

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

Title (de)  
GETRIEBEVERDICHTER ZUR VORKÜHLUNG BEI FLÜSSIGERDGSANWENDUNGEN

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

Publication  
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Application  
**EP 14717705 A 20140403**

Priority

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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).

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