

Factories Act 1937

1937 CHAPTER 67 1 Edw 8 and 1 Geo 6

PART II

SAFETY (GENERAL PROVISIONS).

12 Prime movers.

- (1) Every flywheel directly connected to any prime mover and every moving part of any prime mover, except such prime movers as are mentioned in subsection (3) of this section, shall be securely fenced, whether the flywheel or prime mover is situated in an engine-house or not.
- (2) The head and tail race of every water wheel and of every water turbine shall be securely fenced.
- (3) Every part of electric generators, motors and rotary converters, and every flywheel directly connected thereto, 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 premises as it would be if securely fenced.

13 Transmission machinery.

- (1) Every part of the transmission machinery 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 premises as it would be if securely fenced.
- (2) Efficient devices or appliances shall be provided and maintained in every room or place where work is carried on by which the power can promptly be cut off from the transmission machinery in that room or place.
- (3) No driving-belt when not in use shall be allowed to rest or ride upon a revolving shaft which forms part of the transmission machinery.
- (4) Suitable striking gear or other efficient mechanical appliances shall be provided and maintained and used to move driving belts to and from fast and loose pulleys which form part of the transmission machinery, and any such gear or appliances shall be so

constructed, placed and maintained as to prevent the driving belt from creeping back on to the fast pulley.

(5) Where the Secretary of State is satisfied that owing to special circumstances the fulfilment of any of the requirements of the last three foregoing subsections is unnecessary or impracticable, he may by order direct that that requirement shall not apply in those circumstances.

14 Other machinery.

(1) Every dangerous part of any machinery, other than prime movers and transmission machinery, 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 premises as it would be if securely fenced.:

Provided that, in so far as the safety of a dangerous part of any machinery cannot by reason of the nature of the operation be secured by means of a fixed guard, the requirements of this subsection shall be deemed to have been complied with if a device is provided which automatically prevents the operator from coming into contact with that part.

- (2) Where the Secretary of State is satisfied that there is available and suitable for use in connection with machinery of any class any type or description of safety device which—
 - (a) prevents the exposure of a dangerous part of machinery whilst in motion; or
 - (b) stops a machine forthwith in case of danger,

he may make regulations directing that the type or description of device shall be provided for use in connection with such class of machinery as may be specified in the regulations:

Provided that, in any proceedings in respect of a contravention of this subsection, it shall be a sufficient defence to prove that a device at least equally effective was being used in connection with the machinery in respect of which the contravention occurred.

(3) Any part of a stock-bar which projects beyond the head-stock of a lathe shall be securely fenced unless it is in such a position as to be as safe to every person employed or working on the premises as it would be if securely fenced.

The Secretary of State may, as respects any machine or any process in which a machine is used, make regulations requiring the fencing of materials or articles which are dangerous while in motion in the machine.

15 Provisions as to unfenced machinery.

In determining, for the purposes of the foregoing provisions of this Part of this Act, whether any part of machinery is in such a position or of such construction as to be as safe to every person employed or working on the premises as it would be if securely fenced—

(a) no account shall be taken of any person carrying out, while the part of machinery is in motion, an examination thereof or any lubrication or adjustment shown by such examination to be immediately necessary, being an examination, lubrication or adjustment which it is necessary to carry out while the part of machinery is in motion; and

(b) in the case of any part of transmission machinery used in any such process as may be specified in regulations made by the Secretary of State, being a process where owing to the continuous nature thereof the stopping of that part would seriously interfere with the carrying on of the process, no account shall be taken of any person carrying out, by such methods and in such circumstances as may be specified in the regulations, any lubrication or any mounting or shipping of belts:

Provided that this section shall only apply where the examination, lubrication or other operation is carried out by such persons, being male persons who have attained the age of eighteen, as may be specified in regulations made by the Secretary of State, and all such other conditions as may be so specified are complied with.

16 Construction and maintenance of fencing.

All fencing or other safeguards provided in pursuance of the foregoing provisions of this Part of this Act shall be of substantial construction, and constantly maintained and kept in position while the parts required to be fenced or safeguarded are in motion or in use, except when any such parts are necessarily exposed for examination and for any lubrication or adjustment shown by such examination to be immediately necessary, and all such conditions as may be specified in regulations made by the Secretary of State are complied with.

17 Construction and sale of new machinery.

- (1) In the case of any machine in a factory being a machine intended to be driven by mechanical power—
 - (a) every set-screw, bolt or key on any revolving shaft, spindle, wheel or pinion shall be so sunk, encased or otherwise effectively guarded as to prevent danger; and
 - (b) all spur and other toothed or friction gearing, which does not require frequent adjustment while in motion, shall be completely encased unless it is so situated as to be as safe as it would be if completely encased.
- (2) Any person who sells or lets on hire, or as agent of the seller or hirer causes or procures to be sold or let on hire, for use in a factory in the United Kingdom any machine intended to be driven by mechanical power which does not comply with the requirements of this section shall be guilty of an offence and liable to a fine not exceeding one hundred pounds.
- (3) The Secretary of State may by regulations extend the provisions of the last preceding subsection to machinery or plant which does not comply with such requirements of this Act or of any regulation made thereunder as may be specified in the regulations, and any regulations made under this subsection may relate to machinery or plant in a specified process.
- (4) Nothing in this section shall apply to any machine constructed before the passing of this Act, and regulations under this section shall not apply to any machinery or plant constructed before the making of the regulations.

18 Vessels containing dangerous liquids.

- (1) Every fixed vessel, structure, sump or pit of which the edge is less than three feet above the adjoining ground or platform shall, if it contains any scalding, corrosive or poisonous liquid, either be securely covered or be securely fenced to at least that height, or where by reason of the nature of the work neither secure covering nor secure fencing to that height is practicable, all practicable steps shall be taken by covering, fencing or other means to prevent any person from falling into the vessel, structure, sump or pit.
- (2) The Secretary of State may by order exempt from the requirements of this section any class of vessel, structure, sump or pit in the case of which he is satisfied that the requirements are unnecessary or inappropriate.

