

**Internal distribution code:**

- (A) [ - ] Publication in OJ
- (B) [ - ] To Chairmen and Members
- (C) [ - ] To Chairmen
- (D) [ X ] No distribution

**Datasheet for the decision  
of 29 October 2024**

**Case Number:** T 2135/22 - 3.2.08

**Application Number:** 16199972.7

**Publication Number:** 3199837

**IPC:** F16H57/04

**Language of the proceedings:** EN

**Title of invention:**

GEAR BAFFLE CONFIGURED WITH LUBRICANT OUTLET PASSAGE

**Patent Proprietor:**

RTX Corporation

**Opponent:**

Safran Aircraft Engines

**Headword:**

**Relevant legal provisions:**

EPC Art. 84, 54, 56

**Keyword:**

Claims - clarity (yes)  
Novelty - auxiliary request (yes)  
Inventive step - (yes)

**Decisions cited:**

G 0003/14

**Catchword:**



**Beschwerdekammern**

**Boards of Appeal**

**Chambres de recours**

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

Case Number: T 2135/22 - 3.2.08

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.08**  
**of 29 October 2024**

**Appellant:** RTX Corporation  
(Patent Proprietor) 10 Farm Springs Road  
Farmington, CT 06032 (US)

**Representative:** Dehns  
10 Old Bailey  
London EC4M 7NG (GB)

**Respondent:** Safran Aircraft Engines  
(Opponent) 2 boulevard du Général Martial Valin  
75015 Paris (FR)

**Representative:** Brevallex  
Tour Trinity  
1 B Place de la Défense  
92400 Courbevoie (FR)

**Decision under appeal:** **Decision of the Opposition Division of the  
European Patent Office posted on 6 July 2022  
revoking European patent No. 3199837 pursuant to  
Article 101(3)(b) EPC.**

**Composition of the Board:**

**Chairman** G. Buchmann  
**Members:** M. Foulger  
C. Schmidt

## Summary of Facts and Submissions

- I. With the decision posted on 6 July 2022, the opposition division decided to revoke the European patent No. 3 199 837.
- II. The proprietor filed an appeal and requested that the decision be set aside and that the patent be maintained on the basis of one of auxiliary requests 1, 2 and 4 to 12, all filed with letter dated 16 November 2022.
- III. The respondent requested that the appeal be dismissed.
- IV. Oral proceedings took place before the Board on 29 October 2024.
- V. The following documents are referred to in this decision:  
D1: GB 2 223 819 A  
D3: D. Wintree, "Reducing gear windage losses from high speed gears and applying these principles to actual running hardware", DETC2013-13039, August 2013  
D4: A. Arisawa et al., "CFD simulation for reduction of oil churning loss and windage loss on aeroengine transmission gears", GT2008-59226, June 2009  
D6: US 2010/140019 A  
D8: JP 2008 05832 A
- VI. Claim 1 of auxiliary request 1 reads (feature lettering added by the Board):  
  
"a. A transmission system (54), comprising:  
b. a first bevel gear (60); a second bevel gear (62) meshed with the first bevel gear (60), and including a plurality of gear teeth (76) arranged in a

circumferential array; and  
c. a baffle (64) including a baffle wall (86) and a baffle outlet (88),  
d. the baffle wall (86) arranged next to and covering a subset (84) of the gear teeth (76), and the baffle outlet (88) forming a lubricant outlet passage (104) that extends through the baffle wall (86),  
e. characterized in that the interior portion (94) of the baffle wall (86) is configured to plug an inner bore formed by a peripheral portion (92) of the baffle wall (86) and  
f. in that the baffle outlet (88) is formed by a double walled portion of the baffle (64), said double wall portion forming the lubricant outlet passage (104)."

VII. The respondent argued essentially the following:

(a) Clarity (Article 84 EPC)

In claim 1, feature f. added in opposition proceedings was not clear.

(b) Novelty with respect to D3

The subject-matter of claim 1 was not new with respect to D3, in particular Figure 40.

(c) Inventive step

The subject-matter of claim 1 lacked an inventive step in view of D3 alone or starting from either document D1, D4, D6 or D8 as closest prior art in combination with D3.

VIII. The appellant argued essentially the following:

(a) Clarity (Article 84 EPC)

Feature f. added in opposition proceedings was clear.

(b) Novelty with respect to D3

The subject-matter of claim 1 was new with respect to D3, in particular Photo 40. Feature e. of claim 1 required that the interior portion of the baffle wall is configured to plug an inner bore formed by a peripheral portion of the baffle wall.

(c) Inventive step

The subject-matter of claim 1 involved an inventive step in view of D3 alone or starting from either document D1, D4, D6 or D8 as closest prior art in combination with document D3.

