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(54) Control system for controlling DC control motor which controls operation condition of internal combustion engine.

(57) A control system for controlling a DC control motor which controls an internal combustion engine to follow-up a target value varying continuously depending on the operation condition of the engine, the current flowing through the DC control motor being controlled through pulse width modulation. The control system comprises: means for detecting the operation condition of the engine; processor means for calculating and setting a target value depending on the operation condition of the engine; detector means for detecting the up-to-date value of the DC control motor; discriminator means for discriminating a difference between the target value and the up-to-date value to supply an output signal for changing the duty ratio of the current flowing through the DC control motor depending on the difference; a driver for energizing the DC control motor in response to the output signal from the discriminator means; and monitor means for controlling the changing rate of the up-to-date value and for increasing the duty ratio when the changing rate of the up-to-date value is less than a programmed rate.

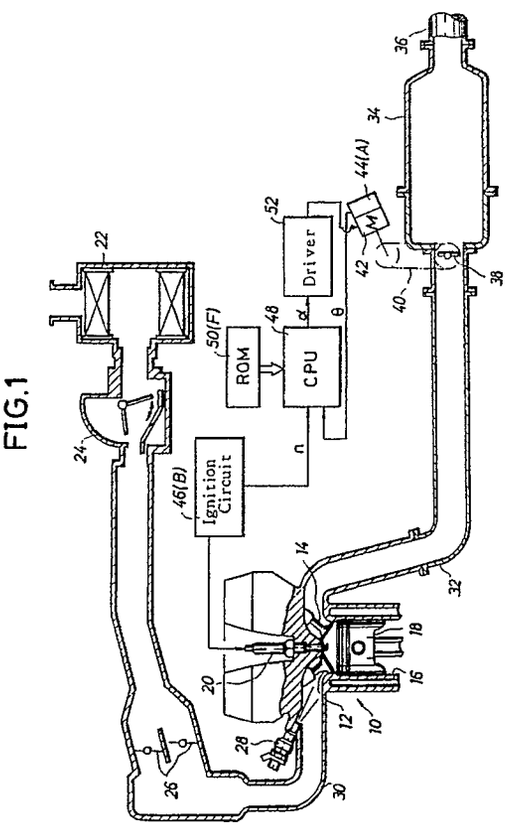

FIG.1

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EUROPEAN SEARCH REPORT

Application Number

EP 91 10 7702

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.5)
Y	GB-A-2 142 168 (HONDA) * figures 1-5 * * * page 3, line 38 - page 4, line 34 * *	1	F 02 D 11/10 F 02 D 41/14 F 02 D 9/04
A	GB-A-2 142 168 (* -idem- *)	3	
Y	US-A-4 603 675 (BOSCH) * figure 1 * * * column 2, line 20 - column 3, line 8 * * * column 3, line 54 - line 64 * * * column 4, line 18 - line 48 * * * column 5, line 9 - line 49 * *	1	
A	US-A-4 603 675 (* -idem- *)	3	
A	US-A-4 371 822 (HONDA) * figures 1,2 * * * column 1, line 6 - column 6, line 56 * *	3	
A	GB-A-2 175 643 (ORBITAL ENGINE CO.) * figures 5,7 * * * page 2, line 25 - line 96 * * * page 4, line 57 - line 66 * * * page 7, line 104 - page 9, line 58 * *	1-5	
A	PATENT ABSTRACTS OF JAPAN vol. 10, no. 77 (M-464)(2134) 26 March 1986 & JP-A-60 219 445 (TOYOTA JIDOSHA K.K.) 2 November 1985 * the whole document * *	2-5	

TECHNICAL FIELDS SEARCHED (Int. Cl.5)
F 02 D

The present search report has been drawn up for all claims

Place of search	Date of completion of search	Examiner
The Hague	23 October 91	LAPEYRONNIE P.J.F.

CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone
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