

Title (en)

METHODS FOR CONTROLLING JERK AFTER GEAR SHIFTING IN VEHICLES, AND RELATED VEHICLES

Title (de)

VERFAHREN ZUR RUCKELSTEUERUNG NACH DEM SCHALTEN IN FAHRZEUGEN UND ENTSPRECHENDE FAHRZEUGE

Title (fr)

PROCÉDÉS DE CONTRÔLE DE SECOUSSES APRÈS UN CHANGEMENT DE VITESSE DANS DES VÉHICULES ET VÉHICULES ASSOCIÉS

Publication

**EP 3822470 A1 20210519 (EN)**

Application

**EP 20207404 A 20201113**

Priority

IT 201900021288 A 20191115

Abstract (en)

Method (20) for controlling in a closed loop a work vehicle (1) including: an engine (3); a control unit (6); a sensor (5); a selector device (12) configured to permit the operator to select or define an acceleration profile (22); and a throttle input device (10). The method comprises the steps of: acquiring a ground speed ( $v_{\text{ground}}$ ) or, alternatively, a ground acceleration ( $a_{\text{ground}}$ ) of the work vehicle (1) through the sensor (5); generating (28) a throttle engine command ( $\omega_{\text{throttle}}$ ) indicative of a position of the throttle input device (10); acquiring the acceleration profile (22) through the selector device (12); generating (26, 38; 26) a setpoint quantity ( $v_{\text{set}}$ ;  $a_{\text{set}}$ ) based on the acceleration profile (22); generating (30; 130) a profile engine command ( $\omega_{\text{profile}}$ ;  $w_{\text{profile}}$ ) based on both the setpoint quantity ( $v_{\text{set}}$ ;  $a_{\text{set}}$ ) and either the ground speed ( $v_{\text{ground}}$ ) or, alternatively, the ground acceleration ( $a_{\text{ground}}$ ); generating (32) an engine command ( $\omega_{\text{eng}}$ ) by selecting among at least the profile engine command ( $\omega_{\text{profile}}$ ;  $w_{\text{profile}}$ ) and the throttle engine command ( $\omega_{\text{throttle}}$ ) to control the engine (3).

IPC 8 full level

**F02D 29/02** (2006.01); **B60W 30/182** (2020.01); **E02F 9/20** (2006.01); **F02D 31/00** (2006.01); **F02D 41/02** (2006.01)

CPC (source: EP)

**E02F 9/2066** (2013.01); **F02D 29/02** (2013.01); **F02D 31/001** (2013.01); **F02D 41/023** (2013.01); **E02F 3/325** (2013.01); **F02D 2200/501** (2013.01); **F02D 2200/604** (2013.01)

Citation (search report)

- [IAY] US 5233530 A 19930803 - SHIMADA MAKOTO [JP], et al
- [XYI] EP 3379111 A1 20180926 - YANMAR CO LTD [JP]
- [Y] EP 1382477 A1 20040121 - HINO JIDOSHA KABUSHIKI KAISHA [JP]
- [Y] EP 3208131 A1 20170823 - YANMAR CO LTD [JP]
- [A] JP 2002248966 A 20020903 - MITSUBISHI MOTORS CORP

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 3822470 A1 20210519; EP 3822470 B1 20240529**; IT 201900021288 A1 20210515

DOCDB simple family (application)

**EP 20207404 A 20201113**; IT 201900021288 A 20191115