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**Datasheet for the decision
of 11 March 2021**

Case Number: T 1710/18 - 3.2.04

Application Number: 11852747.2

Publication Number: 2659143

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F04C23/00, F04C18/32, F04C29/06

Language of the proceedings: EN

Title of invention:
COMPRESSOR

Patent Proprietor:
LG Electronics Inc.

Opponent:
SANTARELLI-Société de Conseils en Propriété

Headword:

Relevant legal provisions:
EPC Art. 56, 123(2)
RPBA Art. 12(4)
RPBA 2020 Art. 13(2)

Keyword:

Inventive step - (no)

Amendments - allowable (no)

Late-filed request - request identical to request not admitted
in first instance proceedings

Amendment after summons - exceptional circumstances (no)

Decisions cited:

Catchword:



Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 1710/18 - 3.2.04

D E C I S I O N
of Technical Board of Appeal 3.2.04
of 11 March 2021

Appellant: LG Electronics Inc.
(Patent Proprietor) 20, Yeouido-dong
Yeongdeungpo-gu
Seoul 150-721 (KR)

Representative: Vossius & Partner
Patentanwälte Rechtsanwälte mbB
Siebertstrasse 3
81675 München (DE)

Appellant: SANTARELLI-Société de Conseils en Propriété
(Opponent) 49 avenue des Champs-Elysées
75008 Paris (FR)

Representative: Santarelli
49, avenue des Champs-Elysées
75008 Paris (FR)

Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
23 April 2018 concerning maintenance of the
European Patent No. 2659143 in amended form.**

Composition of the Board:

Chairman A. de Vries
Members: G. Martin Gonzalez
C. Heath

Summary of Facts and Submissions

I. The Appellant-Opponent lodged an appeal, received on 3 July 2018, against the interlocutory decision of the Opposition Division posted on 23 April 2018 concerning maintenance of the European Patent No. 2 659 143 in amended form, and simultaneously paid the appeal fee. The statement setting out the grounds of appeal was received on 3 September 2018.

The Appellant-Proprietor also lodged an appeal, received on 3 July 2018 and paid the appeal fee on the same day. The statement setting out the grounds of appeal was received on 3 September 2018.

II. The Opposition Division held that the patent as amended met the requirements of the Convention having regard inter-alia to following evidence:

(D1) US 2,440,593

(D3) US 4,147,479

III. In an annex to the summons to attend oral proceedings, the Board set out its provisional opinion on the relevant issues.

Oral proceedings before the Board were duly held on 11 March 2021 by videoconference.

IV. The Appellant-Opponent requests that the decision under appeal be set aside and the patent be revoked and that auxiliary requests 1 and 5-8 should not be admitted.

The Appellant-Proprietor requests that the decision under appeal be set aside and that the patent be

maintained as granted (Main Request), or based on Auxiliary Request 1 filed during the oral proceedings before the Opposition Division and refiled with the grounds of appeal on 3 September 2018, or that the Appellant-opponent's appeal be dismissed (Auxiliary Request 2), or that the patent be maintained on any of Auxiliary Requests 3 or 4 filed on 16 January 2019 with the reply to the Appellant-opponent's grounds of appeal, or Auxiliary Requests 5-8 filed with letter dated 11 February 2021.

V. The wording of claim 1 of the requests relevant to this decision is as follows:

(a) Main request

"A compressor, comprising:
a shell (100, 1100, 2100, 3100, 4100) having a sealed internal space;
a stator (210, 1210, 2210, 3210, 4210) installed in an internal space of the shell;
a rotor (220, 1220, 2220, 3220, 4220) rotatably provided with respect to the stator to be rotated thereby;
a cylinder (410, 1410, 2410, 3410, 4410) coupled with the rotor to be rotated therewith;
a plurality of bearings (420, 430) that cover a top and a bottom of the cylinder to form a compression space together with the cylinder and coupled with the cylinder to be rotated together therewith;
a stationary shaft (300, 1300, 2300, 3300, 4300) fixed in the internal space of the shell, a shaft center of which corresponds to a rotational center of the cylinder, and an eccentric portion (320) of which varies a volume of the compression space during

