

Publication

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Application

EP 91912321 A 19910716

Priority

- JP 9100948 W 19910716
- JP 18786990 A 19900718

Abstract (en)

[origin: WO9201869A1] A method and a unit for controlling a vehicle for loading operation which carries a variable capacity hydraulic pump (PV) for operating a loading machine and a torque converter (T) for driving itself. The control unit comprises an engine (E) provided with an electronically controlled governor (10) capable of selecting output characteristics stepwise; means (12), (14), (42) and (43) for setting stepwise the maximum capacity and output torque of the variable-capacity hydraulic pump (PV) for operating the loading machine; means (44), (45) for detecting a pump capacity and hydraulic pressure; switches (42), (43) for selecting output characteristics of the engine; a governor controller (11) for controlling to the output characteristics selected by the selecting switches; and a pump controller (41) for selectively setting the maximum capacity and output torque characteristics of the variable-capacity hydraulic pump (PV) in accordance with the engine output characteristics selected by the selecting switches. Accordingly, even if the hydraulic torque fluctuates at the time of high pressure in the variable-capacity hydraulic pump, the fluctuating range of absorption torque of the torque converter can be controlled, thereby enabling to perform earth-sand scoop-up working with ease and efficiently.

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IPC 8 full level

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Citation (search report)

- [YA] EP 0214633 A1 19870318 - HITACHI CONSTRUCTION MACHINERY [JP]
- [Y] US 4015482 A 19770405 - ITO RYUJI, et al
- [A] PATENT ABSTRACTS OF JAPAN vol. 12, no. 475 (M - 774) 13 December 1988 (1988-12-13)
- [A] PATENT ABSTRACTS OF JAPAN vol. 13, no. 25 (M - 787) 20 January 1989 (1989-01-20)
- See references of WO 9201869A1

Cited by

US6073442A; US2013090835A1; EP1655469A4; GB2318886A; GB2318886B; EP0780522A1; EP1154162A4; EP3018346A1; FR3027971A1; US6672055B1; US8578709B2; US8718878B2; WO2004085193A1; WO9954557A1; WO2008124024A3; US8306704B2

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