§ 86.01

Subpart B—Bell or Gong

86.21 Intensity of signal.
86.23 Construction.

Subpart C—Approval

86.31 Approval. [Reserved]


SOURCE: CGD 81–009, 46 FR 61848, Dec. 21, 1981, unless otherwise noted.

Subpart A—Whistles

86.01 Frequencies and range of audibility.

The fundamental frequency of the signal shall lie within the range 70–525 Hz. The range of audibility of the signal from a whistle shall be determined by those frequencies, which may include the fundamental and/or one or more higher frequencies, which lie within the frequency ranges and provide the sound pressure levels specified in §86.05.

TABLE 86.05

<table>
<thead>
<tr>
<th>Length of vessel in meters</th>
<th>Fundamental frequency range (Hz)</th>
<th>For measured frequencies (Hz)</th>
<th>1/3-octave band level at 1 meter in dB referred to 2 x10^-5 N/m²</th>
<th>Audibility range in nautical miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 or more</td>
<td></td>
<td>130–180</td>
<td>145</td>
<td>2</td>
</tr>
<tr>
<td>75 but less than 200</td>
<td></td>
<td>180–250</td>
<td>143</td>
<td>1.5</td>
</tr>
<tr>
<td>20 but less than 75</td>
<td></td>
<td>250–350</td>
<td>138</td>
<td>1</td>
</tr>
<tr>
<td>12 but less than 20</td>
<td></td>
<td>350–525</td>
<td>125</td>
<td>0.5</td>
</tr>
</tbody>
</table>

NOTE. The range of audibility in the table above is for information and is approximately the range at which a whistle may usually be heard on its forward axis in conditions of still air on board a vessel having average background noise level at the listening posts (taken to be 68 dB in the octave band centered on 250 Hz and 63 dB in the octave band centered on 500 Hz).

In practice the range at which a whistle may be heard is extremely variable and depends critically on weather conditions; the values given can be regarded as typical but under conditions of strong wind or high ambient noise level at the listening post the range may be much reduced.

§ 86.07 Directional properties.

The sound pressure level of a directional whistle shall be not more than 4 dB below the sound pressure level specified in §86.05 in any direction in the horizontal plane within 45 degrees of the forward axis. The sound pressure level of the whistle in any other direction in the horizontal plane shall not be more than 10 dB less than the sound pressure level specified for the forward axis, so that the range of audibility in any direction will be at least half the range required on the forward axis. The sound pressure level shall be measured.