19 Self-acting machines.

(1) In any factory or part of a factory to which this subsection applies no traversing part of any self-acting machine and no material carried thereon shall, if the space over which it runs is a space over which any person is liable to pass, whether in the course of his employment or otherwise, be allowed on its outward or inward traverse to run within a distance of eighteen inches from any fixed structure not being part of the machine:

Provided that nothing in this subsection shall prevent any portion of the traversing carriage of any self-acting spinning mule being allowed to run to a point twelve inches distant from any part of the head stock of another such machine.

- (2) The foregoing subsection applies—
 - (a) to any factory erected after the thirty-first day of December eighteen hundred and ninety-five; and
 - (b) to any factory or part of a factory reconstructed after the passing of this Act; and
 - (c) to any extension of or addition to a factory made after the passing of this Act.
- (3) All practicable steps shall be taken by instructions to the person in charge of the machine and otherwise to ensure that no person employed shall be in the space between any traversing part of a self-acting spinning mule and any fixed part of the machine towards which the traversing part moves on the inward run, except when the machine is stopped with the traversing part on the outward run.

20 Cleaning of machinery by women and young persons.

A woman or young person shall not clean any part of a prime mover or of any transmission machinery while the prime mover or transmission machinery is in motion, and shall not clean any part of any machine if the cleaning thereof would expose the woman or young person to risk of injury from any moving part either of that machine or of any adjacent machinery.

21 Training and supervision of young persons working at dangerous machines.

- (1) No young person shall work at any machine to which this section applies, unless he has been fully instructed as to the dangers arising in connection with the machine and the precautions to be observed, and—
 - (a) has received a sufficient training in work at the machine; or

- (b) is under adequate supervision by a person who has a thorough knowledge and experience of the machine.
- (2) This section applies to such machines as may be prescribed by the Secretary of State, being machines which in his opinion are of such a dangerous character that young persons ought not to work at them unless the foregoing requirements are complied with.

Hoists and lifts.

- (1) Every hoist or lift shall be of good mechanical construction, sound material and adequate strength, and be properly maintained.
- (2) Every hoist or lift shall be thoroughly examined by a competent person at least once in every period of six months, and a report of the result of every such examination in the prescribed form and containing the prescribed particulars shall be signed by the person making the examination and shall within fourteen days be entered in or attached to the general register.
- (3) Every hoistway or liftway shall be efficiently protected by a substantial enclosure fitted with gates, being such an enclosure as to prevent, when the gates are shut, any person falling down the way or coming into contact with any moving part of the hoist or lift.
- (4) Any such gate as aforesaid shall be fitted with efficient interlocking or other devices to secure that the gate cannot be opened except when the cage or platform is at the landing and that the cage or platform cannot be moved away from the landing until the gate is closed:
 - Provided that, in the case of a hoist or lift constructed or reconstructed before the passing of this Act which it is not reasonably practicable to fit with such devices as aforesaid, it shall be sufficient if the gate is provided with such arrangements as will secure the aforesaid objects so far as is reasonably practicable, and in any event is kept closed and fastened except when the cage or platform is at rest at the landing.
- (5) Every hoist or lift and every such enclosure as aforesaid shall be so constructed as to prevent any part of any person or any goods carried in the hoist or lift being trapped between any part of the hoist or lift and any fixed structure or between the counterbalance weight and any other moving part of the hoist or lift.
- (6) There shall be marked conspicuously on every hoist or lift the maximum working load which it can safely carry and no load greater than that load shall be carried on any hoist or lift.
- (7) The following additional requirements shall apply to hoists and lifts used for carrying persons, whether together with goods or otherwise:—
 - (a) efficient automatic devices shall be provided and maintained to prevent the cage or platform overrunning;
 - (b) every cage shall on each side from which access is afforded to a landing, be fitted with a gate, and in connection with every such gate efficient devices shall be provided to secure that, when persons or goods are in the cage, the cage cannot be raised or lowered unless the gate is closed, and will come to rest when the gate is opened: Provided that, in the case of a hoist or lift constructed or reconstructed before the passing of this Act in connection with which it is not reasonably practicable to provide such devices as aforesaid, it shall

- be sufficient if such arrangements are provided as will secure the aforesaid objects so far as is reasonably practicable, and in any event the gate is kept closed and fastened except when the cage is at rest or empty; and
- (c) in the case of a hoist or lift constructed or reconstructed after the passing of this Act, where the platform or cage is suspended by rope or chain, there shall be at least two ropes or chains separately connected with the platform or cage, each rope or chain and its attachments being capable of carrying the whole weight of the platform or cage and its maximum working load, and efficient devices shall be provided and maintained which will support the platform or cage with its maximum working load in the event of a breakage of the ropes or chains or any of their attachments.
- (8) In the case of a continuous hoist or lift, subsections (3) to (7) inclusive of this section shall not apply and in the case of a hoist or lift not connected with mechanical power subsections (4) and (7) shall not apply, and, in both the aforesaid cases, in subsection (2) for the reference to six months there shall be substituted a reference to twelve months.
- (9) For the purposes of this section, no lifting machine or appliance shall be deemed to be a hoist or lift unless it has a platform or cage the direction of movement of which is restricted by a guide or guides.
- (10) Every teagle opening or similar doorway used for hoisting or lowering goods or materials, whether by mechanical power or otherwise, shall be securely fenced, and shall be provided with a secure hand-hold on each side of the opening or doorway. The fencing shall be properly maintained and shall, except when the hoisting or lowering of goods or materials is being carried on at the opening or doorway, be kept in position.
- (11) If it is shown to the satisfaction of the Secretary of State that it would be unreasonable in the special circumstances of the case to enforce any requirement of this section in respect of any class or description of hoist, lift, hoistway, liftway, or teagle opening or similar doorway, he may by order direct that such requirement shall not apply as respects that class or description.

