

Title (en)

Mobile sealing body of a valve exposed to hot gasses

Title (de)

Beweglicher, heißen Gasen ausgesetzter Verschlusskörper eines Ventiles

Title (fr)

Corps de fermeture d'une soupape amovible et exposé à des gaz chauds

Publication

**EP 2182183 B1 20161214 (DE)**

Application

**EP 09172918 A 20091013**

Priority

DE 102008054266 A 20081031

Abstract (en)

[origin: EP2182183A1] The portable sealing body comprises a sealing area subjecting on a valve seat ring. The sealing body exposes hot gases. A surface area of the sealing body consists of first and second materials (1, 2) directly on the sealing area of the body. The second material possesses a high heat conductivity against the first material. The second material is subjected by a thermal spraying method such as melt-bath spraying, arc spraying process, plasma spraying, and flame spraying (powder flame spraying, wire flame spraying, plastic flame spraying and high speed flame spraying). The portable sealing body comprises a sealing area subjecting on a valve seat ring. The sealing body exposes hot gases. A surface area of the sealing body consists of first and second materials (1, 2) directly on the sealing area of the body. The second material possesses a high heat conductivity against the first material. The second material is subjected by a thermal spraying method such as melt-bath spraying, arc spraying process, plasma spraying, flame spraying (powder flame spraying, wire flame spraying, plastic flame spraying and high speed flame spraying), detonation spraying (flame shock spraying), cold gas spraying, and laser spraying. No second material is available in the sealing area in which the valve plate adjoins as sealing body in closed valve at the valve seat. An adhesion layer is arranged between the first and the second materials and consists of nickel and/or aluminum. The adhesion layer has a thickness of 100  $\mu$  m. The second material covers itself under connection of the sealing area in which the sealing body contacts the valve seat ring. The second material consists of copper and/or silver and has a thickness of 0.2-1 mm. The second material is covered with a corrosion protection layer, which consists of nickel and has a thickness of 100  $\mu$  m.

IPC 8 full level

**F01L 3/04** (2006.01)

CPC (source: EP US)

**F01L 3/04** (2013.01 - EP US)

Cited by

DE102012216929A1; CN112430811A; DE102012216929B4

Designated contracting state (EPC)

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 SE SI SK SM TR

DOCDB simple family (publication)

**EP 2182183 A1 20100505; EP 2182183 B1 20161214**; DE 102008054266 A1 20100506; JP 2010106842 A 20100513; JP 5627872 B2 20141119; US 2010108012 A1 20100506; US 8726873 B2 20140520

DOCDB simple family (application)

**EP 09172918 A 20091013**; DE 102008054266 A 20081031; JP 2009252082 A 20091102; US 60959309 A 20091030