

Title (en)

WIRE TYPE EXCAVATING ACCURACY CONTROL DEVICE OF SOIL IMPROVING MACHINE

Title (de)

DRAHT-AUSHUBGENAUIGKEITSSTEUERVORRICHTUNG FÜR BODENVERBESSERUNGSMASCHINE

Title (fr)

DISPOSITIF DE COMMANDE D'EXCAVATION PRECIS A FIL POUR MACHINE D'AMELIORATION DU SOL

Publication

EP 1486616 A4 20080109 (EN)

Application

EP 03703220 A 20030206

Priority

- JP 0301256 W 20030206
- JP 2002052189 A 20020227

Abstract (en)

[origin: EP1486616A1] A wire type excavating accuracy control device for surely assuring specified lapped amounts between piles in soil column rows by correcting or controlling the tip position of the excavating and agitating blade shaft (6) or a soil improving machine, comprising a three-dimensional gyro sensor device installed near a bearing member (11) for detecting the tip position of the excavating and agitating blade shaft (6), a construction control device (22) for inputting, therein, measurement signals (23) for the tip position of the excavating and agitating blade shaft (6) measured by the three dimensional gyro sensor device, and a hydraulic control circuit of hydraulic cylinders (10) controlled by the control signals, calculated and processed based on the measurement signals (23) by the construction control device (22), wherein the applicable hydraulic cylinders (10) are controlled independently of each other to pull wires (12) therefor so as to forcibly correct and control the tip position of the excavating and agitating shaft (6). <IMAGE>

IPC 1-7

E02D 3/12; **E02D 13/06**

IPC 8 full level

E02D 3/12 (2006.01); **E02D 13/06** (2006.01); **E02F 3/06** (2006.01); **E02F 3/16** (2006.01); **E02F 3/26** (2006.01)

CPC (source: EP)

E02D 3/126 (2013.01); **E02D 13/06** (2013.01); **E02F 3/06** (2013.01); **E02F 3/16** (2013.01); **E02F 3/26** (2013.01)

Citation (search report)

- [Y] US 4436453 A 19840313 - MIURA MITUO [JP], et al
- [Y] JP S5758718 A 19820408 - MITSUBISHI HEAVY IND LTD
- [A] JP H06173264 A 19940621 - KOBE STEEL LTD
- See references of WO 03072882A1

Cited by

JP2015048635A; EP2395153A1; US11242659B2

Designated contracting state (EPC)

BE DE NL

DOCDB simple family (publication)

EP 1486616 A1 20041215; **EP 1486616 A4 20080109**; AU 2003207051 A1 20030909; JP 2003253665 A 20030910; JP 3747281 B2 20060222; WO 03072882 A1 20030904

DOCDB simple family (application)

EP 03703220 A 20030206; AU 2003207051 A 20030206; JP 0301256 W 20030206; JP 2002052189 A 20020227