

Title (en)
Double tube type heat exchange pipe

Title (de)
Doppelrohrwärmetauscher

Title (fr)
Échangeur de chaleur à double tube

Publication
EP 2551622 A2 20130130 (EN)

Application
EP 12177930 A 20120726

Priority
KR 20110006795 U 20110726

Abstract (en)
A double tube type heat exchange pipe, in which a gas or liquid coolant passes through a flow path hole (101) to cool an inner tube (100), the gas or liquid coolant supplied through through-holes (201) of an outer tube (200) being collected in a first collecting groove formed in an inner tube (100), the gas and liquid coolant being guided to a spiral groove (102) of the inner tube (100) and continuously collides with a plurality of protrusions (103) to undergo heat exchange and be cooled, and the cooled gas and liquid coolant being collected in a second collecting groove (104b) of the inner tube (100) to be discharged to the outside via the through-hole (201) of the outer tube (200).

IPC 8 full level
F28D 7/10 (2006.01); **F28F 1/08** (2006.01); **F28F 1/40** (2006.01); **F28F 1/42** (2006.01)

CPC (source: EP KR US)
B21D 53/06 (2013.01 - KR); **F28D 7/106** (2013.01 - EP KR US); **F28F 1/08** (2013.01 - EP KR US); **F28F 1/40** (2013.01 - EP US); **F28F 1/426** (2013.01 - EP KR US); **F28F 21/084** (2013.01 - KR); **F28F 21/085** (2013.01 - KR); **B21D 28/24** (2013.01 - KR); **F28F 2250/10** (2013.01 - KR); **F28F 2255/08** (2013.01 - KR)

Cited by
GB2523107A; EP3282214A1; EP3679312A4; US10371453B2

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2551622 A2 20130130; **EP 2551622 A3 20140611**; CN 102901382 A 20130130; JP 2013029303 A 20130207; KR 200459178 Y1 20120322; RU 2012129344 A 20140120; US 2013025834 A1 20130131

DOCDB simple family (application)
EP 12177930 A 20120726; CN 201210252794 A 20120720; JP 2012160258 A 20120719; KR 20110006795 U 20110726; RU 2012129344 A 20120711; US 201213547442 A 20120712