



Reprint of the Scaffolding Regulations 1935, published in the Gazette on the 21st day of November 1935 at page 3337.

THE SCAFFOLDING REGULATIONS 1935 (REPRINT)

GALWAY, Governor-General

ORDER IN COUNCIL

At the Government Buildings at Wellington, this 11th day of November 1935

Present :

THE RIGHT HON. G. W. FORBES PRESIDING IN COUNCIL

PURSUANT to the Scaffolding and Excavation Act 1922, His Excellency the Governor-General, acting by and with the advice and consent of the Executive Council, doth hereby make for the purposes of the said Act the regulations hereinafter set out ; and doth hereby revoke the regulations next hereinafter referred to and doth hereby declare that such revocation shall take effect and the regulations hereby made shall come into force fourteen days after the date of the publication hereof in the *Gazette*.

REGULATIONS REVOKED

Date of Order in Council.	Date of Publication in <i>Gazette</i> .	Page.
23 April 1923	3 May 1923	1261
29 October 1923	1 November 1923	2743

REGULATIONS

PRELIMINARY

1. These regulations may be cited as the Scaffolding Regulations 1935.
2. (a) In these regulations—
 - “The said Act” means the Scaffolding and Excavation Act 1922 :
 - “Minister” means the member of the Executive Council for the time being charged with the administration of the said Act :
 - “Owner or person in charge” means the person having the control or management of any building work, or scaffolding, or excavation, and includes a foreman or other person having a delegated control or management.

(b) In these regulations, if not inconsistent with the context, the following terms have the respective meanings assigned to them by the said Act, namely :—

“ Building ” includes any erection, edifice, structure, bridge, viaduct, wall, fence, or chimney, but does not include scaffolding as hereinafter defined :

“ Building work ” means any work in connection with the construction, alteration, repair, painting, renewal, or demolition of any building :

“ Inspector ” means an Inspector appointed under the Scaffolding and Excavation Act 1922 :

“ Scaffolding ” means any structure or framework used or intended to be used for the support or protection of workmen or other persons engaged in any building work, and includes any swinging stage used or intended to be used for any of the purposes aforesaid :

“ Excavation ” means any work in connection with preparing or excavating foundations for buildings, or for sewerage, gas, water, or electric supply, where such work is more than 5 ft. in depth from the top of the excavation :

“ Gear ” includes ladder, plank, rope, fastening, hoist, block, pulley, hanger, sling, brace, bracket, chain, waling, shores, struts, and props used in connection with scaffolding or the timbering of excavations, and any appliances used or intended to be used for any purpose instead of scaffolding :

“ Crane ” includes any engine, hoist, lift, derrick, apparatus, or contrivance of a like kind used on any building for the hoisting, lowering, carrying, or removing from place to place of material, goods, or workmen, and worked by steam, electric, or hand power, or in any other manner, but does not include any machine or boiler by which the motive power of a crane is generated if a certificate for such machine or boiler is required under the *Inspection of Machinery Act 1928*.

NOTE.—The *Inspection of Machinery Act 1928* was repealed by s. 60 (1) of the *Boilers, Lifts, and Cranes Act 1950* (No. 53). For the cases in which a certificate for a machine or boiler is now required, see ss. 3 and 4 of that Act.

3. All scaffolding and gear shall be of the description indicated in these regulations under the respective headings, and shall be set up, built, maintained, and used in accordance with such regulations :

Provided that it shall be lawful for any Inspector to authorize the use for any particular purpose of any other description of scaffolding or gear in any case where he has personally inspected the same and has certified in writing that in his opinion such scaffolding or gear may safely be used for the purpose intended.

SWINGING STAGES

4. (1) The total load on the platform of a swinging stage, inclusive of workmen and material, shall not at any time exceed 500 lb. or such less weight as may be set out in a certificate of an Inspector authorizing the use of such swinging stage, and no person shall use, and no owner or person in charge shall permit to be used, any swinging stage bearing a total load greater than the weight permissible under this clause.

(2) The rope used for supporting a swinging stage shall consist of four (4) parts manila rope, each part of which shall be not less than $2\frac{1}{2}$ in. in circumference, and reeved through a double and single block. The sheaves of such blocks shall be not less than 4 in. in diameter; wooden blocks shall not be used unless the cheeks are strapped with metal.

(3) Strops or slings shall be 4 in. manila rope or $1\frac{1}{2}$ in. steel wire rope. If timber outriggers or needles are used they shall be of not less section than 6 in. by 4 in. best approved timber, which shall be placed edgeways and securely lashed and weighted.

(4) The length of the platform shall not exceed 18 ft.

(5) The platform shall be not more than 24 in. nor less than 18 in. in width, and shall be formed of straight-grained planks $1\frac{1}{2}$ in. thick stiffened with cleats fixed in the centre and at each hanger.

(6) The distance between the hangers shall not exceed 12 ft.

(7) The hangers shall be formed of steel of not less than $\frac{3}{4}$ in. diameter or 2 in. by $\frac{1}{2}$ in., and shall pass under the planks to which they shall be securely attached.

(8) A guard rail shall be provided of 1 in. iron pipe or of timber not less than 3 in. by 2 in., securely fastened not less than 3 ft. from the floor of the stage. There shall also be provided a fender board not less than 4 in. by 1 in. on the outside and at both ends.

(9) In cases where in the opinion of the Inspector it is impracticable to erect a swinging stage conforming to the requirements of this regulation, a drawing accompanied by a written statement containing particulars of the swinging stage to be used shall be submitted to the Inspector and approved by him before such swinging stage may be used.

SUSPENDED SCAFFOLDING

5. (1) Suspended scaffolding means a working platform suspended from overhead supports or outriggers and raised or lowered by mechanical means.

(2) The use of suspended scaffolding shall not be permitted where in the opinion of the Inspector—

(a) The scaffolding is not suitable for the work for which it is intended to be used :

(b) The building or structure to which the scaffolding is proposed to be fixed is not suitable for safely supporting this type of scaffolding :

(c) The position of such scaffolding and the conditions under which it would be used constitute a danger to any person or property.

