

THE FACTORIES (BUILDING OPERATIONS AND WORKS OF ENGINEERING CONSTRUCTION) RULES, 1978

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THE FACTORIES ACT

(Cap. 514)

IN EXERCISE of the powers conferred by section 55 of the Factories Act, the Minister for Labour hereby makes the following Rules:-

THE FACTORIES (BUILDING OPERATIONS AND WORKS OF ENGINEERING CONSTRUCTION) RULES, 1978

PART I – PRELIMINARY

Citation. 1. These Rules may be cited as the Factories (Building Operations and Works of Engineering Construction) Rules, 1978.

Application. 1. (1) These Rules shall apply to building operation and works of engineering construction undertaken by way of trade or business, or for the purpose of any industrial or commercial undertaking, or by or on behalf of the Government or any city, municipal or other public authority, namely, the construction, structural alteration, repair or maintenance of a building (including repainting, redecoration and external cleaning of the structure), the demolition of a building, and the preparation for the laying the foundation of an intended building whether or not the building is on or adjacent to the site of work of engineering construction within the meaning of the Factories Act and to any machinery or plant used in such operations.

(2) These Rules shall also apply to the construction, structural alteration or repair (including repainting, redecoration and external cleaning) or the demolition of any docks, harbours, wharves, quays, piers, sea defence works, lighthouses at sea, river works, canals, dams, reservoirs, aqueducts, viaducts, bridges, tunnels, sewers, pipelines, filter beds, gas holders, or pole or lattice work structures designed solely for the support of machinery, plant or electric lines.

Interpretation. 3. In these Rules, unless the context otherwise requires “approved person” means a person approved by the Chief Inspector of Factories under sections 30, 31, 32, 37, 38 and 39 of the Factories Act;

“certificate in first-aid” does not include any certificate in first-aid of a kind which is issued to persons under the age of eighteen years, whether or not any such kind of certificate is also issued to persons aged eighteen years or over;

“contractor” means a contractor or an employer of workmen who is undertaking any of the operations or works to which these Rules apply;

“hoist” means a lifting machine, whether worked by mechanical power or not, with a carriage, platform or cage the movement of which is restricted by a guide or guides;

“ladder” does not include a folding stop-ladder;

“ladder scaffold” means a scaffold with a working platform which is supported directly on a ladder or by means of a crutch or bracket on a rung of a ladder;

“lifting appliance” means a crab, winch, pulley block or gin wheel used for raising or lowering and a hoist, crane, sheer legs, excavator, dragline, piling frame, aerial cableway, aerial ropeway or overhead runway;

“lifting gear” means a chain sling, rope sling or similar gear and ring, link, hook, plate clamp, shackle, swivel or eye bolt;

“mobile crane” means a crane capable of travelling under its own power, but does not include a crane which travels on a line of rails;

“plant or equipment” includes any plant, equipment, gear machinery, apparatus or appliance or any part thereof;

“raising or lowering or as a means of suspension” where that expression occurs in rules 116, 117, 118, 122 and 123 of these Rules means raising or lowering or as a means of suspension either of a load on a lifting appliance or lifting gear or of a scaffold but does not include the use of a rope or chain solely as a means of making a lapped joint or the use of a rope or chain solely for the movement of a load in a horizontal direction;

“Safe working load” means either the relevant safe working load required to be specified in the latest certificate of test obtained for the purpose of rules 110, 116, 117 and 128 of these Rules or where no such certificate is required the relevant safe working load required to be marked or exhibited on the lifting appliance, lifting gear, chain, ropes or other article of plant or equipment by rules 111 and 116 of these Rules;

“scaffold” means any temporarily provided structure on or from which persons perform work in connexion with operations or works to which these Rules apply, and any temporarily provided structure which enables persons to obtain access to or which enables materials to be taken to any place at which such work is performed, and includes any working platform, working stage, gangway, run, ladder or step-ladder (other than an independent ladder or step-ladder which does not form part of such a structure) together with any guard-rail, toe-board or other safeguards and all fixings but does not include a lifting appliance or a structure used merely to support such an appliance or to support other plant or equipment;

“site” means any place where building operations or works of engineering construction or both such operations and such works are being carried on;

“slung scaffold” means a scaffold suspended by means of lifting gear, ropes, chains or rigid members and not provided with means of raising or lowering by a lifting appliance or similar device;

“suspended scaffold” means a scaffold (not being a slung scaffold) suspended by means of ropes or chains and capable of being raised or lowered, but does not include a boatswain’s chair or similar appliance;

“trestle scaffold” includes a scaffold in which the support for the platform are any of the following which are self supporting that is to say,

split heads, folding step-ladders, tripods or movable contrivances similar to any of the foregoing;

“the Act” means the Factories Act,

“training organization” means the St. John Ambulance Association, the Kenya Red Cross Society or any other body or society approved for the purpose of these Rules;

“working platform” includes a working stage.

(2) For the purpose of these Rules the number of persons employed shall be determined by reference to the number at work at any one time.

Certificate of exemption

4. The Chief Inspector of Factories may (subject to such conditions if any as may be specified therein) by certificate in writing exempt from all or any of the requirements of these Rules-

- a) Any particular plant or equipment or any class or description of plant or equipment; or
- b) Any particular work or any class or description of work,

If he is satisfied that the requirements in respect of which the exemption is granted is not necessary for the protection of persons employed or are not reasonably practicable.

Obligation and duties

5. (1) It shall be the duty of every contractor who is undertaking any of the operations or works to which these Rules apply-

- a) to comply with such of the requirements of the following rules as affect him or any workman employed by him, that is to say, rules 8 to 11, 13, 15 to 17, 20, 21, 23 to 25, 35, 36, 45, 46 (1), 47 to 49 and 53 of these Rules, provided that the requirements of the said rules shall be deemed not to affect any workman if and so long as his presence in any place is not in the course of performing any work on behalf of his employer and is not expressly or impliedly authorised or permitted by his employer; and
- b) to comply with such of the requirements of rules 12, 14, 18, 19, 30, 38, 39, 40, 41, 44, 46(2), 50, 51 and 144 (1) (a), (2) and (3) of these Rules and it shall be the duty of every contractor, who erects, installs, works or uses any plant or equipment to which any of the provisions of rules 22, 26 to 29, 31, to 34, 37, 42, 43 and 53 of these Rules apply, to erect, install, work or use any such plant or equipment in a manner which complies with those provisions;
- c) to comply with such of the requirements of the following rules as affect him or any workman employed by him, that is to say, rules 55 to 72, 74, 79, 80, 81, 85 and 87 of these Rules and in so far as they relate to the falling or slipping of persons, rules 73, 75, 76, 77, 78, 82, 83 and 84 of these Rules:

Provided that the requirements of the said rules shall be deemed not to affect any workman if and so long as his presence in any place is not in the course of performing any

work on behalf of his employer and is not expressly by or impliedly authorised or permitted by his employer;

- d) to comply with such of the requirements of the following rules as relate to any work, act or operation performed or about to be performed by any such contractor, that is to say, rules 86, and 144 (1) (b), (2) and (3), in so far as they relate to the falling of materials and articles, rules 73, 75, 76, 77, 78, 82, 83 and 84 of these Rules and it shall be the duty of every contractor who erects or alters any scaffold to comply with such of the requirements of these Rules as relate to the erection or alteration of scaffolds having regard to the purpose or purposes for which the scaffold is designed at the time of erection or alteration; and every contractor who erects, installs, works or uses any other plant or equipment to which any of the provisions of these Rules apply, to erect, install, works or uses any other plant or equipment in a manner which complies with those provisions;
- e) to comply with such of the following rules as affect him or any workman employed by him, that is to say, rule 124 (1) in so far as it relates to the protection of the hoist way, and rule 129 of these Rules, provided that the requirements of the said rules shall be deemed not to affect any workman if and so long as his presence in any place is not in the course of performing any work on behalf of his employer and is not expressly or impliedly authorised or permitted by his employer; and
- f) to comply with such requirements of rules 131 (1) to (6) and 144 (1) (c), (2) and (3) of these Rules as relate to any work, act or operation performed or about to be performed by any such contractor.

(2) It shall be the duty of every contractor, who erects, installs, works or uses any plant or equipment to which any of the provisions of rules 90 to 128, 130 and 131 (7) of these Rules applies, to erect, install, work or use any such plant or equipment in a manner which complies with those provisions.

(3) It shall be the duty of every person employed to comply with the requirements of such rules as relate to the doing of or refraining from an act by him and to co-operate in the carrying out of the provisions of these Rules and if he discovers any defect in the plant or equipment to report such defect without unreasonable delay to his employer or foreman, or to a person appointed by the employer in writing to supervise the safe conduct of the work generally under Part II of these Rules.

(4) Subject to paragraph (5) of this rule, any person undertaking any building operations or works of engineering construction to which these Rules apply shall, not later than seven days after the beginning thereof, serve on the Chief Inspector of Factories a written notice stating the name and postal address of that person, whether any mechanical

power is used, together with the full address of the site where the building operations or work of civil engineering construction are to be undertaken and, such other particulars as may be prescribed.

(5) Paragraph (4) of this rule shall not apply to any operations or works which the person undertaking them has reasonable grounds for believing will be completed in a period of less than six weeks, except in such cases as the Chief Inspector may direct; and where a person undertakes any building operations or works of engineering construction in a place where such operations or, as the case may be, works are in progress, he shall not be required to give a notice under that subsection if such a notice was given in respect of the operations or works in progress.

PART II – SUPERVISION OF SAFE CONDUCT OF WORK

Appointment of
safety supervisors

6 (1) Every contractor who undertakes operations or works to which these Rules apply and who normally employs more than twenty persons thereon at any time (whether or not all at work at any one time) shall specifically appoint in writing one or more persons experienced in such operations or works and suitably qualified for the purpose to be specifically charged with the duties-

- a) of advising the contractor as to the observance of the requirements for the safety or protection of persons employed imposed under the Factories Act and as to other safety matters; and
- b) of exercising a general supervision of the observance of the foresaid requirements and of promoting the safe conduct of the work generally.

(2) The name of every person so appointed shall be entered by the contractor appointing him on the copy or abstract either of these Rules or of the Factories Act.

Joint
appointments of
safety supervisors

7. (1) The duties assigned to any person appointed under rule 6 of these Rules by the contractor appointing him, including any duties other than those mentioned in that rule, shall not be such as to prevent that person from discharging with reasonable efficiency the duties assigned to him under that rule.

(2) Nothing in these rules shall be construed as preventing the same person or persons being appointed for a group of sites or as preventing two or more contractors from jointly appointing the same person or persons.

PART III – GENERAL PROVISIONS

Supply and use of
timber

8. (1) An adequate supply of timber of suitable quality or other suitable support shall where necessary be provided and used to prevent, so far as is reasonably practicable and as early as is practicable in the course of the work, danger to any person employed from a fall or dislodgement of earth, rock or other

material forming a side or the roof of or adjacent to any excavation, shaft, earthwork or tunnel:

Provided that this rule shall not apply –

- a) to any excavation, shaft or earthwork where, having regard to the nature and slope of the sides of the excavation, shaft or earth work and other circumstances, no fall or dislodgement of earth or other material so as to bury or trap a person employed or so as to strike a person employed from a height of more than 1.2 m. is liable to occur; or
- b) in relation to a person actually engaged in timbering or other work which is being carried out for the purpose of compliance with this rule, if appropriate precautions are taken to ensure his safety as far as circumstances permit.

(2) In the case of tunnelling operations on works of engineering construction, no person shall be held not to have complied with a requirement of the foregoing paragraph of this rule by reason of any matter provided to have been due to physical conditions over which he had no control and against which it was not reasonably practicable for him to make provision.

9. (1) Subject to the provisions of paragraph (4) of this rule, every part of any excavation, shaft, earthwork or tunnel where persons are employed shall be inspected by a competent person at least once every day during which persons are employed therein; and the face of every tunnel and the working end of every trench more than 2.0 m. deep and the base or crown of every shaft shall be inspected by a competent person at the commencement of every shaft.

Inspection and examination of excavations etc.

(2) Subject to the provisions of paragraph (4) of this rule no person shall be employed in any excavation, shaft, earthwork or tunnel unless a thorough examination has been carried out by a competent person –

- a) of those parts thereof, and in particular any timbering or other support, in the region of the blast since explosives have been used in or near the excavation, shaft, earthwork or tunnel in a manner likely to have affected the strength or stability of that timbering or other support or any part thereof; and
- b) of those parts thereof in the region of any timbering or other supports or any part thereof

that has been substantially damaged and in the region of any unexpected fall of rock or earth or other material; and

- c) of every part thereof within the immediately preceding seven days:

Provided that subparagraph (c) shall not apply to timbering or other support which has not been erected or installed for more than seven days.

(3) A report of the results of every thorough examination required by paragraph (2) of this rule, signed by the person carrying out the examination, shall be made on the day of the examination in the prescribed form and containing the prescribed particulars:

Provided that in the case of a site where the employer for whom a thorough examination as aforesaid was carried out has reasonable grounds for believing that the operations or works will be completed in a period of less than six weeks, the provisions of paragraph (3) of this rule shall be deemed to have been satisfied if the person in charge of the operations or works carried on by that employer at such a site has himself carried out the examination and is a competent person and if within one week of the date of the examination he reports to his employer in writing the results of such examination, and the date of such examination and the results thereof together with the name of the person making the examination are entered by the employer in the prescribed form together with the prescribed particulars.

(4) This rule shall not apply

- a) to any excavation, shaft or earthwork where, having regard to the nature and slope of the sides of the excavation, shaft or earthwork and other circumstances, no fall or dislodgement of earth or other materials so as to bury or trap a person employed or so as to strike a person employed from a height of more than 1.2 m. is liable to occur; or
- b) in relation to persons carrying out inspections or examinations required by this rule or actually engaged in timbering or other work for the purpose of making a place safe, if appropriate precautions are taken to ensure their safety as far as circumstances permit.

Supervision and execution of timbering and other works.

10. (1) No timbering or other support for any part of an excavation, shaft, earthwork or tunnel shall be erected or be substantially added to, altered or dismantled except under the direction of a competent person and so far as possible by competent workmen possessing adequate experience of such

Work, and all materials for any such work shall be inspected by a competent person on each occasion before being taken into use and materials found defective in any respect shall not be used.

(2) Timbering or other support for any part of an excavation, shaft, earthwork or tunnel shall be a good construction, sound material, free from patent defect and of adequate strength for the purpose for which it is used and shall be properly maintained.

(3) All struts and braces in any excavation, shaft, earthwork or tunnel shall be properly and adequately secured so as to prevent their accidental displacement or fall.

11. (1) In any excavation, shaft or tunnel where there is reason to apprehend danger to persons employed therein from rising water or from an irruption of water or material there shall be provided, so far as practicable, means to enable such persons to reach positions of safety.

Means of egress in case of flooding

(2) In the case of tunnelling operations on works of engineering construction, no person shall be held not to have complied with a requirement of paragraph (1) of this rule by reason of any matter proved to have been due to physical conditions over which he had no control and against which it was not reasonably practicable for him to make provision.

12. (1) No excavation, shaft, earthwork or tunnel, which is likely to reduce, so as to endanger any persons employed, the security or stability of any part of any structure, whether temporary or permanent, shall be commenced or continued unless adequate steps are taken before or during the progress of the work to prevent damage to any person employed from collapse of the structure or the fall of any part thereof.

Excavations, etc., likely to reduce security of a structure

(2) In the case of tunnelling operations on works of engineering construction, no person shall be held not to have complied with a requirement of paragraph (1) of this rule by reason of any matter proved to have been due to physical conditions over which he had no control and against which it was not reasonably practicable for him to make provision.

13. Every accessible part of an excavation, shaft, pit or opening in the ground near to which employed persons are working and into or down a side of which a person is liable to fall a distance of more than 2.0 m. shall be provided with a suitable barrier placed as close as is reasonably practicable to the edge or shall be securely covered.

Fencing of excavations, etc

Provided that the ongoing requirement shall not apply to any part of an excavation, shaft, pit or opening while (and to the extent to which) the absence of such barriers and covering is necessary for the access of persons or for the movement of plant or equipment or materials or while (and to the extent to which) it has not yet been practicable to erect such barrier or covering since the formation of that part of excavation, shaft, pit or opening.

Safeguarding
edges of
excavations, etc

14. (1) Material shall not be placed or stacked near the edge of any excavation, shaft, pit or opening in the ground so as to endanger persons employed below.

(2) No load or plant or equipment shall be placed or moved near the edge of any excavation, shaft, pit or opening in the ground where it is likely to cause a collapse of the side of the excavation, shaft, pit or opening and thereby endanger any person.

Cofferdams and
caissons –
construction and
maintenance

15. Every cofferdam or caisson and every part thereof shall be of good construction of suitable and sound material, free from patent defect and of adequate strength and shall be properly maintained.

