

Title (en)
Two-for-one twisting spindle

Title (de)
Doppeldraht-Zwirnspindel

Title (fr)
Broche à retordre à double torsion

Publication
EP 0498077 B1 19960306 (DE)

Application
EP 91122255 A 19911227

Priority
DE 4103286 A 19910204

Abstract (en)
[origin: US5155988A] A two-for-one twisting spindle for threading a thread by compressed air is comprised of a hollow axle with two cylindrical chambers. A thread storage disk with a thread guiding channel is connected to a lower end of the hollow axle, and a thread inlet tube is connected to the upper end. A thread brake comprising a braking cartridge, an upper and a lower braking ring, and a support is arranged inside the first cylindrical chamber. The braking cartridge, in a braking position, rests with an upper end at the upper and with a lower end at the lower braking ring. In a released position, the braking cartridge rests at the support. The lower braking ring is connected to a hollow piston slidable inside the first cylindrical chamber. A jet of compressed air generates a suction effect in the hollow axle and forces the thread from the thread inlet tube through the thread guiding channel. The hollow piston is axially displaceable by the suction effect, thereby releasing the braking cartridge from the braking position and opening a path for the thread through the braking rings. A tube extending as a downward projection of the lower braking ring and guided within the first cylindrical chamber has a lateral opening for communicating with the first cylindrical chamber. A second hollow piston is connected to the free end of the tube and is slidable inside the second cylindrical chamber.

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D01H 15/007

IPC 8 full level
D01H 7/86 (2006.01); **D01H 13/10** (2006.01); **D01H 15/007** (2006.01)

CPC (source: EP US)
D01H 7/86 (2013.01 - EP US); **D01H 13/106** (2013.01 - EP US); **D01H 15/007** (2013.01 - EP US)

Cited by
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Designated contracting state (EPC)
FR IT

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EP 0498077 A2 19920812; **EP 0498077 A3 19920909**; **EP 0498077 B1 19960306**; CS 21292 A3 19920812; CZ 281953 B6 19970416; DE 4103286 A1 19920806; DE 4103286 C2 19931028; JP 3108175 B2 20001113; JP H04316619 A 19921109; US 5155988 A 19921020

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EP 91122255 A 19911227; CS 21292 A 19920124; DE 4103286 A 19910204; JP 1746392 A 19920203; US 83059892 A 19920204