 h.p. and does not exceed 800 h.p.	4	0	0
Exceeds 800 h.p.	5	0	0

For every inspection and before granting of any certificate for any winding engine as defined and driven by electricity, oil or gas, the following fees shall be paid:—

For every winding engine driven by power—

	£	s.	d.
Which does not exceed 40 h.p. ....	0	15	0
Which exceeds 40 h.p. and does not exceed 100 h.p. ....	1	10	0
Which exceeds 100 h.p. and does not exceed 200 h.p. ....	2	5	0
Which exceeds 200 h.p. ....	2	15	0

When certificates for boilers and machinery driven otherwise than by steam are issued for periods of three, six and nine months, to suit the convenience of the department, the fees shall be one-quarter, one-half, and three-quarters, respectively of the fees for one year.

*Extension Certificate (Section 42).*

For every extension Certificate approved by the Chief Inspector for any machinery used for agricultural purposes as provided by Section 42, the fees payable for any particular horsepower shall be as follows:—

- (a) First extension certificate, quarter of the prescribed fee.
- (b) Any subsequent extension if immediately following the expiration of the first extension, half the prescribed fee.

Provided that in no case the fee be less than ....

	s.	d.
.....	2	6

*Machinery (driven by steam).*

There shall be no charge for the inspection and granting of any certificate for machinery driven directly by steam, with the exception of winding engines.

For the inspection and before granting of any certificate for any winding engine, as defined, and driven by steam, the following fees shall be paid:—

	£	s.	d.
For every winding engine with cylinders not exceeding 8in. diameter ....	0	15	0
For every winding engine with cylinders over 8in. diameter and not exceeding 12in. diameter ....	1	10	0
For every winding engine with cylinders over 12in. diameter and not exceeding 18in. diameter ....	2	5	0
For every winding engine with cylinders over 18in. diameter ....	2	15	0

For every inspection and before granting of any certificate to any Holman Hoist or similar air driven winches used for raising and lowering men or materials, the following fees shall be paid:—

	£	s.	d.
For every Holman Hoist or similar driven air winch the cylinders of which do not exceed 6in. diameter ....	0	10	0
For every such Hoist the cylinders of which are more than 6in. diameter ....	0	15	0

*Machinery Worked by Handpower.*

	£	s.	d.
For every inspection of any crane exceeding one (1) ton capacity (the fee to be paid prior to the granting of the certificate of inspection) ....	0	15	0

*Note:*—No certificate shall be deemed to be granted until full payment has been made. When payment is made by cheque, the necessary exchange must be added. If this is not done the certificate will be held until the amount of exchange is paid, and the boiler or machinery affected will meanwhile be deemed to be uncertificated.

G.G. 1/7/22,  
p. 1257  
amended by  
G.G. 24/11/22,  
p. 2185;  
G.G. 27/7/51,  
p. 2084.

SPECIAL WORK.  
(Section 82.)

*Boilers and Machinery.*

When any owner desires a special inspection of any boiler or machinery at a time not synchronising with the Inspector's regular visit and which therefore necessitates a special trip, the owner shall make his request for such inspection in writing, and shall pay in advance, if demanded, in addition to the fees prescribed, all expenses, excluding the Inspector's salary for the time he is engaged on such special trip.

When any trading firm, manufacturer, owner or other person requires a special inspection and report on any new or second-hand boiler or machinery for sale or other purposes, he shall make his request in writing, and shall pay in advance, if demanded, in addition to the prescribed fees, all expenses, excluding the Inspector's salary for the time he is engaged on such special inspection and report.

*Note.*—No certificate or report shall be deemed to be granted until full payment has been made. When payment is made by cheque the necessary exchange must be added. If this is not done the certificate will be held until the amount of exchange is paid, and the boiler or machinery affected will meanwhile be deemed to be uncertificated.

*Testing Pressure Gauges.*

	£	s.	d.
For the special testing of any pressure gauge at any time other than the usual time of inspection of a boiler ....	0	2	6
For the same service when adjustments are found to be necessary ....	0	5	0

*Note.*—All testing and adjusting will be done at the owner's risk.

*Lost Certificates for Boilers or Machinery.*

	£	s.	d.
For supplying a copy of the certificate for any boiler or machinery, the original of which has been lost or destroyed ....	0	2	6

G.G. 1/7/22,  
p. 1258,  
amended by  
G.G. 24/11/22,  
p. 2186.

SEARCH FEES.  
(Section 28.)

	£	s.	d.
For the perusal of inspection records of any one boiler by any person other than the owner or his direct representative, authorised in writing by the owner ....	0	5	0
For the supply of precis of any such records ....	0	5	0

*Note.*—Such inspection records shall mean and include the last notice of ownership and the last Inspector's report with any instructions as to alterations or repairs issued in connection therewith.

G.G. 1/7/22,  
p. 1258.

SPECIAL REPORTS, VALUATIONS, etc.

Fees for special reports, valuations, engine indicating or other special inspection work not defined in these Regulations shall be assessed by the Chief Inspector, subject to the approval of the Minister.

PLANS OF SETTING CORNISH OR LANCASHIRE BOILERS. G.G. 1/7/22,  
p. 1259.

s. d.

For supplying blue print showing plan of  
setting, size of flues, etc., for either of  
above types of boilers ..... 5 0

*Note.*—For all fees remitted by owners or other persons a receipt on the official machine numbered form should be obtained in every instance, and no other will be recognised.

## REGULATIONS RELATING TO LIFTS AND HOISTS.

G.G. 31/7/25,  
p. 1355.*Definitions.*Definitions  
amended,  
G.G. 21/6/35,  
p. 1215.

“Lift” means any mechanical contrivance running in a vertical shaft or well, within or attached to any building, worked by any power other than hand or animal, and which comprises a cage or platform, and is used for the purpose of raising or lowering persons or goods. It also includes the machinery necessary to operate the lift, and all doors, enclosures, safety devices, ropes, and any part of the structure which is stressed by the working of the lift.

“Goods lift” means a lift used for carrying goods or materials, and in which only the attendant and the persons required to load and unload the lift travel.

“Hoist” means any mechanical contrivance (other than cranes, for which see Crane Regulations), whether stationary or travelling, worked by any power other than hand or animal, comprising a rope or chain with a hook at the end thereof, which is used for raising or lowering goods or materials. It also includes the machinery necessary for the working of the hoist and any part of the structure which is stressed by the working of the hoist.

“Passenger lift” means a lift which is intended for the carriage of passengers and in which it is permissible under these regulations to carry passengers.

“Service lift” means a lift, the car of which has a floor area not exceeding 9 square feet, and a height not exceeding 4 feet, and which is designed to carry goods or materials only and is controlled from without the lift well.

“Escalator” means a moving stairway which is used for raising or lowering passengers, and includes the machinery supports and enclosures required therewith.

*Note.*—Wool elevators, grain conveyors, bucket elevators, and other types of similar continuous running contrivances may be classed as ordinary machinery, and *not* as lifts or hoists, and inspectors may, subject to the ruling of the Chief Inspector of Machinery, exercise their discretion as to the classification or exemption of any doubtful cases.

“Act” means the Inspection of Machinery Act, 1921.

## GENERAL REGULATIONS FOR ALL LIFTS.

G.G. 31/7/25,  
p. 1355.  
Notice *re*  
erection.

1. Where it is intended to erect or re-erect any lift after the proclamation of the Inspection of Machinery Act, 1921, notice to that effect must be given to the Chief Inspector of Machinery, accompanied by plans drawn to scale and specifications showing correct measurements, and fully describing the whole lift, its enclosures, and its position in the building in which it is to be placed.

The maximum load for which the lift is designed must also be stated. When submitting plans and specifications, these must be accompanied by a fee of £1 1s. for examining them and granting a permit to proceed with erection. No erection work shall be commenced until permit has been granted.

2. These plans and specifications will be filed in the office of the Chief Inspector for record purposes. Plans.

Alterations.

3. In the case of any material alteration or repairs being contemplated it will be sufficient if the intention is notified and the alterations fully described.

Permits.

Reg. 4  
substituted,  
G.G. 21/6/35,  
p. 1215.

4. (1) Before granting a permit to erect a lift, the Chief Inspector may require any alterations in design to be made, which in his opinion are necessary for the safe working and use of the lift, and, notwithstanding anything to the contrary contained elsewhere in these regulations, the Chief Inspector may refuse to grant a permit in any case where the design and construction of the lift for the erection whereof the permit is required, does not comply with the provisions of the Lift Code issued by the Standards Association of Australia and for the time being in force.

(2) Where the Chief Inspector is satisfied that all necessary provisions for safety have been provided and that a permit to erect a lift may properly be granted, he shall grant the permit to erect the lift in the following form:—

### INSPECTION OF MACHINERY ACT, 1921.

(Regulations.)

#### *Permit to Erect a Lift.*

I hereby authorise the erection (or re-erection) of a.....  
.....lift at....., in accordance with the  
plans and specifications lodged at my office by.....  
on the.....day of..... 195.....  
Dated this.....day of....., 195.....

Chief Inspector of Machinery.

No road  
under cage  
or platform.  
Access to  
mechanism,  
etc.

5. No lift shall be erected in such a position as will leave a road or passage for persons to pass under the cage, platform, or balance weights.

Lighting.

6. The winding gear and all other mechanism of all lifts shall be made easily accessible for inspection, oiling, and repairing. Wherever considered necessary by the Inspector efficient lighting facilities shall be installed and adequate fixed ladders, gangways, and hand-rails shall be provided in order to insure safe access to all working parts.

Overhead construction.

7. All overhead construction shall be of sufficient strength to bear at least four times the maximum load it will have to carry.

Over-run clearance.

8. In order to provide for over-running, every lift shaft shall have at least three feet clearance between the top of cage yoke or bow, or any equalising bar or other structure which projects above the yoke or bow, and the underside of the ceiling or overhead joists, when the cage is at the top floor, and the same distance between the lowest part of the cage bottom and any projecting gear thereon, and the bottom of the shaft when the cage is at the lowest floor.

Provided that this regulation shall not be enforced in the case of lifts already installed before the proclamation of the Act, if the Inspector considers that sufficient space for ordinary safety requirements is provided.

Safety grip gear and governor.

9. Safety grip gear to the satisfaction of the Inspector is to be provided in the case of every suspended lift, except in the case of service or other small lifts in which it is impossible for any person to travel. The grip gear must be automatic and positive in its action, and must be able to hold the cage or platform securely in case the suspending ropes break or become detached. The grip gear must also be operable by the action of an adjustable speed governor, in case any undue acceleration occurs through overloading or in consequence of the failure of any part of the winding gear.



Provided that this regulation be not enforced in the case of lifts already installed before the commencement of the Act, at the discretion of the Inspector.

10. Such safety gear may be tested at any time and in such manner as the Inspector may direct, and the work in connection with the test shall be carried out at the expense of the owner or his contractors under the supervision of the Inspector.

Testing  
safety  
gear.

11. All electric lifts except those in which no person travels shall be fitted with an automatic device which shall immediately cut off the current should the cage ropes become slack from any cause.

Slack rope  
device.

12. All lifts shall be provided with an efficient brake gear as approved by the Inspector.

Brakes.

13. In all electric lifts erected after the proclamation of the Inspection of Machinery Act, 1921, the control gear in motor room must be of an efficient type and must automatically and satisfactorily accelerate, cut off current, and apply brake at either limit.

Control gear.

In the case of existing lifts erected, before the proclamation of the said Act, the Inspector may exercise his discretion with regard to acceleration.

14. Emergency automatic switches must be fitted to all electric lifts, which will instantly cut off the current, and in the case of electrically operated brakes, apply the brake, should the cage over-run the floor level more than 12 inches at top or bottom. These switches must be operated by the car independently of the control gear, and must open the control circuit.

