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(54) Exhaust silencer for automotive vehicles

(57) The invention relates to an exhaust silencer for vehicles incorporating a casing determining a gas tight chamber, based on a tubular frame and two end covers, and having a gas intake pipe and at least one outlet pipe for such gases. The gas intake is located in the middle area of the tubular frame, said intake opening out into an expansion chamber, on the back wall of which the gases collide, which back wall comprises a multi-resonating membrane outside of which the chamber formed by the casing is filled with an absorbent material, arranging two outlet pipes on one side of the mentioned intake, perpendicular thereto and connected therewith through the mentioned expansion chamber, which outlet pipes internally house respective high frequency multi-resonators, whereas a Helmholtz resonator neck is arranged opposite to said outlets which opens out into an anti-resonating chamber located opposite to the gas outlets.

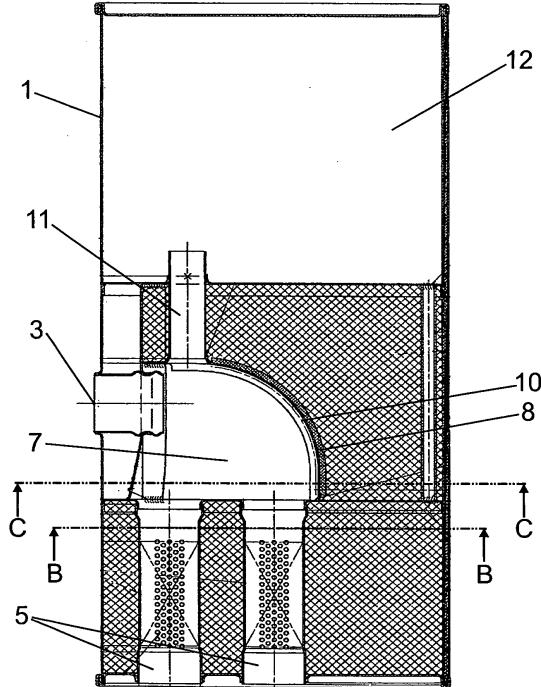


FIG. 4



EUROPEAN SEARCH REPORT

Application Number
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DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (IPC)												
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim													
A	US 2004/216951 A1 (CAI CHAO [SG] ET AL) 4 November 2004 (2004-11-04) * paragraphs [0022] - [0033]; figure 4 * -----	1	INV. F01N1/04 F01N1/08												
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2			TECHNICAL FIELDS SEARCHED (IPC)												
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<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Place of search</td><td style="width: 33%;">Date of completion of the search</td><td colspan="2" style="width: 34%;">Examiner</td></tr> <tr> <td>The Hague</td><td>15 July 2009</td><td colspan="2">Louchet, Nicolas</td></tr> </table>				Place of search	Date of completion of the search	Examiner		The Hague	15 July 2009	Louchet, Nicolas					
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<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">CATEGORY OF CITED DOCUMENTS</td><td style="width: 50%;">T : theory or principle underlying the invention</td></tr> <tr> <td>X : particularly relevant if taken alone</td><td>E : earlier patent document, but published on, or</td></tr> <tr> <td>Y : particularly relevant if combined with another document of the same category</td><td>after the filing date</td></tr> <tr> <td>A : technological background</td><td>D : document cited in the application</td></tr> <tr> <td>O : non-written disclosure</td><td>L : document cited for other reasons</td></tr> <tr> <td>P : intermediate document</td><td>& : member of the same patent family, corresponding document</td></tr> </table>				CATEGORY OF CITED DOCUMENTS	T : theory or principle underlying the invention	X : particularly relevant if taken alone	E : earlier patent document, but published on, or	Y : particularly relevant if combined with another document of the same category	after the filing date	A : technological background	D : document cited in the application	O : non-written disclosure	L : document cited for other reasons	P : intermediate document	& : member of the same patent family, corresponding document
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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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15-07-2009

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