

Examiners' Report on 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 in which, according to the "Instructions to Candidates For Preparing Their Answers" and to the client's letter, arguments in defence of the revised claims should be presented.

Claims

2.1 Independent claim - General

D1 and D2 both describe steam ironing systems. D1 has an evaporation chamber which is in contact with the sole plate and is hence heated together with the sole plate, and a pre-evaporation chamber having its own heating resistance.

D2 has a water conduit 20 which bypasses a boiler 8. This boiler 8 is considered in the following to be a pre-evaporation chamber since, in the application, the evaporation chamber is the chamber in contact with the sole plate and is heated by the heating resistance of the sole plate. The boiler 8, conversely, has its own heating resistance remote from the sole plate, an arrangement similar to the pre-evaporation chamber of the application.

The important feature of the application is the mixing of steam from the pre-evaporation chamber with water from the bypass before leaving the steam ironing system. This humidifies the steam, thereby achieving an improved ironing effect on certain types of fabrics.

D1 and D2 do not address the problem of humidifying the steam. D1 does not disclose a bypass. D2 describes a water conduit 20 (bypass) to humidify the fabric. D2 further describes a switching valve 22 separating the bypass from the steam conduit 6. This switching valve of D2 impedes any mixing of steam from the steam conduit and water from the bypass within the steam ironing system.

Although not stated in D2, steam still present outside the front part of the sole plate may be mixed with water exiting from the foremost opening 9'. Hence, a mixing of steam and water may occur in D2 only outside of the steam ironing system, if at all.

2.2 Preferred solution

A preferred solution was considered to be a single independent claim based on the features of original claims 1, 2 and 3 plus the additional limitation that the bypass conduit is configured to allow mixing of water from the bypass conduit with steam from the pre-evaporation chamber before leaving the steam ironing system (or equivalent wording).

Just combining former claims 1 to 3 was not considered adequate for a clear distinction from D2, as the location of the feeding of the bypass conduit is unspecified, thereby still implying the structure of D2, which is only adapted to humidify the fabric and impedes any mixing of water and steam within the steam

ironing system. Since this definition of the arrangement of adding water to the steam of the pre-evaporation chamber required a slight generalisation of the text given in the description, a justification for this generalisation was expected (see point 10).

A solution exclusively directed to the two specific embodiments of the feeding point of the bypass (whether in one or two independent claims) attracted slightly fewer marks than the preferred functional definition given above. The specific embodiments of the application are (a) the bypass conduit feeding into the supply conduit between the pre-evaporation chamber and the evaporation chamber and (b) the bypass conduit feeding directly into the evaporation chamber.

Additional independent claims, such as a method claim, were not considered to give additional protection to the client, hence no points were awarded for such claims.

2.3 Inferior solutions

- (a) A claim clearly limited to only one of the above mentioned specific embodiments.
- (b) A claim limited to former claim 5 not objected in the communication: It does not follow the client's wish and does not even cover the gist of the invention.
- (c) A claim simply defining the invention in terms of the desired result such as "means for humidifying the steam ...", without referring to the bypass, attracted very few points.

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

As a general comment, inadmissible amendments, which are not recoverable in later post-grant proceedings, because the removal of a feature not originally disclosed would extend the protection conferred (Art. 123(2) + (3) –trap), are severely penalised. Amendments which are recoverable, are penalised to a lesser extent.

4. Lack of novelty

Claims lacking novelty were substantially marked down.

5. Lack of inventive step

Claims with a clear lack of inventive step were heavily penalised. An example for a claim lacking inventive step is a claim simply combining original claims 1 to 3.

Several candidates additionally specified that mixing of water from the bypass steam from the pre-evaporation chamber occurred, but did not indicate, explicitly or implicitly, that mixing occurred within the steam ironing system. These candidates do not therefore exclude the possibility of mixing outside of the steam ironing system as it may occur in D2. However, this was penalised to a lesser extent than without such specification.

6. Further unnecessary limitations

As in previous years, points were deducted for features in the independent claim which are inessential, such as the features referred to under dependent claims below.

