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**Datasheet for the decision
of 29 November 2013**

Case Number: T 1147/11 - 3.2.01

Application Number: 04011316.9

Publication Number: 1447285

IPC: B60R21/26

Language of the proceedings: EN

Title of invention:

Multistage gas generator for air bag and air bag apparatus

Patent Proprietor:

Daicel Chemical Industries, Ltd.

Opponent:

TRW Airbag Systems GmbH

Headword:

Relevant legal provisions:

EPC 1973 Art. 100(c)
EPC Art. 123(3), 69(1)
EPC R. 80
RPBA Art. 13(1)

Keyword:

Amendments to granted description and drawings occasioned
by ground for opposition - (yes)

Added subject-matter - Main Request (yes)

Admission of Auxiliary Requests III and IV filed about one
month before date of oral proceedings - (yes)

Extended scope of protection - Auxiliary Request III, IV (yes)

Decisions cited:

G 0003/89, G 0011/91, G 0001/93, G 0001/03, G 0002/10,

T 0271/84, T 0295/87, T 0371/88, T 0317/90, T 0108/91,

T 0823/93, T 0438/98, T 0190/99, T 0500/01, T 0061/03,

T 0081/03, T 0142/05

Catchword:



**Beschwerdekammern
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Case Number: T 1147/11 - 3.2.01

**D E C I S I O N
of Technical Board of Appeal 3.2.01
of 29 November 2013**

Appellant: Daicel Chemical Industries, Ltd.
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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 7 March 2011
revoking European patent No. 1447285 pursuant to
Article 101(3) (b) EPC.**

Composition of the Board:

Chairman: G. Pricolo
Members: W. Marx
T. Karamanli

Summary of Facts and Submissions

- I. On 16 May 2011 the appellant (patent proprietor) lodged an appeal against the decision of the opposition division posted on 7 March 2011 revoking European patent No. 1 447 285 and paid the appeal fee. The statement setting out the grounds of appeal was received on 18 July 2011.

- II. In its decision the opposition division, referring to Articles 123(2) and 76 EPC, held that the granted patent contained subject-matter which extended beyond the content of the application as filed and, since the patent was granted on the basis of a divisional application, beyond the content of the earlier application as filed. It further held that auxiliary requests 1 and 2 did not meet the requirements of Article 123(3) EPC. Auxiliary request 2 was also considered late-filed and, since it did not meet the requirements of Article 123(3) EPC, *prima facie* not relevant and was therefore rejected according to Article 114(2) EPC.

- III. Together with its statement setting out the grounds of appeal the appellant filed Auxiliary Requests 1 to 3. The appellant requested that the decision revoking the patent be set aside and that the patent be maintained as granted or, subsidiarily, be maintained in restricted form on the basis of one of Auxiliary Requests 1 to 3. It was also requested that the conformity of the opposed patent with Articles 76 and 123 EPC be acknowledged in the form of any of the preceding requests and that the case be remitted to the department of first instance in order to continue with opposition proceedings.

IV. With letter dated 6 August 2012, the appellant submitted Auxiliary Requests 3 and 4 as replacement for the former Auxiliary Request 3.

V. With its reply dated 29 October 2013 to the board's summons to attend oral proceedings, the appellant filed a new description and a new set of drawings which, together with the granted claims, formed its Main Request and, together with respective new sets of amended claims, formed new Auxiliary Requests I to IV.

VI. In the oral proceedings before the board, held on 29 November 2013, the appellant withdrew its Auxiliary Requests I and II and requested that the decision under appeal be set aside and that the patent be maintained in amended form on the basis of the Main Request or, alternatively, Auxiliary Requests III or IV, all filed with letter dated 29 October 2013.

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

At the end of the oral proceedings, the chairman announced the board's decision.

VII. Claim 1 according to the Main Request is identical to claim 1 as granted and reads as follows (the numbering a) to k) of the features as granted was added by the board and corresponds to the numbering used by the appellant):

A multistage gas generator (101) for an airbag (103), having

a) a cylindrical housing (3) comprising a diffuser shell (1) with a plurality of gas discharge ports (10) formed in a cylindrical side wall and a

- closure shell (2) forming an inner space with the diffuser shell (1),
- b) a plurality of combustion chambers (50,60) for accommodating gas generating means (52,62) provided in the housing (3),
 - c) ignition means (51,61) disposed in each of the combustion chambers (50,60) for igniting and burning the gas generating means (52,62),
 - d) wherein, in the housing (3), at least one of a plurality of the combustion chambers (50,60) is disposed inside of an inner shell (4) provided eccentrically with respect to the center axis of the housing (3),
 - e) the ignition means (51,61) provided in each of the combustion chambers (50,60) is disposed in the housing (3) eccentrically with respect to the center axis of the housing (3),
 - f) wherein a filter means (25) for purifying and/or cooling combustion gas generated by combustion of the gas generating means (52,62) is disposed in the housing (3), and the combustion gases generated in the plurality of combustion chambers (50,60) pass through the filter means (25),
 - g) wherein the inner shell (4) is of cylindrical shape and is provided with an opening portion (5) which is to be opened by combustion of the gas generating means (52,62) in one of the combustion chambers (50,60),
 - h) and when the opening portion (5) is opened, a gas can flow in the combustion chambers (50,60) defined inside and outside of the inner shell (4),
- characterized in that**
- i) said opening portion (5) is closed with a shielding plate (7) before actuation, wherein
 - j) the opening portion (5) can be opened by detaching the shielding plate (7) only by actuation of the

combustion chamber (60) defined inside the inner shell (4) so that gas flows out from the combustion chamber (60) defined inside the inner shell (4), and

- k) the gas generating agent (52) of the combustion chamber (50) defined outside said inner shell (4) is in direct contact with the inner shell (4) without a heat insulator interposed, between said gas generating agent (52) and said inner shell (4).

