

Title (en)  
Cantilever-mounted sliding expanding shaft

Title (de)  
Fliegend gelagerte gleitende aufspreizbare Welle

Title (fr)  
Arbre expansible coulissant en porte-à-faux

Publication  
**EP 0947456 A3 20000719 (EN)**

Application  
**EP 99103268 A 19990210**

Priority  
IT MI980257 A 19980211

Abstract (en)  
[origin: EP0947456A2] The invention relates to an axially sliding expanding shaft, of the type rotatably mounted in cantilever fashion on a support structure of a winding/unwinding machine, comprising a main shaft coupled with an expanding cylinder provided with extractable gripping elements apt to retain the core of a reel mounted on the expanding shaft, and rod means, which is arranged longitudinally inside the main shaft and the expanding cylinder and is free in rotation with respect to these latters, and which is mounted stationary in rotation and is apt to cooperate with an adjusting portion of the expanding cylinder/main shaft assembly and with an adjusting element, whereby it is able to cause the sliding of the expanding cylinder.

IPC 1-7  
**D03D 47/30**; **D03D 51/34**

IPC 8 full level  
**B65H 75/24** (2006.01)

CPC (source: EP US)  
**B65H 75/248** (2013.01 - EP US)

Citation (search report)

- [Y] US 3989202 A 19761102 - NOE OSKAR, et al
- [Y] US 3908926 A 19750930 - OCHS GORDON M, et al
- [A] EP 0188795 A2 19860730 - SCHLOEMANN SIEMAG AG [DE]
- [A] EP 0142794 A2 19850529 - FOCKE & CO [DE]
- [A] DE 2122381 A1 19721116
- [A] US 5232174 A 19930803 - SATO KOJI [JP], et al

Cited by  
CN108046004A

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

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**EP 0947456 A2 19991006**; **EP 0947456 A3 20000719**; **EP 0947456 B1 20021211**; EP 0936173 A1 19990818; EP 0936173 B1 20030423; ES 2188046 T3 20030616; ES 2196442 T3 20031216; IT 1298225 B1 19991220; IT MI980257 A1 19990811

DOCDB simple family (application)  
**EP 99103268 A 19990210**; EP 98115538 A 19980818; ES 98115538 T 19980818; ES 99103268 T 19990210; IT MI980257 A 19980211