

Title (en)
METHOD FOR DEFROSTING A DEVICE FOR AIR SEPARATION BY CRYOGENIC DISTILLATION AND DEVICE ADAPTED TO BE DEFROSTED USING THIS METHOD

Title (de)
ENTEISUNGSVERFAHREN EINES GERÄTS ZUR TRENNUNG VON LUFT DURCH KRYOGENE DESTILLATION, UND ENTPRECHEND ANGEPASSTES GERÄT, UM MIT DIESEM VERFAHREN ENTEIST ZU WERDEN

Title (fr)
PROCÉDÉ DE DÉGIVRAGE D'UN APPAREIL DE SÉPARATION D'AIR PAR DISTILLATION CRYOGÉNIQUE ET APPAREIL ADAPTÉ POUR ÊTRE DÉGIVRÉ PAR CE PROCÉDÉ

Publication
EP 3438585 A2 20190206 (FR)

Application
EP 18186659 A 20180731

Priority
• FR 1757497 A 20170803
• FR 1757493 A 20170803
• FR 1757495 A 20170803
• FR 1757498 A 20170803

Abstract (en)
[origin: US2019041130A1] Method for separating air by cryogenic distillation, wherein air is compressed in a compressor and is subsequently sent to a heat exchanger, with the air cooled in the exchanger being sent to a check valve downstream of the heat exchanger and subsequently to a turbine, the valve being positioned so that air from a short-circuiting duct cannot return to the exchanger from the compressor.

Abstract (fr)
Procédé de séparation d'air par distillation cryogénique dans un appareil de séparation d'air comprenant un système de colonnes (K1, K2), une première turbine (T1) et une deuxième turbine (T2), dans lequel en marche de dégivrage on ferme une conduite commune (13) amenant l'air des deux turbines à une colonne au moyen d'une vanne d'isolation (V11), on envoie un gaz de purge à une température supérieure à 0°C dans les turbines pour les dégivrer mais on n'envoie pas de gaz de purge au système de colonnes.

IPC 8 full level
F25J 3/04 (2006.01)

CPC (source: CN EP US)
F25J 3/0295 (2013.01 - US); **F25J 3/04012** (2013.01 - US); **F25J 3/04018** (2013.01 - CN); **F25J 3/04024** (2013.01 - EP US);
F25J 3/04054 (2013.01 - EP US); **F25J 3/0406** (2013.01 - US); **F25J 3/04066** (2013.01 - US); **F25J 3/0409** (2013.01 - EP);
F25J 3/04109 (2013.01 - US); **F25J 3/04127** (2013.01 - US); **F25J 3/04175** (2013.01 - EP); **F25J 3/04187** (2013.01 - CN US);
F25J 3/04193 (2013.01 - US); **F25J 3/0423** (2013.01 - US); **F25J 3/04254** (2013.01 - EP US); **F25J 3/04296** (2013.01 - EP US);
F25J 3/04381 (2013.01 - US); **F25J 3/04393** (2013.01 - EP US); **F25J 3/04406** (2013.01 - US); **F25J 3/04412** (2013.01 - EP US);
F25J 3/04563 (2013.01 - CN); **F25J 3/04775** (2013.01 - US); **F25J 3/04781** (2013.01 - CN EP US); **F25J 3/04787** (2013.01 - US);
F25J 3/04812 (2013.01 - US); **F25J 3/04818** (2013.01 - EP US); **F25J 3/04824** (2013.01 - EP US); **F25J 3/0486** (2013.01 - US);
F25J 3/04866 (2013.01 - US); **F25J 3/04896** (2013.01 - US); **F25J 2200/04** (2013.01 - US); **F25J 2210/40** (2013.01 - CN);
F25J 2210/42 (2013.01 - EP); **F25J 2215/42** (2013.01 - US); **F25J 2215/50** (2013.01 - US); **F25J 2230/08** (2013.01 - US);
F25J 2230/22 (2013.01 - US); **F25J 2230/40** (2013.01 - EP US); **F25J 2240/04** (2013.01 - EP US); **F25J 2240/10** (2013.01 - EP US);
F25J 2240/42 (2013.01 - EP US); **F25J 2245/40** (2013.01 - EP US); **F25J 2280/10** (2013.01 - US); **F25J 2280/20** (2013.01 - US);
F25J 2290/12 (2013.01 - US)

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 3438585 A2 20190206; EP 3438585 A3 20190417; CN 109387031 A 20190226; CN 109387031 B 20211102; CN 109387032 A 20190226;
CN 109387033 A 20190226; CN 109387033 B 20211214; CN 109387034 A 20190226; CN 109387034 B 20211119; EP 3438584 A1 20190206;
EP 3438584 B1 20200311; EP 3438586 A1 20190206; EP 3438586 B1 20200408; EP 3438587 A1 20190206; EP 3438587 B1 20200408;
PL 3438586 T3 20200907; PL 3438587 T3 20200907; US 10794630 B2 20201006; US 10866024 B2 20201215; US 2019041129 A1 20190207;
US 2019041130 A1 20190207; US 2019049177 A1 20190214; US 2019049178 A1 20190214

DOCDB simple family (application)
EP 18186659 A 20180731; CN 201810875560 A 20180803; CN 201810877089 A 20180803; CN 201810877101 A 20180803;
CN 201810877672 A 20180803; EP 18186654 A 20180731; EP 18186782 A 20180801; EP 18187381 A 20180803; PL 18186782 T 20180801;
PL 18187381 T 20180803; US 201816054213 A 20180803; US 201816054223 A 20180803; US 201816054240 A 20180803;
US 201816054350 A 20180803