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Datasheet for the decision of 27 February 2026

Case Number: T 1017/24 - 3.2.01

Application Number: 19199898.8

Publication Number: 3798072

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Language of the proceedings: EN

Title of invention:
BRAKE SYSTEM FOR A COMMERCIAL VEHICLE

Patent Proprietor:
Haldex Aktiebolag

Opponent:
ZF CV Systems Europe BV

Headword:

Relevant legal provisions:
EPC Art. 54, 56, 123(2)
RPBA 2020 Art. 12(4), 12(6)

Keyword:

Novelty - main request (no) - auxiliary request (yes)
Inventive step - ex post facto analysis - auxiliary request (yes)
Amendments - allowable (yes)
Late-filed request - admitted (no)
Amendment to case

Decisions cited:

Catchword:

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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

Case Number: T 1017/24 - 3.2.01

D E C I S I O N
of Technical Board of Appeal 3.2.01
of 27 February 2026

Appellant: (Patent Proprietor)	Haldex Aktiebolag Instrumentgatan 15 Box 507 261 24 Landskrona (SE)
Representative:	Müller Schupfner & Partner Patent- und Rechtsanwaltspartnerschaft mbB (Muc) Bavariaring 11 80336 München (DE)
Respondent: (Opponent)	ZF CV Systems Europe BV Chaussée de la Hulpe 166 1170 Brussels (BE)
Representative:	Bremer, Ulrich Advopat Patent- und Rechtsanwälte Theaterstraße 6 30159 Hannover (DE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 5 June 2024 concerning maintenance of the European Patent No. 3798072 in amended form.**

Composition of the Board:

Chairman	H. Geuss
Members:	M. Geisenhofer
	S. Fernández de Córdoba

Summary of Facts and Submissions

I. The appeal was filed by the patent proprietor against the opposition division's interlocutory decision finding that, on the basis of the auxiliary request 2B1, the patent in suit met the requirements of the EPC.

II. The opposition division held, *inter alia*, that the main request (patent as granted) was novel over document

D9 EP 0 110 119 B2

but lacked novelty over documents

D12 DE 10 2017 121 761 A1,
D19 EP 0 357 922 A2,
D21 DE 10 2015 110 386 A1 and
D24 DE 35 01 179 A1, respectively.

Auxiliary requests 1A, 1B, 1C, 1E and 1F (filed during oral proceedings) were not admitted.

Auxiliary request 1D (filed before the oral proceedings as "auxiliary request 1") was admitted, but considered to lack novelty over D19.

III. Oral proceedings were held before the board.

(a) The appellant (patent proprietor) requested that the decision under appeal be set aside and the patent be maintained as granted (main request), in the alternative that the patent be maintained in amended form based on one of auxiliary requests 1 or 4 filed with the statement of grounds of appeal.

(b) The respondent (opponent) requested that the appeal be dismissed.

IV. The following further document is referred to by the parties:

D1 WO 92/13740

V. Independent claim 1 of the **main request** reads as follows:

"*A brake system (1) for a commercial vehicle, the brake system (1) preferably comprising a vehicle axle with at least one wheel end, the brake system (1) comprising*

a) a pneumatic brake actuator (3a) arranged or arrangeable at a wheel end of a vehicle axle,

b) an electro-pneumatic brake path (6a) generating an electro-pneumatic brake pressure dependent on an electric brake control signal and

c) a redundancy brake path (31),

d) a fail-safe valve (4a) which

da) in a first switching state connects the electro-pneumatic brake path (6a) to the pneumatic brake actuator (3a) so that the pneumatic brake actuator (3a) is controlled by the electric brake control signal and

db) in a second switching state connects the redundancy brake path to the pneumatic brake actuator (3a) so that the pneumatic brake actuator (3a) is controlled by the redundancy brake path (31) and

dc) comprises an electric control port (8a) and

dd) is transferred into the first switching state by energizing the electric control port (8a) and

de) comprises a return means (10a) which returns the fail-safe valve (4a) from the first switching state into the second switching state when the electric control port (8a) is not energized

e) an electronic control system (9)

characterized in that

e) the electronic control system (9) comprises control logic which performs a test procedure for testing the operation

ea) of the electro-pneumatic brake path (6a; 6b) and/or

eb) of the redundancy brake path (31) or a pneumatic brake path."

