

Title (en)  
Auger for installing piles

Title (de)  
Bohrschnecke zur Pfahlherstellung

Title (fr)  
Système de tarière à ergot

Publication  
**EP 1471186 A1 20041027 (FR)**

Application  
**EP 04291048 A 20040422**

Priority  
FR 0304954 A 20030423

Abstract (en)  
A cutter extends radially from the bottom of the augur blade to cut a groove in the shaft wall. A tube runs through the hollow shaft of the augur. One end is connected to a liquid concrete supply, and the other is shaped to inject concrete through an orifice. The tube can move vertically in the shaft to close the lower end of the shaft or so the injection orifice extends outside the lower end : The machine has an augur with a hollow shaft and at least one helical blade extending over at least part of the length of the shaft; means of guiding the augur vertically; means of controlling and measuring the speed of vertical displacement and the speed of rotation of the augur. The cutter extends along a radius of the augur blade forming an angle at least equal to 90[deg]. With the leading edge of the blade. The augur has a first helical blade extending over a significant part of the augurs length and a second helical blade extending over a reduced wall along the augur at its lower end, placed symmetrically with respect to the axis of the augur at the first blade. The shaped end of the tube is conical, with the point turned downwards. The base of the cone has a diameter greater than that of the tube. The tube has two injection orifices placed near the shaped end. The external diameter of the augur shaft is constant or increases moving away from the bottom end. The pitch of the blade is constant and the cutter is rigidly fixed to the blade, extending beyond the blade by 4 to 12 cm.

Abstract (fr)  
Machine de réalisation de pieux à nervures externes comprenant une tarière comportant une âme creuse (52) et au moins une pale (54) en hélice s'étendant sur au moins une partie de la longueur de l'âme, un outil de coupe (58) fixé sur la pale (54) de ladite tarière à proximité de son extrémité inférieure et faisant saillie sensiblement radialement hors du bord externe de ladite pale, un tube plongeur (36) s'étendant dans l'âme creuse de ladite tarière et monté mobile dans celle-ci, une extrémité supérieure raccordable à une conduite d'alimentation en béton liquide et une extrémité inférieure (60) fermée par une pièce de forme profilée et munie dans sa paroi latérale d'au moins un orifice d'injection, et des moyens pour déplacer verticalement ledit tube plongeur par rapport à l'âme de ladite tarière. <IMAGE>

IPC 1-7  
**E02D 5/34**

IPC 8 full level  
**E02D 5/34** (2006.01); **E02D 5/46** (2006.01)

CPC (source: EP)  
**E02D 5/34** (2013.01); **E02D 5/44** (2013.01); **E02D 5/46** (2013.01)

Citation (search report)  
• [A] US 2001032741 A1 20011025 - SHERWOOD DAVID [FR]  
• [A] US 5378085 A 19950103 - KONO IKUO [US], et al  
• [A] NL 9000498 A 19911001 - FUNDAMENTUM BV  
• [A] US 3864923 A 19750211 - TURZILLO LEE A  
• [A] PATENT ABSTRACTS OF JAPAN vol. 007, no. 227 (M - 248) 7 October 1983 (1983-10-07)

Cited by  
CN105586939A; EP1748108A1; FR2889241A1; DE102012109332A1; BE1021912B1; DE102012109333A1; US9816244B2; CN105672295A; US10161096B2; BE1027995B1; AU2017203620B2; US7591329B2

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**EP 1471186 A1 20041027**; **EP 1471186 B1 20171129**; FR 2854179 A1 20041029; FR 2854179 B1 20050715

DOCDB simple family (application)  
**EP 04291048 A 20040422**; FR 0304954 A 20030423