

Title (en)
CATALYZED PARTICULATE OXIDIZER FOR REDUCING PARTICULATE EMISSIONS FROM A DIESEL ENGINE AND METHOD

Title (de)
KATALYSIERTES PARTIKELFÖRMIGES OXIDATIONSMITTEL ZUR REDUZIERUNG VON PARTIKELEMISSIONEN EINES DIESELMOTORS SOWIE ENTSPRECHENDES VERFAHREN

Title (fr)
COMBURANT PARTICULAIRE CATALYSE SERVANT A REDUIRE LES EMISSIONS PARTICULAIRES D'UN MOTEUR DIESEL ET PROCEDE ASSOCIE

Publication
EP 1163043 A4 20030212 (EN)

Application
EP 99959082 A 19991123

Priority
• US 9927779 W 19991123
• US 11014898 P 19981124

Abstract (en)
[origin: WO0030739A1] Operation of a diesel engine with low particulate emissions is achieved through the use of a catalyzed particulate oxidizer (14) designed to cause a large number of impacts of particulates with catalyzed surfaces. The catalyzed particulate oxidizer (14) can be precatalyzed or uncatalyzed initially, but catalyzed during use by a catalyst fed prior to or after combustion in the engine. Preferably, the fuel will contain a catalytic additive (29), such as diphenyl cyclooctadiene platinum (II) or platinum acetylacetonate and/or a fuel soluble organo-metallic compound of cerium, iron, copper or manganese. Alternatively, the platinum group metal or other catalytic compound can be added to the exhaust or combustion air. The catalyzed particulate oxidizer has a plurality of parallel plates having catalyzed undulating surfaces provided to create a large number of contact points for the particulates in the exhaust gas.

IPC 1-7
B01D 53/56; **B01D 53/92**; **B01D 53/94**; **F01N 3/02**; **F01N 3/08**; **F01N 3/28**

IPC 8 full level
F02M 25/00 (2006.01); **B01D 46/42** (2006.01); **B01D 53/86** (2006.01); **B01D 53/94** (2006.01); **B01J 32/00** (2006.01); **B01J 35/02** (2006.01); **F01N 3/02** (2006.01); **F01N 3/029** (2006.01); **F01N 3/035** (2006.01); **F02D 41/04** (2006.01); **F02M 25/07** (2006.01)

CPC (source: EP)
B01D 53/94 (2013.01); **F01N 3/029** (2013.01); **F01N 3/035** (2013.01); **F01N 2250/02** (2013.01)

Citation (search report)
• [X] US 4942020 A 19900717 - WHITTENBERGER WILLIAM A [US], et al
• [X] US 4725411 A 19880216 - CORNELISON RICHARD C [US]
• See references of WO 0030739A1

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
WO 0030739 A1 20000602; AU 1632900 A 20000613; CA 2349846 A1 20000602; CN 1328481 A 20011226; EP 1163043 A1 20011219; EP 1163043 A4 20030212; HK 1042266 A1 20020809; JP 2002530578 A 20020917

DOCDB simple family (application)
US 9927779 W 19991123; AU 1632900 A 19991123; CA 2349846 A 19991123; CN 99813663 A 19991123; EP 99959082 A 19991123; HK 02103838 A 20020522; JP 2000583616 A 19991123