

Title (en)  
MACHINE TOOL AND METHOD FOR MACHINING A SOIL

Title (de)  
ARBEITSMASCHINE UND VERFAHREN ZUM BEARBEITEN EINES BODENS

Title (fr)  
MACHINE DE TRAVAIL ET PROCEDE DESTINE AU TRAITEMENT D'UN SOL

Publication  
**EP 3228756 B2 20230301 (DE)**

Application  
**EP 16163646 A 20160404**

Priority  
EP 16163646 A 20160404

Abstract (en)  
[origin: US2017284162A1] A machine and a method for earth-working with a machine, having a mast, along which a top drive can be moved vertically by an adjusting device, through which top drive a telescopic kelly bar is displaceably guided, which has at least one outer kelly bar, which is designed to come to lie on the top drive, and one inner kelly bar, which comprises a rope suspension for a rope, through which the inner kelly bar is moved vertically by a rope winch. The adjusting device for the top drive and/or the main rope winch for the kelly bar is/are automatically controlled, wherein the inner kelly bar is moved relative to the top drive in some areas in a rapid travel mode at a first speed and in some areas in a conservative travel mode, in which the speed is reduced in comparison with the first speed.

IPC 8 full level  
**E02D 5/34** (2006.01); **E02D 5/38** (2006.01); **E02D 7/22** (2006.01); **E02D 11/00** (2006.01)

CPC (source: CN EP RU US)  
**E02D 5/34** (2013.01 - EP US); **E02D 5/38** (2013.01 - EP US); **E02D 7/22** (2013.01 - EP US); **E02D 11/00** (2013.01 - EP US); **E02F 3/06** (2013.01 - RU); **E21B 7/02** (2013.01 - RU US); **E21B 15/00** (2013.01 - US); **E21B 17/07** (2013.01 - US); **E21B 19/008** (2013.01 - US); **E21B 19/08** (2013.01 - RU); **E21B 27/00** (2013.01 - CN EP RU US); **E21B 44/00** (2013.01 - CN); **E21B 44/02** (2013.01 - RU)

Citation (opposition)  
Opponent :

- DE 102012006306 A1 20130926 - LIEBHERR WERK NENZING [AT]
- EP 2378053 A1 20111019 - BAUER MASCHINEN GMBH [DE]
- EP 1247778 A2 20021009 - BAUER MASCHINEN GMBH [DE]
- DE 102014109918 A1 20160121 - BAUER MASCHINEN GMBH [DE]
- EP 2048321 A1 20090415 - BAUER MASCHINEN GMBH [DE]

Cited by  
EP4215675A1; EP3779117A1; AU2020333796B2; EP4245923A1; US11939821B2; WO2021032461A1; EP4116498A1; WO2023174679A1

Designated contracting state (EPC)  
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DOCDB simple family (publication)  
**EP 3228756 A1 20171011**; **EP 3228756 B1 20180912**; **EP 3228756 B2 20230301**; CN 107269259 A 20171020; CN 107269259 B 20210727; ES 2700425 T3 20190215; ES 2700425 T5 20230620; MY 187958 A 20211101; PL 3228756 T3 20190228; PL 3228756 T5 20230703; RU 2017110390 A 20181001; RU 2017110390 A3 20181001; RU 2672687 C2 20181119; US 10167685 B2 20190101; US 2017284162 A1 20171005

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**EP 16163646 A 20160404**; CN 201710209107 A 20170331; ES 16163646 T 20160404; MY PI2017701138 A 20170331; PL 16163646 T 20160404; RU 2017110390 A 20170329; US 201715462092 A 20170317