

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
15 November 2007 (15.11.2007)

PCT

(10) International Publication Number
WO 2007/131102 A3

(51) International Patent Classification:
F01N 3/02 (2006.01)

(21) International Application Number:
PCT/US2007/068132

(22) International Filing Date: 3 May 2007 (03.05.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/746,341 3 May 2006 (03.05.2006) US

(71) Applicant (for all designated States except US):
SABERTEC L.L.C. [US/US]; 7908 Goldenrod Cove,
Austin, Texas 78750 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **SANGIOVANI,**
Sergio Varkala [BR/BR]; Rua Pedro Doll 472, Apto 31,
02404-001 Santana (BR).

(74) Agent: **WIESE, William D.**; 700 Lavaca, Suite 1300,
Austin, Texas 78701 (US).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES,

FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN,
IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR,
LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY,
MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS,
RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL,
PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

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

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

(88) Date of publication of the international search report:
7 February 2008

(54) Title: IMPACT DIESEL PARTICULATE FILTER

(57) Abstract: An emission reduction device which may be removably affixed to a diesel engine's exhaust system. The device comprises an outer casing which may be divided into a lower portion and an upper portion, the lower portion of which is removably attachable to the exhaust system of a diesel engine; a carcass for holding a bobbin wherein the carcass is attached to the lower portion of the outer casing at the point where the exhaust enters the outer casing and the carcass has a beveled opening in a diagonal line in its proximal part and a bobbin positioned in its distal part; one or more fibrous blanket cylinders; and a guide for arranging and securing the one or more fibrous blanket cylinders within the outer casing. The fibrous blanket cylinders may be wrapped in a wire mesh. In an alternative embodiment, a second fibrous blanket formed into a cone with the larger diameter of the cone positioned proximally may be removably inserted in the carcass.

WO 2007/131102 A3