

Title (en)

CURVILINEAR CIRCULAR-ARC TOOTH GEARS FOR USE IN EXTERNAL GEAR PUMPS

Title (de)

GEKRÜMMTE KREISBOGENFÖRMIGE ZAHNRADGETRIEBE ZUR VERWENDUNG IN EXTERNEN ZAHNRADPUMPEN

Title (fr)

ENGRENAGES À DENT EN ARC DE CERCLE CURVILIGNE DESTINÉS À ÊTRE UTILISÉS DANS DES POMPES À ENGRENAGES EXTERNES

Publication

EP 3870877 A2 20210901 (EN)

Application

EP 19875034 A 20191023

Priority

- US 201862749498 P 20181023
- US 2019057628 W 20191023

Abstract (en)

[origin: US2020124047A1] A curvilinear circular-arc-toothed (CCAT) gear for improving gear performance and reducing noise while avoiding axial loads common to helical gears includes an annular gear body; and a gear tooth having a hybrid gear tooth profile comprising one or more curves configured to provide a sweep of the gear tooth space by a mating gear tooth while maintaining smooth contact during gear mesh, and wherein the gear tooth extends along an axial length of the gear body along an axial profile.

IPC 8 full level

F16H 1/08 (2006.01); **F04C 2/08** (2006.01); **F16H 57/00** (2012.01)

CPC (source: EP US)

F04C 2/084 (2013.01 - EP US); **F04C 2/18** (2013.01 - EP); **F04C 15/0042** (2013.01 - US); **F04C 15/0042** (2013.01 - EP); **F04C 2230/10** (2013.01 - EP)

Citation (search report)

See references of WO 2020086699A2

Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

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DOCDB simple family (application)

US 201916587144 A 20190930; EP 19875034 A 20191023; US 2019057628 W 20191023