

Title (en)  
SPOOL

Publication  
**EP 0208974 B1 19880323 (DE)**

Application  
**EP 86108801 A 19860627**

Priority  
DE 3525311 A 19850716

Abstract (en)  
[origin: US4667895A] Axially extending ribs (7,8) are evenly distributed around the circular circumference of a lap creel. Upper ribs (7) protrude radially outward from the outer surface of a shell (5) of the lap creel in an upper carrying portion (1). Lower ribs (8) protrude radially inwardly from the inner surface of the shell (5) in a lower carrying portion (2). The radius of the upper carrying portion (1) is smaller than the radius of the lower carrying portion (2). Radially outer limiting surfaces (9) of the upper ribs (7) have a smaller radius than the inner radius of the shell (5) in the lower carrying portion (2). The radially inner limiting surfaces (10) of the lower ribs (8) have a radius which is larger than the outer radius of the shell (5) in the upper carrying portion (1). The limiting surfaces (9) of the upper ribs (7) have a larger radius than the radius of the limiting surfaces (10) of the lower ribs (8). Nesting of a plurality of creels is substantially facilitated and the quantity of material for casting these creels in a mold is substantially reduced, yet the resulting light-weight structure has substantial strength.

IPC 1-7  
**B65H 75/08**

IPC 8 full level  
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CPC (source: EP US)  
**B65H 75/10** (2013.01 - EP US); **D06B 23/042** (2013.01 - EP US); **B65H 2701/31** (2013.01 - EP US)

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