rotation of the cylinder while supporting the plurality of bearings in an axial direction;
a refrigerant suction passage (301) of the stationary shaft that guides refrigerant into the compression space; and
a rolling vane (440) coupled with the cylinder and configured to slide with respect to the eccentric portion while being rotated together with the cylinder to compress refrigerant, wherein the rolling vane divides the compression space into a suction chamber and a discharge chamber, characterized by further comprising:
an accumulator (500, 1500, 2500, 3500, 4500) having an accumulator chamber (501, 1501, 2501, 3111, 4501) separated from the internal space of the shell; and
a suction pipe (102, 1102, 2103, 2102, 3102, 4102) communicating with the accumulator chamber to guide refrigerant into the accumulator,
wherein an end of the stationary shaft is inserted into and coupled with the accumulator, such that the refrigerant suction passage of the stationary shaft communicates with the accumulator chamber, and
wherein the suction pipe (102, 1102, 2103, 2102, 3102, 4102) is eccentrically disposed from the refrigerant suction passage (301) of the stationary shaft (300)."

(b) First auxiliary request

Claim 1 as in the main request, amended to add the following features at the end of the claim (emphasis added by the Board to indicate added or removed text):

"...communicates with the accumulator chamber, ~~and~~ wherein the suction pipe (102, 1102, 2103, 2102, 3102, 4102) is eccentrically disposed from the refrigerant suction passage (301) of the stationary shaft (300)."

and wherein the suction pipe and the stationary shaft are arranged in parallel to each other in the axial direction."

(c) Second auxiliary request:

Claim 1 as in the main request, amended to add the following features at the end of the claim (emphasis added by the Board to indicate added or removed text):

"...communicates with the accumulator chamber, ~~and~~ wherein the suction pipe (102, 1102, 2103, 2102, 3102, 4102) is eccentrically disposed from the refrigerant suction passage (301) of the stationary shaft (300), and wherein the suction pipe is coupled with an upper surface of the accumulator."

(d) Third auxiliary request:

Claim 1 as in the second auxiliary request, amended to add the following features at the end of the claim (emphasis added by the Board):

"...communicates with the accumulator chamber, wherein the suction pipe (102, 1102, 2103, 2102, 3102, 4102) is eccentrically disposed from the refrigerant suction passage (301) of the stationary shaft (300), ~~and~~ wherein the suction pipe is coupled with an upper surface of the accumulator, and wherein the suction pipe is arranged in parallel to the suction passage of the stationary shaft."

(e) Fourth auxiliary request:

Claim 1 as in the third auxiliary request, amended as follows (emphasis added by the Board to indicate added or removed text):

"A compressor, comprising:

a shell (100, 1100, 2100, 3100, 4100) having a sealed internal space, the shell including a shell body (110), an upper cap (120) covering an upper open end (111) of the shell body (110), and a lower cap (130) that covers a lower open end (112) of the shell body (110);
a stator (210, 1210, 22210, 3210, 4210) installed in an internal space of the shell;...

..

a suction pipe (102, 1102, 2103, 2102, 3102, 4102) communicating with the accumulator chamber to guide refrigerant into the accumulator, and an oil feeder (460) pumping oil collected in the lower cap of the shell, the oil feeder rotating with the rotor at a lower end of the stationary shaft, wherein an end of the stationary shaft is inserted into and coupled with the accumulator, such that the refrigerant suction passage of the stationary shaft communicates with the accumulator chamber, ~~and~~ wherein the suction pipe (102, 1102, 2103, 2102, 3102, 4102) is eccentrically disposed from the refrigerant suction passage (301) of the stationary shaft (300), wherein the suction pipe is coupled with an upper surface of the accumulator formed by the upper cap of the shell, and wherein the suction pipe is arranged in parallel to the suction passage of the stationary shaft."

(f) Fifth auxiliary request:

Claim 1 as in the main request amended as follows (emphasis added by the Board):

"... characterized by further comprising:
an accumulator (500, 1500, 2500, 3500, 4500) having an accumulator chamber (501, 1501, 2501, 3111, 4501) separated from the internal space of the shell;
a bush hole (151) through a center of which a stationary bush (160) is coupled to the accumulator (500, 1500, 2500, 3500, 4500);
and a suction pipe (102, 1102, 2103, 2102, 3102, 4102) communicating with the accumulator chamber to guide refrigerant into the accumulator,
wherein an end of the stationary shaft is inserted into and coupled with the accumulator, such that the refrigerant suction passage of the stationary shaft communicates with the accumulator chamber, ~~and~~
wherein the suction pipe (102, 1102, 2103, 2102, 3102, 4102) is eccentrically disposed from the refrigerant suction passage (301) of the stationary shaft (300),
wherein the stationary bush (160) comprises a shaft receiving portion (161) inserted into the bush hole (151) of the accumulator frame (150), and a flange portion (165) extending in a radial direction at a middle portion of a circumferential surface of the shaft receiving portion (161),
wherein the shaft receiving portion (161) comprises a shaft receiving hole (162), through a center of which the stationary shaft (300) is coupled, and a sealing member (167) is provided at the middle portion of the shaft receiving portion (161) to seal between the accumulating chamber (501) of the accumulator (500) and the internal space (101) of the shell (100), and
wherein the flange portion (165) is formed such that a radial directional width thereof is larger than a radial directional width of the shaft receiving portion (161), and a plurality of fastening holes (166) is

