

Title (en)

Method for remote control with a direct view of a machine on the yard and transmitter-receiver arrangement adapted for carrying it out.

Title (de)

Verfahren zur Fernsteuerung einer Baumaschine bei direkter Sicht und Sender/Empfänger zur Durchführung des Verfahrens.

Title (fr)

Procédé de télécommande à vue directe d'un engin de chantier et ensemble émetteur-récepteur adapté à sa mise en oeuvre.

Publication

EP 0141749 A2 19850515 (FR)

Application

EP 84402206 A 19841102

Priority

FR 8317557 A 19831104

Abstract (en)

[origin: EP0141749B1] 1. A direct view remote control method for a construction machine, especially for mines and quarries, adapted to transmit to this machine a plurality of orders to be executed simultaneously, according to which parallel orders from a driver of the machine are converted (LS) into binary signals, a sequential binary signal (A, B-C: Sp -Ss) is elaborated (CB) from these wherein each sequence includes synchronization bits (A) and information bits (B-C) representative, in biphasic code with a transition per bit, of the afore mentioned binary signals, a remote control signal transmitted in electromagnetic form (ERF) is elaborated (M) by direct amplitude modulation of a carrier wave by this sequential binary signal, from this remote control signal, after reception, the sequential binary signal is restored and converted after synchronization into electrical signals appropriate for control of the machine, the method being characterized in that the sequential binary signal comprises a periodic pulsed signal (A) in its synchronization bits, the frequency of which (H0) is an even multiple of the transitory frequencies (H1 , H2) defined by the transitions in the successive information bits, and in that on reception the bit and sequence frequencies are restored (RSYN, RM1) from the recognition (RSYN), in the demodulated signal, of the synchronization frequency (H0), whilst this demodulated signal is subjected (AD; VM, DS) to validation tests, with the help of the frequencies thus restored, before its decoding and conversion into electrical control signal is authorized.

Abstract (fr)

L'invention concerne un procédé de télécommande à vue directe d'une machine de chantier adaptée à exécuter des pluralités d'ordres simultanés, ainsi qu'un ensemble émetteur-récepteur adapté à sa mise en oeuvre. Selon l'invention, on élabore à partir des ordres d'un conducteur de la machine un signal séquentiel binaire dont chaque séquence comporte des bits de synchronisation occupés par un signal binaire périodique et des bits d'information reprenant sous forme binaire biphase la teneur desdits ordres, on module à l'aide de ce signal séquentiel binaire une onde porteuse que l'on émet et, après réception, on restitue ce signal séquentiel binaire et on le convertit en signaux électriques appropriés. Application notamment à la télécommande d'engins de chantier tels que haveuse ou chargeur-transporteur.

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G08C 19/28; E21C 35/24

IPC 8 full level

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CPC (source: EP KR US)

E21C 35/24 (2013.01 - EP US); **G08C 19/16** (2013.01 - KR); **G08C 19/28** (2013.01 - EP US); **Y10S 414/122** (2013.01 - EP US)

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