Auxiliary request 1 comprises two independent claims, with claim 1 additionally claiming the following feature:

"*f) the fail-safe valve (4a) is a 3/2 solenoid valve (5a).*"

The further independent claim, claim 2, of auxiliary request 1, in addition to claim 1 of the main request, claims the following feature:

"*the electro-pneumatic brake path (6a) as well as the redundancy brake path (31) create brake pressures that are directly transmitted via the fail-safe valve (4a) to the brake chamber of the pneumatic brake actuator.*"

Auxiliary request 4 comprises one independent claim only, which, in addition to claim 1 of the main request, claims the following feature:

"*the fail-safe valve (4a) is a 3/2-solenoid valve (5a).*"

VI. The appellant's arguments (insofar as they were relevant for the present decision) can be summarised as follows:

(a) The subject-matter of claim 1 of the main request was novel and inventive.

(b) Auxiliary request 1 was a response to the opposition division's decision and hence should be admitted.

(c) The subject-matter of auxiliary request 4 was novel and inventive. Furthermore, it was amended in a way that did not extend beyond what was disclosed in the application as originally filed.

VII. The respondent's arguments (insofar as they were relevant for the present decision) can be summarised as follows:

(a) The subject-matter of claim 1 of the main request lacked novelty over at least documents D19 and D24, respectively.

(b) Auxiliary request 1 should not be admitted into the proceedings.

(c) The subject-matter of claim 1 of auxiliary request 4 lacked novelty over each of documents D9, D19 and D24, and it at least lacked inventive step when starting from one of documents D9, D12, D19, D21 or D24 as the closest prior art.

(d) Claim 1 of auxiliary request 4 furthermore defined subject-matter that lacked disclosure in the application as originally filed.

Reasons for the Decision

Main request

Novelty (Article 54 EPC)

1. The subject-matter of claim 1 of the main request lacks novelty.

1.1 The opposition division held, *inter alia*, that the subject-matter of claim 1 lacked novelty over D19 and D24, respectively (cf. points 13.4 and 13.5 of the Reasons for the Decision).

1.2 In the board's view, the subject-matter of claim 1 is anticipated by document D19.

1.2.1 Document D19 discloses, in figure 2, a brake system for a commercial vehicle, the brake system comprising a vehicle axle with at least one wheel end (11) and a pneumatic brake actuator (17) arranged at a wheel end of the vehicle axle.

The brake system comprises an electro-pneumatic brake path generating an electro-pneumatic brake pressure dependent on an electric brake control signal: the reservoir (30) supplies pressure to the valve assembly (23) which controls the brake pressure submitted to the brake actuator (17) on the basis of the electronic signal provided by the sensor (34) in the brake pedal (36).

The brake system also comprises a redundancy brake path: the reservoir (30) supplies pressure to the valve (35) that is transferred via the valve assembly (23) to the brake actuator (17).

The valve assembly (23) is part of the brake system, which,

- in a first switching state (lower position of the sub-valve (8)), connects the electro-pneumatic brake path to the pneumatic brake actuator (17) so that the pneumatic brake actuator is controlled by the electric brake control signal and,
- in a second switching state (upper position of the sub-valve (8); shown in figure 1a), connects the redundancy brake path to the pneumatic brake actuator (17) so that the pneumatic brake actuator is controlled by the redundancy brake path.

As can be seen in figure 1a (which shows the valve assembly (23) in detail), the valve assembly (23) comprises an electric control port (C) and is transferred into the first switching state by energising the electric control port (the valve (2) generates pressure in the pipe (6) such that the pressure in this pipe is transferred via the pipe (7) to the valve (8), which is pushed into the first switching state) and comprises a return means (cf. figure 1a: spring), which returns the valve from the first switching state into the second switching state when the electric control port (C) is not energised.

The brake system further comprises an electronic control system (110) which comprises control logic which performs a test procedure for testing the operation of the electro-pneumatic brake path and of the redundancy brake path (cf. column 12, lines 16-41).

1.2.2 As set out in paragraph [0022] of the patent as granted, the fail-safe valve might be any valve also including a valve assembly with a plurality of

individual valves, unless the fail-safe valve provides the two switching states with or without additional switching states. The valve assembly (23) hence can be considered a fail-safe valve in the sense of the patent in suit.