Claim 1 according to Auxiliary Request III has been amended by replacing the term "opening portion (5)" by "through hole (6)" in features g) to j), replacing the term "shielding plate" by "breaking plate" in features i) and j), modifying feature k) by replacing the expression "in direct contact with the inner shell" with "in direct contact with most of an outer surface of the inner shell", and introducing between features i) and j) the following feature:

- l) said breaking plate (7) is configured to prevent a flame caused by combustion of the gas generating agent (52) of the combustion chamber (50) defined outside said inner shell (4) from flowing through the through-hole (6) to burn the gas generating agent (62) of the combustion chamber (50) defined inside said inner shell (4),

In comparison to claim 1 of Auxiliary Request III, the term "breaking plate" was replaced by the term "stainless plate" in claim 1 of Auxiliary Request IV.

The Main Request and Auxiliary Requests III and IV comprise the same amended description and amended drawings. The amendments include, *inter alia*, deletion of all passages relating to the term "shielding plate"

in the description and deletion of Figure 31, the only figure showing a "shielding plate" covering a through-hole which is already closed by a separate member.

VIII. The appellant argued essentially as follows:

As to Rule 80 EPC, the opposition division rejected the Main Request on the opposition ground of Article 100(c) EPC 1973, since neither the description nor the figures of the earlier application showed a "shielding plate" which "closed" the opening portion and could be "detached". The description had been amended to overcome this objection by deleting any reference to a "shielding plate", i.e. no longer referring to any feature that was in addition to the feature for closing the opening portion and provided a protective function for said opening portion. Hence, when confronted with the term "shielding plate" in features i) and j) of claim 1 of the Main Request, the only conclusion that the person skilled in the art could possibly come to in the light of the description of the Main Request (listing various closing members that could also be opened by detaching) was that the shielding plate corresponded to the stainless plate and the breaking plate, as they shielded the second gas generating agent present in the second combustion chamber from a flame caused by combustion of the first gas generating agent. It was directly and unambiguously derivable from the application of the opposed patent as well as from the earlier application as originally filed that the opening portion could be closed by a plate member which had a shielding function.

The new amended documents filed shortly before the date of oral proceedings were submitted in response to the negative preliminary assessment of the board in order

to address the issues under Article 123(2) and (3) EPC and should therefore be admitted. Moreover, these new documents did not raise any new issues which would require adjournment of the oral proceedings.

The original description as filed (see page 7, line 7, to page 8, line 8; paragraph [0017] of the A-publication; see also page 34, lines 7 to 11, or paragraph [0053] of the A-publication) disclosed two alternative configurations of an "opening portion" forming part of the claimed invention. Either the opening portion was closed by a breaking member and a shielding plate was disposed outside (alternative a: a breaking member and a shielding plate as two separate components with two separate functions), or the opening portion was closed by a breaking member of sufficient inherent strength to withstand the pressure and the flame caused by combustion of the first gas generating agent (alternative b: both components were integrated into a multifunctional closure referred to as a "breaking member"), because it opened "exclusively due to the combustion of the second gas generating agent". The "breaking member" that was not protected by a shielding plate had a stronger structure and an additional function, not only closing but also preventing the opening portion of the inner shell from opening by said first gas generating agent. Such disclosure was also understood from page 59, line 21, to page 61, line 14 (paragraph [0099] of the A-publication), showing a first alternative of a closure means, comprising a stainless plate 1111 protected by a shielding plate 1186 (see also Figure 31), and an alternative structure, wherein a "breaking plate" was configured to combine and unify the functions of the "breaking member" and the "shielding plate". Therefore, the arrangement according to alternative a could be

equivalently replaced by a single plate-type closure means, referred to as the "breaking plate", to which the function of closing the through-hole and of the shielding plate was attributed (alternative b). The member closing the opening portion was referred to in the description as a "(stainless) seal tape", a "breaking member", a "stainless plate", a "breaking plate", being able to be "broken, peeled, burnt or detached". In view of the clarity of the claim, the term "shielding plate" was opted for instead of "breaking plate", as the claim required the plate to be "detached" rather than broken. As a consequence, a "shielding plate" that closed the opening portion and was capable of being detached in order to open the opening portion, which described the structure and function of the opening portion according to alternative b, was disclosed in the earlier and present application.

The term "shielding plate" in claim 1 defined both a structure (plate) and a function (shielding). The wording of claim 1 specified further that the shielding plate detached only by actuation of the combustion chamber defined inside the inner shell, i.e. due to high pressure inside. In the description of the granted patent, the "shielding plate" described an alternative which could be provided in addition and which no longer applied when those passages in the description were omitted. Moreover, claim 8 as originally filed (relating to the shielding plate) did not form part of the patent as granted. The description of the Main Request had been clarified so that it no longer referred to any feature in addition to the feature for closing the opening portion and providing a protective function, so the skilled person was forced to interpret the term "shielding plate" in features i) and j) in the

light of the remainder of the description. According to the amended description, the plate prevented a flame caused by combustion of the first gas generating agent from flowing into the second combustion chamber through the through-hole; a separate shielding plate had been necessary only to protect a fragile seal tape. Therefore, the only conclusion was that the shielding plate corresponded to the stainless plate or breaking plate, as these plates already provided a "shielding function", i.e. shielded the second gas generating agent in the second combustion chamber from a flame caused by combustion of the first gas generating agent. Thus, claim 1 of the Main Request did not contain subject-matter extending beyond the content of the application as filed.

