Title (en)

METHOD OF DETONATOR CONTROL WITH ELECTRONIC IGNITION MODULE, CODED BLAST CONTROLLING UNIT AND IGNITION MODULE FOR ITS IMPLEMENTATION

Title (de)

VERFAHREN ZUM STEUERN EINES ZÜNDERS MIT EINEM ELEKTRONISCHEN ZÜNDMODUL; FEUERLEITUNGSCODES- UND ZÜNDMODULEINHEIT

Title (fr)

PROCEDE DE COMMANDE DE DETONATEURS DU TYPE A MODULE D'ALLUMAGE ELECTRONIQUE, ENSEMBLE CODE DE COMMANDE DE TIR ET MODULE D'ALLUMAGE POUR SA MISE EN OEUVRE

Publication

EP 0900354 B1 20001115 (FR)

Application

EP 97925114 A 19970521

Priority

• FR 9700891 W 19970521
• FR 9606509 A 19960524

Abstract (en)

[origin: WO9745696A1] The invention discloses a method of detonator control with electronic ignition module (15). Each module (15) is associated with specific parameters comprising at least one identification parameter and one explosion delay time, and comprises a firing capacitance and a rudimentary internal clock. The modules (15) are capable of communicating with a blast control unit (17) equipped with a reference time base. The method comprises the following steps: storing the identification parameters in the module with a programming unit (18); effecting for each successive module and the blast controlling unit a calibration of its internal clock, and sending the associated delay time to the module; sending a firing capacitance charging command to the modules; sending the modules a firing commande via the blast control unit, triggering possible reinitialization of the internal clocks and a blast sequence.

IPC 1-7

F42C 11/06; F42D 1/055

IPC 8 full level

F42C 11/06 (2006.01); **F42B 3/12** (2006.01); **F42D 1/055** (2006.01)

CPC (source: EP US)

F42B 3/122 (2013.01 - EP US); **F42D 1/055** (2013.01 - EP US)

Designated contracting state (EPC)

AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 9745696 A1 19971204; AT E197644 T1 20001215; AU 3036497 A 19980105; AU 717346 B2 20000323; DE 69703542 D1 20001221; DE 69703542 T2 20010705; DE 900354 T1 19991209; EP 0900354 A1 19990310; EP 0900354 B1 20001115; ES 2132048 T1 19990816; ES 2132048 T3 20010216; FR 2749073 A1 19971128; FR 2749073 B1 19980814; JP 2000510943 A 20000822; PT 900354 E 20010531; US 6173651 B1 20010116; ZA 974469 B 19981117

DOCDB simple family (application)

FR 9700891 W 19970521; AT 97925114 T 19970521; AU 3036497 A 19970521; DE 69703542 T 19970521; DE 97925114 T 19970521; EP 97925114 A 19970521; ES 97925114 T 19970521; FR 9606509 A 19960524; JP 54172197 A 19970521; PT 97925114 T 19970521; US 19432299 A 19990119; ZA 974469 A 19970522