

Title (en)

DEVICE FOR GENERATING HIGHLY COMPRESSED GAS

Title (de)

VORRICHTUNG ZUR ERZEUGUNG VON HOCHKOMPRIMIERTEM GAS

Title (fr)

DISPOSITIF DE PRODUCTION DE GAZ FORTEMENT COMPRIME

Publication

EP 1802910 A1 20070704 (DE)

Application

EP 05799389 A 20051014

Priority

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- DE 102005016114 A 20050408

Abstract (en)

[origin: WO2006045712A1] In order to generate a highly compressed gas, a multistage high-pressure compressor is used, which has a number of compressor stages (10a, 10b, 10c, 10d). A vortex tube (20a, 20b, 20c, 20d) is connected downstream from these compressor stages (10a, 10b, 10c, 10d). The pressure difference between the pressure line (4) of the high-pressure compressor and the compressed gas reservoir (7) to be filled is used for driving, together with an expansion turbine (5), a precompressor (2) for precompressing the gas before entering the first compressor stage (10a). Alternatively, a vortex tube for cooling gas can be mounted between the last compressor stage (10d) and the compressed gas reservoir (7). The inventive device permits a direct filling of a compressed gas reservoir in order to reach a limit value of the pressure in the compressed gas reservoir at a predetermined limit temperature, said limit value being stipulated according to the technical rules.

IPC 8 full level

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