

Title (en)

Jet-producing head for high-pressure cleaners.

Title (de)

Strahlkopf für Hochdruckreiniger.

Title (fr)

Tête à jet pour le nettoyage à haute pression.

Publication

EP 0548408 A1 19930630 (EN)

Application

EP 91122338 A 19911227

Priority

EP 91122338 A 19911227

Abstract (en)

In a jet-producing head for high-pressure cleaners, in which a rotating jet nozzle (11) set at an acute angle (29) to its axis of rotation (26) and hence able to produce a jet (not shown) describing a surface of a cone is driven by a turbine rotor (5) using the liquid supplied (through 1) from the pump of the high-pressure cleaner (not shown) as a power source, the new feature consists in the bearing arrangement shown for supporting the turbine rotor (5) and the jet nozzle (11) for rotation. Thus, the upstream end of the turbine rotor (5) is supported for rotation and limited axial movement by a radial bearing (6,7), whereas its nozzle end carries a bearing surface - in the embodiment shown a part-spherical surface - (28) cooperating with a complementary bearing surface (13) on a stationary bearing member (16) surrounding the jet exit opening. A high supply pressure will urge the turbine rotor (5) in the downstream direction and hence cause the bearing pressure between the bearing surfaces (28 and 13) to be high, thus preventing any leakage from the space (17) surrounding the turbine rotor (5), whilst a low pressure will cause the bearing pressure to be so low as to allow rotation of the turbine rotor, even if the energy available from the flowing liquid is considerably reduced. <IMAGE>

IPC 1-7

B05B 3/04; B08B 3/02

IPC 8 full level

B05B 3/04 (2006.01); **B08B 3/02** (2006.01)

CPC (source: EP)

B05B 3/0427 (2013.01); **B05B 3/0463** (2013.01); **B08B 3/02** (2013.01)

Citation (search report)

- [AD] DE 3419964 A1 19851205 - KAERCHER GMBH & CO ALFRED [DE]
- [A] EP 0379654 A1 19900801 - KRANZLE JOSEF [DE], et al
- [A] DE 8801793 U1 19880324
- [A] DE 3708096 A1 19880929 - SUTTNER WOLFGANG [DE]
- [A] EP 0393689 A1 19901024 - FRIEDRICH INGO R DIPL ING [DE]
- [A] EP 0252261 A2 19880113 - KAERCHER GMBH & CO ALFRED [DE]

Cited by

EP1504821A1; EP0925840A1; US6155494A; US7175107B2; WO9817408A1; WO0029187A1; WO9509696A1

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)

EP 0548408 A1 19930630

DOCDB simple family (application)

EP 91122338 A 19911227