

Title (en)

SCREW COMPRESSOR-EXPANDER CRYOGENIC SYSTEM

Publication

EP 0004609 A3 19791031

Application

EP 79100877 A 19790323

Priority

US 89467778 A 19780410

Abstract (en)

[origin: EP0004609A2] Cryogenic refrigeration system employs a power driven screw compressor which delivers pressurized refrigerant gas through a closed system to expand in a screw expander to produce refrigeration. The screw expander is rotatively coupled to the compressor. The screw compressor-screw expander cryogenic system includes heat exchangers and operates in the closed Brayton cycle to produce refrigeration.

IPC 1-7

F25B 1/04; F25B 9/00; F04C 27/00

IPC 8 full level

F04C 18/16 (2006.01); **F04C 23/02** (2006.01); **F04C 27/00** (2006.01); **F25B 1/04** (2006.01); **F25B 1/047** (2006.01); **F25B 9/06** (2006.01)

CPC (source: EP)

F04C 27/009 (2013.01); **F25B 1/047** (2013.01); **F25B 9/06** (2013.01); **F25B 2309/06** (2013.01)

Citation (search report)

- US 3184155 A 19650518 - CROOKS WILLIAM R
- GB 1312698 A 19730404 - FERROFLUIDICS CORP
- DE 2230064 A1 19730111 - VILTER MANUFACTURING CORP
- FR 796274 A 19360403 - MILO AB
- US 2804260 A 19570827 - NILSSON HANS R, et al
- DE 2636024 A1 19780323 - MEYER HANS
- US 1440000 A 19221226 - BONINE CHARLES E
- US 1673153 A 19280612 - MACLAREN FREDERICK B
- GB 882213 A 19611115 - NETZSCHKAU MASCHF NEMA
- DE 609405 C 19350214 - AEG
- DE 699427 C 19401128 - PINTSCH JULIUS KG
- ASHRAE JOURNAL, Vol. 15, August 1973 New York (US) SOREN E. EDSTROM: "Helical lobe machines for heating, refrigeration and air conditioning", pages 50-54 * page 53, left-hand column; page 54, left-hand column; figure 7 *

Cited by

GB2124306A; EP0676600A3; WO2020201843A1; BE1027172A1; EP0030636B1

Designated contracting state (EPC)

CH DE FR GB IT NL SE

DOCDB simple family (publication)

EP 0004609 A2 19791017; EP 0004609 A3 19791031; IL 56763 A0 19790531; IL 56763 A 19811231; JP S54154813 A 19791206;
JP S60162868 U 19851029; JP S6347824 Y2 19881209

DOCDB simple family (application)

EP 79100877 A 19790323; IL 5676379 A 19790228; JP 3073985 U 19850304; JP 4191679 A 19790406