1.2.3 The appellant disagreed and argued that the fail-safe valve (23) did not connect the electro-pneumatic brake path to the brake actuator as required by feature da), but formed part of the electro-pneumatic brake path. According to the wording of claim 1, the brake path generated the electro-pneumatic brake pressure such that valve (2), which generates the electro-pneumatic brake pressure on the basis of the signal provided by the electric port (C), was a part of it. Therefore, the fail-safe valve was necessarily a part that was separate from the parts of the brake paths. Consequently, only the valve (8) could be considered to be the fail-safe valve in D19, which, however, lacked an electric port.

1.2.4 In the board's view, the contested claim cannot be read in such a restrictive way:

(a) The expression "*electro-pneumatic brake path generating an electro-pneumatic brake pressure dependent on an electric brake control signal*" used in feature b) of claim 1 does not provide any information with regard to the means or parts used for generating the brake pressure. In particular, it does not define a pressure control valve and how this pressure control valve is linked to the other parts of the brake system.

(b) According to feature d), the fail-safe valve is part of the braking system with the properties defined in features da) to de).

(c) The disputed claim in features da) and db) merely defines a result to be achieved (the electro-pneumatic brake path is connected to the pneumatic brake actuator so that the pneumatic brake actuator is controlled by the electric brake control signal and the redundancy brake path is connected to the pneumatic brake actuator so that the pneumatic brake actuator is controlled by the redundancy brake path, respectively) rather than how and using which components the braking paths achieve these results.

(d) Features da) and db) refer to the switching states of the fail-safe valve (and not to the valve as such) and hence do not provide any information on how the fail-safe valve as such is arranged and/or connected to neighbouring parts of the brake system. In particular, it is not excluded by the wording of features da) and db) that the fail-safe valve is part of the electro-pneumatic brake path and/or the redundancy brake path.

(e) A brake path always starts at the brake pedal unit (which is used by the driver to control the braking operation) and ends at the brake actuator. This also concurs with the coloured drawings filed by the appellant during the oral proceedings, in which the green path coincides with the electro-pneumatic brake path and the orange path represents the redundancy brake path.

(f) Features da) and db) of claim 1 hence cannot be understood exclusively as requiring the fail-safe valve to be inserted between the electro-pneumatic brake path and the brake actuator and between the redundancy brake path and the brake actuator, respectively, but the fail-safe valve is arranged anywhere within these brake paths.

1.2.5 In the board's understanding, the valve (23) in D19 forms part of the electro-pneumatic brake path and generates an electro-pneumatic brake pressure. At the same time, it is a fail-safe valve which, in its switching states, connects respective brake paths to the brake actuator, the switching states being controlled by energising the electric control port (C).

1.3 The subject-matter of claim 1 is also anticipated by document D24.

1.3.1 In the embodiment shown in figure 3, document D24 discloses a brake system for a commercial vehicle, the brake system comprising a vehicle axle (VA) with at least one wheel end and a pneumatic brake actuator (12) arranged at a wheel end of the vehicle axle.

The brake system comprises an electro-pneumatic brake path (the sensor (4) generates an electrical signal that is transferred to the sub-valve (10a) of the valve (10), which receives supply pressure from the reservoir (1) by the pipe (2)) generating an electro-pneumatic brake pressure dependent on an electric brake control signal and a redundancy brake path (via the pipe (7) and the sub-valve (10b)).

Following the reasoning given above with regard to D19, the valve (10) is a fail-safe valve (4a) which, in a

first switching state, connects the electro-pneumatic brake path to the pneumatic brake actuator (12) so that the pneumatic brake actuator is controlled by the electric brake control signal (cf. page 11, lines 12-23), and, in a second switching state, connects the redundancy brake path to the pneumatic brake actuator (12) so that the pneumatic brake actuator is controlled by the redundancy brake path (cf. page 10, lines 24-32).

The valve (10) further comprises an electric control port (9) and is transferred into the first switching state by energising the electric control port. It further comprises a return means (cf. figure 3: spring) which returns the fail-safe valve from the first switching state into the second switching state when the electric control port (9) is not energised (both sub-valves (10a, 10b) are then in the position shown in figure 3).