Automatic  
limit  
switches.

15. Lifts shall be so constructed that they are incapable of travelling at a greater speed than 300 feet per minute when controlled by an attendant, and 200 feet per minute in the case of automatic lifts.

Speed.

Provided that—

- (i) the Chief Inspector may by writing under his hand authorise the working of any lift at a speed in excess of the speed hereinbefore prescribed in relation to such lift, but not exceeding a maximum speed to be specified in such authority in any case where the Chief Inspector is satisfied that the safety provisions, including ample top and bottom over-run are adequate for the working of the lift at the speed so authorised by him as afore-said; and
- (ii) where the Chief Inspector has specified a maximum speed in any authority given by him under paragraph (i) of this proviso, the lift in respect of which such authority has been given shall not in any event be worked at a speed greater than such maximum speed; and
- (iii) the Chief Inspector may at any time cancel and revoke any authority given by him hereunder by a notice in writing under his hand given to the owner of the lift.

Proviso  
added,  
G.G. 21/6/35,  
p. 1216.

16. Every suspended lift should be provided with not less than two metallic lifting ropes. Each rope when new shall have breaking stress of not less than five times the maximum load to which it will be subjected. If more than two ropes be used their total factor of safety should not be less than ten.

Ropes.

Where only one rope is provided, as in the case of certain goods lifts installed before the proclamation of the Act, the factor of safety should not be less than ten. Balance weight ropes must be similarly proportioned to their load.

Wire rope  
certificates.

17. No cage or balance weight rope shall be installed until a certificate from the maker, or a copy thereof certified to by the user or his contractor, has been lodged at the office of the Chief Inspector. Such certificates should give the following information:—

Name and address of manufacturer.  
Length of each rope in feet.  
Diameter or circumference of rope in inches.  
Weight per foot in lb.

Construction of rope—

Number of strands.  
Style of lay.  
Class of core.

Construction of strands—

Number of wires.  
Diameter of wires (decimals of an inch).  
Class of core of strand.  
Material of which wire is made.  
Breaking stress of material in tons per square inch (tons of 2,240 lb.).  
Breaking load of rope in tons per square inch (tons of 2,240 lb.).

Wire rope  
tests.

18. If the Inspector has any reasonable doubts at any time as to the quality or strength of any lift rope, he may demand that a sample of the rope shall be tested at the Engineering Laboratory of the University of Western Australia, and that such test piece be cut off in his presence, and any expense incurred in connection with such test shall be borne by the owner of the lift.

Diameter of  
drums and  
pulleys.

19. The minimum diameter of any drum sheave or pulley shall not be less than 45 times the diameter of the rope for which it is used, *wherever possible*.

Anchoring  
of ropes.

20. In the case of drum drives all ropes must be securely anchored to the drum, cage, and balance weights to the satisfaction of the Inspector, and there shall not be less than one and a half turns of rope on the drum when the cage or balance weight has reached its limit of travel.

In the case of vee drives in single purchase the ropes shall be securely anchored to the cage and balance weights to the satisfaction of the Inspector.

In the case of vee drives, with ropes in double purchase, the ropes shall be securely anchored to some part of the over-head structure which is amply strong to carry the load on the ropes, to the satisfaction of the Inspector.

Strength of  
structure.

21. Every part (other than a lifting or balance weight rope) of a suspended lift shall, when new, have sufficient strength to carry a load of at least—

- (a) ten times the maximum load where cast iron is used;
- (b) eight times the maximum load where wood is used;
- (c) five times the maximum load where wrought iron, steel, or brass is used.

Enclosures.

22. The Inspector may, when considered necessary, cause the whole or any part of the machinery and lift shaft of any lift to be enclosed in such manner as hereinafter provided.

Reporting  
accidents.

23. Whether personal injury is incurred or not, particulars of the following accidents shall be reported to the Chief Inspector of Machinery without delay by the person at the time in charge of the building where the lift is situated:—

- (a) Fracture or failure of any essential part of the winding gear.
- (b) Fracture of any rope or its attachment.
- (c) Fracture of any sheave, or shaft, spindle, or bearings of same.

- (d) Jaming of the cage in lift shaft.
- (e) Failure of brake efficiency.
- (f) Failure of safety grippers to act when required, or their accidental action when not required.
- (g) Failure or overwinding limit switches to act when required.
- (h) Failure of any enclosure door, lock, or electrical interlock to act correctly.

Para (h)  
added  
21/6/35,  
p. 1216.

Every lift shall be inspected twice yearly in accordance with Section 16 (3) of the Act, and the owner shall provide any labour or material necessary to facilitate inspection.

24. All metal work in connection with cages or metal work enclosures shall be efficiently earthed.

Earthing.

#### PASSENGER LIFTS.

G.G. 31/7/25,  
p. 1359.

(See also "General Regulations" 1 to 24.)

25. The lift shaft of every passenger lift shall be without projection on any side on which there is a cage entrance, and the enclosure shall on these sides be as close to the cage as possible consistent with clearance.

No projec-  
tion in  
shafts on  
entrance  
side.

26. On the cage entrance side the shaft shall be completely enclosed, to the satisfaction of the Inspector, throughout the travel of the cage, or so much thereof as the Inspector may direct, unless there is a door to the cage and this door is provided with electric contacts so arranged as to break circuit should the door be left open or improperly closed.

Cage  
entrance  
side to be  
completely  
enclosed  
unless  
cage door  
provided.

27. The enclosures and doors on cage entrance side shall be flush throughout the travel of the cage and have no permanent openings greater than  $1\frac{1}{4}$  inch diameter or width.

Enclosures  
to be flush  
on entrance  
side.

28. The enclosures and cage panels on that side on which the balance weights pass, if close enough to balance weights to be a danger to fingers, must be screened by fine wire work or solid panels.

Enclosures  
on balance  
weights  
side.

29. If there be more than one entrance to any cage, at least one entrance shall be supplied with a door fitted to the cage, and such door shall be equipped with electric contacts so arranged as to render control inoperative unless cage door is properly closed.

Cage doors  
if more  
than one  
entrance.

30. The shaft doors may be either sliding or hinged, and preferably self-closing. If sliding doors are used, guides or runners must be fixed both at top and bottom of the doors and so arranged that the doors cannot be lifted off the runners.

Shaft doors.

31. Collapsible gates will not be approved excepting as cage doors where it is not possible to fit sliding doors, owing to the large openings in them being a source of grave danger and owing to the difficulty of fitting efficient locking gear to them and keeping them in efficient order.

Collapsible  
gates.

32. Electro-mechanical locking gear shall be fitted to all shaft doors. The locking gear shall be so arranged that it will automatically lock the doors when the cage is not more than 9 inches away from any floor, and should be of such description that the making and breaking of electric contact is positive, and that the control is rendered inoperative if any door be left open or improperly fastened.

Electro-  
mechanical  
locks.

All locking gear and electric contacts must be of substantial construction, and must be protected as far as possible from outside interference, to the satisfaction of the Inspector.

Each enclosure door of all new or re-erected automatic lifts, and (as far as it is practicable in the opinion of the Inspector) each enclosure door of all existing automatic lifts shall be fitted with

Protecting  
locking  
gear.

two mechanical and two electrical interlocks so operated that the enclosure doors can only be unlocked when the lift car is stationary and within 9 inches of the landing, or, in the case of lifts fitted with self-levelling devices, within the levelling zone and under the control of the levelling devices of that landing.

Provided that the owner of any existing automatic lift shall be given not less than three months' notice in writing under the hand of the Chief Inspector to comply with the requirements of this paragraph when the Chief Inspector is satisfied that such requirements can be complied with in relation to such lift.

- Width of opening and position of controls. 33. The width of the permanent opening of the cage should not exceed 30 inches, and the control switch or buttons should be placed in such a position that the lift attendant can efficiently control the ingress and egress of passengers.
- Cage roofs. 34. Every passenger cage shall be adequately roofed to the satisfaction of the Inspector, and no part of the roof shall include glass.
- Lighting and bells. 35. Every passenger lift-cage shall be efficiently lighted, and (with the exception of full automatic lifts) fitted with signal bells worked from each floor and connected to an indicator in the cage.
- Maximum load. 36. The Inspector shall fix on the maximum number of persons, including attendant, allowed to travel in the cage of any passenger lift; this number will be endorsed on the certificate, and must not be exceeded. (The average weight per person to be taken as 150 lb.)
- Starting lever. 37. The starting lever in the case of lifts controlled by an attendant to be so arranged that it automatically flies back and cuts off current, if the attendant loses his grip of the lever.
- Push button control. The push button control of all automatic lifts shall be so arranged that—
- Locks. (a) The lift cannot move until every shaft door is properly closed, and door locks shall be so designed that it is impossible to open them from the outside unless the cage is opposite.
- Non-interference switch. (b) As soon as any push button in the cage is operated the cage shall be beyond the control of any person not in the cage until it has completed its trip and the door at the floor at which it stops has been opened and closed again.
- Stop button. (c) A special "stop" button in the cage shall be provided to enable the lift to be stopped anywhere.
- Dual control lifts. (d) Lifts not wholly automatic, *i.e.*, lifts which are sometimes worked by an attendant, shall have an efficient switch cutting out the automatic control while attendant is in charge, and such switch shall be under the charge of the attendant or caretaker, and shall be locked or placed in such a position as to be inaccessible to the public.

G.G. 31/7/25,  
p. 1360.

#### GOODS LIFTS.

(See also "General Regulations" 1 to 24.)

Enclosures and doors. 38. All enclosures, doors, or gates shall, where possible, be at least 5 ft. 6 in. in height and of such a design as to prevent damage to a person by accidental contact with the cage or balance weight. All vertically sliding gates should close to within 1 inch of the floor. Collapsible gates will not be approved if it is possible to adopt any other type.

Projections in shafts. 39. On cage entrance side the lift shaft shall have no projections, or if, as in the case of existing old buildings, the nature of the building is such that these cannot be avoided, the projections must be protected by bevelled screens or panels so as to minimise the risk of such projections catching persons or goods in the lift cage or on the platform.

40. Any electric goods lift erected after the proclamation of the Inspection of Machinery Act, 1921, shall have its shaft gates or doors fitted with electric contacts so designed that the cage cannot be moved unless all doors or gates be properly closed.

Electric door contacts.

In the case of lifts erected prior to the proclamation of the said Act, such contacts may be ordered by the Inspector wherever he considers them necessary.

41. When goods lifts are operated by pull ropes, whether from inside or outside the cage, such ropes must be fitted with stop buttons so arranged that, on the cage coming into contact with them at either limit, it is automatically stopped.

Cage control.

If operated by a hand lever control in the cage, the starting lever shall be so designed that it automatically flies back to neutral position and cuts off the current if the attendant releases his grip of the lever.

If operated by push button system, a special *stop* button in the cage shall be provided to enable the attendant to stop cage anywhere.

42. Any lift used both as a passenger and goods lift shall be considered a passenger lift, as regards its equipment.

Lifts used for goods and passengers.

43. Where consider necessary by the Inspector the cages of goods lifts shall be efficiently lighted and shall be provided with signal bells operated from the various floors and communicating with the cage.

Lighting and bells.

44. The Inspector shall fix the maximum load for every goods lift, and such load will be endorsed on the certificate and must not be exceeded at any time.

Maximum load.

#### WORKING OF PASSENGER AND GOODS LIFTS.

G.G. 31/7/25, p. 1361.

45. No person other than those specially empowered by the owner, as defined in the Act, shall operate any lift unless such lift is automatically controlled.

Persons authorised to work lifts.

The name or names of such persons authorised to operate the lift shall be posted conspicuously in the cage.

