

Title (en)

FUEL SYSTEM USING DUAL PRESSURE HI-SPEED CENTRIFUGAL PUMP ARRANGEMENT

Title (de)

BRENNSTOFFSYSTEM MIT DOPPELDRUCK-HOCHGESCHWINDIGKEITSZENTRIFUGALPUMPENANORDNUNG

Title (fr)

SYSTÈME DE CARBURANT UTILISANT UN ENSEMBLE POMPE CENTRIFUGE À DOUBLE PRESSION À HAUTE VITESSE

Publication

EP 2753811 A4 20150603 (EN)

Application

EP 12823474 A 20120815

Priority

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- US 201161523569 P 20110815
- US 2012050972 W 20120815

Abstract (en)

[origin: WO2013025818A1] An improved system for providing fuel uses a centrifugal pump arrangement that provides dual pressure. The dual pressure pump assembly includes a centrifugal pump for supplying pressurized fluid to an associated downstream use, and an auxiliary pump stage for selectively boosting pressure of delivered flow. The auxiliary pump stage in one preferred arrangement includes a start and turbo-pump stage where inlet fuel from an associated airframe is fed to a centrifugal pump portion of the turbo-pump that outlets to an inlet of the centrifugal pump. The auxiliary pump stage in another arrangement includes a recirculation passage communicating with the outlet of the high-speed centrifugal pump and the turbine, and the outlets from the start and turbo-pump stage feed an inlet of the high speed centrifugal pump, and a flow valve is disposed in the recirculation passage. In still another arrangement, the auxiliary pump stage includes an electric motor for start-up.

IPC 8 full level

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CPC (source: EP US)

F02C 7/236 (2013.01 - EP US); **F04B 41/06** (2013.01 - US); **F04D 13/04** (2013.01 - EP US); **F04D 13/12** (2013.01 - EP US); **F05D 2260/606** (2013.01 - EP US); **F05D 2260/85** (2013.01 - EP US); **Y02T 50/60** (2013.01 - EP US)

Citation (search report)

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CN117386541A

Designated contracting state (EPC)

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WO 2013025818 A1 20130221; **WO 2013025818 A9 20140530**; CN 103958856 A 20140730; CN 103958856 B 20161012; EP 2753811 A1 20140716; EP 2753811 A4 20150603; US 2014219826 A1 20140807

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