formed to correspond to through holes (152) of the accumulate frame (150)."

(g) Sixth auxiliary request:

Claim 1 as in the second auxiliary request, amended to add the same features that were added in the fifth auxiliary request.

(h) Seventh auxiliary request:

Claim 1 as in the second auxiliary request, amended as follows (emphasis added by the Board):

"... characterized by further comprising:

an accumulator (500, 1500, 2500, 3500, 4500) having an accumulator chamber (501, 1501, 2501, 3111, 4501) separated from the internal space of the shell; ~~and~~ a suction pipe (102, 1102, 2103, 2102, 3102, 4102) communicating with the accumulator chamber to guide refrigerant into the accumulator, and

an oil feeder (460) pumping oil collected in the lower cap of the shell, the oil feeder rotating with the rotor at a lower end of the stationary shaft,

wherein an end of the stationary shaft is inserted into and coupled with the accumulator, such that the refrigerant suction passage of the stationary shaft communicates with the accumulator chamber,

wherein the suction pipe (102, 1102, 2103, 2102, 3102, 4102) is eccentrically disposed from the refrigerant suction passage (301) of the stationary shaft (300), ~~and~~

wherein the suction pipe is coupled with an upper surface of the accumulator in an axial direction, wherein an outlet port of the oil feeder (460) communicates with the oil groove (434)

of the lower bearing (430), and wherein a bottom oil pocket (323) is formed at a bottom surface of the eccentric portion (320) that communicates with the oil groove (434) of the lower bearing (430), one or more oil through holes (325) that guide oil collected in the bottom oil pocket (323) to the oil groove (424) of the upper bearing (420) penetrate in an axial direction at an inner portion of the bottom oil pocket (323), a top oil pocket (324) is formed at a top surface of the eccentric portion (320) that communicates with the oil through holes (325), and the top oil pocket (324) communicates with the oil groove (424) of the upper bearing (420)."

(i) Eighth auxiliary request

Claim 1 as in the fourth auxiliary request, amended as follows (emphasis added by the Board)

"... characterized by further comprising:
an accumulator (500, 1500, 2500, 3500, 4500) having an accumulator chamber (501, 1501, 2501, 3111, 4501) separated from the internal space of the shell;
a bush hole (151) through a center of which a stationary bush (160) is coupled to the accumulator (500, 1500, 2500, 3500, 4500);
and a suction pipe (102, 1102, 2103, 2102, 3102, 4102) communicating with the accumulator chamber to guide refrigerant into the accumulator,
wherein an end of the stationary shaft is inserted into and coupled with the accumulator, such that the refrigerant suction passage of the stationary shaft communicates with the accumulator chamber, ~~and~~
wherein the suction pipe (102, 1102, 2103, 2102, 3102, 4102) is eccentrically disposed from the refrigerant suction passage (301) of the stationary shaft (300),

wherein the stationary bush (160) comprises a shaft receiving portion (161) inserted into the bush hole (151) of the accumulator frame (150), and a flange portion (165) extending in a radial direction at a middle portion of a circumferential surface of the shaft receiving portion (161),
wherein the shaft receiving portion (161) comprises a shaft receiving hole (162), through a center of which the stationary shaft (300) is coupled, and a sealing member (167) is provided at the middle portion of the shaft receiving portion (161) to seal between the accumulating chamber (501) of the accumulator (500) and the internal space (101) of the shell (100), and
wherein the flange portion (165) is formed such that a radial directional width thereof is larger than a radial directional width of the shaft receiving portion (161), and a plurality of fastening holes (166) is formed to correspond to through holes (152) of the accumulate frame (150),
wherein an outlet port of the oil feeder (460) communicates with the oil groove (434) of the lower bearing (430), and
wherein a bottom oil pocket (323) is formed at a bottom surface of the eccentric portion (320) that communicates with the oil groove (434) of the lower bearing (430), one or more oil through holes (325) that guide oil collected in the bottom oil pocket (323) to the oil groove (424) of the upper bearing (420) penetrate in an axial direction at an inner portion of the bottom oil pocket (323), a top oil pocket (324) is formed at a top surface of the eccentric portion (320) that communicates with the oil through holes (325), and the top oil pocket (324) communicates with the oil groove (424) of the upper bearing (420)."