(3) The pawls of all winches shall be fitted with a suitable device to prevent disengagement of the pawls.

(4) No person shall use, and no owner or person in charge shall permit to be used, any winch which has any part so worn as appreciably to affect its efficiency.

(5) Outriggers shall be provided with a firm and substantial support, and such support and the inner end of each outrigger shall—

(a) Be secured to the building or structure with bolts or other suitable fittings :

(b) Be counterbalanced with bags of sand or other suitable material ;
or

(c) Be shored ; or

(d) Be partly counterbalanced and partly shored.

Where shores are used in place of counterbalance, such shores shall be secured so as to prevent any lateral movement. The weight of counterbalance on any outrigger shall be not less than three times the load which the scaffolding is intended to carry.

(6) For the purpose of securing the fall a mild-steel or wrought-iron strap formed of a section of not less than 2 in. by $\frac{3}{8}$ in. shall be provided at the outer end of the outrigger. Such strap shall be a close fit to the top and sides of the outrigger, and from the bottom of the outrigger make an angle until the two inside faces of the strap are 1 in. apart and then formed vertically. The vertical portions shall be parallel for not less than $2\frac{1}{2}$ in., and drilled to take a $\frac{3}{4}$ in. steel bolt not less than 1 in. from the bend. The steel bolt shall be riveted over or provided with a splitpin outside the nut. The strap shall be secured to the outrigger by a bolt through the sides of the strap and the mid-section of the outrigger.

(7) The outriggers shall be of steel, and shall be of a section equivalent in transverse strength to a 7 in. by $3\frac{1}{2}$ in. by 15 lb. British standard section, and shall not project more than 6 ft. 6 in. from the outside point of support. Outriggers shall be spaced not more than 10 ft. apart.

(8) The total width of the platform shall not exceed 5 ft.

(9) The staging shall be supported on steel bearers equivalent in strength to 2 in. by 2 in. by $\frac{3}{8}$ in. British standard steel angles, and shall be formed of close-laid straight-grained Oregon pine planks or other suitable timber not less than 2 in. thick. The ends of the planks of each unit comprising four winches shall be cleated, such cleat to be of not less than 4 in. by $1\frac{1}{2}$ in. timber placed near the ends of the planks and outside the steel bearers. Each plank shall be secured to the cleat with bolts not less than $\frac{3}{8}$ in. in diameter. Each plank shall have a lap of at least 12 in. beyond the supporting bearers.

(10) Fender boards shall be firmly secured to the outside and ends of the platform.

(11) A guard rail of straight-grained Oregon pine or other suitable timber not less than 3 in. by 2 in. or iron pipe of 1 in. diameter shall be securely fastened at a height of 3 ft. above the platform.

(12) Where required, ties between the platform and building shall be provided and fixed.

(13) The total load on each unit including workmen and material shall not exceed 10 cwt., and no person shall use, and no owner or person in charge shall permit to be used, a suspended scaffolding any unit of which bears a greater total load than 10 cwt.

(14) Every person raising or lowering or assisting to raise or lower a suspended scaffold shall carry out the process in such a manner as to ensure that the platform remains substantially level.

BOATSWAIN'S CHAIR

6. (1) All overhead support for a boatswain's chair shall be of sufficient strength to sustain a load not less than three times the weight proposed to be suspended therefrom.

(2) The fall used for suspending a boatswain's chair shall consist of four (4) parts of manila rope, each part to be not less than $2\frac{1}{2}$ in. in circumference, and to be reeved through a double and single block. The sheaves of such blocks shall not be less than 4 in. in diameter: wooden blocks shall not be used unless the cheeks are strapped with metal.

(3) The slings or strops to support a boatswain's chair shall consist of four parts of rope, each part of which shall be not less than $1\frac{1}{2}$ in. in circumference.

TRIPOD GANTRIES

7. (1) Every tripod gantry not exceeding 100 ft. in height designed to support a steam or other crane to lift a weight of not less than 5 tons and not exceeding 10 tons shall be constructed as follows:—

- (a) The legs shall be not less than 6 ft. square on plan, and shall be constructed with 6 in. by 6 in. corner posts extending the full height of the gantry, and shall be firmly fishplated and bolted at junctions, and firmly tied together with 6 in. by 3 in. transoms not more than 8 ft. apart, and braced on each side with 6 in. by 3 in. braces firmly bolted to the corner posts:
- (b) The kingleg shall have a centre standard of timber not less than 10 in. by 10 in. extending the full height, and firmly fishplated at junctions, and stiffened at not less than 8 ft. intervals with stays not less than 4 in. by 2 in. to the corner posts:
- (c) The queenlegs shall have a centre standard of timber not less than 8 in. by 8 in. extending the full height, and firmly fishplated at junctions, and stiffened at not less than 8 ft. intervals with stays not less than 4 in. by 2 in. to corner posts, or, instead of such standard, shall have a 3 in. wire rope or $\frac{7}{8}$ in. short linked chain tightly stretched between sleeper plates and sleepers of crane. Sleeper plates shall be not less than 9 in. by 9 in., and each centre under the queenlegs shall have a platform at the bottom formed of 3 in. timber firmly fastened to sleeper plates, and loaded with a weight equal to three times the weight the crane has to lift:
- (d) The legs shall be connected by trussed beams and braces of timber not less than 9 in. by 3 in. to the satisfaction of the Inspector.

(2) A tripod gantry exceeding 100 ft. in height, or designed to support a steam or other crane, to lift weights over 10 tons and not exceeding 15 tons, shall be constructed of such heavier timber and in such manner as the Inspector may direct.

(3) Other gantries (including tripod gantries designed to support a crane to lift a weight not exceeding 5 tons or a weight exceeding 15 tons) shall be erected as approved by the Inspector.

