

Title (en)
Mixing device for the aftertreatment of exhaust gases

Title (de)
Mischvorrichtung zur Nachbehandlung von Abgasen

Title (fr)
Dispositif de mélange pour le post-traitement de gaz d'échappement

Publication
EP 2687286 A3 20170628 (DE)

Application
EP 13002562 A 20130516

Priority
DE 102012014333 A 20120720

Abstract (en)
[origin: EP2687286A2] The mixing device (1) has an inner tube (7) with a premixing area (10) formed inside the inner tube, which is arranged inside a housing (4) and is extended parallel to a main injection device (5) of a metering device (6) for feeding a liquid or a liquid-gas mixture. A main exhaust gas stream (12) is guided between the housing and the outer lateral surface (14) of the inner tube. The partial exhaust gas stream (17) flows through the premixing area in the main mixing area (16). The main exhaust gas stream comprises a larger exhaust gas volume proportion than the partial exhaust gas stream.

IPC 8 full level
B01F 3/04 (2006.01); **B01F 5/00** (2006.01); **B01F 5/04** (2006.01); **F01N 3/20** (2006.01); **F01N 13/08** (2010.01)

CPC (source: EP RU)
B01F 23/2132 (2022.01 - EP); **B01F 25/103** (2022.01 - EP); **B01F 25/313** (2022.01 - EP); **B01F 25/32** (2022.01 - EP); **F01N 3/206** (2013.01 - EP); **F01N 13/08** (2013.01 - EP); **B01F 23/2132** (2022.01 - RU); **B01F 2025/931** (2022.01 - EP); **F01N 3/206** (2013.01 - RU); **F01N 2240/20** (2013.01 - EP); **F01N 2240/40** (2013.01 - EP); **F01N 2340/00** (2013.01 - EP); **F01N 2470/00** (2013.01 - EP); **F01N 2470/02** (2013.01 - EP); **F01N 2610/00** (2013.01 - EP); **F01N 2610/02** (2013.01 - EP); **F01N 2610/03** (2013.01 - EP); **F01N 2610/1453** (2013.01 - EP)

Citation (search report)

- [Y] EP 2465602 A2 20120620 - PROVENTIA EMISSION CONTROL OY [FI]
- [Y] FR 1323501 A 19630412
- [Y] CN 1187778 A 19980715 - SIEMENS AG [DE]
- [Y] WO 2012047159 A1 20120412 - SCANIA CV ABP [SE], et al
- [Y] DE 4012411 A1 19911024 - WEBASTO AG FAHRZEUGTECHNIK [DE]
- [Y] DE 19955013 A1 20010517 - VOLKSWAGEN AG [DE]
- [Y] DE 102010035311 A1 20120301 - BOA BALG & KOMPENSATOREN TECHNOLOGIE GMBH [DE]
- [Y] WO 2011163395 A1 20111229 - DONALDSON CO INC [US], et al

Cited by
US9664081B2; US9719397B2; US9828897B2; US10933387B2; CN106795795A; JPWO2016013319A1; EP3189219A4; US10787946B2; US9714598B2; US9726064B2; US9982584B2; WO2022029371A1; US10227907B2; US10294843B2

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Designated extension state (EPC)
BA ME

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EP 2687286 A2 20140122; EP 2687286 A3 20170628; EP 2687286 B1 20210331; BR 102013017993 A2 20150630; BR 102013017993 B1 20210406; CN 103573350 A 20140212; CN 103573350 B 20190111; DE 102012014333 A1 20140123; RU 2013130797 A 20150110; RU 2631591 C2 20170925

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EP 13002562 A 20130516; BR 102013017993 A 20130715; CN 201310307646 A 20130722; DE 102012014333 A 20120720; RU 2013130797 A 20130704