

Title (en)
A PILE DRIVER, PILE DRAWER AND/OR DRILLING MACHINE

Publication
EP 0215998 A3 19880810 (EN)

Application
EP 86100005 A 19860102

Priority
GB 8523644 A 19850925

Abstract (en)
[origin: EP0215998A2] A combined pile driver, pile drawer and drilling machine comprises a carriage (1), a turntable (1A) mounted on the carriage (1), support means (5), lifting means (4) and a mast system (5) comprising two mast units (3). The support means (2) comprises a tubular support bearing (9) which is hinged to the turntable (1A) at (6A) and the lifting means (4) comprises two hydraulic cylinders (6) which are hinged to the turntable (1A) at (6B) and to a bearing sleeve (9A) at (6C). The support means (2) further comprises a mast support (10) which surrounds the bearing (9) and extends through the sleeve (9A) and can be rotated about its own axis by means of an hydraulic cylinder (11) and a coupling (11A). Each mast unit (3) is mounted on the mast support (10) by means of brackets (14) and comprises a guide rail (13), a mast (12) which is slidable on the guide rail (13) by means of an hydraulic cylinder (15) and a cradle (30) which is movable on the mast (12) by means of an hydraulic feed cylinder (28). Each cradle (30) supports a rotary head or percussion head for a drilling tool or the like or a pneumatic hammer for pile driving. One of the masts (12) is also provided with a clamp (16) and a turning unit (17) for pile drawing. The machine can also be used as a crane. A hydraulic jack (37) is provided to support the weight of the mast system when the mast system is in a horizontal position.

IPC 1-7
E21B 7/02; E21B 15/04; E21B 7/22; E21B 19/00; E02D 11/00; E02D 9/02; E02D 7/16

IPC 8 full level
E02D 7/16 (2006.01); **E02D 9/02** (2006.01); **E02D 11/00** (2006.01); **E21B 3/025** (2006.01); **E21B 7/02** (2006.01); **E21B 15/04** (2006.01); **E21B 19/00** (2006.01)

CPC (source: EP)
E02D 7/16 (2013.01); **E02D 9/02** (2013.01); **E02D 11/00** (2013.01); **E21B 3/025** (2013.01); **E21B 7/02** (2013.01); **E21B 15/04** (2013.01); **E21B 19/00** (2013.01)

Citation (search report)
• [X] EP 0004837 A2 19791017 - ATLAS COPCO AB [SE]
• [Y] DE 2836659 A1 19800306 - EBELING WOLFGANG DIPL ING
• [A] CH 486631 A 19700228 - ATLAS COPCO AB [SE]
• [A] GB 1352706 A 19740508 - COAL INDUSTRY PATENTS LTD
• [A] GB 2012652 A 19790801 - COAL IND
• [A] US 4364540 A 19821221 - MONTABERT ROGER

Cited by
EP0457563A3; CN112459059A; CN112360829A; EP0525186A4; CN113859096A; EP1167682A1; EP0424779A1; CN101963046A; EP3536892A1; IT201800001640A1; EP3951129A1; WO9012948A1

Designated contracting state (EPC)
DE FR IT SE

DOCDB simple family (publication)
EP 0215998 A2 19870401; **EP 0215998 A3 19880810**

DOCDB simple family (application)
EP 86100005 A 19860102