

Title (en)
MONITORING DEVICE AND CONSTRUCTION MACHINE

Title (de)
ÜBERWACHUNGSVORRICHTUNG UND BAUMASCHINE

Title (fr)
DISPOSITIF DE SURVEILLANCE ET ENGIN DE CHANTIER

Publication
EP 3907336 A1 20211110 (EN)

Application
EP 20755521 A 20200110

Priority
• JP 2019024436 A 20190214
• JP 2020000570 W 20200110

Abstract (en)
A monitoring system calculates, based on a contour data, a first slope angle representing an inclination angle of a slope to a ground surface on which a construction machine stands, detects a ground surface angle representing an inclination angle of the ground surface to a horizontal plane, calculates a second slope angle representing an inclination angle of the slope to the horizontal plane by adding the first slope angle to the ground surface angle, calculates a relative angle of a longitudinal direction of a lower traveling body to an inclination direction of the slope, and determines that the construction machine is in an unstable state when the second slope angle is larger than a first threshold and the relative angle is larger than a second threshold.

IPC 8 full level
E02F 9/24 (2006.01); **E02F 9/26** (2006.01)

CPC (source: EP US)
E02F 3/435 (2013.01 - EP); **E02F 9/2033** (2013.01 - EP US); **E02F 9/24** (2013.01 - US); **E02F 9/26** (2013.01 - US); **E02F 9/262** (2013.01 - EP); **E02F 9/265** (2013.01 - EP); **E02F 3/32** (2013.01 - US)

Designated contracting state (EPC)
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Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3907336 A1 20211110; **EP 3907336 A4 20220323**; CN 113439144 A 20210924; JP 2020133143 A 20200831; US 2022112693 A1 20220414; WO 2020166241 A1 20200820

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EP 20755521 A 20200110; CN 202080013052 A 20200110; JP 2019024436 A 20190214; JP 2020000570 W 20200110; US 202017428708 A 20200110