As regards the feature "opening portion", according to Figure 1 it comprised a hole 6 and a breaking member 7, but the description also mentioned (see e.g. paragraph [0187] of the A-publication) that the opening portion was closed by a seal tape. Therefore, the meaning of the claimed shielding plate was derivable from the original documents, i.e. a plate closing a hole and providing the function of a one-way valve. Moreover, paragraphs [0076] and [0077] made clear that parts described in the specification - like the "communication hole" which corresponded to the "opening portion" - could be combined. The application as filed described generic features (e.g. the communication hole, AIM, connector, filter) in combination with certain embodiments. Paragraphs [0076] and [0077] of the A-publication made clear that the specific examples of these generic features were interchangeable. The communication hole embodied as opening portion 5 within the embodiments according to Figures 1 to 8 could be substituted by other embodiments such as, *inter alia*,

the through hole 1110 of Figures 28 to 31. This also applied to the member for closing these portions according to alternatives a or b, which was embodied as "(stainless) seal tape", "breaking member", "stainless plate" and "breaking plate".

Claim 1 of Auxiliary Requests III and IV had been amended, *inter alia*, by specifying the shielding plate as a breaking plate (Auxiliary Request III) or a stainless plate (Auxiliary Request IV). Said amendment satisfied the requirements of Article 123(3) EPC by providing a narrower definition than the generalised "shielding plate" in granted claim 1, i.e. a limitation to a more specific embodiment. In line with the case law established by the boards of appeal (see G 1/03, T 81/03), the provisions of Article 69(1) EPC and its Protocol had to be taken into account, i.e. the patent claims had to be read in combination with the specification of the patent. An amendment to clarify an inconsistency was found (see T 438/98, point 3.1.2 of the Reasons; also T 271/84, T 371/88) not to contravene Article 123(3) EPC "if the amended claim had the same meaning as the unamended claim on its true construction in the context of the application". In the present case, due to the inconsistency between the shielding plate defined in claim 1 (closing the opening portion and opening it by detaching) and in the description (the shielding plate disposed outside of the opening portion), the correct interpretation would be to read "shielding plate" as "breaking plate". Moreover (see T 108/91; also T 190/99), an inaccurate statement in granted claim 1 could be replaced by an accurate statement of the technical features without breaching Article 123(3) EPC, and interpretations which were illogical or did not make sense should be ruled out. In the present case, a shielding plate interpreted

literally in the manner as defined within the description made no technical sense in the context in which it was disclosed in claim 1, i.e. replacement of "shielding plate" by "breaking plate" was to be considered as the replacement of an inaccurate technical statement by an accurate statement ("breaking plate" as defined within the description was the equivalent of which the meaning was intended). The scope of protection conferred by claim 1 only was determined by features attributed to the "shielding plate" in claim 1 of the opposed patent, requiring that the shielding plate "closed" the opening portion and was capable of being "detached". The same features were attributed to the "breaking plate" according to Auxiliary Request III. Therefore, replacement of the term "shielding plate" by "breaking plate" did not extend the scope of protection conferred by the claim. Moreover, as stated above, the "breaking plate" also implied a shielding function, i.e. it protected itself (no further plate was protected).

IX. The respondent's arguments regarding the present decision can be summarised as follows (in the following, if not explicitly mentioned, reference is made to the passages of the A-publication of the application, which are identical to the corresponding passages in the application as filed):

The appellant had already filed several requests in appeal proceedings, so the requests filed shortly before the date of oral proceedings should not be admitted. In particular, the board in its summons to oral proceedings had just summarised the arguments of the parties, and the appellant by filing Auxiliary Requests III and IV was trying to fish for patentable subject-matter.

As regards Rule 80 EPC, the term "shielding plate" was still present in claim 1 of the Main Request, i.e. the ground for opposition based on Article 100(c) EPC 1973 was not overcome. There was no possibility of reinterpreting said term, which was consistently used in the application. By deleting all passages relating to the shielding plate no clarification was provided because the skilled person was still confronted with the feature "shielding plate" in claim 1, and no embodiment was present supporting the claimed subject-matter.

The application documents as filed did not show that the opening portion was closed with a shielding plate and could be opened by detaching the shielding plate as required by features i) and j). The original disclosure distinguished clearly between the "breaking member" and the "shielding plate".

The term "shielding plate" was always clearly defined, e.g. in claim 8 and paragraphs [0017], [0053] and [0099]. According to claim 8, and also in accordance with the description and Figure 31, the shielding plate was an additional part disposed outside of the opening portion (i.e. spaced away from the inner wall) which protected the closing member (e.g. a seal tape) by preventing a combustion flame from coming into direct contact with the opening portion. The shielding plate did not constitute the closing member itself. The application showed in paragraph [0017] only a breaking member formed either as a separate part or forming part of the wall. The shielding plate mentioned did not represent a third alternative solution - or plate - for closing the holes of the opening portion but was provided **outside** the opening portion, preventing the

flame from coming into direct contact with the opening portion. This was also reflected in the description of Figure 31 in paragraph [0099] (page 60, lines 20 to 24, of the application as filed). In paragraph [0053], the opening portion was defined as comprising holes and breaking members, and the shielding plate was provided outside in order to protect the closing member.

The term "breaking member" or "breaking plate" as mentioned in paragraph [0099] (relating to the embodiment of Figure 31) described throughout the application the same part and the same function and could not be interpreted by assigning to it a new function ("shielding plate"). In particular, the term "shielding plate" was already used for another part that provided only a protective and shielding function. Following the appellant's argumentation, two shielding plates (1111, 1186) could be present. However, this was never disclosed.

The "breaking member" and the "shielding plate" were different parts providing different technical functions and effects which were not exchangeable. The breaking member closed the holes in the inner shell and, together with holes, formed the opening portions. The shielding plate was situated outside the opening portions in order to prevent the flames from coming into contact with the opening portions.

