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(71) Applicant: **ALLIED CORPORATION**  
Columbia Road and Park Avenue P.O. Box 2245R (Law  
Dept.)  
Morristown New Jersey 07960(US)

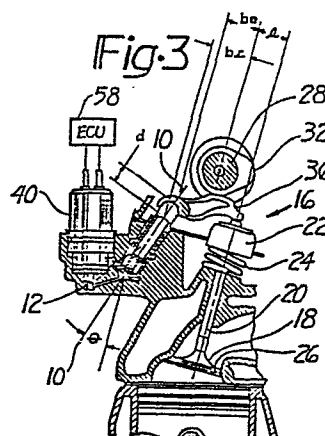
(72) Inventor: **Wakeman, Russell J.**  
20 Evelyn Drive  
Newport News Virginia 23602(US)

(72) Inventor: **Phipps, Jack R.**  
24035 Hickory Grove Land  
Novi Michigan 48050(US)

(74) Representative: **Brullé, Jean et al,**  
Service Brevets Bendix 44, rue François 1er  
F-75008 Paris(FR)

(54) **Method for variable valve timing in an internal combustion engine.**

(57) A method for variable valve timing in an internal combustion engine where by inclining the longitudinal axis (10) of a hydraulic valve adjuster (12), the pivot point of the valve rocker arm (36) changes thereby changing the rocker arm ratio. The hydraulic valve adjusters (12), under control of an electronic control unit (58), are adjusted to a predetermined height and by doing so the pivot end of the rocker arm (36) is changed thereby changing the rocker arm ratio resulting in valve timing change.





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# EUROPEAN SEARCH REPORT

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Application number

EP 85 10 9787

| 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.4) |
| P,D                                                                                                                                                                                                                     | EP-A-0 156 996 (ALLIED CORPORATION)<br>* Pages 17,18 *                        | 1                                                                                                                                                                                                                                                                            | F 01 L 9/02<br>F 01 L 31/22<br>F 01 L 1/24    |
| Y                                                                                                                                                                                                                       | GB-A- 213 894 (FARMAN)<br>* Figure 1; page 1, lines 43-84 *                   | 1                                                                                                                                                                                                                                                                            |                                               |
| A                                                                                                                                                                                                                       |                                                                               | 5,6                                                                                                                                                                                                                                                                          |                                               |
| Y                                                                                                                                                                                                                       | US-A-2 763 250 (DAIMLER-BENZ)<br>* Figure 2; column 2, lines 10-69 *          | 1                                                                                                                                                                                                                                                                            |                                               |
| A                                                                                                                                                                                                                       |                                                                               | 2,4                                                                                                                                                                                                                                                                          |                                               |
| Y                                                                                                                                                                                                                       | GB-A-2 053 350 (NISSAN)<br>* Figure 1; page 2, lines 7-130 *                  | 1                                                                                                                                                                                                                                                                            | TECHNICAL FIELDS<br>SEARCHED (Int. Cl.4)      |
| A                                                                                                                                                                                                                       |                                                                               | 2,4,6                                                                                                                                                                                                                                                                        | F 01 L                                        |
| A                                                                                                                                                                                                                       | US-A-4 258 671 (TOYOTA)<br>* Figures; column 3, lines 6-66 *                  | 1,2,4                                                                                                                                                                                                                                                                        |                                               |
| The present search report has been drawn up for all claims                                                                                                                                                              |                                                                               |                                                                                                                                                                                                                                                                              |                                               |
| Place of search<br>THE HAGUE                                                                                                                                                                                            |                                                                               | Date of completion of the search<br>21-11-1986                                                                                                                                                                                                                               | Examiner<br>WASSENAAR G.                      |
| CATEGORY OF CITED DOCUMENTS                                                                                                                                                                                             |                                                                               |                                                                                                                                                                                                                                                                              |                                               |
| X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document |                                                                               | T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>& : member of the same patent family, corresponding document |                                               |