

Title (en)
PUMP AND HYDRAULIC UNIT FOR A PUMP

Title (de)
PUMPE UND HYDRAULIKAGGREGAT FÜR EINE PUMPE

Title (fr)
POMPE ET UNITÉ HYDRAULIQUE POUR UNE POMPE

Publication
EP 4372230 A1 20240522 (EN)

Application
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Priority
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Abstract (en)
The invention relates to a hydraulic unit for a pump (1) configured for pumping liquid comprising solid matter, wherein the hydraulic unit comprises an channel impeller (8) and a housing (6) having an axial inlet (2) and a radial outlet (3), the housing (6) defining a volute (4) having a cutwater (16), a cutwater wedge angle (ω) and a cutwater angle (Y), wherein a smallest cross-sectional area of the volute (4) is located in an axial geometrical plane that comprises an axially extending center axis of the inlet (2) of the housing (6) and that extends radially outwards to an upstream end of the cutwater (16). The hydraulic unit is characterized in that in a radial geometrical plane that is perpendicular to an axially extending center axis of the inlet (2) of the housing (6) and that comprises the longest radius of the volute (4) at the smallest cross-sectional area of the volute (4), the cutwater wedge angle (ω) is equal to or greater than 80 degrees and equal to or less than 150 degrees, and the cutwater angle (Y) is equal to or greater than 15 degrees and equal to or less than 70 degrees.

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Citation (applicant)

- EP 1899609 A1 20080319 - ITT MFG ENTERPRISES INC [US]
- EP 1891331 A1 20080227 - ITT MFG ENTERPRISES INC [US]

Citation (search report)

- [XII] US 3447475 A 19690603 - BLUM ALBERT
- [XII] FR 577051 A 19240830 - BUCHER GUYER AG MASCH
- [XII] JP 2007270748 A 20071018 - SHIN MEIWA IND CO LTD

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