

Title (en)  
Oil cooler.

Title (de)  
Ölkühler.

Title (fr)  
Refroidisseur d'huile.

Publication  
**EP 0492047 B1 19940413 (DE)**

Application  
**EP 91113166 A 19910806**

Priority  
DE 4040875 A 19901220

Abstract (en)  
[origin: EP0492047A1] An oil cooler (10) has a housing (11), through which water is guided, and in the housing (11) a tube assembly (17) through the interior (19) of which the oil to be cooled is guided. The tube assembly (17) consists of approximately disc-shaped flat tubes (18), which are located one above another leaving external interspaces (32) therebetween, the aim being for the water to flow through the interspaces (32). The oil cooler (10) has a locking device (37) between the inlet (13) and outlet (14) and the part of the tube assembly (17) that is adjacent to the housing wall (38) extending there, which is intended to prevent a bypass flow there. The locking device (37) has wall parts (39) which seal the interspaces (32) between the flat tubes (18) of the tube assembly (17) at least in the region of the inlet (13) and outlet (14). The wall parts (39) can extend over the entire width of the tube assembly (17) and over the entire height of each external interspace (32). They are formed from wall elements (39a) of one piece with the flat tubes (18), and particularly in this arrangement from collars which are of one piece with the respectively external tube plate (28) of each flat tube (18), are drawn up and project further upwards beyond the remaining rim (30) of this tube plate (28). <IMAGE>

IPC 1-7  
**F28D 9/00**

IPC 8 full level  
**F28D 9/00** (2006.01)

CPC (source: EP)  
**F28D 9/0012** (2013.01)

Cited by  
GB2512218A; EP0654646A1; FR2712967A1; US5765632A; DE4230092A1; DE4230092C2; WO2013078531A1

Designated contracting state (EPC)  
FR GB IT

DOCDB simple family (publication)  
**EP 0492047 A1 19920701; EP 0492047 B1 19940413; DE 4040875 A1 19920702; DE 4040875 C2 19940901**

DOCDB simple family (application)  
**EP 91113166 A 19910806; DE 4040875 A 19901220**