

Title (en)

USE OF A DUPLEX STAINLESS STEEL IN A PHOSPHORIC ACID PRODUCTION SYSTEM

Title (de)

VERWENDUNG EINES ROSTFREIEN DUPLEXSTAHL IN EINEM SYSTEM ZUR HERSTELLUNG VON PHOSPHORSÄURE

Title (fr)

UTILISATION D'UN ACIER INOXYDABLE DUPLEX DANS UN SYSTÈME DE PRODUCTION D'ACIDE PHOSPHORIQUE

Publication

**EP 2215421 A4 20101006 (EN)**

Application

**EP 08841210 A 20081024**

Priority

- SE 2008051204 W 20081024
- SE 0702392 A 20071026

Abstract (en)

[origin: WO2009054799A1] The present disclosure relates to the use of a duplex stainless steel as heat exchanger material in a phosphoric acid production system using the wet method. The steel has the following composition in percent by weight : C max 0.03 Si max 0.5 Mn max 3 Cr 26-29 Ni 4.9-10 Mo 3-5 N 0.35-0.5 B max 0.0030 Co max 3.5 W max 3 Cu max 2 Ru max 0.3 balance Fe and normal occurring impurities.

IPC 8 full level

**F28F 21/08** (2006.01); **C01B 25/22** (2006.01); **C01B 25/234** (2006.01); **C22C 38/40** (2006.01); **C22C 38/42** (2006.01); **C22C 38/44** (2006.01); **C22C 38/52** (2006.01); **C22C 38/54** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP SE US)

**C22C 38/001** (2013.01 - EP US); **C22C 38/42** (2013.01 - SE); **C22C 38/44** (2013.01 - SE); **C22C 38/52** (2013.01 - SE); **C22C 38/54** (2013.01 - SE); **C22C 38/58** (2013.01 - SE); **F28F 21/08** (2013.01 - SE); **F28F 21/083** (2013.01 - EP US)

Citation (search report)

- [Y] US 3338745 A 19670829 - THORN JR ROY W, et al
- [YD] US 2003086808 A1 20030508 - SUNDSTROM ANN [SE], et al
- [A] US 2003133823 A1 20030717 - SUNDSTROM ANN [SE], et al

Citation (examination)

- EP 0455625 A1 19911106 - BOEHLER GMBH [AT]
- JP H03146641 A 19910621 - TAIHEIYO TOKUSHU CHUZO KK
- JACQUES CHARLES, BRUNO VINCENT: "Duplex stainless steels for chemical tankers", DUPLEX STAINLESS STEELS 97 - 5TH WORLD CONFERENCE, 1997, Retrieved from the Internet <URL:http://www.stainless-steel-world.net/pdf/D97\_018.pdf> [retrieved on 20100830]
- AGARWAL, D.C.: "Duplex Stainless Steels, the cost effective Answer to Corrosion Problems of major Industries", KEY ENGINEERING MATERIALS, vol. 20-28, 1988, Trans Tech Publications, Switzerland, pages 1677 - 1692
- See also references of WO 2009054799A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)

**WO 2009054799 A1 20090430**; EP 2215421 A1 20100811; EP 2215421 A4 20101006; SE 0702392 L 20090427; SE 531593 C2 20090602; US 2010294472 A1 20101125

DOCDB simple family (application)

**SE 2008051204 W 20081024**; EP 08841210 A 20081024; SE 0702392 A 20071026; US 73959308 A 20081024