

Title (en)

IMPROVEMENTS IN AN UNLOADING PUMP WHICH IS SUBMERSIBLE IN THE CARGO OF A SHIP'S CARGO TANK

Title (de)

IN DER LADUNG EINES SCHIFFSLADERAUMES EINTAUCHBARE ENTLADEPUMPE

Title (fr)

AMELIORATIONS APORTEES A UNE POMPE DE DECHARGEMENT SUBMERSIBLE DANS LA CARGAISON D'UNE CITERNE A CARGAISONS D'UN BATEAU

Publication

**EP 0876555 A1 19981111 (EN)**

Application

**EP 96944137 A 19961209**

Priority

- NO 9600286 W 19961209
- NO 960318 A 19960126

Abstract (en)

[origin: WO9727403A1] An unloading pump arrangement has a pump inlet (13) arranged in a well (12) at the bottom of a cargo tank. The unloading pump comprises a main pump (14a) and an auxiliary pump (30") which is drive connected to impeller (15) of the main pump (14a). The unloading pump has a discharge pipe to a delivery location via the deck of the ship. The auxiliary pump (30"), which has the form of a part conical sleeve portion or bell portion, has maximum radially internal and external dimensions at the upper discharge end (at 38) of the auxiliary pump (30") and minimum radially internal and external dimensions at the lower inlet end of the auxiliary pump (30"). The internal flow passage (39) of the auxiliary pump (30") comprises an upper discharge chamber (38) and a number of outlet openings (40"), which empty directly out from the periphery of the discharge chamber (38) at the height of the flow-through passage (41) of the impeller (15).

IPC 1-7

**F04D 13/08**

IPC 8 full level

**F04D 13/08** (2006.01); **F04D 29/22** (2006.01)

CPC (source: EP)

**F04D 13/086** (2013.01); **F04D 29/2277** (2013.01)

Citation (search report)

See references of WO 9727403A1

Designated contracting state (EPC)

GB NL

DOCDB simple family (publication)

**WO 9727403 A1 19970731**; AU 1401397 A 19970820; EP 0876555 A1 19981111; EP 0876555 B1 20020313; NO 301112 B1 19970915; NO 960318 D0 19960126; NO 960318 L 19970728

DOCDB simple family (application)

**NO 9600286 W 19961209**; AU 1401397 A 19961209; EP 96944137 A 19961209; NO 960318 A 19960126