

Title (en)  
PROCESS FLUID LUBRICATED PUMP AND SEAWATER INJECTION SYSTEM

Title (de)  
VON PROZESSFLÜSSIGKEIT GESCHMIERTE PUMPE UND MEERWASSERINJEKTIONSSYSTEM

Title (fr)  
POMPE LUBRIFIÉE PAR FLUIDE DE PROCESSUS ET SYSTÈME D'INJECTION D'EAU DE MER

Publication  
**EP 3808984 B1 20230524 (EN)**

Application  
**EP 19203397 A 20191015**

Priority  
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Abstract (en)  
[origin: EP3808984A1] A process fluid lubricated pump is proposed, having a common housing (2), a pump unit (3) arranged in the common housing, and a drive unit (4) arranged in the common housing (2), wherein the common housing (2) comprises a low pressure inlet (21) and a high pressure outlet (22) for the process fluid. The pump unit (3) comprises a pump shaft (5) extending from a drive end (51) to a non-drive end (52) of the pump shaft (5), and a first pump section (31) having a first set of impellers (311) fixedly mounted on the pump shaft (5). The drive unit (4) is configured for driving the rotation of the pump shaft (5). A first balance drum (7) is fixedly connected to the pump shaft (5) between the pump unit (3) and the drive end (51) and defining a first front side (71) facing the pump unit (3) and a first back side (72). A first relief passage (73) is provided between the first balance drum (7) and a first stationary part (26), the first relief passage (73) extending from the first front side (71) to the first back side (72). A second balance drum (8) is fixedly connected to the pump shaft (5) between the pump unit (3) and the non-drive end (52), the second balance drum (8) defining a second front side (81) facing the pump unit (3) and a second back side (82). A second relief passage (83) is provided between the second balance drum (8) and a second stationary part (27), the second relief passage (83) extending from the second front side (81) to the second back side (82). A balance line (9) is provided connecting the first back side (72) and the second back side (82).

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Citation (examination)  
• JP 2008002412 A 20080110 - HITACHI PLANT TECHNOLOGIES LTD  
• US 2011280742 A1 20111117 - GUENARD DENIS GUILLAUME JEAN [IT]

Cited by  
EP4006347A1; EP4257826A1; EP3901465A1; EP4027020A1

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