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(54) **HIGH-HARDNESS STEEL SHEET, AND MANUFACTURING METHOD THEREOF**

(57) The objective of one aspect of the present invention is to provide a high-hardness steel sheet and a manufacturing method, the high-hardness steel sheet having Brinell hardness of 500 HB or more by setting a steel composition according to a minimum carbon content relation (1). Another aspect of the present invention relates to, as a high-hardness steel sheet having Brinell hardness of 500 HB or more and to be manufactured by comprising a process of cooling a hot rolled steel sheet, a high-hardness steel sheet having a minimum carbon (C) content which meets the following relation (1), having a microstructure comprising 95 vol% or more of martensite phase, and having Brinell hardness of 500 HB or more; and a manufacturing method therefor.

[Relation 1] C (minimum carbon (c)content) $\geq$

0.481-0.104Mn-0.035Si-0.088Cr-0.054Ni-0.035Mo-0.0003C.R.

(wherein Mn, Si, Cr, Ni and Mo are a value representing the content of each element by wt%, and C.R. is a value represent cooling rate during cooling a hot rolled steel sheet and the unit thereof is °C /sec)

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X	EP 2 692 890 A1 (JFE STEEL CORP [JP]) 5 February 2014 (2014-02-05) * abstract * * pages 10,18; examples Comp,No19,SteelQ; tables 1-1 , 2-4 * -----	1-4	C22C38/46 C22C38/44 C21D8/02 C21D9/46 C21D1/18 C22C38/06 C22C38/02
			TECHNICAL FIELDS SEARCHED (IPC)
			C22C C21D
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 11 March 2024	Examiner Ugarte, Eva
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

**ANNEX TO THE EUROPEAN SEARCH REPORT
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5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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