

Title (en)
HOT PRESS FORMED MEMBER AND METHOD FOR MANUFACTURING THE MEMBER

Title (de)
HEISSPRESSGEFORMTES ELEMENT SOWIE VERFAHREN ZUR HERSTELLUNG DES ELEMENTS

Title (fr)
ÉLÉMENT FORMÉ PAR PRESSAGE À CHAUD ET PROCÉDÉ DE FABRICATION DE L'ÉLÉMENT

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Abstract (en)
The present invention relates to a hot press forming steel plate made of a composition comprising: 0.3-1.0 wt % of C; 0.01-4.0 wt % of Mn; 1.0-2.0 wt % of Si; 0.01-2.0 wt % of Al; 0.015 wt % or less of S; 0.01 wt % or less of N; and the remainder being Fe and unavoidable impurities. Further, the present invention relates to a method for manufacturing the hot press forming steel plate, characterized by comprising the steps of: heating, to between 1100 and 1300°C, a steel slab having the composition; performing hot rolling finishing between an Ar3 transformation point and 950°C; and performing winding between MS and 720°C. Further, the present invention relates to a hot press formed member characterized by having the composition, and having a dual phase microstructure made of bainite and residual austenite. In addition, the present invention relates to a method for manufacturing the hot press formed member, characterized by comprising the steps of: heating the steel plate having the composition to a temperature of an Ac3 point or higher; hot press molding the heated steel plate; performing cooling at a cooling speed of 20°C/sec or higher to a temperature between MS and 550°C; and performing a heat treatment in a heating furnace between MS and 550°C.

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