CRANES AND DERRICKS

8. (1) All hand cranes, derricks, and similar gear, after erection and before being put into use, shall be tested with a load 25 per cent greater than the crane or derrick is designed to raise. The test shall be made in the presence of the Inspector. On every hand crane there shall be marked clearly the maximum load which it is designed to raise.

(2) Every hand crane which has any timber structural member shall have the timber stressbearing members attached to glandirons or embedded in metal parts, the latter to be removed or withdrawn and the various parts examined by the Inspector once every two years or at such shorter intervals as the Inspector in his opinion may consider necessary.

(3) Each backstay of any crane shall be loaded with a weight not less than three times greater than the crane is required to raise, or shall be anchored to the satisfaction of the Inspector.

(4) All crab winches and hand derrick cranes shall be fitted with efficient pawls and brakes, and the handles shall be kept in position with nuts, pins, or cotters.

(5) Wheels and pinions shall be keyed up and in correct gear relation. Where the teeth of wheels and pinions are broken, such wheels and pinions shall be discarded and replaced; pegs or dove-tailed teeth shall not be used. No person shall use, and no owner or person in charge shall permit to be used, a crane on which any tooth of a wheel or pinion is broken or so worn as appreciably to affect its efficiency.

(6) All spliced eyes shall be round thimbles and shall have not less than three full tucks:

Provided that approved clips may be used with the consent of the Inspector.

(7) Where any power driven crane has been re-erected or re-anchored, or any stressbearing part thereof has been replaced since the date on which such crane was examined and a certificate issued in accordance with section 32 of the *Inspection of Machinery Act 1928*, and such crane has not been tested by an Inspector of Machinery subsequent to such re-erection, re-anchoring, or replacement, the Inspector may require the crane before it is put into use to be tested in his presence with the test load prescribed by the Chief Inspector of Machinery. The Inspector shall also examine the anchorage and foundations and satisfy himself that they are of suitable materials, are secure, and are in all other respects sufficient for the certificated safe working load.

(8) Where the Inspector considers that the use of any power driven crane is likely to cause danger to any person he shall take such immediate steps as he may consider necessary to ensure the safety of such person and report the matter to the Inspector of Machinery.

(9) Single mast derricks must be provided with four guys. "Yankee" derricks or similar contrivances shall have not less than one front guy and two back guys, and such guys shall be securely attached to the top of derricks and fastened to substantial anchorages.

(10) The jib of a "Scotch" derrick crane shall not be—

(a) Erected between the backstays of the crane:

(b) Lengthened unless all other members are lengthened in the same proportion. In all such cases the approval of the Inspector shall first be obtained.

Any load which lies in the angle between the backstays of a crane shall not be moved by that crane.

(11) On every stage, gantry, or place on which a crane moves an unobstructed passageway at least 2 ft. in width shall be maintained at every position of the crane—

(a) Between the cab or any other part of the crane and the edge of such stage, gantry, or place; and

(b) Between any part of the crane and any material near the crane or crane track.

(12) All rails on which a travelling crane moves shall be—

(a) Of adequate section and have an even running surface:

(b) Secured by fishplates and fastened to sleepers.

(13) The whole track, whether on the ground or raised, shall be properly laid, and any supports shall be of sufficient strength and maintained in good condition.

NOTE.—The Inspection of Machinery Act 1928 was repealed by s. 60 (1) of the Boilers, Lifts, and Cranes Act 1950 (No. 53).

HOISTS FOR BUILDING OPERATIONS

9. (1) The timber used in the construction of hoist towers shall be of the best approved kind, well seasoned, and free from knots and other defects.

(2) A tower, the outside dimensions of which do not exceed 5 ft. by 5 ft., shall be constructed as follows:—

- (a) The corner posts shall be not less than 4 in. by 4 in. cross-sectional dimensions if in one piece of timber, but if such corner posts are built up of two pieces of timber each shall be not less than 5 in. by 2 in. :
- (b) The corner posts shall be framed together at each side of the tower with horizontal and diagonal braces. The distance between the centres of the horizontal braces shall not exceed 5 ft. There shall be one diagonal brace between every two horizontal braces. The dimensions of the braces shall be not less than 5 in. by 2 in., and shall be connected to the corner posts by bolts not less than $\frac{1}{2}$ in. in diameter :
- (c) If timber is used for the supporting beams of the towerhead rope sheaves, such timber shall be hardwood and each beam shall be not less than 6 in. by 4 in. :
- (d) If a hoist tower is set up within or contiguous to a building it shall be securely fastened to the building at each floor. If set up in any other position it shall be kept upright by steel wire guy ropes. One set of four guy ropes shall be used for every 30 ft. of the height of the tower. The anchorages for the guys shall be so spaced that the guys shall be not more than 90 degrees apart in plan.
- (e) Ladders shall be used as a means of access to the towerhead, and landing platforms shall be constructed every 30 ft. or such lesser distance as may be necessary to the satisfaction of the Inspector.

PLATFORM HOISTS

10. (1) The parts of a builder's hoist frame structure including the platform and supports for the overhead rope sheaves shall be constructed to carry a maximum load greater by 25 per cent than the load proposed to be carried.

(2) The platform shall be arranged to operate between vertical guides which shall be secured to the floors, framework, or other structure surrounding them to the satisfaction of the Inspector.

(3) Lifts shall be fitted with a safety catch to prevent the moving of the platform while loading or unloading.

(4) Timber guard rails of not less than 3 in. by 2 in. shall be provided across all openings giving access to a hoist platform and shall be fixed at a height of 3 ft. above the landing.

(5) An efficient and safe signalling arrangement shall be provided for the purpose of directing the driver of such platform hoist when to raise, lower, or stop the hoist.

(6) No person shall be, and no owner or person in charge shall permit any person to be, on a platform hoist while it is in motion.

11. (1) Hoist rope sheave spindles shall be fitted with block bearings, the latter to be provided with lubricating devices.

