Here, the corner support is supported by upper and lower support rods extending through the primary and secondary insulation walls and the secondary sealing wall and being mechanically secured to each other.

[11] However, such a typical corner structure of an LNG storage tank has problems in that assembly of the corner structure is costly in terms of time and effort due to inevitable increase in man hour in assembly of the upper and lower rods and there is a limitation in reduction of weight.

【Disclosure】

【Technical Problem】

[12] Embodiments of the present invention have been conceived to solve such a problem in the art and provide a corner panel for ultra-low temperature fluid storage tanks, which allows a metallic membrane to be effectively attached thereto at low cost, can reduce the amount of metal used in manufacture thereof to reduce weight and costs, and thus can be used as a primary corner panel which is lighter and allows a secondary membrane to be more easily attached thereto.

【Technical Solution】

[13] In accordance with one aspect of the present invention, there is provided a corner panel for ultra-low temperature fluid storage tanks, including: a panel main body placed at a corner of the storage tank and having an L shape; an anchor strip secured to the panel main body; and a steel corner secured to the anchor strip to be placed at a corner of the panel main body and allowing a metallic membrane to be welded thereto, wherein the steel corner have an L shape so as to be welded to the anchor strip along the corner of the panel main body, the steel corner is secured to the anchor strip so as to be placed at one side of the anchor strip in the longitudinal direction of the anchor strip such that the other side of the anchor strip can be exposed, and a site is provided to which the metallic membrane is secured by welding.

[14] An upper portion of the panel main body may be formed of plywood.

[15] The anchor strip may be secured to the plywood through a rivet.

[16] The anchor strip may include a pair of anchor strips secured to both sides of the corner of the panel main body in parallel to each other with the corner of the panel main body interposed therebetween.

[17] The steel corner may have an L shape so as to be welded to the anchor strip along the corner of the panel main body.

[18] The steel corner may be secured to the anchor strip to be placed at one side of the anchor strip in a longitudinal direction of the anchor strip such that the other side of the anchor strip can be exposed.

[19] The corner panel may further include an additional anchor strip secured to a portion of the panel main body and allowing a metallic membrane to be welded thereto.

[20] The additional anchor strip may be secured to plywood forming an upper portion of the panel main body through a rivet.

[21] The additional anchor strip may be placed on each surface of the panel main body to extend in a direction perpendicular to the corner of the panel main body.

[22] In accordance with another aspect of the present invention, there is provided a corner panel for ultra-low temperature fluid storage tanks, including: a panel main body placed at a corner of the storage tank; and an anchor strip secured to the panel main body and configured to allow a steel corner to be fixed thereto, wherein the steel corner is allowing a metallic membrane to be welded thereto, wherein the steel corner have an L shape so as to be welded to the anchor strip along the corner of the panel main body, the steel corner is secured to the anchor strip so as to be placed at one side of the anchor strip in the longitudinal direction of the anchor strip such that the other side of the anchor strip can be exposed, and a site is provided to which the metallic membrane is secured by welding.

[23] The anchor strip may be secured to plywood forming an upper portion of the panel main body through a rivet.

[24] The steel corner may be welded to the anchor strip.

[25] There is disclosed a thermal insulation system including the corner panel for ultra-low temperature fluid storage tanks according to one or another aspect of the present invention.

【Advantageous Effects】

[26] Embodiments of the present invention seek to provide a corner panel for ultra-low temperature fluid storage tanks, which allows a metallic membrane to be effectively attached thereto at low cost, can reduce the amount of metal used in manufacture thereof to reduce weight and costs, and allows both a unit product and a storage tank to be more easily manufactured due to light-weight thereof, thereby reducing man hour.

【Description of Drawings】

[27] Fig. 1 is a perspective view of a typical primary corner panel.

[28] Fig. 2 is a perspective view of a corner panel for ultra-low temperature fluid storage tanks according to one exemplary embodiment of the present invention.

【Best Mode】

【CLAIMS】

【Claim 1】

A corner panel for ultra-low temperature fluid storage tanks, comprising:

a panel main body placed at a corner of the storage tank and having an L shape;

an anchor strip secured to the panel main body; and

a steel corner secured to the anchor strip to be placed at a corner of the panel main body and allowing a metallic membrane to be welded thereto,

wherein the steel corner have an L shape so as to be welded to the anchor strip along the corner of the panel main body, the steel corner is secured to the anchor strip so as to be placed at one side of the anchor strip in the longitudinal direction of the anchor strip such that the other side of the anchor strip can be exposed, and a site is provided to which the metallic membrane is secured by welding.

【Claim 2】

The corner panel according to claim 1, wherein an upper portion of the panel main body is formed of plywood.

【Claim 3】

The corner panel according to claim 2, wherein the anchor strip is secured to the plywood through a rivet.

【Claim 4】

The corner panel according to claim 1, wherein the anchor strip comprises a

pair of anchor strips secured to both sides of the corner of the panel main body in parallel to each other with the corner of the panel main body interposed therebetween.

【Claim 5】

The corner panel according to claim 1, further comprising: an additional anchor strip secured to a portion of the panel main body and allowing a metallic membrane to be welded thereto.

【Claim 6】

The corner panel according to claim 5, wherein the additional anchor strip is secured to plywood forming an upper portion of the panel main body through a rivet.

【Claim 7】

The corner panel according to claim 5, wherein the additional anchor strip is placed on each surface of the panel main body to extend in a direction perpendicular to the corner of the panel main body.

【Claim 8】

A corner panel for ultra-low temperature fluid storage tanks, comprising:

a panel main body placed at a corner of the storage tank; and an anchor strip secured to the panel main body and configured to allow a steel corner to be fixed

thereto, wherein the steel corner is allowing a metallic membrane to be welded thereto,

wherein the steel corner have an L shape so as to be welded to the anchor strip along the corner of the panel main body, the steel corner is secured to the anchor strip so as to be placed at one side of the anchor strip in the longitudinal direction of the anchor strip such that the other side of the anchor strip can be exposed, and a site is provided to which the metallic membrane is secured by welding.

【Claim 9】

The corner panel according to claim 8, wherein the anchor strip is secured to plywood forming an upper portion of the panel main body through a rivet.