46. No person other than an Inspector, or a workman engaged in erecting or repairing a lift, shall operate any lift from the control board, or in any manner other than by the proper means provided for the purpose, nor shall any person (except as above provided) at any time improperly interfere with any part of the lift mechanism or any enclosure, door, gate, or fastening, or attempt to work a lift in any manner other than the manner in which it was designed to work, except in case of an accident or extreme emergency.

Interference with lift mechanism.

47. In the case of automatic lifts, the owner shall cause the following notice to be exhibited at the lift shaft doors on each floor:—"Persons using this lift are cautioned to see that the cage is at this floor, and *stationary*, before attempting to open this door."

Notice to be posted on automatic lifts.

#### HOISTS.

G.G. 31/7/25, p. 1362.

48. In the case of self-contained electric hoists the manufacturer or his agent shall furnish—

Maker's test certificate for hoists and ropes.

(a) a maker's test certificate, stating clearly the maximum load for which the hoist was designed. This load shall be legibly cast or stamped on the maker's name plate, and securely affixed to the hoist; and

(b) a certificate relative to the wire ropes used, in accordance with "General Regulation" No. 17.

49. Every self-contained electric hoist must be provided with an efficient overwind device which will cut off the current and apply brakes when the hook is at its maximum allowable height.

Overwind device.

In the case of other types of hoists an overwind device shall be fitted when considered necessary by the Inspector.

Openings  
in floors.

50. All openings in floors for hoists shall be provided with flap doors or rolling platform covers, and these openings must be kept closed except when the hoist is actually in use.

Hoists over  
thorough-  
fares.

51. Where a hoist is suspended outside a building over any thoroughfare, no load shall be slung on it unless there is a lorry or other vehicle below and ready to receive the load, or failing this, a person stationed in the thoroughfare to warn the public of the danger overhead.

52. Hoists are for the raising or lowering of goods and materials only and, under no circumstances, are to be used for raising or lowering any person.

G.G. 31/7/25,  
p. 1362.

#### MAINTENANCE OF LIFTS AND HOISTS.

53. The whole operating mechanism of any lift or hoist must be kept in a state of efficiency.

Any damaged doors, fastenings, or enclosures must be at once repaired.

All parts of the lift or hoist gear requiring lubrication must be properly oiled.

Lift shafts and all other parts in connection with any lift must be kept clean and free from accumulations of rubbish, dust, and dirt.

Alterations  
and renewals  
to be  
notified.

54. If any part of any lift or hoist, or any rope, whether lifting, balance, or controlling, should show signs of excessive wear or distortion, it must at once be renewed and the Chief Inspector notified accordingly.

Any person or firm who is responsible for the carrying out of lift repairs, and who makes any material alteration to mechanism or appliances used in connection with any lift shall immediately notify the Chief Inspector in writing of any such alteration.

Six months  
to comply  
if erected  
before Act.

55. Where any of the above regulations affect any passenger or goods lift erected before the proclamation of the Act, six months shall be allowed to bring them into conformity with the regulations.

Penalty.

56. Except and unless where otherwise provided by the Inspection of Machinery Act, 1921, any person who—

(a) contravenes any of the provisions of the preceding regulations; or

(b) obstructs any Inspector in carrying out the provisions of the above regulations; or

(c) neglects or refuses to comply with the lawful directions of the Chief Inspector or any Inspector,

shall be liable to a penalty not exceeding Twenty pounds.

G.G. 31/7/25,  
p. 1363.  
Reg. 57  
amended,  
G.G. 21/6/35,  
p. 1216;  
G.G. 29/10/48,  
p. 2576.

#### REGULATION CHARGES—SECTION 36.

57. For every inspection, and before the granting of any certificate for a lift, the following fees shall be paid:—

	£	s	d.
For every passenger lift or escalator	1	15	0
For every goods lift	1	5	0
For every hoist	0	10	0
For every service lift	0	7	6
For inspecting working plans submitted to the the Chief Inspector of Machinery before the erection of any lift and granting of permis- sion to erect	1	5	0

Note.—For all fees remitted by owners or other persons a receipt on the official machine numbered form should be obtained in every instance, and no other will be recognised.

REGULATIONS RELATING TO ALL TYPES OF POWER-DRIVEN  
CRANES FITTED WITH JIBS. G.G. 31/7/25,  
p. 1363.

*Definition.*

"Jib Crane" means any mechanical contrivance (with the exception of mechanical diggers or excavators), whether travelling or stationary, which is fitted with a jib either fixed or movable, and is worked by any power other than hand or animal, and is used for raising or lowering goods or materials. It also includes the machinery necessary for the working of the crane, and all ropes, stays, pulleys, etc., and any part of the structure which is stressed by the working of the crane.

1. In the case of every new power-driven jib crane erected after the 1st day of December, 1924, the manufacturer or his agent shall supply to the Chief Inspector of Machinery:—

- (a) A complete general arrangement drawing to scale, giving all leading dimensions, and the weights and centres of gravity of the component parts of the crane, which are necessary for computing the stability of the structure for the maximum load for which it was designed. General arrangement drawing to be supplied.
- (b) A certificate stating the maximum safe working load at maximum radius of jib, and the safe working loads at various radii (where the jib is not a fixed one), and the load to which crane was tested by the makers, giving the radius at which such load was supported. Test certificate to be supplied.
- (c) A certificate from the maker of the ropes used both for hoisting and derricking purposes, or a certified copy thereof. Such certificate shall provide the following information:— Rope test certificate.
  - Name and address of manufacturer.
  - Diameter or circumference of rope in inches.
  - Construction of rope—
    - Number of strands,
    - Style of lay,
    - Class of core.
  - Construction of strands—
    - Number of wires,
    - Diameter of wires (decimals of an inch),
    - Class of core of strand,
    - Material of which wire is made,
    - Breaking stress of materials in tons per square inch (tons of 2,240 lb.),
    - Breaking load of rope in tons per square inch (tons of 2,240 lb.).

2. If the Inspector has any reasonable doubt at any time as to the quality or strength of any crane rope, he may demand that a sample of the rope shall be tested at the Engineering Laboratory of the University of Western Australia, and that such test piece be cut off in his presence, and any expense incurred in connection with such test shall be borne by the owner of the crane. Rope tests.

3. All cranes fitted with jibs and designed to work at variable radii shall be provided with a reliable metal indicator (pendulum type or otherwise) showing the safe-working loads at various radii for the guidance of the operator. Load indicators.

4. In the case of cranes with fixed jibs, a metal plate shall be securely attached in a conspicuous position stating the maximum safe working load.

5. The driver in charge of each crane shall keep the reading on the metal load indicator or plate clean and legible whilst the crane is in use.

Any person who disfigures, destroys, conceals, or attempts to disfigure, destroy, or conceal the readings on the said metal plates shall be guilty of an offence under the above Act.

6. Every jib crane shall be inspected at least once a year in accordance with Section 16 (3) of the Act, and the owner shall provide any labour or material necessary to facilitate inspection.

7. Except and unless where otherwise provided by the Act any person who—

- Penalty.
- (a) contravenes any of the provisions of the preceding regulations; or
  - (b) obstructs any Inspector in carrying out the provisions of the above regulations; or
  - (c) neglects or refuses to comply with the lawful directions of the Chief Inspector or any Inspector, shall be liable to a penalty not exceeding Twenty pounds.

*Fees Payable for Inspection.*

8. The fees payable for the inspection of any power-driven crane fitted with a jib (other than steam cranes) shall be in accordance with the fees prescribed for "Machinery not worked by steam."

G.G. 1/7/22,  
p. 1266.

REGULATIONS RELATING TO THE CONDUCT OF EXAMINATIONS, QUALIFICATIONS OF APPLICANTS, AND THE GRANTING OF CERTIFICATES TO ENGINE DRIVERS, CRANE AND HOIST DRIVERS, AND BOILER ATTENDANTS.

GENERAL PROVISIONS.

1. The Board of Examiners appointed under the Inspection of Machinery Act, 1921 (hereinafter termed the "Board"), shall examine or cause to be examined, on the subjects hereinafter specified, applicants for certificates of competency under Section 53, 54 and 56 of the said Act. At all meetings of the Board any two members shall be a quorum.

2. The Minister may, in a like manner, appoint any official person employed in the Inspection of Machinery Department to act as Secretary of the Board of Examiners, and such person shall act under the Board's direction.

3. Examinations will be conducted by the Board at such times and places as may from time to time be determined, such examinations to be advertised when practicable in a newspaper or newspapers published or circulated in the locality or districts concerned. Notwithstanding the above, an examination will not be held at any advertised centre unless there be at least seven (7) eligible candidates.

4. Persons desirous of obtaining a certificate of competency must forward to the Chief Inspector of Machinery, Perth, notice in writing, in the form of the First Schedule annexed hereto, of his intention to present himself for examination; such notice to be lodged on or before the date advertised for closing of applications, and shall clearly state the class of certificate desired, and place of examination.

Reg. 5  
amended  
G.G. 6/5/49,  
p. 932.

5. The notice mentioned in Regulation 4 must be accompanied by—

- (a) Cash, money order, postal note, or cheque to the value of one pound, which shall be paid to Consolidated Revenue, and such fee shall admit of one examination only. If a candidate absents himself from an examination and fails to furnish the Board with a satisfactory explanation of his absence on or before the day of examination, his application fee shall be forfeited.



- (b) In the case of Drivers of Steam Engines, testimonials from his employer or two persons of good repute (whose addresses shall be given) and from a certificated enginedriver, as prescribed in Regulations 17, 19, 21, 23, 25, and 30. Such documents must specify clearly and distinctly the class of engines (giving the internal diameter of cylinders) that he has driven or assisted to drive.
- (c) In the case of Drivers of Cranes and Hoists, whether driven by steam or other power, testimonials from his employer or two persons of good repute, and from a certificated crane and hoist driver, as prescribed in Regulation 32. Such documents must specify the class of crane or hoist, size of cylinders in case of steam cranes, and the horse power of any crane driven by electricity, and the maximum load of the crane that he has been in charge of for six (6) months within a period of three (3) years prior to the date of examination. Para. (c)  
amended  
G.G. 16/11/23,  
p. 2221.
- (d) In the case of Drivers of Internal Combustion Engines, testimonials from his employer or two persons of good repute and from a certificated internal combustion engine-driver, as prescribed in Regulation 34, that he has driven or assisted to drive a stationary or marine internal combustion engine, the area of the cylinder or cylinders of which exceeds 100 square inches, for at least one (1) year within a period of three (3) years prior to the date of the examination. Para. (d)  
amended  
G.G. 16/11/23,  
p. 2221;  
G.G. 6/5/49,  
p. 932.
- (e) In the case of Boiler Attendants, testimonials from his employer and a certificated enginedriver, as prescribed in Regulation 36, that he has been continuously employed as a fireman for a period of at least six (6) months within three (3) years of the date of the examination.

Provided that in any case where a candidate is unable from any sufficient cause to produce satisfactory testimonials from his employer, the Board may accept a statutory declaration or other sufficient proof that such candidate has driven or assisted to drive, or had charge of such engines, cranes or hoists, internal combustion engines, or boilers, for such time as required by these regulations, within a period of three (3) years immediately prior to the date of examination as evidence of his having had the necessary experience to entitle him to be examined. A copy of the testimonials must be forwarded along with the originals; and the latter will be returned by the Secretary to the last-known address of the candidate after the examination.

6. Prior to the issue of any certificate, each successful candidate, shall be required to furnish the Board with a medical certificate, in the form of Second Schedule hereto, that he is not subject to any physical infirmity likely to interfere with the efficient discharge of his duties as an enginedriver. This certificate will be permanently retained by the Board. Reg. 6  
amended  
G.G. 6/5/49,  
p. 932.

