

Title (en)
Variable level suction device

Title (de)
Variabler Pegelabsaugvorrichtung

Title (fr)
Système d'aspiration à niveau variable

Publication
EP 0730094 A1 19960904 (EN)

Application
EP 96301181 A 19960222

Priority
US 39847995 A 19950303

Abstract (en)
A variable level suction device used in conjunction with a transfer pump which transfers high-level radioactive liquid waste from a waste tank. The variable level suction device comprises an hydraulic housing and a telescoping pipe assembly comprising several pipe sections and mounted alongside the support column of the transfer pump. The telescoping innermost pipe section has a suction inlet, and the outermost telescoping pipe section is welded to the hydraulic housing which encloses an impeller assembly of either a submersible canned motor transfer pump or a lineshaft transfer pump. Suction ports in the hydraulic housing are located adjacent to the impeller assembly. Selective operation of the suction ports and the telescoping pipe sections allows the liquid waste to be suctioned either from the bottom of the waste tank or from a selected level in the waste tank between a free surface and a level near the suction inlet of the innermost pipe section of the telescoping pipe assembly. <IMAGE>

IPC 1-7
F04D 7/08; **F04D 29/40**; **F04D 13/08**

IPC 8 full level
F04D 7/08 (2006.01); **F04D 13/08** (2006.01); **F04D 13/10** (2006.01); **F04D 29/40** (2006.01)

CPC (source: EP)
F04D 7/08 (2013.01); **F04D 13/10** (2013.01); **F04D 29/406** (2013.01)

Citation (search report)
• [A] US 5133854 A 19920728 - HORVATH TIBOR [US]
• [A] FR 2453669 A1 19801107 - IAKOVENKO MARINITCH NICOLAS
• [A] DE 3209283 A1 19830922 - ENNING JUERGEN DIPL ING
• [DA] US 4235569 A 19801125 - SCHILLINGER ALOIS [DE], et al
• [DA] US 4030859 A 19770621 - HENEGAR DALE L
• [DA] US 4924898 A 19900515 - EVENSON WILLIAM R [US]

Cited by
EP3059448A1; EP1568888A1; CN105736401A; GB2449845A; WO2012130225A3; US9587638B2; US10808707B2; US11448224B2

Designated contracting state (EPC)
BE DE FR GB

DOCDB simple family (publication)
EP 0730094 A1 19960904; **EP 0730094 B1 20000419**; CA 2170833 A1 19960904; DE 69607779 D1 20000525; DE 69607779 T2 20001228

DOCDB simple family (application)
EP 96301181 A 19960222; CA 2170833 A 19960301; DE 69607779 T 19960222