The function of the shielding plate was therefore unambiguously disclosed and technically made sense in order to protect the breaking member, whereas - in order to maintain the shielding function of the shielding plate - a detaching shielding plate would make no sense and was not mentioned either. Moreover, with the shielding plate becoming the breaking member,

one part of two separately defined parts would be missing.

Since the opening portion (which can be opened) was defined by the hole and the closing member, feature i) meant that the hole, which was already closed by the closing member, was additionally closed by the shielding plate. Moreover, the closing member was protected by the shielding plate (closing the opening portion) which detached when the combustion chamber was under pressure. Such teaching was not originally disclosed. In the present case, the appellant did not choose one of the different terms originally disclosed for the closing member (seal tape, breaking member, stainless/breaking plate), but used the term "shielding plate" which - in the application - described a specific part having a clear function and could not be reinterpreted. A shielding plate which meant a merely detaching (and non-breaking) breaking member (or breaking plate) was contradictory to the description of the contested patent, which still showed embodiments of the breaking member that broke or burnt, and would never be recognised by the reader of the contested patent.

Therefore, as originally disclosed, the shielding plate was provided in addition to a breaking member at the outside of the wall of the combustion chamber and neither had a closing function nor was detachable from the wall.

As regards the replacement of the term "shielding plate" by "breaking plate" in claim 1 of Auxiliary Request III, the application as filed disclosed the shielding plate in Figure 31 only in addition to a seal tape which closed the hole in the inner wall and had no

shielding function. When providing a part for shielding or protecting purposes, it should not break, and such additional part providing the shielding function for another part was deleted. Since the "breaking member" and the "shielding plate" were different parts providing different technical functions, the scope of protection was changed and enlarged by deleting the feature "shielding plate", because a shielding plate was no longer required. Also, deletion of the detaching function of the shielding plate violated Article 123(3) EPC.

One interpretation of the scope of protection of the contested patent was that the opening portion, which comprised a hole and a closing member, was additionally covered by a "shielding plate" which also closed the opening portion. If the "shielding plate" were deleted and replaced it by a "breaking plate", one of the two closing walls would be omitted, thereby extending the scope of protection. All case law cited by the appellant related to individual cases.

Regarding claim 1 according to Auxiliary Request IV, Article 123(2) EPC was violated in addition because it was originally disclosed only that the stainless plate "opened" but not that it "detached".

Reasons for the Decision

1. The appeal is admissible.
2. *Main Request (Rule 80 EPC)*
 - 2.1 Amendments to the text of a granted patent during opposition and opposition appeal proceedings should be

considered as appropriate and necessary within the meaning of Rule 80 EPC (which corresponds to former Rule 57a EPC 1973) and therefore admissible only if they can fairly be said to be occasioned by a ground for opposition under Article 100 EPC (or Article 100 EPC 1973). This is the established jurisprudence of the boards of appeal (see e.g. decisions T 295/87, OJ EPO 1990, 470, T 317/90 and T 823/93).

- 2.2 In first-instance proceedings, the opposition division found, *inter alia*, that granted claim 1 of the present European patent contained subject-matter which extended beyond the application as filed. Thus, the ground for opposition under Article 100(c) EPC 1973 prejudiced the maintenance of the granted patent.

The contested decision hinged on the question how the feature "shielding plate" in claim 1 as granted had to be interpreted, in particular because in the description of the patent as granted such shielding plate was shown in a different context. Due to the disclosure in paragraphs [0017], [0053] and [0099] of the A-publication (corresponding to pages 7 to 8, 34 and 60 of the application as filed) and in Figure 31, forming the basis for claim 1, which had been amended before the grant of the present patent, the shielding plate was considered by the opposition division as an additional part provided optionally to the member closing the opening portion, other than claimed in claim 1 as granted.

- 2.3 In appeal proceedings, the appellant deleted Figure 31 and all passages in the description as filed which disclosed the feature "shielding plate". In particular in view of the finding of the opposition division, these amendments could possibly cause a different

interpretation of the subject-matter of the granted claims and, therefore, the claimed subject-matter in the light of the amended description might possibly be considered to be disclosed in the application as filed. In this context, however, it does not matter whether the appellant's attempt was successful or not, i.e. whether the ground for opposition was overcome or not as argued by the respondent.

Therefore, the board concludes that the amendments to the granted description and drawings are occasioned by the ground for opposition under Article 100(c) EPC 1973 and that the requirements of Rule 80 EPC are met.

3. *Main Request - added subject-matter in the granted claims (Article 100(c) EPC 1973)*
- 3.1 Claim 1 as granted is a combination of claims 1, 5 and 54 as originally filed (features a) to h)) and comprises the additional features i) to k), allegedly stemming from the description. Moreover, the description and drawings of the granted patent have been modified by deleting any reference to the term "shielding plate".
- 3.2 According to the jurisprudence of the Enlarged Board of Appeal (see G 2/10, OJ EPO 2012, 376, point 4.3 of the Reasons, referring to the standards already set in decisions G 3/89 and G 11/91 (OJ EPO 1993, 117 and 125)), it is required that **"any amendment to the parts** of a European patent application or a European patent relating to the disclosure (**the description, claims and drawings**) is subject to the mandatory prohibition on extension laid down in Article 123(2) EPC and can therefore, irrespective of the context of the amendment made, only be made within the limits of what a skilled

person would **derive directly and unambiguously**, using common general knowledge, and seen objectively and relative to the date of filing, **from the whole of these documents as filed**" (emphasis added by the board). This means that the test for an amendment must be "that after the amendment **the skilled person may not be presented with new technical information**" (see G 2/10, point 4.5.1 of the Reasons, emphasis added by the board). With regard to a positive feature introduced into a claim (see G 2/10, point 4.5.2 of the Reasons), "it can be examined whether the subject-matter of that feature was disclosed in the application as filed. With respect to the **new combination of features** which is claimed after the introduction of that feature, it can be examined whether that combination **was disclosed in the application as filed**" (emphasis added by the board). The standard of comparison when judging any amendment therefore has to be the application - i.e. claims, description and drawings - as originally filed.