7. If in any case the Board does not deem the evidence of experience, ability, sobriety and general good conduct produced by the applicant in compliance with these regulations to be satisfactory, it may refuse to allow such applicant to present himself for examination.

8. If a candidate fails to pass the examination prescribed, he shall not again present himself until a period of not less than three (3) months shall have elapsed from the date of his last examination.

9. Any person who obtains or attempts to obtain any certificate under this Act by means of fraud or false pretences or any false document, or who effaces, mutilates or adds to, in any manner, the certificate issued by the Board, shall be liable to the penalties

contained in Section 66 of the Act; and shall not practise as an engine-driver, crane or hoist-driver, or boiler attendant. Any certificate obtained by any such means shall be returned to the Board, and may be cancelled by the Minister.

Reg. 10  
substituted  
G.G. 6/5/49,  
p. 932.

10. Every applicant for a certificate shall give proof that he is a British subject, or an ex-serviceman, or a worker who served in the Merchant Navy or Merchant Marine of an Allied Nation at any time during the period 1939-1945, of World War II. He shall satisfy the Board that his knowledge of the English language is sufficient to enable him to perform the duties required of the holder of a certificate. He shall also give proof that on the day of examination he can comply with the age requirements set out in the regulation relating to the certificate for which he is applying.

Reg. 11  
substituted  
G.G. 6/5/49,  
p. 932.

11. Full payment of the fees prescribed in these regulations shall be made to the Chief Inspector of Machinery, Perth, before any application may be considered or any certificate may be issued.

12. No applicant for examination shall pay, give or offer any gratuity or remuneration whatever to any member of the Board, or to any officer of the Department, and any applicant who shall offer to give remuneration shall be regarded as having failed in his examination, and shall be ineligible to present himself for a period of at least six (6) months, and any fees which may have been paid by the applicant shall be forfeited and paid into Consolidated Revenue.

13. Every certificate issued under these Regulations shall bear the impress of the seal of the Board, and shall contain the signature of the grantee on the space prepared on the face of the certificate.

14. Every holder of any class or grade of certificate granted under these Regulations (or certificate equivalent thereto) shall, in the event of a higher grade certificate being granted, and prior to its issue, surrender to the Board his former certificate for cancellation.

15. Any person in charge of any steam engine, or any internal combustion engine to which this Act applies, used for mining, factory, or other purposes, shall not, under any pretext whatever, unless relieved by a competent person holding the required certificate, absent himself or cease to have continual supervision of such engine. Any person so offending shall be deemed guilty of a breach of these Regulations.

#### CERTIFICATES OF COMPETENCY.

16. The certificates of competency to be issued by the Board of Examiners shall be of eight classes, viz.: Winding, First, Second, and Third Class Certificates for stationary engines; Locomotive and Traction, Crane and Hoist, Internal Combustion Engine, and Boiler Attendants' Certificates.

#### WINDING ENGINE DRIVER'S CERTIFICATE.

Reg. 17  
substituted  
G.G. 16/9/49,  
p. 2284.

17. An unrestricted winding engine driver's certificate shall entitle the holder to drive and have charge of any winding engine driven by steam, electricity, or other power, and of any engine or boiler to which a first class engine driver's certificate applies.

(1) An applicant for any winding engine driver's certificate must satisfy the board of his respectability of character, that he can read and write the English language, and that he is conversant with the elementary rules of arithmetic.

(2) An applicant for an unrestricted winding engine driver's certificate shall satisfy the Board that for not less than nine months he has been the holder of either a first or second class engine driver's certificate granted under the Inspection of Machinery Act, 1921, or a certificate which in the opinion of the Board is equivalent

thereto, and that during six months of that period he has been actually assisting to drive a steam winding engine under the supervision of a certificated winding engine driver, or of the holder of a certificate equivalent thereto issued in this State, for at least 12 hours in each and every week of such period of six months aforesaid.

(3) An applicant for an unrestricted winding engine driver's certificate shall, in addition to the qualifications required by the immediately preceding paragraphs (1) and (2), satisfy the Board that the steam winding engine on which he has practised was a first motion engine fitted with dead weight power-operated brakes, and that for not less than a further period of three months and during that period for not less than 12 hours in each and every week, he has been actually assisting to drive under the supervision of a certificated winding engine driver, or of the holder of a certificate equivalent thereto issued in this State, an electric winding engine fitted with dead weight power operated brakes, which was operated by an electric motor of not less than 100 horsepower, and that he has a satisfactory knowledge of the operation of electric winding engines.

(4) An applicant for a restricted winding engine driver's certificate available for steam winding engines, but not available for electric winding engines, shall comply with paragraph (1), and produce satisfactory evidence that he can comply with the provisions of paragraph (2).

(5) An applicant for a restricted winding engine driver's certificate, not available for steam winding engines, but which shall entitle the holder to drive and have charge of an electric winding engine—

- (a) shall comply with paragraph (1);
- (b) shall have been the holder of a first or second class engine driver's certificate for a period of not less than nine months, as required by paragraph (2);
- (c) as an alternative to paragraph (5) (b) above, but subject to the approval of the Board, shall have been the holder of an internal combustion engine driver's certificate for not less than 12 months and shall satisfy the Board that he has been employed as a driver in charge of an internal combustion engine of not less than 200 square inches of cylinder area driving an electric generator of over 100 kilowatts, for a period of not less than six months;
- (d) shall produce satisfactory evidence that during six months of the aforesaid period of nine months or 12 months, as the case may be, he has been actually assisting to drive for not less than 12 hours per week, under the supervision of a certificated winding engine driver or of the holder of a certificate equivalent thereto issued in this State, an electric winding engine which was driven by an electric motor of not less than 100 horsepower, and which was fitted with dead weight power operated brakes, and that he has a satisfactory knowledge of the operation of electric winding engines.

(6) As to the winding engine experience and general good conduct, supported by testimonials signed by his employer or the engineer, and by a certificated winding engine driver under whom the applicant has been practising. The testimonial from the certificated engine driver shall state the number and date of issue of his certificate, and shall be signed and declared by the said engine driver before a Justice of the Peace, or a Commissioner for taking affidavits, to be true and correct in every particular.

(7) That he is at the date of examination not under the age of twenty-two (22) years and not over the age of fifty (50) years.

A candidate over 50 years of age who satisfies the Board that the necessary experience in driving winding engines had been gained prior to attaining the age of 50 years may, at the discretion of the Board, be considered eligible for examination. Should any doubt exist as to the applicant's age, he will be required to produce a certificate of birth or baptism.

Reg. 18  
substituted  
G.G. 16/9/49,  
p. 2284.

18. The applicant for an unrestricted certificate must pass a creditable examination as to the construction of winding engines and various stationary steam engines, condensers, electric motors and generators, and boilers in general use; the details of different working parts, external and internal; to be able to explain how to detect defects, and what action is necessary in the ordinary emergencies which may arise in connection with winding and steam engines, etc., and be able to work out certain elementary arithmetical questions.

(a) The applicant for a certificate restricted to a winding engine driven by an electric motor must pass a creditable examination on the construction of winding engines generally and the use and construction of electric motors and generators, and be able to work out certain elementary arithmetical questions.

(b) The applicant for a certificate restricted to a winding engine driven by an internal combustion engine must pass a creditable examination on the construction of winding engines generally and the construction of internal combustion engines and air compressors, and be able to work out certain elementary arithmetical questions.

#### FIRST CLASS ENGINE-DRIVER'S CERTIFICATE.

19. An unrestricted First Class Engine-driver's Certificate shall entitle the holder thereof to drive and have charge of any stationary engine or engines, including steam turbines other than winding engines, by which men are raised or lowered at the time he is in charge, and of its or their boiler or boilers, but not to drive a locomotive or traction engine, or a crane or hoist, or an internal combustion engine, provided that such engines and boilers are so situated that the Chief Inspector or his representative is satisfied that the engine-driver can efficiently discharge his duties without danger to any person or liability of accident to such engines or boilers.

An applicant for a First Class Engine-driver's Certificate must produce to the Board satisfactory evidence:—

- (a) Of his respectability of character.
- (b) That he can read and write English language and is conversant with the elementary rules of arithmetic.
- (c) That he has been the holder of an unrestricted Second Class Engine-driver's Certificate granted under the Inspection of Machinery Act, 1921, or a Certificate which, in the opinion of the Board, is equivalent thereto, for a period of not less than nine months, and that he has during six months of that period been actually assisting to drive a stationary steam engine the area of the cylinder or cylinders of which exceeds 500 square inches, under the supervision of a duly certificated engine-driver for at least twelve hours in each and every week of such period of six months aforesaid.
- (d) That he is at the date of examination not under the age of twenty-one (21) years, nor over the age of fifty (50) years. An applicant over the age of fifty years, who satisfies the Board that the necessary experience in driving stationary steam engines had been gained prior to attaining the age of fifty years, may, at the discretion of the Board, be considered eligible for examination. Should any doubt exist as to the applicant's age, he will be required to produce a certificate of birth or baptism.

Para. (c)  
substituted  
G.G. 21/6/35,  
p. 1217.

20. An applicant must pass a creditable examination and be conversant with the working parts of various stationary steam engines, including turbines, condensers, pumps, and boilers in general use, the different parts and uses of same, including the feeding of boilers, proper maintenance and running of engines, and be able to explain how to detect defects, and state what action is necessary in the ordinary emergencies that may arise in the management and maintenance of such engines, etc., which a First Class Engine-driver's Certificate entitles him to take charge of, and to work out certain elementary arithmetical questions.

#### SECOND CLASS ENGINE-DRIVER'S CERTIFICATE.

21. An unrestricted Second Class Engine-driver's Certificate shall entitle the holder thereof to drive and have charge of any stationary engine or engines, the area of the cylinder or cylinders of which does not exceed 750 square inches, and of its or their boiler or boilers, provided that such engines and boilers are so situated that the Chief Inspector or his representative is satisfied that the engine-driver can efficiently discharge his duties without danger to any person or liability of accident to such engines and boilers, but does not entitle him to take charge of any winding engine or of any locomotive or traction engine, or of any crane or hoist, or any internal combustion engine.

An applicant for a Second Class Engine-driver's Certificate must produce to the Board satisfactory evidence:—

- (a) Of his respectability of character.
- (b) That he is able to read and write the English language and is conversant with the elementary rules of arithmetic.
- (c) That he has been the holder of an unrestricted Third Class Engine-driver's Certificate granted under the Inspection of Machinery Act, 1921, or a certificate which, in the opinion of the Board, is equivalent thereto, for a period of not less than nine months, and that he has during six months of that period been actually assisting to drive a stationary steam engine, the area of the cylinder or cylinders of which exceeds 114 square inches, under the supervision of a duly certified engine-driver for at least twelve hours in each and every week of such period of six months aforesaid.

Para. (c)  
substituted  
G.G. 21/6/35,  
p. 1217.

Provided that the Board may, at its discretion, reduce the probationary period of six (6) months to three (3) months if the candidate can produce a certificate from a Technical School or School of Mines showing that he had had a course of instruction on the management and construction of steam engines and boilers.

This clause shall not apply to any applicant who has served an apprenticeship of at least five (5) years in an engineer's workshop as a fitter on the making and repairing of steam engines, boilers, pumps, etc., or if the applicant has not served an apprenticeship as aforesaid, he must prove that for not less than five (5) years he has been employed as a journeyman fitter in an engineering workshop on the making or repairing of steam engines, boilers, pumps, etc.

Amended  
G.G. 16/11/23,  
p. 2221.

Provided that such applicant must produce satisfactory evidence that he has assisted to drive for not less than twelve (12) hours per week, for a period of not less than three (3) months, a steam engine, the area of the cylinder or cylinders of which is not less than 114 square inches.