VI. The Appellant-Opponent argued as follows:

Claim 1 of the main request lacks an inventive step in the light of the teachings of D1 and D3.

Auxiliary request 1, not admitted by the Opposition Division, should be disregarded by the Board, Article 12(4) RPBA 2007.

The subject-matter of claim 1 of auxiliary requests 2 and 3 is obvious in the light of the combined teachings of D1 and D3, taking into account the common general knowledge of the person skilled in the art.

Auxiliary request 4 contains subject-matter extending over the contents of the original application.

The late filing of auxiliary requests 5-8 is not justified by any development of the proceedings and should not be admitted, Article 13(2) RPBA 2020.

VII. The Appellant-Proprietor argued as follows:

Claim 1 of auxiliary requests 1,2 and 3 involves an inventive step over the cited prior art.

The Opposition Division improperly exercised its discretion when not-admitting auxiliary request 1. The prima-facie assessment of added subject-matter was wrong. The Board should therefore overrule the first instance discretionary decision and admit auxiliary request 1.

Auxiliary request 4 does not contain added subject-matter.

Auxiliary requests 5-8 are admissible under Article 13(2) RPBA 2020 since they are justified by the

developments in the proceedings, in particular by the Board's written preliminary opinion.

Reasons for the Decision

1. The appeals are admissible.
2. Background

The invention is concerned with a compressor for refrigerant fluid of the rotary type, see specification paragraphs [0001]-[0003]. Upstream of the compressor, an accumulator divides the incoming gas/liquid mixed fluid into gas refrigerant and liquid refrigerant so that the compressor inhales only gaseous fluid, temporarily accumulating excess liquid refrigerant for later evaporation, see specification paragraph [0004]. In order to provide a more compact and simpler to assemble compressor, the accumulating chamber of the accumulator is formed by using an internal space of the shell housing of the compressor, see paragraphs [0014]-[0015] of the patent specification.

3. Main request - Inventive step

The Appellant-Proprietor contests the Opposition Division's finding of lack of inventive step for granted claim 1 over the combination of D1 and D3. The Board is however not convinced by the Appellant-Proprietor's arguments.

- 3.1 It is common ground that D1 is a suitable starting point. It is also not disputed that D1 discloses a rotary type compressor as defined by the preamble of claim 1. D1 however does not describe any suction side accumulator or how an accumulator may be connected.

The claimed compressor thus differs from that of D1 in the provision of an accumulator and its related features. Contested claim 1 requires an accumulator having a suction or inlet pipe, wherein an end of the stationary shaft of the compressor is inserted into the accumulator for suctioning refrigerant gas through the refrigerant suction passage of the stationary shaft, where the suction pipe is eccentrically disposed from the suction passage of the stationary shaft.

The formulation of the objective technical problem is also not in dispute. This can be seen as how to provide the known compressor of D1 with gas/liquid separation at the suction side in a compact manner, see patent specification paragraphs [0014]-[0017].

- 3.2 In this regard D3 teaches an accumulator for providing gas/liquid separation in refrigeration systems, see column 1, lines 8-14. The accumulator 12 (figure 2) , 12a (figure 7) taught by D3 is aimed at providing an apparatus where the suction accumulator is combined with hermetic compressors of refrigerating systems, see column 1, lines 15-20, by means of a "suction accumulator 12 mounted directly on top of a conventional hermetic compressor unit 14 so as to structurally and functionally integrate these components into a unitary assembly", see column 2, lines 9-14. The combination saves space, weight and materials, as well as tooling and productions costs, see D3, column 1, lines 40-43. The accumulator further includes a standpipe assembly 74,74a (see figures 2 and 7) to prevent liquid as it accumulates from entering the compressor. The standpipe has a tube 76 with an outlet 78, which in the embodiments shown, protrudes into the compressor. The inlet 32 of the accumulator -

its suction pipe in the wording of claim 1 - is located in the lateral wall of the accumulator and is thus necessarily eccentrically disposed from the centrally located standpipe 74, see figures. An eccentric location does not imply, in the Board's view, a location of suction pipe on the top of the accumulator. Here the Board gives the term "eccentric" its normal meaning of "not centrally placed" (OED), which undoubtedly applies to the position of inlet 32 on the side wall.

