

Title (en)
Gear pump

Title (de)
Zahnradmaschine

Title (fr)
Pompe à engrenages

Publication
EP 1340913 A3 20040728 (DE)

Application
EP 03003179 A 20030219

Priority
DE 10208408 A 20020227

Abstract (en)
[origin: EP1340913A2] The gear teeth of the annular gear machine are formed from gear points (4k,3k) and gear roots (4f,3f) formed from curves of the second or higher order, whereby the curves on their ends point tangentially to one another, and at least the curves which form the tooth points, or at least the curves which form the tooth roots, are cycloids. One of the tooth profile contours formed by the curves is gradually differentiable, and preferably twice differentiable by piece. An Independent claim is included for a gear set for an annular gear machine such as a pump or motor.

IPC 1-7
F04C 2/10; **F04C 2/08**

IPC 8 full level
F04C 2/10 (2006.01); **F04C 2/08** (2006.01); **F16H 55/08** (2006.01)

CPC (source: EP US)
F04C 2/084 (2013.01 - EP US); **F04C 2/088** (2013.01 - EP US); **F04C 2/102** (2013.01 - EP US)

Citation (search report)

- [X] US 2389728 A 19451127 - HILL MYRON F
- [X] US 4112782 A 19780912 - MULLINS MAX
- [X] US 3709055 A 19730109 - GROVE L
- [X] US 2960884 A 19601122 - HILL FRANCIS A
- [X] PATENT ABSTRACTS OF JAPAN vol. 1998, no. 13 30 November 1998 (1998-11-30)

Cited by
WO2012113768A1; CN103443459A; CN104662331A; EP2123914A4; US9273687B2

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 SE SI SK TR

DOCDB simple family (publication)
EP 1340913 A2 20030903; **EP 1340913 A3 20040728**; **EP 1340913 B1 20070905**; AT E372462 T1 20070915; DE 10208408 A1 20030911; DE 50308093 D1 20071018; ES 2292867 T3 20080316; JP 2003254409 A 20030910; JP 4155841 B2 20080924; US 2004009085 A1 20040115; US 7427192 B2 20080923

DOCDB simple family (application)
EP 03003179 A 20030219; AT 03003179 T 20030219; DE 10208408 A 20020227; DE 50308093 T 20030219; ES 03003179 T 20030219; JP 2003050158 A 20030226; US 37559003 A 20030227