
Examiners' Report - Paper B (Electricity/Mechanics)

General Considerations

1. Paper B is a test of the candidates' skill in revising the claims to the extent necessary to overcome the objections raised in a communication of the European Patent Office with regard to the cited prior art documents, and in drafting a letter of response to the European Patent Office. Candidates should take into account the available prior art, the examiner's objections raised in the communication and the letter from the client. In accordance with the "Instructions to Candidates for Preparing Their Answers", arguments in defence of the revised claims should be presented.

Claims

2.1 Independent claim - General

D1 and D2 both describe wind indicators with means for spacing the wind indicating ribbon or the yarn from the sail.

D1 discloses in Fig. 2 an attachment member 50 which is wedge-shaped, thus having an inclined surface. The wind indicating ribbon 20 is attached on the inclined surface of the wedge-shaped member 50 which therefore serves as a spacing member. The adhesive layer 23 shown in Fig. 1 of D1 does not have any spacing effect.

D2 describes two embodiments in Figs. 1 and 2, respectively. In Fig. 1 the wind indicating yarn 13 is spaced from the sail 20 by a cylindrical member 12. The cylindrical member 12 is attached to a flat attachment base 11. As an alternative, in Fig. 2 the cylindrical member 12 is attached to the sail 20 by the triangular support 25. This triangular support 15 has an inclined surface, but this inclined surface of the triangular support 15 is in the wind shadow of the cylindrical member 12 (cf. 5th paragraph, last sentence of D2). D2 further describes that the wind indicating yarn 13 may be replaced by a ribbon (cf. 7th and last paragraph of D2).

It is noted that the relative arrangements of the wind indicating ribbon or yarn and the respective inclined surfaces described in D1 and D2 may allow a redirecting of a wind portion by the inclined surface, but only on the upper side of the yarn or ribbon.

2.2 Preferred solution

In order to distinguish the invention in its broadest form from the available art, it was necessary, starting from original claim 1, to further specify an attachment member (4) having a surface (9) which is inclined with respect to the lower surface (7) of the attachment member (4), and to claim the positional relationship between the spacing member (5) and the attachment member (4) achieving, in use, a redirection of a portion of wind by the inclined surface (9) towards the underside of the wind indicating member.

Candidates were expected to generalise the term “wind indicating ribbon”, as requested by the client. The wording “wind indicating piece of light-weight, flexible material” is considered to represent the broadest terminology supported by the original disclosure (cf. p. 3, 1st paragraph, penultimate sentence).

An example of a good solution based on the original claim 1 could be worded as follows:

“Wind indicator (1) for a sail (2) comprising a wind indicating ~~ribbon~~ piece of light-weight, flexible material (6), the ~~ribbon~~ piece of light-weight, flexible material (6) having a fixed end (6a) and a free end (6b) ~~characterised in that the wind indicator (1) further comprises,~~ a spacing member (5) to which the fixed end (6a) of the ~~ribbon~~ piece of light-weight, flexible material (6) is fixed, such that, when the wind indicator (1) is attached to the sail (2), the spacing member (5) keeps the ~~ribbon~~ piece of light-weight, flexible material (6) spaced from the sail (2), *(based on former claim 1)* and

an attachment member (4) having a ~~flat~~ lower surface (7) which is adapted to be ~~glued~~ attached to the sail (2) *(former claim 3 with the generalisation based on p. 4, 1st paragraph, last sentence and p. 3, 2nd paragraph, 2nd sentence)* and a surface (9) which is inclined with respect to the ~~flat~~ lower surface (7) *(former claim 5),*

characterised in that the spacing member (5) and the attachment member (4) are located with respect to each other such that, in use, the inclined surface (9) redirects a portion of wind towards the underside of the piece of light-weight, flexible material (6) *(generalisation of the disclosure on p. 4, 1st paragraph, 1st sentence and p. 4, 2nd paragraph, 1st sentence).*”

The term “underside” could alternatively be referred to as “side facing the sail” as defined on p. 3, 3rd paragraph.

The essential aspect is the effect of redirecting of a wind portion to the underside of the ribbon, which is achieved by the inclined surface and the relative locations of the spacing member and the attachment member *(these features ensure an active detaching of the piece of light-weight, flexible material from the sail).*

Candidates should have recognised that generalisation of former claim 3 is possible, since (a) the flatness of the lower surface (7) is not explained as being essential, (b) it is not indispensable for the function of the invention and (c) its removal requires no modification of the other features. The essentiality test should be performed even for the term “glued” or for any other generalisation (see Guidelines C-VI, 5.3.10).

