

Title (en)
Cryogenic pump

Title (de)
Kryogene Pumpe

Title (fr)
Pompe cryogène

Publication
EP 2541062 A1 20130102 (EN)

Application
EP 11352008 A 20110629

Priority
EP 11352008 A 20110629

Abstract (en)
A cryogenic pump 2 is typically used to supply high pressure natural gas to an engine. The pump 2 has a piston 6 operable to discharge cryogenic liquid from a pumping chamber 8 within a pump housing 4. The cryogenic liquid exits the chamber 8 through an outlet port 10 in which a check valve 12 is positioned. The check valve 12 has a valve member 14 which is loaded by a spring 28 and is retained by a retaining member 16 accessible from outside the housing 4. The check valve 12 has an inlet 18 which is axial with the valve member 14 and an outlet 20 which is transverse to the axis of the valve member 14.

IPC 8 full level
F04B 15/08 (2006.01); **F04B 39/10** (2006.01); **F04B 53/10** (2006.01); **F17C 7/00** (2006.01)

CPC (source: EP US)
F04B 15/08 (2013.01 - EP US); **F04B 39/10** (2013.01 - EP US); **F04B 39/1013** (2013.01 - EP US); **F04B 53/10** (2013.01 - EP US);
F04B 53/108 (2013.01 - EP US)

Citation (applicant)
US 7293418 B2 20071113 - NOBLE STEPHEN D [CA], et al

Citation (search report)
• [X1] US 1937859 A 19331205 - THOMAS ROSSWELL W
• [X1] US 2292617 A 19420811 - DANA LEO I
• [X1] US 2447741 A 19480824 - DE BAUFRE WILLIAM LANE

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Designated extension state (EPC)
BA ME

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EP 2541062 A1 20130102; US 2014109600 A1 20140424; WO 2013000077 A1 20130103

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EP 11352008 A 20110629; CA 2012050416 W 20120622; US 201314142830 A 20131228