Cofferdams and
caissons –
means of egress
in case of
flooding

16. (1) In any cofferdam or caisson there shall, so far as is reasonably practicable, be adequate means for persons to reach places of safety in the event of an inrush of water.

(2) No person shall be held not to have complied with a requirement of paragraph (1) of this rule by reason of any matter proved to have been due to physical conditions over which he had no control and against which it was not reasonably practicable for him to make provision.

Cofferdams and
caissons –
supervision of
work and
inspection of
materials

17. (1) No cofferdam or caisson or part thereof shall be constructed or be placed in position or be substantially added to or altered or be dismantled except under the immediate supervision of a competent person and so far as possible by competent workmen possessing adequate experience of such work.

(2) All material for the construction or fixing of a cofferdam or caisson shall be inspected by a competent person on each occasion before being taken into use for such a purpose and material which is unsuitable or defective in any respect shall not be so used.

Cofferdams and
caissons –
inspections and
examinations

18. (1) Subject to paragraph (2) of this rule, no person shall be employed in a cofferdam or caisson unless it has been inspected by a competent person at least once on the same or preceding day and unless it has been thoroughly examined by a competent person-

- a) since explosives have been used in or near to the cofferdam or caisson in a manner likely to have affected the strength or stability of the cofferdam or caisson or any part thereof; and
- b) since the cofferdam or caisson has been substantially damaged; and
- c) in any case within the immediately preceding seven days; provided that the provisions of this subparagraph shall not apply until seven days have elapsed since the

cofferdam or caisson was erected or placed in its position on the site.

(2) A report of the results of every such examination carried out under this rule, signed by the person carrying out the examination, shall be made on the day of the examination in the prescribed form and containing the prescribed particulars.

(3) This rule shall not apply in relation to persons actually engaged in the construction, placing, repairing or alteration of the cofferdam or caisson of carrying out inspections or examinations required by this rule if appropriate precautions are taken to ensure their safety as far as circumstances permit.

19. Explosives shall not be handled or used except by or under the immediate control of a competent person with adequate knowledge of the dangers connected with their use and steps shall be taken to see that, when a charge is fired, persons employed are in positions in which, so far as can reasonably be anticipated, they are not exposed to risk of injury from the explosion or from flying material.

Explosive

20. Where in connexion with any grinding, cleaning, spraying or manipulation of any material there is given off dust or fume of such a character and to such extent as to be likely to be injurious to the health of a person employed all reasonably practicable measures shall be taken either by securing adequate ventilation or by the provision and use of suitable respirators or otherwise to prevent inhalation of such dust or fume.

Inhalation of dust and fumes to be prevented

21 (1) Effective steps shall be taken to secure and maintain the adequate ventilation of every working place in any excavation, pit, hole, adit, tunnel, shaft, caisson or other enclosed or confined space and of every approach to any such working places so as –

Ventilation of excavations, etc.

- a) to maintain an atmosphere which is fit for respiration; and
- b) to render harmless, so far as is reasonably practicable, all fumes, dust or other impurities which may be dangerous or injurious to health and which are generated, produced or released by explosives or by any other means in such working place or approach thereto.

(2) Where there is reason to apprehend that the atmosphere in any of the working places or approached thereto mentioned in paragraph (1) of this rule is poisonous

or asphyxiating, then notwithstanding the requirements of the said paragraph, no person shall be employed in or allowed to enter such working place or approach until the atmosphere has been suitably tested by or under the immediate supervision of a competent person and he is satisfied that the working place or approach is for the time being, free from the danger of a person being, overcome by poisoning or asphyxiation.

(3) No person shall be held not to have complied with a requirement of the foregoing paragraphs of this rule by reason of any matter proved to have been due to physical conditions over which he had no control and against which it was not reasonably practicable for him to make provision.

Internal
combustion
engines

22. No stationary internal combustion engine shall be used in any enclosed or confined place unless specific provision is made for conducting the exhaust gases from the engine into the open air or the place is adequately ventilated so as to prevent danger to health from such exhaust gases.

Transport by
water.

23. When any person employed is conveyed to or from any working place by water, proper measures shall be taken to provide for his safe transport, and any vessels used for this purpose shall be of suitable construction, shall be properly maintained and shall be in the charge of a competent person and shall not be over-crowded or overloaded.

Prevention of
drowning

24. (1) Where, on or adjacent to the site of any operations or works to which these Rules apply, there is water into which a person employed is, in the course of his employment, liable to fall with risk of drowning, suitable rescue equipment shall be provided and kept in an efficient state and ready for use and measures shall be taken to arrange for the prompt rescue of any such person in danger of drowning.

(2) Where there is a special risk of a fall from the edge of adjacent land or of a structure adjacent to or above the water, or of a floating stage, secure fencing shall be provided near the edge to prevent such fall, so, however, that such fencing may be removed or remain unerected for the time and to the extent necessary for the access of persons or the movement of materials.

Rails and rail
track

25. (1) All rails on which any locomotive, truck or wagon moves shall-

- a) have an even running surface, be sufficiently and adequately supported, and be of adequate section;
- b) be joined by fish plates or double chairs;
- c) be securely fastened to sleepers or bearers;

- d) be supported on a surface sufficiently firm to prevent undue movement of the rails;
- e) be laid in straight lines or incurves of such radii that the locomotive, truck or wagon can be moved freely and without danger of derailment;
- f) be provided within adequate stop or buffer on each rail at each end of the track;

(2) The provisions of subparagraphs (b) and (c) of this rule shall not apply where other adequate steps are taken to ensure that proper junction of the rails, and to prevent any material variation in their gauge.

(3) All rails and equipment referred to in this rule shall be properly maintained.

26. Every locomotive, truck and wagon in use for transport purposes and every power driven capstain or winch used for the movement of trucks or wagons shall be of good construction, sound material, adequate strength, free from patent defect and properly maintained.

Maintenance of locomotives, etc

27. (1) In connexion with the erection, installation, working or use of any line of rails on which any locomotive, truck or wagon moves, there shall, except where such clearance is not reasonably practicable, be adequate clearance so that persons are not liable to be crushed or trapped by any passing locomotive, truck or wagon or any part of the load thereon.

Clearance

(2) Notwithstanding the provisions of paragraph (1) of this rule there shall, save to the extent to which such arrangements are impracticable, be arrangements, including where appropriate the provision of suitable recesses, such that the lack of adequate clearance as aforesaid does not extend for more than 18 m. in length.

(3) Where there is no adequate clearance as aforesaid there shall be effective arrangements for warning any person liable to be crushed or trapped of the danger and of the approach of a locomotive, truck, or wagon.

(4) Where a locomotive is or is to be driven, all reasonable steps shall be taken to avoid or obviate low-clearance and overhead obstructions which will not afford a clearance of at least 1.1 m. above the seat of the driver when driving the locomotive in a normal sitting position and 2.0 m. above the footplate if he is driving it in a standing position; and appropriate steps shall be taken by means of suitable warning devices, warning notices or otherwise, to make the driver aware of the danger when the locomotive is approaching any point at which there is such a low clearance or obstruction and to warn any person riding on the

train of approaching danger to them due to lack of overhead or side clearance.

Gantries

28. Every gantry or elevated structure carrying rails on which a locomotive, truck or wagon moves shall, at every part along which persons employed have to pass on foot, be provided with a suitable and adequate footway, and where such footway is on the outside of the rail track and any person is liable to fall more than 2.0 m. there from, the footway shall be provided with suitable guard-rails not less than 1.0 m. in height.

Brakes, sprags
and scotches

29. (1) Every locomotive shall be fitted with effective brakes.

(2) Every truck and wagon shall be fitted with an effective brake or brakes unless the circumstances in which it is used render a brake unnecessary for safety.

(3) A sufficient number of suitable sprags or scotches shall be provided for the use of persons employed on the movement of trucks or wagons, and such sprags and scotches shall be used whenever necessary and shall be in good condition.

Replacement of
derailed
locomotives, etc

30. Suitable equipment shall be provided and used for replacing on the track any locomotive, truck or wagon which may become derailed.

Warning of
movement of
locomotives,
trucks or wagons

31. (1) Every locomotive shall be fitted with an efficient whistle or other warning device which shall be properly maintained.

(2) Where any person may be endangered by the movement of any locomotive, truck or wagon the person in charge of the movement of the locomotive, truck or wagon shall see that adequate warning is given.

Competent person
to drive
locomotive, etc

32. A locomotive, power-driven capstan or haulage winch or a vehicle to which rule 34 applied shall be driven or operated only by a trained and competent person who has attained the age of eighteen, except that for the purpose of training it shall be permissible for a locomotive or any such vehicle to be driven or operated by a person under eighteen years of age who is under the direct supervision of a person qualified for that purpose.

33. (1) Where any power-driven capstan or haulage winch is used for the movement of trucks or wagons the space in the immediate vicinity thereof shall be kept clear of all obstructions and shall be sufficient for safe working.

(2) No power-driven capstan or haulage winch shall be set in motion for the movement of trucks or wagons until adequate warning by means of efficient sound or visual signals has been given by the person in charge of such movement to any person who may be endangered thereby.

34. (1) Subject to paragraph (2) of this rule, a mechanically propelled vehicle or mechanically drawn trailer-vehicle if owned, used by, or hired by and operated under the control of, a contractor or employer undertaking operations or works to which these Rules apply and used for conveying workmen, goods or materials for the purpose of such operations or works shall, when being moved at a site where such operations or works are carried on (whether or not workmen, goods or materials are actually being conveyed on the vehicle at the time)

Mechanically
propelled vehicles
and trailers

- a) be in an efficient state, in efficient working order and in good repair;
- b) not to be used in an improper manner;
- c) not be loaded in such a manner or to such extent as to interfere with safe driving or operation of the vehicle;

Provided that, where all practicable precautions are taken to avoid danger to the persons affected, subparagraph (a) of this paragraph shall not apply to a vehicle which has broken down or been damaged on the site and-

- i. on which no workmen, goods or materials are being conveyed and which is being moved only for the purpose of its repair or disposal or so as not to cause an obstruction; or
- ii. on which no workmen are being conveyed and which is being moved only so far as is necessary to render unloading of goods or materials practicable.

(2) This rule shall not apply to locomotives, trucks or wagons.

35. No person shall remain or be required or permitted to ride on the buffer, running board or other insecure position-

Riding in insecure
positions on
vehicles, etc

- a. on any vehicle to which rule 34 of these Rules applies; or
- b. on any locomotive, truck or wagon, other than at the place thereon provided for that purpose.

36. No person shall remain or be required or permitted to remain on any vehicle to which rule 34 of these Rules applies or on any truck or wagon during the loading of loose materials by means of a grab, excavator or similar appliance, if he may be endangered by so remaining.

Remaining on a
vehicle during
loading.

Vehicles near
edge of
excavation, etc

37. Where any vehicle is used for tipping material into any excavation or pit or over the edge of any embankment or earthwork adequate measures shall be taken where necessary so as to prevent such vehicles from over-running the edge of such excavation, pit, embankment or earthwork.

Application of
rules 39-41

38. The requirements of rules 39-41 of these Rules shall apply as respects the demolition of the whole or any substantial part of a building or other structure.

Supervision

39. (1) Every contractor (other than an individual contractor) undertaking demolition operations to which rules 39-41 of these Rules apply shall appoint a competent person experienced in such operations to supervise the work, so, however, that where more than one contractor (other than an individual contractor) takes part in such demolition operations, each such contractor shall appoint a competent person and either the same person shall be jointly appointed by every contractor or each contractor shall make arrangements to ensure that no operation is undertaken by his workmen except after consultation between all the persons so appointed as to the method by which and the time at which the operation is to be carried out.

(2) Where part of any demolition operations to which rules 39-41 of these Rule apply is to be undertaken by an individual contractor-

- a. no individual contractor shall undertake any operation without prior consultation with every other individual contractor undertaking the operations and with the person or persons appointed under paragraph (1) of this rule; and
- b. no contractor shall undertake any operation without prior consultation with the person or persons appointed under paragraph (1) of this rule and every individual contractor undertaking the operations as to the method by which, and the time at which, the operation is to be carried out.

(3) In this rule the expressions "individual contractor" means a contractor who personally performs the demolition operations without employing any workmen thereon.

Fire and
flooding

40. Before any demolition is commenced and also during the progress of the work all practicable steps shall be taken to prevent danger to persons employed from any risk of fire or explosion through leakage or accumulation of gas or vapour, and from any risk of flooding.

41. (1) No part of a building or other structure shall be so overloaded with debris or materials as to render it unsafe to persons employed.

Precautions in connection with demolition

(2) The following operations shall be carried out only under the immediate supervision of a competent foreman or charge hand with adequate experience of the particular kind of work, or by workmen experienced in the kind of work and under the direction of a competent foreman or charge hand as aforesaid, that is to say-

- a) the actual demolition of a building or part thereof or any other structure or part thereof except where there is no risk of a collapse of any part of the building or the structure in the course or as a result of the said demolition, so as to endanger any person employed, other than a risk which could not reasonably have been foreseen.
- b) the actual demolition of any part of a building or other structure where there is a special risk of collapse whether of that or of any other part of the building or structure, in the course, or as a result, of the said demolition, so as to endanger any person employed;
- c) the cutting of reinforced concrete, steelwork or ironwork forming part of the building or other structure which is being demolished and before any steelwork or ironwork is cut or released, precautions shall be taken to avoid danger from any sudden twist, spring or collapse.

(3) All practicable precautions shall be taken to avoid danger from the collapse of the building or other structure when any part of the framing is removed from a framed, or partly framed, building or other structure.

(4) Before demolition is commenced and also during the progress of the work, precautions shall, where necessary, be taken by adequate shoring or otherwise to prevent, as far as practicable, the accidental collapse of any part of the building or structure or of any adjoining building or structure the collapse of which may endanger any person employed:

Provided that this requirement shall not apply in relation to any person actually engaged in erecting or replacing shoring or other safeguards for the purpose of compliance with the requirement, if appropriate precautions are taken to ensure his safety as far as circumstances permit.

Fencing of
machinery

42. Every flywheel, moving part of any prime mover, part of transmission machinery and dangerous part of other machinery (whether or not driven by mechanical power) shall be securely fenced unless it is in such a position or of such construction as to be as safe to every person employed or working on the site of the operation or works as it would be if it were securely fenced.

Fencing of new
machinery

43. (1) Notwithstanding the provisions of rule 42 of these Rules and subject to the provisions of paragraph (2) of this rule, every prime mover and other machine intended to be driven by mechanical power (being a prime mover or machine used or intended to be used in operations or works to which these Rules apply) shall, unless constructed that the following parts of such prime mover or machine are securely fenced or are in such a position or of such construction as to be as safe as they would be if they were securely fenced, that is to say, all revolving shafts, flywheels, couplings, toothed gearing, friction gearing, belt and pulley drives, chain and sprocket drives and all projecting screws, bolts, or keys on any revolving shaft, wheel or pinion.

Electricity

44. (1) Before any operations or works to which these Rules apply are commenced, and, also during the progress thereof, a contractor shall take all practicable steps to prevent danger to persons employed from any live electric cable or apparatus which is liable to be a source of such danger, either by rendering such cable or apparatus electrically dead or otherwise.

(2) Where any electrically charged overhead cable or apparatus is liable to be a source of danger to persons employed during the course of any operations or works to which these Rules apply, whether from the operation of a lifting appliance or otherwise, all practicable precautions shall be taken to prevent such danger either by the provision of adequate and suitable placed barriers or otherwise.

Generation of
steam, smoke, and
vapour

45. Measures shall be taken to prevent, so far as practicable, steam, smoke or other vapour generated on the site from obscuring any part of the work, scaffolding, machinery or other plant or equipment where any person is employed.

Protection from
falling material

46. (1) At any place on the site of the operations or works where any person is habitually employed steps shall be taken to prevent any person who is working in that place from being struck by any falling material or article.

(2) Scaffold materials, tools, other objects and material (including waste material) shall not be thrown, tipped or shot down from a height where they are liable to cause injury, but where practicable shall be properly lowered.

(3) In any place where proper lowering is not practicable and also where any part of a building or other structure is being demolished or broken off adequate steps shall be taken to protect persons employed from falling or flying debris.

47. Every working place and approach thereto, every place where raising or lowering operations with the use of lifting appliances are in progress, and all openings dangerous to persons employed, shall be adequately and suitably lighted.

Lighting of
working
places, etc

48. (1) No timber or material with projecting nails shall be used in any work in which they are a source of danger to persons employed or be allowed to remain in any place where they are a source of danger to such persons.

Projecting
nails and loose
material

(2) Any loose materials not required for use shall not be placed or left so as to unduly restrict the passage of persons upon platforms, gangways, floors or other places on the site used for such passage, but shall be removed, stacked or stored so as to leave an unobstructed passage.

