

Title (en)

EXPLOSIVE AUTOLOADING SYSTEM AND EXPLOSIVE AUTOLOADING METHOD

Title (de)

SELBSTLADESYSTEM FÜR SPRENGSTOFF UND SELBSTLADEVERFAHREN FÜR SPRENGSTOFF

Title (fr)

SYSTÈME ET PROCÉDÉ D'AUTO-CHARGEMENT D'EXPLOSIF

Publication

EP 4310438 A1 20240124 (EN)

Application

EP 22771318 A 20220311

Priority

- JP 2021044969 A 20210318
- JP 2022011030 W 20220311

Abstract (en)

In a tunnel constructed with delay blasting, explosive corresponding to the number of stages of a face plane is loaded automatically into the blasting holes of the face plane. This explosive autoloading system is provided with: a control device that has a storage unit which, for each hole number of multiple blasting holes, stores blasting hole information that associates blasting hole position information, which includes three-dimensional coordinate values of the blasting holes, and blasting hole stage number information, which relates to the number of stages of blasting holes; and an explosive autoloading device which is mounted on an explosive loading boom of a heavy construction machine. The controller controls the explosive loading boom and the explosive autoloading device while referring to the blasting hole position information and the blasting holes stage number information, and performs explosive autoloading control so as to automatically load, in loading blasting holes in which the detonation explosive is to be loaded, a detonation explosive which has a detonation time corresponding to the number of stages of the loading blasting holes.

IPC 8 full level

F42D 1/08 (2006.01); **E21D 9/00** (2006.01)

CPC (source: EP)

E21D 9/006 (2013.01); **F42D 1/08** (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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

EP 4310438 A1 20240124; JP WO2022196570 A1 20220922; WO 2022196570 A1 20220922

DOCDB simple family (application)

EP 22771318 A 20220311; JP 2022011030 W 20220311; JP 2023507064 A 20220311