The brake system further comprises an electronic control system (6) that comprises control logic which performs a test procedure for testing the operation of the redundancy brake path (cf. page 11, lines 3-5 and page 12, lines 4-22).

1.3.2 The appellant disagreed and, similarly to its argument with regard to D19, argued that the valve (10) cannot be part of the brake paths and the fail-safe valve at the same time.

1.3.3 As set out above, it is not excluded by the wording of claim 1 that the valve (10) generates the electro-pneumatic brake pressure and at the same time provides the function of the fail-safe valve.

1.4 The board hence agrees with the opposition division's decision with regard to the lack of novelty of the main request over D19 and D24, respectively.

Auxiliary request 4

Novelty (Article 54 EPC)

2. The subject-matter of independent claim 1 of auxiliary request 4 is novel.

2.1 Claim 1 of auxiliary request 4 corresponds to claim 1 of auxiliary request 1D in the opposition proceedings. The opposition division held that the subject-matter of this claim lacked novelty over document D19 (point 18 of the Reasons for the Decision).

2.1.1 It considered the valve (23) disclosed in the embodiment of figure 2 to be a 3/2-solenoid valve with three ports (A, B and D) and an electric port (C). The valve connected either of the entry ports (A, B) to the exit port (D), thus providing two switching states. The valve was actuated electrically via the electric port (C) and hence was a solenoid valve.

2.1.2 The board does not agree with the opposition division's decision for the following reasons:

(a) The fail-safe valve (23) is a valve assembly with two valves (2, 8), but not a 3/2-solenoid valve.

(b) The term "*3/2-solenoid valve*" refers to a valve having three hydraulic ports, the valve being a monolithic body with three ports combined with one or more moving core parts that open or close respective ports such that the valve can provide

the various states. A 3/2-valve has two separate states in which either the first or second entry port is connected to the exit port.

(c) Contrary to the respondent's argument, paragraph [0022] of the patent in suit does not suggest a 3/2-valve with several sub-valves, but discloses a first valve embodiment in the form of a valve assembly with several sub-valves and a second valve embodiment in the form of a single, monolithic 3/2-valve.

2.1.3 Only the downstream valve (8) of the valve assembly (23) is a 3/2-valve; however, this valve (8) uses a hydraulic port to control the switching state of the 3/2-valve, and therefore the valve (8) is not a solenoid valve.

2.2 The subject-matter of claim 1 is also novel over document D24.

2.2.1 The respondent alleged that the subject-matter of claim 1 lacked novelty over either the embodiment in figure 3 or 4 of D24.

2.2.2 The board does not follow the respondent's view since, similarly to D19, the valve assembly (10) in figure 3 of D24 uses two separate 2/2-valves, but not a (single) 3/2-solenoid valve. This embodiment hence lacks the 3/2-solenoid valve as required by claim 1.

2.2.3 Figure 4 of D24 refers to a different embodiment, in which a 3/2-solenoid valve (10a) is disclosed, but for a different purpose: instead of switching between an electro-pneumatic brake path and a redundant pneumatic brake path, the switching states of this valve

correspond to increasing and decreasing the brake pressure within the electro-pneumatic actuation of the brake actuators (cf. page 13, lines 1-5). The 3/2-solenoid valve hence lacks the ability to connect either the electro-pneumatic brake path or the redundant pneumatic brake path to the brake actuator depending on its switching state.

2.3 The subject-matter of claim 1 is also novel over document D9.

2.3.1 Document D9 discloses, in figure 1, a brake system with a brake pedal (1) that can control a brake pressure on brake actuator either by an electro-pneumatic brake path (the sensor (1b) provides a signal to the control unit (5') which controls the valve (8')) or by a redundant pneumatic brake path (the valve (1c) provides brake pressure to the brake actuator via the pipe 3 and the valve (4')).

2.3.2 The respondent alleged that, in the embodiment in figure 1, the valve (4') arranged in the line (3) from the brake pedal (1) to the brake actuator (7') would be a fail-safe valve that could be a 3/2-solenoid valve according to page 3, lines 20-22.

