

Title (en)

Double side polishing machine and method of polishing opposite sides of a workpiece using the same

Title (de)

Doppelseitenpoliermaschine und Verfahren zum Polieren von gegenüberliegenden Seiten eines Werkstückes mittels derselben

Title (fr)

Machine de polissage double-face et procédé de polissage des faces opposées d'une pièce au moyen de cette dernière

Publication

EP 0787562 A1 19970806 (EN)

Application

EP 97300659 A 19970131

Priority

- JP 3868196 A 19960201
- JP 9616696 A 19960326

Abstract (en)

A double side polishing machine includes a disk-shaped carrier for holding an article to be polished, and a sun gear and an internal gear which are meshed with external teeth of the carrier. The tooth portions of the sun gear and the internal gear are made of a hard resin material, such as polyimide sintered body or polyamide imide resin, which has excellent wear resistance, sufficient self-lubricating performance, and high shear resistance. Each tooth portion is formed as a single member, or is formed by a plurality of separable segments. Alternatively, the internal and sun gears are made of a metal such as steel and coated with a hard resin coating material. In another double side polishing machine, each of the tooth portions of the internal and sun gears is formed by a plurality of pins disposed at a predetermined pitches and sleeves fit onto the pins. The sleeves are made of a resin. Alternatively, resin-coated metallic sleeves may be used as the sleeves. The double side polishing machines can prevent generation of metal powder, thereby suppressing generation of scratches and metal contamination. <IMAGE>

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CPC (source: EP)

B24B 37/08 (2013.01); **B24B 37/28** (2013.01)

Citation (applicant)

JP S584349 U 19830112

Citation (search report)

- [A] US 5085009 A 19920204 - KINUMURA AKIRA [JP], et al
- [A] US 4739589 A 19880426 - BREHM GERHARD [DE], et al
- [A] PATENT ABSTRACTS OF JAPAN vol. 013, no. 013 (M - 783) 12 January 1989 (1989-01-12)

Cited by

EP0945219A1; DE10218483B4; DE19961106A1; DE19961106C2; CN102441826A; CN113043096A; DE10060697A1; DE10060697B4; DE10159848B4; CN103158054A; CN105014491A; US6709981B2; US6645862B2; WO0215247A3; DE102009038942A1; US8512099B2; DE102009038942B4; US6379226B1; EP4417364A1; WO2024170319A1

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