

Title (en)

BENDING MACHINE WITH TWO BENDING HEADS

Publication

**EP 0445044 B1 19930825 (FR)**

Application

**EP 91420013 A 19910117**

Priority

FR 9001574 A 19900126

Abstract (en)

[origin: EP0445044A1] The machine is provided with two bending heads (9,10) both of which can be moved in the initial direction of the tube (12) to be bent and each of which is equipped with a bending tool working in a bending plane whose orientation can be varied. <??>At least one of the bending heads (9,10) is also moveable in a plane perpendicular to the initial direction of the tube (12) and carries means (27,29) for gripping the said tube which are offset in relation to the longitudinal axis of the head. Thus, this head may be moved away from the initial axis (11) of the tube, the associated gripping means (27,29) then coming into this axis and being able to hold the tube (12) there temporarily. <??>This arrangement enables very closely spaced elbows to be formed in the central region of the tube.

IPC 1-7

**B21D 7/022; B21F 7/00**

IPC 8 full level

**B21D 7/024** (2006.01); **B21D 7/022** (2006.01); **B21F 1/00** (2006.01); **B21F 7/00** (2006.01)

CPC (source: EP US)

**B21D 7/022** (2013.01 - EP US); **B21F 1/00** (2013.01 - EP US)

Cited by

CN102847851A; EP0554533A1; US5291771A

Designated contracting state (EPC)

AT BE DE DK ES GB IT LU NL SE

DOCDB simple family (publication)

**EP 0445044 A1 19910904; EP 0445044 B1 19930825**; AT E93421 T1 19930915; CA 2034723 A1 19910727; DE 69100290 D1 19930930; DE 69100290 T2 19931223; DK 0445044 T3 19931122; ES 2043454 T3 19931216; FR 2657546 A1 19910802; FR 2657546 B1 19920522; JP H05332 A 19930108; US 5113683 A 19920519

DOCDB simple family (application)

**EP 91420013 A 19910117**; AT 91420013 T 19910117; CA 2034723 A 19910122; DE 69100290 T 19910117; DK 91420013 T 19910117; ES 91420013 T 19910117; FR 9001574 A 19900126; JP 698291 A 19910124; US 64597491 A 19910125