3.3 The skilled person, seeking to provide gas/liquid separation to the known hermetic compressor of D1 in a compact manner, would naturally regard the teaching of D3 to the same effect as very relevant. In this regard it is noted that, contrary to the Appellant-Proprietor's argument, D3 is not limited to the particular type of compressor shown in the embodiments. These are described only by way of example, cf. column 2, lines 5 to 9 and 41 to 42; claim 1 is indeed not limited to any particular compressor type.

D3 teaches to mount the accumulator directly on top of the compressor, see above. As in the illustrated examples the outlet 78 of the standpipe 74 extends into the compressor *below* the accumulator, whereas the inlet 43 of the compressor of D1 protrudes *outwardly* from the top, which will require an adaptation to allow the two to be fitted together such that accumulator gas outlet 78 of D3 communicates with the gas inlet 43 of the D1 compressor. D3 already teaches to structurally and functionally integrate the compressor and the accumulator, see above. Accordingly, the skilled person would seek to connect both gas ports - outlet of accumulator to inlet of compressor - to complete the functional integration. They will thus as a matter of

course and using routine skills adapt the protruding compressor stationary shaft end 41 with gas inlet 43 to mate with the gas outlet 78 of the accumulator, e.g by dimensioning one for insertion into the other. In the Board's view, such an adaptation lies well within the routine skills of the skilled person, an engineer involved in the design and development of refrigeration systems with relevant knowledge of fluid pipe connections and fittings. By adapting the two inlets so that they fit together or mate, the skilled person would arrive at a compressor unit with an integrated accumulator, such that the end of the central stationary shaft 37 with suction passage 30 of D1 (see figure 2) is inserted into the accumulator as in D3 to connect with the tube 76 of its standpipe 74 to communicate with the accumulator. They will then have arrived at the features of granted claim 1 without an inventive step.

- 3.4 It follows from the above that the Board is unconvinced that the presence of the standpipe with protruding outlet would lead the skilled person to abandon all expectation of applying the accumulator of D3 to the D1 compressor.

Nor does the Board consider the age of documents D1 (from 1946) and D3 (from 1979) to be so great as to conclude inventive step. Secondary indicia of this kind are auxiliary considerations and thus only of importance in cases of doubt, CLBA, 9th edition 2019, I.D.10.1. In this case, the Board considers the application of the problem solution approach and subsequent necessary adaptation to be so straightforward as to leave little room for doubt. Nor has any evidence been submitted of any long felt need in relation to this particular type of compressor.

- 3.5 The Board thus confirms the Division's conclusion of lack of inventive step of granted claim 1.
4. First auxiliary request - Admission
- 4.1 This request corresponds to auxiliary request 1 filed and not admitted under Article 114(2) EPC and Rule 116(1) EPC in the course of the oral proceedings before the Opposition Division for prima facie not fulfilling the requirements of Article 123(2) EPC. There is no apparent error in the way the Division exercised its discretion, as it appears to have applied the proper criteria of prima facie clear allowability (see also Guidelines November 2016, E.II.8.6) in an even-handed manner and after properly hearing the parties.
- 4.2 The Appellant-Proprietor submits that the prima-facie assessment of added subject-matter of the Opposition Division was wrong. This however appears to the Board not to be so. Claim 1 contains the added feature taken from the drawings that the suction pipe and the stationary shaft are arranged in parallel.

As frequently cited in case law, the EPC does not prohibit the amendment of claims to include features from drawings, provided the structure and the function of such features were clearly, unmistakably and fully derivable from the drawings by the skilled person and not at odds with the other parts of the disclosure. Nor can any element be dropped, see Case Law of the Boards of Appeal, 9th edition 2019 (CLBA), II.E.1.13. In the present case, the Board is also unable to derive from the figures any function associated with the parallel arrangement per se. Nor does this appear to have been argued at the oral proceedings before the Opposition

Division. The Board concludes that their assessment was thus not mistaken.