23 Chains, ropes and lifting tackle.

- (1) The following provisions shall be complied with as respects every chain, rope or lifting tackle used for the purpose of raising or lowering persons, goods or materials:—
 - (a) no chain, rope or lifting tackle shall be used unless it is of good construction, sound material, adequate strength and free from patent defect;
 - (b) a table showing the safe working loads of every kind and size of chain, rope or lifting tackle in use, and, in the case of a multiple sling, the safe working load at different angles of the legs, shall be posted in the store in which the chains, ropes or lifting tackle are kept, and in prominent positions on the premises, and no chain, rope or lifting tackle not shown in the table shall be used, so, however, that the foregoing provisions of this paragraph shall not apply in relation to any lifting tackle if the safe working load thereof or, in the case of a multiple sling, the safe working load at different angles of the legs is plainly marked upon it;
 - (c) no chain, rope or lifting tackle shall be used for any load exceeding the safe working load thereof as shown by the table aforesaid or marked upon it as aforesaid;

- (d) all chains, ropes and lifting tackle in use shall be thoroughly examined by a competent person at least once in every period of six months or at such greater intervals as the Secretary of State may prescribe;
- (e) no chain, rope or lifting tackle, except a fibre rope or fibre rope sling, shall be taken into use in any factory for the first time in that factory unless it has been tested and thoroughly examined by a competent person and a certificate of such a test and examination specifying the safe working load and signed by the person making the test and examination has been obtained and is kept available for inspection;
- (f) every chain and lifting tackle except a rope sling shall, unless of a class or description exempted by certificate of the chief inspector 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 or that it has been subjected to some form of heat treatment (other than annealing) approved by him, be annealed at least once in every fourteen months, or, in the case of chains or slings of half-inch bar or smaller, or chains used in connection with molten metal or molten slag, in every six months, so, however, that chains and lifting tackle not in regular use need be annealed only when necessary;
- (g) a register containing the prescribed particulars shall be kept with respect to all such chains, ropes or lifting tackle, except fibre rope slings.
- (2) In this section the expression "lifting tackle" means chain slings, rope slings, rings, hooks, shackles, and swivels.

24 Cranes and other lifting machines.

- (1) All parts and working gear whether fixed or movable, including the anchoring and fixing appliances, of every lifting machine shall be of good construction, sound material, adequate strength and free from patent defect, and shall be properly maintained.
- (2) All such parts and gear as aforesaid shall be thoroughly examined by a competent person at least once in every period of fourteen months and a register shall be kept containing the prescribed particulars of every such examination.
- (3) All rails on which a travelling crane moves and every track on which the carriage of a transporter or runway moves shall be of proper size and adequate strength and have an even running surface; and any such rails or track shall be properly laid, adequately supported or suspended, and properly maintained.
- (4) There shall be plainly marked on every lifting machine the safe working load or loads thereof, except that in the case of a jib crane so constructed that the safe working load may be varied by the raising or lowering of the jib, there shall be attached thereto either an automatic indicator of safe working loads or a table indicating the safe working loads at corresponding inclinations of the jib or corresponding radii of the load.
- (5) No lifting machine shall, except for the purpose of a test, be loaded beyond the safe working load as marked or indicated under the last foregoing subsection.
- (6) No lifting machine shall be taken into use in any factory for the first time in that factory unless it has been tested and all such parts and working gear of the machine as are specified in subsection (1) of this section have been thoroughly examined by a competent person and a certificate of such a test and examination specifying the safe

- working load or loads of the machine and signed by the person making the test and examination has been obtained and is kept available for inspection.
- (7) If any person is employed or working on or near the wheel-track of an overhead travelling crane in any place where he would be liable to be struck by the crane, effective measures shall be taken by warning the driver of the crane or otherwise to ensure that the crane does not approach within twenty feet of that place.
- (8) In this section the expression "lifting machine" means a crane, crab, winch, teagle, pulley block, gin wheel, transporter or runway.

25 Construction and maintenance of floors, passages and stairs.

- (1) All floors, steps, stairs, passages and gangways shall be of sound construction and properly maintained.
- (2) For every staircase in a building or affording a means of exit from a building, a substantial handrail shall be provided and maintained, which, if the staircase has an open side shall be on that side, and, in the case of a staircase having two open sides, or in the case of a staircase which, owing to the nature of the construction thereof or the condition of the surface of the steps or other special circumstances, is specially liable to cause accidents, such a hand-rail shall be provided and maintained on both sides. Any open side of a staircase shall also be guarded by the provision and maintenance of a lower rail or other effective means.
- (3) All openings in floors shall be securely fenced, except in so far as the nature of the work renders such fencing impracticable.
- (4) All ladders shall be soundly constructed and properly maintained.

26 Safe means of access and safe place of employment.

- (1) There shall, so far as is reasonably practicable, be provided and maintained safe means of access to every place at which any person has at any time to work.
- (2) Where any person is to work at a place from which he will be liable to fall a distance more than ten feet, then, unless the place is one which affords secure foothold and, where necessary, secure hand-hold, means shall be provided, so far as is reasonably practicable, by fencing or otherwise for ensuring his safety.

27 Precautions in places where dangerous fumes are liable to be present.

- (1) Where work has to be done inside any chamber, tank, vat, pit, pipe, flue or similar confined space, in which dangerous fumes are liable to be present to such an extent as to involve risk of persons being overcome thereby—
 - (a) the confined space shall, unless there is other adequate means of egress, be provided with a manhole, which may be rectangular, oval, or circular in shape, and shall be not less than eighteen inches long and sixteen inches wide or (if circular) not less than eighteen inches in diameter, or in the case of tank wagons and other mobile plant not less than sixteen inches long and fourteen inches wide or (if circular) not less than sixteen inches in diameter; and
 - (b) no person shall enter the confined space for any purpose unless the following requirements are complied with:—

- (i) all practicable steps shall be taken to remove any fumes which may be present and to prevent any ingress of fumes and, unless it has been ascertained by a suitable test that the space is free from dangerous fumes, the person entering shall wear a belt to which there is securely attached a rope of which the free end is held by a person outside; or
- (ii) the person entering shall wear a suitable breathing apparatus;
- (c) suitable breathing apparatus and a suitable reviving apparatus and suitable belts and ropes shall be provided and maintained so as to be readily accessible, and shall be periodically inspected in the prescribed manner; and
- (d) a sufficient number of the persons employed shall be trained and practised in the use of such apparatus and in the method of restoring respiration:

Provided that the chief inspector may by certificate grant, subject to any conditions specified in the certificate, exemption from compliance with any of the aforesaid requirements in any case where he is satisfied that compliance with those requirements is unnecessary or impracticable.