(3) Materials shall not be insecurely stacked in a place where they may be dangerous to persons employed, or so stacked as to overload and render unsafe any floor, roof or other part of a building or other structures.

49. Any temporary structures erected for the purpose of operations or works to which these Rules apply, not being a scaffold or other structure to which rule 93 of these Rules applied, shall (having regard to the purpose for which it is used) be of good construction and adequate strength and stability and shall be of sound material free from patent defect and properly maintained.

Construction
of temporary
structures

50. (1) All practicable precautions shall be taken by the use of temporary guys, stays, supports and fixing or otherwise where necessary to prevent danger to any person employed through the collapse of any part of a building or other structure during any temporary state of weakness or instability of the building or structure or part thereof before the building or structure is completed.

Avoidance of
danger from
collapse of
structure

(2) Where any work is carried on which is likely to reduce, so as to endanger any persons employed, the security or stability of any part of an existing building or structure or of a building or structure in the course of construction all practicable precautions shall be taken by shoring or otherwise to prevent danger to any person employed from the collapse of the building or structure or the fall of any part thereof.

51. (1) Subject to the provisions of paragraph (2) of this rule no ironwork or steelwork which has been painted or cement washed shall be moved or manipulated on the site of the operations or works unless all the paint or wash on it (other than paint for the purpose of jointing)

Wet paint or
cement wash
on ironwork or
steelwork

is dry and not person shall walk or work or be required or permitted to walk or work, on erected ironwork or steelwork on which the paint (other than paint for the purposes of jointing) or cement wash is wet.

(2) The requirement of paragraph (1) of this rule as to moving or manipulating shall not apply to moving or manipulating in connexion with the painting or cement washing of ironwork or steelwork on the site.

Helmets or
crowns for
pile driving

52. Every helmet or crown used in connexion with pile driving shall be of good construction, of sound and suitable material, of adequate strength and free from patent defect.

Lifting
excessive
weights

53. A person shall not be employed to lift, carry or move any load so heavy as to be likely to cause injury to him.

Prohibited
sale or hire
of
machinery

54. The provisions of subsection (2) of section 26 of the Factories Act (which prohibits the sale or letting on hire of certain machines which do not comply with the provisions of the section), shall extend to prime movers or machines which do not comply with the requirements of rule 43 of these Rules.

PART IV – WORKING PLACES

General

55. (1) Notwithstanding the other provisions of Part IV of these Rules, there shall be, so far as is reasonably practicable, suitable and sufficient safe access to and egress from every place at which any person at any time works, which access and egress shall be properly maintained.

(2) Notwithstanding the other provisions of Part IV of these Rules, every place at which any person at any time works shall, so far as is reasonably practicable, be made and kept safe for any person working there.

Provision of
scaffolds,
etc

56. Notwithstanding the other provisions of Part IV of these Rules, where work cannot be safely done on or from the ground or from part of a building or other permanent structure, there shall be provided, placed and kept in position for use and properly maintained either scaffolds, or where appropriate, ladders or other means of support, all of which shall be sufficient and suitable for the purpose.

Supervision
of work and
inspection of
material

57. No scaffold shall be erected or be substantially added to, or altered, or be dismantled except under the immediate supervision of a competent person and so far as possible by competent workmen possessing adequate experience of such work, and all material for any scaffold shall be inspected by a competent person on each occasion before being taken into use.

<p>58. (1) Every scaffold and every part thereof shall be of good construction, of suitable and sound material and of adequate strength for the purpose for which it is used.</p> <p>(2) Sufficient material shall be provided for and shall be used in the construction of scaffolds.</p> <p>(3) Any timber used for scaffolds shall be of suitable quality, be in good condition, and have the bark completely stripped off.</p> <p>(4) Any timber used for scaffolds, trestles, and ladders and folding step-ladders shall not be so painted or treated that defects cannot easily be seen.</p> <p>(5) Any metal parts used for scaffolds shall be of suitable quality and be in good condition and free from corrosion or other patent defect likely to affect their strength materially.</p>	<p>Construction and material</p>
<p>59. (1) No rope or bond which is defective whether through contact with an acid or other corrosive substances or otherwise shall be used in the scaffold.</p> <p>(2) All materials for, and parts of, a scaffold shall, when not in use, be kept under good conditions and apart from any materials or parts unsuitable for scaffolds.</p>	<p>Defective material</p>
<p>60. Every scaffold shall be properly maintained and every part shall be kept so fixed, secured, or placed in position as to prevent so far as is practicable accidental displacement.</p>	<p>Maintenance of scaffolds</p>
<p>61. No scaffold or part of a scaffold shall be partly erected or dismantled and remain in such a condition that it is capable of being used unless –</p> <ul style="list-style-type: none"> a) the scaffold as so erected or dismantled complies with these Rules; b) a prominent warning notice indicating that the scaffold, or part thereof, as the case may be, is not to be used is affixed near any point at which the scaffold or part, as the case may be is liable to be approached for the purpose of use; or c) access to the scaffold or part thereof, as the case may be, is as far as reasonably practicable effectively blocked. 	<p>Partly erected or dismantled scaffolds</p>
<p>62 (1) Standard or uprights of scaffolds shall-</p> <ul style="list-style-type: none"> a) where practicable be either vertical or slightly inclined towards the building or other structure; and b) be fixed sufficiently close together to secure the stability of the scaffold having regard to all the circumstances. <p>(2) The foot or base of any standard or upright shall be placed on an adequate base plate in a manner to prevent slipping or sinking, or its displacement shall be prevented in some other sufficient way.</p>	<p>Standards or uprights, ledgers and putlogs.</p>

(3) Ledgers shall be as nearly as possible horizontal and shall be securely fastened to the standards or uprights by efficient means.

(4) Putlogs or other support on which a platform rests shall be securely fastened to the ledgers or to the standards or uprights, or their movement shall be prevented by other efficient means, and where one end of a putlog is supported by a wall that end shall extend into or on to the wall sufficiently to provide a supporting surface of sufficient area.

(5) The distance between two consecutive putlogs and other supports on which a platform rests shall be fixed with due regard to the anticipated load and the nature of the platform flooring, and the distance with single planking shall not as a general rule exceed 1.0 m. with planks of 32 mm. in thickness, 1.5 m. with planks of 40 mm. in thickness, or 2.6 m. with planks of 51 mm. in thickness.

Ladders used
in scaffolds

63. (1) Ladders serving as uprights or scaffolds shall

- a) be of adequate strength;
- b) be placed so that the two stiles or sides of each ladder are evenly supported or suspended; and
- c) be secured to prevent slipping.

(2) Ladder scaffolds shall be used only if the work is of such a light nature and the material required for the work is such that this type of scaffold can be used safely.

Stability of
scaffolds

64. (1) Every scaffold shall be securely supported or suspended and shall where necessary be sufficiently and properly strutted or braced to prevent collapse, and shall be rigidly connected with the building or other structure unless the scaffold is so designed and constructed as to ensure stability without such connexion.

(2) Every structure and appliance used as a support for a scaffold shall be of sound construction, have a firm footing or be firmly supported, and shall, where necessary be sufficiently and properly strutted or braced so as to prevent collapse and to ensure stability.

(3) Every scaffold which can be moved on wheels or skids (not being a suspended scaffold or slung scaffold) shall-

- a) be constructed with due regard to stability and, if necessary for stability, be adequately weighted at the base;
- b) be used only on a firm and even surface not so sloping as to involve risk of instability of the scaffold or any load thereon;
- c) be adequately secured to prevent movement when any person is working upon it or upon any ladder or other plant or equipment, being a ladder, plant or equipment which is supported by the scaffold; and
- d) be moved only by the application of force at or near the base.

(4) Loose bricks, drain pipes, chimney pots or other unsuitable material shall not be used for the construction or support of scaffolds save that bricks or small blocks may, if they provide a firm support be used to support a platform not more than 610 mm. above the ground or floor.

65 (1) No chain, wire rope, lifting gear, metal tube or other means of suspension for slung scaffolds shall be used unless the following requirements (in so far as they are applicable) are observed, (in addition as respects chains, ropes and lifting gear to satisfying the requirements of Part V of these Rules), that is to say-

Slung
scaffolds

- a) it is suitable and of adequate strength for the purpose for which it is used;
- b) it is properly and securely fastened to safe anchorage points and to the scaffold ledgers or other main supporting members;
- c) it is so placed as to ensure stability of the scaffold;
- d) it is as nearly vertical as is reasonably practicable; and
- e) it is kept taut

(2) No rope other than a wire rope shall be used for the suspension of a slung scaffold.

(3) Where chains or wire ropes are used for the suspension of a slung scaffold, steps shall be taken to prevent such chains or wire ropes coming into contact at points of suspension with edges where this would cause danger.

(4) Every slung scaffold shall be secured to prevent undue horizontal movement while it is used as a working platform.

66. (1) No cantilever scaffold or jib scaffold shall be used unless it is adequately supported, fixed and anchored, has outriggers of adequate length and strength, and is, where necessary, sufficiently and properly strutted or braced to ensure rigidity and stability.

Cantilever, jib,
figure and
bracket
scaffolds

(2) No figure scaffold or bracket scaffold supported or held by dogs, spikes, or similar fixing liable to pull out of the stone-work, brick-work or other surface in which they are gripped or fixed shall be used.

67 (1) No part of a building or other structure shall be used as support for a scaffold, ladder, folding step-ladder or crawling ladder or for part of a scaffold, ladder, folding step-ladder or crawling ladder, unless the part of the building or other structure is of sound material and sufficiently stable and of sufficient strength to afford safe support.

Support for
scaffolds, etc.

(2) No gutters shall be used as supporters unless they and their fixing are suitable and are of adequate strength and, in the case of overhanging eaves, gutters shall not be so used unless in addition they have been specially designed as walkways.

Suspended
scaffolds, (not
power
operated).

68 (1) The requirements of this rule (in addition, as respects lifting appliances, chains, ropes and lifting gear used in connexion therewith, to the requirements of Part V of these Rules), shall be observed as respects-

- a) every suspended scaffolds; and
- b) plant or equipment which is permanent plant or equipment of a building and which, but for the fact that it is permanently provided, would be a suspended scaffold,

being in any case a suspended scaffold, plant or equipment which is not raised or lowered by a power-driven lifting appliances or power-driven lifting appliances and no such suspended scaffold, plant or equipment shall be used unless it complies with the requirements of this rule.

(2) In the application of paragraph (1) of this rule, references therein to suspended scaffolds shall be constructed as references to suspended scaffolds to which this rule applied and as including reference to plant or equipment of the kind referred to in subparagraph (b) of paragraph (1) of this rule.

(3) Every suspended scaffold shall be provided with adequate and suitable chains or ropes and winches or other lifting appliances or similar devices and shall be suspended from suitable outriggers, joists, runways, rail tracks or other equally safe anchorage.

(4) The winches or other lifting appliances or similar devices of a suspended scaffold shall be

- a) provided with a brake or similar device which comes into operation when the operating handle or lever is released; and
- b) adequately protected against the effects of weather, dust or material likely to cause damage.

(5) The outriggers for a suspended scaffold shall be of adequate length and strength and properly installed and supported and, subject to paragraph (16) of this rule, shall be installed horizontally and provided with adequate stops at their outer ends. The outriggers shall be properly spaced having regard to the construction of the scaffold and of the runway, joist or rail track on which the scaffold is carried.

(6) Where counterweights are used with outriggers the counterweights shall be securely attached to the outriggers and shall be not less in weight than three times the weight which would counter balance the weight suspended from the outrigger including the weight of the runway, joists or rail-track, the suspended scaffold and persons and other load thereon.

(7) The points of suspension of every suspended scaffold shall be an adequate horizontal distance from the face of the building or other structure.

(8) Every runway, joist and rail-track supporting a suspended scaffold shall be of suitable and sound material, adequate strength for the purpose for which it is used and free from patent defect, shall be provided with adequate stops at each end and shall be properly

secured to the building or other structure or, where outriggers are used, to the outriggers.

(9) The suspension ropes or chains of a suspended scaffold shall be securely attached to the outriggers or other supports and to the platform framework or to any lifting appliance or other device attached thereto, as the case may be, and shall be kept in tension.

(10) Where winches are used with suspended scaffolds the suspension ropes shall be of such length that at the lowest position at which the scaffold is intended to be used there are not less than two turns of rope remaining on each winch drum and the length of each rope shall be clearly marked on its winch.

(11) Every part of a suspended scaffold and all plant and equipment used for the purposes thereof shall be of good construction suitable and sound material, of adequate strength for the purpose for which it is used and shall be properly maintained, and, where constructed of metal shall be free from corrosion and other patent defects, being corrosion and defects likely materially to affect its strength. Adequate arrangements shall be made to prevent undue tipping, tilting or swinging of a suspended scaffold and to secure it to prevent undue horizontal movement while it is being used as a working platform.

(12) No rope other than a wire rope shall be used for the raising, lowering and suspension of a suspended scaffold, except that the raising, lowering and suspension may be carried out by means of fibre ropes and pulley blocks in the case of work to which paragraph (16) of this rule applied.

(13) The platform of every suspended scaffold shall-

- a) except to the extent necessary for drainage, be closely boarded, planked, or plated; and
- b) subject to paragraph (16) of this rule, be of adequate width to afford adequate working space at every working point and shall, in any event,
 - i. be at least 640 mm. wide if used as a footing only and not for the deposit of any material;
 - ii. be at least 870 mm. wide if used for the deposit of material; and
 - iii. not be used for the support of any higher scaffold.

(14) the platform of every suspended scaffold shall be so arranged or secured that at each working position the space between the face of the building or other structure and the platform is as small as reasonably practicable, so, however, that where workmen sit at the edge of the platform to work there may be a space not exceeding 300 mm., and, where necessary, devices shall be provided and used to keep the platform a sufficient distance from the wall when persons have to work in a sitting position.

(15) If a suspended scaffold is carried on fibre ropes and pulley blocks the ropes shall be spaced not more than 3. m. apart.

(16) Where the work to be carried out from a suspended scaffold is of such a light nature and the material required for the work is such that a cradle or similar light-weight suspended scaffold can be used with safety and where such suspended scaffold is used, the following requirements of this rule shall not apply, that is to say-

- a. the requirements of paragraph (5) of this rule that the outriggers shall be installed horizontally and that stops shall be provided; and
- b. the requirements of paragraph (13) (b) of this rule as to the width of the platform.

(17) The platform of a suspended scaffold to which paragraph (16) of this rule applies shall be not less than 440 mm. wide.

Boatswain's
chairs,
cages,
skips, etc
(not power
operated)

69 (1) No boatswain's chair, cage, skip or similar plant or equipment (not being a boatswain's chair, cage, skip or similar plant or equipment which is raised or lowered by a power-driven lifting appliance) shall be used unless-

- a) it is of good construction, suitable and sound material, adequate strength, free from patent defect, and properly maintained;
- b) the outriggers or other supports are of adequate strength and properly installed and supported;
- c) the chains, ropes, lifting gear or other means of suspension used therewith (in addition to satisfying the requirements of Part V of these Rules) are securely attached to the outriggers or other supports and to the chair, cage, skip or similar plant or equipment or to any lifting appliance or other device attached thereto, as the case may be;
- d) suitable means are provided to prevent an occupant falling out;
- e) it is free of material or articles liable to interfere with the occupant's handhold or foothold or otherwise endanger him;
- f) suitable measures are taken to prevent spinning or tipping in a manner dangerous to any occupant;
- g) in the case of any skip or other receptacle it is at least 1.0 m. deep; and
- h) its installation has been, and its use is, supervised by a competent person.

(2) No boatswain's chair, cage, skip or similar plant or equipment (not being a boatswain's chair, cage, skip or similar plant or equipment which is raised or lowered by a power driven lifting appliance) shall be used as a working place in circumstances in which a suspended scaffold could be used unless the work is of such short duration as to make the use of a suspended scaffold unreasonable or the use of a suspended scaffold is not reasonably practicable.

70. (1) All trestles and supports used for the construction of any trestle scaffold shall be of good construction, suitable and sound material, adequate strength for the purposes for which they are used and free from patent defect and shall be properly maintained.

Trestle scaffold.

(2) A trestle scaffold shall not be used –

- a) if the scaffold is so situated that a person would be liable to fall from its working platform a distance of more than 4.5 m.; or
- b) if constructed with more than one tier where folding supports are used.

(3) No trestle scaffold shall be erected on a scaffold platform unless-

- a) the width of the said platform is such as to leave sufficient clear space for the transport of materials along the platform; and
- b) the trestles or supports are firmly attached to the said platform and adequately braced to prevent displacement.

71. (1) Subject to the provisions of this rule, no scaffold (including any boatswain's chair, cage, skip or similar plant or equipment) and no plant or equipment used for the purposes of any of the foregoing shall be used unless (in addition to satisfying the requirements of Part V of these Rules)-

Inspection of scaffolds, boatswain's chairs, etc.