Proviso  
added  
G.G. 20/7/34,  
p. 1022.

- (d) That he is on the date of examination not under the age of twenty (20) years, nor over the age of fifty (50) years. An applicant over the age of fifty years, who satisfies the Board that the necessary experience in driving stationary steam engines had been gained prior

to attaining the age of fifty years, may, at the discretion of the Board, be considered eligible for examination. Should any doubt exist as to the applicant's age he will be required to produce a certificate of birth or baptism.

22. An applicant must pass a creditable examination as to the use of the principal parts of stationary steam engines, condensers, pumps, and boilers in general use, and be able to describe the various fittings and working parts and their uses; also state what action is necessary in the ordinary emergencies which may arise in connection with such engines, etc., which a Second Class Engine-driver's Certificate entitles him to take charge of; and be able to work out certain elementary arithmetical questions.

### THIRD CLASS ENGINE-DRIVER'S CERTIFICATE.

Reg. 23  
amended  
G.G. 16/11/23,  
p. 2221.

23. An unrestricted Third Class Engine-driver's Certificate shall entitle the holder thereof to drive and have charge of any stationary engine or engines, the area of the cylinder or cylinders of which does not exceed 114 square inches and of its or their boilers, provided that such engines and boilers are so situated that the Chief Inspector or his representative is satisfied that the engine-driver can efficiently discharge his duties without danger to any person or liability of accident to such engines and boilers: Provided that such engine is not a winding engine, locomotive, traction engine, crane or hoist, or an internal combustion engine.

An applicant for a Third Class Engine-driver's Certificate must produce to the Board satisfactory evidence:

- (a) Of his respectability of character.
- (b) That he is able to read and write the English language.
- (c) That he has been the holder of an unrestricted Boiler Attendant's Certificate granted under the Inspection of Machinery Act, 1921, or a certificate which, in the opinion of the Board is equivalent thereto, for a period of not less than six months and that during that period he has actually been assisting to drive a steam engine with a boiler and accessories connected therewith for at least twelve hours in each and every week of such period under the supervision of a duly certificated engine-driver.

Para. (c)  
substituted  
G.G. 21/6/35,  
p. 1217.

Provided that the Board may accept evidence that the candidate has had the practical experience aforesaid during a period of three months, instead of six months as aforesaid, if the candidate produces a certificate from a Technical School or a School of Mines stating that he has had and satisfactorily passed through a course of instruction in such school in and relating to the management and construction of steam engines and boilers.

(c1) As an alternative to paragraph (c) above, but subject to the approval of the Board, that he has had for a period of not less than nine months, and for at least twelve hours in each and every week of such period of nine months practical experience in the firing and care of various classes of boilers and their accessories and in the driving and working of a steam engine by actually assisting therein during the period and times aforesaid under the supervision of a duly certificated engine-driver.

Provided that the Board may accept evidence of such experience during a period of six months, instead of nine months as aforesaid, if the candidate produces a certificate from a Technical School or a School of Mines stating that he has had and satisfactorily passed through a course of instruction in such school in and relating to the management and construction of steam engines and boilers.

- (d) That he is on the date of examination not under the age of nineteen (19) years, nor over the age of fifty (50) years. An applicant over the age of fifty years who satisfies the Board that the necessary experience in driving stationary steam engines had been gained prior to attaining the age of fifty years may, in the discretion of the Board, be considered eligible for examination. Should any doubt exist as to the applicant's age, he will be required to produce a certificate of birth or baptism.

24. An applicant must pass a creditable examination as to the use of the principal parts of stationary steam engines, pumps, and boilers in general use, and be able to describe the various fittings and working parts and their uses; also to state what action is necessary in the ordinary emergencies which may arise in connection with such steam engines, pumps, and boilers which a Third Class Engine-driver's Certificate entitles him to take charge of; and other matters dealing with the safety and proper working of boilers.

#### LOCOMOTIVE AND TRACTION ENGINE-DRIVERS CERTIFICATE.

25. An unrestricted Locomotive and Traction Engine-driver's Certificate shall entitle the holder thereof to drive and have charge of any locomotive or steam traction engine and of its boiler, propelling itself, or moving from place to place, by its own motive power and machinery, and of any stationary engine and boiler, which it is lawful for the holder of a Third Class Certificate to be in charge of. An applicant for a Locomotive and Traction Engine-driver's Certificate must produce to the Board satisfactory evidence:—

- (a) Of his respectability of character.
- (b) That he can read and write the English language and is conversant with the elementary rules of arithmetic.
- (c) That for a period of not less than eighteen (18) months and for not less than six (6) hours per day, he has been actually employed in firing and assisting to drive a locomotive engine. A testimonial signed by his employer and by the certificated engine-driver with whom he has been firing and assisting to drive, to the above effect, must accompany the application. The locomotive engine-driver, when signing the testimonial must state the number and date of issue of his certificate.

Provided that the above period of eighteen (18) months be reduced to nine (9) months in the case of the holders of unrestricted Winding or First Class Certificates.

Proviso added  
G.G. 16/11/23,  
p. 2221.

- (d) That he is on the date of examination not under twenty-two (22) years of age, nor over the age of fifty (50) years. An applicant over the age of fifty years who satisfies the Board that the necessary experience in driving locomotives and traction engines had been gained prior to attaining the age of fifty years may, at the discretion of the Board, be considered eligible for examination. Should any doubt exist as to the applicant's age, he will be required to produce a certificate of birth or baptism.

- (e) That he understands the meaning of all the different lights and signals used on the Government Railways in Western Australia, and that he is conversant with the rules of the road and the conditions under which traction engines are allowed to travel on public roads and highways.

26. An applicant must pass a creditable examination as to the details of the different parts of locomotives and traction engines, and of such stationary engines as are referred to in Regulation 23, to which an unrestricted Locomotive and Traction Engine-driver's Certificate applies. He must be able to explain the staff system, the mechanism of brakes, and the uses of the various cocks, gauges, valves, and connections on boilers, and state how temporary repairs could be effected in case of derangement to engine or boiler. He must understand the effects of impurities in water used in such boilers, and the methods adopted to keep the boiler clean, and to work out certain elementary arithmetical questions.

27. In addition to furnishing the Board with the medical certificate as required under Regulation No. 6, every successful candidate who is actually in charge of any locomotive engine, to which the Inspection of Machinery Act, 1921, applies, shall present himself for medical examination at intervals of not more than two (2) years, and a medical certificate in the form of Second Schedule hereto, but specifying a locomotive engine, shall be forwarded by him to the Chief Inspector of Machinery, Perth, for record purposes.

28. If any duly qualified medical practitioner should certify that an engine-driver's health or eyesight is seriously defective, and in consequence of such certificate the Board is of the opinion that he is no longer fit to be in control of a locomotive engine, he shall immediately discontinue to take charge of such engine, but may drive and take charge of any stationary engine for which his certificate qualifies him, subject to the sanction of the Chief Inspector being first obtained.

29. Any certificated locomotive engine-driver having charge of any locomotive engine, and whose medical certificate on the 1st day of August, 1922, is more than two (2) years old, must comply with Regulation No. 27 before the thirty-first day of August, 1922, and as required thereafter.

#### TRACTION ENGINE-DRIVER'S CERTIFICATE.

Reg. 30  
amended  
G.G. 16/11/23,  
p. 2221.

30. If an applicant desires to obtain a certificate as a Steam Traction Engine-driver, without locomotive privileges, the Board may permit him to sit for examination for such certificate.

An unrestricted Steam Traction Engine-driver's Certificate shall entitle the holder thereof to drive and have charge of any steam traction engine and its boiler, and also of any stationary engine and boiler, which it is lawful for the holder of a Third Class Certificate to drive.

An applicant for a Steam Traction Engine-driver's Certificate must produce to the Board satisfactory evidence:—

- (a) Of his respectability of character.
- (b) That he can read and write the English language.
- (c) That—
  - (i) for a period of not less than twelve months and for at least twelve hours in each and every week of such period he has been firing and assisting to drive a steam traction engine under the supervision of a duly certificated engine-driver; or

Para. (c)  
substituted  
G.G. 21/6/35,  
p. 1217.



- (ii) he is the holder of a boiler attendant's certificate granted under the Inspection of Machinery Act, 1921, and for a period of not less than six months, and for at least twelve hours in each and every week of such period, he has been actually assisting to drive a steam traction engine under the supervision of a duly certificated engine-driver:

Provided that the holder of a Winding, or First Class, or Second Class, or Locomotive Engine-driver's Certificate may with the approval of the Board, be deemed eligible to sit for examination.

- (d) That he is on the date of examination not under the age of twenty (20) years nor over the age of fifty (50) years. An applicant over the age of fifty years, who satisfies the Board that the necessary experience in driving steam traction engines had been gained prior to attaining the age of fifty years, may at the discretion of the Board be considered eligible for examination. Should any doubt exist as to the applicant's age, he will be required to produce a certificate of birth or baptism.
- (e) That he is conversant with the rules of the road and the conditions under which steam traction engines are allowed to travel on public roads and highways.

31. An applicant must pass a creditable examination as to the details of the different parts of steam traction engines, and of such other engines to which an unrestricted Traction Engine-driver's Certificate applies. He must be able to explain the uses of the various cocks, gauges, valves, and connections of boilers, and state how temporary repairs could be effected in case of derangement to engine or boiler. He must also understand the effective methods adopted to keep the boiler clean.

#### CRANE AND HOIST DRIVER'S CERTIFICATE.

Reg. 32  
substituted  
G.G. 18/5/56,  
p. 1227.

32. (1) An unrestricted Crane and Hoist Driver's Certificate entitles the holder thereof to drive and have charge of—

- (a) any stationary or travelling crane, hoist or other appliance of a like kind fitted with a jib, or
- (b) any overhead travelling crane controlled from a platform attached to it,

which is used for the purpose of raising materials and operated by power other than by hand or animal power, and, where the crane, hoist or other appliance is steam-operated the certificate entitles him also to have charge of its boiler.

(2) An applicant for any Crane and Hoist Driver's Certificate shall—

- (a) produce satisfactory evidence of his respectability of character and that he can read and write the English language;
- (b) produce a testimonial from each of the certificated drivers under whom he has been practising, in which testimonial the periods of the applicant's experience, the type or types and lifting capacities of cranes driven, and the certificate number of the driver signing the testimonial must be stated;
- (c) satisfy the Board that he is at the date of the examination not under the age of nineteen (19) years or over the age of fifty (50) years.

(3) (a) An applicant for a Crane and Hoist Driver's Certificate who is over the age of 50 years and who satisfies the Board that the necessary experience in driving cranes or hoists had been gained by him prior to attaining the age of 50 years may, at the discretion of the Board, be considered eligible for examination.

(b) If any doubt exists as to the applicant's age he may be required to produce a certified copy of a certificate of birth or a certificate of baptism.

(4) An applicant for an unrestricted Crane and Hoist Driver's Certificate shall satisfy the Board that—

(a) for a period of not less than six months and for at least 12 hours in each and every week of that period he has been assisting to drive a crane or hoist which is fitted with a jib, such assistance being under the supervision of a person who is the holder of a certificate entitling him to drive and have charge of a crane or hoist so fitted or of a person who is the holder of a certificate equivalent thereto; and

(b) for a period of not less than two months and for at least 12 hours in each and every week of that period he has been assisting to drive an overhead travelling crane controlled from a platform attached to it, such assistance being under the supervision of a person who is the holder of a certificate entitling him to drive and have charge of an overhead travelling crane so controlled, or of a person who is the holder of a certificate equivalent thereto.