(2) No hoist rope sheave or pulley, the flange, rim-arm, or boss of which is broken, shall be used.

(3) All hoist rope sheaves or pulley spindles and bearings shall be discarded when, in the opinion of the Inspector of Scaffolding, they show signs of excessive wear.

(4) All rope pulleys shall be grooved to a depth not less than one and a half times the diameter of the rope designed to pass through them.

STEEL WIRE ROPES

12. (1) This regulation shall apply to steel wire ropes forming part of or used in connection with such appliances as are covered by these regulations.

(2) The breaking load of any rope other than a rope used for guying purposes shall be not less than six times the maximum dead working load thereof.

(3) No wire rope shall be used on any crane, winch, hoist, or derrick if it shows signs of excessive wear, corrosion, or other defect, or if in any length equal to eight diameters of the rope the total number of visible broken wires exceeds 10 per cent of the total number of wires in such rope.

(4) Eye splices, sockets, and rope anchorages shall be capable of withstanding 95 per cent of the guaranteed breaking strain of the rope or ropes to which they are attached.

(5) An eye splice shall be made around a thimble, and shall have at least three tucks with a whole strand of the rope and two tucks with one half of the wires cut out of each strand and made over and under against the lay of the rope :

Provided that approved clips may be used with the consent of the Inspector.

CHAIN

13. (1) The safe working loads for a short link chain, and single slings and collar slings, and the safe working loads for shackle iron shall be in accordance with Table A and Table B respectively in the First Schedule to these regulations.

(2) Every chain, ring, hook, shackle, and swivel used for hoisting or lowering building material shall be annealed once every twelve months if made of iron and in general use.

(3) A chain which has been worn so that the wear at any part exceeds $\frac{1}{16}$ in. on chains up to $\frac{1}{2}$ in. diameter, $\frac{5}{64}$ in. for $\frac{5}{8}$ in. chain, and $\frac{1}{4}$ in. for every $\frac{1}{8}$ in. increase in diameter up to 1 in., shall not be used until the work-worn parts have been renewed.

(4) No chain which has a knot tied in it shall be used for lifting any load.

(5) Where double or multiple slings are used for lifting or lowering, the upper ends of the slings shall be connected by means of a shackle or ring, and shall not be put separately on to a hook.

HOOKS

14. (1) Every hook used for hoisting or lowering shall be—

- (a) Of such shape as to reduce as far as possible the risk of the displacement of the sling from the hook ;
- (b) Made of selected wrought iron or selected mild steel of suitable tensile strength and ductility (all hooks should be drawn out of the solid, and should be carefully annealed after forging) ;
- (c) Of a type approved by the Inspector when used for bucket work.

(2) A hook shall be considered of sufficient strength if the working load in tons does not exceed the number of square inches of sectional area of the back of the curved portion of the hook ; the shank of a hook shall not be subjected to a greater working-stress than $2\frac{1}{2}$ tons per inch of section.

EXTERNAL SCAFFOLDING FOR BUILDINGS OTHER THAN TIMBER-FRAMED BUILDINGS

15. External scaffolding for buildings other than timber-framed buildings shall constructed and maintained as follows :—

- (1) Standards shall be not more than 9 ft. apart. Up to 35 ft. high they shall be of timber not less than 4 in. by 3 in. Over 35 ft. and up to 70 ft. from the ground the timber shall be not less than 4 in. by 3 in. for the top 35 ft. and not less than 5 in. by 3 in. for the bottom 35 ft. ; if over 70 ft. from the base of the scaffold the timber for the two upper lifts shall be as above, and the lower timber shall be not less than 6 in. by 4 in. :
- (2) Where poles are used they shall be not less than 4 in. in diameter at butt and $2\frac{1}{2}$ in. at tip. Where practicable, standards shall be embedded in the ground or otherwise made solid at the foot to the satisfaction of the Inspector :
- (3) Ledgers shall be of timber not less than 6 in. by 2 in., or if poles are used, they shall be not less than $3\frac{1}{2}$ in. in diameter, and shall be tied or bolted to the standards at spaces of not more than 6 ft. apart. The lowest ledger shall not be fixed more than 10 ft. from the bottom of the standards :
- (4) Putlogs shall be of approved timber. Where the span does not exceed 5 ft. in the clear the size shall be not less than 3 in. by 3 in., spaced not more than 6 ft. apart, and shall have not less than $4\frac{1}{2}$ in. bearing in wall. All putlogs shall, where practicable, be securely wedged in position at the wall, and securely fastened to the ledger. Only alternate putlogs may be removed from the lower stages until the scaffolding is finished with ; where it is not practicable to wedge putlogs, every alternate ledger shall be secured to the wall by hoop-iron ties every 10 ft. :
- (5) Scaffolding boards shall be of sound timber, and not less than 8 in. wide and $1\frac{1}{2}$ in. thick, laid butting or lapping ; but where lapped, the laps shall be not less than 9 in. :
- (6) All working stages shall have fender boards not less than 1 in. thick, carried from the floor to the height of any loose material that may be stacked on the working stage, and securely fixed to standards :

- (7) There shall also be a guard rail fixed not less than 3 ft. high, of timber not less than 3 in. by 2 in., lashed or bolted to standards. Openings through guard rail and fender board shall be allowed alongside landings only :
- (8) Bracing shall be not less than 4 in. by 2 in. Poles or other approved timber may be used and placed to the Inspector's satisfaction :
- (9) Scaffolding shall be secured by manila rope not less than $1\frac{1}{2}$ in. in circumference or by bolts not less than $\frac{1}{2}$ in. in diameter and fitted with washers or by iron clamps not less than $\frac{5}{8}$ in. in diameter :
- (10) Lashings shall be kept tight and properly wedged ; all bolts shall be tightened from time to time :
- (11) Where an external scaffolding is to be used for plasterers' work only, the standards may be spaced not more than 10 ft. apart, ledgers to be not less than 4 in. diameter butt and $2\frac{1}{2}$ in. taper end, or 4 in. by 3 in. or 6 in. by 2 in., and spaced to suit the particular class of work, such spacing to be to the satisfaction of the Inspector. Bracing shall be not less than 4 in. by 2 in. :
- (12) Where the work does not exceed 16 ft. in height, trestles or slip heads of rigid construction may be used in lieu of standards.