- a) it has been inspected by a competent person within the immediate preceding seven days;
- b) it has been inspected by a competent person since exposure to weather conditions likely to have affected its strength or stability or have displaced any part; and
- c) a report has been made of the results of every such inspection in the form set out in schedule 1 to these Rules and containing the particulars therein specified and signed by the person making the inspection;

Schedule 1

Provided that subparagraph (a) of this paragraph shall not apply in the case of a scaffold no part of which has been erected for more than seven days, and subparagraph (c) shall not apply to a ladder scaffold, a trestle scaffold or a scaffold from no part of which a person is liable to fall a distance of more than 2.0 m.

(2) Paragraph (1) of this rule shall not require a scaffold to be inspected by reason only that it has been added to, altered or partly dismantled.

(3) In the case of a site where the employer for whom the inspection was carried out has reasonable grounds for believing that the operation or works will be completed in a period of less than six weeks, the provisions of this rule requiring that a report shall have been made and signed shall be deemed to have been satisfied if the person in charge of the operations or works carried on by that

employer at that site has himself carried out the inspection and is a competent person and if, within one week of the date of the inspection, he reports to his employer in writing that the scaffold, boatswain's chair, cage, skip or similar plant and equipment, as the case may be, and any plant and equipment used for the purpose of any of the foregoing was inspected by him and that he found it in good order or observed certain defects, as the case may be, and the date of such inspection and the results thereof together with the name of the person making the inspection are entered by the employer in the said form together with the said particulars.

Scaffolds used by workmen of different employers.

72. Where a scaffold or part of a scaffold is to be used by or on behalf of an employer other than the employer for whose workmen it was first erected, the first-mentioned employer shall, before such use, and without prejudice to any other obligations imposed upon him by these Rules, take express steps either personally or by a competent agent, to satisfy himself that the scaffold or part thereof is stable, that the materials used in its construction are sound and that the safeguards required by these Rules are in position.

Construction of working platforms, gangways and runs.

73. (1) Subject to the provisions of paragraph (2) of this rule every working platform, gangway and run from any part of which a person is liable to fall a distance of more than 2.0 m. shall be closely boarded, planked or plated.

(2) The provision of paragraph (1) of this rule shall not apply to-

- a) a platform, gangway or run consisting of open metal work having interstices none of which exceeds three thousand eight hundred and seventy square millimetres in area, if there is no risk of persons below any such platform, gangway or run being struck by materials or articles falling through the platform, gangway or run; or
- b) a platform, gangway or run, the boards, planks or plates of which are so secured as to prevent their moving and so placed that the space between adjacent boards, planks or plates does not exceed 25 mm., if there is no risk of the persons below any such platform, gangway or run being struck by materials or articles falling through the platform.

(3) No gangway or run the slope of which exceeds one vertical to one and a half horizontal shall be used.

(4) Where the slope of a gangway or run renders additional foothold necessary and in every case where the slope is more than one vertical to four horizontal there shall be provided proper stepping laths which shall-

- a) be placed at suitable intervals; and
- b) be the full width of the gangway or run, except that where necessary they may be interrupted over widths of

not more than 100 mm. to facilitate the movement of barrows.
74 (1) Every board or plank forming part of a working platform, gangway or run shall be-

- a) of a thickness which is such as to afford adequate security having regard to the distance between the putlogs or other supports;
- b) not less than 210 mm. wide, in the case of boards or planks exceeding 51 mm. in thickness not less than 155 mm. wide.

(2) No board or plank which forms part of a working platform, gangway or run shall project beyond its end support to a distance exceeding four times the thickness of a board or plank unless it is effectively secured to prevent tipping, or to a distance which, having regard to the thickness and strength of the plank, renders the projecting part of the plank an unsafe support for any weight liable to be upon it.

(3) (a) Subject to the provisions of subparagraph (b) of this paragraph, suitable measures shall be taken by the provision of adequate bevelled pieces or otherwise to reduce to a minimum the risk of tripping and to facilitate the movement of barrows where boards or planks which form part of a working platform, gangway or run overlap each other or are not of reasonably uniform thickness where they meet each other or owing to warping or for some other reason do not provide an even surface.

(b) The provisions of subparagraph (a) of this paragraph shall not apply to a working platform, gangway or run one side of which is contiguous to a curved surface of any cylindrical or spherical structure forming part of a work of engineering construction.

(4) Every board or plank which forms part of a working platform, gangway or run shall-

- a) rest securely and evenly on its supports; and
- b) rest on at least three supports unless, taking into account the distance between the supports and the thickness of the board or plank, the conditions are such as to prevent undue or unequal sagging.

(5) Where work has to be done at the end of a wall or working face the working platform at such wall or face shall, wherever practicable, extend at least 640 mm. beyond the end of the wall or face.

75. (1) Subject to paragraphs (2) and (4) of this rule, every working platform (other than working platforms of suspended scaffolds and working platforms referred to in rules 77 (6) (c) and 84 from which a person is liable to fall, a distance of more than 2.0 m. shall-

- a) if used as footing only and not for the deposit of any material, be at least 640 mm. wide;
- b) if used for the deposit of material, be at least 870 mm. wide and have a clear passage way between one side of the working platform and the deposited material adequate in

Boards and planks in working platforms, gangways and runs.

Width of working platforms

- c) if used for the passage of materials, afford a clear passage way which is adequate in width for the passage of the materials without removal of the guard-rails and toe-boards being a passage way which is in any case 640 mm. wide;
- d) if used for the support of any higher platform be at least 1.07 m. wide;
- e) if used to dress or roughly shape stone be at least 1.3 m. wide;
- f) if used for the support of any higher platform and is one upon which stone is dressed or roughly shaped, be at least 1.5 m. wide; and
- g) in every case be of sufficient width to afford adequate working space at every part.

(2) Subject to paragraph (4) of this rule, the following working platforms to which this rule applies shall be at least 440 mm. wide that is to say-

- a) a platform supported directly by folding trestles or folding step-ladders or a platform under a roof used for work on or in the vicinity of the roof being a platform which is supported by or suspended from roof members or the roof, where in any such case the work thereon is of a light nature and of short duration in any one position and a platform less than 640 mm. or 870 mm. wide (as the case may be) can be used with safety; and
- b) a platform which is used for work in connexion with cylindrical or spherical metal structures.

(3) Where work at the face of a building or other structure is done from a working platform to which this rule applies the space between such face and the working platform shall be as small as practicable, so, however, that where workmen sit at the edge of the platform to work, there may be a space not exceeding 300 mm.

(4) The provisions of paragraphs (1) and (2) of this rule shall not apply to working platform to which this rule applies where it is impracticable by reasons of limitations of space to provide a platform of the width required by the said paragraphs, so, however, that in any case the platform shall be as wide as is reasonably practicable.

Width of the
gangways and
runs

76. (1) Subject to paragraph (2) of this rule, every gangway and run from any part of which a person is liable to fall, a distance of more than 2.0 m. shall-

- a) if used for the passage of persons only be at least 440 mm. wide;
- b) if used for the passage of materials, be adequate in width for the passage of materials and in any case be at least 640 mm. wide.

(2) The provisions of paragraph (1) of this rule shall not apply to a gangway or run where it is impracticable by reason of limitations of space to provide a gangway or run of the width required by the said

provisions, so, however, that in any such case the gangway or run shall be as wide as is reasonably practicable.

77. (1) Every side of a working platform or working place being a side thereof from which a person is liable to fall, a distance of more than 2.0 m. shall, subject to paragraphs (4) to (7) of this rule and except as provided in paragraph (9) of this rule be provided with a suitably guard-rail or guard-rails of adequate strength to a height of between 920 mm. and 1.15 m. above the platform and with toe-boards or other barriers up to a sufficient height which shall in no case be less than 150 mm.

Guard-rails
and toe-boards
at working
platforms and
places.

(2) Any guard-rail, toe-boards, or barriers provided under provisions of this rule shall be so placed as to prevent so far as possible the fall of persons, materials and articles from such platform or place.

(3) Without prejudice to the provisions of rule 60 of these Rules the outward movement of guard-rails and toe-boards or barriers shall (unless they are so designed and used as to prevent such movement) be prevented by placing them on the inside of the upright or by other equally effective means.

(4) Where guard-rails are required to be provided, the distance between any toe-board or other barrier and the lowest guard-rail above it shall not exceed 760 mm.

(5) Guard-rails, toe-boards and barriers required by paragraph (1) of this rule may be removed or remain unerected for the time and to the extent necessary for the access of persons or the movement of materials or other purposes of the work; but guards-rails, toe-boards and barriers removed or remaining unerected for any of these purposes shall be replaced or erected as soon as practicable.

(6) On the side of a suspended scaffold next to the wall or working face-

- a) guard-rails where required by this rule need not extend to a height of more than 690 mm. above the platform if the work is impracticable with a guard-rail at a greater height; and
- b) guard-rails and toe-boards or other barriers shall not be required if the workers sit at the edge of the platform to work and ropes or chains affording all the workers a safe and secure handhold are provided.

(7) None of the requirements of paragraphs (1), (2) and (3) of this rule shall apply to-

- a) the platform of a ladder scaffold if a secure handhold is provided along the full length of such platform;
- b) the platform of a trestle scaffold when the platform is supported on folding trestles, split heads or similar devices or folding step-ladders;

- c) a platform which is used only in the course of erecting any framework or pre-fabricated unit forming part of a building or other permanent structure for the purpose of jointing, bolting-up, reveting or welding work and which is used for such short period as to make the provision of guard-rails and toe-boards or barriers unreasonable if-
 - i. the platform is 870 mm. wide;
 - ii. there is adequate handhold; and
 - iii. the platform is not used for the deposit of materials or articles otherwise than in boxes or receptacles suitable to prevent the fall of the materials or articles from platform;
- d) a temporary platform passing between two adjacent glazing bars of a roof with a sloping surface if those bars or the roof framework afford secure handhold along the full length of the platform;

Provided that toe-boards or barriers shall be provided in accordance with paragraphs (1), (2) and (3) of this rule except where the provision of toe-board or barriers is impracticable on account of the nature or circumstances of the work;
- e) a platform under a roof being a platform which is supported by or suspended from roof members or the roof and which is used only for work on or in the vicinity of the roof and of a light nature and of such short duration as to make the provision of guard-rails and toe-boards or barriers unreasonable if-
- f) a working platform or working place one side of which is contiguous to the concave surface of a cylindrical or spherical structure so long as reasonably practicable steps are being taken to prevent persons working thereon from falling a distance of more than 2.0 m.

(8) Notwithstanding the provisions of this rule toe-boards or barriers shall be provided in accordance with paragraphs (1), (2) and (3) of this rule except where the provision of toe-boards or barriers is impracticable on account of the nature or circumstances of the work.

(9) Except as provided in rule 84 of these Rules, the provisions of this rule shall not apply to working platforms and working places being working platforms and working places to which that rule applies.

Guard-rails
etc., for
gangways,
runs and stairs

78. (1) Except for the time and to the extent necessary for the access of persons or the movement of materials, stairs shall be provided throughout their length with hand-rails or other efficient means to prevent the fall of persons, and, where necessary to prevent danger to any person the hand-rails or other means shall be continued beyond the end of the stairs.

- (2) Every side of any gangway, run or stairs from which a person is liable to fall a distance of more than 2.0 m. shall be provided
- with a suitable guar-rail or guard-rails of adequate strength to a height of between 920 mm. and 1.15 m. above the gangway, run or stairs; and
 - except in the case of stairs, and subject to paragraph (3) of this rule, with toe-boards or other barriers up to a sufficient height which shall in no case be less than 155 mm. and so placed as to prevent as far as possible the fall of persons materials and articles, and the space between any such toe board or barrier and the lowest guard-rail above it shall not exceed 760 mm.

(3) The provisions of paragraph (2) of this rule shall not apply to a temporary gangway which is used only in the course of erecting any framework forming part of a building or other permanent structure for work of such short duration as to make the provision of a gangway with guard-rails and toe-boards or other barriers unreasonable.

(4) Guard-rails, toe-boards and barriers required by paragraph (2) of this rule may be removed or remain unerected for the time and to the extent necessary for the access of persons or the movement of materials or other purposes of the work; but guard-rails, toe-boards and barriers removed or remaining unerected for any of these purposes shall be replaced or erected as soon as practicable.

79. (1) If a platform, gangway, run or stair becomes slippery, appropriate steps shall as soon as reasonably practicable be taken by way of sanding, cleaning or otherwise to remedy the condition.

(2) Every platform, gangway, run or stair shall be kept free from and unnecessary obstruction and material and free from rubbish and any projecting nails.

80 (1) Every ladder and folding step-ladder shall be of good construction, of suitable and sound material and of adequate strength for the purpose for which it is used and shall be properly maintained.

(2) A contractor shall not use a ladder in which a rung is missing or is defective.

(3) Every rung of a ladder shall be properly fixed to the stiles or sides.

(4) No ladder shall be used in which any rung depends for its support solely on nails, spikes or other similar fixing.

(5) Where in the case of a wooden ladder the tendon joints are not secured by wedge, reinforcing ties shall be used.

(6) Wooden stiles or sides and wooden rungs of ladders shall have all the grain running lengthwise:

Provided that the requirements of paragraph (3), (4), (5) and (6) of this rule shall not apply to ladders to which rule 84 of these Rules applies.

81. (1) The provisions of this rule shall apply to ladders and folding step-ladders being ladders and folding step-ladders which afford a means of access, egress, communication or support to a

Platforms,
gangways,
runs, and
stairs to afford
safe foothold

Construction
and
maintenance
of ladders

Use of ladders

person or persons employed, but not to any ladder lying upon a roof or to any crawling board or crawling ladder.

(2) Subject to the provisions of paragraph (4) of this rule, no ladder standing on a base shall be used unless-

- a. except as provided in paragraph (3) of this rule, it is securely fixed near to its upper resting place, or, in the case of a vertical ladder, near to its upper end, but where such fixing is impracticable the ladder shall be securely fixed at or near to its lower end;
- b. it has a level and firm footing and is not standing on loose bricks or other loose packing;
- c. it is secured where necessary to prevent undue swaying or sagging; and
- d. it is equally and properly supported on each stile or side.

(3) Subject to the provisions of paragraph (4) of this rule, where it is impracticable in the case of a ladder standing on a base to comply with either of the requirements of subparagraph (a) of paragraph (2) of this rule, a person shall be stationed at the foot of the ladder when in use to prevent it slipping.

(4) Paragraphs (2) and (3) of this rule shall not apply to a ladder which is not more than 3.0 m. in length and which is not used as a means of communication, if the ladder is securely placed so as to prevent it from slipping or falling.

(5) (a) No ladder shall be used unless

- i. it extends to a height of at least 1.0 m. above the place of landing or the highest rung to be reached by the feet of any person using the ladder, as the case may be, or, if this is impracticable, to the greatest practicable height; or
- ii. there is other adequate handhold; and

(b) there is sufficient space at each rung to provide adequate foothold.

(6) Every ladder, other than ladders to which paragraphs (2) and (3) of this rule apply, shall before being used-

be securely suspended;

be secured where necessary to prevent undue swinging or swaying; and

be equally and properly suspended by each stile or side.

(7) No folding step-ladder shall be used unless it has a level and firm footing or while it is standing on loose bricks or other loose packing.

(8) No ladder or run of ladders rising a vertical distance of over 9.0 m. shall be used unless it is, if practicable, provided with an intermediate landing place or intermediate landing places so that the vertical distance between any two successive landing places shall not exceed 9.0 m.

(9) Every landing place shall be of adequate dimensions and, if a person is liable to fall therefrom a distance of more than 2.0 m. shall,

except in so far as it is not reasonably practicable, be provided with sufficient and suitable guard-rails to a height of between 1.0 m and 1.15 m. above the landing place and with toe-boards or other barriers up to a sufficient height which shall in no case be less than 150 mm., so placed as to prevent as far as possible the fall of persons materials and articles and so that the space between any toe-board or other barrier and the lowest guard-rail above it shall not exceed 760 mm.

(10) Where any ladder passes through an opening in the floor of a landing place, the opening shall be as small as is reasonably practicable.

82. (1) Paragraphs (1), (2) and (3) of this rule shall apply to every opening, corner, break or edge being an opening, corner break or edge which any person employed is liable to approach or near or across which any person is liable to pass-

Openings,
corners,
breaks, edges,
and open
joisting

in or of a roof (other than a roof to which rule 84 applies),
floor, wall or other similar part either of a building or of
any other structure whether the roof, floor, wall or other
similar part of the building or of the other structure is
complete or only partly complete or is in course of
construction, maintenance, repair or demolition; or
in or of a working platform, gangway or run.

