Title (en)
DEVICE AND METHOD FOR PUMPING A CRYOGENIC FLUID

Title (de)
VORRICHTUNG UND VERFAHREN ZUM PUMPEN EINER KRYOGENEN FLÜSSIGKEIT

Title (fr)
DISPOSITIF ET PROCÉDÉ DE POMPAGE D'UN FLUIDE CRYOGÉNIQUE

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Application
EP 09761888 A 20090507

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Abstract (en)
[origin: WO2009150337A2] The invention relates to a device for pumping a cryogenic fluid, consisting of a tank (1) for storing a cryogenic fluid containing cryogenic liquid, a cryogenic pump (3) having an inlet pressure loss (net positive suction head, NPSH), and a suction line (2) connecting the tank (1) to the pump (3), said pumping device including a system (9, 18, 19) for controlling the pressure in the tank (1) for selectively maintaining said pressure at least equal to the saturation pressure of the stored cryogenic fluid plus the inlet pressure loss (NPSH) of the cryogenic pump and optionally plus the value of the pressure losses owing to the pipes forming the suction line (2) connecting the tank (1) to the pump (3). The invention is characterised in that the pressure-control system (9, 18, 19) includes a duct (9) connecting a high-pressure outlet of the pump (3) to the tank (1) for selectively returning the pumped cold fluid to the tank (1), said duct (9) including an expansion valve (99) for returning cold gas to the tank (1).

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