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26.05.93 Bulletin 93/21(71) Applicant: **WEBER S.r.l.****Corso Marconi, 20
I- 10125 Torino(IT)**(72) Inventor: **Serra, Gabriele****Via Orsoni 43
I- 40068 S. Lazzaro Di Savena(IT)**Inventor: **Bombarda, Giorgio****Via Pierluigi da Palestrina 2
I- 40100 Bologna(IT)**(74) Representative: **Cerbaro, Elena et al**
**c/o Studio Torta, Via Viotti 9
I- 10121 Torino (IT)**(54) **Internal combustion engine stroke identification system.**

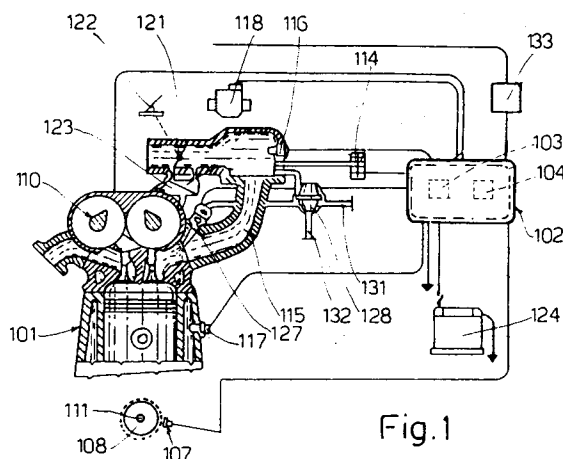
(57) A system comprising:

a first sensor (107) for detecting the teeth (134) and a gap in the same on a pulley (108) fitted to the drive shaft (111);

a second sensor (112) for detecting interruptions (135 and 136), a first of which differs from the others, on a disk (109) rotating at half the speed of, but in time with, the drive shaft (111);

first means (156), which, upon startup of the engine, compute and memorise the actual relative angular position of the pulley (108) and the disk (109);

second means (152) for computing the absolute angular position of the drive shaft (111), for enabling the electronic ignition and injection systems; and third means (153) which, in the event of failure of the first sensor (107), and on the basis of the second sensor (112) and the signal processed by the first means (156), compute a presumed angular position of the drive shaft (111) for enabling the electronic ignition and injection systems.

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EUROPEAN SEARCH REPORT

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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.5)
P,Y P,A	EP-A-0 443 175 (ROBERT BOSCH GMBH) * the whole document * ---	1-3 6,7	F02P7/067 F02P3/045 F02P11/06 F02P15/00 F02P17/00
Y A	DE-A-3 307 833 (ROBERT BOSCH GMBH) * abstract * * page 4, line 1 - page 6, line 6; figures 1,2 * ---	1-3 4	
A	WO-A-8 802 817 (ROBERT BOSCH GMBH) * the whole document * ---	1,7	
D,P, A	EP-A-0 439 194 (WEBER S.R.L.) * the whole document * ---	1	
A	PATENT ABSTRACTS OF JAPAN, vol. 9, no. 155 (M-392)29 June 1985 & JP-A-60 030 450 (NIPPON DENSO KK) 16 February 1985 * abstract * ---	1	
A	GB-A-2 198 853 (FUJI JUKOGYO KABUSHIKI KAISHA) * page 1, line 1 - page 4, line 6 * ---	1	TECHNICAL FIELDS SEARCHED (Int. Cl.5) F02P
A	EP-A-0 013 846 (REGIE NATIONALE DES USINES RENAULT) * figure 1 * ---	4	
A	US-A-4 373 486 (NICHOLS ET AL) * figure 4 * ---	5,8	
A	FR-A-2 171 626 (COMPTEURS SCHLUMBERGER) * figures 2A,6 * ---	5,8	
A	FR-A-2 374 528 (COMPAGNIE INTERNATIONALE POUR L'INFORMATIQUE) * figure 12A * -----	5,8	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 01 MARCH 1993	Examiner MICHELS J.
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			

