

Title (en)

Method for controlling a drilling tool

Title (de)

Verfahren zum Steuern eines Bohrwerkzeugs

Title (fr)

Méthode pour contrôler la direction d'un outil de forage

Publication

EP 0744526 B1 20010808 (DE)

Application

EP 95107954 A 19950524

Priority

EP 95107954 A 19950524

Abstract (en)

[origin: EP0744526A1] Drilling tool steering is achieved by a group of actuators distributed over its circumference. Whilst drilling subterranean formations, sensors on the tool determine bore direction and actuator settings, in conjunction with an integral programmable computer. This compares actual and desired values to develop a control output to the actuators. The tool internal control loop, exchanges data with an external loop in a programmable surface computer, which processes data from below and transmits control data back to the tool. In the new arrangement, the surface computer compares actual directional and depth values with stored, desired values. Hence it generates and transmits a steering vector to the tool control loop, which defines the actuator steering forces applied to the borehole wall.

IPC 1-7

E21B 47/022

IPC 8 full level

E21B 7/06 (2006.01); **E21B 44/00** (2006.01); **E21B 47/022** (2012.01)

CPC (source: EP)

E21B 7/062 (2013.01); **E21B 44/00** (2013.01); **E21B 44/005** (2013.01); **E21B 47/022** (2013.01)

Cited by

US7556105B2; US6092610A; US6109372A; US6158529A; CN102995690A; GB2464840A; GB2464840B; GB2402954A; GB2402954B; GB2391349A; GB2391349B; US7267184B2; WO2004097160A2; WO2004113666A1; US6757613B2; WO2008145950A1; US7252152B2; US7503398B2; US10280693B2; US10597948B2; US10781644B2; US11365591B2; EP1402145B2

Designated contracting state (EPC)

DE FR GB NL

DOCDB simple family (publication)

EP 0744526 A1 19961127; **EP 0744526 B1 20010808**; DE 59509490 D1 20010913; NO 962113 D0 19960523; NO 962113 L 19961125

DOCDB simple family (application)

EP 95107954 A 19950524; DE 59509490 T 19950524; NO 962113 A 19960523