4.3 The Board consequently sees no reason to overrule the Division's exercise of discretion. It therefore decided not to admit this request on the basis of Article 12(4) RPBA 2007.

5. Auxiliary request 2 - Inventive step

5.1 The Board holds, contrary to the findings of the Opposition Division, that the subject-matter of claim 1 of this request lacks inventive step.

5.2 Claim 1 of this request, as compared to granted claim 1, additionally requires that the suction pipe is coupled with an upper surface of the accumulator.

The Board is not convinced by the Appellant-Proprietor's submission that this difference is also related to the provision of a compact arrangement. The description firstly does not associate any advantage, let alone compactness, with this feature. Indeed, paragraph [0120] of the patent which discusses the location of the suction pipe also mentions installing the suction pipe not on the upper surface but parallel with the discharge pipe 4103 (figure 25), i.e. on the side wall. Neither location is identified as advantageous or preferential. Nor is it apparent to the Board that there is any gain in compactness by providing the entrance from above instead of from the side, in particular if the discharge pipe is located on the side as in figures 1, 19 and 15. The inlet and the space it occupies must in any case be present.

Starting from D1 combined with the teachings of D3 as discussed above for the main request, the Board can only associate with this further feature the effect and related problem of providing an alternative location. This problem is unrelated to that of providing the known compressor of D1 with gas/liquid separation at the suction side in a compact manner, formulated for the main request so that inventive step can be assessed independently for the added feature.

5.3 The Board holds that modifying any of the accumulator embodiments taught by D3 to couple the suction pipe at the upper surface or indeed any other position, failing any clear benefit or advantage, is an obvious modification for the skilled person tasked with providing an alternative location connection to the accumulator.

5.4 The Opposition Division held that D3 requires the installation of the suction pipe in the side wall of the casing near the top of the accumulator and refers to column 4, lines 14-17 of D3. This location would be associated with the provision of the swirling tangential gas flow inside the accumulator. The loss of the swirling flow, by abandoning the side wall inlet, would according to the Opposition Division deter the skilled person from changing the lateral inlet location as a matter of obviousness.

However, in the Board's view, inventive step cannot be based on the mere fact that a feature in the prior art is associated with a clear technical effect or advantage, whereas a claimed feature replacing or modifying it is not. The Board is unable to see in this fact alone a deterrent for the skilled person. Rather, the skilled person when given the simple task of

finding an alternative will as a matter of obviousness always consider the pro's and cons of the available options. Their choice will be based on the particular balance they strike. As long as the results of such a routine exercise are foreseeable, the resultant modification will be obvious, cf. CLBA, I.D.9.19.1 regarding foreseeably disadvantageous or technically non-functional modifications; see also I.D.9.5 regarding features that do not contribute to the solution of the stated problem.

- 5.5 The Board therefore concludes that starting from the obvious combination of D1 with D3 in the light of the common general knowledge of the skilled person, the subject-matter of claim 1 of the second auxiliary request also lacks an inventive step.
- 6. Third auxiliary request - Inventive step
 - 6.1 Claim 1 further includes the feature that the suction pipe is arranged in parallel to the suction passage of the stationary shaft. This claim also lacks an inventive step in the light of D1 and D3.
 - 6.2 The Appellant-Proprietor submits that this feature contributes to the gas/fluid separation process by inducing a sinuous flow path inside the accumulator. They refer to the flow arrows depicted in figures 1, 19, 21, 23, 24 and 25.
 - 6.3 However, as acknowledged by the Appellant-Proprietor the description does not mention this feature, let alone associate any particular advantage therewith. Preventing the liquid refrigerant from being directly inhaled by the suction passage is already achieved by the suction pipe being eccentrically disposed, and not

by its orientation, see patent specification paragraphs [0038]. Moreover, as mentioned earlier, the patent in paragraph [0120] also suggests arrangements with the suction pipe located on the side wall and thus perpendicular to the suction passage. Neither orientation is given any preference. The description therefore does not appear to attach any technical significance to the orientation of the suction passage. As regards the sinuous path inside the accumulator depicted by the flow arrows, this can also be seen to be achieved by the opening of the stationary shaft 300 or its extension tube being more or less at the same level or even above that of the suction pipe, see figures 1, 19, 21, 23, 24, 25. However, this feature is not claimed. This effect cannot thus be associated to the suction pipe orientation, or to the suction pipe orientation alone, as claimed.

