

Title (en)
Mandrel clamping arrangement

Title (de)
Spanndornanordnung

Title (fr)
Mandrin de serrage

Publication
EP 1050349 A3 20020724 (EN)

Application
EP 00109268 A 20000428

Priority
• GB 9910424 A 19990501
• GB 9912260 A 19990527

Abstract (en)
[origin: EP1050349A2] A mandrel clamping arrangement is described comprising an actuation mechanism (4) coupled to a clamping assembly (9). The actuation mechanism (4) comprises a linearly actuable connection rod (8) coupled to a pivotally mounted cam actuator (12) which is angularly displaced by virtue of the linear motion of said connection rod (8). The actuation mechanism is coupled to the clamping assembly by means of interengaging teeth and toothed sprockets (22,24) or by means of a pin (54) disposed at the free end of the actuator which is received in a slot (58) in an eccentric component. In either case, the rotation of the actuator (12) in one direction causes rotation of a cam (28) in the alternate direction, said cam (28) having an arcuate surface through which a clamping force can be exerted on a mandrel (18) beneath said cam (28). Optionally, a clamping bar (30) biased against the cam (28) may also be provided so that the clamping force on the mandrel (18) is exerted by said bar (30). The cam arrangement (28) ensures uniform and precisely applied clamping force over the entire mandrel (18) length and does not require any particularly precisely machined components to achieve this end. <IMAGE>

IPC 1-7
B21D 11/00; B23Q 3/06; B21D 51/52

IPC 8 full level
B21D 51/26 (2006.01); **B21D 51/52** (2006.01)

CPC (source: EP)
B21D 51/26 (2013.01); **B21D 51/52** (2013.01)

Citation (search report)
• [A] GB 2310621 A 19970903 - CARADON MK ELECTRIC LTD [GB]
• [A] US 4702512 A 19871027 - NOCERA PATRICK C [US]
• [A] US 4230058 A 19801028 - IWAKI TAKASHI, et al

Cited by
CN104290076A; CN102975145A; CN102837274A; CN111531384A; CN114619269A; EP1074335A2

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

DOCDB simple family (publication)
EP 1050349 A2 20001108; **EP 1050349 A3 20020724**

DOCDB simple family (application)
EP 00109268 A 20000428