(2) Subject to rule 83 of these Rules, in the case of any such opening, corner, break or edge through or from which any person is liable to fall a distance of more than 2.0 m. or to fall into any liquid or material so as to involve risk of drowning or serious injury there shall be provided either-

- a) a suitable guard-rail or guard-rails of adequate strength to a height of between 1.0 m. and 1.15 m. above the surface across which persons are liable to pass together with toe-boards or other barriers up to a sufficient height which shall in no case be less than 150 mm., so placed as to prevent as far as possible the fall of persons, materials and articles and so that the space between any toe-board or other barrier and the lowest guard-rail above it shall not exceed 760 mm.; or
- b) a covering so constructed as to prevent the fall of persons, materials and articles, and any such covering shall be clearly and boldly marked to show its purpose or be securely fixed in position.

(3) Subject to rule 83 of these Rules in the case of any such opening, corner, break or edge (not being an opening, corner, break or edge to which the last foregoing paragraph of this rule applies) through or from which materials or articles are liable to fall so as to endanger persons employed, suitable precautions by way of the erection of toe-boards, secure covering or otherwise shall be taken to prevent materials and articles so falling.

(4) Subject to rule 83 of these Rules, when work is done on or immediately above any open joisting through which a person is liable to fall a distance of more than 2.0 m., such joisting shall be securely

covered by boards or other temporary covering to the extent necessary to afford safe access to or foothold for the work, or other effective measures shall be taken to prevent persons from falling.

Exceptions
from rule 82

83 (1) Guard-rails, toe-boards, barriers and coverings required by rule 82 of these Rules may be removed or remain unerected-where and when this is necessary in order to proceed with any permanent filling in, covering or enclosure; or for the time and to the extent necessary for the access of persons or the movement of materials or other purposes of the work, but guard-rails, toe-boards, barriers and coverings removed or remaining unerected for any of these purposes shall be replaced or erected as soon as practicable.

(2) Notwithstanding the provisions of rule 77, rule 82 of these Rules shall not apply to any opening, corner, break or edge created in the course of demolition operations to which rule 41 of these Rules applies, or to any opening, corner, break or edge created in the course of any other demolition operation, if in the course of such last mentioned demolition operation the opening, corner, break or edge is not left unattended.

Sloping roof

84. (1) In this rule “sloping roof” means a roof or part of a roof being a roof or part having a pitch of more than ten degrees which is covered either wholly or partly and-
which is in the course of construction, maintenance, repair or demolition; or
which is used as a means of access to or egress from operations or works on a roof or part of a roof being operations or works to which these Rules apply.

(2) Except as provided in paragraphs (6) and (7) of this rule, where any sloping roof has-

- a) a pitch of more than thirty degrees; or
- b) a pitch of thirty degrees or less and a surface on or from which a person is by reason of the nature or condition of the surface or of the weather liable to slip or fall to such an extent that he is liable to fall from the edge of the roof:

work thereon or therefrom shall only be carried out by workmen who are suitable for such work and the requirement of paragraphs (3) and (4) of this rule shall be complied with.

(3) Where any sloping roof is used as a means of access to or egress from operations or works on a roof or part of a roof being operations or works to which these Rules apply, sufficient and suitable crawling ladders or crawling boards shall be provided on that sloping roof.

(4) Where any work is done on or from any sloping roof, sufficient and suitable crawling boards shall be provided on that sloping roof and (except where the work is not extensive) either-

a) a barrier shall be provided at the lower edge of the sloping roof, other than the upper surface of a tank or similar structure of metal construction, of such a design and so constructed as to prevent any person falling from that edge; or

b) the work shall be done from a securely supported working platform not less than 440 mm. wide which complies with the requirements of paragraphs (1) to (5) of rule 77 of these Rules.

(5) Crawling ladders and crawling boards provided in pursuance of paragraphs (3) or (4) of this rule shall be-

a) of good construction, suitable and sound material, adequate strength for the purpose for which they are used, free from patent defect and properly maintained;

b) properly supported; and

c) securely fixed or anchored to the sloping surface or over the roof ridge or securely fixed in some other effective way, so as, in every case, to prevent slipping.

(6) The provision of crawling ladders or crawling boards shall not be required in the case of any sloping roof where the handhold and foothold afforded by the battens or other similar members of the structure are such that the said sloping roof is as safe for every person thereon as it would be if the said provision had been made.

(7) The requirements of paragraph (4) (a) and (b) of this rule shall apply only in the case of any sloping roof from the eaves of which a person is liable to fall a distance of more than 2.0 m.

(8) Suitable and sufficient means shall be provided to prevent the fall of materials or articles from a sloping roof.

Work on or
near fragile
material

85. (1) Notwithstanding the provisions of rules 82 and 84 of these Rules, no person shall pass across, or work on or from material which would be liable to fracture if his weight were to be applied to it and so situated that if it were to be so fractured he would be liable to fall a distance of more than 2.0 m. unless such one or more of all or any of the following, that is to say, suitable and sufficient ladders, crawling ladders, crawling boards and duck boards (which shall in any case be securely supported and, if necessary, secured so as to prevent their slipping) as are necessary are provided and so used that the weight of any person so passing or working is wholly or mainly supported by such ladders or boards unless his weight is supported by other equally safe and sufficient means.

(2) Notwithstanding the provisions of rules 82 and 84 of these Rules, no person shall pass or work near material of the kind and situated as specified in paragraph (1) of this rule unless provision is made by means of such one or more of all or any of the following that is to say, suitable guard-rails, suitable coverings and other suitable means are necessary for preventing, so far as reasonably practicable any person so passing or working from falling through the said material.

(3) Where any person passes across or near, or work on or near material of the kind and situated as specified in paragraph (1) of this rule prominent warning notices shall, except where the material consists wholly of glass, be affixed at the approaches to the place where the material is situated.

(4) References in this rule to a person's weight shall be construed as references to the aggregate of his weight and that of anything he may for the time being be supporting by his person.

(5) All plant and equipment provided in pursuance of this rule shall be of good construction, suitable and sound material, adequate strength for the purpose for which it is used, free from patent defect and properly maintained.

86. (1) A scaffold shall not be overloaded and so far as practicable the load thereon shall be evenly distributed.

(2) When any material is transferred on or to a scaffold it shall be moved or deposited without imposing any violent shock. Material shall not be kept upon a scaffold unless needed for work within a reasonable time.

Loads on
scaffolds

87. (1) Where by reason of the special nature or circumstances of any part of the work or of the access thereto or the egress therefrom it is impracticable to comply with all or any of the requirements of the provisions of rules 55, 56, 73, to 79, 82, 84 and 85 of these Rules so far as they relate to the falls of persons, the requirements of those provisions shall be complied with so far as practicable and in any such case, except as provided in paragraphs (2) and (3) of this rule, there shall in addition where practicable be provided and so erected and kept in such positions as to be effective to protect persons carrying on that or safety sheets part of the work or using the said access or egress suitable safety nets of such a design and so constructed and installed as to prevent so far as practicable injury to persons falling on to them.

(2) Any safety nets or safety sheets provided under this rule may be removed or remain unerected for the time and to the extent necessary for the access of persons or the movements of materials or other purposes of the work, but shall be replaced or erected as soon as practicable.

(3) Where by virtue of paragraph (2) of this rule safety nets or safety sheets would be required to be provided for the protection of persons carrying on any part of the work or using the access thereto or the egress therefrom but all such persons are able to carry on that work or use the said access or egress while making use of safety belts attached continuously to suitable and securely fixed anchorage, such safety nets or safety sheets shall not be required to be provided if there are provided and so used by those persons while carrying on that work and using the said access and egress suitable and sufficient safety belts or other suitable and sufficient equipment.

Prevention of
falls and
provisions of
safety nets

- (4) In a case where-
 - a) it is impracticable to provide all such safety nets or safety sheets as would be required to comply with the requirements of paragraph (1) of this rule;
 - b) it is not reasonably practicable so to provide all such nets or sheets by reason of the frequent movement of material or other purposes of work; or
 - c) the work is of such short duration as to make the provision of all such nets or sheets unreasonable;
- (5) All safety nets, safety sheets, safety belts and other equipment provided in pursuance of this rule shall be properly maintained.

Part V – LIFTING OPERATIONS

Lifting
machinery

Schedule 2

88. (1) Lifting appliances, chains, ropes and lifting gear to which this rule applies shall, as respects the incidental or occasional use thereof in or for the purposes of operations or works to which these Rules apply, be excluded from the operations of the rules specified in column 1 of Schedule 2 to these Rules to the extent respectively specified in column 2 thereof and subject to the exceptions and conditions respectively specified in column 3 thereof.

(2) This rule applied to any lifting appliances, chains, ropes, or lifting gear-

- a) which forms part of the permanent equipment of a factory or other premises to which the safety provisions in sections 30, 31, and 32 of the Factories Act apply and which is used at the factory or those premises in raising or lowering for purposes other than the operations or works to which these Rules apply, but is being used for such operations or works at the factory or those premises; or
- b) which is regularly and ordinarily used in the process of loading, unloading, moving or handling goods in, or at any dock, wharf or quay in any port or harbour specified in the First Schedule to the Factories (Docks) Rules, but is being used for operations or works to which these Rules apply in, on or at a dock, wharf or quay in any port or harbour as specified in that schedule.

Delivery of
loads with
lifting gear
attached

89. Where any article, material or other load intended for use in operation or works to which these Rules apply in delivery at, or adjacent to, the site of such operations or works with a chain, rope or lifting gear attached thereto and designed for use as a means of raising and lowering that class of load when removing the same from the point of delivery to a position on the site, and the chain, rope or gear is free from patent whether of construction or quality and is not owned or hired by any contractor or employer of workmen who is undertaking any such operations or works as aforesaid on the site then the requirements of rules 116, 117, 122 and 123 of these Rules shall not

apply in respect of the use of such chain, rope or lifting gear for raising or lowering the load so long as the chain rope or gear remains attached to the article, materials or load.

90. Rules 92, 97, 124 to 128 and 130 of these Rules shall not apply to a hoist forming part of the permanent equipment of any structure or underground shaft and which is regularly and ordinarily used for the carriage of persons or goods, but no such hoist shall be used for the purpose of any operations or works to which these Rules apply unless the following conditions are complied with, that is to say-

Hoists
forming part
of the
permanent
equipment

- a) the hoist shall not be so used for the carrying of persons, materials, tools or other articles unless the said hoist, or lift complies with the requirements of section 30 of the Factories Act;
- b) the hoist shall not be so used for carrying materials, tools or other articles, other than light articles readily carried by a person who is riding in the hoist, unless the hoist complied with the requirements of section 30 of the Factories Act;
- c) on any occasion when the hoist has been used for raising or lowering for the purpose of such operations or works the hoist way gate or lift door at a landing place shall not be left open except where it is immediately necessary for it to be open to afford access to the hoist for some other purpose.

91. (1) In the case of a hoist manufactured before the date of the commencement of these Rules, if it is not reasonably practicable to comply with any requirement of rules 124 (2), 124 (3), 126 or 130 of these Rules it shall be sufficient if-

Hoists
manufactured
before the
commenceme
nt of these
Rules

- a) the hoist has been brought as near as is reasonably practicable into conformity with that requirement and a certificate that this has been done has been obtained from a competent person.

(2) In the case of a hoist which at the date of commencement of these Rules is used, and so long thereafter as it is continued to be used, in works of engineering construction it shall be sufficient if the requirements of paragraph (1) of this rule are complied with within three years from the said date of commencement.

92 (1) Every lifting appliance and every part thereof including all working gear and all other plant or equipment used for anchoring or fixing such appliances shall-

Construction,
maintenance
and inspection

- a) be of good mechanical construction, sound material, adequate strength and free from patent defect;
- b) be properly maintained; and
- c) as far as the construction permits, be inspected at least once in every week by the driver if competent for the purpose, or other competent person.

(2) A report of the result of every inspection carried out under the provisions of paragraph (1) (c) of this rule, signed by the person carrying out the inspection shall be made forthwith in the prescribed form and containing the prescribed particulars.

(3) In the case of a site where the employer for whom the inspection was carried out has reasonable grounds for believing that the operations or works will be completed in a period of less than six weeks, the provision in this rule requiring that a report shall be made and signed, in so far as it relates to lifting appliances, not worked by mechanical power and all plant or equipment used for anchoring or fixing such appliances, shall be deemed to have been satisfied if the person in charge of the operations or works carried on by that employer at that site has himself carried out the inspection and is a competent person, and if, within one week of the date of the inspection he reports to his employer in writing that the lifting appliance them in good order, or observed certain defects as the case may be, and the date of such inspection and the results thereof together with the name of the person making the inspection are entered by the employer in the prescribed form together with the prescribed particulars.

Support,
anchoring,
fixing and
erecting

93. (1) Every lifting appliance shall be adequately and securely supported.

(2) Every part of a stage, scaffold, framework or other structure and every mast, beam, pole, or other article of plant or equipment supporting a lifting appliance or any part thereof shall (having regard to the nature of the lifting appliance, its lifting and reaching capacity and the circumstances of its use) be of good construction and adequately strength and shall be of sound material and free from patent defect.

(3) Every part of the framework of every crab or winch including its bearers shall be of metal.

(4) Any anchoring or fixing arrangements provided in connexion with a lifting appliance shall be adequate and secure.

(5) Every temporary attachment or connexion of a rope, chain or other plant or equipment, used in the erection or dismantling of any lifting appliance shall be adequate and secure.

(6) In the case of a crane which is on occasion dismantled or partially dismantled, any jib or boom which is separated from the crane in dismantling shall be clearly marked so as to indicate the crane to which it was a part.

Precautions
where lifting
appliance has
travelling or
slewing
motion

94. (1) On every stage, gantry or other place where a lifting appliance having a travelling or slewing motion is in use, an unobstructed passageway not less than 610 mm. wide shall be maintained between any part of the appliance liable so to move and any guard-rails, fencing or other nearby fixture.

(2) Where at any time it is impracticable to maintain a passageway as provided under this rule at any place or point all reasonable steps shall be taken to prevent the access of any person to such place or point at such time.

95. (1) Where a platform is provided for the person driving or operating a crane, or for any signaller, such platform shall be-

Platforms for
crane drivers
and signallers

- a) of sufficient area for the persons employed thereon;
- b) close planked or plated; and
- c) provided with safe means of access

and every side of every such platform being a side thereof from which a person is liable to fall a distance of more than 2.0 m. shall be provided with a suitable guard-rail or guard-rails of adequate strength, to a height of at least 1.0 m. above the platform and above any raised standing place on the platform, and with toe-boards up to a sufficient height being in no case less than 210 mm. and so placed as to prevent as far as possible the fall of persons, materials and tools from such platform.

(2) The space between any toe-board and the lowest guard-rail above it on any platform for the person or persons driving or operating a crane, or for any signaller, shall not exceed 680 mm.

(3) Guard-rails and toe-boards required by this rule may be removed or remain unerected only for the time and to the extent necessary for the access of persons or the movement of materials.

96. (1) Subject to paragraphs (2), (3) and (4) of this rule, the driver of any power driven lifting appliance shall be provided with a suitable cabin which shall-

Cabin for
driver

- a) afford him adequate protection from the weather; and
- b) be so constructed as to afford ready access to such parts of the lifting appliance as are within the cabin and need periodic inspection or maintenance.

(2) No cabin shall be provided which prevents the driver from having such clear and unrestricted view as is necessary for the safe use of the appliance.

(3) Subject to paragraph (4) of this rule, where reasonably practicable the cabin shall, before such lifting appliance is put into general use, be completely erected, or other adequate provision shall be made for the protection of the driver from the weather.

(4) Paragraphs (1), (2) and (3) of this rule shall not apply-

- a) in cases where the driver is indoors or otherwise adequately protected from the weather;
- b) to a hoist other than a hoist operated only from one position alongside the winch;
- c) to lifting appliances mounted on wheels and having a maximum safe working load of one tonne or less;
- d) to any machine incorporating a lifting appliance where the primary purpose of that machine is not that of a lifting

- appliance; or
- e) to lifting appliances for occasional use or for use for only short periods.

Drums and
Pulleys

97. Every drum or pulley round which the chain or wire rope of any lifting appliance is carried shall be of suitable diameter and construction for the chain or rope used, and every chain or rope which terminates at the winding drum of a lifting appliance shall be properly secured thereto and at least two turns of such chain or rope shall remain on the drum in every operating position of the appliance.

Brakes,
controls,
safety devices,
etc

98. (1) Every crane, crab and winch shall be provided with an efficient brake or brakes or other safety device which will prevent the fall of the load when suspended, and by which the load can be effectively controlled whilst being lowered.

(2) On every lifting appliance every lever, handle, switch or other device provided for controlling the operation of any part of the appliance being a lever, handle, switch or other device whose accidental movement or displacement is liable to cause danger, shall, where practicable (unless it is so placed or the appliance is so constructed as to prevent accidental movement or displacement) be provided with a suitable spring or other locking arrangement to prevent the accidental movement or displacement;

Provided that in the case of a lifting appliance which at the date of commencement of these Rules is used, and so long thereafter as it is continued to be used, in works of engineering construction it shall be sufficient if the requirements of this paragraph are complied with within two years from the said date of commencement.

