

Title (en)  
Heat exchanger for an internal combustion engine

Title (de)  
Wärmetauscher für Verbrennungsmotor

Title (fr)  
Échangeur thermique pour moteur à combustion interne

Publication  
**EP 2458312 B1 20180718 (EN)**

Application  
**EP 10192794 A 20101126**

Priority  
EP 10192794 A 20101126

Abstract (en)  
[origin: EP2458312A1] A heat exchanger, namely a charge air cooler or a exhaust gas cooler comprises a pipe block (14) formed by a plurality of pipes (16), the pipes opening at both ends in a respective tank (12, 12') for a first fluid. The pipes (16) are maintained at both ends by a respective header plate (18) having through openings (20) therein for the pipes (16). A cover (22, 22', 22'') extends between the tanks (12, 12') and laterally surrounds the pipe block (14). Mechanical locking means are integrated in the cover about both pipe block ends to maintain the respective tanks (12, 12') in place on the pipe block (14).

IPC 8 full level  
**F28F 9/02** (2006.01); **F28D 7/16** (2006.01); **F28D 21/00** (2006.01)

CPC (source: EP)  
**F28D 7/1684** (2013.01); **F28F 9/0224** (2013.01); **F28D 21/0003** (2013.01); **F28D 2021/0082** (2013.01); **F28F 2275/122** (2013.01)

Cited by  
EP3232149A1; DE102019112194A1; FR3030711A1; CN104896990A; DE102012211857A1; EP4382848A1; US2015283875A1; US10279648B2; US2015241143A1; US10323886B2; CN106104192A; EP3115735A4; US9970717B2; US10006723B2; EP3809088A1; WO2016097135A1

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