Title (en)

PRE-COOLING OF NATURAL GAS BY HIGH PRESSURE COMPRESSION AND EXPANSION

Title (de)

VORKÜHLUNG VON ERDGAS DURCH HOCHDRUCKKOMPRESSION UND -EXPANSION

Title (fr)

PRÉREFROIDISSEMENT DE GAZ NATUREL PAR COMPRESSION ET DILATATION HAUTE PRESSION

Publication

EP 3390936 A1 20181024 (EN)

Application

EP 16801662 A 20161110

Priority

- US 201562266985 P 20151214
- US 2016061335 W 20161110

Abstract (en)

[origin: US2017167786A1] A method of producing liquefied natural gas (LNG) is disclosed. A natural gas stream is provided from a supply of natural gas. The natural gas stream is compressed in at least two serially arranged compressors to a pressure of at least 2,000 psia to form a compressed natural gas stream. The compressed natural gas stream is cooled to form a cooled compressed natural gas stream. The cooled compressed natural gas stream is expanded in at least one work producing natural gas expander to a pressure that is less than 3,000 psia and no greater than the pressure to which the at least two serially arranged compressors compress the natural gas stream, to thereby form a chilled natural gas stream. The chilled natural gas stream is liquefied.

IPC 8 full level

F25J 1/00 (2006.01); **F25J 1/02** (2006.01)

CPC (source: EP US)

F25J 1/0022 (2013.01 - EP US); **F25J 1/0035** (2013.01 - EP US); **F25J 1/0037** (2013.01 - EP US); **F25J 1/004** (2013.01 - EP US); **F25J 1/0042** (2013.01 - EP US); **F25J 1/005** (2013.01 - EP US); **F25J 1/0072** (2013.01 - EP US); **F25J 1/0092** (2013.01 - EP US); **F25J 1/0202** (2013.01 - EP US); **F25J 1/0204** (2013.01 - EP US); **F25J 1/0212** (2013.01 - EP US); **F25J 1/0225** (2013.01 - US); **F25J 1/0254** (2013.01 - EP US); **F25J 1/027** (2013.01 - EP US); **F25J 1/0278** (2013.01 - EP US); **F25J 1/0283** (2013.01 - EP); **F25J 1/0288** (2013.01 - EP US); F25J 2205/02 (2013.01 - US); F25J 2210/06 (2013.01 - US); F25J 2210/60 (2013.01 - US); F25J 2230/04 (2013.01 - US); F25J 2230/20 (2013.01 - EP US); F25J 2230/22 (2013.01 - EP); F25J 2230/24 (2013.01 - US); F25J 2230/30 (2013.01 - EP US); F25J 2230/60 (2013.01 - US); F25J 2240/04 (2013.01 - US); F25J 2240/80 (2013.01 - EP); F25J 2245/02 (2013.01 - US); F25J 2270/06 (2013.01 - EP US); F25J 2270/08 (2013.01 - US); F25J 2270/90 (2013.01 - US); F25J 2290/12 (2013.01 - US); F25J 2290/72 (2013.01 - US)

Citation (search report)

See references of WO 2017105687A1

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)

US 2017167786 A1 20170615; AU 2016372717 A1 20180524; AU 2020202355 A1 20200423; AU 2020202355 B2 20210909; CA 3005327 A1 20170622; CA 3005327 C 20210713; EP 3390936 A1 20181024; JP 2018538506 A 20181227; JP 6800977 B2 20201216; MY 192361 A 20220817; SG 10202005527R A 20200729; SG 11201803621P A 20180628; WO 2017105687 A1 20170622

DOCDB simple family (application)

US 201615348533 A 20161110; AU 2016372717 A 20161110; AU 2020202355 A 20200402; CA 3005327 A 20161110; EP 16801662 A 20161110; JP 2018530577 A 20161110; MY PI2018000765 A 20161110; SG 10202005527R A 20161110; SG 11201803621P A 20161110; US 2016061335 W 20161110