

Title (en)
DIAPHRAGM PUMP

Title (de)
MEMBRANPUMPE

Title (fr)
POMPE A DIAPHRAGME

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Application
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Priority

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- US 0315699 W 20030516

Abstract (en)
Diaphragm pump (110) for receiving drive power from a motor, said pump comprising: a housing (112, 137) having a pumping chamber (106) adapted to contain fluid to be pumped, a transfer chamber (44) adapted to contain hydraulic fluid, and a hydraulic fluid reservoir; a diaphragm (34) having a transfer chamber side and a pumping chamber side, said diaphragm (34) being disposed between said pumping chamber (106) and said transfer chamber (44) and adapted for reciprocation toward and away from said pumping chamber (106); a piston (46) in a cylinder (120) in said housing (112, 137) adapted for reciprocation between a power stroke and a suction stroke, said cylinder (120) forming a portion of said transfer chamber (44), said piston (46) moving longitudinally in said cylinder (120) with said cylinder (120) having a surface with an upper portion (118) when said pump (110) is oriented so that said cylinder (120) is generally horizontal; a fluid communication path for the hydraulic fluid between said hydraulic fluid reservoir and said transfer chamber (44) and a valve in said path for selectively allowing flow of hydraulic fluid from said hydraulic fluid reservoir to said transfer chamber (44) when said valve is open.

IPC 8 full level
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CPC (source: EP US)
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Citation (applicant)

- US 6554578 B1 20030429 - SIEGEL NORBERT [DE]
- US 4116590 A 19780926 - PRESTWICH JOHN RICHARD
- US 3775030 A 19731127 - WANNER W

Citation (search report)

- [X1] WO 9111616 A1 19910808 - WANNER ENGINEERING [US]
- [X1] US 3107624 A 19631022 - WILLIAMS WILLIAM A
- [X1] US 5246351 A 19930921 - HORN WALDEMAR [DE], et al
- [A] US 6554578 B1 20030429 - SIEGEL NORBERT [DE]

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WO 2004106884 A1 20041209; AU 2003245292 A1 20050121; BR 0318302 A 20060711; BR PI0318302 B1 20170328; CN 100538314 C 20090909; CN 1781015 A 20060531; DK 1625377 T3 20170522; EP 1625377 A1 20060215; EP 1625377 A4 20111123; EP 1625377 B1 20170329; EP 3096013 A1 20161123; EP 3096013 B1 20190904; ES 2630179 T3 20170818; JP 2006526099 A 20061116; JP 4530988 B2 20100825

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