(2) No work shall be permitted in any boiler-furnace or boiler-flue until it has been sufficiently cooled by ventilation or otherwise to make work safe for the persons employed.

28 Precautions with respect to explosive or inflammable dust, gas, vapour or substance.

- (1) Where, in connection with any finding, sieving, or other process giving rise to dust, there may escape into any workroom dust of such a character and to such an extent as to be liable to explode on ignition, all practicable steps shall be taken to prevent such an explosion by enclosure of the plant used in the process, and by removal or prevention of accumulation of the dust, and by exclusion or effective enclosure of possible sources of ignition.
- (2) Where there is present in any plant used in any such process as aforesaid dust of such a character and to such an extent as to be liable to explode on ignition, then, unless the plant is so constructed as to withstand the pressure likely to be produced by any such explosion, all practicable steps shall be taken to restrict the spread and effects of such an explosion by the provision, in connection with the plant, of chokes, baffles and vents, or other equally effective appliances.
- (3) Where any part of a plant contains any explosive or inflammable gas or vapour under pressure greater than atmospheric pressure, that part shall not be opened, except in accordance with the following provisions:—
 - (a) before the fastening of any joint of any pipe connected with the part of the plant or the fastening of the cover of any opening into the part is loosened, any flow of the gas or vapour into the part or into any such pipe shall be effectively stopped by a stop-valve or otherwise;
 - (b) before any such fastening as aforesaid is removed, all practicable steps shall be taken to reduce the pressure of the gas or vapour in the pipe or part of the plant to atmospheric pressure;

and if any such fastening has been loosened or removed as aforesaid, no explosive or inflammable gas or vapour shall be allowed to enter the pipe or part of the plant until the fastening has been secured, or, as the case may be, securely replaced:

Provided that this subsection shall not apply to plant installed in the open air.

- (4) No plant, tank or vessel which contains or has contained any explosive or inflammable substance shall be subjected to any welding, brazing or soldering operation or to any cutting operation which involves the application of heat, until all practicable steps have been taken to remove the substance and any fumes arising therefrom, or to render them non-explosive or non-inflammable; and if any plant, tank, or vessel has been subjected to any such an operation as aforesaid, no explosive or inflammable substance shall be allowed to enter the plant, tank or vessel until the metal has cooled sufficiently to prevent any risk of igniting the substance.
- (5) The chief inspector may by certificate grant, subject to any conditions specified in the certificate, exemption from compliance with any of the requirements of the last two foregoing subsections in any case where he is satisfied that compliance with the requirement is unnecessary or impracticable.

29 Steam boilers.

- (1) Every steam boiler, whether separate or one of a range—
 - (a) shall have attached to it—
 - (i) a suitable safety valve, separate from any stop-valve, which shall be so adjusted as to prevent the boiler being worked at a pressure greater than the maximum permissible working pressure and shall be fixed directly to, or as close as practicable to, the boiler;
 - (ii) a suitable stop-valve connecting the boiler to the steam pipe;
 - (iii) a correct steam pressure gauge connected to the steam space and easily visible by the boiler attendant, which shall indicate the pressure of steam in the boiler in pounds per square inch, and have marked upon it in a distinctive colour the maximum permissible working pressure;
 - (iv) at least one water gauge of transparent material or other type approved by the chief inspector to show the water level in the boiler, and, if the gauge is of the glass tubular type and the working pressure in the boiler normally exceeds forty pounds per square inch, the gauge shall be provided with an efficient guard but not so as to obstruct the reading of the gauge;
 - (v) where it is one of two or more boilers, a plate bearing a distinctive number which shall be easily visible; and
 - (b) shall be provided with means for attaching a test pressure guage; and
 - (c) unless externally fired, shall be provided with a suitable fusible plug or an efficient low-water alarm device :

Provided that sub-paragraph (ii) of paragraph (a) of this subsection shall not apply with respect to economisers, and sub-paragraphs (iii), (iv) and (v) of paragraph (a), and paragraphs (b) and (c) of this subsection shall not apply with respect to either economisers or superheaters.

- (2) For the purposes of the last foregoing subsection, a lever-valve shall not be deemed a suitable safety valve unless the weight is secured on the lever in the correct position.
- (3) No person shall enter or be in any steam boiler which is one of a range of two or more steam boilers unless—
 - (a) all inlets through which steam or hot water might otherwise enter the boiler from any other part of the range are disconnected from that part; or