The above claim has been drafted by taking Fig. 2 of D2 as closest prior art. Indeed, this embodiment of D2 discloses a spacing member 12 plus an attachment member 15 with an inclined surface (see Fig. 2 of D2). The inclined surface of the attachment member 15 of D2 cannot, however, redirect any wind portion, because the inclined surface of the attachment member 15 is completely in the wind shadow of the spacing member (cf. 5th paragraph, last sentence of D2).

Only one independent claim of the apparatus type was expected. Other independent claims of a different category, e.g. a method claims, were not considered to achieve additional protection for the applicant, and therefore these claims received no marks.

2.3 Inferior solutions / Unnecessary limitations

Solutions that only partially achieved the protection potentially available to the applicant or limited unnecessarily the scope of the independent claim attracted fewer marks.

A considerable number of candidates claimed the “width of the inclined surface (9) being greater than the width of the spacing member and greater than the piece of light-weight, flexible material” in addition to or instead of the relative location of the spacing member and the attachment member. The relative widths, however, are not considered to achieve the redirection of a portion of the wind towards the underside of the piece of light-weight, flexible material. Therefore, candidates who limited their claims to the relative widths lost a considerable number of marks.

The following are other examples of inferior solutions, which were awarded considerably fewer marks than the preferred solution:

- 1) The independent claim is limited structurally to the three specific embodiments shown in Figs. 4A-4C, instead of the functional definition.
- 2) The independent claim excludes at least one embodiment, e.g. excludes the embodiment of Fig. 4A.
- 3) The independent claim is limited to only one specific embodiment.

Additionally points were deducted in the following exemplary cases:

- (a) The ribbon had not been generalized at all or only partially.
- (b) The inclined surface is concavely curved (or planar).
- (c) The spacing member and the attachment member are formed as one piece.
- (d) The attachment member is wedge-shaped or the spacing member is an arm.

2.3 Amendments not supported by the application as originally filed, Art. 123(2) EPC

As a general comment, amendments that were considered to be not recoverable in post grant procedure (Art. 123(2) + (3) –trap), were severely penalised.

Claims that were considered not to fulfil the requirements of Art. 123(2) EPC, but which could later have been amended without extending the extent of protection, lost fewer marks.

2.4 Clarity

As in previous years, examiners paid particular attention to the clarity of the claims, especially of the independent claim. A common mistake was to refer to an inclined surface without specifying any reference surface to which it was inclined.

Claims that lacked essential features lost marks. In this year's paper many candidates lost marks by merely claiming the result rather than the means for obtaining the result.

2.5 Lack of novelty

Claims that lacked novelty against either of the available prior art documents lost a considerable number of marks. For example, solutions claiming the relative width without specifying an inclined surface are not considered to be novel over Fig. 1 of D2. Claiming the width of the inclined surface being larger than the width of the ribbon (without referring to the width of the spacing member) is known from D2, Fig. 2. The attachment member and spacing member being formed as one piece is known from D1, Fig. 2. Furthermore, D2 discloses a spacing member 12 located on the inclined surface of a wedge-shaped attachment member 15. Therefore, claiming an attachment to the thick end, thin end and intermediate points of the inclined surface without mentioning the redirecting of the wind is not novel over D2.

2.6 Lack of inventive step

Claims that were considered to lack inventive step were also penalised, but to a lesser extent than those that were not novel.

2.7 Formal matters

A small number of marks were deducted for claims where the two-part form was incorrectly applied with respect to the closest prior art chosen by the candidate or where no reference signs were used in the set of claims.

3. Dependent claims

Although most of the marks available for the claims were reserved for the independent claim, candidates were expected to retain appropriate dependent claims from the originally filed claims and to draft additional dependent claims where meaningful fallback positions could be identified. Some examples of additional dependent claims are:

1. the specific embodiments shown in Figs. 4A to 4C.
2. the width of the inclined surface being greater than the width of the spacing member and the piece of light-weight, flexible material.
3. the inclined surface being either planar or concavely curved.
4. the adhesive layer.
5. the angle of the wedge-shaped attachment member.

Dependent claims that were not considered to offer a meaningful fallback position were awarded no marks. It should be stressed that examiners were looking for quality rather than quantity.

Argumentation

4. General remark

The following argumentation is considered appropriate for candidates having the preferred solution. For other solutions, the arguments presented were marked on their merit in relation to the candidates' claims.

5. Source of amendments

When assessing amendments, examiners looked for correct references to the disclosure of the application as filed. For answers having a single independent claim covering all embodiments, a basis for the location of the spacing member relative to the attachment member should have been given. Arguments should also have been given for the allowable generalisation of the ribbon.

