Title (en)

MONITORING DEVICE AND CONSTRUCTION MACHINE

Title (de)

ÜBERWACHUNGSVORRICHTUNG UND BAUMASCHINE

Title (fr)

DISPOSITIF DE SURVEILLANCE ET ENGIN DE CHANTIER

Publication

EP 3907336 A4 20220323 (EN)

Application

EP 20755521 A 20200110

Priority

- JP 2019024436 A 20190214
- JP 2020000570 W 20200110

Abstract (en)

[origin: EP3907336A1] 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 3/43** (2006.01); **E02F 9/20** (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)

Citation (search report)

- [A] WO 2018174154 A1 20180927 - SUMITOMO HEAVY INDUSTRIES [JP]
- [A] WO 2019026802 A1 20190207 - SUMITOMO HEAVY INDUSTRIES [JP]
- [A] JP 2013238097 A 20131128 - SUMITOMO HEAVY INDUSTRIES
- See references of WO 2020166241A1

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 3907336 A1 20211110; **EP 3907336 A4 20220323**; CN 113439144 A 20210924; JP 2020133143 A 20200831; US 2022112693 A1 20220414; WO 2020166241 A1 20200820

DOCDB simple family (application)

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