

Title (en)  
Hydraulic excavator for wells.

Title (de)  
Hydraulischer Bagger für Schächte.

Title (fr)  
Excavateur hydraulique pour puits.

Publication  
**EP 0049925 A2 19820421 (EN)**

Application  
**EP 81201101 A 19811005**

Priority  
CH 754480 A 19801009

Abstract (en)  
Such excavator comprises a supporting column (1) of structural cross section, a hydraulic pump (2) and associated control box (13) for feeding the hydraulic system, a motor (3) driving said pump (2), an articulated arm (4), a working tool (5) and a control system (6) for the arm (4) and the tool (5). A pivot (11) extending with its axis parallel to the vertical longitudinal axis of the column (1) is mounted on the projection (1d) of the column (1) and the articulated arm (4) is secured by means of the hinge (16) to the pivot. Such pivot (11) permits the articulated arm (4) to be rotated through 180 DEG about the axis of the pivot. The hinges (16) also permit the articulated arm (4) to be lifted. The working tool (5) is mounted at the distal end of the portion (4b) of the articulated arm (4). All rotary movements of the articulated arm and its portions as well as the working tool are hydraulically controlled by means of hydraulic rams (12, 4c, 4d and 5a). The motor (3) is an electric motor or an internal combustion engine and may be located adjacent the column (1) or outside the well (21). The column (1) is secured by means of the brackets (7) to anchoring means (8) or by means of the guide (1a) to a rail on (20) of the well (21). In this manner the excavator can perform its excavating work within the well by penetrating gradually more and more thereinto as the depth on the well increases. A plurality of anchoring means or rails may be mounted at the same depth of the wall of the well to give the excavator a range of maneuverability of 360 DEG. This excavator permits to make vertical or inclined wells of any cross section and shape, particularly wells of small diameter or of oblong cross-sectional shape which cannot be made by conventional excavators. Further, this excavator is particularly useful for excavations under difficult working conditions such as in places that are not easily accessible or cannot be easily supplied with electric power.

IPC 1-7  
**E02F 3/32**; **E21D 1/03**

IPC 8 full level  
**E02F 3/30** (2006.01); **E02F 3/32** (2006.01); **E02F 3/38** (2006.01); **E02F 5/20** (2006.01); **E02F 9/08** (2006.01); **E21D 1/04** (2006.01); **E02F 3/42** (2006.01)

CPC (source: EP)  
**E02F 3/30** (2013.01); **E02F 3/32** (2013.01); **E02F 3/382** (2013.01); **E02F 3/384** (2013.01); **E02F 9/0808** (2013.01); **E21D 1/04** (2013.01)

Cited by  
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Designated contracting state (EPC)  
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