

Title (en)  
Shaped charge liner with precursor liner

Title (de)  
Hohlladungseinlage mit Vorlaufeinlage

Title (fr)  
Revêtement de charge creuse avec revêtement précurseur

Publication  
**EP 1345003 A2 20030917 (EN)**

Application  
**EP 03251375 A 20030306**

Priority  
US 9660902 A 20020312

Abstract (en)  
A method to remove well bore fluid from the path of a shaped-charge jet in order to reduce the effect it has on the jet tip. A precursor liner (70) and a primary liner (50) are both pressed in the same housing (12). The primary liner (70) is similar or equivalent to a standard big hole shaped charge liner. The precursor liner (70) is pressed into the apex end (54) of the primary liner (50) and upon detonation is intended to form an initial very fast moving precursor jet to open a path through the fluid of the well bore annulus for the following primary jet. <IMAGE>

IPC 1-7  
**F42B 1/028**; **F42B 1/032**

IPC 8 full level  
**F42B 1/028** (2006.01)

CPC (source: EP US)  
**F42B 1/028** (2013.01 - EP US)

Cited by  
US11378363B2; EP2045567A1; CN102947666A; CN101393000A; CN104457433A; US8156871B2; US11753909B2; USD981345S; US11795791B2; DE202015102874U1; US11499401B2; US11340047B2

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