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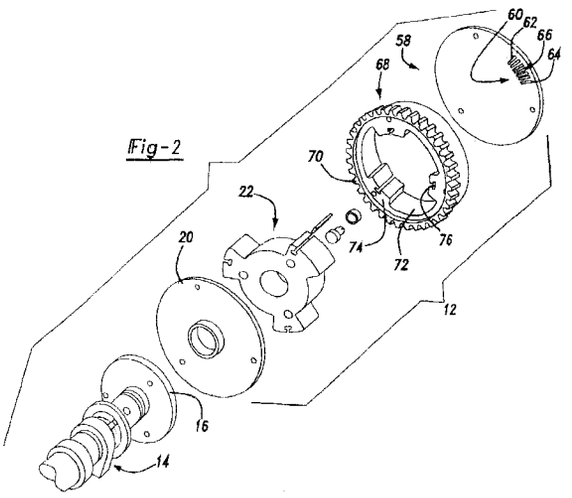
(71) Applicant: **Borg Warner Inc.**
Troy, MI 48007-5060 (US)

(72) Inventors:
- **Simpson, Roger T.**
  Ithaca, New York 14850 (US)
- **Duffield, Michael C.**
  Willseyville, New York 13864 (US)
- **Gardner, Marty**
  Ithaca, New York 14850 (US)

(74) Representative: **Hedges, Martin Nicholas et al**
A.A. Thornton & Co.
235 High Holborn
London WC1V 7LE (GB)

(54) Multi-position variable cam timing system having a vane-mounted locking piston device

(57) An internal combustion engine having a camshaft (14) and variable camshaft timing system, where a rotor (22) is secured to the camshaft (14) and is rotatable but non-oscillatable with respect to the camshaft (14). A housing (68) circumscribes the rotor(22), is rotatable with both the rotor (22) and the camshaft (14), and is further oscillatable with respect to both the rotor (22) and the camshaft (14) between a fully retarded position and a fully advanced position. A locking configuration prevents relative motion between the rotor and the housing (68), and is mounted within either the rotor (22) or the housing (68), and is respectively and releasably engageable with the other of either the rotor (22) and the housing (68) in the fully retarded position, the fully advanced position, and in positions therebetween. The locking device includes a locking piston (42) having keys (46) terminating one end (44) thereof, and serrations (60) mounted opposite the keys (46) on the locking piston (42) for interlocking the rotor (22) to the housing (68). A controlling configuration controls oscillation of the rotor (22) relative to the housing (68).



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EUROPEAN SEARCH REPORT

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EP 00 31 1295

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
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CATEGORY OF CITED DOCUMENTS

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