

Title (en)
Extendable measuring device

Title (de)
Teleskopierbare Meßvorrichtung

Title (fr)
Dispositif de mesure télescopable

Publication
EP 2213833 A3 20111207 (DE)

Application
EP 10151744 A 20100127

Priority
DE 102009007197 A 20090203

Abstract (en)
[origin: EP2213833A2] The instrument to measure the alignment and position of a drilling rod (11) in a drilling into the ground (13) has a probe (21) with a number of pitch sensors (22) along its length. The probe is pushed through by the number of sensors along its length.

IPC 8 full level
E21B 47/022 (2012.01)

CPC (source: EP)
E21B 47/022 (2013.01)

Citation (search report)

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- [XA] US 3862499 A 19750128 - ISHAM CARROLL E, et al
- [XA] FR 2730005 A1 19960802 - ANTEA [FR]
- [A] DE 19846137 A1 20000413 - KELLER GRUNDBAU GMBH [DE]
- [A] US 4196781 A 19800408 - CHEEK ALTON E [US]
- [A] US 1988741 A 19350122 - LYNCH THEODORE L, et al

Cited by
CN109612530A

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)
EP 2213833 A2 20100804; EP 2213833 A3 20111207; DE 102009007197 A1 20100819; DE 102009007197 B4 20101125

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EP 10151744 A 20100127; DE 102009007197 A 20090203