Moreover, according to the established case law of the boards of appeal, a claim should be read giving the words the meaning and scope which they normally have in the relevant art. Nevertheless, a patent, being a legal document, may be its own dictionary and may define technical terms and determine how a skilled person has to interpret a specific term when used in the description or the claims. If it is intended to use a word which is known in the art to define specific subject-matter to define a different matter, the description may give this word a special, overriding meaning by explicit definition (see e.g. T 500/01, point 6 of the Reasons, and T 61/03, point 4.2 of the Reasons).

3.3 The mere deletion of passages in the description or deletion of Figure 31 in the documents according to the present Main Request has not been objected to by the respondent. Claim 1 according to the Main Request, which is identical to claim 1 as granted, was amended before the grant of the present patent. In this respect, the board notes that, for examining the ground for opposition under Article 100(c) EPC 1973, it has to be assessed whether claim 1 contains subject-matter which extends beyond the content of the divisional application as filed, in particular (see above) in comparison with the whole of the documents (i.e. claims, description, drawings) as filed. In this regard, the meaning of the term "shielding plate" incorporated in features i) and j) plays a crucial role.

3.4 The term "shielding plate" defines as structural feature a "**plate**" which is further characterised by its function of "**shielding**". Moreover, in the context of features i) and j), the term "shielding plate" is associated with further functions, i.e. the "opening portion is **closed** with a shielding plate" and "can be **opened by detaching** the shielding plate" when the combustion chamber is actuated. The fact that an opening portion which is closed and opened by detaching a closing element is originally disclosed has not been put into question by the parties. However, it has to be assessed whether it is originally disclosed that said closing element might provide a shielding function as well and might be realised as a plate.

3.5 A plate as such closing a through-hole is disclosed in paragraph [0099] of the A-publication ("the through-hole 1110 is closed by the stainless plate 1111"; "instead of closing the through-hole 1110 by the

stainless plate 1111, a breaking plate which is broken, peeled, burnt or detached by pressure or the like due to the combustion of the second gas generating agent may be welded, adhered or heat-sealed to close the through-hole 1110"). As regards the claimed shielding function, when reading claim 1 on its own, the skilled person would understand that a shielding function normally describes a protective function with respect to a further part which has to be protected or shielded from external influences.

If the skilled person were in doubt as to whether - in addition to the closing/opening function as described in features i) and j) - the term "shielding" has any further meaning or limiting effect at all, he would consult the description to interpret the specific term "shielding" used in claim 1 because the patent may be its own dictionary as mentioned above. In different passages of the application as filed, the "shielding plate" is consistently described as an additional part providing the function of shielding, i.e. protecting a member which closes the opening portion, whereby said closing member already forms part of the opening portion. In particular:

- Claim 8 as filed specifies that "a shielding plate is disposed outside of the opening portion", i.e. the plate providing the shielding function is clearly situated "outside" and therefore separated from the part or portion providing the opening function.

- According to pages 7 and 8 as originally filed (corresponding to paragraph [0017] of the A-publication), the "opening portion may be formed by forming a plurality of holes in the peripheral

wall of the inner shell, and by closing the holes using breaking members. ... A shielding plate can be disposed **outside** of the opening portion". The opening portion as defined in this passage comprises holes closed by a breaking member (note: the term "opening portion" would not make sense when describing a part which is always open). The shielding function is further described as to "prevent flame generated in the combustion chamber provided outside the inner shell from coming into direct contact with the opening portion". In the board's view, the skilled person, when reading this passage, would derive only that the shielding plate is an additional part "outside of the opening portion" which protects the breaking member which closes the holes of the opening portion and which is opened (see paragraph [0017]) e.g. by "detaching the breaking member".

- Page 34 of the application as originally filed (paragraph [0053] of the A-publication) describes that "the opening portions 5 comprise a plurality of holes 6 formed in the peripheral wall of the inner shell 4 and a breaking member 7 for closing these holes. As for the breaking member 7, a stainless seal tape is used." The breaking member is formed such that it is not broken by combustion of the first gas generating agent. As a further alternative, it is mentioned that "alternatively, as another way to prevent the opening portions ... it is also possible to cover the opening portions 5 of the inner shell 4 with a shielding plate". Again, the skilled person, reading this passage, will recognise that the opening portion comprises holes and a breaking member, and the shielding plate is an additional part ("to cover the opening

portions") which might be provided in addition if the breaking member cannot resist the combustion of the first gas generating agent.

- The embodiment described on page 60 as originally filed (corresponding to paragraph [0099] of the A-publication) shows "a substantially ring-like shielding plate 1186" as shown in Figure 31 and "disposed such as to **cover** the through-hole 1110 formed in the inner cylindrical member 1104". As depicted in Figure 31 and explicitly mentioned, a "seal tape which closes the through-hole 1110 is protected by the shielding plate 1186". Again, the shielding plate represents an additional part for protecting another part (a "seal tape") which closes the through-hole.

