

Title (en)

Valve seat insert for an internal combustion engine

Title (de)

Ventilsitzeinsatz für einen Verbrennungsmotor

Title (fr)

Insert de siège de soupape pour moteur à combustion interne

Publication

**EP 3000998 B1 20170719 (EN)**

Application

**EP 14186281 A 20140924**

Priority

EP 14186281 A 20140924

Abstract (en)

[origin: EP3000998A1] A valve seat insert (10A, 10B, 10C) for a cylinder head (104) of an internal combustion engine (100) comprises a ring-shaped body (20) defining a passage (22) for enabling a fluid to pass through the body (20) along an axial direction (Z) from an entrance side (24) to an exit side (26) of the valve seat insert (10A, 10B, 10C), wherein the body (20) comprises an entrance side section (32) with a first contact surface section (42), and a valve sealing surface section (46), an exit side section (34) with a second contact surface section (48), and an arch section (36) axially extending from the entrance side section (32) to the exit side section (34) and decreasing in material thickness from the entrance side section (32) towards the exit side section (34) up to a minimum thickness axial position (P) that is located in the half of the arch section (36) being close to the exit side section (34). Thereby, a more load resistant structure of the valve seat insert (10A, 10B, 10C) can be provided.

IPC 8 full level

**F02D 9/10** (2006.01); **F01L 3/12** (2006.01); **F01L 3/14** (2006.01); **F01L 3/22** (2006.01)

CPC (source: EP KR)

**F01L 3/12** (2013.01 - EP KR); **F01L 3/14** (2013.01 - EP KR); **F01L 3/22** (2013.01 - EP KR); **F02D 9/101** (2013.01 - EP); **F02D 9/109** (2013.01 - EP)

Cited by

US11125123B1; US11480075B2; US11125122B1; US11473457B2

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)

**EP 3000998 A1 20160330**; **EP 3000998 B1 20170719**; CN 106715846 A 20170524; CN 106715846 B 20200228; KR 102430345 B1 20220808; KR 20170056591 A 20170523; WO 2016045768 A1 20160331

DOCDB simple family (application)

**EP 14186281 A 20140924**; CN 201580051146 A 20150826; EP 2015001743 W 20150826; KR 20177009341 A 20150826