

Title (en)

METHOD AND APPARATUS FOR OPERATING A CLUTCH IN AN AUTOMATED MECHANICAL TRANSMISSION

Title (de)

VERFAHREN UND VORRICHTUNG ZUM BETÄTIGEN DER KUPPLUNG IN EINEM AUTOMATISIERTEN MECHANISCHEN GETRIEBE

Title (fr)

PROCEDE ET APPAREIL D'ACTIONNEMENT D'UN EMBRAYAGE DANS UNE TRANSMISSION MECANIQUE AUTOMATISEE

Publication

EP 0975886 A4 20000426 (EN)

Application

EP 98918260 A 19980415

Priority

- US 9807606 W 19980415
- US 84344397 A 19970416

Abstract (en)

[origin: WO9846907A2] An apparatus and method for controlling the operation of a clutch in a partially or fully automated mechanical transmission which is responsive to the actual load on the vehicle engine for varying the engagement rate of release bearing during re-engagement of the clutch. The apparatus includes an electronic controller which initially sets a desired speed for the vehicle engine during the shifting process, determines a rate of engagement movement of a release bearing of the clutch, and actuates appropriate valves to initiate the gradual engagement of the clutch. The electronic controller sets a first lower engine speed threshold and a second lower engine speed threshold. In a first embodiment, the magnitude of the first lower engine speed threshold varies with the actual load on the engine. If the actual speed of the engine remains above both the first lower engine speed threshold and the second lower engine speed threshold, the engagement process is continued without interruption. If the actual speed of the engine drops below the first lower engine speed threshold but remains above the second lower engine speed threshold, the release bearing is held in its current position until the actual speed of the engine recovers above the first lower engine speed threshold. If the actual speed of the engine drops below both the first lower engine speed threshold and the second lower engine speed threshold, the engagement process is aborted, and the release bearing is returned to the disengaged position until the actual speed of the engine recovers above an engagement re-start speed threshold. In a second embodiment, the magnitude of the first lower engine speed threshold varies with both the actual load on the engine and the amount of depression of an accelerator pedal of the vehicle.

IPC 1-7

F16D 48/06

IPC 8 full level

B60W 10/02 (2006.01); **B60W 10/06** (2006.01); **B60W 30/18** (2006.01); **F16D 48/06** (2006.01); **F16H 61/66** (2006.01)

CPC (source: EP)

B60W 10/02 (2013.01); **B60W 10/06** (2013.01); **B60W 10/10** (2013.01); **B60W 30/18** (2013.01); **F16D 48/066** (2013.01); **F16H 61/66** (2013.01); **B60W 2510/0216** (2013.01); **B60W 2510/0638** (2013.01); **B60W 2510/0657** (2013.01); **B60W 2710/023** (2013.01); **F16D 2500/10412** (2013.01); **F16D 2500/1083** (2013.01); **F16D 2500/3026** (2013.01); **F16D 2500/30401** (2013.01); **F16D 2500/30415** (2013.01); **F16D 2500/3065** (2013.01); **F16D 2500/3067** (2013.01); **F16D 2500/30825** (2013.01); **F16D 2500/3144** (2013.01); **F16D 2500/7041** (2013.01); **F16D 2500/70454** (2013.01)

Citation (search report)

- [X] US 4811222 A 19890307 - WATANABE TOMOYUKI [JP], et al
- [A] EP 0585817 A1 19940309 - HONDA MOTOR CO LTD [JP]
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- [A] US 5050714 A 19910924 - KURIHARA KAZUMASA [JP], et al
- See references of WO 9846907A2

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

WO 9846907 A2 19981022; **WO 9846907 A3 19990225**; **WO 9846907 A8 19990415**; AU 7122298 A 19981111; BR 9808910 A 20020326; EP 0975886 A2 20000202; EP 0975886 A4 20000426

DOCDB simple family (application)

US 9807606 W 19980415; AU 7122298 A 19980415; BR 9808910 A 19980415; EP 98918260 A 19980415