

Title (en)  
SELF-PROPELLED BORING RAM

Publication  
**EP 0392237 A3 19911106 (DE)**

Application  
**EP 90105626 A 19900324**

Priority  
DE 3911467 A 19890408

Abstract (en)  
[origin: JPH02296988A] PURPOSE: To rotate a tool while it is propelling by installing an impact tool in a housing rotatably about a rotating center axis and also installing dynamic means for converting a parallel motion following an impact into a progressive rotating motion. CONSTITUTION: A sleeve-shaped screw 12 is installed on a rear shaft part 18.2 of an impact core metal of an impact tool 100 un-slidably and rotatably in the direction of rotating center axis X-X. Also, threads 109 of a screw 12 are engaged with threads 110 of an annular nut 13 fixed to the inside of a housing 1, and a free wheel 14 is installed between the shaft part 18.2 and the screw 12. When an impact impulse is applied to the tool 100 by an impact piston 2, the tool 100 is rotated about the rotating center axis X-X. When the rotation of the tool 100 is suppressed, compressed air is prevented from flowing into a pressure chamber 106.

IPC 1-7  
**E21B 4/14**; **E21B 7/26**; **E21B 4/20**; **E21B 7/06**; **E21B 47/022**

IPC 8 full level  
**E21B 7/24** (2006.01); **E21B 4/14** (2006.01); **E21B 4/20** (2006.01); **E21B 7/06** (2006.01); **E21B 7/26** (2006.01); **E21B 47/022** (2012.01); **E21D 9/08** (2006.01); **E21D 9/093** (2006.01)

CPC (source: EP US)  
**E21B 4/145** (2013.01 - EP US); **E21B 4/20** (2013.01 - EP US); **E21B 7/068** (2013.01 - EP US); **E21B 47/0232** (2020.05 - EP US)

Citation (search report)  
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**EP 0392237 A2 19901017**; **EP 0392237 A3 19911106**; DE 3911467 A1 19901011; DE 3911467 C2 19920130; JP 2708067 B2 19980204; JP H02296988 A 19901207; US 5010965 A 19910430

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**EP 90105626 A 19900324**; DE 3911467 A 19890408; JP 9193690 A 19900406; US 50504790 A 19900404