(3) Every lever, handle, switch or other device provided for controlling the operation of any part of a lifting appliance shall have upon or adjacent to it clear markings to indicate its purpose and mode of operation;

Provided that this paragraph shall not apply to rotating handles for raising or lowering the load in the case of a winch or non-derricking jib crane not operated by mechanical power.

Safe means of
access

99. Where any person engaged on the examination, repair, or lubrication of any lifting appliance is liable to fall a distance of more than 2.0 m. there shall, so far as is reasonably practicable, be provided and maintained safe means of access to and egress from the place at which the person has to work, with where necessary adequate handholds and footholds.

Poles or
beams
supporting
pulley blocks
or gin wheels

100. No pulley block or gin wheel suspended from or supported by a pole or beam shall be; used for raising or lowering materials unless it is effectively secured to the pole or beam and the pole or beam-

- a) is of adequate strength for the purpose for which it is being used; and
- b) is adequately and properly secured so as to support the pulley block or gin wheel and the load with safety and so as to prevent undue movement of the pole or beam.

101. (1) Appropriate precautions shall be taken to ensure the stability of lifting appliances used on soft or uneven surface or on a slope.

(2) No crane shall be used for raising or lowering unless so as to ensure stability, it is either securely anchored, or adequately weighted by suitable ballast which shall be properly placed on the crane structure and sufficiently secured to prevent its being accidentally displaced.

(3) No part of any rails on which a crane is mounted or the sleepers supporting such rails shall be used as anchorage for this purpose.

(4) The whole of the appliances for the anchorage or ballasting of a crane shall be examined by a competent person on each occasion before the crane is erected.

(5) After each erection of a crane on a site of operations or works to which these Rules apply, and after each removal of a crane about or to such a site, or any adjustment to any member of a crane being a removal or adjustment which involves changes in the arrangements for anchoring or ballasting the crane, the security of the anchorage or the adequacy of the ballasting, as the case may be, shall, before the crane is taken into use, be tested by a competent person, by the imposition either-

- a) of a load of twenty-five per cent, above the maximum load to be lifted by the crane as erected at the positions where there is the maximum pull on each anchorage; or
- b) of a less load arranged to provide an equivalent test of the anchorage or ballasting arrangements.

(6) A report of every such test and the results thereof, signed by the person carrying out the test, shall be made forthwith in the prescribed form and containing the prescribed particulars.

(7) If the person making tests under paragraph (5) of this rule considers that the maximum load which may safely be lifted by that crane as erected is less than the safe working load of the crane as defined in rule 3 of these Rules he shall specify that maximum among the said particulars and a loading diagram appropriate to the stability of the crane as at the time of the test, taking into account, in the case of a crane mounted on wheels, the condition of the track, and indicating a modified safe working load or loads shall be affixed in a position where it can readily be seen by the crane driver, and such modified safe working load or loads shall be deemed for the purpose of these Rules to be the safe working load or loads of the crane as erected.

(8) Where the stability of a crane is secured by means of removable weights a diagram or notice indicating the position and amount of such weights shall be affixed on the crane where it can be readily seen.

(9) No crane shall be used or erected under weather conditions likely to endanger its stability. After exposure to weather conditions likely to have affected the stability of a crane, the anchorage arrangements and ballast shall be examined by a competent person as soon as practicable and before the crane is used, and any necessary steps taken to ensure the stability of the crane.

Rail mounted
cranes

102. (1) All rails on which a crane moves shall

- a) be supported on a surface sufficiently firm to prevent undue movement of the rails;
- b) have an even running surface, be sufficiently and adequately supported, and be of adequate section;
- c) be jointed by fish plates or double chairs;
- d) be securely fastened to sleepers or bearers;
- e) be laid in straight lines or in curves of such radii that the crane can be moved freely and without danger of derailment; and
- f) be provided with adequate stops or buffers on each rail at each end of the track.

(2) All rails and equipment referred to in paragraph (1) of this rule shall be properly maintained;

Provided that requirements (c) and (d) of that paragraph shall not apply in the case of cranes on bridge rails or in the case of any crane if other adequate steps are taken to ensure the proper junction of the rails and to prevent any material variation in their gauge.

(3) In the case of a crane mounted on rails the crane shall be provided with effective brakes for the travelling motion, or sprags, scotches or chocks shall be available, and used when necessary.

(4) Where a Scotch derrick crane is mounted on more than one bogie, trolley or wheeled carriage, the crane sleepers or land ties, and if necessary the bogies, trolley or wheeled carriages shall be rigidly braced and properly connected together, and the rails on which each bogie, trolley or wheeled carriage moves shall be level, and the crane shall be moved on the track only in a manner not liable to cause instability, racking or distortion either of the crane structure or of the supporting framework or track.

(5) Every travelling crane on rails shall be provided with guards to remove from the rails any loose material likely to cause danger.

Mounting of
crane

103. Every bogie, trolley or wheeled carriage on which a crane is mounted shall, having regard to the purposes for which the crane is being used, be of good construction, adequate strength and suitable to support the crane and shall be of sound material, free from patent defect and properly maintained.

<p>104. On every crane having a derricking jib operated through a clutch there shall be provided and properly maintained an effective interlocking arrangement between the derricking clutch and the pawl sustaining the derricking drum which shall ensure that the clutch cannot be disengaged unless the pawl is in effective engagement with the derricking drum and the pawl cannot be disengaged unless the clutch is in effective engagement with the derricking drum;</p> <p>Provided that this rule shall not apply to any crane in which-</p> <ul style="list-style-type: none"> a) the hoisting drum and the derricking drum are independently driven; or b) the mechanism driving the derricking drum is self-locking. 	<p>Cranes with derricking jibs</p>
<p>105. (1) Notwithstanding the provisions of paragraph (2) of this rule, the hoisting mechanism of a crane shall not be used for any purpose other than raising or lowering of load vertically unless no undue stress is imposed on any part of the crane structure or mechanism, and the stability of the crane is not thereby endangered and unless such use is supervised by a competent person.</p> <p>(2) A crane with a derricking jib shall not be used with the jib at a radius exceeding the maximum radius required to be specified for the jib in the certificate of test and examination required by rule 11o of these Rules.</p>	<p>Restriction on use of cranes.</p>
<p>106. No person shall use any crane which has any timber structural member.</p>	<p>Use of crane with timber structural member prohibited</p>
<p>107. No person shall erect a crane except under the supervision of a competent person.</p>	<p>Erection of cranes under supervision</p>
<p>108. (1) A lifting appliance shall not be operated otherwise than by a person trained and competent to operate the appliance except that it shall be permissible for the appliance to be operated by a person who is under the direct supervision of a qualified person for the purpose of training.</p> <p>(2) No person under eighteen years of age shall be employed (except under the direct supervision of a competent person for the purpose of training) either to give signals to the operator of any lifting appliance driven by mechanical power or to operate any such appliance.</p> <p>(3) Subject to paragraphs (4) and (5) of this rule, if the person operating a lifting appliance has not a clear and unrestricted view of the load, or, where there is no load, of the point of attachment for a load, and of its vicinity, throughout the operations, except at any place where such view is not necessary for safe working, there shall be</p>	<p>Competent persons to operate lifting appliance and give signals</p>

appointed and suitably stationed one or more competent persons as may be necessary to give necessary signals to the operator.

(4) Where and in so far as it is impracticable to comply with the requirements of paragraph (3) of this rule effective measures shall be taken to enable the driver or operator of the lifting appliance-

- a) to ascertain the position of the load, or point of attachment for a load, when it is in the vicinity of a loading or unloading point or of any other place at which danger is reasonably to be anticipated; or
- b) to ensure the safe movement of the load by other means.

(5) The provisions of paragraphs (3) and (4) of this rule shall not apply-

- a) in the case of a hoist of an aerial cableway, or of an aerial ropeway; or
- b) (in the case other than that of a hoist) as respects places where the appliance can raise or lower the load (or point of attachment for a load) vertically only, without any horizontal or slewing motion, if for safe working the driver or operator of the appliance needs information related to the movement, stopping or position of the load, or point of attachment for a load, when it is at or in the immediate vicinity of certain points only, and effective arrangements are made by means of a signalling system, position indicators or otherwise, for providing the driver or operator with any such information necessary for safe working.

(6) There shall be efficient signalling arrangements between the driver or operator and persons employed at a loading or unloading point of an aerial cableway or aerial ropeway.

Signals

109. (1) Every signal given for the movement of stopping of a lifting appliance shall be distinctive in character and such that the person to whom it is given is able to hear or see it easily.

(2) Devices or apparatus used for giving sound, colour or light signals for the purposes aforesaid shall be properly maintained and the means of communication shall be adequately protected from accidental interference.

Testing and examination of cranes, etc

110. (1) Subject to paragraph (4) of this rule, no crane, crab or winch shall be used unless it has been tested and thoroughly examined by a competent person within the previous four years and no pulley block, gin wheel or sheer legs shall be used in the raising or lowering of any load weighing one tonne or more unless it has been tested and thoroughly examined by a competent person.

(2) Subject to paragraph (4) of this rule, no crane, crab or winch shall be used after any substantial alteration or repair affecting its strength or stability until it has been tested and thoroughly examined by a competent person and no pulley block, gin wheel or

sheer legs shall, after any substantial alterations or repair be used in the raising or lowering of any load weighing one tonne or more until it has been tested and thoroughly examined by a competent person.

(3) Subject to paragraph (4) of this rule, no lifting appliance shall be used unless it has been thoroughly examined by a competent person within the previous fourteen months or after it has undergone any substantial alteration or repair.

(4) Nothing in paragraphs (1), (2) and (3) of this rule shall apply to a hoist.

(5) No crane, crab, winch, pulley block or gin wheel shall be used unless there has been obtained in such form as may be prescribed as respects the kind of lifting appliance tested and examined a certificate of any test and examination required by paragraphs (1) and (2) of this rule signed by the person making or responsible for the carrying out of the test and examination and specifying-

- a) the safe working load or loads;
- b) in the case of a crane with a variable operating radius (including a crane with a derricking jib), the radii of the jib, trolley or crab appropriate to the specified safe working loads; and
- c) in the case of a crane with a derricking jib, the maximum radius at which the jib may be worked.

(6) A report in writing containing the prescribed particulars of the result of every test or examination required by paragraphs (1), (2) and (3) of this rule, signed by the person carrying out the test or examination, shall be made within twenty-eight days from the completion of the test;

Provided that this paragraph shall not apply to a test or examination of which a certificate has been obtained in accordance with paragraph (5) of this rule.

(7) The person making the report of any test or examination required by paragraphs (1), (2) and (3) of this rule shall, within twenty-eight days of the completion of the test or examination, sent to the Inspector of Factories of the area a copy of the report in every case where the test or examination shows that the plant or equipment cannot continue to be used with safety unless certain repairs are carried out immediately or within a specified time.

111. (1) The safe working load or safe working loads and means of identification shall be plainly marked-

- a) upon every crane, crab or winch; and
- b) upon each pulley block, gin wheel, sheer legs, derrick pole, derrick mast or aerial cableway used in the raising or lowering of any load weighing one tonne or more.

(2) Every crane of variable operating radius (including a crane with a derricking jib) shall-

- a) have plainly marked upon it the safe working load at various radii of the jib, trolley or crab, and, in the case of a

Marking of
safe working
loads.

- b) be fitted with an accurate indicator, clearly visible to the driver, showing the radius of the jib, trolley or crab, at any time and the safe working load corresponding to that radius.

Indication of
safe working
load of jib
cranes

112. (1) No jib crane having either a fixed or a derricking jib (other than a mobile crane) shall be used unless it is fitted with an approved type of automatic safe load indicator which shall be properly maintained, and such indicator shall be tested by a competent person other than the crane driver after erection of installation of the crane for the purpose of any operations or works to which these Rules apply and before the crane is taken into use.

(2) No mobile crane having either a fixed or derricking jib shall be used unless it is fitted with an approved type of automatic safe load indicator which shall be properly maintained, and every such indicator shall be tested by a competent person before the crane taken into use-

- a) on each occasion after it has been wholly or partially dismantled; and
- b) after each erection, alteration or removal of the crane for the purpose of any operations or works to which these Rules apply, being an erection, alteration or removal likely to have effected the proper operation of the indicator.

(3) The indicator shall be inspected in any case at intervals not exceeding one week, when the crane is in use, by the person carrying out the inspection required under subparagraph (c) of paragraph (1) of rule 92 of these Rules and the result of every such inspection shall be reported in the manner specified in paragraph (2) of that rule.

(4) A report of the results of every test required by this rule, signed by the person carrying out the test, shall be made forthwith in the prescribed form and containing the prescribed particulars.

(5) This rule shall not apply-

- a) to any guy derrick crane, being a crane of which the mast is held upright solely by means of ropes with the necessary fittings and tightening screws;
- b) to any hand crane which is being used solely for erecting or dismantling another crane; or
- c) to any crane having a maximum safe working load of one tonne or less; or
- d) until the expiration of two years after the date of commencement of these Rules, to any excavator adapted for use as a crane.

113. None of the following appliances, nor any part of any such appliance, shall be loaded beyond the safe working load, that is to say, cranes, crabs, winches, pulley blocks, gin wheels, sheer legs, derrick poles and derrick masts; so, however, that for the purpose of making tests of any such appliances the safe working load may be exceeded by such an amount as a competent person appointed to carry out the test may authorize.

Load not to exceed safe working load

114. (1) Where there is lifted on a crane, crab, winch (other than a piling winch), sheer legs or aerial cableway a load which is equal to or slightly less than the relevant safe working load and which is not already sustained wholly by the appliance, the lifting shall be halted after the load has been raised a short distance and before the operation is proceeded with.

Precaution on raising or lowering loads

(2) Where more than one lifting appliance is required to raise or lower one load-

- a) the plant or equipment used shall be so arranged and fixed that no such lifting appliance shall at any time be loaded beyond its safe working load or be rendered unstable in the raising or lowering of the load; and
- b) a competent person shall be specially appointed to supervise the operation.

115. (1) The jib of a Scotch derrick crane shall not be erected between the back stays of the crane.

Scotch and guy derrick cranes

(2) No load which lies in the angle between the back stays of a Scotch derrick crane shall be moved by that crane.

(3) Appropriate measures shall be taken to prevent the foot of the king post of any Scotch derrick crane from being lifted out of its socket or support whilst in use.

(4) Where the guys of a guy derrick crane cannot be fixed at approximately equal inclinations to the mast and so that the angle between adjacent pairs of guys are approximately equal such other measures shall be taken as will ensure the stability of the crane.

116. (1) Subject to the provisions of paragraph (2) of this rule, no chain, rope or lifting gear shall be used in raising or lowering or as a means of suspension unless-

Construction testing, examination and safe working load.

- a) it is of good construction, sound material, adequate strength, suitable quality, and free from patent defect; and
- b) (except in the case of a wire rope used before the commencement of these Rules or a fibre rope or fibre rope sling) it has been tested and examined by a competent person and there has been obtained, in such form as may be prescribed, a certificate of such test and examination specifying the safe working load and signed by the person making or responsible for the carrying out of the test and examination; and

- c) It is marked in plain legible figures and letters with the safe working load and means of identification.

(2) A rope or rope sling need not be marked with the safe working load if its safe working load is contained in the report required by rule 122 of these Rules and the rope or sling is so marked as to enable its safe working load to be ascertained from the said report or if, in the case of a rope or rope sling to which subparagraph (b) of paragraph (1) of this rule does not apply, its safe working load can be ascertained from a table of safe working loads posted in a prominent position on the site of the operations or works; and in the case of a rope or rope sling which is not required to have been tested and which is not marked with the safe working load, the safe working load required to be entered in the said report or required to be shown by the table, as the case may be, shall be deemed for the purpose of these Rules to be the safe working load of the rope or rope sling.

(3) No wire rope shall be used in raising or lowering or as a means of suspension if in any length of ten diameters the total number of visible broken wires exceeds five per cent of the total number of wires in the rope.

(4) No chain, rope or lifting gear shall be loaded beyond its safe working load except for the purpose of making tests and then only to such extent as a competent person appointed to carry out the test may authorize.

Testing of
chains, rings,
etc altered or
repaired by
welding

117. No chain, ring, link, hook, plate clamp, shackle, swivel or eye-bolt which has been lengthened, altered or repaired by welding shall be used in raising or lowering or as a means of suspension unless since such lengthening, alteration or repair it has been tested and thoroughly examined by a competent person and there has been obtained, in the prescribed form, a certificate of such text and thorough examination signed by him or by the person responsible for the carrying out of the test and thorough examination and specifying the safe working load;

Provided that the requirements of this rule as to the testing and certification shall not apply to a chain attached to the bucket of either a dragline or an excavator.