2.3.3 The board disagrees since this valve cannot be considered a fail-safe valve in the sense of the patent in suit. Similarly to figure 4 of D24, such a 3/2-solenoid valve in the line (3) would not make it possible to switch between the electro-pneumatic brake path and the redundant pneumatic brake path, but instead it only acts on the electro-pneumatic brake path. The redundancy brake path is controlled with a different, further valve (8') that is a 3/3-solenoid valve. The embodiment in figure 1 taken in combination

with page 3, lines 20-22 hence does not fall under claim 1 since it at least does not fulfil feature db) of claim 1.

2.4 No further novelty attacks with regard to the subject-matter of claim 1 of auxiliary request 4 were raised by the respondent.

Inventive step (Article 56 EPC)

3. The subject-matter of claim 1 of the main request involves an inventive step.

3.1 The respondent presented arguments in a first line of argument starting from document D19 as the closest prior art.

3.1.1 It alleged that, for the control of the 3/2-valve (8), the skilled person would use a solenoid controlled by an input using an electric signal instead of an input based on the pneumatic pressure in the line (6). This would avoid the problem of leakages within the line (6) and/or the valve (2). The skilled person would use the signal provided by the line C for the control of the 3/2-valve.

3.1.2 The board does not follow this argument for the following reasons:

(a) The electric line C provides a signal representing the brake pressure that will be generated within the electro-pneumatic break path. This signal is used by the valve (2) to control the pressure in the line (6) such that it corresponds to the intended brake pressure transmitted to the brake actuator. This signal hence varies over time and,

when applied to a solenoid, is not necessarily always able to overcome the restoring force of the spring of the 3/2-valve (8).

(b) Furthermore, even if leakage occurs in the valve (2) and/or the line (6), the lacking pressure due to the leakage will automatically be topped up by the valve (2) such that the intended pressure in the pipe (6) will always be guaranteed. There is hence no need to modify the way in which the position of the 3/2-valve is controlled since the problem formulated by the respondent will never become relevant.

(c) The skilled person hence has no convincing reason to replace the pneumatic actuation of the 3/2-valve (8) with an electrically driven solenoid. The respondent's arguments appear to be based on hindsight with the will to arrive at the claimed brake system (*ex post facto* analysis).

3.2 The respondent presented arguments in a second line of argument starting from the embodiment in figure 3 of document D24 as the closest prior art.

3.2.1 It alleged that the skilled person would combine the two 2/2-valves (10a, 10b) into one 3/2-valve, thus providing a more compact valve assembly (10).

3.2.2 The board is not convinced, since replacing the two 2/2-valves with a single 3/2-valve cannot provide the same functionality of the valve assembly (10) as described on page 11 of D24: when the brake system uses the electro-pneumatic path, the sub-valve (10a) is opened to increase the brake pressure acting on the brake actuator, whereas the sub-valve (10b) remains

closed. As soon as the desired brake pressure is reached, the sub-valve (10a) is also closed, otherwise the brake pressure would continue to increase beyond the desired pressure. This requires independent operation of the sub-valve (10a) and the sub-valve (10b), in particular involving a switching state in which both sub-valves are closed; however, such a switching state cannot be obtained by a 3/2-valve which, in all switching states, connects the exit port to either one of the inlet ports.

3.2.3 The skilled person would hence not consider replacing the two sub-valves (10a, 10b) with a 3/2-valve.

3.3 The respondent presented arguments in a third line of argument starting from document D9 as the closest prior art.

3.3.1 It alleged that the skilled person would combine the valve (8') arranged in the electro-pneumatic path with the valve (4') in the redundant pneumatic path, thus arriving at a 3/2-solenoid valve with two entry ports (8a, 4a) and an exit port to the brake actuator (7'). This was part of the common general knowledge of the skilled person, but was also suggested by document D1 (in particular by figure 4).

3.3.2 The board does not agree that combining the two valves would result in a 3/2-valve. The valve in the electro-pneumatic brake path has an additional venting port when the valve is in its left position, shown in figure 1, that makes it possible to reduce brake pressure if needed. This additional port cannot be provided by a 3/2-valve having only three ports, but instead four ports (input port from the pneumatic brake path, input

port from the reservoir (11), outlet port to the brake actuator, and venting port) would be needed.

