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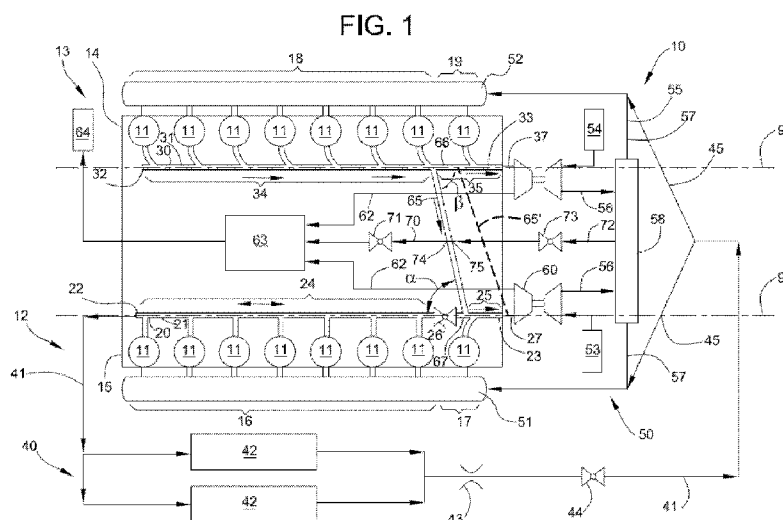
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(54) **Title:** EGR FLOW CONTROL FOR LARGE ENGINES



(57) **Abstract:** An internal combustion engine and control system are provided having improved efficiency through improved exhaust flow control. The engine includes at least one bank of combustion cylinders and a respective exhaust manifold for conveying exhaust to the atmosphere. Further included is an exhaust gas restriction valve (ERV) associated with the exhaust manifold for selectively increasing backpressure on the associated bank of combustion cylinders and for redirecting a portion of the exhaust into an exhaust gas conditioning system for conditioning the portion of the exhaust and returning it to an air intake of the engine. An engine exhaust gas recirculation (EGR) valve in the exhaust gas recirculation system restricts the flow of conditioned exhaust, and an EGR flow controller operates the EGR valve in one of a substantially open and substantially closed condition and controls the flow of conditioned exhaust to the air intake by modulating the ERV.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER  
INV. F02D41/00 F02M25/07  
ADD.  
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)  
F02D F02M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 195 43 290 A1 (MAN NUTZFAHRZEUGE AG [DE]) 22 May 1997 (1997-05-22) abstract column 1, line 24 - line 38 column 2, line 16 - column 3, line 12 figures 1-3	1-9
X	WO 2009/094026 A1 (MACK TRUCKS [US]; GIBBLE JOHN C [US]) 30 July 2009 (2009-07-30) page 4, line 21 - page 6, line 5 page 7, line 7 - line 17 page 9, line 9 - line 18 figures 1,2	1-9
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Further documents are listed in the continuation of Box C.

See patent family annex.

\* Special categories of cited documents :

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Date of the actual completion of the international search <b>14 February 2013</b>	Date of mailing of the international search report <b>25/02/2013</b>
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer <b>Wettemann, Mark</b>
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
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