7. Formal matters

A few points were deducted for formal objections such as a clearly incorrect 2-part formulation in view of the closest prior art chosen by the candidate.

8. Dependent claims

After amendment of the independent claim, candidates were expected to retain those original dependent claims which remain valid. Candidates were further expected to introduce new dependent claims where meaningful additional fall-back positions could be identified.

Features considered meaningful include the following:

- (a) feeding of the bypass conduit 16 in the supply conduit 4
 - . between the pre-evaporation chamber 15 and the evaporation chamber 12
 - . directly into the evaporation chamber 12
- (b) configuration of Fig. 2A:
 - . retain former claim 4
 - ... further valve (18') in bypass conduit
 - control device controlling the closing and opening of the valves 18, 18'
- (c) configuration of Fig. 2B:
 - . retain former claim 5
 - ... control device controlling the activation of the pumps 6, 19
- (d) the water tank 2, the supply conduit 4 with the pre-evaporation chamber 15 and the bypass conduit 16 are located:
 - . outside a housing 1 of the steam ironing system
 - . inside a housing 1 of the steam ironing system

Argumentation

9. General remark

The following argumentation is considered appropriate in support of the preferred solution. Obviously, for other solutions, the arguments presented were assessed on their merit in relation to the corresponding claims.

10. Source of amendments and unity

When identifying the source of amendments made, the examiners looked for a correct reference. In case of amendments which were explicit in the application as originally filed, a reference was considered sufficient to prove compliance with Art. 123(2) EPC. Amendments which defined features which were to some extent merely implicit in the application as originally filed required arguments to justify why these features should be allowed. Candidates who only provided a reference for such implicit features lost marks.

For the preferred solution, arguments should be provided on the allowable generalisation (principle of the invention described on p. 4, last two sentences of first paragraph).

When the two specific embodiments have been claimed (see point 2. above), arguments on unity (Art. 82) were expected.

11. Novelty

It is sufficient to identify a feature which is not disclosed in D1 and a feature not disclosed in D2. In cases where it is immediately evident that the identified feature is not disclosed in the document in question, no further explanation was required. Where this was not the case, reasoning was additionally expected.

12. Inventive step

12.1 Closest prior art identification:

To attract full marks, it was considered appropriate for candidates to discuss both D1 and D2 with respect to the independent claim, and to provide convincing arguments for the preferred choice. The closest prior art could have been D1 or D2, depending on the claim under discussion and the problem identified by the candidate.

When choosing the closest prior art, a reasoned justification for the choice was expected. D1 is structurally the closest prior art, whereas D2 may be regarded closest from the functional point of view. Indeed, D2 includes a humidification process, although intended only for the fabric and outside of the sole plate.

12.2 Derivation of problem/solution:

It was appropriate for candidates to apply the problem-solution approach (see Guidelines C-IV, 9.5), starting from the document identified as the closest prior art for the claim under discussion.

Any inconsistency between the problem and the claimed solution was penalised, as was any inconsistency between the problem-solution analysis and the features of the claim under discussion. As in previous years, a number of candidates developed satisfactory problem-solution arguments, but omitted from the independent claim the very feature which actually overcame the stated problem.

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

Candidates did not receive credit for pure assertions such as “this solution is not hinted at” unless supported by convincing arguments. Relevant arguments were expected, for example: D1 does not suggest any mixing of water with steam.

The bypass of D2 does not allow the mixing of water with the steam within the steam ironing system. Indeed, the switching valve impedes any simultaneous conveyance of water and steam. The water from the bypass 20 is foreseen to humidify the fabric, not the steam from the steam conduit.

13. Presentation

Candidates lost marks for muddled or illogical presentation. It should always be clear which arguments are considered by the candidate to be relevant to which issue.

When amending the claims it is recommended that candidates use the ‘cut and paste’ method. This saves time for the candidate and ensures that no features are inadvertently omitted.

EXAMINATION COMMITTEE I

Candidate No.

Paper B (Electricity/Mechanics) 2003 - 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)

Bruxelles, 27 August 2003

Chairman of Examination Committee I