

STEAM BOILERS AND STEAM RECEIVERS

The Occupational Safety and Health Act, 2007 section 67.

(1) Every steam boiler and all its fittings and attachments shall be of good construction, sound material, and adequate strength and free from patent defect, and shall be properly maintained.

(2) Every steam boiler, whether separate or one of a range shall —

(a) have attached to it—

(i) a suitable safety valve, separate from and incapable of being isolated by 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, and a suitable stop valve connecting the boiler to the steam pipe;

(ii) 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 kilograms per square centimeter and have marked upon it, in a distinctive colour, the maximum permissible working pressure;

(iii) at least one water gauge, of transparent material or other type approved by the Director, 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 two point eight kilograms per square centimetre, the gauge shall be provided with an efficient guard but not so as to obstruct the reading to the gauge;

(iv) where it is one of two or more boilers, a plate bearing a distinctive number which shall be

easily visible;

(b) be provided with means for attaching a test pressure gauge; and

(c) be provided with a suitable fusible plug or an efficient low-water alarm device:

Provided that subparagraph (ii) of paragraph (a) shall not apply with respect to economizers, and subparagraphs (iii), (iv) and (v) of paragraph (a), and paragraphs (b) and (c), shall not apply with respect to economizers or super heaters.

(3) For the purposes of subsection (2), a lever-valve shall not be deemed a suitable safety valve unless the weight is secured on the lever in the correct position.

(4) Every steam boiler attendant shall be properly instructed on his duties.

(5) 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 boiler 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.

(6) 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 persons employed.

(7) The boiler room shall be kept clean and shall not be used as a resting place or storeroom or for any other purpose at any given time.

(8) Every steam boiler and all its fittings and attachments shall be thoroughly examined by an approved person, at least once in every period of twelve months, and also after any modifications or extensive repairs:

Provided that the person carrying out any such examination may specify in writing a period exceeding twelve months but not exceeding fifteen months within which the next examination is to be carried out.

(9) Any examination in accordance with the requirements of subsection (8) 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 economizer or super heater, of an examination when it is under normal steam pressure; the

examination under steam pressure shall be made as soon as possible after the examination of the boiler when cold, and the person carrying out 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.

(10) The Seventh Schedule shall apply in respect of an examination of a boiler when it is cold.

(11) A report of the result of an examination under subsection (8) shall be made in the prescribed form and containing the prescribed particulars, including particulars of the maximum permissible working pressure, and shall be signed by the person who carried out the examination as soon as practicable and in any case within twenty-eight days of the completion of the examination and be entered in or attached to the general register.

(12) For the purposes of subsections (11), (13) and (14), the examination of a boiler when it is cold and its examination when it is under steam pressure shall be treated as separate examinations

(13) No steam boiler which has previously been used shall be taken into use in any workplace or premises for the first time in that workplace or premises until it has been examined and reported on in accordance with subsections (8), (9) and (11).

(14) No new steam boiler shall be taken into use for the first time in any workplace unless there has been obtained in respect thereof—

- (a) the manufacturer's complete specifications which shall include full details of the composition and physical properties of all rivets, plates, sections, tubes, bars and electrodes used for pressure part;
- (b) Dimensional drawings of the complete boiler showing the thickness of plates, details of riveting and the position and extent of all welds;
- (c) The manufacturer's certificate of test; and

(d) A certificate specifying the maximum permissible working pressure of the boiler, stating the nature of the tests to which the boiler, attachments and fittings have been submitted, issued and signed by the person making the examination.

(15) The person carrying out an examination under this section shall within twenty four hours of the examination, report to the area occupational safety and health officer, any defect which would render the boiler imminently dangerous if not rectified immediately.

(16) The person making the report of an examination under this section shall, within seven days, after completion of the examination, send to the area occupational safety and health office, a copy of the written report in every case where the maximum permissible working pressure is reduced, or where the boiler cannot continue to be used with safety unless certain repairs are carried out immediately or within a specified time and the officer in charge of the office may, on

the basis of the report, issue an improvement notice or prohibition notice as appropriate.

(17) If the person making the examination under this section fails to carry out a thorough examination as required by this section, makes a report which is false or deficient in any material particular, or fails to send to the Director a copy of any report as required, that person commits an offence shall on conviction be liable to a fine not exceeding two hundred thousand shillings, or to imprisonment for a term not exceeding six months, or to both.

(18) Where the report of any examination under this section specifies conditions for securing the safe working pressure of a steam boiler, the boiler shall not be used except in accordance with those conditions.

(19) In this section—

“approved person” means any person who is approved by the Director, by certificate in writing, to carry out examinations of steam boilers in accordance with, and for the purposes of, this section and to issue the certificate referred to in subsection (11);

“maximum permissible working pressure”, in the case of a new steam boiler means, that specified in the certificate referred to in subsection (14) of this section, and, in the case of

a steam boiler which has been examined in accordance with this section, that specified in the report of the last examination.

The Occupational Safety and Health Act, 2007 section 68.(1) Every steam receiver and all its fittings shall be of good construction, sound material, adequate strength, and free from patent defect, and shall be properly maintained.

(2) 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 of the receiver being exceeded;
- (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;
- (c) a correct steam pressure gauge, which shall indicate the pressure of steam in the receiver in kilograms per square centimetre;
- (d) a suitable stop valve;
- (e) except where only one steam receiver is in use, a plate bearing a distinctive number which shall be easily visible; and 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.

(3) For the purposes of paragraphs (a), (b), (c) and (d) of subsection (2), 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 paragraphs (a), (b) and (c) of subsection (2), 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.

(4) Every steam receiver and all its fittings shall be thoroughly examined by an approved person, so far as the construction of the receiver permits, at least once in every period of twenty-four months or after repairs.

(5) A report of the result of every examination referred to in subsection (4), shall be in the prescribed form containing the prescribed particulars, including particulars of the safe working pressure and shall be entered in or attached to the general register shall be signed by the person who carried out the examination.

(6) No steam receiver which has previously been used shall be taken into use in any workplace for the first time in that workplace until it has been examined and reported on in accordance with subsections (4) and (5).

(7) No new steam receiver shall be used in a workplace for the first time unless there has been obtained from the manufacturer of the receiver, or from a person approved by the Director, a certificate specifying the safe working pressure of the receiver stating the nature of the tests to which the receiver and fittings have been submitted, and the certificate is kept available for inspection, and the receiver is so marked as to enable it to be identified as the receiver to which the certificate relates.

(8) No person shall use, in any workplace, a steam receiver, or a steam container which does not comply with the standards set out in this section.

(9) Every steam container shall be so maintained as to secure that the outlet is at all times kept open and free from obstruction.

(10) In this section—

“ approved person ” means any person who is approved by the Director, by certificate in writing, to carry out examinations of steam receivers in accordance with, and for the purposes of, this section and to issue the certificate referred to in subsection (6);

“ maximum permissible working pressure ” has the same meaning as in section 67;

“ safe working pressure ” means, in the case of a new steam receiver, that specified in the certificate referred to in subsection (6) 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 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;

“steam receiver” means any vessel or apparatus other than a steam boiler, a steam container, a steam pipe or coil, or a part of a prime mover used for containing steam under

Any person who commits an offence under this section shall on conviction be liable to a fine not exceeding three hundred thousand shillings or to imprisonment for a term not exceeding three months or to both. Where the contravention in respect of which a person is convicted is continued after the conviction, shall that person subject to the provisions of section 110, be guilty of a further offence and liable in respect thereof to a fine not exceeding ten thousand shillings for each day on which the contravention is so continued.

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