

Title (en)
Pneumatically actuated expanding shaft

Title (de)
Pneumatisch betätigbare aufspreizbare Welle

Title (fr)
Arbre expansible à commande pneumatique

Publication
EP 0819643 A1 19980121 (EN)

Application
EP 97111752 A 19970710

Priority
IT MI961480 A 19960717

Abstract (en)
The present invention relates to an expandable shaft for supporting bobbins, of the type comprising a hollow cylinder (1) housing inside it a plurality of locking modules and having, corresponding with each of these modules, a plurality of openings (12) distributed circumferentially over its surface, from which gripping elements (10) for the bobbin are free to emerge, each module being substantially composed of a piston (3) which is guided directly in the cavity of the cylinder (1) and in which there are formed guides (9) inclined with respect to the longitudinal axis of the shaft and each co-operating with a gripping element (10), a pressure chamber (8) defined between the crown of the piston (3) and a bell member (4) fixed to the cylinder (1), and a resilient return element (2) arranged between the bottom of the piston (3) and diaphragm (4) of the next module. <IMAGE>

IPC 1-7
B65H 75/24

IPC 8 full level
B65H 75/24 (2006.01)

CPC (source: EP US)
B65H 75/2484 (2021.05 - EP US)

Citation (search report)
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EP0968775A3; CN103043255A

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AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

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EP 0819643 A1 19980121; IT 1283440 B1 19980421; IT MI961480 A0 19960717; IT MI961480 A1 19980117

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