EXTERNAL SCAFFOLDING ON TIMBER-FRAMED BUILDINGS

16. All external scaffolding for carpenters and other workers (except plasterers and bricklayers) on timber-framed buildings shall be constructed and maintained according to the following specifications—namely, standards up to 20 ft. in height to consist of not less than 4 in. by 2 in. timber ; beyond this height, of not less than 4 in. by 3 in. timber for the first 15 ft., and thereafter of 4 in. by 2 in. timber. Standards shall be not more than 9 ft. apart. Where practicable, standards shall be embedded in the ground or otherwise made solid at the foot to the satisfaction of the Inspector. Bearers and cleats shall be not less than 8 in. by 1 in., well nailed to walls and standards. Such scaffolding shall be well braced with not less than 6 in. by 1 in. braces, well nailed. Approved wooden or iron brackets placed not more than 9 ft. apart may be used. Such brackets shall be so constructed as to bear three times the maximum weight required.

17. All external scaffolding for plasterers and bricklayers on timber-framed buildings shall be constructed and maintained according to the specifications set out in regulation 15 hereof relating to buildings other than timber-framed buildings.

INTERNAL SCAFFOLDING FOR BRICKLAYERS AND CONCRETE-WORKERS

18. (1) Internal scaffolding for bricklayers and concrete-workers shall be constructed and maintained in a similar manner to the external scaffolding, and with timber of similar sizes. Trestles approved by the Inspector may be used in place of standards up to 16 ft. in height.

(2) The standards may be dispensed with when the internal or division walls form sufficient bearing for ledgers. The distance between such bearings shall not exceed 8 ft.

INTERNAL SCAFFOLDING FOR PLASTERERS, PAINTERS, AND OTHER WORKERS NOT OTHERWISE PROVIDED FOR

19. (1) Where the height of the scaffolding intended for the use of plasterers, painters, and other workers not otherwise provided for exceeds 16 ft., such scaffolding shall be constructed and maintained of standards of not less than 4 in. diameter at the butt end, $2\frac{1}{2}$ in. at the taper end, or 4 in. by 3 in. if other approved timber, placed not more than 9 ft. apart :

Provided that where the height of scaffolding intended for the use of painters does not exceed 20 ft., standards of not less than 4 in. by 2 in. may be used. Ledgers to carry the platform of scaffolding shall be 6 in. by 2 in. if sawn timber ; if of round timber they shall be of similar size to the standards, and shall be secured to the standards by manila rope not less than $1\frac{1}{2}$ in. in circumference, or by bolts not less than $\frac{1}{2}$ in. in diameter and fitted with washers, or by iron clamps not less than $\frac{5}{8}$ in. in diameter.

(2) Scaffolds of 16 ft. and under shall be erected with standards or trestles to the satisfaction of the Inspector.

(3) Trestles, step-ladders, or easels passed by the Inspector, and fitted with an approved appliance to prevent spreading, may be used in place of standards. Trestles shall be constructed to have the legs spread each way.

BRACKET SCAFFOLDING

20. (1) Iron brackets used on wooden buildings shall be of a type approved by the Inspector ; such brackets shall be securely fastened by screwing the eye-bolts into the studs to the shoulder. Guard rails 3 ft. high shall be provided.

(2) Eye-bolts shall comply with the following specifications :—

(a) To be constructed of mild steel :

(b) The length of the screw shall be not less than $3\frac{1}{2}$ in., and shall be “Standard $\frac{3}{4}$ ” coach-screw thread :

(c) The head of the bolt shall be 3 in. long and not less than $1\frac{1}{2}$ in. wide by $\frac{9}{16}$ in. in thickness and slotted to receive the bracket ; the slot to be $1\frac{1}{8}$ in. by $\frac{1}{2}$ in. :

(d) To be stamped with the letters “Maximum load 6 cwt.”

LADDERS

21. (1) All ladders shall extend at least 3 ft. 6 in. above the highest level served.

(2) All ladders shall be constructed of clean approved timber suitable for the purpose. Where square timber is used, the stiles shall be not less than equivalent to 3 in. by 2 in. timber for ladders up to 16 ft. in length, for ladders from 16 ft. to 25 ft., 4 in. by 2 in., and for longer ladders, 5 in. by 2 in., and may be tapered :

Provided that stiles of such smaller dimensions as may be approved by the Inspector may be used if strengthened with a No. 8 B.W.G. galvanized wire securely fixed for the full length at the back of the stiles.

(3) The battens shall be not less than $2\frac{1}{2}$ in. by 1 in., partly sunk into the stiles and firmly nailed or screwed, and, if nailed, to be wired to the stiles.

(4) All ladders when in use shall be secured to the satisfaction of the Inspector, and where used in streets or other places where moving bodies may come into contact with them proper safeguards shall be made to prevent them from being knocked down.

(5) The splicing or joining together of ladders shall not be permitted, except that a small ladder may be joined to a larger ladder in any special case authorized by the Inspector.

(6) Extension ladders of approved type may be used with the consent of the Inspector.

GENERAL

22. (1) When any building work is being carried on it shall be the duty of the owner or person in charge to make provision to the satisfaction of the Inspector for the protection of workmen and others within such building or in the vicinity thereof by boarding over the joists of such building and keeping them so boarded over for so long as any risk of accident would be incurred by the removal of such protection.

(2) Where the work abuts on any thoroughfare it shall be the duty of the owner or person in charge to provide protection for passers-by to the satisfaction of the Inspector.

