

Title (en)
CORE BIT WITH HYDRODYNAMIC CORE DESTRUCTION

Publication
EP 0512329 A3 19930505 (DE)

Application
EP 92106929 A 19920423

Priority
SU 4928470 A 19910506

Abstract (en)
[origin: EP0512329A2] The bit according to the invention contains a body (1) and rock-destroying members (3) of the cutting and shearing type which are fastened to its matrix (2). The body (1) is provided with a swirl chamber (4) with tangentially orientated inlet passages (5) and a central outlet passage (6). Tangentially arranged outlet passages (9) are made in the bottom part of the body (1). The part of the matrix (2) nearest to the body (1) is designed in the shape of a hollow truncated cone which is turned with the top surface (12) towards the body (1). The cone is constructed with a changing steepness of the generatrix (10) of the conical surface and with the base (11) and the top surface (12), which are designed according to the Archimedean spiral. Continuous radial grooves (13) are made on the side face of the matrix (2). The radial grooves (13) are connected to the outlet passages (9) by a hollow space (14) made in the body (1). <IMAGE>

IPC 1-7
E21B 10/04; **E21B 10/60**; **E21B 7/18**

IPC 8 full level
E21B 7/24 (2006.01); **E21B 10/04** (2006.01); **E21B 10/06** (2006.01); **E21B 10/18** (2006.01); **E21B 10/60** (2006.01)

CPC (source: EP US)
E21B 7/24 (2013.01 - EP US); **E21B 10/04** (2013.01 - EP US); **E21B 10/06** (2013.01 - EP US); **E21B 10/18** (2013.01 - EP US); **E21B 10/605** (2013.01 - EP US)

Citation (search report)
[A] GB 2224054 A 19900425 - SHELL INT RESEARCH [NL]

Cited by
BE1014561A3; CN114458161A

Designated contracting state (EPC)
BE DE FR GB

DOCDB simple family (publication)
EP 0512329 A2 19921111; **EP 0512329 A3 19930505**; **EP 0512329 B1 19950222**; DE 59201436 D1 19950330; US 5220966 A 19930622

DOCDB simple family (application)
EP 92106929 A 19920423; DE 59201436 T 19920423; US 87847592 A 19920505