

Title (en)
ARCH SYSTEMS

Title (de)
BOGENSYSTEME

Title (fr)
SYSTEMES D'ARCHE

Publication
EP 1495191 B1 20071128 (EN)

Application
EP 03744844 A 20030320

Priority

- EP 0303025 W 20030320
- US 10292102 A 20020322
- US 13152602 A 20020425
- US 33890603 A 20030109

Abstract (en)
[origin: WO03080942A1] An earth overfilled arched structure (10) includes a shallow arch (12) spanning a clear space. The sides of the clear space are formed by curved or straight walls. Solidified zones of earth material against the springs of the arch and/or behind the walls form foundation blocks which are in intimate contact via arch footings with the springs of the arch and/or with the upper part of the sidewalls in such a way that the arched structure delivers most or all of its support forces into the foundation blocks. Also, an overfilled arch bridge system includes a composite arch which has a precast layer and a cast-in-place layer. The system further includes means for reducing bending moments within the overfilled arch. The means include customizing the arch end geometry and prestressing the arch prior to or during loading. Precast arch elements which are formed and shipped in a use orientation. The precast arch elements can include arch footings and the system can include a plurality of precast arch elements. The arch elements can also be prestressed.

IPC 8 full level
E02D 29/05 (2006.01)

CPC (source: EP)
E02D 29/05 (2013.01)

Cited by
CN102322028A; CN109853399A; WO2016127264A1; US9702283B2

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 PT RO SE SI SK TR

DOCDB simple family (publication)
WO 03080942 A1 20031002; AU 2003226697 A1 20031008; CA 2423228 A1 20030922; CA 2423228 C 20090825; DE 60317779 D1 20080110; DE 60317779 T2 20080410; EP 1495191 A1 20050112; EP 1495191 B1 20071128

DOCDB simple family (application)
EP 0303025 W 20030320; AU 2003226697 A 20030320; CA 2423228 A 20030320; DE 60317779 T 20030320; EP 03744844 A 20030320