



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
09.11.2022 Bulletin 2022/45

(51) International Patent Classification (IPC):
E21B 47/18^(2012.01)

(43) Date of publication A2:
28.09.2022 Bulletin 2022/39

(52) Cooperative Patent Classification (CPC):
E21B 47/18

(21) Application number: **21214019.8**

(22) Date of filing: **13.12.2021**

(84) Designated Contracting States:
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 States:
BA ME
Designated Validation States:
KH MA MD TN

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(30) Priority: **07.01.2021 US 202163134643 P**
03.06.2021 US 202117337838

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(54) **INFORMATION TRANSMISSION SYSTEM, TRANSMITTER, RECEIVER, AND INFORMATION TRANSMISSION METHOD**

(57) An information transmission system of the present invention transmits information by using a mud pulse pressure signal to transmit information between a transmitter located in an excavation part of an underground excavator and a receiver located on the ground. The transmitter comprises a transmission information acquisition part for acquiring information, and a pressure pulse generation part. The pressure pulse generation part generates a pressure pulse so that an interval between the pressure pulse and a just preceding or just subsequent pressure pulse is an interval corresponding to the information acquired by the transmission information acquisition part. The receiver comprises a pressure pulse detection part for detecting a pressure pulse, and a reception information output part. The reception information output part outputs information corresponding to the interval between the detected pressure pulse and a just preceding or just subsequent pressure pulse.

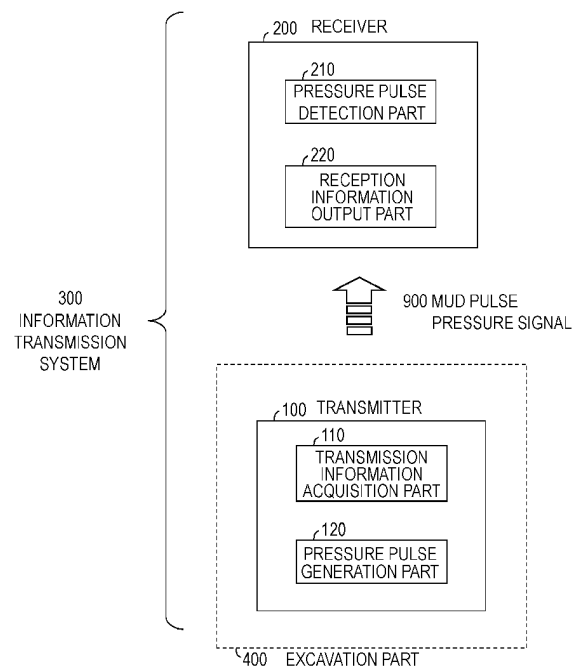


FIG. 1



EUROPEAN SEARCH REPORT

Application Number

EP 21 21 4019

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EPO FORM 1503 03.82 (P04C01)

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			TECHNICAL FIELDS SEARCHED (IPC)
			E21B
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 27 September 2022	Examiner Kecman, Ivan
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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