

Title (en)
CONSTRUCTION MACHINERY

Title (de)
BAUMASCHINEN

Title (fr)
ENGIN DE CHANTIER

Publication
EP 3995632 A4 20230712 (EN)

Application
EP 20870184 A 20200612

Priority
• JP 2019174713 A 20190925
• JP 2020023172 W 20200612

Abstract (en)
[origin: EP3995632A1] A construction machine is provided which is capable of detecting an operation state of an operation device even if the idle rotation speed for a prime mover is set to a low value and is capable of setting the idle rotation speed for the prime mover to a low value. A hydraulic excavator includes an operation device that generates a pilot pressure corresponding to an operation amount of an operation lever and switches a control valve with the generated pilot valve, and a controller that controls an electric motor such that the rotation speed of the electric motor becomes an idle rotation speed set in advance when a no-operation state of the operation device continues. The hydraulic excavator further includes a hydraulic pressure signal line that is connected between the discharge side of a pilot pump and a tank and in which the control valve is interposed, a fixed restrictor provided between the discharge side of the pilot pump and the control valve in the hydraulic pressure signal line, and pressure sensors that individually detect the hydraulic pressures on the upstream side and the downstream side of the fixed restrictor. The controller detects an operation state of the operation device on the basis of results of detection of the pressure sensors.

IPC 8 full level
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CPC (source: CN EP US)
E02F 9/207 (2013.01 - EP US); **E02F 9/22** (2013.01 - CN); **E02F 9/2235** (2013.01 - US); **E02F 9/2246** (2013.01 - EP US);
E02F 9/2267 (2013.01 - CN US); **E02F 9/2271** (2013.01 - US); **E02F 9/2285** (2013.01 - CN EP US); **E02F 3/435** (2013.01 - EP)

Citation (search report)
• [AD] US 2013325235 A1 20131205 - KURIKUMA HAJIME [JP], et al
• [A] EP 3184700 A1 20170628 - HITACHI CONSTRUCTION MACH CO [JP]
• See also references of WO 2021059617A1

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EP4321693A1

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

DOCDB simple family (publication)
EP 3995632 A1 20220511; **EP 3995632 A4 20230712**; CN 114207224 A 20220318; CN 114207224 B 20221216; JP 2021050546 A 20210401;
JP 7110164 B2 20220801; US 2022282457 A1 20220908; WO 2021059617 A1 20210401

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EP 20870184 A 20200612; CN 202080055522 A 20200612; JP 2019174713 A 20190925; JP 2020023172 W 20200612;
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