

Title (en)

HYDRAULIC EXCAVATOR CONTROL SYSTEM AND METHOD

Title (de)

SYSTEM UND VERFAHREN ZUR STEUERUNG EINES HYDRAULISCHEN BAGGERS

Title (fr)

SYSTÈME ET PROCÉDÉ DE COMMANDE DE TREUIL HYDRAULIQUE

Publication

EP 4030003 A1 20220720 (EN)

Application

EP 19944808 A 20190911

Priority

CN 2019105276 W 20190911

Abstract (en)

The present invention discloses a hydraulic excavator control system and method. The method includes: collecting, by a controller, an oil path pressure signal of a hydraulic excavator, and calculating a required main pump power according to the oil path pressure signal; sending, by the controller, the required main pump power to an engine ECM; and first adjusting, by the engine ECM, an engine oil injection quantity according to the required main pump power, and then adjusting, by the controller, a main pump power according to the required main pump power. The present invention greatly reduces the loading response time of the engine, improves the working efficiency of the whole machine, avoids the problem of black smoke from idle loading, and can further reduce an idle rotation speed of the engine and reduce fuel oil consumption.

IPC 8 full level

E02F 9/22 (2006.01)

CPC (source: EP)

E02F 9/2235 (2013.01); E02F 9/2246 (2013.01); E02F 9/2282 (2013.01); E02F 9/2285 (2013.01); E02F 9/2296 (2013.01)

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 4030003 A1 20220720; EP 4030003 A4 20221012; AU 2019465349 A1 20220324; AU 2019465349 B2 20230727; CA 3150007 A1 20210318; WO 2021046736 A1 20210318

DOCDB simple family (application)

EP 19944808 A 20190911; AU 2019465349 A 20190911; CA 3150007 A 20190911; CN 2019105276 W 20190911