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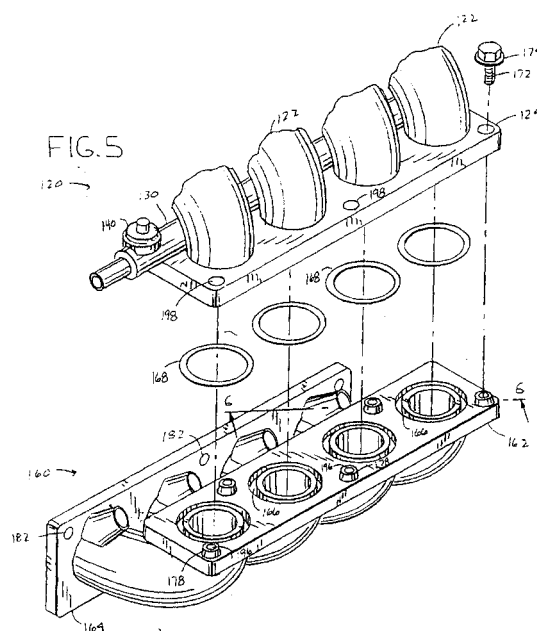
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(54) **Manifold housing system**

(57) A field replaceable unitary manifold housing for providing combustion air and combustion fuel to an internal combustion engine is disclosed. The housing includes an air purification cavity having a spaced apart air intake and air discharge. The housing also includes a filter for purifying air disposed in the air purification cavity intermediate the air intake and the air discharge. The housing also includes a hollow elongate member having a first end coupled to the filter and a second end coupled to a plenum chamber for directing the air, the plenum chamber being integral with the air purification cavity. The housing also includes a plurality of channels, each channel integral with the housing and having a first end integral with the plenum chamber and a second end coupled to a cylinder head of the engine. The air intake induces air into the air purification cavity, the induced air is purified by the filter, the hollow elongate member directs the air from the filter to the plenum chamber, and the plurality of channels direct the air from the plenum chamber to the cylinder head.



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# 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 (Int.Cl.7)
A	EP 0 527 683 A (RENAULT) 17 February 1993 (1993-02-17) * figure 2 *	1,3,8	F02M35/10
A	US 5 275 135 A (CLEMENS WILLIAM J ET AL) 4 January 1994 (1994-01-04) * figures 2,5 *	1,3,8	
A	DE 94 16 059 U (HAHN KARLHEINZ) 1 December 1994 (1994-12-01) * figure *	1,3,8	
A	EP 0 280 122 A (BAYERISCHE MOTOREN WERKE AG) 31 August 1988 (1988-08-31) * figure 2 *	1,3,8	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			F02M
Place of search		Date of completion of the search	Examiner
THE HAGUE		27 March 2002	Alconchel y Ungria,J
<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  &amp; : member of the same patent family, corresponding document</p>			

EPO FORM 1503.03.92 (P04/01)

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

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27-03-2002

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
EP 0527683	A	17-02-1993	FR	2680388 A1	19-02-1993
			DE	69207508 D1	22-02-1996
			DE	69207508 T2	22-08-1996
			EP	0527683 A1	17-02-1993
US 5275135	A	04-01-1994	US	5253966 A	19-10-1993
DE 9416059	U	01-12-1994	DE	9416059 U1	01-12-1994
EP 0280122	A	31-08-1988	DE	3705765 A1	01-09-1988
			DE	3865453 D1	21-11-1991
			EP	0280122 A2	31-08-1988
			ES	2026955 T3	16-05-1992