(3) All runs, gangways, or similar means of communication between different portions of scaffolding or buildings shall be not less than three planks wide, and all such planks shall be fastened together in such a manner as to prevent unequal sagging, and if the Inspector so directs shall be protected with guard rails.

(4) Ladder brackets shall be used only on ladders approved by the Inspector, and shall not be used above the height of 12 ft.

(5) Every working platform at a greater height than 10 ft. from the ground shall be at least 18 in. wide, and, unless otherwise authorized by the Inspector, shall have a guard rail 3 ft. from the floor of the platform. Such guard rail shall be of timber not less than 3 in. by 2 in. :

Provided that working platforms used by painters up to a height of 16 ft. shall be considered to be sufficiently wide if constructed of one 12 in. by 1½ in. plank.

(6) No person except the dogman shall be lifted by a crane or ride in a barrowhoist or adopt other unsafe means of moving from place to place about a building; every other person shall use the ladders, staircases, or gangways provided for the purpose. No owner or person in charge shall permit any person except the dogman to be lifted by a crane or ride in a barrowhoist :

Provided that it shall be permissible for a person to ride in a suitable receptacle of sufficient depth to ensure safety if effective means are taken to prevent spinning and ensure an efficient system of signalling.

(7) Every box used for hoisting bricks or other material shall be closed in except on one side. One or more of the sides may be hinged or securely slotted.

(8) All wellholes and openings in floors, whether on scaffolding or buildings, shall be properly fenced with a substantial guard rail at the height of 3 ft.

(9) No person shall interfere with or remove or alter any material or gear from any scaffolding or in connection with any scaffolding except under the direct orders of the employer or person in charge of such scaffolding.

(10) No person shall work upon any scaffolding in course of erection without the permission of the employer or the person in charge of such scaffolding.

EXCAVATIONS

23. (1) When any excavation is being made or used, such excavation shall be shored and timbered to the satisfaction of the Inspector, and kept so shored and timbered while in the opinion of the Inspector there is danger to any person.

(2) All material used for sheeting and poling boards shall be in good condition, and all timbers shall be sound, straight, free from cracks, shakes, and large or loose knots, and of the required dimensions throughout.

(3) When deemed necessary by an Inspector, the sides of all trenches which are 5 ft. or more in depth and over 8 ft. in length, shall be securely held by poling boards and struts.

(4) All trenches of over 8 ft. in length and 5 ft. or more in depth in hard compact material shall be braced at intervals not exceeding 8 ft. with 6 in. by 2 in. poling boards or heavier material, placed vertically in the trench opposite each other against the walls. The poling boards shall, if possible, extend to the bottom of the trench, otherwise as low as possible to clear the top of the pipe, sewer, conduit, or other material to be placed in the bottom of the trench.

(5) The poling boards shall be supported by walings placed horizontally, and held in position by screw jacks or by struts.

The number of walings shall be as follows:—

Depth of Trench.	Number of Walings.	Depth of Trench.	Number of Walings.
5 ft. to 8 ft. 2	12 ft. to 16 ft. 4
8 ft. ,, 12 ft. 3	16 ft. ,, 20 ft. 5

The struts shall be not less than the size given in the following table. Struts and screwjacks shall be spaced not more than 6 ft. apart, except at the joints of the walings, where they must be closer.

Width of Trench.	Size of Strut.
1 ft. to 3 ft. 4 in. by 3 in.
3 ft. ,, 6 ft. 6 in. ,, 3 in.
6 ft. ,, 8 ft. 6 in. ,, 6 in.

(6) The timbering of trenches shall be carried along with the excavation, and shall in no case be omitted, except that where a mechanical digger is used the timbering shall be placed within 10 ft. of the lower end of the jib.

(7) Trenches in saturated, filled, or unstable material (not running material) shall be close timbered. Poling boards shall be not less than 6 in. by 2 in., and held by walings not less than 6 in. by 3 in. Struts shall be of the same size and number as defined by paragraph (5).

(8) Where running material is encountered, poling boards or runners shall be tongued and grooved. Walings and struts shall be of the size and number required by paragraph (5).

(9) An Inspector may order either lighter or heavier timbering should he deem it necessary.

(10) Excavated material shall not be placed nearer than 1 ft. to the edge of the trench. In running material, provided circumstances permit, no material shall be placed nearer than 3 ft. to the edge of the trench.

(11) All trenches 5 ft. or more in depth shall be supplied with one ladder for each 200 ft. of trench or fraction thereof, which ladder shall extend from the bottom of the trench to at least 3 ft. 6 in. above the top.

(12) Open excavations or cuttings shall be worked in terraces not exceeding 6 ft. in height, and no undercutting shall be done in confined spaces or in loose ground or where the bank is over 5 ft. in height.

SCAFFOLDING EXAMINATION BOARD

24. (1) The Board prescribed by section 3 of the said Act shall comprise—

- (a) The Secretary of Labour, or other person appointed by the Minister, who shall be chairman :
- (b) Two Inspectors of Scaffolding to be selected by the Minister :
- (c) A person representing the employers in those trades in connection with which scaffolding is used, such person to be appointed by the Minister, having regard to any representations made by the said employers :
- (d) A person representing the workers in those trades in connection with which scaffolding is used, such person to be appointed by the Minister, having regard to any representations made by the said workers.

(2) Three members of the Board shall form a quorum, and every question before a meeting of the Board shall be decided by the votes of a majority of the members present.

(3) The chairman shall have a deliberative vote, and, in any case where the votes are equal, shall have a casting vote also.

(4) Subject to the foregoing provisions, the Board shall regulate its own procedure.

(5) Examinations of persons for appointment as Inspectors shall be held at such times and at such places as may be fixed by the chairman of the Board.

