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(72) Inventors:
• **Akiyama, Hiroshige**
Kakuda-shi
Miyagi (JP)
• **Ishikawa, Hisashi**
Kakuda-shi
Miyagi (JP)

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(71) Applicant: **Keihin Corporation**
Shinjuku-ku, Tokyo (JP)

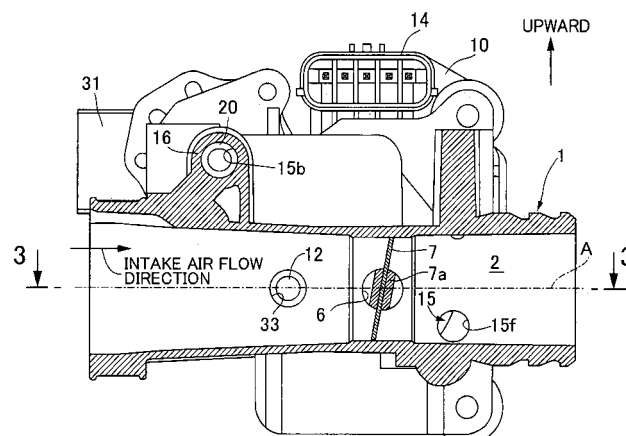
(74) Representative: **Prechtel, Jörg et al**
Weickmann & Weickmann,
Patentanwälte,
Postfach 860 820
81635 München (DE)

(54) **Engine intake system**

(57) An engine intake system includes: a bypass (15) bypassing a throttle valve (7) and connected to an intake path (2); and a bypass valve (20) for regulating an opening degree of the bypass (15). A part of the bypass (15) includes: an inlet port (15a) provided in a throttle body (1) so that the inlet port (15a) is open in the intake path (2) at a position upstream of the throttle valve (7); a valve hole (15b) provided in the throttle body (1) so as to fittingly receive therein the bypass valve (20); and an outlet port (15f) provided in the throttle body (1) so that the outlet

port (15f) is open in the intake path (2) at a position downstream of the throttle valve (7). The valve hole (15b) is arranged on a side opposite from the outlet port (15f) with the throttle valve (7) interposed therebetween, and at a position above the outlet port (15f) and parallel with the shaft-receiving hole (5, 6) supporting a valve shaft (7a) of the throttle valve (7). Thus, there is provided a small engine intake system in which engine blowback has a difficulty in reaching a bypass valve, and which has an excellent productivity.

FIG.2





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EUROPEAN SEARCH REPORT

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EP 07 01 0979

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	JP 2005 113718 A (KEIHIN CORP) 28 April 2005 (2005-04-28) * abstract *	1-4	INV. F02D9/10
Y	JP 09 303164 A (HITACHI LTD) 25 November 1997 (1997-11-25) * abstract *	1-4	
A	JP 59 034444 A (MITSUBISHI ELECTRIC CORP) 24 February 1984 (1984-02-24) * abstract *	1	
			TECHNICAL FIELDS SEARCHED (IPC)
			F02D
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 4 March 2008	Examiner Vedoato, Luca
CATEGORY OF CITED DOCUMENTS 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 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			

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

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04-03-2008

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 2005113718 A	28-04-2005	NONE	
JP 9303164 A	25-11-1997	JP 3436455 B2	11-08-2003
JP 59034444 A	24-02-1984	NONE	

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82