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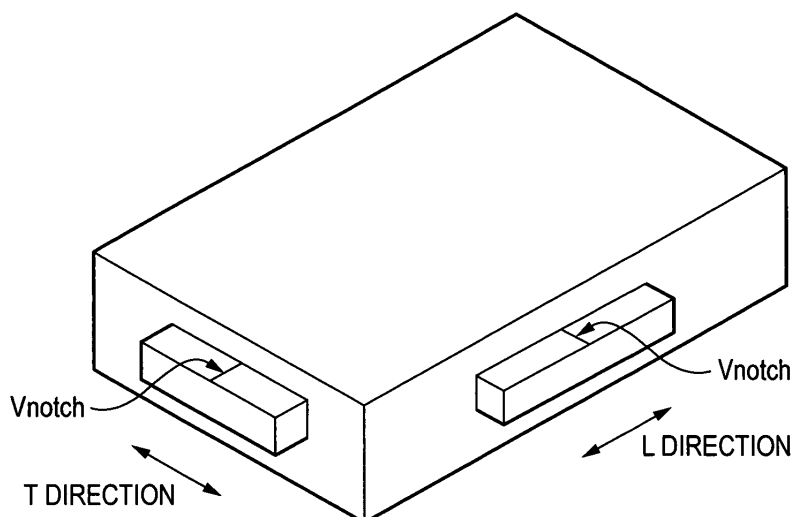
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(54) **Martensitic free cutting stainless steel**

(57) The present invention relates to a martensitic free cutting stainless steel, comprising, by weight percent: C: 0.10 to 1.20 %, Si: 0.10 to 2.00 %, Mn: 0.80 to 2.00 %, S: 0.10 to 0.30 %, Cr: 10.5 to 18.0 %, Pb: 0.03 to 0.30 %, Te: 0.01 to 0.10 %, B: 0.0005 to 0.010 %, and O: 0.005 to 0.030 %, with the remainder being substan-

tially Fe and inevitable impurities; contents of P and N are: P: 0.005 to 0.10 %, and N: ≤ 0.050 %; wherein respective formulae of $3.0 \leq [\text{Mn}]/[\text{S}] \leq 15.0$, $0.10 \leq [\text{Te}]/[\text{S}]$, and $10 \leq [\text{S}]/[\text{O}] \leq 40$ are satisfied; and wherein a sulfide having a circle equivalent diameter of $2.0 \mu\text{m}$ or more and an aspect ratio of 10 or less is present in a total amount of 0.50 to 10 % by area ratio.

FIG. 1





EUROPEAN SEARCH REPORT

Application Number
EP 07 01 9360

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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 21 September 2010	Examiner Vlassi, Eleni
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			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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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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