

Title (en)
PNEUMATIC VICE WITH HYDRAULIC FORCE AMPLIFIER

Title (de)
PNEUMATISCHER SCHRAUBSTOCK MIT HYDRAULISCHEM KRAFTVERSTÄRKER

Title (fr)
ETAU PNEUMATIQUE AVEC AMPLIFICATEUR DE FORCE HYDRAULIQUE

Publication
EP 1333961 A1 20030813 (EN)

Application
EP 00973341 A 20001109

Priority
SI 0000024 W 20001109

Abstract (en)
[origin: WO0238340A1] The invention relates to a vise operated by compressed air as a transmitter of input pressure force and hydraulic oil as a means for amplifying same, with a respective assembly for amplifying the input pressure force residing within the area of a stationary vise jaw. According to the invention, a pneumatic/hydraulic assembly (4) as a unit for amplifying the input pressure force provides a pneumatic piston (16), whose power stroke is directed against the power stroke of a shiftable vise jaw (3), and a hydraulic piston (11), whose power stroke is synchronous and coinciding with the power stroke of said shiftable vise jaw (3). By a shaft piston (15) the force of the pneumatic piston (16) is conveyed into hydraulic oil. The pressure generated in hydraulic oil by said shaft piston (15) is conveyed onto a working area of the hydraulic piston (11). The force of the latter is the spanning force of said shiftable vise jaw (3).

IPC 1-7
B25B 1/18

IPC 8 full level
B25B 1/10 (2006.01); **B25B 1/18** (2006.01)

CPC (source: EP)
B25B 1/106 (2013.01); **B25B 1/18** (2013.01)

Citation (search report)
See references of WO 0238340A1

Cited by
EP2581170B1

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

DOCDB simple family (publication)
WO 0238340 A1 20020516; AT E329731 T1 20060715; AU 1186101 A 20020521; DE 60028836 D1 20060727; DE 60028836 T2 20070118; DK 1333961 T3 20061009; EP 1333961 A1 20030813; EP 1333961 B1 20060614; ES 2265995 T3 20070301; HK 1059597 A1 20040709; PT 1333961 E 20061031

DOCDB simple family (application)
SI 0000024 W 20001109; AT 00973341 T 20001109; AU 1186101 A 20001109; DE 60028836 T 20001109; DK 00973341 T 20001109; EP 00973341 A 20001109; ES 00973341 T 20001109; HK 04101052 A 20040213; PT 00973341 T 20001109