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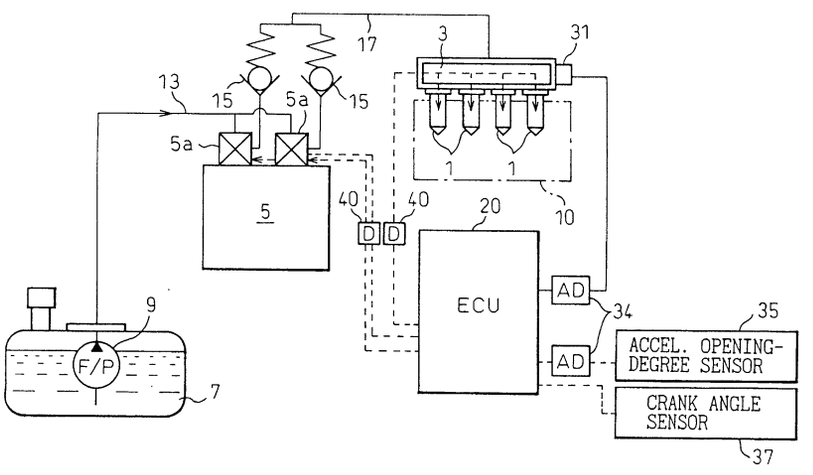
(54) **A device for detecting failure in a high pressure fuel supply system**

(57) Fuel of a high pressure is supplied from a high-pressure fuel injection pump 5 into a common-rail 3, and is, then, supplied to the fuel injection valves 1 from the common-rail. A control circuit (ECU) 20 compares a change in the fuel pressure in the common-rail detected by a fuel pressure sensor 31 during a judging period with an estimated value of change in the pressure during the judging period to judge the leakage of fuel from the common-rail. The judging period is set to take place in a period in which it is estimated that the fuel flows in the least amount into a pressure-accumulating chamber in the former half or in the latter half of the fuel supply stroke of the fuel pump. This minimizes the effect of fuel flowing into the common-rail, and improves the accuracy of leakage detection.

Fig.1



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F02D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	28 July 2003	VAN DER STAAY, F

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