



SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 20 86 55 01

Classification of the application (IPC):
F25B 1/00

Technical fields searched (IPC):
F25B

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X Y	US 2018195773 A1 (SAUNDERS MICHAEL A [US] ET AL) 12 July 2018 (2018-07-12) * paragraphs [0024] - [0044]; figures 1, 9 *	1-5, 13 6, 8
X	Reulens Walter : "NATURAL REFRIGERANT CO 2", 01 October 2009 (2009-10-01), pages 108-112 URL: http://www.koudecentraal.nl/documents/NaReCO2-handbook-2009.pdf [retrieved on 12 September 2023 (2023-09-12)] XP093080977 * paragraph [02.5]; figure 2.5.1 *	1-5
Y	CN 105201825 A (UNIV NORTHEASTERN) 30 December 2015 (2015-12-30) * figures 1-3 *	6, 8

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search Munich	Date of completion of the search 12 September 2023	Examiner Weisser, Meinrad
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CATEGORY OF CITED DOCUMENTS

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| X: particularly relevant if taken alone | P: intermediate document |
| Y: particularly relevant if combined with another document of the same category | T: theory or principle underlying the invention |
| A: technological background | E: earlier patent document, but published on, or after the filing date |
| O: non-written disclosure | D: document cited in the application |
| & : member of the same patent family, corresponding document | L: document cited for other reasons |

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LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-6, 8, 13

Refrigeration system having a low-pressure booster comprising a double-sided scroll compressor with a first and second scroll.

2. claim: 7

Refrigeration system having a compressor and a low-pressure booster, wherein both said compressor stages are formed as first and second stages of a double-sided scroll compressor.

3. claim: 9

Refrigeration system having a magnetic drive oil-less scroll compressor.

4. claim: 10

Refrigeration system having a low-pressure booster formed of a turbine.

5. claims: 11, 12

Refrigeration system having a medium-pressure manifold and an accumulator placed between the low-pressure booster and the compressor.

6. claims: 14, 15

Refrigeration system having a subcooling loop in the condenser or accumulator.

7. claim: 16

Double-sided scroll compressor and constructional details thereof.

None of the further search fees have been paid within the fixed time limit. The present (supplementary) European search report has been drawn up for those parts of the European patent application which relate to the first mentioned in the claims, namely claims: 1-6, 8, 13

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search Munich	Date of completion of the search 12 September 2023	Examiner Weisser, Meinrad
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ANNEX TO SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 20 86 55 01

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on 12-09-2023
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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			US 2021055045 A1	25-02-2021
			WO 2018132726 A1	19-07-2018
			WO 2018132730 A1	19-07-2018
CN 105201825	A	30-12-2015	NONE	