- Page 104 as originally filed (corresponding to paragraph [187] of the A-publication) mentions "a peripheral wall thereof provided with an opening portion 660", and the "opening portion is closed by a seal tape 622", which according to the appellant should suggest that the opening portion is represented only by a communication hole. However, elsewhere in the said passage, it is said that the "opening portion 660 is formed so that it does not **open** by combustion of the gas generating agent 609a in the first combustion chamber 605a". Since the function of "opening" is again attributed to the opening portion in this embodiment, the opening portion cannot be represented by a hole alone but must include a closing member, i.e. the seal tape 622 forms part of the opening portion.

3.6 The board therefore concludes that the "shielding" function, according to the application as originally filed, designates a specific function in addition to the closing function that is realised by a closing member (e.g. breaking member or seal tape), i.e. always relating to a separate part (i.e. the "shielding plate") which does not close the holes provided in the inner shell but which is provided "outside of the opening portion" or which "covers the opening portion" in order to protect the opening portion. In particular, there is no disclosure in the application as filed which would suggest that the shielding plate covers the opening portion entirely in a sense that the opening portion would be "closed" by the shielding plate. Therefore, the "shielding plate" feature as claimed is to be construed as meaning a part which is provided in addition to another part which closes the holes.

3.7 To summarise, the application as filed discloses an inner shell of the multistage gas generator that comprises - as part of the opening portion - a breaking member (e.g. a stainless plate, breaking plate or seal tape) which closes the holes of the inner shell. The breaking member is either, due to its design or characteristics, resistant to the flames of the combustion of the first gas generating agent (without the need to provide a further protective part), or is protected by an additional shielding plate outside to cover the opening portion, corresponding to alternatives a and b as identified by the appellant.

As basically admitted by the appellant with regard to the description of the granted patent, it is not originally disclosed that the shielding plate, optionally used as an additional protective part, might be used to close the holes. Such shielding plate, as

now claimed by the combination of features i) and j) in claim 1 according to the Main Request, would contain the new technical information that, in addition to the seal tape or breaking member or breaking plate or stainless plate closing the holes in the inner shell originally described as closing members, the shielding member would be a further closing member, i.e. the holes would be closed by two parts. However, the term "shielding plate" already - due to the functional feature "shielding" - has a specific meaning in the context of the application as originally filed and cannot be used for defining a part which closes an opening portion and detaches as specified in features i) and j).

Therefore, the board judges that the amended subject-matter according to claim 1 of the Main Request is not directly and unambiguously derivable by the skilled person from the application as filed.

- 3.8 The appellant cited paragraphs [0076] and [0077] of the A-publication to show that parts were interchangeable and different parts could be used in combination. However, said passages explicitly relate to "the AIM, the communication hole, the connector, the self-contracting type filter or a combination thereof", not addressing modifications with regard to the member closing the hole. The general remark in paragraph [0076] that "the gas generator can also be realized by combining other parts described in the present specification" is not suitable for deriving directly and unambiguously that a breaking member or plate, which closes the holes of the inner shell, might be replaced by a shielding plate as described in the application as filed, in particular because the shielding plate is originally described only to be an

additional protective part protecting the member which closes the hole and not described to be a part which is designed to close the holes.

- 3.9 The appellant also argued, referring to the deletion of the term "shielding plate" from the description and the deletion of Figure 31 in the documents forming the basis for its Main Request, that the description of the Main Request was clarified so that it no longer referred to any feature in addition to the feature for closing the opening portion. The skilled person was therefore forced to interpret the term "shielding plate" in the light of the remainder of the description, concluding that the shielding plate as claimed corresponded to the breaking plate and the stainless plate listed as members for closing the through-hole.

Without further reference to an additional or optional shielding plate in the description or figures, it has to be assessed whether the term "shielding plate" according to claim 1 describes nothing more than a plate preventing "a flame caused by combustion of the first gas generating agent 1109a from flowing into the second combustion chamber 1105b through the through-hole 1110 to burn the second gas generating agent 1109b", as described on page 60 of the description according to the Main Request for the "stainless plate" or the "breaking plate". However, as regards the requirements of Article 100(c) EPC 1973, it has to be examined whether the claimed subject-matter of the European patent in the light of the amended description was disclosed in the application as filed, i.e. by taking into account the disclosure of the claims, description and drawings of the divisional application as filed.

Page 50 of the amended description, starting with the description of the corresponding example ("Example of AIM 1") of page 60 of the amended description, explicitly refers to "another example of the gas generator for an air bag, which does not form part of the invention but which is useful for a better comprehension thereof". This suggests to the reader of the amended description that the "stainless plate" or "breaking plate" as mentioned on page 60, referring to this example, also does not form part of the claimed invention. Therefore, the board is not convinced by the appellant's argument that the "shielding plate" of claim 1 means nothing more than one of the two plates mentioned on page 60 of the amended description. On the contrary, since the breaking plate is also described on page 60 to be "broken, peeled, burnt or detached ...", or "the inner cylindrical member 1104 may be provided with a notch", the shielding plate as defined in claim 1 according to the Main Request - in the context of the amended specification - cannot be unambiguously equated to a plate described with respect to an example not forming part of the invention. In the board's view, even in the light of the amended description, the feature "shielding plate" as claimed does still relate to an additional part (in addition to the stainless plate or breaking plate, or even the notch provided in the inner cylindrical member) for closing the through-hole. In particular, the functional feature "shielding" attributed to the "shielding plate" is considered to have a technical meaning within the meaning of a protective part, e.g. preventing the breaking plate which might be burnt from coming into contact with a flame caused by combustion of the first gas generating agent.

Moreover, the example described with reference to Figure 1 (see page 26 ff. of the amended description), under the headline "Mode for Carrying Out the Invention", in which the opening portions comprise a plurality of holes and a breaking member which is specified to be a "stainless seal tape" (see page 34 of the amended description), is also defined as not forming part of the invention, i.e. again a shielding plate as claimed relates to a part which is provided in addition. As to the amended "Brief Description of the Drawings" (see pages 22 to 24 of the amended description), it is explicitly stated (in particular with reference to Figs. 1, 8, 18, 19, 22 to 25, 28 and 32 where a single closing member is shown) that the example shown does not form part of the invention.