- (b) all valves or taps controlling such entry are closed and securely locked, and, where the boiler has a blow-off pipe in common with one or more other boilers or delivering into a common blow-off vessel or sump, the blow-off valve or tap on each such boiler is so constructed that it can only be opened by a key which cannot be removed until the valve or tap is closed and is the only key in use for that set of blow-off valves or taps.
- (4) Every part of every steam boiler shall be of good construction, sound material, adequate strength, and free from patent defect.
- (5) Every steam boiler and all its fittings and attachments shall be properly maintained.
- (6) Every steam boiler and all its fittings and attachments shall be thoroughly examined by a competent person at least once in every period of fourteen months, and also after any extensive repairs:
 - Provided that, in the case of any range of boilers used at the date of the passing of this Act for the purposes of a process requiring a continuous supply of steam, any stop-valve on the range which cannot be isolated from steam under pressure need only be examined so far as is practicable without such isolation, but this proviso shall cease to have effect as soon as a reasonable opportunity arises for installing devices to enable the valve to be so isolated and, in any case, at the expiration of a period of three years from the passing of this Act.
- (7) Any examination in accordance with the requirements of the last foregoing subsection shall consist, in the first place, of an examination of the boiler when it is cold and the interior and exterior have been prepared in the prescribed manner, and secondly, except in the case of an economiser or superheater, of an examination when it is under normal steam pressure, and the two parts of the examination may be carried out by different persons; the examination under steam pressure shall be made on the first occasion when steam is raised after the examination of the boiler when cold, or as soon as possible thereafter, and the person making the examination shall see that the safety valve is so adjusted as to prevent the boiler being worked at a pressure greater than the maximum permissible working pressure.
- (8) A report of the result of every such examination in the prescribed form and containing the prescribed particulars (including the maximum permissible working pressure) shall, as soon as practicable and in any case within twenty-eight days of the completion of the examination, be entered in or attached to the general register, and the report shall be signed by the person making the examination, and if that person is an inspector of a boiler-inspecting company or association, countersigned by the chief engineer of the company or association or by such other responsible officer of the company or association as may be authorised in writing in that behalf by the chief engineer.
 - For the purposes of this subsection and the succeeding provisions of this section relating to reports of examinations, the examination of a boiler when it is cold and its examination when it is under steam pressure shall be treated as separate examinations.
- (9) No steam boiler which has previously been used shall be taken into use in any factory for the first time in that factory until it has been examined and reported on in accordance with the last three foregoing subsections; and no new steam boiler shall be taken into use unless there has been obtained from the manufacturer of the boiler, or from a boiler-inspecting company or association, a certificate specifying the maximum permissible working pressure thereof, and stating the nature of the tests to which the boiler and fittings have been submitted, and the certificate is kept available

for inspection, and the boiler is so marked as to enable it to be identified as the boiler to which the certificate relates.

- (10) Where the report of any examination under this section specifies conditions for securing the safe working of a steam boiler, the boiler shall not be used except in accordance with those conditions.
- (11) The person making the report of any examination under this section, or, in the case of a boiler-inspecting company or association, the chief engineer thereof, shall within twenty-eight days of the completion of the examination send to the inspector for the district a copy of the report in every case where the maximum permissible working pressure is reduced, or the examination shows that the boiler cannot continue to be used with safety unless certain repairs are carried out immediately or within a specified time.
- (12) If the person employed to make any such examination fails to make a thorough examination as required by this section or makes a report which is false or deficient in any material particular, or if the chief engineer of any boiler-inspecting company or association permits any such report to be made, he shall be guilty of an offence and liable to a fine not exceeding fifty pounds, and if any such person or chief engineer fails to send to the inspector for the district a copy of any report as required by the preceding subsection, he shall be guilty of an offence.
- (13) If the chief inspector is not satisfied as to the competency of the person employed to make the examination or as to the thoroughness of the examination, he may require the boiler to be re-examined by a person nominated by him, and the occupier shall give the necessary facilities for such re-examination. If as a result of such re-examination it appears that the report of the examination was inadequate or inaccurate in any material particular, the cost of the re-examination shall be recoverable from the occupier summarily as a civil debt, and the report of the re-examination purporting to be signed by the person making it shall be admissible in evidence of the facts stated therein.
- (14) In this Part of this Act, the expression "maximum permissible working pressure" means, in the case of a new steam boiler, that specified in the certificate referred to in subsection (9) of this section and in the case of a steam boiler which has been examined in accordance with the provisions of this section, that specified in the report of the last examination; and the expression "steam boiler" means any closed vessel in which for any purpose steam is generated under pressure greater than atmospheric pressure, and includes any economiser used to heat water being fed to any such vessel, and any superheater used for heating steam.
- (15) This section shall not apply to any boiler belonging to or exclusively used in the service of His Majesty, or to the boiler of any ship or of any locomotive which belongs to and is used by any railway company.

30 Steam receivers and steam containers.

- (1) Every steam receiver, not so constructed and maintained as to withstand with safety the maximum permissible working pressure of the boiler or the maximum pressure which can be obtained in the pipe connecting the receiver with any other source of supply, shall be fitted with—
 - (a) a suitable reducing valve or other suitable automatic appliance to prevent the safe working pressure being exceeded; and

- (b) a suitable safety valve so adjusted as to permit the steam to escape as soon as the safe working pressure is exceeded, or a suitable appliance for cutting off automatically the supply of steam as soon as the safe working pressure is exceeded; and
- (c) a correct steam pressure gauge, which must indicate the pressure of steam in the receiver in pounds per square inch; and
- (d) a suitable stop valve; and
- (e) except where only one steam receiver is in use, a plate bearing a distinctive number which shall be easily visible.

The safety valve and pressure gauge shall be fitted either on the steam receiver or on the supply pipe between the receiver and the reducing valve or other appliance to prevent the safe working pressure being exceeded.

- (2) For the purpose of the provisions of the foregoing subsection, except paragraph (e), any set of receivers supplied with steam through a single pipe and forming part of a single machine may be treated as one receiver, and for the purpose of the said provisions, except paragraphs (d) and (e), any other set of receivers supplied with steam through a single pipe may be treated as one receiver:
 - Provided that this subsection shall not apply to any such set of receivers unless the reducing valve or other appliance to prevent the safe working pressure being exceeded is fitted on the said single pipe.
- (3) Every part of every steam receiver shall be of good construction, sound material, adequate strength, and free from patent defect.
- (4) Every steam receiver and its fittings shall be properly maintained, and shall be thoroughly examined by a competent person, so far as the construction of the receiver permits, at least once in every period of twenty-six months.
- (5) A report of the result of every such examination containing the prescribed particulars (including particulars of the safe working pressure) shall be entered in or attached to the general register.
- (6) Every steam container shall be so maintained as to secure that the outlet is at all times kept open and free from obstruction.
- (7) In this section the following expressions have the meanings hereby respectively assigned to them, that is to say:—

"safe working pressure" means, in the case of a new steam receiver, that specified by the maker, and in the case of a steam receiver which has been examined in accordance with the provisions of this section, that specified in the report of the last examination;

"steam receiver" means any vessel or apparatus (other than a steam boiler, steam container, a steam pipe or coil, or a part of a prime mover) used for containing steam under pressure greater than atmospheric pressure;

"steam container" means any vessel (other than a steam pipe or coil) constructed with a permanent outlet into the atmosphere or into a space where the pressure does not exceed atmospheric pressure, and through which steam is passed at atmospheric pressure or at approximately that pressure for the purpose of heating, boiling, drying, evaporating or other similar purpose.