(5) An applicant for a restricted Crane and Hoist Driver's Certificate, which may be granted by the Board in respect only of stationary or travelling cranes, hoists or other appliances of a like kind which are fitted with jibs, and which are used for the purpose of raising materials and operated by power other than by hand or animal power, shall comply with paragraphs (a) and (b) of subregulation (2) of this regulation and produce satisfactory evidence that he has complied with the provisions of subregulation (4) (a) of this regulation.

(6) An applicant for a restricted Crane and Hoist Driver's Certificate, which may be granted by the Board in respect only of overhead travelling cranes controlled from platforms attached to them, and which are used for the purpose of raising materials and operated by power other than by hand or animal power, shall comply with paragraphs (a) and (b) of subregulation (2) of this regulation and shall produce satisfactory evidence that for a period of not less than four months and for at least 12 hours in each and every week of that period he has assisted to drive an overhead travelling crane so controlled, such assistance being under the supervision of a person who is the holder of a certificate entitling him to drive and have charge of an overhead travelling crane so controlled or of a person who is the holder of a certificate equivalent thereto.

33. An applicant must pass a creditable examination as to the various parts and uses of—

(a) a steam crane, including its boiler, fittings, and connections;

(b) or an electric crane, including its motor switches and other accessories.

He must also be able to give a practical explanation as to what action is necessary in the case of any emergency which may arise in the operating of such cranes.

#### INTERNAL COMBUSTION ENGINE-DRIVER'S CERTIFICATE.

34. An unrestricted Internal Combustion Engine-driver's Certificate shall entitle the holder thereof to drive and have charge of any internal combustion engine or engines, and its or their accessories, to which the Act applies, other than winding engines by which men are raised or lowered.

An applicant for an Internal Combustion Engine-driver's Certificate must produce to the Board satisfactory evidence—

- (a) Of his respectability of character.
- (b) That he is able to read and write the English language and is conversant with the elementary rules of arithmetic.
- (c) That for a period of not less than twelve months, and during that period for at least twelve hours in each and every week of such period he has been actually assisting to drive a stationary or marine internal combustion engine having an area of cylinder or combined area of cylinders exceeding 100 square inches and accessories connected therewith, under the supervision of a duly certificated engine-driver. Para. (c) substituted G.G. 21/6/35, p. 1217; amended G.G. 6/5/49, p. 933.
- (d) That he is on the date of examination not under the age of twenty-one (21) years nor over the age of fifty (50) years. An applicant over the age of fifty years who satisfies the Board that the necessary experience in driving internal combustion engines had been gained prior to attaining the age of fifty years, may, at the discretion of the Board, be considered eligible for examination. Should any doubt exist as to the applicant's age, he will be required to produce a certificate of birth or baptism.

35. An applicant must pass a creditable examination as to the use of the principal working parts of internal combustion engines, their general principles, the different classes of producers and accessories, and be able to describe the various fittings and their uses; also to state what action is necessary in the ordinary emergencies and dangers which may arise in connection with such engines and producers, and other matters dealing with their safety and proper working; and be able to work out certain elementary arithmetical questions. Reg. 35 amended G.G. 16/11/23, p. 2221.

*Note.*—If an internal combustion engine be used to drive a winding engine used for raising and lowering men, the driver thereof must hold a Winding Engine-driver's Certificate, or one equivalent thereto, issued within this State, in addition to the Certificate required to be held by him as the driver of such Internal Combustion Engine.

#### BOILER ATTENDANT'S CERTIFICATE.

36. An unrestricted Boiler Attendant's Certificate shall entitle the holder thereof to take charge of any boiler or boilers in which steam is generated, and to which this Act applies, together with its or their accessories, such as feed pumps, injectors, economisers, superheaters, etc.

An applicant for a Boiler Attendant's Certificate must produce to the Board satisfactory evidence:—

- (a) Of his respectability of character.
- (b) That he can read and write the English language.
- (c) That for a period of not less than six months, and during that period for at least twelve hours in each and every week of such period he has had practical experience in or in connection with various classes of boilers as a boiler attendant under the supervision of a duly certificated engine-driver or boiler attendant, or during the period and times aforesaid has had such other practical experience, whether within or outside the State, as the Board may deem to be sufficient. Para. (c) substituted G.G. 21/6/35, p. 1217.
- (d) That he is on the date of examination not under the age of eighteen (18) years. An applicant over the age of fifty (50) years, who satisfies the Board that necessary experience as a boiler attendant had been gained prior to attaining the age of fifty years, may, at the discretion of the Board, be considered eligible for examination. Should any doubt exist as to the applicant's age, he will be required to procure a certificate of birth or baptism.

37. An applicant must pass a creditable examination on all classes of boilers in common use in the State, and be able to describe their internal construction, staying, etc. He must also prove to the Board that he understands the proper methods of washing out, making manhole, mudhole, and other joints on a boiler, and that he knows the correct procedure in testing glass water gauges, packing them, and renewing glasses.

He must also have a working knowledge of the various fittings required by Section 22 of this Act, the construction and capabilities of feed pumps and injectors in common use, and must understand the best methods of firing and blowing down boilers, regulating feed water, and all other matters in connection with the safe and economical working of a boiler.

Reg. 38  
substituted  
G.G. 16/11/23,  
p. 2221.

#### CERTIFICATES OF SERVICE.

38. The holder of a Certificate of Service granted under any of the Acts mentioned in Section 62 of the Inspection of Machinery Act, 1921, or in Regulation 43, may, under Regulation 44, obtain a Transfer Certificate under this Act.

Reg. 39  
amended  
G.G. 16/11/23,  
p. 2221.

39. A Certificate of Service granted in accordance with Sections 55 and 62, Subsection (2), of the Inspection of Machinery Act, 1921, shall entitle the holder thereof to the same privileges as a Certificate of Competency of the same class.

Reg. 40  
amended  
G.G. 6/5/49,  
p. 933.

#### RECIPROcity OF ENGINE-DRIVERS' CERTIFICATES.

40. Upon production of a satisfactory medical certificate in the form of Second Schedule, and payment of the prescribed fee, the Board may grant to any person making application in the form of Sixth Schedule hereto, who satisfies the Board that he is a resident in the State of Western Australia, and is a person of good repute and is the holder of a Certificate issued in any other State of the Commonwealth, a certificate of equivalent grade without examination.

Provided that in the case of a Winding Engine-driver's Certificate the Board may, before issuing the certificate, require the applicant to furnish satisfactory evidence as to his knowledge of the provisions relating to winding, and of the signal code under The Mines Regulation Act, 1906, and satisfactory evidence as to his qualifications and character. And further provided that the Board, at its discretion, may issue without examination, any certificate of such grade as it deems fit to the holder of a certificate granted by any properly constituted authority, upon the production of such certificate, and of a satisfactory medical certificate in form of Second Schedule hereto, and payment of the prescribed fee.

#### INTERIM CERTIFICATES.

41. Any person holding a certificate issued by some recognised authority outside the State, and who has not had an opportunity of presenting himself for examination, may obtain an interim or temporary certificate which shall remain in force and entitle him to the same privileges as an ordinary certificate of similar grade issued in this State, until the date appointed for the next examination, upon satisfying the Board or any member thereof as to the following:—

- (a) Of his respectability of character.
- (b) That on the date of making application the certificate presented by him is still valid in the State or country in which it was issued.
- (c) That such certificate has been forwarded to the Chief Inspector of Machinery, Perth, for retention during the currency of the interim or temporary certificate.

42. All applications for Interim Certificates mentioned in the preceding Regulation must be in the form of Third Schedule hereto, and must be accompanied by the prescribed fee, and medical certificate in the form of Second Schedule, in the case of Winding, First Class, and Locomotive Engine-drivers' Certificates only.

PROTECTION OF ENGINE-DRIVERS' CERTIFICATES IN FORCE PRIOR TO THE PASSING OF THIS ACT.

43. The holders of the certificates of competency or service mentioned hereunder and granted in this State under the Acts referred to shall be deemed to be the holders of certificates under this Act as tabulated.

Grade.	Granted under:	Equivalent Certificates under this Act.
"Engine - driver's" Certificate. Unrestricted	Mines Regulation Act, 1895	Winding Engine-driver's Certificate.
"Engine - driver's" Certificate. Restricted	Mines Regulation Act, 1895	First-Class Engine-driver's Certificate.
"First-Class" Certificate. Unrestricted	Mines Regulation Amendment Act, 1899, or Coal Mines Regulation Act, 1902	Winding Engine-driver's Certificate.
"First-Class" Certificate. Restricted	Mines Regulation Amendment Act, 1899, or Coal Mines Regulation Act, 1902	Winding Engine-driver's Certificate (subject to any restriction endorsed on original Certificate, or recorded in the office of the Chief Inspector of Machinery).
"Second - Class" Certificate. Unrestricted	Mines Regulation Amendment Act, 1899, or Coal Mines Regulation Act, 1902	First-Class Engine-driver's Certificate.
"Second - Class" Certificate. Restricted	Mines Regulation Amendment Act, 1899, or Coal Mines Regulation Act, 1902	First-Class Engine-driver's Certificate (subject to any restriction endorsed on original Certificate, or recorded in the office of the Chief Inspector of Machinery).
"First-Class" Certificate. Unrestricted	Inspection of Machinery Act, 1904	Winding Engine-driver's Certificate.
"First-Class" Certificate. Restricted	Inspection of Machinery Act, 1904	Winding Engine-driver's Certificate (subject to any restriction endorsed on original Certificate, or recorded in the office of the Chief Inspector of Machinery).
"Second - Class" Certificate. Unrestricted	Inspection of Machinery Act, 1904	First-Class Engine-driver's Certificate.
"Second - Class" Certificate. Restricted	Inspection of Machinery Act, 1904	First-Class Engine-driver's Certificate (subject to any restriction endorsed on original Certificate, or recorded in the office of the Chief Inspector of Machinery).
"Third - Class" Certificate. Unrestricted	Inspection of Machinery Act, 1904	Third-Class Engine-driver's Certificate.
"Third - Class" Certificate. Restricted	Inspection of Machinery Act, 1904	Third-Class Engine-driver's Certificate (subject to any restriction endorsed on original Certificate, or recorded in the office of the Chief Inspector of Machinery).
"Locomotive and Traction" Certificate. Unrestricted	Inspection of Machinery Act, 1904	Locomotive and Traction, and First-Class Engine-driver's Certificate.
"Locomotive and Traction" Certificate. Restricted	Inspection of Machinery Act, 1904	Locomotive and Traction Engine-driver's Certificate (subject to any restriction, the equivalent of the restriction endorsed on original Certificate, or recorded in the office of the Chief Inspector of Machinery).
"Marine Engine-driver's" Certificate. Unrestricted	Inspection of Machinery Act, 1904, or the Boat Licensing Act of 1878, if issued before 1st March, 1905	First-Class Engine-driver's Certificate under this Act, in addition to Marine privileges granted under Act specified.
"Marine Engine-driver's" Certificate. Restricted	Inspection of Machinery Act, 1904, or the Boat Licensing Act of 1878, if issued before 1st March, 1905	Second-Class Engine-driver's Certificate under this Act, in addition to Marine privileges granted under Acts specified (subject to any restriction endorsed on original Certificate, or recorded in the office of the Chief Inspector of Machinery).

## TRANSFER CERTIFICATES.

44. The holder of any certificate under the Acts mentioned in Regulation 43, being a resident in the State of Western Australia and being a person of good repute, may, on making application in the form of Fifth Schedule hereto, payment of prescribed fee, and on delivery of his original certificate for cancellation by the Board, obtain an equivalent certificate under this Act, and such certificate shall be called a transfer certificate.