(6) Every such examination shall comprise written and oral tests of the candidate's knowledge and experience of—

- (a) The use of scaffolding, building, and hoisting gear and appliances :
- (b) The nature, weight, strength, breakingstrain, and factors of safety of materials, or gear commonly used in connection with scaffolding :
- (c) The kind of scaffolding most suitable for any particular trade or purpose :
- (d) The methods of rigging or erecting gantries, lifts, cranes, derricks, hoisting gear, and swinging stages :
- (e) The elementary principles of building construction :
- (f) The precautions necessary for safety in building and scaffolding operations.

(7) The Board may, in addition, require any candidate to make a simple sketch of any building, scaffolding, gear, or portion thereof.

FORMS

25. Every certificate issued by an Inspector pursuant to regulation 2 hereof that he has personally inspected any scaffolding or gear and has authorized its use for any particular purpose, and that such scaffolding or gear may safely be used for the purpose intended, and every certificate under section 7 of the said Act authorizing the use of a swinging stage in connection with building work shall be in the form numbered 1 in the Second Schedule hereto.

26. Every certificate of appointment as an Inspector under section 3 of the said Act of a person so appointed as to be subject to the Public Service Act 1912 shall be in the form numbered 2 in the Second Schedule hereto, and every such certificate of a person so appointed as not to be subject to that act shall be in the said form numbered 2, with all necessary modifications, and shall be signed by the Minister.

27. The notification required by section 5 of the said Act of intention to erect scaffolding, or to do any building work, or to set up or erect any crane, or to make any excavation, shall be in the form numbered 3 in the Second Schedule hereto.

28. Every certificate issued by an Inspector under section 6 of the said Act that the person named therein is competent to supervise the erection or alteration of a scaffolding exceeding 25 ft. in height, or of any crane, shall be in the form numbered 4 in the Second Schedule hereto.

29. (1) Directions in writing given by an Inspector to any person pursuant to subsection (1) of section 8 of the said Act, and every notice by an Inspector pursuant to subsection (3) of the same section that he has condemned any scaffolding, crane, or gear, shall be in the form numbered 5 in the Second Schedule hereto.

(2) Every notice posted by an Inspector that he has, pursuant to subsection (2) of section 8 of the said Act, ordered any person to cease to use any scaffolding, crane, or gear, or to cease any work, shall be in the form numbered 6 in the Second Schedule hereto.

(3) Every person who, without the authority of the Inspector, defaces any notice prescribed by this regulation, or removes the same from any scaffolding, crane, or gear, commits an offence.

30. Every notice of appeal to a Magistrate under subsection (5) of section 8 of the said Act against any direction, order, or notice of an Inspector shall be in the form numbered 7 in the Second Schedule hereto.

31. Every notice to an Inspector pursuant to section 9 of the said Act of an accident causing death or serious injury to any person occurring in connection with any building work, or work in connection with any scaffolding, crane, or excavation, shall be in the form numbered 8 in the Second Schedule hereto.

OFFENCES

32. (1) No person shall use, and no owner or person in charge shall permit to be used, any scaffolding, gear, or crane the design, material, construction, or condition of which does not comply with the requirements of these regulations.

(2) No person shall use, and no owner or person in charge shall permit to be used, any scaffolding, gear, or crane in a manner contrary to these regulations.

(3) Every person by whose act or default a breach of any of these regulations occurs shall be guilty of an offence.

(4) Every person guilty of an offence against these regulations shall be liable for every such offence to a fine not exceeding £20.

FIRST SCHEDULE

TABLE A—TABLE OF SAFE WORKING LOADS FOR SHORT LINK CHAIN, AND SINGLE SLINGS AND COLLAR SLINGS CARRYING THE LOAD ON A SINGLE PART OF THE SLING

Diameter of Iron (in Inches).	Load (in Tons, &c.).		Load (in Pounds).
	Ton	cwt. qr. lb.	
$\frac{1}{4}$	0	6 3 0	756
$\frac{3}{16}$	0	10 2 5	1,181
$\frac{1}{2}$	0	15 0 21	1,701
$\frac{5}{16}$	1	0 2 19	2,315
$\frac{3}{8}$	1	7 0 0	3,024
$\frac{7}{16}$	1	14 0 19	3,827
$\frac{1}{2}$	2	2 0 21	4,725
$\frac{5}{8}$	2	11 0 5	5,717
$\frac{3}{4}$	3	0 3 0	6,804
$\frac{7}{8}$	3	11 1 5	7,985
$1 \frac{1}{16}$	4	2 2 21	9,261
$1 \frac{1}{8}$	4	14 3 19	10,631
$1 \frac{1}{4}$	5	8 0 0	12,096
$1 \frac{3}{8}$	6	1 3 19	13,655
$1 \frac{1}{2}$	6	16 2 21	15,309

TABLE B—TABLE OF SAFE WORKING LOADS FOR SHACKLE-IRON

Diameter of Iron (in Inches).	Width of Gap (in Inches)	Working Load (in Tons, &c.).		Working Load (in Pounds).
		Ton	cwt. qr. lb.	
$\frac{3}{8}$	$\frac{7}{16}$	0	13 3 13	1,553
$\frac{1}{2}$	$\frac{9}{16}$	0	17 0 14	1,918
$\frac{5}{8}$	$\frac{5}{8}$	1	3 0 1	2,577
$\frac{3}{4}$	$\frac{11}{16}$	1	9 3 3	3,335
$\frac{7}{8}$	$\frac{5}{8}$	1	17 1 22	4,194
1	$\frac{3}{4}$	2	2 2 25	4,785
$1 \frac{1}{16}$	$\frac{13}{16}$	2	11 3 2	5,798
$1 \frac{1}{8}$	1	3	1 2 22	6,910
$1 \frac{1}{4}$	$1 \frac{1}{16}$	3	12 2 3	8,123
$1 \frac{3}{8}$	$1 \frac{3}{16}$	3	19 3 7	8,939
$1 \frac{1}{2}$	$1 \frac{1}{2}$	4	12 0 3	10,307
$1 \frac{5}{8}$	$1 \frac{3}{8}$	5	19 0 13	13,341
$1 \frac{3}{4}$	$1 \frac{9}{16}$	7	3 3 4	16,104

SECOND SCHEDULE

[Form S. & E. 1

The Scaffolding and Excavation Act 1922

CERTIFICATE OF INSPECTOR AUTHORIZING USE OF SCAFFOLDING, GEAR, OR SWINGING STAGE

To

I HEREBY authorize the use of the scaffolding [or gear or swinging stage] erected at and inspected by me at a.m./p.m. on 19.. for the purpose of provided that the total distributed weight does not exceed

Inspector of Scaffolding.

