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**Datasheet for the decision
of 29 March 2023**

Case Number: T 1000/22 - 3.2.07

Application Number: 16203511.7

Publication Number: 3181292

IPC: B24B33/02, F02F1/00, F16J10/04,
F02F1/20

Language of the proceedings: EN

Title of invention:
CYLINDER LINER FOR AN INTERNAL COMBUSTION ENGINE

Applicant:
Mahle Metal Leve S/A
Mahle International GmbH

Headword:

Relevant legal provisions:
EPC Art. 54, 113, 116
RPBA 2020 Art. 11, 12(8)

Keyword:
Novelty - (yes)
Remittal - (yes) - special reasons for remittal

Decisions cited:

T 1764/06

Catchword:



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Case Number: T 1000/22 - 3.2.07

D E C I S I O N
of Technical Board of Appeal 3.2.07
of 29 March 2023

Appellant: Mahle Metal Leve S/A
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 28 October 2021
refusing European patent application No.
16203511.7 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman B. Paul
Members: V. Bevilacqua
E. Mille

Summary of Facts and Submissions

I. The present appeal, which was filed within the prescribed period and in the prescribed form, lies from the decision of the examining division to refuse European patent application No. 16 203 511.7.

II. The appealed decision was based on the grounds that claim 1 of the main request, filed on the 18 December 2017, as well as claim 1 of the auxiliary request, filed on the 30 August 2021, were not new over the content of the disclosure of document WO 2015/010178 A1, identified as D1 in the appealed decision.

The appealed decision also refers to document DE112014003421 T5, which is the german translation of D1.

III. With the statement setting out the grounds of appeal, the appellant requested

- that the decision be set aside and that a patent be granted on the basis of the set of claims according to the main request, filed on the 18 December 2017, alternatively,
- that a patent be granted on the basis of the set of claims according to the auxiliary request, filed on the 30 August 2021.

As a further auxiliary request the appellant requested oral proceedings in case none of the above requests could be allowed by the Board.

With letter dated 17 March 2023 the appellant reformulated their request for oral proceedings and agreed to a decision in the written procedure, in case the board grants a patent, or remits the case to the examination division for further prosecution.

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

"Cylinder liner for an internal combustion engine provided with a hollow cylindrical body (2) comprising an internal surface (4) of longitudinal/axial length (L), wherein the internal surface (4) thereof is divided into three portions (Z1, Z2, Z3) along the length of the longitudinal/axial length (L) thereof, being:

(i) a first portion (Z1) near the end of the limit of the stroke of displacement of a piston, facing the head of the engine, proximate to the top dead centre (TDC) thereof ;

(ii) a second central portion (Z2);

(iii) a third portion (Z3) near the end of the limit of the stroke of displacement of a piston, facing the crankshaft of the engine, proximate to the bottom dead centre (BDC) thereof;

each of the portions (Z1, Z2, Z3) comprising a specific value of roughness,

characterised in that each of the portions (Z1, Z2, Z3) comprises a predefined length, the predefined lengths of the portions (Z1, Z2, Z3) are established such that:

(1) the ratio between the sum of the lengths of the first portion (Z1) and of the third portion (Z3), and the longitudinal/axial length (L) of the cylinder liner (1) shall be greater than 0.31 and less than 0.58 ($0.31 < (Z1 + Z3)/L < 0.58$);

(2) the ratio between the lengths of the first portion (Z1) and of the second portion (Z2) shall be greater than 0.15 and less than 0.46 ($0.15 < Z1/Z2 < 0.46$)."

Independent claim 1 of the auxiliary request is based on claim 1 of the main request and additionally comprises the following features added at the end of the characterizing portion thereof:

"and further characterized in that the first portion (Z1) comprises values of roughness of up to 0.30 Rpk, between 0.40 and 1.50 Rk, and between 1.10 and 2.80 Rvk; up to 0.30 Rpk, up to 0.40 Rk, and between 0.30 and 1.00 Rvk; the third portion (Z3) comprises values of roughness of up to 0.30 Rpk, up to 1.50 Rk, and between 0.30 and 2.80 Rvk."

