

Title (en)
METHOD FOR PRODUCING AN EYELET

Title (de)
VERFAHREN ZUM HERSTELLEN EINES DURCHZUGS

Title (fr)
PROCEDE POUR REALISER UN PASSAGE SOYE

Publication
EP 1062063 B1 20021030 (DE)

Application
EP 99906133 A 19990115

Priority
• DE 19810367 A 19980310
• EP 9900217 W 19990115

Abstract (en)
[origin: US6904659B1] Method for production of an eyelet, during connection of workpieces where material of an outermost workpiece is pulled through openings in the other workpieces, using a single feed movement of rim hole or eyelet punch to both shape the eyelet from the one workpiece and generate the openings, in the other workpieces by breaking out one or more pieces of materials, providing a reduction in the number of operating steps and simplifying such steps.

IPC 1-7
B21D 39/03

IPC 8 full level
B21C 37/29 (2006.01); **B21D 39/03** (2006.01); **B21J 15/02** (2006.01); **B21J 15/04** (2006.01)

CPC (source: EP US)
B21C 37/292 (2013.01 - EP US); **B21D 39/034** (2013.01 - EP US); **B21J 15/02** (2013.01 - EP US); **B21J 15/046** (2013.01 - EP US); **Y10T 29/49835** (2015.01 - EP US); **Y10T 29/49908** (2015.01 - EP US); **Y10T 29/49915** (2015.01 - EP US); **Y10T 29/49936** (2015.01 - EP US)

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 6904659 B1 20050614; AT E226858 T1 20021115; CA 2329165 A1 19990916; CA 2329165 C 20041109; DE 19810367 C1 19990826; DE 59903252 D1 20021205; DK 1062063 T3 20030303; EP 1062063 A1 20001227; EP 1062063 B1 20021030; ES 2186326 T3 20030501; NO 20004320 D0 20000830; NO 20004320 L 20001101; NO 318707 B1 20050425; PT 1062063 E 20030331; WO 9946069 A1 19990916

DOCDB simple family (application)
US 62386500 A 20001108; AT 99906133 T 19990115; CA 2329165 A 19990115; DE 19810367 A 19980310; DE 59903252 T 19990115; DK 99906133 T 19990115; EP 9900217 W 19990115; EP 99906133 A 19990115; ES 99906133 T 19990115; NO 20004320 A 20000830; PT 99906133 T 19990115