31 Air receivers.

- (1) Every air receiver shall—
 - (a) have marked upon it so as to be plainly visible the safe working pressure; and
 - (b) in the case of a receiver connected with an air compressing plant either be so constructed as to withstand with safety the maximum pressure which can be obtained in the compressor, or be fitted with a suitable reducing valve or other suitable appliance to prevent the safe working pressure of the receiver being exceeded; and
 - (c) be fitted with a suitable safety valve so adjusted as to permit the air to escape as soon as the safe working pressure is exceeded; and
 - (d) be fitted with a correct pressure gauge indicating the pressure in the receiver in pounds per square inch; and
 - (e) be fitted with a suitable appliance for draining the receiver; and
 - (f) be provided with a suitable manhole, handhole, or other means which will allow the interior to be thoroughly cleaned; and
 - (g) in a case where more than one receiver is in use in the factory, bear a distinguishing mark which shall be easily visible.
- (2) For the purpose of the provisions of the foregoing subsection relating to safety valves and pressure gauges, any set of air receivers supplied with air through a single pipe may be treated as one receiver:
 - Provided that, in a case where a suitable reducing valve or other suitable appliance to prevent the safe working pressure being exceeded is required to be fitted, this subsection shall not apply unless the valve or appliance is fitted on the said single pipe.
- (3) Every air receiver and its fittings shall be of sound construction and properly maintained.
- (4) Every air receiver shall be thoroughly cleaned and examined at least once in every period of twenty-six months :

Provided that in the case of a receiver of solid drawn construction—

- (a) the person making any such examination may specify in writing a period exceeding twenty-six months but not exceeding four years within which the next examination is to be made; and
- (b) if it is so constructed that the internal surface cannot be thoroughly examined, a suitable hydraulic test of the receiver shall be carried out in lieu of internal examination.

Every such examination and test shall be carried out by a competent person, and a report of the result of every such examination and test, containing the prescribed particulars (including particulars of the safe working pressure), shall be entered in or attached to the general register.

- (5) In this section the expression "air receiver" means—
 - (a) any vessel (other than a pipe or coil, or an accessory, fitting or part of a compressor) for containing compressed air and connected with an air compressing plant;
 - (b) any fixed vessel for containing compressed air or compressed exhaust gases and used for the purpose of starting an internal combustion engine; or

- (c) any fixed or portable vessel (not being part of a spraying pistol) used for the purpose of spraying by means of compressed air any paint, varnish, lacquer or similar material; or
- (d) any vessel in which oil is stored and from which it is forced by compressed air:

Provided that the provisions of paragraph (e) of subsection (1) of this section shall not apply to any such vessel as is mentioned in paragraph (c) or paragraph (d) of this subsection.

32 Exceptions as to steam boilers, steam receivers and containers, and air receivers.

The chief inspector may by certificate except from any of the provisions of the last three preceding sections of this Act any class or type of steam boiler, steam receiver, steam container or air receiver to which he is satisfied that such provision cannot reasonably be applied. Any such exception may be unqualified or may be subject to such conditions as may be contained in the certificate.

33 Precautions as respects water-sealed gasholders.

- (1) Every gasholder shall be of sound construction and shall be properly maintained.
- (2) Every gasholder shall be thoroughly examined externally by a competent person at least once in every period of two years, and a record containing the prescribed particulars of every such examination shall be entered in or attached to the general register.
- (3) In the case of a gasholder of which any lift has been in use for more than twenty years, the internal state of the sheeting shall, within two years of the coming into operation of this section and thereafter at least once in every period of ten years, be examined by a competent person by cutting samples from the crown and sides of the holder or by other sufficient means, and all samples so cut and a report on every such examination signed by the person making it shall be kept available for inspection.
- (4) A record signed by the occupier of the factory or by a responsible official authorised in that behalf showing the date of the construction, as nearly as it can be ascertained, of the oldest lift of every gasholder in the factory shall be kept available for inspection.
- (5) Where there is more than one gasholder in the factory, every gasholder shall be marked in a conspicuous position with a distinguishing number or letter.
- (6) No gasholder shall be repaired or demolished except under the direct supervision of a person who, by his training and experience and his knowledge of the necessary precautions against risks of explosion and of persons being overcome by gas, is competent to supervise such work.
- (7) In this section the expression "gasholder" means a water-sealed gasholder which has a storage capacity of not less than five thousand cubic feet.

34 Means of escape in case of fire.

(1) Every factory to which this section applies shall be certified by the district council as being provided with such means of escape in case of fire for the persons employed therein as may reasonably be required in the circumstances of each case and, if any premises with respect to which no such certificate is in force are used as a factory,

the occupier shall be guilty of an offence and liable on conviction thereof to a fine not exceeding fifty pounds, and if the contravention in respect of which he was so convicted is continued after the conviction, he shall (subject to the provisions of section one hundred and thirty-two of this Act) be guilty of a further offence and liable in respect thereof to a fine not exceeding five pounds for each day on which the offence was so continued.

It shall be the duty of the council to examine every such factory and, on being satisfied that the factory is so provided as aforesaid, to give such a certificate accordingly. The certificate shall specify precisely and in detail the means of escape provided, and shall contain particulars as to the maximum number of persons employed or proposed to be employed in the factory as a whole and, if the council think fit, in any specified part thereof, and as to any explosive or highly inflammable material stored or used and as to other matters taken into account in granting the certificate. The certificate shall be attached by the occupier to the general register and a copy of it shall be sent by the council to the inspector for the district.

