

Title (en)  
Four-for-one twister

Title (de)  
Vierfach-Zwirnmaschine

Title (fr)  
Broche quadruple torsion

Publication  
**EP 0863234 B1 20040428 (EN)**

Application  
**EP 97122447 A 19971218**

Priority  
• JP 3896297 A 19970224  
• JP 4071997 A 19970225

Abstract (en)  
[origin: EP0863234A2] A four-for-one twister that enables yarn to pass through easily and quickly, increasing operating efficiency. In four-for-one twister 21 which twists yarn by means of upper disk 23 in which yarn guide hole 47a is formed and lower disk 24 in which yarn guide hole 47b is formed rotating in the same plane in mutually opposed directions, air for passing the yarn is flowed through both yarn guide holes 47a and 47b in a forwardly moving direction. Yarn guide holes 47a and 47b are formed so as to be connected. Ejection nozzle 48 which injects air to pass the yarn opens into yarn guide hole 47 in a suitable place. Inner guiding member 39 which revolves around the outside of supply package P on upper disk 23 is provided, and yarn guide pipe 53 is provided in inner guiding member 39 connected to yarn guide hole 47a on upper disk 23.

IPC 1-7  
**D01H 7/88**

IPC 8 full level  
**D01H 1/10** (2006.01); **D01H 7/86** (2006.01); **D01H 7/88** (2006.01)

CPC (source: EP)  
**D01H 1/105** (2013.01); **D01H 7/868** (2013.01); **D01H 7/88** (2013.01)

Cited by  
DE102014018039A1; DE102014018038A1; CN112267183A; CN102345192A; CN102312304A; CN110158206A; EP1726693A3; CN105671707A; EP3029185A1; EP3029184A1

Designated contracting state (EPC)  
DE IT

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**EP 0863234 A2 19980909; EP 0863234 A3 20000809; EP 0863234 B1 20040428**; DE 69728855 D1 20040603; DE 69728855 T2 20050203; DE 69739244 D1 20090319; EP 1452632 A2 20040901; EP 1452632 A3 20041117; EP 1452632 B1 20090204

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