

Title (en)
COMBINATION OF BOLT AND LOOP

Publication
EP 0143163 B1 19861126 (DE)

Application
EP 84107953 A 19840706

Priority
DE 3338654 A 19831025

Abstract (en)
[origin: US4715589A] A connecting device has at least one bolt and a loop of unidirectional fibers bound by or embedded in a synthetic matrix material looping around the bolt to form a looping range extending around the bolt. The resistance of the matrix material in the looping range against squeeze-out is improved by reinforcing fiber layers located in the looping range of the loop around the bolt. The fibers of these reinforcing layers are also bound by the matrix of the synthetic material. The reinforcing fibers form insert and/or cover layers having at least one main fiber orientation which extends at least approximately in the direction of the longitudinal bolt axis whereas the unidirectional fibers forming the loop extend approximately tangentially to the bolt in the looping range.

IPC 1-7
B66C 1/18

IPC 8 full level
F16C 7/00 (2006.01); **B66C 1/18** (2006.01)

CPC (source: EP US)
B66C 1/18 (2013.01 - EP US); **Y10T 403/54** (2015.01 - EP US)

Cited by
DE102015220581A1; US11396138B2; US8844256B2; WO2012031972A1; EP3162546A1

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
EP 0143163 A1 19850605; **EP 0143163 B1 19861126**; DE 3338654 C1 19850530; DE 3461453 D1 19870115; JP S60121307 A 19850628; US 4715589 A 19871229

DOCDB simple family (application)
EP 84107953 A 19840706; DE 3338654 A 19831025; DE 3461453 T 19840706; JP 22311984 A 19841025; US 1408187 A 19870202