- (2) All means of escape specified in the certificate as aforesaid shall be properly maintained and kept free from obstruction.
- (3) A factory which has been furnished with a certificate in pursuance of subsection (1) of section fourteen of the Factory and Workshop Act, 1901, and a factory in respect of which a notice issued in pursuance of subsection (2) of that section has been complied with, or in respect of which an award has been made under subsection (3) of that section and has been complied with, shall be entitled to receive a certificate from the district council and, pending the receipt of the certificate, no offence shall be deemed to be committed by reason of the use of the factory while no certificate under this section is in force in respect thereto:

Provided that this subsection shall only apply to any such factory if and so long as the means of escape provided therein are properly maintained and shall not apply to any such factory if, since the certificate was furnished or the notice or award was complied with in pursuance of the said section fourteen, any action has been taken of which notice would, if this section had been in force and a certificate had been granted thereunder, have been required to be given to the council.

- (4) In the case of any factory constructed or converted for use as a factory before the coming into operation of this section (not being a factory to which the last foregoing subsection applies), no offence shall be deemed to be committed under this section by reason of the use of the factory during any period that may elapse between the coming into operation of this section and the grant or refusal of a certificate by the district council after examining the factory under this section, and if the council refuse to grant a certificate in respect of the factory unless alterations are made, no such offence shall be deemed to be committed while the alterations are being carried out in accordance with the requirements of the council.
- (5) If, after the grant of a certificate, it is proposed to make any material extension or material structural alteration of the factory premises or to increase materially the number of persons employed in the factory or in any part specified in the certificate, or to begin to store or use explosive or highly inflammable material in the factory or materially to increase the extent of such storage or use, the occupier shall give notice in writing to the council of the proposal.
- (6) If the council on receipt of the notice mentioned in the last foregoing subsection are of opinion that the conditions in regard to escape in case of fire will be affected, or if at

any time they are satisfied that by reason of changed conditions the existing means of escape have become insufficient, they may by notice in writing require the occupier to make such alterations, within such period, as may be specified in the notice.

- (7) If it appears to an inspector that dangerous conditions in regard to escape in case of fire exist in any factory to which this section applies he may give notice thereof in writing to the district council, and it shall be the duty of the council forthwith to examine the factory, and they may by notice in writing require the occupier to make such alterations, within such period, as may be specified in the notice.
- (8) The occupier shall, within the period specified in any notice of the district council under this section, carry out any alterations required by the notice, and upon their being earned out the council shall amend the certificate or issue a new certificate, and shall send a copy of the amended or new certificate to the inspector for the district; and if the alterations are not so carried out, the council shall, without prejudice to the taking of other proceedings, cancel the certificate.
- (9) When notice is given by an inspector to a district council under this section, the council shall inform the inspector of any action taken for remedying the dangerous conditions, and, if no such action is taken by the council within one month of the receipt of the notice, the inspector may take the like action as the council might have taken and shall be entitled to recover from the district council summarily as a civil debt all such expenses as the inspector may incur in so doing, and as are not recovered from any other person, and are not expenses incurred in or about any unsuccessful legal proceedings.
- (10) If the occupier of any factory is aggrieved by the refusal of a district council to grant a certificate under this section or by being required by a district council or by an inspector under this section to carry out any alterations at the factory or by the cancellation of a certificate, he may appeal by way of complaint, within twenty-one days of the refusal, notice of requirement, or cancellation, to a court of summary jurisdiction, and, pending the final determination of the appeal, no offence shall be deemed to be committed under this section by reason that the premises to which the appeal relates are used as a factory without a certificate being in force with respect thereto; and the decision of the court shall be binding on the occupier and the council or inspector.
- (11) If it appears to an inspector that the conditions in regard to escape in case of fire in any factory to which this section applies are so dangerous that the factory or any part thereof ought not to be used, or ought not be used for a particular process or work, until steps have been taken to remedy the danger, he may, in lieu of serving a notice on the district council under the foregoing provisions of this section, make a complaint to a court of summary jurisdiction, and the court may, on being satisfied of the matters aforesaid, by order prohibit the use of the factory or part thereof, or its use for the particular process or work, until such works have been executed as are in the opinion of the court necessary to remedy the danger.
 - When any works have been executed in pursuance of such an order as aforesaid, the inspector shall give notice thereof to the district council, who shall amend any certificate in force under this section in respect of the factory, or issue a new certificate, as the case may require.
- (12) An examination by a district council under this section shall only be carried out by officers of the council authorised in writing either to carry out that examination or generally to carry out examinations under this section.

- (13) This section applies to every factory—
 - (a) in which more than twenty persons are employed; or
 - (b) which is being constructed or converted for use as a factory at the date of the passing of this Act, or is constructed or so converted after that date, and in which more than ten persons are employed in the same building on any floor above the ground floor of the building; or
 - (c) of which the construction has been completed before the passing of this Act and in which more than ten persons are employed in the same building above the first floor of the building or more than twenty feet above the ground level; or
 - in or under which explosive or highly inflammable materials are stored or used.
- (14) In the application of this section to the administrative county of London—
 - (a) the section shall have effect as if references to the London County Council were therein substituted for references to the district council; and
 - (b) any factory or part thereof forming part of a building from all parts of which means of escape in case of fire have been provided in accordance with the requirements of Part VIII of the London Building Act, 1930, and are maintained, shall be entitled to receive from the London County Council a certificate for the purposes of this section, and pending the receipt of the certificate, no offence shall be deemed to be committed by reason of the use of the factory while no certificate under this section is in force with respect thereto:

Provided that this paragraph shall not apply to any such factory or part thereof if, since the means of escape were provided, any action has been taken of which notice would, if this section had been in force and a certificate had been granted thereunder, have been required to be given to the council.