Date : 19..

(NOTE.—This certificate shall not apply if the construction or material of this scaffolding, gear, or swinging stage is altered or if the prescribed weight is exceeded.)

SECOND SCHEDULE—continued

[Form S. & E. 2]

In pursuance and exercise of the powers and authority vested in me by the Public Service Act 1912, I,, the Commissioner appointed under the Public Service Act 1912, hereby certify that, of, has been duly appointed to be an Inspector under the Scaffolding and Excavation Act 1922.

Dated this day of 19..

.
Public Service Commissioner.

[Form S. & E. 3]

The Scaffolding and Excavation Act 1922

NOTICE OF INTENTION TO ERECT SCAFFOLDING OR CRANE, OR BEGIN BUILDING WORK OR EXCAVATION

To the Inspector of Scaffolding,
Department of Labour,

I [We],, hereby give notice, pursuant to section 5 of the above Act that I [we] intend to—

- (a) Build a of a height of ft.
 (b) Begin the erection of scaffolding of a height of ft., and of the following description :
 (Notices of (a) and (b) are not required unless a risk will be involved of falling 12 ft. or more.)
 (c) Erect a crane to lift tons.
 (d) Make an excavation of ft. in depth.

(Notice of an excavation is not required unless it is to be 5 ft. or more in depth.)

at, on the day of 19..

Dated this day of 19..

Name :

Postal Address :

To Mr.

I have to acknowledge receipt of a notice dated of intention to erect scaffolding [to do building work, to erect a crane, to make an excavation] at

.
Inspector of Scaffolding.

Date : 19..

[Form S. & E. 4]

The Scaffolding and Excavation Act 1922

CERTIFICATE OF COMPETENCY TO SUPERVISE ERECTION OR ALTERATION OF SCAFFOLDING EXCEEDING 25 FT. IN HEIGHT OR OF A CRANE

I HEREBY certify that is a competent person to supervise the erection [or alteration] of a scaffolding exceeding 25 ft. in height [or of a crane] at

Dated this day of 19..

.
Inspector of Scaffolding.

[Form S. & E. 5

The Scaffolding and Excavation Act 1922

DIRECTIONS BY INSPECTOR AS TO PREVENTION OF ACCIDENTS, ETC., AND NOTICE OF CONDEMNATION OF SCAFFOLDING, CRANE, OR GEAR

To

I HEREBY give you notice that the scaffolding [*or excavation, or gear, or crane*] at

- (a) Is not in accordance with the Act [*or regulations*], *or* [*is dangerous*].
I therefore require you to alter it as under before allowing the same to be again used.
- (b) Is condemned for all purposes [*or for the purpose of*].

.....
Inspector of Scaffolding.

Date : 19..

[Form S. & E. 6

The Scaffolding and Excavation Act 1922

NOTICE UNDER SECTION 8 (2) OF THE SCAFFOLDING AND EXCAVATION ACT 1922

To all whom it may concern.

NOTICE is hereby given that I have ordered

- (a) To cease to use the scaffolding [*or crane, or gear*] to which this notice is affixed; *or*
- (b) To cease [*Here describe nature of work*];

until directions given by me to ensure safety have been complied with.

.....
Inspector of Scaffolding.

Place :

Date : 19..

(NOTE.—Any person who defaces or destroys this notice commits an offence.)

[Form S. & E. 7

NOTICE OF APPEAL FROM DIRECTION OR NOTICE OF INSPECTOR OF SCAFFOLDING
New Zealand.

In the Magistrate's Court held at

In the matter of the Scaffolding and Excavation Act 1922, and in the matter of directions given to me [*or a notice served upon me*] by the Inspector of Scaffolding atTAKE notice that I [*Name and description of appellant*], being the person to whom directions have been given [*or upon whom notice has been served*] by the Inspector of Scaffolding at, appeal against such directions [*or such notice*], a copy of which is attached hereto marked "A."

Dated at this day of 19..

Signature of Appellant :To the Clerk of the Magistrate's Court at, and to [*Name of Inspector of Scaffolding*].

NOTE.—The office of Clerk of a Magistrate's Court no longer exists. By s. 12 of the Magistrates' Courts Act 1947 it is provided that all references to a Clerk of any Court in any Act, rule, regulation, or other enactment, . . . or other document whatsoever, shall, unless inconsistent with the context, be hereafter read as references to the Registrar of that Court.

[Form S. & E. 8

*The Scaffolding and Excavation Act 1922*NOTICE OF ACCIDENT
(Report under Section 9)

The Inspector of Scaffolding,

I [WE] HAVE to notify you of an accident that occurred at [Place or job], at a.m./ p.m. on 19.., to, aged last birthday, engaged as, and residing at

The worker is married [or single, or a widower], has children under age of 16, is in receipt of a wage of, and had already worked hours on shift when the accident occurred.

He was removed to

The following are particulars of the accident :

Signature :

Address :

Date : 19..

(To be sent to Inspector within forty-eight hours of occurrence of accident.)

C. A. JEFFERY,
Clerk of the Executive Council.

*Certified for the purposes of Section 3 (2) of the Regulations Act 1936, this 25th day of March 1952.*T. CLIFTON-WEBB,
Attorney-General.

Issued under the authority of the Regulations Act 1936.Date of publication of principal regulations in *Gazette* : 21st day of November 1935.

These regulations are administered in the Department of Labour and Employment.