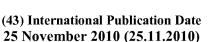
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[Continued on next page]

(54) Title: COMPRESSOR OF AN EXHAUST-GAS TURBOCHARGER

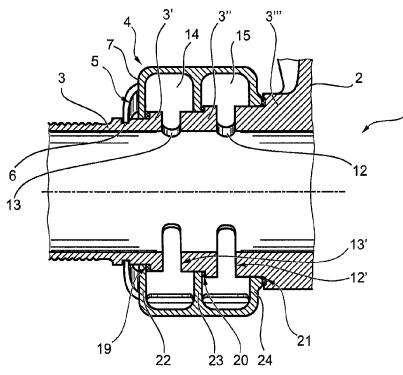
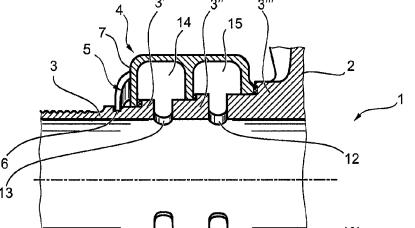


FIG. 1



(57) Abstract: The present invention relates to a compressor (1) of an exhaust-gas turbocharger having a compressor housing (2) which has a compressor outlet connecting pipe (3), and having a sound absorber (4), wherein the sound absorber (4) is formed as a separate component which can be connected to the outlet connecting pipe (3).

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SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, Published: GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- the earlier application (Rule 4.17(iii))
- of inventorship (Rule 4.17(iv))

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

as to the applicant's entitlement to claim the priority of (88) Date of publication of the international search report:

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A. CLASSIFICATION OF SUBJECT MATTER

F02B 39/00(2006.01)i, G10K 11/16(2006.01)i, F01D 25/00(2006.01)i, F04D 17/10(2006.01)i, F04D 29/66(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

 $F02B\ 39/00;\ F16L\ 23/00;\ F04D\ 29/66;\ F02C\ 7/24;\ F04B\ 39/00;\ F02C\ 6/12;\ F02B\ 33/44;\ F04B\ 11/00;\ F01N\ 1/06;\ F02B\ 39/00;\ F02C\ 6/12;\ F02B\ 33/44;\ F04B\ 11/00;\ F01N\ 1/06;\ F02D\ 39/00;\ F02D\$

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) eKOMPASS(KIPO internal) & Keywords: compressor, housing, sound, absorber, separate, pipe, silencer, damper, acoustic, turbocharger

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2008-0286127 A1 (GAUDE GLADYS et al.) 20 November 2008 See paragraphs [0018]-[0027] and figs.2-4	1-8
A	US 2009-0044536 A1 (NAKANO SUSUMU et al.) 19 February 2009 See paragraphs [0071]-[0072] and fig.5	1-8
A	US 5810566 A (PAUWELS; RAPHAEL) 22 September 1998 See claim 1 and fig.1	1-8
A	US 2007-0018454 A1 (JUERGEN KRINES et al.) 25 January 2007 See paragraph [0021] and fig.2	1-8
A	KR 10-2007-0020269 A (ABB TURBO SYSTEMS AG) 20 February 2007 See claim 1 and fig.1	1-8
A	KR 10-2006-0044323 A (AN B&W DIESEL AKTIENGESELLSCHAFT) 16 May 2006 See claim 1 and fig.1	1-8

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See patent family annex.

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Date of the actual completion of the international search

17 JANUARY 2011 (17.01.2011)

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Information on patent family members

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PCT/US2010/033961

information on patent taning memoers			PC1/US2010/033961	
Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
US 2008-0286127 A1	20.11.2008	EP 1992797 A2 EP 1992797 A3 US 7794213 B2	19.11.2008 28.04.2010 14.09.2010	
US 2009-0044536 A1	19.02.2009	JP 04-495603 B2 JP 2005-226639 A US 2005-0160740 A1 US 7409832 B2	16.04.2010 25.08.2005 28.07.2005 12.08.2008	
US 5810566 A	22.09.1998	EP 0774581 A1 EP 0774581 B1 JP 09-170554 A KR 10-0456206 B1	21.05.1997 10.01.2001 30.06.1997 10.01.2005	
US 2007-0018454 A1	25.01.2007	AT 400765 T DE 202004019206 U1 DE 602005007996 D1 EP 1669654 A1 EP 1669654 B1	15.07.2008 20.04.2006 21.08.2008 14.06.2006 09.07.2008	
KR 10-2007-0020269 A	20.02.2007	EP 1602810 A1 GB 2429497 A JP 2008-501880 A WO 2005-119031 A1	07.12.2005 28.02.2007 24.01.2008 15.12.2005	
KR 10-2006-0044323 A	16.05.2006	JP 2005-256839 A	22.09.2005	