

Title (en)

Force-balanced roller-cone bits, systems, drilling methods, and design methods

Title (de)

Kraftmässig ausgeglichene Rollenmeissel, Systeme, Bohrverfahren und entsprechende Konstruktionsmethoden

Title (fr)

Trépan à cônes à forces compensées, systèmes, procédés de forage et procédés de conception correspondants

Publication

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Application

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Abstract (en)

A method of designing a roller cone drill bit is disclosed. The method comprises: (a) calculating the force balance conditions of a bit; (b) defining design variables; (c) determine lower and upper bounds for the design variables; (d) defining objective functions; (e) defining constraint functions; (f) performing an optimisation means; and (g) evaluating an optimised cutting structure by modelling. <IMAGE>

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