Therefore, also in view of the amended description, it must be assumed that a shielding plate as defined in claim 1 according to the Main Request is provided in addition to the breaking members described with regard to the examples not forming part of the invention. However, as already stated above (see point 3.7), it is not directly and unambiguously derivable from the application as filed that a shielding plate is provided as further closing and detaching member in addition to one of the breaking members according to the examples described in the amended description.

- 3.10 In view of the above, claim 1 of the Main Request contains subject-matter which extends beyond the content of the divisional application as filed. Therefore the ground for opposition under Article 100(c) EPC 1973 prejudices the maintenance of the present patent according to the Main Request. Consequently, the Main Request is not allowable.

4. *Admission of Auxiliary Requests III and IV (Article 13(1) RPBA)*

Article 13(1) RPBA (Rules of Procedure of the Boards of Appeal, OJ EPO 2007, 536) states that "Any amendment to a party's case after it has filed its grounds of appeal or reply may be admitted and considered at the Board's discretion. The discretion shall be exercised in view of inter alia the complexity of the new subject matter submitted, the current state of the proceedings and the need for procedural economy."

The present Auxiliary Requests III and IV were filed one month before the date of oral proceedings. Although two sets of auxiliary requests had already been filed earlier in appeal proceedings, the board notes that the appellant adhered to limitations of the claimed subject-matter as submitted with its previous requests. In particular, the replacement of the term "shielding plate", objected to with regard to the Main Request, by "breaking plate" according to Auxiliary Request III did already form part of the auxiliary requests filed in first-instance opposition proceedings. The replacement of "shielding plate" by "stainless plate" according to Auxiliary Request IV relates to a further variant disclosed in the context of the same embodiment as the "breaking plate" and does not raise further issues because, for the rest of the wording of claim 1, both requests have been amended likewise. Therefore, the respondent's argument that the appellant was trying "to fish for patentable subject-matter" is not convincing.

Moreover, claim 1 has been amended in both Auxiliary Requests III and IV by replacing the feature "opening portion" by "through-hole", whereas the auxiliary requests filed before either maintained the feature

"opening portion" or had it replaced by "hole". Since the respondent argued only in its last submission, subsequent to its reply to the statement of grounds of appeal, that the feature of a "hole that is closed with a breaking plate" was considered to be an inadmissible generalisation, the filing of Auxiliary Requests III and IV is considered to be a timely reaction to the new objection raised by the respondent itself. Furthermore, these amendments are not complex and do not raise any new issues.

Therefore, in exercising its discretion under Article 13(1) RPBA, the board admitted both Auxiliary Requests III and IV into the appeal proceedings.

5. *Extension of the scope of protection with regard to amended Auxiliary Requests III and IV (Article 123(3) EPC)*
- 5.1 The board finds that the amendments to the patent according to Auxiliary Requests III or IV extend the protection conferred by the patent and therefore violate Article 123(3) EPC.
- 5.2 In its granted version, claim 1 defines that an opening portion is closed with a shielding plate before actuation and can be opened by detaching the shielding plate according to features i) and j). These features were added, *inter alia*, in the proceedings before grant to claim 1 as filed and limit the scope of protection of the claims as granted. A limiting feature which falls under Article 123(2) EPC, as pointed out above with regard to the Main Request (see above point 3.7), cannot be removed from the claims without violating Article 123(3) EPC if it cannot be replaced by another feature disclosed in the application as filed without

violating Article 123(3) EPC (see G 1/93, point 13 of the Reasons).

In this context, it is noted that the feature "opening portion closed with a shielding plate" in claim 1 as granted, and in particular the functional feature "shielding" (as argued above in paragraph 3.4 with regard to the Main Request), is not considered to be a feature without any technical meaning which might be deleted from a claim without violating Article 123(3) EPC (see G 1/93, point 4 of the Reasons). Moreover, it must be considered whether amending the description by deleting passages relating to the "shielding plate" and deleting Figure 31 also has an influence on the interpretation of the scope of protection conferred by the amended patent according to Auxiliary Requests III and IV, since a mere deletion of a sentence in the description can already lead to an extension of the scope of protection (see e.g. T 142/05, conclusion under point 5 of the Reasons).

- 5.3 According to Auxiliary Request III or IV, claim 1 has been amended, on the basis of page 60 of the description as filed, by replacing the term "shielding plate" by "breaking plate" or "stainless plate", which closes a "through-hole" instead of the "opening portion" as claimed before, and which is "configured to prevent a flame ..." (added feature l)). Moreover, any reference to the "shielding plate" was deleted in the amended description and drawings.

Therefore, the question to be answered in the present case is whether features i) and j) according to claim 1 as granted that "an opening portion is closed by a shielding plate ... and can be opened by detaching the shielding plate", which have been objected to with

regard to Article 123(2) EPC (see previous finding with regard to the Main Request), can be replaced by the new features that a "through-hole is closed with a breaking plate or stainless plate ... and can be opened by detaching the breaking/stainless plate", properly disclosed in the application as filed, without extending the protection conferred by the patent as granted, taking into account the amended description and drawings.