Hooks

118. Every hook used for raising or lowering or as a means of suspension shall either be provided with an efficient device to prevent the displacement of the sling or load from the hook, or be of such shape as to reduce as far as possible the risk of such displacement.

Slings

119. (1) Every sling used for raising or lowering on a lifting appliance shall be securely attached to the appliance, and the method of attachment shall not be a method likely to result in damage to any part of the sling or to any lifting gear supporting it.

(2) No double or multiple slings shall be used for raising or lowering if-

- a) the upper ends of the sling legs are not connected by the means of a shackle, ring or link of adequate strength; or
- b) the safe working load of any sling leg is exceeded as a result of the angle between the sling legs.

120. Adequate steps shall be taken by the use of suitable packing or otherwise to prevent the edges of the load from coming into contact with any sling, rope or chain, where this would cause danger.

Edges of load
not to come
into contact
with sling etc
Knotted
chains, etc

121. (1) A load shall not be raised, lowered or suspended on a chain or wire rope which has a knot tied in any part of the chain or rope under direct tension.

(2) No chain which is shortened or joined to another chain by means of bolts and nuts inserted through the links shall be used for raising, lowering or suspending any load.

122. (1) No chain, rope or lifting gear shall be used for raising or lowering or as a means of suspension unless it has been thoroughly examined by a competent person at least once within the previous six months; so, however, that chains, ropes and lifting gear not in regular use need only be so examined when necessary.

Examination
of chains,
ropes and
lifting gear

(2) A report, in writing, containing the prescribed particulars of the result of every examination carried out under the provisions of this rule, signed by the person carrying out the examination, shall be made forthwith.

123. A chain or lifting gear (other than a rope sling or lifting gear of a class or description specified in Schedule 3 to these Rules or exempted by certificate of the Chief Inspector of Factories upon the ground that it is made of such material or so constructed that it cannot be subjected to heat treatment without risk of damage) shall not be used in raising or lowering or as a means of suspension unless-

Annealing of
chains and
lifting gear.
Schedule 3

- a) it has been effectively annealed or subjected to some appropriate form of heat treatment under the supervision of a competent person within the previous fourteen months or, in the case of chains or slings of 13 mm. bar or smaller material, within the previous six months; so, however, that chains or lifting gear not in regular use or used solely on lifting appliances worked by hand need be annealed or subjected to appropriate heat treatment only when necessary; and
- b) a report has been made in writing containing the prescribed particulars of every annealing or appropriate heat treatment, signed by the competent person under whose supervision the annealing or heat treatment was carried out.

Safety of
hoistways,
platforms and
cages

124. (1) The hoistway of every hoist shall at all points at which access to the hoistway is provided or at which persons are liable to be struck by any moving part of the hoist be efficiently protected by a substantial enclosure, and such enclosure shall, where access to the hoist is needed, be fitted with gates.

(2) Any enclosure or gate provided under the provisions of this rule shall, where practicable, extend to a height of at least 2.0 m. except where a lesser height is sufficient to prevent any person falling down the hoistway and there is no risk of any person coming into contact with any moving part of the hoist, but shall in no case be less than 1.0 m.

(3) Any gate fitted under the provisions of this rule shall be kept closed except at a landing place where the platform or cage is at rest and it is for the time being necessary for the gate to be open for the purpose of loading or unloading goods, plant or material, or to allow persons to enter or leave the cage, and without prejudice to the obligation of every contractor and employer of workmen under these Rules, it shall be the duty of every person, immediately after using any gateway, to see that the gate is closed unless it is for the time being necessary for the gate to be open for any of the purposes aforesaid.

(4) In connexion with every hoist there shall where practicable be provided and maintained efficient devices which will support the platform or cage together with its safe working load in the event of failure of the hoist rope or ropes or any part of the hoisting gear.

(5) In connexion with every hoist there shall be provided and maintained efficient automatic devices which will ensure that the platform or cage does not over-run the highest point to which it is for the time being constructed to travel.

Operation of
hoists

125. (1) The construction and installation arrangements of every hoist shall where practicable be such that it can be operated at any one time only from one position and a hoist shall not be operated from the cage unless the requirements of rule 130 are complied with.

(2) If a person operating a hoist has not a clear and unrestricted view of the platform or cage throughout its travel, except at points where such a view is not necessary for safe working, then effective arrangements shall be made for signals for operating the hoist to be given to him from each landing place at which the hoist is used and to enable him to stop the platform or cage at the appropriate level.

Winches

126. Where a hoist is operated by means of a winch, the winch shall be so constructed that the brake is applied when the control lever, handle or switch is not held in the operating position, and the winch shall not be a winch fitted with a pawl and ratchet gear on which the pawl has to be disengaged before the platform or cage can be lowered.

127. (1) The safe working load shall be plainly marked on every hoist platform or cage and no load greater than that load shall be carried, except that for the purpose of carrying out a test the safe working load may be exceeded by such amount as a competent person appointed to carry out the test may authorize.

Safe working
load and
marking hoists

(2) Where a hoist is used for carrying persons the maximum number of persons to be carried at any one time shall also be so marked, and a greater number of persons shall not be so carried.

(3) Where any other hoist is used there shall be a readily legible notice on the platform or cage stating that the carriage of persons is prohibited.

128. (1) No hoist shall be used unless-

Test and
examination
of hoists

- a) in the case of a hoist manufactured or substantially altered or substantially repaired after the date of commencement of these Rules, it has, since such manufacture, alteration or repair, as the case may be, been tested and thoroughly examined by a competent person, and there has been obtained, in such a form as may be prescribed, a certificate of such test and examination, signed by the person making or responsible for the carrying out of the test and examination and specifying the safe working load of the hoist and in the case of a hoist used for carrying persons the maximum number of persons to be carried at one time;
- b) in the case of use for carrying persons, it has, since it was last erected or the height of travel of the cage was last altered, whichever is the later, been tested and thoroughly examined by a competent person and a report of the results of such test and examination, signed by the person making or responsible for the carrying out of the test and examination, has been made in the prescribed form and containing the prescribed particulars; and
- c) it has been thoroughly examined by a competent person at least once within the previous six months.

(2) A report, in writing, containing the prescribed particulars of the results of every examination required by subparagraph (c) of paragraph (1) of this rule, signed by the person making, or responsible for the carrying out of, the examination, shall be made within twenty-eight days.

(3) The person making the report of any test or examination required by paragraph (1) of this rule shall within twenty-eight days of the completion of the test or examination send to the Inspector of Factories of the area a copy of the report in every case where the test or examination shows that the hoist cannot continue to be used with safety unless certain repairs are carried out immediately or within a specified time.

Carrying
persons by
means of
lifting
appliances

129. (1) No person shall be raised, lowered or carried by a power driven lifting appliance except-

- a) on the driver's platform in the case of a crane; or
- b) on a hoist; or
- c) on an approved suspended scaffold; or
- d) as permitted by paragraph (2) of this rule.

(2) A person may be raised, lowered or carried by a power driven lifting appliance otherwise than in accordance with the provision of paragraph (1) of this rule only-

- a) in circumstances where the use of a hoist or of an approved suspended scaffold is not reasonably practicable and the requirements of paragraphs (3) and (4) of this rule are complied with; or
- b) on an aerial cableway or aerial ropeway provided that the requirements of subparagraphs (b) to (d) of paragraphs (3) and (4) of this rule are complied with.

(3) The requirements referred to in paragraph (2) of this rule are-

- a) that the appliance can be operated from one position only;
- b) that any winch used in connexion with the appliance shall comply with the requirements of rule 126 of these Rules;
- c) that no person shall be carried except in a suitable chair or cage, or in a suitable skip or other receptacle at least 1.0 m. deep; and
- d) that suitable measures shall be taken to prevent the chair, cage, skip or other receptacle from spinning or tipping in a manner dangerous to any occupant.

(4) Any chair, cage, skip or other receptacle used in pursuance of this rule shall be of good construction, sound material, and adequate strength and properly maintained and shall be provided with suitable means to prevent any occupant falling out and shall not contain material or tools liable to interfere with his handhold or foothold or otherwise endanger him.

Hoist carrying
persons

130. (1) No person shall be carried by a hoist unless it is provided with a cage which-

- a) is so constructed as to prevent, when the cage gate or gates are shut, any person carried from falling out or from being trapped between any part of the cage and any fixed structure or other moving part of the hoist or from being struck by articles or materials falling down the hoistway; and
- b) is fitted on each side from which access is provided to a landing place with a gate which so far as is reasonably practicable, shall have efficient interlocking or other devices to secure that the gate cannot be opened except when the cage is at a landing place and that cage cannot be moved away from any such place until the gate is closed.

(2) Every gate in the hoistway enclosure of a hoist used for carrying persons shall be fitted with efficient interlocking or other devices to secure that the gate cannot be opened except when the cage is at the landing place, and that the cage cannot be removed away from the landing place until the gate is closed.

(3) In connexion with every hoist used for carrying persons there shall be provided suitable efficient automatic devices which will ensure that the cage comes to rest at a point above the lowest point to which the cage can travel.

131. (1) Every part of a load shall be securely suspended or supported whilst being raised or lowered and shall be adequately secured to prevent danger from slipping or displacement.

Secureness of loads

(2) Where by reason of the nature or position of the operation a load is liable, whilst being moved on a lifting appliance or lifting gear to come into contact with any object so that the object may become displaced, special measures shall be adopted to prevent the danger so far as reasonably practicable.

(3) Every container or receptacle used for raising or lowering stone, bricks, tiles, slates or other objects shall be so enclosed, constructed or designed as to prevent the accidental fall of such objects:

Provided that this requirement shall not apply to a grab, shovel or other similar excavating receptacle if effective steps are taken to prevent any person being endangered by a fall of objects therefrom.

(4) Goods or loose material shall not be placed directly on a platform of a hoist unless such platform is enclosed or other effective precautions are taken where necessary to prevent the fall of any such goods or material.

(5) No truck or wheelbarrow shall be carried on a hoist platform unless it is efficiently scotched or secured on the platform.

(6) No loaded truck or wheelbarrow shall be carried on the open platform of a hoist unless the truck or wheelbarrow is so loaded that no part of the load is liable to fall off.

(7) No load shall be left suspended from a lifting appliance unless a competent person is actually in charge of the appliance.

132. (1) Except as otherwise provided in this rule, it shall be the duty of every contractor to comply with such of the requirements of rules 132 to 143 of these Rules as affect any person employed by him.

Obligations under Part VI of these Rules

(2) The requirements of any of rules 133, 136, 137, 138, 139 and 140 shall be deemed to be complied with by a contractor as regards any period during which there are in operation-

- a) effective arrangements made by him with another contractor or employer of workmen on the site, being arrangements in respect of which the requirements of paragraph (3) of this rule are fulfilled; or

- b) effective arrangements made by him with any other person, for enabling persons employed by that contractor to have adequate access to and use of facilities which are respectively of the same kind, and as adequate and suitable, as those required by any of the said provisions to be provided, being facilities which are reasonably accessible to every working position on the site.

(3) A contractor who provides facilities in accordance with any arrangements made in pursuance of paragraph (2) (a) of this rule shall as soon as the said arrangement comes into operation-

- a) enter in a register in an approved form the approved particulars of the said arrangement; and
- b) give to the contractor with whom he has made the said arrangement a certificate in an approved form containing the approved particulars.

(4) All registers kept and certificates given in pursuance of paragraph (3) of this rule shall be preserved either on the site of the relevant operations or works or at an office of the contractor by whom the register is kept or to whom the certificate was given, as the case may be.

(5) All registers kept and certificates given in pursuance of paragraph (3) of this rule shall at all reasonable times be open to inspection by any Inspector of Factories, and all such certificates shall at all reasonable times be open to inspection by any person employed affected thereby.

(6) The person keeping any register or having any certificate given under the provisions of this rule shall send to the Inspector of Factories such extracts therefrom or copies thereof as the inspector may from time to time require for the purpose of the execution of his duties under the Factories Act.

(7) Where by virtue of an arrangement in accordance with paragraph (2) (a) of this rule a contractor is deemed to have complied with any requirement of these Rules the second contractor who has undertaken to provide facilities in accordance with that arrangement shall be responsible instead of the first contractor for complying with that requirement and the persons employed by that contractor shall for the purpose of that requirement be deemed to be persons in the employment of that second contractor who has undertaken to provide the said facilities.

(8) Nothing in these Rules shall be construed as preventing two or more contractors from jointly appointing the same person or persons to have charge of first-aid boxes or cases or of a first-aid room or be responsible for summoning an ambulance or other means of transport in pursuance of rule 136 of these Rules.

Provision of
first-aid boxes
or cases

133. (1) Except as provided in paragraph (3) of this rule, where a contractor has more than five persons in his employment on a site, he shall provide and keep clean and in good repair a sufficient number of

suitable first-aid boxes or cases, which shall, while work is going on, be reasonably accessible to all positions on the site where persons in his employment are working.

(2) A first-aid box or case provided in pursuance of this rule shall be distinctively marked "FIRST-AID" and placed under the charge of a responsible person who-

while in charge of the box or case shall be readily available while any person for whom it is provided are working on the site and whose name shall be plainly indicated in a prominent place on or near the box or case; and

where the box or case is provided by a contractor who has more than fifty persons in his employment on a site, shall be a person trained in first-aid treatment to the standard required by rule 135 of these Rules.

134. (1) Nothing except appliance or requisites for first-aid shall be kept in a first-aid box or case.

(2) Each first-aid box or case provided in pursuance of these Rules shall contain the equipment and materials specified in Schedule 4 of these Rules.

(3) All materials for dressings contained in a first-aid box or case shall be those designated in, and of a grade or quality not lower than the standard specified by the British Pharmaceutical Codex and any supplement thereto, being the British Pharmaceutical Codex and any supplement current at the date of these Rules or approved for the purposes of these Rules.

135. (1) For the purpose of rules 133 and 137 of these Rules a person shall not at any time after 30th June, 1979, be deemed to be trained in first-aid treatment unless-

he is a registered or enrolled nurse; or

he is the holder of a certificate in first-aid issued within the immediately preceding twelve months by, or is otherwise recognised as being qualified in first-aid treatment by, a training organization

(2) Until 1st July, 1979, rules 133 (2) (b) and 137(1) of these Rules shall have effect as if the words "to the standard required by rule 135" were omitted therefrom.

(3) No contractor shall be held not to have complied with the requirement in rule 133 (2) of these Rules, that the persons in charge of certain first-aid boxes or cases shall be persons trained in first-aid treatment, in any case where he proves that he used all due diligence to secure compliance with that provision.

(4) In a case where the person in charge of a first-aid box or case is required by rule 133 (2) (b) of these Rules to be a person trained in first-aid treatment to the standard required by this rule the following particulars shall be recorded in writing as respects the person, namely-

Contents of
first-aid boxes
or cases

Schedule 4

Standard of
training in
first-aid
treatment

- a) his name
- b) the nature and date of his qualification as a person trained in first-aid treatment; and
- c) the date on which evidence of his being so trained was inspected by the person undertaking the operations or works to which these Rules apply.

(5) The record required under paragraph (4) of this rule shall be securely fixed inside the first-aid box or case and shall at all reasonable times be open to inspection by any inspector, and the person keeping any such record shall send to any inspector such extracts therefrom or copies thereof as the inspector may from time to time require for the purpose of the execution of his duties under the Factories Act.

Ambulances

136. (1) A contractor who has in his employment on a site more than twenty-five persons shall-

- a) notify in writing the Ministry of Health, the area where the site is situated within twenty-four hours of employing for the first time more than twenty-five persons on the site of the location and address (if any) of the site, and the nature of the operations or work and the probable date of their completion;
- b) provide and maintain on the site a suitable stretcher or such number of suitable stretchers as may be necessary;
- c) appoint a responsible person or responsible persons who shall always be readily available during working hours and whose duty it is to summon an ambulance or other means of transport if needed in case of accident or illness and the contractor shall ensure that legible copies of a notice indicating that person or, as the case may be, those persons and containing instructions on the making of emergency telephone or radio calls are affixed in one or more prominent positions on the site.

(2) Notwithstanding the provisions of paragraph (1) of this rule, in the case of a site where means of telephonic or radio communication with an ambulance station are not readily accessible, a contractor who has in his employment on the site more than twenty-five persons shall provide at, or in the immediate vicinity of the site, so as to be readily available during working hours, a motor vehicle constructed or adapted so as to be able to carry a person on the stretcher provided under this rule.

(3) Any contractor providing a vehicle in pursuance of this rule shall obtain from the Ministry of Health a card showing the address of the nearest hospital named by the Ministry of Health as one designated to provide accident and emergency services and shall ensure that the card is kept in a prominent position in the vehicle.

