

Title (en)
INTEGRALLY-GEARED COMPRESSORS FOR PRECOOLING IN LNG APPLICATIONS

Title (de)
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Title (fr)
COMPRESSEURS À ENGRENAGE CONSTRUIT D'UNE SEULE PIÈCE POUR LE PRÉ-REFROIDISSEMENT DANS DES APPLICATIONS LNG

Publication
EP 2981777 B1 20200318 (EN)

Application
EP 14717705 A 20140403

Priority

- IT FI20130076 A 20130404
- EP 2014056693 W 20140403

Abstract (en)
[origin: WO2014161937A2] A natural gas liquefaction system is disclosed, which comprises at least a pre-cooling loop (103), through which a first refrigerant is adapted to circulate. The pre-cooling loop comprises at least one compressor (109) for pressurizing the first refrigerant; at least one prime mover (111) for driving the compressor (109); at least one condenser (115) for removing heat from the first refrigerant; at least a first expansion element (119A-119D) for expanding the first refrigerant; at least a first heat exchanger (123A- 123D) for transferring heat from natural gas to the first refrigerant. The system further comprises at least a cooling loop (105), downstream of the pre-cooling loop, where through a second refrigerant circulates. The natural gas is adapted to be sequentially cooled in the pre-cooling loop and in the cooling loop. The compressor of the pre-cooling loop is an integrally-g geared turbo-compressor comprising a plurality of compressor stages (109A-109D).

IPC 8 full level
F25J 1/00 (2006.01); **F25J 1/02** (2006.01)

CPC (source: EP US)
F04D 25/024 (2013.01 - EP US); **F04D 25/163** (2013.01 - EP US); **F25J 1/0022** (2013.01 - EP US); **F25J 1/0052** (2013.01 - EP US); **F25J 1/0055** (2013.01 - EP US); **F25J 1/0082** (2013.01 - EP US); **F25J 1/0085** (2013.01 - EP US); **F25J 1/0087** (2013.01 - EP US); **F25J 1/0207** (2013.01 - EP US); **F25J 1/0216** (2013.01 - EP US); **F25J 1/0279** (2013.01 - EP US); **F25J 1/0283** (2013.01 - EP US); **F25J 1/0284** (2013.01 - EP US); **F25J 1/0289** (2013.01 - EP US); **F25J 1/0292** (2013.01 - EP US); **F25J 2230/20** (2013.01 - EP 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

DOCDB simple family (publication)
WO 2014161937 A2 20141009; **WO 2014161937 A3 20150723**; AU 2014247031 A1 20151008; AU 2014247031 B2 20171102; BR 112015023950 A2 20170718; BR 112015023950 B1 20210908; CA 2907931 A1 20141009; CA 2907931 C 20210126; CN 105264316 A 20160120; CN 105264316 B 20180619; EP 2981777 A2 20160210; EP 2981777 B1 20200318; IT FI20130076 A1 20141005; JP 2016519277 A 20160630; JP 6541157 B2 20190710; KR 102188435 B1 20201209; KR 20150140320 A 20151215; MX 2015014031 A 20160210; MX 363391 B 20190320; MY 175304 A 20200618; PE 20160061 A1 20160128; US 2016040927 A1 20160211

DOCDB simple family (application)
EP 2014056693 W 20140403; AU 2014247031 A 20140403; BR 112015023950 A 20140403; CA 2907931 A 20140403; CN 201480019583 A 20140403; EP 14717705 A 20140403; IT FI20130076 A 20130404; JP 2016505821 A 20140403; KR 20157031190 A 20140403; MX 2015014031 A 20140403; MY PI2015703276 A 20140403; PE 2015002109 A 20140403; US 201414782069 A 20140403