

Title (en)
PRESSURE BOOSTER COMPRESSOR

Title (de)
DRUCK-BOOSTER-KOMPRESSOR

Title (fr)
COMPRESSEUR DE SURALIMENTATION SOUS PRESSION

Publication
EP 3051130 A1 20160803 (EN)

Application
EP 14848932 A 20140918

Priority
• JP 2013202013 A 20130927
• JP 2014074634 W 20140918

Abstract (en)
The present invention realizes a simple method for preventing a pressure in a crank chamber from excessively increasing without leading to an increase in a weight and an escalation of cost and causing damage of a structure forming a pressurizing booster compressor. A compression chamber p is formed by a cylinder 12, a cylinder head 14, and a piston 16 reciprocable inside the cylinder 12. A rotation of an output shaft 28a of an electric motor 28 causes the piston 16 to reciprocate via a crank shaft 24. A sealed crank chamber c is defined inside a crank case 18. Further, a pressurized gas supply tube 38, which supplies pressurized gas to be compressed into each of the compression chamber p and the crank chamber c, is provided. The crank case 18 is formed from a hollow cylindrical body 20 and an end plate 22 facing the outside. A low-strength wall 50A (a partition wall having a lower strength than another partition wall), which is configured to be broken under an allowable maximum pressure of the crank chamber c, is formed on the end plate 22.

IPC 8 full level
F04B 39/12 (2006.01); **F04B 37/12** (2006.01)

CPC (source: EP US)
F04B 35/01 (2013.01 - US); **F04B 37/12** (2013.01 - EP US); **F04B 39/0094** (2013.01 - US); **F04B 39/122** (2013.01 - US);
F04B 39/125 (2013.01 - US); **F04B 39/128** (2013.01 - EP US); **F04B 49/10** (2013.01 - EP US); **F04B 53/14** (2013.01 - US)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3051130 A1 20160803; **EP 3051130 A4 20170531**; CN 105579705 A 20160511; CN 105579705 B 20170718; JP 2015068231 A 20150413;
JP 6170396 B2 20170726; KR 20160058821 A 20160525; US 2016201666 A1 20160714; WO 2015045998 A1 20150402

DOCDB simple family (application)
EP 14848932 A 20140918; CN 201480052915 A 20140918; JP 2013202013 A 20130927; JP 2014074634 W 20140918;
KR 20167008573 A 20140918; US 201414916094 A 20140918