V. With the statement of grounds of appeal, the appellant specifically contests the following two points of the reasoning of the appealed decision on the main request:

- that figures 2, 3 and 7 of D1 disclose the ranges of length ratios claimed in claim 1 of the main request (grounds of decision, point 9.2, last paragraph and point 9.5);
- that, in any case, the claimed ratios being an unusual parameter, according to decision T 1764/06 the burden of proof for demonstrating novelty thereof lies upon the applicant, who failed to discharge it (appealed decision, point 9.3).

VI. The arguments of the appellant are dealt with in detail in the reasons for the decision.

Reasons for the Decision

1. *Procedural aspects*

The present decision is taken by written procedure without oral proceedings in accordance with Article 12(8) RPBA 2020, respecting the appellant's procedural rights under Articles 113 and 116 EPC.

The appeal is ready for decision. The principle of the right to be heard under Article 113(1) EPC is fully respected, since the appellant has made extensive submissions on the merits and the board has based its decision on these submissions.

The appellant's request for oral proceedings under Article 116(1) EPC is subject to the condition that the Board either allows his request that a patent be granted or remits the case to the examination division (cf. letter of 17 March 2023). Since the Board decided to remit the case to the examination division, the above-mentioned request for oral proceedings is not procedurally effective and the oral proceedings already summoned are therefore cancelled.

2. *Review of point 9.2, last paragraph and point 9.5 of the grounds of the appealed decision*

2.1 The examining division found that figures 2, 3 and 7 of D1 disclosed the ranges of length ratios claimed in claim 1 of the main request (grounds of decision, point 9.2, last paragraph and point 9.5).

2.2 The Board disagrees, for the following reasons.

2.2.1 The Case Law of the Boards of Appeal has determined conditions under which measurement of drawings may be considered as a disclosure of the dimensions thus obtained (see Case Law of the Boards of Appeal, 10th Edition 2022, I.C.4.6).

Features shown solely in a drawing form part of the state of the art when a person skilled in that art is able, in the absence of any other description, to derive a technical teaching from them.

Based on the above criteria dimensions obtained merely by measuring a diagrammatic representation in a document do not form part of the disclosure.

2.2.2 Figures 2 and 3 of D1 are not scaled construction drawings, and there is no indication in D1 that they reproduce the cylinder liner to scale.

On the contrary, as noted by the appellant (cf. statement of ground of appeals, section II.1.1), figures 2 and 3 are clearly identified in paragraphs [0019] and [0020] of this document as being schematic representations.

According to the above mentioned Case Law, such schematic drawings, typically included in patent documents, are meant to indicate the essential elements of an invention but not to manufacture a product.

Based on the above the Board concurs with the appellant that figures 2 and 3 of D1 neither disclose the lengths of the liner portions specified in the present claim nor their size relative to other features and therefore cannot serve either directly or indirectly as a basis for determining the claimed ratios.

On the basis of the foregoing the Board finds that the appellant convincingly demonstrated that the examining division did not correctly construe the content of the disclosure of figures 2 and 3 of D1, because figures 2 and 3 should not have been used to derive ratios between the lengths of the portion of the internal surface of the cylinder liner depicted therein.

- 2.2.3 Figure 7 of D1, to which point 9.5 of the appealed decision refers, in combination with paragraphs [0049] and [0050] of the description, also does not disclose that the predefined lengths of the portions are established according to features 1 and 2 of the characterizing portion of claim 1 of the main request.

Paragraphs [0049] and [0050] relate respectively to embodiments B and C of the table at paragraph [0047], they have no direct link with figure 7 and do not contain any information on lengths or length ratios.

Figure 7 illustrates how the oil film thickness varies as a function of the crankshaft angle and with different roughness values, and also does not contain any information on lengths or length ratios.

- 2.3 The Board therefore concurs with the appellant that the length ratios claimed in features 1 and 2 of the characterizing portion of claim 1 are not derivable from D1.

- 3. *Review of point 9.3 of the grounds of the appealed decision*

- 3.1 In point 9.3 of the grounds of decision the examining division states that even if the length ratios were not derivable from D1, as this only distinguishing feature

is based on an unusual parameter, according to T 1764/06 the burden of proof of its distinctiveness over the content of the disclosure of D1 lies on the appellant, who failed to discharge it.

