

Title (en)

NATURAL GAS COMPRESSION AND REFUELING SYSTEM AND METHOD

Title (de)

SYSTEM UND VERFAHREN ZUR ERDGASKOMPRIMIERUNG UND -TANKUNG

Title (fr)

SYSTÈME ET PROCÉDÉ DE COMPRESSION ET DE RAVITAILLEMENT POUR GAZ NATUREL

Publication

EP 2971770 B1 20190710 (EN)

Application

EP 14720835 A 20140314

Priority

- US 201361783781 P 20130314
- US 2014029110 W 20140314

Abstract (en)

[origin: US2014271257A1] A refueling system for natural gas users (e.g., natural gas vehicles) includes a two-stage compression system that compresses low-pressure gas in a natural gas supply line to compressed natural gas (CNG) pressure for use by a user. A single motor drives both a first stage rotary compressor and a rotary hydraulic pump that powers a second-stage liquid piston compressor. The motor, first stage compressor, and pump may be co-axially aligned. Booster vessels store compressed gas to augment the system's compressed gas delivery flow rate when desired. The booster vessels may be recharged with compressed gas when the system is not delivering gas to a user. Hydraulic liquid may be pumped into and out of the booster vessels during booster vessel discharge and recharge, respectively, to maintain a desired pressure within the vessels.

IPC 8 full level

F04B 41/06 (2006.01); **F04B 25/00** (2006.01); **F04B 41/02** (2006.01); **F17C 5/06** (2006.01)

CPC (source: EP US)

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