

Title (en)

Polishing machine with rotating head carrying a plurality of polishing sectors having a segmented and resilient structure

Title (de)

Poliermaschine mit einem Drehkopf, der eine Vielzahl von Poliersektoren mit segmentierten und elastischen Strukturen trägt

Title (fr)

Machine de polissage comprenant une tête de polissage portant une pluralité de secteurs de polissage ayant une structure segmentée et élastique

Publication

EP 1046467 B1 20030129 (EN)

Application

EP 99830221 A 19990416

Priority

EP 99830221 A 19990416

Abstract (en)

[origin: EP1046467A1] A polishing machine comprises at least a rotating head (1), connected through a flange (2) to the end of a drive shaft, the working face of the rotating head carrying a plurality of grinding sectors (3), held in hingedly brackets (4), connected to the rotating head (1) at uniformly spaced angular positions, each grinding sector (3) being of an aggregate of abrasive particles and of a bonding resin having a cylindrical working face whose geometric axis lies on a plane normal to the axis of rotation of the head (1) and a shank portion shaped to fit into a receiving slot of the holding bracket (4). Each grinding sectors (3) has a laminated structure including a shaped shank (5) of a rigid material and mechanically resistant to fit in the receiving slot, at least a resilient pad, at least partly of elastomer (6, 8) interposed between a face of said shank (5) and an aggregate abrasive body (9, 10) having said cylindrical working face defined by a plurality of end faces of as many protrusions (9) of aggregate, rising from a relatively thin or flexible base layer (10) of said aggregate, incorporating reinforcing fibers. <IMAGE> <IMAGE>
[origin: EP1046467A1] The machine has at least a rotating head (1) connected through a flange (2) to the end of a drive shaft and with a working facing which carries grinding sectors (3), hingedly held in brackets (4), and connect to the head at uniformly spaced angular positions. The sectors are an aggregate of abrasive particles and a bonding resin, with a cylindrical working face whose geometric axis lies on a plane normal to the head rotation axis, and a shank portion shaped to fit into a receiving bracket slot. Each grinding sector has a laminated structure with a shaped shank of a rigid material and mechanically resistant to fit in the slot, at least a resilient pad at least partly of elastomer interposed between a face of the shank and an aggregate abrasive body. The abrasive body has the cylindrical working surface defined by end faces of as many protrusions of aggregate rising from a relatively thin and flexible base layer of the aggregate incorporating reinforcing fibers.

IPC 1-7

B24D 17/00; B24D 7/06; B24B 41/047

IPC 8 full level

B24B 41/047 (2006.01); **B24D 7/06** (2006.01); **B24D 17/00** (2006.01); **B24D 99/00** (2010.01)

CPC (source: EP)

B24B 41/0475 (2013.01); **B24D 7/066** (2013.01); **B24D 99/005** (2013.01)

Cited by

CN102363281A; ITVR20100151A1; CN114434271A; ITVR20080130A1; ITUB20155371A1; ITVA20120026A1; CN106626095A; ES2304865A1; ITMI20090091A1; KR20170128241A; JP2018503524A; WO2010086801A1; WO2017081617A1; IT201900003337A1; WO2006000542A1; WO2023021534A1

Designated contracting state (EPC)

DE ES IT PT

DOCDB simple family (publication)

EP 1046467 A1 20001025; EP 1046467 B1 20030129; DE 69905135 D1 20030306; DE 69905135 T2 20030605; ES 2188122 T3 20030616

DOCDB simple family (application)

EP 99830221 A 19990416; DE 69905135 T 19990416; ES 99830221 T 19990416