

Title (en)

GEAR-WHEEL PUMP, IN PARTICULAR FOR A HIGH-PRESSURE FUEL PUMP

Title (de)

ZAHNRADPUMPE, INSBESONDERE FÜR EINE HOCHDRUCK-KRAFTSTOFFPUMPE

Title (fr)

POMPE A ENGRENAGES, EN PARTICULIER POUR POMPE A CARBURANT HAUTE PRESSION

Publication

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Application

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Priority

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Abstract (en)

[origin: WO0179699A1] The invention relates to a gear-wheel pump comprising a housing (18), two gear-wheels (14, 16) which are located in said housing and which intermesh and at least one groove (22) which is configured in the housing on the pressure side of the gear-wheel pump. The aim of the invention is to prevent cavitation damage at high speeds. To achieve this, the groove has a first section (24), extending from the pressure side, in which the base of the groove (22) is a short distance away from the tips of the teeth (20) of the gear-wheel and a second section (26), which adjoins the first section and in which the base of the groove (22) is a maximum distance away from the tips of the teeth, said maximum distance being greater than the distance in the first section. The first section extends over a smaller angular range (α) than the second section and overall the groove extends over an angular range (α , β) which is slightly greater than the angular range between two teeth (20).

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