

Title (en)

Chucking device with power assist, especially machine vice.

Title (de)

Spannvorrichtung mit Kraftverstärker, insbesondere Maschinenschraubstock.

Title (fr)

Dispositif de fixation avec amplificateur de puissance, en particulier étau de machines.

Publication

**EP 0463344 B1 19940727 (DE)**

Application

**EP 91107821 A 19910515**

Priority

DE 4018284 A 19900607

Abstract (en)

[origin: US5171004A] A machine vise with force amplifier comprises a fixed jaw (2) and a movable jaw (3) on a vise body (1, 1a, 1b), the movable jaw being adjustable by means of a threaded spindle (14). The force amplifier (9, 10, 11) is enclosed by a rotatable tightening sleeve (6), which engages by means of an external thread (7) in a female thread (8) of a housing (5) around the sleeve. Within the tightening sleeve (6) there are arranged a first tightening ring (9) fast against rotation and a second tightening ring (10) rotatable to a limited extent. A plurality of tightening pins are provided between the two tightening rings (9, 10). The stationary housing (5) is arranged in the vise body (1, 1a) beneath the fixed jaw (2). The second tightening ring (10) is fixedly connected to the one end (13a) of a pull rod (13) passing through the first tightening ring (9) and the threaded spindle (14), on the other end (13b) of which rod there engage an adjusting sleeve (21) and an operating lever (15). Belleville springs (23) and at least one part of the adjusting sleeve (21) are arranged within a hand-grip (25) of the threaded spindle (14) and bear on the bottom (25a) of the hand-grip (25) with interposition of a thrust bearing (24).

IPC 1-7

**B23Q 3/02**; **B25B 1/10**

IPC 8 full level

**B25B 1/06** (2006.01); **B25B 1/10** (2006.01); **B25B 1/24** (2006.01)

CPC (source: EP US)

**B25B 1/103** (2013.01 - EP US); **B25B 1/106** (2013.01 - EP US); **B25B 1/24** (2013.01 - EP US)

Cited by

WO2021151668A1

Designated contracting state (EPC)

CH ES FR GB IT LI SE

DOCDB simple family (publication)

**DE 4018284 C1 19910418**; EP 0463344 A2 19920102; EP 0463344 A3 19920318; EP 0463344 B1 19940727; JP 3200091 B2 20010820; JP H0592374 A 19930416; US 5171004 A 19921215

DOCDB simple family (application)

**DE 4018284 A 19900607**; EP 91107821 A 19910515; JP 16222391 A 19910606; US 70679791 A 19910529