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(54) Method of designing a roller cone bit

(57) Disclosed herein is a method of designing a roller cone bit, comprising the steps of:

- adjusting the orientation of at least one row of teeth on a cone, in dependence on an expected trajectory of said tooth through formation material at the cutting face;
- calculating the width of uncut rings of formation material, in dependence on the orientation of said row of teeth, and adjusting the position of said row of teeth in dependence on said calculated width; and
- recalculating the rotational speed of said cone, if the position of said row is changed, and accordingly recalculating said trajectory of teeth in said row.

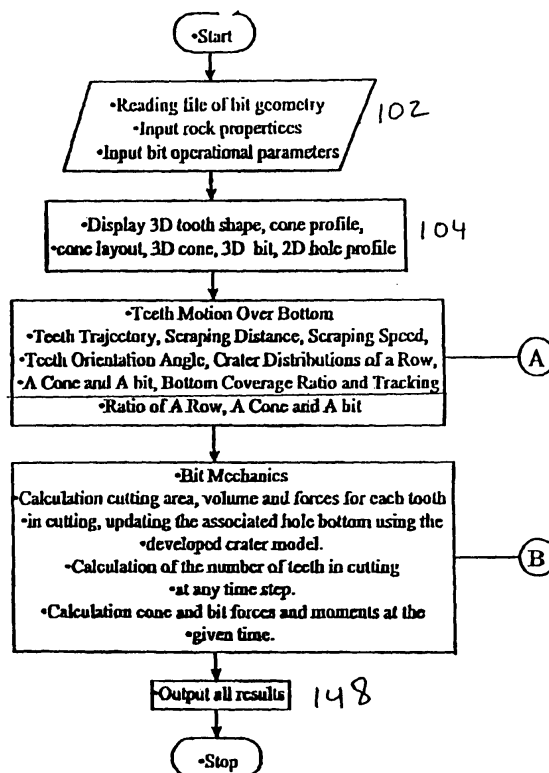


FIGURE 1A

EP 1 500 782 A3



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Place of search The Hague		Date of completion of the search 14 February 2006	Examiner Schouten, A
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2

EPO FORM 1503 03.82 (P04C01)



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2
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