

Title (en)

Gas exchange valve of an internal combustion engine

Title (de)

Gaswechselventil eines Verbrennungsmotors

Title (fr)

Soupape d'échange de gaz de moteur à combustion interne

Publication

EP 1731723 A1 20061213 (DE)

Application

EP 06113928 A 20060515

Priority

DE 102005027130 A 20050611

Abstract (en)

The valve has a valve shaft (1) made up of two parts, namely an upper shaft part (2) and a lower shaft part (3). The shaft parts are telescoped together and joined in a connecting area (4) that is made up of two axially separate special joining areas. The upper shaft is welded to a valve cone (6) sealed by a valve tray (5), where outer areas of the valve cone and the lower shaft part have same outside diameter. Hollow spaces exist between the lower shaft part and the valve cone in a form of an annular space and within the lower shaft part in the form of a hollow cone.

IPC 8 full level

B23P 15/00 (2006.01); **F01L 3/00** (2006.01); **F01L 3/12** (2006.01); **F01L 3/20** (2006.01)

CPC (source: EP US)

F01L 3/00 (2013.01 - EP US); **F01L 3/12** (2013.01 - EP US); **F01L 3/20** (2013.01 - EP US)

Citation (search report)

- [X] DE 10354085 A1 20050602 - DAIMLER CHRYSLER AG [DE]
- [X] US 5458314 A 19951017 - BONESTEEL DAVID L [US]
- [DY] DE 10257505 A1 20030717 - MAHLE VENTILTRIEB GMBH [DE]
- [Y] DE 10354074 A1 20050602 - DAIMLER CHRYSLER AG [DE]
- [A] DE 10204122 C1 20030508 - DAIMLER CHRYSLER AG [DE]

Cited by

CN114086718A

Designated contracting state (EPC)

DE FR GB

Designated extension state (EPC)

AL BA HR MK YU

DOCDB simple family (publication)

EP 1731723 A1 20061213; **EP 1731723 B1 20070926**; DE 102005027130 A1 20061214; DE 502006000114 D1 20071108; US 2006278193 A1 20061214; US 7603976 B2 20091020

DOCDB simple family (application)

EP 06113928 A 20060515; DE 102005027130 A 20050611; DE 502006000114 T 20060515; US 44488006 A 20060601