Title (en)

Vibration-proof grip device.

Title (de)

Schwingungsdämpfende Griffvorrichtung.

Title (fr)

Poignée anti-vibrations.

Publication

EP 0156387 A2 19851002 (EN)

Application

EP 85103706 A 19850327

Priority

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- JP 6413684 A 19840331

Abstract (en)

A vibration-proof grip device is disclosed, which includes a first mass body coupled to a source of vibrations such as a machine drill, a leg drill, a pitching hammer, etc. via a first elastic member made of rubber or the like A cylindrical grip member is mounted on the first mass body via a second elastic member made of rubber or the like A second mass body is mounted on the grip member, and an impact mass body is provided in the grip member such that it can strike the inner walls of the grip member. Vibrations transmitted from the vibration source are attenuated by the first elastic member, but the first mass body still is vibrated substantially at the same phase as the original vibrations of the vibration source. The modulus of elasticity of the first and second elastic members and/or mass of the first and second mass bodies and impact mass body may be suitably selected such that the grip member, to which vibrations are transmitted from the first mass body, constitutes a node of vibrations, i.e., it is vibrated at the opposite phase to the first mass body. When the vibration frequency of the vibration source varies, the collision of the impact mass body has an effect of attenuating resultant vibrations of the grip member.

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B25F 5/02; B25G 1/02

IPC 8 full level

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CPC (source: EP)

B25F 5/006 (2013.01); B25F 5/026 (2013.01)

Cited by

EP17779981A1; DE202004012400U1; US5732602A; GB2297514A; GB2402098A; GB2402098B; EP0294351A3; EP0237842A3; EP2532484A3; GB2360970A; GB2360970B; EP2123406A1; EP0455618A1; DE9419182U1; US2022117157A1; US11957074B2; US9061728B2; US7740087B2; US7252156B2; US9180586B2; EP1707323A1; GB2243571A; GB2243571B; EP1997592A1; WO2007080021A1; WO2009019053A1; WO2009043626A1; WO2021094069A1; WO2009083303A1; WO2009043627A1; WO2009083338A1; US7676890B2; US8141209B2; US8256528B2; EP1400317B2

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