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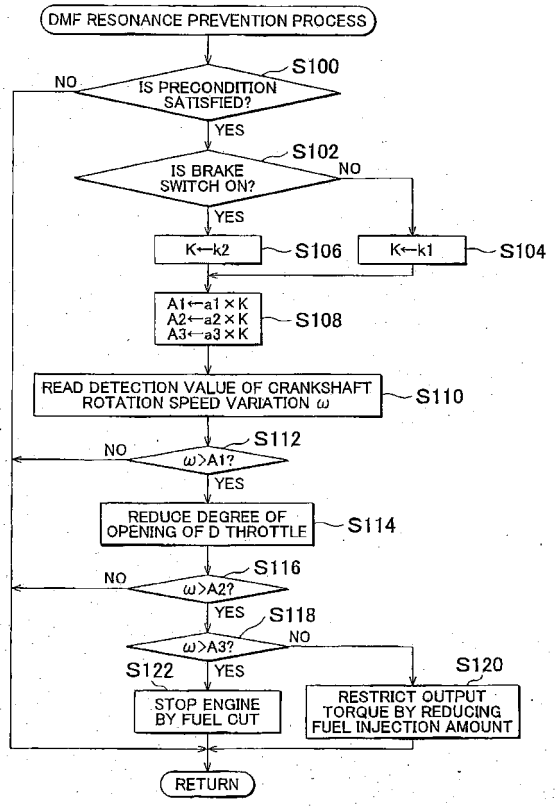
(54) **Internal combustion engine resonance start detection system and method and internal combustion engine controller**

(57) A crankshaft rotation speed variation ω is compared with variation determination thresholds A1, A2, and A3 to suppress the magnitude of resonance of a dual mass flywheel (DMF). The variation determination thresholds A1 to A3 are set based on an operation state that reflects the intention of the vehicle's driver to accelerate or decelerate, which is, for example, a brake pedal depression operation (S102 to S108). Appropriate variation determination thresholds A1 to A3 are set regardless of whether the vehicle's driver is actually performing a braking operation or is not performing a braking operation. Thus, it is possible to appropriately detect the start of resonance of the DMF accurately based on the information on the intention of the vehicle's driver including whether or not a braking operation is being performed. Thus, it is possible to reduce or eliminate the variation of output generated by an engine, at an appropriate timing.

FIG. 2



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EUROPEAN SEARCH REPORT

Application Number
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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
The Hague	26 May 2011	Van der Staay, Frank

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