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(71) Applicant: **CARRIER CORPORATION**
Syracuse New York 13221 (US)

(72) Inventors:
- **Fraser, Howard H., Jr.**
  Lafayette, New York 13084 (US)
- **Lewis, Russell G.**
  Manlius, New York 13104 (US)
- **Taras, Michael F.**
  Fayetteville, New York 13066 (US)

(74) Representative: **Weydert, Robert et al**
Dennemeyer & Associates S.A.
P.O. Box 1502
1015 Luxembourg (LU)

(54) Refrigeration system with integrated oil cooling heat exchanger

(57) The refrigeration system includes a substantially liquid refrigerant and an evaporator (22) for transferring heat from the air to the substantially liquid refrigerant. The substantially liquid refrigerant becomes a low temperature, low pressure first substantially gaseous refrigerant. A compressor (12) compresses the first substantially gaseous refrigerant into a high pressure, high temperature superheated second gaseous refrigerant. A lubricant circuit supplies lubricant to the compressor (12). A condenser (16) rejects heat from the second gaseous refrigerant and forms a high pressure, lower temperature sub-cooled liquid refrigerant. The condenser (16) has an output stream. A metering device (20) transforms the sub-cooled liquid refrigerant into the substantially liquid refrigerant for the evaporator (22). A heat exchanger (18) includes a coolant circuit for circulating coolant in a first coolant path on route to the compressor (12); a lubricant circuit (51) for circulating lubricant in a second lubricant path on route to said compressor (12) for cooling via heat exchange with said coolant, and a refrigerant circuit (49) for circulating said sub-cooled liquid refrigerant in a third refrigerant path on route to the metering device (20) for cooling via heat exchange with said coolant.

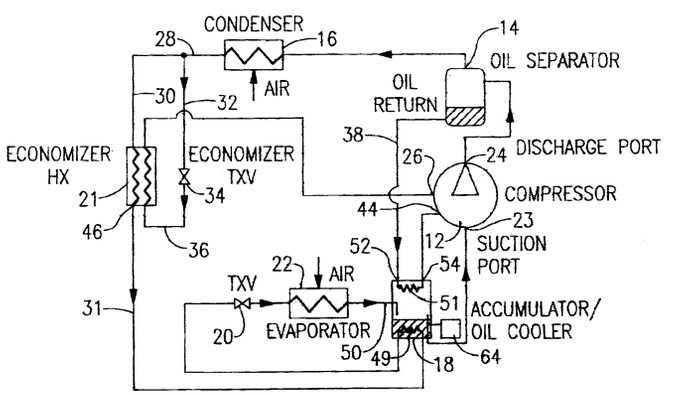

FIG.1

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EUROPEAN SEARCH REPORT

Application Number
EP 98 63 0074

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	2 February 2000	Busuiocescu, B

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