

Title (en)
DEVICE FOR WINDING UP SEVERAL THREADS SIMULTANEOUSLY

Publication
EP 0249029 B1 19900207 (DE)

Application
EP 87106624 A 19870507

Priority
DE 3619286 A 19860607

Abstract (en)
[origin: US4784342A] A device for spooling multiple threads includes a plurality of spools situated on a spool mandrel having pirns with spreading thread guides which are displaceable on the end of the spool mandrel parallel thereto to the spreading position which corresponds to the position of the tuck slots of individual pirns. A pivotable spreading flap is provided in the device, which has guide slots for exact positioning of the threads relative to the tuck slots of individual pirns.

IPC 1-7
B65H 65/00

IPC 8 full level
B65H 54/10 (2006.01); **B65H 54/20** (2006.01); **B65H 54/28** (2006.01); **B65H 57/00** (2006.01); **B65H 65/00** (2006.01)

CPC (source: EP US)
B65H 57/00 (2013.01 - EP US); **B65H 57/003** (2013.01 - EP US); **B65H 65/00** (2013.01 - EP US); **B65H 2701/31** (2013.01 - EP US)

Cited by
EP0410926A1; US10364796B2

Designated contracting state (EPC)
BE CH DE FR GB IT LI NL

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EP 0249029 A1 19871216; EP 0249029 B1 19900207; DE 3619286 A1 19871210; DE 3761654 D1 19900315; JP H0244744 B2 19901005; JP S62290681 A 19871217; US 4784342 A 19881115

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EP 87106624 A 19870507; DE 3619286 A 19860607; DE 3761654 T 19870507; JP 8277187 A 19870403; US 5273087 A 19870520