

Title (en)
IRRIGATION TYPE OIL SKIMMER AND METHOD FOR SKIMMING OIL

Title (de)
EINSPÜL-ÖLABSCHÖPFER UND ÖLABSCHÖPFVERFAHREN

Title (fr)
RECUPERATEUR D'HUILE DE TYPE IRRIGATION ET PROCEDE DE RECUPERATION D'HUILE

Publication
EP 0917516 A1 19990526 (EN)

Application
EP 98925959 A 19980610

Priority
• KR 9800152 W 19980610
• KR 19970024936 A 19970616

Abstract (en)
[origin: WO9857846A1] An irrigation type oil skimmer and a method for skimming oil are disclosed. The skimmer includes a lower hull (100) capable of floating and submerging, and capable of discharging sea water through an opening while thickening accumulated oil layer. An oil drawing means (200) having shape of a water wheel is installed on the deck of the lower hull (100), for retrieving the oil layer on the sea surface toward a central tank (110) when the lower hull (100) is submerged. A main floater (300) provides a floating force to the deck, and has a guide path (310) partly communicating with the central tank (110). An oil separating/extracting means (400) has a shaft (411) at a level higher than that shaft (211) of the water wheel of the oil drawing means (200), for separating the upper oil layer of the central tank (110) to send the oil through the guide path into an oil collecting tank (600). The method for skimming oils includes the step of moving the oil layer at the sea level along with the sea water toward a central tank having a certain space (first step). At a second step, the sea water is made to sink and the oil to float with help of the floating force, thickening the oil layer. At a third step, only the surface oil is sent to the water wheel to further separate the oils from the residual sea water. Thus when the skimmer moves toward the emergency site of an oil spill, the lower hull is lifted, effectively increasing the skimmer mobilization speed. When the skimmer arrives at the site, it is submerged to recover the oil layer into the skimmer; therefore, facilitating overall oil recovery process. Further, the presence of the main floater makes it possible to carry out an oil recovering operation at all weather conditions.

IPC 1-7
B63B 35/32; **E02B 15/04**

IPC 8 full level
C02F 1/40 (2006.01); **B63B 35/32** (2006.01); **E02B 15/04** (2006.01)

CPC (source: EP KR)
C02F 1/40 (2013.01 - KR); **E02B 15/048** (2013.01 - EP); **Y02A 20/204** (2017.12 - EP)

Citation (search report)
See references of WO 9857846A1

Designated contracting state (EPC)
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
WO 9857846 A1 19981223; AU 7789998 A 19990104; CN 1229389 A 19990922; EP 0917516 A1 19990526; JP 2000505763 A 20000516; KR 100215917 B1 19990816; KR 19990001563 A 19990115

DOCDB simple family (application)
KR 9800152 W 19980610; AU 7789998 A 19980610; CN 98800850 A 19980610; EP 98925959 A 19980610; JP 50418999 A 19980610; KR 19970024936 A 19970616