Bonus marks were awarded to candidates who justified (using the 3-point essentiality test) the generalisation (as outlined in point 2.2 above) of the features of former claim 3.

Where the three specific embodiments were claimed separately (see point 2. above), arguments on unity (Art. 82 EPC) and on R. 29(2) EPC were expected.

Candidates who claimed the relative widths should have recognised that this arrangement was explicitly disclosed only in combination with the specific word “arm” (see description on p. 4, 1st paragraph 3rd sentence). Arguments were, therefore, expected in support of the generalisation of the term “arm” to “spacing member”.

6. Novelty

It was sufficient to identify a feature which is not disclosed in D1 and a feature not disclosed in D2. In cases where it was not immediately evident that the identified feature is not present, explanations were expected.

7. Inventive step

Most candidates provided arguments that were structured to follow the problem solution approach for justifying inventive step. This approach gave a sound basis for justifying inventive step.

7.1 Identifying the closest prior art:

The choice of the closest prior art depended on the independent claim drafted. Really good answers discussed the different embodiments of D1 and D2 and provided arguments as to why their chosen embodiment is the closest prior art to the invention. A mere statement that D1 or D2 was structurally the more similar received very few marks.

Arguments that could have been used include that the embodiment of Fig. 2 of D2 comprising a spacing member 12 placed on the inclined surface of the attachment member 15 most resembled that of the embodiments of the invention.

7.2 Derivation of problem/solution:

It was considered to be appropriate for candidates to apply the problem solution approach in justifying an inventive step for the chosen claim. Candidates achieved high marks for deriving the objective problem by applying the logical steps of the problem solution approach. These steps are listed in the Guidelines C-IV, 9.8. There was no need to apply different problem/solution approaches starting from different documents.

Some answers attracted fewer marks due to inconsistencies in the argumentation. For example where the problem chosen was not consistent with the closest prior art selected or where the derivation of the problem was based on features not found in the candidate's amended claim.

A suitable problem would have been, for example, the preventing of the sticking of the piece of light-weight, flexible material also in light winds together with a quick detaching of a stuck piece of light-weight, flexible material.

The feature of the relative widths alone does not solve the problem of quick ribbon detachment, since it is the arrangement of the parts and not the width which redirects a portion of the wind. Candidates were expected in these cases to derive another problem suitable to these relative width solutions, e.g. better fixation of the spacing member onto the sail.

7.3 Arguments as to why the prior art does not lead the skilled person to the invention:

Convincing arguments relating to the substance of the case were expected. Where candidates only provided general statements that were not related to the technical aspects of the case, considerably lower marks were awarded.

Arguments which could have been used include; firstly reasoning why the skilled person would not arrive at the invention by combining the teachings of the embodiments disclosed within D2 itself, secondly reasoning why the skilled

person would not have considered combining documents D1 and D2 and in reasoning that even if D1 and D2 were combined, the combination would not lead to the invention. It is noted, for example, that the arrangements disclosed in both D1 and D2 point away from any wind being redirected towards the underside of the piece of light-weight, flexible material. Care should have been taken to ensure that all embodiments were considered.

Candidates were expected to address the examiner's statement on inventive step outlined in point 4 of the communication. An argument which could have been used is that the flat attachment base 11 of Fig. 1 of D2 is not equivalent to the wedge-shaped attachment member 50 of Fig. 2 of D1. The latter fulfils two functions: that of an attachment member and of a spacing member in one body, whereas the flat attachment base 11 has no spacing effect. Hence, there is no motivation for substituting the flat base 11 of D2 with the wedge shaped body of D1.

Examiners also noted that some candidates used expressions in the argumentation which were different in scope from those used in the claim under discussion. In some cases this led to arguments being made which were not relevant to the chosen claim. For example, the relative widths per se do not contribute to the redirecting of a portion of the wind.

8. Presentation

As in previous years, marks were deducted for muddled or illogical presentation of arguments.

It is pointed out that the submission of pre-prepared materials as part of the answer paper is contrary to the Regulations (see "Instructions to candidates concerning the conduct of the examination", paragraphs 4. and 5.7). Such materials are disregarded for marking.

EXAMINATION COMMITTEE I

Candidate No.

Paper B (Electricity/Mechanics) 2005 - Schedule of marks

Category	Maximum possible	Marks awarded	
		Marker	Marker
Claims	50		
Argumentation	50		
Total	100		

Sub-Committee for Electricity/Mechanics agrees onmarks and recommends the following grade to the Examination Board:

PASS
(50-100)

FAIL
(0-49)
COMPENSABLE FAIL
(45-49, in case the candidate sits the examination for the first time)

29 July 2005

Chairman of Examination Committee I