6.4 Thus, no technical effect can be associated with this differentiating feature for the formulation of the objective technical problem. It follows that the same reasons given above for auxiliary request 2 must hold.

6.5 The Board therefore concludes that the subject-matter of claim 1 of this request also lacks an inventive step.

7. Fourth auxiliary request

7.1 Claim 1 of this request defines a lubricant oil supply from the oil collected in the lower cap of the shell in much more general terms than the specific oil lubricant supply structure described in original paragraph [92], the only basis cited by the Appellant-proprietor. As is immediately apparent from a comparison of the wording of this feature with that of paragraph [92], the

features of the oil feeder are described in much more specific detail together with other features that are not included. No cogent argument was presented why these features might be generalized or isolated from their context, where they appear inextricably linked with the other features not included to form a unique functional unit. The broader claimed oil supply represents therefore an unallowable generalisation of its specific original description.

7.2 Furthermore, the new feature of an "oil feeder... at a lower end of the stationary shaft" does not find any literal basis in paragraph [92]. Original paragraph [92] describes that "an oil feeder 460... may be coupled with a lower end of the shaft receiving hole 433 of the lower bearing 430..." while the stationary shaft 300 is inserted at the opposite end, namely the upper end of the hole 433. In the original disclosure stationary shaft and oil feeder 460 are thus separated, contrary to the added feature.

7.3 The Board concludes that the subject-matter of claim 1 contains subject-matter which extends beyond the content of the application as filed, Article 123(2) EPC.

8. Auxiliary requests 5-8 - Admission.

8.1 Auxiliary requests 5-8 were filed on 11 February 2021. They thus represent amendments to the party's case, filed after the notification of the summons to oral proceedings issued on 16 June 2020. Their admission is at the discretion of the Board under Article 13(2) RPBA 2020.

Article 13(2) RPBA 2020 stipulates that an amendment to a party's appeal case made after notification of a summons to oral proceedings shall, in principle, not be taken into account unless there are exceptional circumstances, which have been justified with cogent reasons by the party concerned.

The Board has therefore to examine whether the patent Proprietor has supplied cogent arguments for the presence of exceptional circumstances.

- 8.2 The Appellant-Proprietor submits that these requests were filed as a response to the negative preliminary opinion of the Board in its annex to the summons issued on 16 June 2020. However, the Board's preliminary opinion for the main request and auxiliary requests 1-3 considered only the objections raised in the Opponent's grounds of appeal and their reply to the Proprietor's appeal, as well as the counter arguments presented in the Appellant-Proprietor's statement of grounds and reply, as is to be expected in view of Art 12(2) RPBA 2020. That the Board's preliminary opinion differed from the conclusion of the Opposition Division may have been surprising or unexpected to the Appellant-Proprietor, but it is a possibility that always has to be taken into account and is thus within the scope of what is objectively foreseeable and under normal circumstances nothing exceptional. The Board for the case at issue is unable to see any exceptional circumstances. In regard of the newly filed auxiliary requests, the Board also notes that instead of pursuing the addition of further dependent claims that can be regarded as foreseeable fallback positions, the Appellant-Proprietor at such a late stage of procedure has chosen to add features from the description that moreover pursue a completely new path of enquiry vis-a-

vis the requests previously filed. In particular, the added features do not build on the subject-matter so far discussed during the appeal proceedings. For example, in auxiliary requests 5,6 and 8, unrelated aspects on how the accumulator and the compressor are mechanically coupled have been introduced, while in the case of auxiliary requests 7, rather than merely adding the missing features discussed for auxiliary request 4, features have been omitted from the claim which had not been objected to. In sum, the Board takes the view that the newly filed Auxiliary Requests were neither foreseeable, nor converging, nor logically building upon objections raised against previously filed requests.

- 8.3 In view of the above, the Board decided not to admit auxiliary requests 5-8 into the proceedings, Article 13(2) RPBA 2020.

9. For the above reasons, the Board confirms that at least one ground for opposition prejudices the maintenance of the European patent as granted and that, taking into consideration the amendments made by the respondent-proprietor, the patent and the invention to which it relates do not meet the requirement of the Convention. Therefore, the patent must be revoked, Article 101(2) EPC and Article 101(3) (b) EPC.

Order

For these reasons it is decided that:

1. **The decision under appeal is set aside.**

2. **The patent is revoked.**

The Registrar:

The Chairman:



G. Magouliotis

A. de Vries

Decision electronically authenticated