## RECOGNITION OF MARINE ENGINEERS' CERTIFICATES.

45. On making application in the form of First Schedule hereto, the payment of the prescribed fees, the production of a satisfactory medical certificate as prescribed in Second Schedule, and on proof that the applicant is a resident in the State of Western Australia, and a person of good repute, and on production of satisfactory testimonials, and a certificate granted after examination by the Board of Trade of the United Kingdom of Great Britain and Ireland, or by any Board in His Majesty's Dominions having authority from the said Board of Trade to grant certificates, the Board may grant, without examination, the following certificates of competency:—

- (a) To a holder of a first-class or second-class marine engineer's certificate—a First Class Engine-driver's Certificate.
- (b) To a holder of a third-class marine engineer's certificate—a Third Class Engine-driver's Certificate.

## RESTRICTED CERTIFICATES.

46. Notwithstanding anything contained in the preceding Regulations, the Board may restrict the privileges conferred by any certificate as it may deem advisable. Such restriction shall be endorsed on the face of the certificate. The restriction may be cancelled by the Board after further oral examination and upon production of satisfactory evidence of further experience and payment of the prescribed fees. No application for a higher grade certificate will be entertained until such restriction has been cancelled.

## COPIES OF CERTIFICATES.

47. If any certificates granted in this State and recognised under the provisions of the Inspection of Machinery Act, 1921, is lost or destroyed, the owner of such certificate may make a statutory declaration in the form of Fourth Schedule hereto, with respect thereto; and the Board, if satisfied with such declaration, may issue a fresh certificate which shall be a true copy of the original, and made on same form as the original issue, on payment of the prescribed fee.

Such certificate shall be endorsed with the reasons for the issue thereof, and thereafter shall be available as if it were the original certificate.

## COMPLAINTS.

48. If an owner or responsible person under him, or any Inspector appointed under the Acts mentioned in these Regulations, represents at any time in writing to the Board that any person deemed to be the holder of a certificate under this Act, is guilty of any offence or misconduct or negligence, or who has developed any symptoms of epilepsy or other serious complaint, which would render him unfit to be trusted to efficiently perform his duties as such holder, the Board may call upon him to return his certificate to the Chairman of the Board and to appear before it or before such persons as the Minister may appoint to show cause why he should not be suspended, reduced, or disqualified. The persons appointed as aforesaid to conduct such inquiry may call such evidence

as is deemed necessary, and such evidence shall be on oath or affirmation, which the Chairman or any person appointed as aforesaid or any member of the Board may administer, and the Board or such other authority shall have the power of a Police Magistrate sitting in a Court of Petty Sessions and to summon witnesses.

In the case of persons appointed by the Minister to hold an inquiry, they shall report to the Chairman of the Board, and shall furnish the depositions taken at such inquiry.

If it appears to the Board as the result of any such inquiry that the certificated person has failed to show good cause why he should not be suspended, reduced, or disqualified the Board shall advise the Minister accordingly.

If the certificated person should fail to appear at the inquiry without reasonable excuse this shall be held by the Board to be equivalent to failure on his part to show cause why he should not be suspended, reduced, or disqualified. The Minister may thereupon, by notice in the *Government Gazette*, disqualify him for such period as he thinks fit, and during the period of disqualification he shall be deemed not to be the holder of a certificate or the Minister may alter, suspend, or cancel such certificate, and may, on the recommendation of the Board, require the engine-driver against whom any offence has been proved to defray all or part of the expenses of the inquiry.

49. With respect to any inquiry held under these Regulations the following provisions shall have effect:—

- (a) The inquiry shall be held at such time and place as the Board may appoint, and the engine-driver shall have the right to be represented by any person duly certificated in this State, whom he may select. He shall receive fourteen (14) days' notice of the Board's intention to authorise the holding of an inquiry, and if the certificated person intends to employ a representative he shall give at least seven (7) days' notice of such intention to the Chairman of the Board.
- (b) Any person shall, upon receipt of notice of the intention of the Board to hold an inquiry with reference to a complaint which has been lodged against him, deliver his certificate to the Chairman of the Board, which shall be returned to him should the complaint or charge not be sustained.
- (c) The Board shall furnish to the certificated person, not less than fourteen (14) days before the commencement of the inquiry, a statement of the case upon which the inquiry is instituted.
- (d) The certificated person shall, at his own expense, attend such inquiry, and may produce such evidence as he may consider necessary.

#### SYLLABUS.

50. Applicants for certificates shall have a knowledge of the provisions relating to engines and boilers under:—

- (a) The Inspection of Machinery Act, 1921.
- (b) Mines Regulation Act, 1906, and Regulations.
- (c) Coal Mines Regulation Act, 1902.
- (d) Any other Act and Regulations relating to engine-drivers' certificates in force for the time being.

51. Applicants for certificates in addition to the aforesaid requirements shall be examined in such parts of the following syllabus as may be applicable to the class of certificate desired:—

- (a) The various types of winding engines in use in Western Australia, and their component parts.
- (b) The handling of winding engines, and how to act in case of emergency.

- (c) The various types of brakes and clutches, how operated, and how adjusted.
- (d) The various types of depth indicators, and the working and adjusting of same with special reference to changing levels.
- (e) The various types of head gears and hoisting arrangements in shafts, and usual safety appliances.
- (f) How ropes are attached to and coiled on drums; defects relating thereto.
- (g) The various signalling arrangements used in connection with winding engines, with special reference to safety signals.
- (h) The various types of steam engines, air, and other compressors and condensers, air and circulating pumps used in connection therewith, and the various methods of dealing with the exhaust steam from engines.
- (i) The various valve gears applied to steam engines, the action of them in starting, stopping, and reversing; how dangerous defects may be recognised and readily remedied in some cases.
- (j) The various types of governors and steam-throttle valve arrangements of steam engines, and the regulating of the same.
- (k) How the various parts of engines, shafts, and drums are connected up or geared.
- (l) Auxiliary starting valves, by-pass valves, and relief valves.
- (m) Lubrication and lubricators for bearings and cylinders.
- (n) The various types of boilers in use in Western Australia, and their component parts; feeding and firing arrangements; effect of high and low water; grease deposit, scale, and how to act in case of emergency.
- (o) All boiler mountings and fittings, their names and uses, also methods of setting various types of boilers.
- (p) The draining of stop valves and steam-pipes, and how to connect boilers under steam pressure.
- (q) Dangerous defects relating to boilers and fittings, how observed, and how dealt with.
- (r) The safe and economical management of locomotives and traction engines, the various types of valve gears and breaks used. The usual methods adopted in case of break-downs, the various signals in use on railways in Western Australia, and the usual methods adopted to secure safe running.
- (s) A general knowledge of the various types of sinking, feed, and other pumps.
- (t) Generally the proper maintenance and economical working of all engines, boilers, and pumps.
- (u) The various mechanisms in use in steam or electric cranes used for hoisting, slewing, and travelling.
- (v) The various kinds of internal combustion engines and their working parts, whether worked by oil, town gas, or suction gas, and in the latter case the construction, maintenance, and working of producers and all their accessories, including fittings.

#### EXAMINATIONS.

52. The examination shall be conducted partly by means of written or printed papers, and partly *viva voce*, at the discretion of the Board of Examiners.

The examination shall be essentially of a practical character.

In the examination papers the possible number of marks obtainable for each answer shall be stated.



53. The following instructions will be rigidly enforced:—

- (a) Examination shall commence at 9.30 a.m. on the advertised dates. Candidates shall be in their places five minutes before the time fixed. After this time no candidate shall be admitted unless under very exceptional circumstances, and by express permission of the examiners. Provided always that no person who has seen the examination paper shall have previously left the room. No candidate shall under any circumstances whatever be permitted to leave before the expiration of one half-hour from the time of the examination paper being given out. No writing paper, blotting paper, books, or manuscripts are allowed to be brought into the examination room.
- (b) Any candidate who arrives at the examination room with books, papers, or manuscripts in his possession, whether referring to the subject of examination or not, must give them up at the door of the examination room before taking his place.
- (c) Silence shall be maintained, and no communication, by word or otherwise, between candidates will be allowed during the examination. If any candidate wishes to communicate with the examiners he must stand up in his place.
- (d) Any candidate violating any of these Regulations, or behaving in a disorderly manner in or about the examination room, will be required to immediately leave the building; and the Board may subsequently consider the candidate to have failed in his examination.
- (e) The candidate must write on one side only of the paper provided and lay each sheet when finished face downwards, and must take care that no other candidate shall have any opportunity of copying therefrom. Candidates will be held responsible if their written papers are exposed in such a manner that they may be copied by any other candidate. If the examiners are convinced that copying or collusion has taken place between two candidates, both candidates shall be liable to be disqualified.
- (f) On the first page of each paper a candidate must write the date and place of examination. He must also write on every sheet his name in full. When he has completed his written answers, he is to fasten them together at the left-hand top corner, number them consecutively, and hand them to one of the examiners.
- (g) In answer to arithmetical questions all workings must be shown, and no credit will be given where this is not done.
- (h) Warning will be given ten (10) minutes before the time fixed for giving up papers. When the papers are called for, everyone is to cease work immediately.
- (i) Places will be allotted to the candidates by the examiners. All writing materials and paper fasteners for connecting the written papers will be provided by the Department.

54. Candidates will be allowed to cancel or revise any part of their work during the time allotted for examination.

55. The members of the Board shall have equal jurisdiction as to the questions set, and shall be equally responsible for those set.

56. The minimum marks required will be stated on each examination paper.

G.G. 1/7/22,  
p. 1287;  
amended by  
G.G. 16/11/23,  
p. 2221;  
G.G. 6/5/49,  
p. 933.

FIRST SCHEDULE.

Recd.....
Regd. No.....

(Office use only.)

Western Australia.

Inspection of Machinery Act, 1921.

APPLICATION FOR A\*.....CERTIFICATE OF  
COMPETENCY.

Date....., 19.....

To the Chief Inspector of Machinery,  
Perth.

Sir,

1. I beg to apply for a\*.....Certificate of Competency and hereby give notice that it is my intention to present myself at the next examination at.....(subject to the approval of the Board of Examiners) and I hereby desire to be notified of the exact date of such examination.

2. I enclose herewith‡.....for the sum of One pound being the fee required by the Regulations for this application. I also enclose evidence of my experience, sobriety, and general good conduct.

3. Copies of Certificates and Testimonials are attached hereto for record purposes, and originals of same are forwarded for perusal and return.

I am, Sir,  
Your obedient servant,

Signature of Applicant.....  
Postal Address.....

Note.—In order to save inconvenience and delay, each applicant is requested to carefully peruse and rigidly adhere to the Regulations relating to the certificate applied for before forwarding his application.

\* Insert here "Winding Engine-driver's," "First Class Engine-driver's," "Second Class Engine-drivers." "Third Class Engine-driver's," "Locomotive and Traction Engine-driver's" "Locomotive Engine-driver's," "Traction Engine-driver's" "Crane and Hoist-driver's," "Internal Combustion Engine-driver's," or "Boiler Attendant's."

‡ Insert here "Cash," "Money Order," "Postal Note" or "Cheque."

STATEMENT OF PARTICULARS.

(To be carefully filled in and signed by Applicant.)

1. Name of Applicant (in full) ....	1.....
2. Place of Birth of Applicant (town and country) Date of Birth ....	2..... .....
3. Indicate your most recent experience with the class of Engine or Boiler for which you require a certificate, giving brief description, maker's name, internal diameter of cylinder, and, in the case of a Boiler, maker's name, type and leading dimensions and the place where Engine or Boiler is erected	3..... ..... ..... .....
4. Name and address of any person to whom reference may be made, if necessary, for verification of above particulars	4..... .....
5. Have you previously failed for the certificate for which you are now applying?	5.....

