

Title (en)
FLUID COOLING DEVICE

Title (de)
FLUIDKÜHLVORRICHTUNG

Title (fr)
DISPOSITIF DE REFROIDISSEMENT DE FLUIDE

Publication
EP 0968371 B1 20021120 (DE)

Application
EP 98912445 A 19980306

Priority
• DE 19711591 A 19970320
• EP 9801263 W 19980306

Abstract (en)
[origin: US6290473B1] A fluid cooling device in the form of a modular unit has a motor which drives a ventilator wheel and a hydraulic pump which takes fluid from an oil reservoir and delivers it to a hydraulic work circuit. The circuit heats the fluid and sends it to a heat exchanger from which the fluid returns, cooled, to the oil reservoir. The oil reservoir, being shaped like a trough and surrounding at least part of the motor and the hydraulic pump and having high walls in the manner of a half-shell, results in a relatively high-volume oil reservoir with is a part of the fluid cooling device with a compact, space-saving structure by at least partially containing parts of the fluid cooling device to save space.

IPC 1-7
F15B 1/26; **F15B 21/04**; **F04B 23/02**; **F04B 53/08**

IPC 8 full level
F04B 23/02 (2006.01); **F04B 53/08** (2006.01); **F15B 1/00** (2006.01); **F15B 1/26** (2006.01); **F15B 21/0423** (2019.01)

CPC (source: EP US)
F04B 23/025 (2013.01 - EP US); **F04B 53/08** (2013.01 - EP US); **F15B 1/26** (2013.01 - EP US); **F15B 21/0423** (2019.01 - EP US); **F15B 2211/20515** (2013.01 - EP); **F15B 2211/50536** (2013.01 - EP); **F15B 2211/615** (2013.01 - EP); **F15B 2211/62** (2013.01 - EP); **F15B 2211/625** (2013.01 - EP)

Cited by
DE102010056567A1; WO2005005843A1; DE10328177A1; DE10331216B3; WO2004113698A1; US7793707B2; WO2012089316A2; US9267746B2

Designated contracting state (EPC)
AT BE CH DE DK ES FR GB IT LI NL PT SE

DOCDB simple family (publication)
US 6290473 B1 20010918; AT E228213 T1 20021215; CN 1097683 C 20030101; CN 1250508 A 20000412; DE 19711591 A1 19980924; DE 59806358 D1 20030102; DK 0968371 T3 20030317; EP 0968371 A1 20000105; EP 0968371 B1 20021120; ES 2187948 T3 20030616; FI 109485 B 20020815; FI 19991945 A 19990913; JP 2001518172 A 20011009; PT 968371 E 20030228; WO 9842986 A1 19981001

DOCDB simple family (application)
US 38031199 A 19990831; AT 98912445 T 19980306; CN 98803391 A 19980306; DE 19711591 A 19970320; DE 59806358 T 19980306; DK 98912445 T 19980306; EP 9801263 W 19980306; EP 98912445 A 19980306; ES 98912445 T 19980306; FI 19991945 A 19990913; JP 54480198 A 19980306; PT 98912445 T 19980306