137. (1) In the case of a site where the number of persons employed exceeds two hundred and fifty, a contractor who has more than fifty persons in his employment on that site shall provide and maintain in good order and in a clean condition at or near to the site of the operations or works and conveniently accessible a properly constructed and suitable first-aid room the interior surfaces of which shall be capable of being easily kept clean, and such first-aid room shall be used only for purposes of treatment and rest and shall be in the charge of a person trained in first-aid treatment to the standard required by rule 135 of these Rules, who shall always be readily available during working hours.

First-aid rooms

(2) A first-aid room provided in pursuance of this rule shall contain at least the following equipment, namely-

- a) a sink having smooth impervious internal surfaces with hot and cold water always available;
- b) a table with a smooth impervious top;
- c) means of sterilizing instruments;
- d) a supply of suitable dressing, bandages and splints;
- e) a couch;
- f) suitable and sufficient stretchers including a sling stretcher;
- g) sufficient blankets and hot-water bottles; and
- h) a foot bath or basin or bowl suitable for use as a foot bath.

138. (1) Subject to the provisions of paragraphs (2) and (3) of this rule, there shall be provided at or in the immediate vicinity of every site for the use of the persons employed and conveniently accessible to them-

Shelters and accommodation for clothing and for taking meals

- a) adequate and suitable accommodation for taking shelter during interruptions of work owing to bad weather and for depositing clothing not worn during workings hours, being accommodation containing-
 - i. where more than five persons are employed by a contractor on a site, adequate and suitable means of enabling the persons to warm themselves and to dry wet clothing; or
 - ii. where five persons or less are employed by a contractor on a site, such arrangements as are reasonably practicable for enabling persons to warm themselves and for drying wet clothing;
- b) adequate and suitable accommodation for the deposit of protective clothing used for work and kept, when not in use, at or in the immediate vicinity of the site, with such arrangements as are reasonably practicable for drying such clothing if it becomes wet;
- c) adequate and suitable accommodation, affording protection from the weather including sufficient tables and seats or benches, for taking meals, with facilities for boiling water and, where a contractor has more than 10 persons in his

employment on a site and heated food is not otherwise available on the site, and adequate facilities for heating food; and

- d) an adequate supply of wholesome drinking water at a convenient point or convenient points and clearly marked “DRINKING WATER” or patently intended to be used as such.

(2) For the purposes of paragraph (1) (c) of this rule, in determining whether accommodation of any kind provided in pursuance of that subparagraph at any time and place is adequate, regard shall be had to the number of persons who appear to be likely to use such accommodation at the time and place.

(3) For the purposes of paragraph (1) (a), (b) and (c) of this rule in determining whether accommodation is conveniently accessible account shall be taken of any transport provided at appropriate times for the persons employed.

(4) All accommodation provided in pursuance of paragraph (1) (a) to (c) of this rule shall be kept in a clean and orderly condition and shall not be used for the deposit or storage of materials or plant.

Washing facilities

139. (1) Except in the cases provided for by paragraph (2), (3) and (4) of this rule, every contractor who has in his employment on a site one or more persons of whom at least one is present on the site on any occasion for more than four consecutive hours shall provide adequate and suitable facilities for washing.

(2) Subject to the provision of paragraph (4), and except in the case provided for by paragraph (3) of this rule, where a contractor has more than twenty persons in his employment on a site or there are reasonable grounds for believing that the operations or works to be undertaken by him on the site will not be completed within six weeks from their commencement, he shall provide for the persons employed suitable facilities for washing which shall include-

- a) adequate troughs, basins or buckets having in every case a smooth impervious internal surface;
- b) adequate and suitable means of cleaning and drying being soap and towels or other means, as the case may require and
- c) a sufficient supply of hot and cold or warm water.

(3) Subject to the provisions of paragraph (4) of this rule, where contractor has more than one hundred persons in his employment on a site and there are reasonable grounds for believing that the operations or works to be undertaken by him on that site will not be completed within twelve months from the commencement he shall provide for the persons employed facilities such as are required by paragraph (2) (b) and (c) of this rule and also wash-basins on the following scale, that is to say, four with addition of one for every unit of thirty-five persons by which the number of persons exceeds 100 (any fraction of a unit of thirty-five persons being treated as one).

(4) In any case where persons are employed on a site in a process in which a lead compound or other poisonous substance is used facilities shall be provided in accordance with paragraph (2) of this rule or in accordance, in a case to which it applies, with paragraph (3) of this rule and shall include nail brushes and the troughs, basins, buckets or wash-basins so provided shall be on the scale of one for every five persons so employed.

(5) Washing facilities provided in pursuance of this rule shall be conveniently accessible from the accommodation for taking meals provided in pursuance of rule 138 of these Rules and shall be kept in a clean and orderly condition.

140. (1) Subject to paragraph (2) of this rule, a contractor shall provide at least one suitable sanitary convenience (not being a convenience suitable only as a urinal) for every twenty-five persons in his employment on a site.

Number of
sanitary
conveniences

(2) Where a contractor has more than one hundred persons in his employment on a site, and sufficient urinal accommodation is also provided it shall be sufficient if there is one such convenience as aforesaid for every twenty-five persons in his employment on the site up to the first one hundred and one for every thirty-five persons thereafter.

(3) In calculating the number of conveniences required by this rule any number of persons less than twenty-five or thirty-five, or in excess of a multiple of twenty-five or thirty-five, as the case may be, shall be reckoned as twenty-five or thirty-five.

141. (1) Every sanitary convenience shall be sufficiently ventilated, and shall not communicate with any workroom or messroom except through the open air or through an intervening ventilated space.

Other
requirements
as to sanitary
conveniences

(2) Every sanitary convenience (other than a convenience suitable merely as a urinal) shall be under cover and so partitioned off as to secure privacy, and shall have a proper door and fastening, and a urinal shall be so placed or so screened as not to be visible from other places, whether on or off the site.

(3) The sanitary conveniences shall be so arranged as to be conveniently accessible to the persons employed at all times while they are at the site.

(4) This rule is without prejudice to the requirements in section 18 (1) of the Factories Act, that the conveniences shall be maintained and kept clean, that effective provisions shall be made for lighting the conveniences and that where persons of both sexes are or are intended to be employed the conveniences shall afford proper separate accommodation for persons of each sex.

Protective
clothing

142 (1) Every contractor shall provide adequate and suitable protective clothing for any person so employed who by reason of the nature of his work is required to continue working in the open air during rain, sleet or hail.

(2) Every contractor shall provide adequate and suitable safety helmets or safety caps of an approved type for all persons entering a site whether they be employed at the site or otherwise.

(3) No person shall enter or work at a site unless wearing a safety helmet or safety cap of an approved type.

Safe access to
places where
facilities
are provided

143. Safe means of access and egress shall so far as reasonably practicable be provided and maintained to and from every place at which any of the facilities provided in pursuance of Part VI of these Rules is situated and every such place shall, so far as reasonably practicable, be made and kept safe for persons using the said facilities.

PART VII – RECORDS AND REPORTS

Records and
reports

144. (1) A report required under rules 9 (3), 18 (1), 71, 92, 101 (4) and (5), 112 or 128 (1) (b) of these Rules shall be kept on the site of the operations or works and when there are no relevant operations or works shall be kept at an office of the contractor for whom the inspection, test or examination, as the case may be, was carried;

Provided that in the case of a site where the contractor has reasonable grounds for believing that the operations or works will be completed in a period of six weeks, the contractor may keep such reports at his office.

(2) All other reports and every certificate or other document required for the purpose of these Rules shall be kept either on the site of the relevant operations or works or at an office of the contractor for whom the report was made or the certificate or document was obtained or of the owner of the plant or equipment to which the certificate relates.

Schedule 5.

(3) All reports, certificates and other documents required for the purposes of these Rules shall be in the form specified in Schedule 5 to these Rules and shall at all reasonable times be available for inspection by any Inspector of Factories, and the persons keeping any such report, certificate or other document shall send to any such inspector such extra therefrom or copies thereof as the inspector may from time to time require for the purpose of the execution of his duties, under the Factories Act.

SCHEDULE 1

(r. 71)

THE FACTORIES (BUILDING OPERATIONS AND WORKS OF ENGINEERING CONSTRUCTION) RULES, 1978

SCAFFOLD INSPECTIONS

Form of reports of results of inspections under rule 71 of scaffolds, including boatswain's, chairs, cages, skips and similar plant or equipment (and plant or equipment used for the purposes thereof)

Name or title of
Employer or contractor

Address of site.....
Work commenced: Date.....

<i>location and Description of Scaffold, etc. and other plant or equipment inspected</i>	<i>Date of Inspection</i>	<i>Result of Inspection State whether in good order</i>	<i>Signature (or incase where signature is not legally required name) of person who made the inspection</i>
(1)	(2)	(3)	(4)

SCHEDULE 2

r. 88

Extent of exclusion under Rule 88

Rule	Extent of exclusion	Exceptions and conditions
92	Requirement (c) of paragraph (1)	-
93	Paragraph (5)	-
94	The whole Rule	-
95	The whole Rule except requirement (a) and (c) of paragraph (1)	-
96	The whole Rule	-
98	Paragraphs (2) and (3)	-
101	Paragraphs (5) and (7)	Save that where the crane is specially erected for use in the operations or works to which these Rules apply, the crane shall before such use be tested in accordance with paragraph (5) and a

record shall be kept of the particulars of tests and paragraph (7) shall then apply.

102	Requirement (f) of paragraph (i) and (1) and paragraph (4)	-
104	The whole Rule	-
110	The whole Rule	-
111	Requirement (b) of paragraph (2)	-
112	The whole Rule	-
116	Sub-paragraph (c) of paragraph (1)	If these are available to any person using the chain, rope or gear, means of ascertaining its safe working load
118	The whole Rule	-
122	The provisions of relating to the keeping of a register	-
123	Sub-paragraph (b)	-

SCHEDULE 3
(r. 123)

CHAINS AND LIFTING GEAR EXCEPTED UNDER
RULE 123
(as to Head Treatment)

- (1) Chains made of malleable cast-iron.
- (2) Plate link chains.
- (3) The following when made of steel or any non-ferrous metal namely, chains, rings, links, hooks, plate-clamps, shackles, swivels, and eye-bolts.
- (4) Pitched chains working on sprocket or pocketed wheels.
- (5) The following when permanently attached to pitched chains, pulley blocks or weighing machines, namely, rings, links, links, hooks, shackles and swivels.
- (6) The following when having screw-threaded parts or ball bearings or other case-hardened parts, namely, hooks, eye-bolts, and swivels.
- (7) Socket shackles secured to wire ropes by white metal cappings.
- (8) Bordeaux connections.

SCHEDULE 4
(R. 134)

CONTENTS OF FIRST-AID BOXES OR CASES

Part I

Where the number of persons employed by a contractor does not exceed ten:-

- i. a copy of the first-aid leaflet L.D. 250/1;
- ii. a sufficient number (not less than six) of small sterilized unmedicated dressings for injured fingers;
- iii. a sufficient number (not less than three) of medium-sized;
- iv. a sufficient number (not less than three) of large sterilized unmedicated dressing die other injured parts;
- v. a sufficient number (not less than twelve) of adhesive wound dressings of a suitable type and of assorted sizes;
- vi. a sufficient number (not less than two) of triangular bandages of unbleached calico, the longest side of which measures not less than one hundred and thirty

- centimetres and each of the other sides not less than ninety-one centimetres;
- vii. a sufficient supply adhesive plaster;
 - viii. a sufficient supply of absorbent sterilized cotton wool in fourteen gram packets;
 - ix. a sufficient supply of approved eye ointment;
 - x. a sufficient number (not less than two) of sterilized eye-pads in separate sealed packets;
 - xi. a rubber bandage or pressure bandage;
 - xii. a sufficient supply of safety pins.

Part II

Where the number of persons employed by a contractor exceeds ten but does not exceed fifty:-

- i. a copy of the first-aid leaflet L.D. 250/1;
- ii. a sufficient number (not less than twelve) of small sterilized unmedicated dressings for injured fingers.
- iii. a sufficient number (not less than six) of medium-sized sterilized unmedicated dressings for injured hands or feet;
- iv. a sufficient number (not less than six) of large sterilized unmedicated dressings for other injured parts;
- v. a sufficient number (not less than twenty-four) of adhesive wound dressings of a suitable type and of assorted sizes;
- vi. a sufficient number (not less than four) of triangular bandages of unbleached calico, the longest side of which measures not less than one hundred and thirty centimetres and each of the other sides not less than ninety-one centimetres;
- vii. a sufficient supply of adhesive plaster;
- viii. a sufficient supply of absorbent sterilized cotton wool, in fourteen gram packets;
- ix. a sufficient supply of factory eye drops, B.P. C.;
- x. a sufficient number (not less than four) of sterilized eye pads in separate sealed packets;
- xi. a rubber bandage or pressure bandage;
- xii. a sufficient supply of safety pins.

Part III

Where the number of persons employed by a contractor exceeds fifty:-

- i. a copy of the first-aid leaflet L.D. 250/1;
- ii. a sufficient number (not less than twenty-four) of small sterilized unmedicated dressings for injured fingers;
- iii. a sufficient number (not less than twelve) of large sterilized unmedicated dressings for injured hands or feet;
- iv. a sufficient number (not less than twelve) of large sterilized

- unmedicated dressings for other injured parts;
- v. a sufficient number (not less than thirty-six) of adhesive wound dressings of a suitable type and of assorted sizes;
- vi. a sufficient number (not less than eight) of triangular bandages of unbleached calico, the longest side of which measures not less than one hundred and thirty centimetres, and each of the other sides not less than ninety-one centimetres;
- vii. a sufficient supply of adhesive plaster;
- viii. a sufficient supply of absorbent sterilized cotton wool, in fourteen gram packets;
- ix. a sufficient supply of factory eye drops, B.P.C.;
- x. a sufficient number (not less than eight) of sterilized eye pads in separate sealed packets;
- xi. a rubber bandage of pressure bandage;
- xii. a sufficient supply of safety pins.

SCHEDULE 5

PRESCRIPTION OF RECORDS AND REPORTS

The records and reports as required under these Rules shall be in the form as printed and published by the Government Printer, being forms and registers bearing the reference “L.D.BCR” followed by the numbers respectively set out hereunder in relation thereto, that is to say:-

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|--|------------|
| a) Abstract of the Factories (Building Operations and Works of Engineering Construction) Rules, 1978 | L.D.BCR. 1 |
| b) General Register for Building Operations and Works of Engineering Construction | L.D.BCR.2 |
| c) Register and Certificate of Shared Welfare Arrangements | L.D.BCR. 3 |

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|----|---|------------------------|
| d) | Records of Inspection, Examination and Special Tests of- | L.D.BCR. 4 |
| | Section A – Scaffolding, boatswain’s chairs, etc., Reports of Results of Inspection; | |
| | Section B – Excavations, cofferdams, etc., Reports of Results of Weekly Thorough Examinations; | |
| | Section C – Lifting appliances, Reports of Results of Weekly Inspections; | |
| | Section D – Cranes, Reports and Results of Anchoring and Ballasting Tests; | |
| | Section E – Automatic Safe Load Indicators, Reports and Results of Tests; | |
| | Section F – Hoist Used for Carrying Persons, Reports and results of Tests and Examination after Alteration of Height of travel. | |
| e) | Record of Reports on- | L.D.BCR. 4
Part II |
| | Section G – Thorough Examination of Lifting Appliances; | |
| | Section H – Thorough Examination of Hoists; | |
| | Section J – Records of Thorough Examination of Chains, Ropes and Lifting Gear; | |
| | Section K – Heat Treatment of Chains and Lifting Gear; | |
| f) | Section J – Record of Thorough Examinations of Chains, Ropes and Lifting Gear | L.D.BCR. 4
Part III |
| g) | Notice of Building Construction or Works of Engineering Construction | L.D.BCR. 5 |
| h) | Notice of Accidents or Dangerous Occurrences at Building Operations or Works of Engineering Construction..... | L.D.BCR.6 |
| i) | Certificate of Test and Thorough Examination of Hoist..... | L.D.BCR. 7 |

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|--|-------------|
| j) Certificate of Test and Thorough Examination of | L.D.BCR. 8 |
| a) Crabs and Winches; | |
| b) Pulley Blocks and Gin Wheels used for a load of one tonne or more. | |
| k) Certificate of test and Examination of Wire Rope..... | L.D.BCR. 9 |
| l) Certificate of test and Thorough Examination of Crane..... | L.D.BCR. 10 |
| m) Certificate of test and Examination of Chains, Chain Slings, Rope Slings (except a fibre rope sling), or similar Gear, Rings, Links, Hooks, Plate Clamps, Shackles, Swivels and Eye-bolts | L.D.BCR. 11 |
| n) Certificate of Test for Crawler-tracked Shovel Excavators or Crawler-tracked Dragline Excavators when adapted for use as a Crane | L.D.BCR. 12 |