

Title (en)  
Self-piercing rivet

Title (de)  
Stanz-Prägeniet

Title (fr)  
Rivet poinçonnant

Publication  
**EP 1013945 B1 20020116 (DE)**

Application  
**EP 99120398 A 19991013**

Priority  
DE 29822745 U 19981221

Abstract (en)  
[origin: US6244808B1] A punching, stamping rivet has a frustrum-shaped rivet head and a shank with a shank groove following thereafter. In order to create a riveted joint between two sheets, the sheets are punched through by the shank. A groove is subsequently stamped around the shank end in the lower sheet, thus pressing material of the lower sheet into the groove. In order to increase the strength of the riveted joint, the shank groove is concavely constructed, whereby the section of the groove, which section is adjacent the rivet head, extends at an angle with respect to the shank axis, which angle is less than an angle at which the section adjacent the shank end extends with respect to the shank axis.

IPC 1-7  
**F16B 19/08**

IPC 8 full level  
**B21J 15/10** (2006.01); **F16B 19/08** (2006.01)

CPC (source: EP US)  
**B21J 15/10** (2013.01 - EP US)

Cited by  
DE10259369B3; DE10323740B4; DE10259334C1

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

DOCDB simple family (publication)  
**US 6244808 B1 20010612**; AT E212110 T1 20020215; CA 2291948 A1 20000621; CA 2291948 C 20030610; DE 29822745 U1 19990218; DE 59900622 D1 20020221; DK 1013945 T3 20020325; EP 1013945 A1 20000628; EP 1013945 B1 20020116; ES 2170566 T3 20020801; PT 1013945 E 20020531

DOCDB simple family (application)  
**US 46805799 A 19991220**; AT 99120398 T 19991013; CA 2291948 A 19991209; DE 29822745 U 19981221; DE 59900622 T 19991013; DK 99120398 T 19991013; EP 99120398 A 19991013; ES 99120398 T 19991013; PT 99120398 T 19991013