

Title (en)
PISTON FOR AN INTERNAL COMBUSTION ENGINE

Title (de)
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Title (fr)
PISTON POUR MOTEUR À COMBUSTION INTERNE

Publication
EP 2783096 A1 20141001 (DE)

Application
EP 12778205 A 20120914

Priority
• DE 102011115639 A 20110928
• DE 2012000920 W 20120914

Abstract (en)
[origin: WO2013044897A1] The invention relates to a piston (1) for an internal combustion engine having shaft elements (8, 9) which have inner surfaces (17, 18) that correspond to those regions of the shaft elements (8, 9) in which the shaft elements (8, 9) are thinner than 7% of the piston diameter "D", and have outer surfaces (14, 19) that define in a radially outward direction those regions of the shaft elements (8, 9) which, viewed in the circumferential direction, lie outside angle ranges (20, 20') of more than 40° on both sides of the pin bore axis (15). In this connection, the ratio of the content of the inner surface (17, 18) to the ratio of the content of the outer surface (14, 19) is more than 60%. The shaft elements hereby become elastically compliant, which upon a temperature-induced radial expansion of the piston shaft reduces the pressure that the shaft elements exert on the cylindrical inner wall, whereby the friction losses of the piston, and hence the CO₂ emission of the engine fitted with the piston according to the invention, are reduced.

IPC 8 full level
F02F 3/00 (2006.01); **F02F 3/02** (2006.01)

CPC (source: EP US)
F02F 3/00 (2013.01 - EP US); **F02F 3/0069** (2013.01 - US); **F02F 3/02** (2013.01 - EP US)

Citation (search report)
See references of WO 2013044897A1

Citation (examination)
US 2007095202 A1 20070503 - DONAHUE RICHARD J [US]

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 MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
DE 102011115639 A1 20130328; BR 112014007441 A2 20170404; CN 103890362 A 20140625; EP 2783096 A1 20141001; JP 2014532137 A 20141204; US 2014238333 A1 20140828; US 9243583 B2 20160126; WO 2013044897 A1 20130404

DOCDB simple family (application)
DE 102011115639 A 20110928; BR 112014007441 A 20120914; CN 201280052344 A 20120914; DE 2012000920 W 20120914; EP 12778205 A 20120914; JP 2014532245 A 20120914; US 201214347684 A 20120914