Applicant to state hereunder particulars of Certificates granted him by any duly constituted authority.

No.	Class, and whether Competency or Service.	Date.	Where granted.	By whom granted.

STATUTORY DECLARATION TO BE MADE BY APPLICANT.

I,....., of.....in the State of Western Australia, do solemnly and sincerely declare that the above is a true and faithful statement of the particulars required, and I make this solemn declaration by virtue of Section 106 of the Evidence Act, 1906.

Made and signed before me, at.....  
this.....day of.....  
19..... } Signature .....

IMPORTANT.

.....  
Magistrate or J.P.

1s. Revenue Stamp  
to be affixed by  
applicant.

Substituted,  
G.G. 6/5/49,  
p. 933.

SECOND SCHEDULE.  
Government of Western Australia.  
Inspection of Machinery Act, 1921, Section 59 (1).  
Regulations Relating to Engine-drivers.

MEDICAL CERTIFICATE.

Place.....  
Date..... 19.....  
To the Chief Inspector of Machinery,  
Perth.

I, being a duly qualified Medical Practitioner registered in this State, having this day examined Mr.....

(Full name in block letters.)

(whose signature is endorsed hereon), am satisfied that he is not subject to any disease or physical deformity likely to interfere with the efficient discharge of the duties of\*..... engine-driver.

Hearing is.....  
Right eye. Left eye. Both eyes.  
Eyesight—without glasses 6/..... 6/..... 6/.....  
with glasses 6/..... 6/..... 6/.....

† Colour vision is.....  
Blood pressure.....  
Further remarks.....

Signature of Medical Practitioner.....  
Address.....

Signature of Examinee..... (This signature must be made in the presence of the Medical Practitioner.)

Address of Examinee.....

Class of Certificate..... No. of Certificate.....

\* Insert here "Winding," "First Class," "Second Class," "Third Class," "Locomotive," "Traction," "Crane or Hoist," "Internal Combustion," or "Boiler Attendant."

† This item is only necessary in case of Locomotive Engine-drivers.

G.G. 1/7/22,  
p. 1289.

THIRD SCHEDULE

Recd.....  
Regd. No.....

(Office use only.)

Western Australia.

Inspection of Machinery Act, 1921.

APPLICATION FOR AN INTERIM CERTIFICATE.

To the Chief Inspector of Machinery,  
Perth.

Sir,

1. I beg to apply for a\*..... Interim Certificate which will entitle me to the same privileges as a certificate of the same status under the Inspection of Machinery Act, 1921.

2. I enclose herewith†..... for the sum of Ten shillings, being the prescribed fee for this application and the granting of an interim certificate. I also enclose evidence of my experience, sobriety and general good conduct.

\* Insert here class of certificate required.

† Insert here "Cash," "Money Order," "Postal Note," or "Cheque."

3. Copies of certificates and testimonials are attached hereto for record purposes, and originals of same are forwarded for perusal and return.

I am, Sir,  
Your obedient servant,

Signature of Applicant.....  
Postal Address.....

*Note.*—In addition to the particulars required over the leaf, the applicant must furnish satisfactory evidence that he is still competent to practise as an Engine-driver or Boiler Attendant within the State or Colony wherein certificate or certificates were granted.

**STATEMENT OF PARTICULARS.**  
(To be carefully filled in and signed by Applicant.)

1. Name in full .....	1.....
2. Place of Birth (town or country) .....	2.....
Date of Birth .....	.....
3. Name of Mine, Factory, or other place where applicant has been acting as an Engine Driver or Boiler Attendant .....	3.....
4. Length and nature of service of applicant .....	4.....

Applicant to state hereunder particulars of certificates granted him by any duly constituted authority outside the State.

No.	Class, and whether Competency or Service.	Date.	Where granted.	By whom granted.
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

**STATUTORY DECLARATION TO BE MADE BY APPLICANT.**

I,....., of....., in the State of Western Australia, do solemnly and sincerely declare that the above is a true and faithful statement of the particulars required; and I make this solemn declaration conscientiously believing the same to be true, and by virtue of Section 106 of The Evidence Act, 1906.

Made and signed before me, at..... }  
this.....day of..... } Signature.....  
19.....

**IMPORTANT.**

.....  
Magistrate or J.P.

1s. Revenue Stamp to be affixed by applicant.
---

G.G. 1/7/22,  
p. 1291,  
amended  
G.G. 16/11/23,  
p. 2221;  
G.G. 6/5/49,  
p. 933.

FOURTH SCHEDULE

Western Australia.

Recd.....

Regd. No.....

(Office use only.)

Inspection of Machinery Act, 1921.

APPLICATION FOR COPY OF CERTIFICATE.

Place .....

Date..... 19.....

To the Chief Inspector of Machinery,  
Perth.

I beg to apply for a copy of my engine-driver's certificate,  
particulars of which are appended hereunder:—

PARTICULARS OF LOST CERTIFICATE.

No.	Class, and whether Competency or Service.	Date.	Where granted and under what Act.	Place and Date of Birth of Applicant.
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

I hereby declare that such certificate has been\*.....  
I enclose herewith†..... for the sum of Ten shillings (15s.  
if a copy has been previously issued), being the fee prescribed by  
the Regulations for this application and the granting of a copy.

I am, Sir,  
Your obedient servant,  
Signature.....

STATUTORY DECLARATION TO BE MADE BY APPLICANT.

I,..... (Full Name)....., of..... (Postal Address)....., in  
the State of Western Australia, do solemnly and sincerely declare  
that the above is a true and faithful statement of the particulars  
required, and I make this solemn declaration by virtue of Section 106  
of The Evidence Act, 1906.

Made and signed before me, at..... }  
this..... day of..... } Signature.....  
19..... }

Important.

Magistrate or J.P.

1s. Revenue Stamp  
to be affixed by  
applicant.

\* Here state whether certificate was lost, stolen, or destroyed  
by fire or otherwise, and give circumstances in connection with such  
loss.

† Insert here "Cash," "Money Order," "Postal Note," or  
"Cheque."

FIFTH SCHEDULE.

Recd.....
Regd. No.....
(Office use only.)

Western Australia.

Inspection of Machinery Act, 1921.

APPLICATION FOR A TRANSFER CERTIFICATE.

Place .....  
Date.....19.....

To the Chief Inspector of Machinery,  
Perth.

I,.....(Name in Full)....., Engine-driver of.....(Postal Address)....., in the State of Western Australia, do hereby make application for a Transfer Certificate under Section 62, Subsection (3), of the Inspection of Machinery Act, 1921.

I enclose herewith my original Engine-driver's Certificate for cancellation, particulars of which are appended.

Particulars of Certificate now held.				Place and Date of Birth of Applicant.
No.	Class and whether Competency or Service.	Date.	Where granted and under what Act.	
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

I also enclose herewith† for the sum of Ten shillings, being the fee prescribed by the Regulations for this application, and the granting of an equivalent certificate under the Inspection of Machinery Act, 1921.

I am, Sir,  
Your obedient servant,  
Signature of Applicant.....

SIXTH SCHEDULE.

Recd.....
Regd. No.....
(Office use only.)

G. G. 1/7/22,  
p. 1292;  
amended  
G. G. 6/5/49,  
p. 933.

Western Australia.

Inspection of Machinery Act, 1921.

APPLICATION FOR A RECIPROCITY CERTIFICATE.

(Under Section 60.)

Date.....19.....

To the Chief Inspector of Machinery,  
Perth.

Sir,

1. I beg to apply for a\*.....Certificate, and I enclose my existing certificate as herein described, together with documentary evidence of experience, and testimonials as to sobriety and general good conduct.

† Insert here "Cash," "Money Order," "Postal Note," or "Cheque."

\* Insert here class of certificate required.

2. I also enclose herewith.....for the sum of One pound ten shillings being the prescribed fee for this application and the granting of a Reciprocity Certificate.

3. Copies of Certificates and Testimonials are attached hereto for record purposes, and originals of same are forwarded for perusal and return.

I am, Sir,  
Your obedient servant,

Signature of Applicant.....  
Postal Address.....

Note.—In order to save inconvenience and delay, each applicant is requested to carefully peruse and rigidly adhere to the Regulations relating to the Certificate applied for before forwarding his application.

(To be carefully filled in and signed by Applicant.)

STATEMENT OF PARTICULARS.

1. Name of Applicant (in full) ....	1.....
2. Place of Birth of Applicant (town and country) Date of Birth ....	2.....
3. State class of engine or boiler you have driven or been in charge of, giving internal diameter of cylinder  If a winding engine, state whether first motion or geared, and type of brakes. In the case of a boiler, mention type and approximate dimensions  State where above were erected ....	3.....
4. Name and address of any person to whom reference may be made, if necessary, for verification of above particulars	4.....

Applicant to state hereunder particulars of Certificate submitted herewith.

No.	Class, and whether Competency or Service.	Date.	Where granted.	By whom granted.
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

† Insert here "Cash," "Money Order," "Postal Note," or "Cheque."



STATUTORY DECLARATION TO BE MADE BY APPLICANT.

I,.....of....., in the State of Western Australia, do solemnly and sincerely declare that the above is a true and faithful statement of the particulars required, and I make this solemn declaration by virtue of Section 106 of The Evidence Act, 1906.

Made and signed before me, at..... }  
 this.....day of..... } Signature.....  
 19..... }

.....  
 Magistrate or J.P.

**IMPORTANT.**  
 1s. Revenue Stamp  
 to be affixed by  
 applicant.

Seventh Schedule.

FEES.

Substituted  
 G.G. 24/11/22,  
 pp. 2186, 2206;  
 amended  
 G.G. 29/10/48,  
 p. 2577.

	£	s.	d.
Fee to be paid with application for any certificate, other than an Interim, a Transfer, a Reciprocity Certificate as defined in Regulation 40, or a Copy which are provided for hereunder .....	1	0	0
Fee to be paid on the granting of a Winding, or First Class Certificate of Competency .....	1	10	0
Fee to be paid on the granting of a Second Class Certificate of Competency .....	1	0	0
Fee to be paid on the granting of a Third Class Certificate of Competency .....	0	15	0
Fee to be paid on the granting of a Locomotive and Traction Engine-driver's Certificate of Competency (or Locomotive Engine-driver's Certificate only) .....	1	10	0
Fee to be paid on the granting of a Traction Driver's Certificate (only) of Competency .....	1	0	0
Fee to be paid on the granting of a Crane and Hoist-driver's Certificate of Competency or Service .....	1	0	0
Fee to be paid on the granting of an Internal Combustion Engine-driver's Certificate of Competency or Service .....	1	0	0
Fee to be paid on the granting of a Boiler Attendant's Certificate of Competency or Service .....	0	10	0
Fee to be paid for application and the granting of a Reciprocity Certificate as defined in Regulation 40 .....	1	10	0
Fee to be paid for application and the granting of an Interim Certificate .....	0	10	0
Fee to be paid for application and the granting of a Transfer Certificate .....	0	10	0
Fee to be paid for application to have a restriction removed from any restricted certificate .....	0	10	0
Fee to be paid for granting of a certificate in lieu of the restricted one .....	0	10	0
Fee to be paid for granting of a first copy of any lost or destroyed certificate .....	0	10	0
Fee to be paid for granting of any subsequent copy .....	0	15	0
Fee to be paid for making a true copy of testimonials (if required) .....	0	2	6
Fee to be paid for copy of Engine Driver's Regulations, including postage .....	0	1	0
Fee to be paid for copy of Inspection of Machinery Act, 1921, and Regulations .....	0	2	6

*Note.*—For all fees remitted, a receipt on the official machine-numbered form should be obtained in every instance, and no other will be recognised.

If fee paid by cheque bank exchange must be added.