

Title (en)
HARPOON

Title (de)
HARPUNE

Title (fr)
HARPON

Publication
EP 2160564 A1 20100310 (DE)

Application
EP 08784521 A 20080618

Priority
• EP 2008004893 W 20080618
• IT BZ20070025 A 20070619

Abstract (en)
[origin: WO2008155103A1] The invention relates to a harpoon comprising a container (2) that contains a pressurised liquid, a runner (3) that is arranged in the flow-connection with the container (2), a piston (4) that is slidingly arranged in the runner (3) and the harpoon is subjected to the piston effect of the fluid in the direction downstream from the mouth (1), and a rod (5) that comprises a tip (6) on the end thereof and the other end can be inserted when the harpoon is loaded into the mouth (1). When the harpoon is released, the piston (4) slides from an initial position in which it is maintained by blocking means (7), into an end position that is close to the mouth (1) that suddenly releases the piston (4) due to the pressure of the liquid that expands on account of the shot and which releases the blocking means (7). Inversely, the piston (4) slides, when loaded and as a result of the sliding action exerted from the outside by a user through the rod (5), from the end position that is close to the mouth (1) into an initial position. According to the invention, the harpoon also comprises a clamping device (8), that operates in one direction, for the rod (5) that, when the harpoon is loaded, allows the rod (5) to move into the mouth (1) but does not allow the reverse movement from the mouth (1).

IPC 8 full level
F41B 11/83 (2013.01)

CPC (source: EP)
F41B 11/83 (2013.01)

Citation (search report)
See references of WO 2008155103A1

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 MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA MK RS

DOCDB simple family (publication)
WO 2008155103 A1 20081224; WO 2008155103 A8 20090219; AT E494522 T1 20110115; DE 502008002225 D1 20110217; EP 2160564 A1 20100310; EP 2160564 B1 20110105; ES 2359122 T3 20110518; HR P20110231 T1 20110531; IT BZ20070025 A1 20081220; SI 2160564 T1 20110429

DOCDB simple family (application)
EP 2008004893 W 20080618; AT 08784521 T 20080618; DE 502008002225 T 20080618; EP 08784521 A 20080618; ES 08784521 T 20080618; HR P20110231 T 20110331; IT BZ20070025 A 20070619; SI 200830193 T 20080618