

Title (en)

Time delay perforating apparatus for wells.

Title (de)

Lochapparat mit Verzögerungsvorrichtung für Bohrloch.

Title (fr)

Dispositif de perforation avec temporisation pour puits.

Publication

EP 0416915 B1 19950125 (EN)

Application

EP 90309750 A 19900906

Priority

US 40402989 A 19890906

Abstract (en)

[origin: EP0416915A2] Apparatus for perforating a well comprises at least one first gun (20) and second gun (22) with a time delay device (50) positioned therebetween in a housing (24) connecting first and second guns. The time delay device delays firing of the second gun (22) for a predetermined period after firing of the first gun (20) and also preferably prevents fluid communication between the first and second guns by closing off a central opening (26) through the housing.

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E21B 43/1185; E21B 43/116

IPC 8 full level

E21B 43/117 (2006.01); **E21B 43/1185** (2006.01)

CPC (source: EP)

E21B 43/1185 (2013.01)

Cited by

RU2710342C2; EP2401474A4; GB2373565A; GB2373565B; EP0488519A1; US6675896B2; US11808093B2; US11713625B2; US11988049B2; USD908754S; USD920402S; US12000267B2; US11339614B2; US11946728B2; USD904475S; US11648513B2; US11952872B2; US12060778B2; US11293736B2; US11906279B2; US10982941B2; US11225848B2; US11814915B2; WO2010099480A1; US11542792B2; US11608720B2; US11661823B2; US11788389B2

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