## **Reasons for the Decision**

1. Clarity

The feature f. added in opposition proceedings reads "in that the baffle outlet (88) is formed by a double walled portion of the baffle (64), said double wall portion forming the lubricant outlet passage (104)."

The first part of this feature is taken word for word from granted dependent claim 12 and as such may not be examined for lack of clarity (G 3/14, order).

The respondent argued that the orifice cover was situated over the orifice ("baffle outlet") itself and as such at this point there was no double wall. According to the respondent, this led to a contradiction within the claim which was consequently not clear.

The objection however relates to a feature that was in a granted dependent claim. Thus, clarity may not be examined in this respect (G3/14, order). Apart from this the Board considers the claim to be clear in itself.

The remaining part of the feature, "said double wall portion forming the lubricant outlet passage (104)" is also not unclear and not in contradiction to the other parts of the claim. Indeed this phrase accurately describes the baffle of the invention.

Hence, the modifications introduced during opposition proceedings according to auxiliary request 1 are clear in the sense of Article 84 EPC.

## 2. Novelty

The respondent raised the objection that the subject-matter of claim 1 of auxiliary request 1 was not novel with respect to the embodiment shown in Figure 40 of D3. In particular, there was an opening in the upper portion of the baffle shown in Figure 40, which surrounded a shaft in a way that the interior portion of the baffle wall plugged an inner bore formed by a peripheral portion of the baffle wall, in the sense of feature e.

As pointed out by the respondent, the patent, paragraph [0043] states that the baffle may have holes in it. The respondent argued that taking this into account, the claim covered a baffle which had a hole for a shaft but that the shaft must essentially seal the baffle. Therefore, the construction shown in Figure 40 fell under the scope of claim 1.

The Board agrees with the respondent in that claim 1 includes transmission systems in which the baffle has a hole which is closed by a shaft extending through it. However, for the variant depicted in Figure 40 it is not shown that the shaft blocks the hole and thus the baffle wall cannot be said to "plug" the inner bore. Also, the shaft shown in Figure 41 clearly has a much smaller diameter than the opening in the baffle.

Therefore, the subject-matter of claim 1 of auxiliary request 1 differs from the disclosure of D3 by feature e, and is thus new.

### 3. Inventive Step

#### 3.1 In view of D3 taken alone

The respondent viewed the example shown in Figure 40 of D3 as the closest prior art. As discussed above, this example does not disclose feature e of claim 1, i.e. that the interior portion of the baffle wall was configured to plug an inner bore formed by a peripheral portion of the baffle wall. Moreover, the optimised designs of D3 do not disclose a double walled outlet.

The skilled person would understand that a closed inlet was preferable, i.e. the optimised designs shown in D3.



D3 describes the double wall outlet variant of the baffle (Figure 40) as being the "non-optimised" variant i.e. an inferior design. Indeed page 13, final paragraph states "[n]otice the unneeded complexity of the design and how many design guidelines I laid out are missed". Consequently the Board considers that the skilled person would rather take the complete optimised solution from D3 and would therefore not retain the double walled outlet of the Figure 40 example of D3 which D3 teaches away from.

Alternatively, starting from the embodiment shown in D3, Figure 40, the skilled person would have no reason to use the baffle known from D1, D4, D6 or D8 in this transmission because to do so would mean that there would be no through shaft and consequently the transmission would have to be fundamentally redesigned.

Hence, in view of the two examples of D3, the skilled person would not arrive at the subject-matter of claim 1 without an inventive step being involved.

### 3.2 Starting from D1, D4, D6 or D8 as closest prior art

The subject-matter of claim 1 differs from the transmissions disclosed in these documents by feature f.

Starting from D1, the problem to be solved was to provide a more compact arrangement.

The respondent argued that the skilled person would recognise that the double walled outlet was more compact than the pipe of D1 and thus utilise the double wall outlet design shown in D3, Figure 40.

However, as discussed above, the skilled person would be dissuaded by D3 from applying this single feature from the non-optimised baffle shown in Figure 40 to the known baffle shown in D1.

Starting from D4, D6 or D8 as closest prior art, the respondent argued that the double walled outlet had the effect of directing the lubricant away from the second gear and of reducing the likelihood of other lubricant flowing in (paragraph [0047] of the patent).

For the reasons given above, the skilled person would be dissuaded by D3 from applying this single feature from the non-optimised baffle shown in Figure 40 to the known baffle shown in D4, D6 or D8.

- 3.3 Hence, the subject-matter of claim 1 of auxiliary request 1 involves an inventive step.

## **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 on the basis of claims 1 to 14 of auxiliary request 1, filed with letter dated 16 November 2022, and a description to be adapted.

The Registrar:

The Chairman:



C. Moser

G. Buchmann

Decision electronically authenticated