

Title (en)
METHOD OF FORMING A WIDENED PILE BASE

Title (de)
VERFAHREN ZUR HERSTELLUNG EINER VERBREITERTEN PFAHLBASIS

Title (fr)
PROCÉDÉ DE FORMATION D'UNE BASE DE PIEU ÉLARGIE

Publication
EP 4206405 A1 20230705 (EN)

Application
EP 22460079 A 20221228

Priority
PL 44007021 A 20211231

Abstract (en)
The application relates to a method of forming a widened pile base, wherein at the bottom of a hole (1) a blasting agent (2) is installed in the calculated amount so as to obtain, after its detonation, a cavern below a pile base widening the hole in the ground, preferably from 1 kg to 2.5 kg, wherein the blasting agent (2) is mining explosives. The blasting agent (2) is connected to a blasting wire (3) brought outside the hole (1), and in the next stage, structural concrete is fed into the hole (1) in the amount calculated for the load power and soil parameters, so that it fills not less than half of the hole (1) and that the blasting agent is covered, after which detonation is carried out by firing the blasting agent (2), during which the impact of the shock wave caused by detonation affects the ground and the post-explosion gases are expanded, forming a cavern constituting the extension of the hole in the ground around the base of the pile . Then, the entire cavern is filled by gravity with structural concrete.

IPC 8 full level
E02D 5/44 (2006.01); **E02D 5/38** (2006.01); **E02D 5/56** (2006.01); **E02D 5/72** (2006.01); **E02D 7/22** (2006.01); **E02D 15/04** (2006.01)

CPC (source: EP)
E02D 5/385 (2013.01); **E02D 5/445** (2013.01); **E02D 15/04** (2013.01); **E02D 5/56** (2013.01); **E02D 5/72** (2013.01); **E02D 7/22** (2013.01)

Citation (applicant)
CN 101235639 A 20080806 - YUSI ZHAI [CN]

Citation (search report)
• [XD] CN 101235639 A 20080806 - YUSI ZHAI [CN]
• [A] RU 2244780 C1 20050120
• [A] CN 101126237 A 20080220 - YAPING ZHOU [CN]

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
EP 4206405 A1 20230705; PL 440070 A1 20230703

DOCDB simple family (application)
EP 22460079 A 20221228; PL 44007021 A 20211231