- 5.4 As argued with respect to the Main Request (see above points 3.7), claim 1 as granted was directed to an embodiment where the shielding plate would be a further closing member in addition to the closing member of the opening portion, i.e. the holes would be closed by two parts. Such embodiment was not originally disclosed, so the Main Request was not allowable. However, when replacing in claim 1 the feature "shielding plate" by "breaking plate" (Auxiliary Request III) or "stainless plate" (Auxiliary Request IV), which according to further definitions given in claim 1 ("to prevent a flame caused by combustion of the gas generating agent (52) of the combustion chamber (50) defined outside said inner shell (4) from flowing through the through-hole") already incorporates the function originally assigned to the shielding plate (see e.g. paragraph [0017] of the A-publication), the through-holes as claimed are already sufficiently protected without further need to provide any additional shielding plate.

Moreover, the amended description and amended drawings, filed together with Auxiliary Requests III and IV, no longer contain any hint to a further shielding plate. Therefore, also when taking into consideration the provisions of Article 69(1) EPC and the Protocol on the Interpretation of Article 69 EPC, revised by the Act

revising the EPC of 29 November 2000, the subject-matter claimed in claim 1 according to Auxiliary Requests III and IV relates to an embodiment of the claimed multi-stage gas generator which comprises only a single member closing the through-hole, i.e. a plate defined either as a breaking plate or as a stainless plate.

5.5 Therefore, the protection conferred by the amended patent according to Auxiliary Requests III and IV includes embodiments where a single part provides both the function of closing (feature i)) and shielding (feature l)), whereas the protection conferred by the patent as granted relates only to embodiments requiring two parts for performing these two functions, i.e. where a shielding plate - in the light of the description as granted - must be construed as an additional plate having a clearly defined function of protecting/shielding and where another part is used as a closing member for closing the holes.

5.6 The appellant has cited several decisions of the boards of appeal where an amendment clarifying an inconsistency or a replacement of an inaccurate statement by an accurate statement of the technical features was found not to contravene Article 123(3) EPC. However, these decisions do not apply to the present case for the following reasons.

As already concluded in decision T 271/84 (see Headnote), an "amendment to a claim to clarify an inconsistency does not contravene Art. 123(2) or (3) if the amended claim has the same meaning as the unamended claim, on its true construction in the context of the specification". This was confirmed later in T 438/98 (see point 3.1.3 of the Reasons: "a prerequisite for an

amendment to be admissible is that the granted claim properly construed could only be interpreted as the amended claim"). However, such prerequisite for an amendment is not fulfilled in the present case. The term "shielding plate" in granted claim 1 was described throughout the application as filed (and throughout the description of the granted patent) as an additional protective part, in addition to the closing member closing the holes in the inner shell (as argued above in 3.7), whereas the "breaking plate" or "stainless plate" according to amended claims 1 of Auxiliary Requests III and IV represented a part closing the holes (see above 5.4). Therefore, in the context of the description (as filed and as granted), it was not directly and unambiguously derivable that the terms "shielding plate" and "breaking/stainless plate" could be replaced by each other without changing the meaning of the claimed subject-matter.

In decision T 371/88, a restrictive term ("disposed in parallel with") was replaced by a less restrictive term ("also transversely disposed") embracing a further embodiment, but it was quite clear from the description and the drawings of the patent that it was never intended to exclude the further embodiment from the protection conferred. However, in the present case the term "shielding plate" - also when taking into account the description and drawings of the patent - has a well-defined meaning defining an additional part protecting a closing member, and there is no indication in the specification that said part was intended to be used as the closing member as such, i.e. the subject-matter of claim 1 according to Auxiliary Requests III and IV defines an embodiment different from the embodiment defined by claim 1 as granted.

Moreover, the situation addressed in decision T 190/99, relating to subject-matter defining a geometrical relationship ("parallel") and including statements concerning the interaction of a plurality of items of a plurality of types, is different to that in the present case where the interaction of three items ("shielding plate", "opening portion" comprising a closing member and a hole) according to claim 1 as granted has been replaced by the interaction of only two items ("breaking/stainless plate", "through hole").

As regards decision T 108/91, an inaccurate technical statement concerning the condition of a part in its locked position ("shoulder means is retained in a substantially unstressed locked position") has been replaced by an accurate statement of the technical features involved ("bending means unstressed in their lower, locked position"). However, the board is not convinced that, in the present case, "once recourse is had to the description and drawings of the patent specification, that what is defined in granted Claim 1 could not be that for which protection was sought and that the intended meaning must have been the equivalent of what is stated in this respect in the amended claim" (see T 108/91, point 2.3 of the Reasons).

In the present case, the feature of a shielding plate according to granted claim 1 which closes an opening portion (which also requires that the shielding plate has to detach as defined in granted claim 1) represents a more specific embodiment of a shielding plate which according to the patent specification as a whole is specified to "cover the opening portions" closed already by a closing member (see paragraph [0053] or also Figure 31). As argued above, it is not disclosed originally that the shielding plate covers entirely (or

"closes") the opening portions including a closing member and detaches by actuation of the combustion chamber. Such specific embodiment as defined in claim 1 as granted, although technically meaningful, which was not originally disclosed, cannot be replaced by merely specifying a breaking or stainless plate which closes a through-hole according to claim 1 of Auxiliary Request III or IV, without violating Article 123(3) EPC. In particular, the "approach to the admissibility of a broadening amendment to a granted claim" (see T 108/91, point 2.4 of the Reasons), according to which an "offending feature in granted Claim 1 effectively excluded" either one embodiment (see T 371/88) or all of the embodiments disclosed (see T 108/91), is not considered applicable in the present case.

5.7 As a consequence, the protection conferred by the amended patent according to Auxiliary Request III or IV is extended in comparison to that conferred by the patent as granted. Hence the requirements of Article 123(3) EPC are not fulfilled in the present case. It follows that Auxiliary Requests III and IV are not allowable.

6. Since none of the appellant's requests is allowable, the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



A. Vottner

G. Pricolo

Decision electronically authenticated