- 3.2 The Board is not convinced that the *ratio decidendi* of decision T 1764/06 applies to the present case.

The appealed decision does not contain any motivation for shifting the burden of proof to the appellant, because the examining division failed to explain (see point 9.3) why the claimed length ratios were to be considered as an "unusual parameter" according to T 1764/06 (as it was done in point 2.5 of T 1764/06).

The examining division also failed to justify, following point 2.7 of T 1764/06, the lack of any information on the "significance" of this parameter in the application.

In this respect the Board notes, following the appellant, that paragraphs [0018] and [0047] of the present application explicitly mention a technical effect related to the claimed length ratios.

- 3.3 It is therefore not apparent, from the appealed decision, why the conditions laid down in decision T 1764/06 for exceptionally shifting the burden of proof to the appellant are satisfied in the present case.

4. *The appealed decision is to be set aside*

- 4.1 The appellant has convincingly demonstrated the inaccuracy of the contested decision on the novelty of the subject-matter of the claim in relation to the

disclosure of document D1.

The requirements for setting aside the decision of the examining division to be reviewed by the Board in accordance with Article 12(2) of the RPBA 2020 appear to be met.

However, as it will be explained in the following, neither the main request, nor the auxiliary request may be allowed as a result of a review of the appealed decision on the basis of the appellants' submissions in the appeal proceedings.

5. *Remittal*

5.1 Looking at the issue of inventive step, which is essential to patentability, the Board notes that a discussion thereupon and a subsequent deliberation appear to have taken place during oral proceedings.

This can be derived from the minutes of oral proceedings before the examining division (last page, last paragraph), according to which the application was refused on the basis of Articles 52, 54 and **56** EPC, after having heard the appellant also on inventive step (see the last line of the second paragraph of page 3, ending with "even small improvements lead to inventiveness").

However, the appealed decision did not make any sufficiently reasoned findings on the aspect of inventive step beyond the discussion of novelty vis-à-vis D1

Point 9.6 of the grounds of decision, where inventive step of the main request is mentioned, is formulated as

a repetition of statements (and therefore of the opinion) of the first examiner, without presenting and discussing the arguments of the appellant, while it is not clear therefrom, that the examining division as a whole deliberated and decided on inventive step.

Point 9.7 of the appealed decision, stating that claim 1 of the auxiliary request lacks novelty **and** inventive step, is only motivated with the lack of novelty over D1 of the features coming from the dependent claims and added to claim 1, without any discussion of inventive step.

The appellants' comments on inventive step in the statement of grounds of appeal (cf. sections IV and V) are based mainly on novelty considerations and limited exclusively to an analysis the content of the disclosure of document D1, disregarding the further relevant prior art mentioned in the search report.

- 5.2 Based on the above the Board decides that the present case should be remitted to the examining division for further prosecution.

The Board is aware that, in accordance with the legislative will expressed in the revised version of Article 11, sentence 1, RPBA 2020, a remittal should only be made if there are special reasons, that is to say, exceptionally. According to the legal definition in Article 11, sentence 2, RPBA 2020, such a particular reason must be regularly accepted if the procedure preceding the appeal procedure and ending with the contested decision suffered from a material deficiency. Furthermore, it is clear from the explanatory notes to Article 11 of the RPBA 2020 (additional publication 1 - OJ EPO 2020, 178, 187) that it is necessary to examine

in individual cases whether there are any special grounds for the purpose of this provision and then whether this is to be denied if the Board can decide all relevant questions with reasonable effort.

Against this background, after considering all the relevant circumstances of the present case, the Board concludes that the question of inventive step, relevant to patentability, cannot be decided with reasonable effort in the appeal proceedings, but rather that the necessary basis must first be established in the examination procedure which is now to be continued.

Consequently, to the Board's conviction, there are special reasons within the meaning of Article 11, sentence 1, RPBA 2020 to remit the matter back to the examining division for further examination of the patentability requirements.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to examining division for further prosecution.

The Registrar:

The Chairman:



G. Nachtigall

B. Paul

Decision electronically authenticated