

Title (en)  
JOINT RESTRAINT

Title (de)  
VERBINDER

Title (fr)  
JOINT DE RACCORDEMENT

Publication  
**EP 0923694 A1 19990623 (EN)**

Application  
**EP 97939820 A 19970905**

Priority  
• US 9715663 W 19970905  
• US 2557196 P 19960906

Abstract (en)  
[origin: WO9810211A1] A joint restraint (10) for securing a first pipe (12) to a second pipe. The joint restraint (10) includes an annular body (14) and a plurality of wedge housings (18) extending from the annular body (14) and characterized by open rear faces (38) to allow coreless casting. A bolt (32) is disposed within a hole (30) in each wedge housing (18) and a wedge (40) is disposed within each wedge housing (18). Each wedge (40) has a bolt-actuated tooth (52), a larger pressure-actuated tooth (54), a top surface (44) having a groove (48) adapted to slidably receive a bolt actuator (32), and a bottom surface (42) that is partially tapered to act as a bearing (76) limiting the extent of bolt-driven actuation.

IPC 1-7  
**F16L 17/00**

IPC 8 full level  
**F16L 21/08** (2006.01)

CPC (source: EP)  
**F16L 21/08** (2013.01)

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

DOCDB simple family (publication)  
**WO 9810211 A1 19980312**; AU 4182997 A 19980326; CA 2266030 A1 19980312; CA 2266030 C 20080205; EP 0923694 A1 19990623;  
EP 0923694 A4 20011107

DOCDB simple family (application)  
**US 9715663 W 19970905**; AU 4182997 A 19970905; CA 2266030 A 19970905; EP 97939820 A 19970905