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(54) **Ti(C,N)-(Ti,Nb,W)(C,N)-Co alloy for super-finishing turning cutting tool applications**

(57) The present invention relates to a titanium based carbonitride alloy containing Ti, Nb, W, C, N and Co for metal cutting applications, in particularly superfinishing turning operations. The alloy contains in addition to Ti 3-9 at% Co with only impurity levels of Ni and Fe, 2-4

at% Nb, 3-8 at% W and has a C/(C+N) ratio of 0.50-0.75. The amount of undissolved Ti(C,N) cores (A) should be kept between 26 and 37 vol% of the hard constituents, the balance being one or more complex carbonitrides (B) containing Ti, Nb and W. The invented alloy is particularly useful for superfinishing of steel and cast iron.

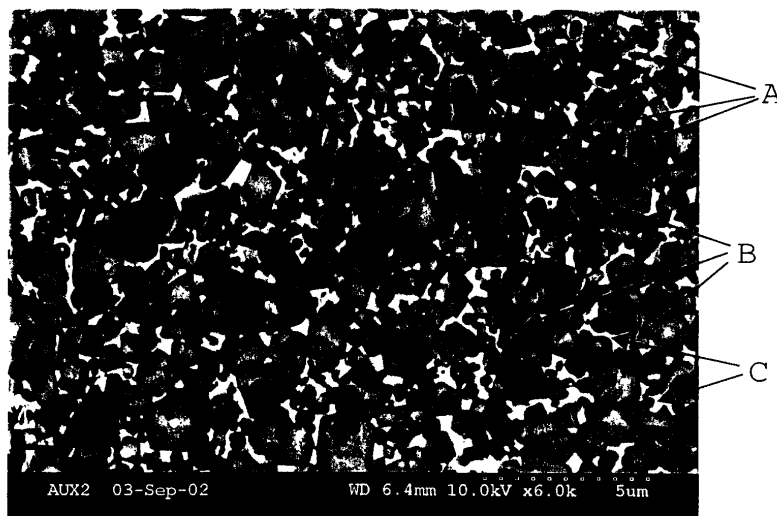


Fig. 1

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EUROPEAN SEARCH REPORT

Application Number
EP 03 44 5110

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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			C22C
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 22 February 2006	Examiner Schruers, H
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
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