§ 57.14000


SECTION AND TITLE

I Power Boilers
II Material Specifications—Part A—Ferrous
II Material Specifications—Part B—Nonferrous
II Material Specifications—Part C—Welding Rods, Electrodes, and Filler Metals
IV Heating Boilers
V Nondestructive Examination
VI Recommended Rules for Care and Operation of Heating Boilers
VII Recommended Rules for Care of Power Boilers

(2) The National Board Inspection Code, a Manual for Boiler and Pressure Vessel Inspectors, 1979, published by the National Board of Boiler and Pressure Vessel Inspectors.

CHAPTER AND TITLE

I Glossary of Terms
II Inspection of Boilers and Pressure Vessels
III Repairs and Alterations to Boiler and Pressure Vessels by Welding
IV Shop Inspection of Boilers and Pressure Vessels
V Inservice Inspection of Pressure Vessels by Authorized Owner-User Inspection Agencies

APPENDIX AND TITLE

A Safety and Safety Relief Valves
B Non-ASME Code Boilers and Pressure Vessels
C Storage of Mild Steel Covered Arc Welding Electrodes
D-R National Board “R” (Repair) Symbol Stamp
D-VR National Board “VR” (Repair of Safety and Safety Relief Valve) Symbol Stamp
D-VR1 Certificate of Authorization for Repair Symbol Stamp for Safety and Safety Relief Valves
D-VR2 Outline of Basic Elements of Written Quality Control System for Repairers of ASME Safety and Safety Relief Valves
D-VR3 Nameplate Stamping for “VR”
E Owner-User Inspection Agencies
F Inspection Forms

(c) Records of inspections and repairs shall be kept in accordance with the requirements of the ASME Boiler and Pressure Vessel Code and the National Board Inspection Code. The records shall be made available to the Secretary or his authorized representative.

(d) Sections of the ASME Boiler and Pressure Vessel Code, 1977, listed in paragraph (b)(1) of this section, and chapters and appendices of the National Board Inspection Code, 1979, listed in paragraph (b)(2) of this section, are incorporated by reference and made a part of this standard. These publications may be obtained from the publishers, the American Society of Mechanical Engineers, 22 Law Drive, P.O. Box 2900, Fairfield, New Jersey 07007, Phone: 800-843-2763, (toll free); http://www.asme.org, and the National Board of Boiler and Pressure Vessel Inspectors, 1055 Crupper Avenue, Columbus, Ohio 43229. The publication may be examined at any Metal and Nonmetal Mine Safety and Health District Office of the Mine Safety and Health Administration.

[50 FR 4082, Jan. 29, 1985, as amended at 71 FR 16667, Apr. 3, 2006]

Subpart M—Machinery and Equipment

SOURCE: 53 FR 32528, Aug. 25, 1988, unless otherwise noted.

§ 57.14000 Definitions.

The following definitions apply in this subpart.

Travelway. A passage, walk, or way regularly used or designated for persons to go from one place to another.


SAFETY DEVICES AND MAINTENANCE REQUIREMENTS

§ 57.14100 Safety defects; examination, correction and records.

(a) Self-propelled mobile equipment to be used during a shift shall be inspected by the equipment operator before being placed in operation on that shift.

(b) Defects on any equipment, machinery, and tools that affect safety shall be corrected in a timely manner to prevent the creation of a hazard to persons.
Mine Safety and Health Admin., Labor

§ 57.14101 Brakes.

(a) Minimum requirements. (1) Self-propelled mobile equipment shall be equipped with a service brake system capable of stopping and holding the equipment with its typical load on the maximum grade it travels. This standard does not apply to equipment which is not originally equipped with brakes unless the manner in which the equipment is being operated requires the use of brakes for safe operation. This standard does not apply to rail equipment.

(2) Defects on self-propelled mobile equipment affecting safety, which are not corrected immediately, shall be reported to, and recorded by, the mine operator. The records shall be kept at the mine or nearest mine office from the date the defects are recorded, until the defects are corrected. Such records shall be made available for inspection by an authorized representative of the Secretary.

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(b) Testing. (1) Service brake tests shall be conducted on surface-operated equipment at underground mines when an MSHA inspector has reasonable cause to believe that the service brake system does not function as required, unless the mine operator removes the equipment from service for the appropriate repair;

(2) The performance of the service brakes shall be evaluated according to Table M–1.

Table M–1

<table>
<thead>
<tr>
<th>Gross vehicle weight lbs.</th>
<th>Equipment Speed, MPH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10</td>
</tr>
<tr>
<td>0–36,000</td>
<td>34</td>
</tr>
<tr>
<td>36,000–70,000</td>
<td>41</td>
</tr>
<tr>
<td>70,000–14,0000</td>
<td>48</td>
</tr>
<tr>
<td>140,000–250,000</td>
<td>56</td>
</tr>
<tr>
<td>250,000–400,000</td>
<td>59</td>
</tr>
<tr>
<td>Over–400,000</td>
<td>63</td>
</tr>
</tbody>
</table>

Stopping distances are computed using a constant deceleration of 9.66 FPS$^2$ and system response times of 5.1, 1.5, 2, 2.25 and 2.5 seconds for each of increasing weight category respectively. Stopping distance values include a one-second operator response time.

Table M–2—The speed of a vehicle can be determined by clocking it through a 100-foot measured course at constant velocity using Table M–2. When the service brakes are applied at the end of the course, stopping distance can be measured and compared to Table M–1.

<table>
<thead>
<tr>
<th>Miles per hour</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seconds required to travel 100 feet</td>
<td>6.8</td>
<td>6.2</td>
<td>5.7</td>
<td>5.2</td>
<td>4.9</td>
<td>4.5</td>
<td>4.3</td>
<td>4.0</td>
<td>3.8</td>
<td>3.6</td>
<td>3.4</td>
</tr>
</tbody>
</table>

(3) Service brake tests shall be conducted under the direction of the mine operator in cooperation with and according to the instructions provided by the MSHA inspector as follows:

(i) Equipment capable of traveling at least 10 miles per hour shall be tested with a typical load for that particular piece of equipment. Front-end loaders shall be tested with the loader bucket empty. Equipment shall not be tested