

Title (en)
Heat exchanger

Title (de)
Wärmetauscher

Title (fr)
Échangeur de chaleur

Publication
EP 2241848 A2 20101020 (EN)

Application
EP 10154807 A 20100226

Priority
JP 2009099386 A 20090415

Abstract (en)
A heat exchanger is provided in which steam locking is prevented and which allows steam condensate generated in heat transfer tubes to quickly flow down into a condensate outlet chamber. The heat exchanger includes a shell (1) in which a plurality of heat transfer tubes (5) are disposed. The shell (1) has an inlet (2) for fluid to be heated through which fluid to be heated flows in and an outlet (3) for heated fluid through which heated fluid flows out. The heat transfer tubes (5) are penetratingly fixed, at their ends, to a tube plate (7). The tube plate (7) has an end face covered by partition chamber cases (8) and (9) provided with a top steam inlet (10) through which steam flows in and a bottom condensate outlet (11) through which condensate flows out. The tube plate (7) and the partition chamber cases (8) and (9) form, between them, a partition chamber having a partition plate (14) partitioning the partition chamber into a steam inlet chamber (12) having the steam inlet (10) and a condensate outlet chamber (13) having the condensate outlet (11). The partition plate (14) has an opening (15) through which the steam inlet chamber (12) and the condensate outlet chamber (13) are communicated with each other, and a steam trap (16) for draining steam condensate from the steam inlet chamber (12) into the condensate outlet chamber (13) is connected to the opening (15) of the partition plate (14).

IPC 8 full level
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CPC (source: EP US)
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Citation (applicant)
JP H0534084 A 19930209 - ONODA CEMENT CO LTD, et al

Cited by
CN108061288A; CN107131782A; EP2908081A1; CN104848727A; EP2693147A4; US10151540B2; EP2365269A1

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Designated extension state (EPC)
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