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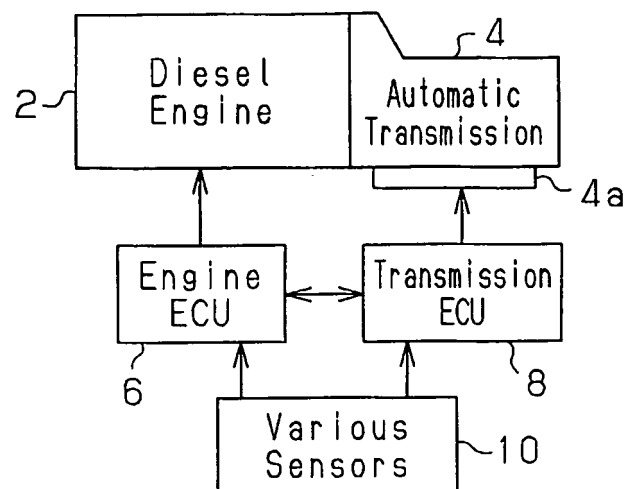
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(54) **Fuel supply amount controller of internal combustion engine and method for controlling the same**

(57) A controller controls an amount of fuel supplied to an internal combustion engine of a vehicle. The controller restricts the fuel supply amount, which is requested for the engine, in accordance with a fail-safe limit value set correspondingly to an operation state of the engine. The controller includes changing means. When a supplemental fuel injection amount, which is requested for

causing the engine to generate output torque required for purposes other than driving the vehicle, is set, the changing means causes the limit value to be equal to or to approach the supplemental fuel injection amount if the limit value is less than the supplemental fuel injection amount. Therefore, the controller corresponds to a request for causing the engine to generate output torque required for purposes other than driving the vehicle.

Fig.1





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2003/079720 A1 (MCCAULEY THOMAS A ET AL) 1 May 2003 (2003-05-01) * abstract * * figures 1,2 * * paragraphs [0022] - [0025] * * claims *	1,2,8	F02D41/34
X	DE 40 26 273 A1 (ROBERT BOSCH GMBH, 7000 STUTTGART, DE) 27 February 1992 (1992-02-27) * abstract * * column 1, line 24 - line 62 * * column 3, line 3 - line 35 * * claims * * figure 1 *	1,8	
D,A	PATENT ABSTRACTS OF JAPAN vol. 2002, no. 06, 4 June 2002 (2002-06-04) & JP 2002 039004 A (TOYOTA MOTOR CORP), 6 February 2002 (2002-02-06) * abstract *		TECHNICAL FIELDS SEARCHED (IPC) F02D
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 2 February 2006	Examiner Trotureau, D
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 04 01 3042

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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02-02-2006

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003079720 A1	01-05-2003	DE 10235971 A1	08-05-2003
		JP 2003161191 A	06-06-2003
-----	-----	-----	-----
DE 4026273 A1	27-02-1992	AU 636240 B2	22-04-1993
		AU 8260791 A	27-02-1992
-----	-----	-----	-----
JP 2002039004 A	06-02-2002	NONE	
-----	-----	-----	-----