

Title (en)
Ball-grab spear.

Title (de)
Fangdorn mit Kugeln.

Title (fr)
Harpon à billes.

Publication
EP 0461819 A2 19911218 (EN)

Application
EP 91305153 A 19910607

Priority
GB 9012911 A 19900609

Abstract (en)
A ball-grab spear for undershot fishing. The spear comprises a mandrel, a cage disposed about said mandrel and movable relative thereto in two mutually orthogonal directions, an array of wedging ramps formed on the periphery of said mandrel, a matching array of radial apertures in said cage, and a plurality of balls disposed individually between a said ramp and a said aperture to be wedged radially outwards of said mandrel through said apertures by relative movement of said mandrel and said cage in either of said two mutually orthogonal directions. The spear can be locked to the bore of a downhole fish, e.g. a stuck anchor, by any selected combination of lift and/or torque.

IPC 1-7
B66C 1/56; E21B 31/20

IPC 8 full level
E21B 31/20 (2006.01)

CPC (source: EP)
E21B 31/20 (2013.01)

Cited by
EP1454033A4; GB2280459A; GB2280459B; GB2527202A; GB2527202B; NO343772B1; US10119373B2; IT201800010510A1; US8166620B2; US9810364B2; US9927058B2; US9488203B2; US9879708B2

Designated contracting state (EPC)
DE DK FR GB IT NL

DOCDB simple family (publication)
EP 0461819 A2 19911218; EP 0461819 A3 19930317; GB 9012911 D0 19900801; NO 912204 D0 19910607; NO 912204 L 19911210

DOCDB simple family (application)
EP 91305153 A 19910607; GB 9012911 A 19900609; NO 912204 A 19910607