plate must be suitable for fusion welding and must comply with the following specification (IBR, see §171.7 of this subchapter):

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Minimum tensile strength (p.s.i.)</th>
<th>Minimum elongation in 2 inches (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTM A 302, Gr. B</td>
<td>80,000</td>
<td>20</td>
</tr>
</tbody>
</table>

1Maximum stresses to be used in calculations.

Plate materials used to fabricate the outer shell and heads must be those listed in paragraphs (b), (c), (d), or (e) of this section. The maximum allowable carbon content must be 0.31 percent when the individual specification allows carbon content greater than this amount. The plates may be clad with other approved materials.

All appurtenances on the inner container in contact with the lading must be made of approved material compatible with the plate material of the inner container. These appurtenances must not be subject to rapid deterioration by the lading, or must be coated or lined with suitable corrosion resistant material. See AAR Specifications for Tank Cars, appendix M, M4.05 for approved material specifications for castings for fittings.

§ 179.220–9 Compartment tanks.

(a) The inner container may be divided into compartments by inserting interior heads, or by fabricating each compartment as a separate container and joining with a cylinder, or by fabricating each compartment as a separate tank without a joining cylinder. Each compartment must be capable of withstanding, without evidence of yielding or leakage, the required test pressure applied in each compartment separately, or in any combination of compartments.

(b) When the inner container is divided into compartments by fabricating each compartment as a separate container and joining with a cylinder, the cylinder must have a plate thickness not less than that required for the inner container shell and must be applied to the outside surface of the straight flange portion of the container head. The cylinder must fit the straight flange tightly for a distance of at least two times the plate thickness, or 1 inch, whichever is greater and must be joined to the straight flange by a full fillet weld. Distance from fillet weld seam to container head seam must be not less than 1 ½ inches or three times the plate thickness, whichever is greater.

§ 179.220–10 Welding.

(a) All joints must be fusion welded in compliance with AAR Specifications for Tank Cars, appendix W (IBR, see §171.7 of this subchapter). Welding procedures, welders, and fabricators shall be approved.

(b) Radioscopy of the outer shell is not a specification requirement.

(c) Welding is not permitted on or to ductile iron or malleable iron fittings.


(a) Postweld heat treatment of the inner container is not a specification requirement.