

Title (en)

A tube of the gas cooler for the condenser

Title (de)

Rohr des Gaskühlers für einen Kondensator

Title (fr)

Tube de refroidisseur de gaz pour le condenseur

Publication

**EP 3009779 A1 20160420 (EN)**

Application

**EP 14461576 A 20141015**

Priority

EP 14461576 A 20141015

Abstract (en)

An invention relates to a tube (10) of the gas cooler for the condenser, having a flattened shape, defined by two mutually parallel flat walls (13, 15) and two curved side walls (12,14) positioned opposite to each other and connecting these flat walls (13,15). The tube (10) being elongated in the transverse direction (X). Said tube (10) comprises a plurality of identical channels (11) for the flow of cooling medium arranged in parallel and in series next to each other in the transverse direction (X) of the tube (10), with spacing between them. The channels have a circular cross-section. The tube (10) characterized in that the side walls (12, 14) of the tube (10) have a thickness (A), which satisfies the following relationships:  $1.25 \times D \leq A \leq 1.68 \times D$ ,  $2.12 \times B \leq A \leq 3.05 \times B$  wherein: A - is the distance measured along the transverse direction (X) between the outer surfaces of the side walls (12,14) and the outermost channels (11) for the flow of cooling medium of the tube (10), D - is the diameter of the channels (11) for the flow of cooling medium, B - is the distance between the inner surface of the flat walls (13,15) and channels (11) for the flow of cooling medium, as measured in a direction (Y) perpendicular to the direction (X) along the diameter (D) of the channel (11) for the flow of cooling medium.

IPC 8 full level

**F28D 1/053** (2006.01); **F25B 39/04** (2006.01); **F28F 1/02** (2006.01)

CPC (source: EP)

**F28D 1/05383** (2013.01); **F28F 1/022** (2013.01); **F25B 39/04** (2013.01); **F25B 2500/01** (2013.01)

Citation (applicant)

- US 4998580 A 19910312 - GUNTLY LEON A [US], et al
- DE 10060104 A1 20010613 - DENSO CORP [JP]
- EP 0090828 A1 19831012 - UCERPO S A IDEIAS PESQUIZAS E [BR]

Citation (search report)

- [X] DE 102004024825 A1 20041209 - DENSO CORP [JP]
- [X] EP 2485006 A1 20120808 - DAIKIN IND LTD [JP]

Cited by

US10955595B2

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 3009779 A1 20160420; EP 3009779 B1 20190515**

DOCDB simple family (application)

**EP 14461576 A 20141015**