35 Regulations and byelaws as to means of escape in case of fire.

- (1) The Secretary of State may make regulations as to the means of escape in case of fire to be provided in factories or any class or description of factory.
 - It shall be the duty of the district council to see that the regulations are complied with, and the provisions of Part I of this Act as to the power to act in default of a district council shall apply in the case of any default of the district council under this subsection.
- (2) If a certificate has been issued under the last foregoing section in respect of a factory which is not in conformity with the regulations under this section, the district council shall serve a notice on the occupier of the factory requiring him to make, within a specified period, such alterations as they consider necessary to bring the factory into conformity with the regulations, and the provisions of the last foregoing section shall apply in relation to any such notice as they apply to a notice of the district council under that section.
- (3) Every district council shall, in addition to any powers which they possess with reference to the prevention of fire, have power to make byelaws as to the means of escape in case of fire to be provided in factories or any class or description of factory, but such byelaws shall be void in so far as they contain any provisions inconsistent with any regulations made by the Secretary of State under this section.

- (4) The Minister of Health shall be the confirming authority for any byelaws made by a district council under this section.
- (5) This section shall in its application to the administrative county of London have effect as if references to the London County Council were therein substituted for references to the district council, except in the last foregoing subsection which shall not apply to London, and as if the matters with respect to which byelaws may be made under this section were included in the matters with respect to which the London County Council may make byelaws under section four of the London Building Act (Amendment) Act, 1935, and as if any byelaws made under this section were made under the said section four.

36 Safety provisions in case of fire.

- (1) While any person is within a factory for the purpose of employment or meals, the doors of the factory, and of any room therein in which the person is, and any doors which afford a means of exit for persons employed in the factory from any building or from any enclosure in which the factory is situated, shall not be locked or fastened in such manner that they cannot be easily and immediately opened from the inside.
- (2) Any doors opening on to any staircase or corridor from any room in which more than ten persons are employed, and in the case of any factory constructed or converted for use as a factory after the coming into operation of this section, all other doors affording a means of exit from the factory for persons employed therein, shall, except in the case of sliding doors, be constructed to open outwards.
- (3) In any factory constructed or converted for use as a factory before the coming into operation of this section, in which more than ten persons are employed in the same building above the ground floor, any door, which is not kept continuously open, at the foot of a staircase affording a means of exit from the building shall, except in the case of sliding doors, be constructed to open outwards.
- (4) Every hoistway or liftway inside a building constructed after the coming into operation of this section shall, subject as hereinafter provided, be completely enclosed with fire-resisting materials, and all means of access to the hoist or lift shall be fitted with doors of fire-resisting materials:
 - Provided that any such hoistway or liftway shall be enclosed at the top only by some material easily broken by fire, or be provided with a vent at the top.
- (5) The chief inspector may by certificate grant, subject to any conditions specified in the certificate, exemption from compliance with any of the requirements of the last foregoing subsection in any case where he is satisfied that compliance with those requirements is inappropriate or undesirable.
- (6) Every window, door, or other exit affording means of escape in case of fire or giving access thereto other than the means of exit in ordinary use, shall be distinctively and conspicuously marked by a notice printed in red letters of an adequate size.
- (7) Where in any factory more than twenty persons are employed in the same building, or explosive or highly inflammable materials are stored or used in any building in which persons are employed, effective provision shall be made for giving warning in case of fire, which shall be clearly audible throughout the building.

(8) The contents of any room in which persons are employed shall be so arranged or disposed that there is a free passage-way for all persons employed in the room to a means of escape in case of fire.

37 Instruction as to use of means of escape in case of fire.

- (1) Where in any factory more than twenty persons are employed in the same building above the first floor or more than twenty feet above the ground level, or explosive or highly inflammable materials are stored or used in any building where persons are employed, effective steps shall be taken to ensure that all the persons employed are familiar with the means of escape in case of fire and their use and with the routine to be followed in case of fire.
- (2) The Secretary of State may make regulations as to the steps to be taken for the said purposes in such factories as aforesaid, or any class or description thereof.

Power of Secretary of State to require special safety arrangements for the prevention of accidents.

Where it appears to the Secretary of State that, in view of the number and nature of accidents occurring in any factory or class or description of factory, special provision ought to be made at that factory or at factories of that class or description to secure the safety of persons employed therein, he may make special regulations requiring the occupier to make such reasonable provision by arrangements for special supervision in regard to safety, investigation of the circumstances and causes of accidents, and otherwise as may be specified in the regulations.

Power of court of summary jurisdiction to make orders as to dangerous conditions and practices.

- (1) If on complaint by an inspector a court of summary jurisdiction is satisfied either—
 - (a) that any part of the ways, works, machinery, or plant used in a factory is in such a condition or is so constructed or is so placed that it cannot be used without risk of bodily injury; or
 - (b) that any process or work is carried on or anything is or has been done in any factory in such a manner as to cause risk of bodily injury;

the court shall, as the case may require, by order—

- (i) prohibit the use of that part of the ways, works, machinery or plant, or, if it is capable of repair or alteration, prohibit its use until it is duly repaired or altered; or
- (ii) require the occupier to take such steps as may be specified in the order for remedying the danger complained of.
- (2) Where a complaint is or has been made under the last foregoing subsection, the court or a justice may, on application ex parte by the inspector, and on receiving evidence that the use of any such part of the ways, works, machinery, or plant, or, as the case may be, the carrying on of any process or work or the doing of anything in such a manner as aforesaid, involves imminent risk of serious bodily injury, make an interim order prohibiting, either absolutely or subject to conditions, the use, carrying on or doing thereof until the earliest opportunity for hearing and determining the complaint.

40 Power of court of summary jurisdiction to make orders as to dangerous factory.

A court of summary jurisdiction may, on complaint by an inspector, and on being satisfied that any factory or part of a factory is in such a condition that any process or work carried on therein cannot be so carried on without risk of bodily injury, by order prohibit the use thereof for the purpose of that process or work, until such works have been executed as are in the opinion of the court necessary to remove the danger.