3.3.3 Furthermore, the valve (8') requires operation across three switching states (increasing pressure, closing and venting the brake path), which cannot be provided by a 3/2-valve that has only two switching states.

3.3.4 If the skilled person indeed replaced the two separate valves (4', 8') in figure 1 with one single valve, if any, this valve could not be a 3/2-valve.

3.4 The respondent presented arguments in a fourth line of argument starting from either of documents D12 or D21 as the closest prior art.

3.4.1 Document D12 discloses, in figures 1 and 2, a brake system with an electro-pneumatic brake path. The position of a brake pedal (114) is electronically detected and used as an input for a control system (102) that controls the entry valve (EV) and the vent valve (AV) such that a suitable pilot pressure is generated at the control port of the servo valve (RLV) providing the desired brake pressure in the pipe (142) to the brake actuator (106).

When the electro-pneumatic brake path is inoperative, the brake system can alternatively use a pneumatic brake path via the pipe (116) and the valve (BV) to control the pilot pressure at the control port of the servo valve (RLV).

3.4.2 Document D21 discloses, in figures 1 and 2, an identical brake system to the brake system known from document D12, and therefore both documents can be

interchangeably used as the starting point for an inventive-step argument.

3.4.3 The known brake system hence lacks a 3/2-solenoid valve switching between both of the brake paths, but uses a 2/2-solenoid valve (BV) in the redundant brake path and a combination of two 2/2-solenoid valves (EV, AV) in the electro-pneumatic brake path.

3.4.4 The respondent alleged that the skilled person would replace the 2/2-valve (BV) in the redundant pneumatic brake path with a 3/2-solenoid valve which was arranged in the join at which the pipe (116) joins the pipe from the valve (EV) just before the entry port (126) of the control valve (RLV), whereby the pipe from the valve (EV) is connected to the third entry port of this valve. This made it possible to minimise errors in the control of the valve (RLV) due to leakages influencing the pilot pressure of the control valve.

The use of a 3/2-valve to minimise leakage was not only part of the common general knowledge of the skilled person, but was also suggested by figure 4 of D1.

3.4.5 The board disagrees for various reasons:

(a) First, document D1 does not teach the use of 3/2-solenoid valves to avoid leakages within the control line of a servo valve. D1 does not use a servo valve at all, but generates the brake pressure in the electro-pneumatic brake path directly by controlling the inlet valve (22) and the vent valve (24). Leakage is not mentioned at all in this document.

(b) Second, the Board is not aware of a reason why there should be a problem with leakage in D12/D21. It is agreed that, as in any pneumatic system, leakage may occur; however, this is not necessarily within the control valve assembly (100) in D12/D21, but more likely in the pipes from the reservoir to the control valve assembly (due to the higher pressure compared with the brake pressure) and/or in the pipes between the control valve assembly and the brake actuators (due to the length of these pipes).

(c) Third, even if the control valves (EV, AV) used in the electro-pneumatic brake path are closed but still provide some leakage pressure, i.e. the brake system uses the pneumatic brake path whereas the electro-pneumatic brake path is inoperative, the pilot pressure at the control port of the servo valve (RLV) would be altered by the pilot pressure supplied via the pneumatic brake path. Minor leakage will then not significantly influence control of the servo valve (RLV).

3.4.6 The board hence sees no convincing reason why the skilled person would indeed replace the 2/2-valve (BV) in the pneumatic brake path, re-allocate it at the join just before the control port of the servo valve, and replace it with a 3/2-valve, meaning thatthe additional, newly created port is used as an input port of the electro-pneumatic brake path.

Amendments (Article 123(2) EPC)

4. The amendments to auxiliary request 4 do not extend beyond what was disclosed in the application as originally filed.

4.1 Claim 1 as originally filed defines a brake system comprising a pneumatic brake actuator arranged at a wheel end of a vehicle axle. Claim 1 of auxiliary request 4 claims that the brake actuator is "arranged or arrangeable" at the wheel end.

4.2 The respondent argues that the application as originally filed did not disclose brake systems that were arrangeable but not yet arranged.

4.3 The board disagrees with this, and agrees with the opposition division's decision (point 12 of the Reasons for the Decision with regard to the main request, but also applying to auxiliary request 4) that the application as originally filed claimed the brake system as such and not a combination of the vehicle with a brake system arranged on the axle of the vehicle. This is obvious from the disclosure of claim 1, but is also reflected by the first paragraph of the description starting with the expression "*The present invention relates to a brake system for a commercial vehicle ...*", which is repeated in the section "Object of the invention".

5. Contrary to the opposition division's decision, auxiliary request 4 can hence form a basis for maintaining the patent in amended form. The opposition division's decision therefore had to be set aside.

Auxiliary request 1

Admittance into the proceedings (Article 12(4) and (6) RPBA)

6. Auxiliary request 1 was not admitted into the proceedings by the board.

6.1 According to Article 12(4) RPBA, any amendment to a party's case may be admitted only at the discretion of the board.

Article 12(6) RPBA further states that the board will not admit requests which should have been submitted in the proceedings leading to the decision under appeal, unless the circumstances of the appeal case justify their admittance.

6.2 It was undisputed that auxiliary request 1 was only filed with the statement of grounds of appeal without having an equivalent request in the opposition proceedings. Auxiliary request 1 was not part of the appealed decision and hence constitutes an amendment to the patent proprietor's case in the sense of Article 12(4) RPBA.

6.2.1 Auxiliary request 1 comprises two independent claims:

The first independent claim, claim 1, is identical to independent claim 1 of auxiliary request 4 (see above) and combines claims 1 and 3 as granted, and is directed to the fail-safe valve being a 3/2 solenoid valve.

The further independent claim, claim 2, is based on claim 1 as granted and features taken from the description, and is directed to a direct connection between the fail-safe valve and the brake actuator.

6.2.2 In the first independent claim, the present auxiliary request 1 hence claims different subject-matter from claim 1 of the former auxiliary requests 1A, 1B and 1C.

6.3 The opposition division did not admit auxiliary requests 1A, 1B and 1C into the proceedings. It considered that each of these requests comprised two independent claims: a first independent claim 1 that was identical in all three requests, and a second independent claim which introduced different features from the description. This did not comply with Rule 80 EPC (cf. point 15 of the Reasons for the Decision).

6.3.1 The appellant explained that, with auxiliary request 1, it intended to challenge the opposition division's decision that Rule 80 EPC precluded the formulation of two independent claims in opposition proceedings.

6.3.2 In the present proceedings, however, the board considers that the question of the correctness of the opposition division's decision does not arise since requests 1A to 1C were not pursued in the appeal proceedings.

6.4 It is not apparent to the board why auxiliary request 1 was not submitted earlier in the proceedings before the opposition division.

(a) The appellant argued that both independent claims of auxiliary request 1 were filed as part of auxiliary requests in opposition proceedings.

(b) It is agreed that independent claims 1 and 2 correspond to claims of former auxiliary requests: independent claim 1 of auxiliary request 1 corresponds to claim 1 of auxiliary request 1D, whereas independent claim 2 of auxiliary request 1 corresponds to claim 2 of auxiliary request 1B filed during the opposition proceedings.

(c) The board notes that, throughout the entirety of the proceedings, the focus has constantly shifted back and forth between different subject-matter (in particular: the anchor valve in auxiliary requests 1A to 1C and 2B1 and the solenoid valve in auxiliary request 1D), most recently with the set of requests submitted with the grounds of appeal.

(d) However, the former requests do not form a pool of independent claims from which any possible combination can be claimed at the appeal stage. The particular combination of claims 1 and 2 of auxiliary request 1 (directed to the fail-safe valve being a 3/2-solenoid valve and the brake pressures being directly transmitted via the fail-safe valve to the brake actuator) has never been claimed before in the proceedings, and therefore a review of the opposition division's decision on Rule 80 EPC cannot be based on this particular combination of claims. Therefore, this request should have been submitted in the proceedings before the opposition division (Article 12(6) RPBA).

6.5 The board also cannot identify any circumstances of the appeal case in the sense of Article 12(6) RPBA that would justify admitting auxiliary request 1 into the proceedings.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the opposition division with the order to maintain the patent in amended form with the claims of the auxiliary request 4 filed with the statement of grounds of appeal on 7 October 2024 and a description to be adapted thereto.

The Registrar: The Chairman:

M. Schalow H. Geuss

Decision electronically authenticated