

## Examiners' Comments

### PAPER P3 2009

#### GENERAL

In this question you are told that your client specialises in equipment for military aircraft crew and in particular a crewman's survival dinghy. His invention is an improved bailing device which may be incorporated in new dinghies or retrofitted to existing dinghies.

The device is able to drain water within a vessel out through a non-return valve (nrv).

A main claim focussed on the client's field of interest, survival dinghies, was acceptable. Attempts to go broader than this were commendable and generally got higher marks. However, some candidates seemed to go so broad as to lose sight of the clients product, and even produced a specification which made no mention at all of survival dinghies. A broad claim could attract prior art from another field, and with no basis to limit to survival dinghies, all could be lost.

A claim to a drainage device *per se* ran the risk of being anticipated by the acknowledged prior art non-return valve used in a sink.

Many candidates assumed that a pumping action was required, and this manifested itself in requirements, in claim 1, for a flexible tube, pumping means or a peristaltic action. The description suggests that pumping *per se* need not be essential (*As the dinghy is tossed round the water will drain down through the non-return valves. Normally, the aircrewman will use something like a peristaltic motion on the trunk of the drainage device.*) A good description and dependent claims could still result in a pass.

Some candidates assumed that two non-return valves were essential. It is clear that a single valve will work (*Both act as non-return valves to allow water to pass out, through the dinghy floor, but prevent return of the water into the dinghy*). Candidates with this limitation (two valves) were unlikely to score highly enough to pass.

Some candidates produced acceptable claims, but scored poorly on the description, in some case through lack of time. Candidates should apportion their time with the marking schedule in mind: 2 hours for reading, analysis and drafting the main claim(s); 1 hour for the dependent claims; 1 hour for the introduction, specific description and abstract seems a reasonable allocation of time. Refer also to the paper P3 Notes 2009 by Iain Russell on the JEB web site.

#### INDEPENDENT CLAIMS

It is always important for candidates in to consider who is going to need the cover most, and what might be his likely business. In this case the principal outlet is going to be the manufacturer of inflatable dinghies, particularly inflatable survival dinghies having a roof member.

Independents claim were expected to a dinghy incorporating a bailing device and possibly to the bailing device itself. A claim to the bailing device might be prompted by the reference to retrofitting, but retrofitting would lead to an infringing dinghy. A drainage device comprising a non-return valve was prior art.

An independent claim which read:-

A (inflatable) dinghy/boat/vessel having 'through' the hull thereof a conduit having a non-return valve arranged to allow water only to flow out of the dinghy/boat/vessel

or

A bailer device for (inflatable) dinghy/boat/vessel having a conduit fixable 'through' the hull thereof, the conduit having a non-return valve arranged to allow water only to flow out of the dinghy/boat/vessel

would achieve at least half of the marks from those available for the independent claims.

As mentioned in last year's examiner's comments, 'means plus function' is a well recognised style of drafting and good marks can be achieved with that style. Claims limited simply by the result to be achieved (e.g. 'no-fume' type claims) often run the risk of being no more than a 'free beer' type claim – 'anything which prevents the flow of water back into the dinghy' – because they lack any distinguishing structure. Very few candidates this year seemed to fall into this trap.

However, this year, some candidates unnecessarily limited their independent claims by including features which do not relate to the 'invention' they are claiming. Typically these features are mentioned but then not subsequently referred to in the remainder of the claim. The question therefore arises of why was that limiting feature included at all? It is recognised that this is something that is sometimes can be difficult to spot and to be self-critical over. To help with this problem, candidates may consider trying to sketch out their claims since this often reveals features which have no interaction with others in the claim, and so are not contributing to the definition of the invention. This can be helpful in two ways: the first is that the feature may not be necessary at all and can be removed; the second is that the feature needs to be present, but its interaction with the other features has been omitted and needs to be included. It may be necessary to mention the dinghy floor if that is where you are locating the drainage device, but is it necessary to mention the canopy even if you are limiting to a survival dinghy?

A total of 40 marks were available for the independent claims.

## DEPENDENT CLAIMS

Quite a variety of dependent claims in the traditional graduated form were then available, for example (in no particular order):

That the device was located at or beneath the vessel floor to minimise the amount of water within the vessel and to maximise the amount of water which can be expelled. That there is provided a funnel mouth and a second nrv just therebelow which assist considerably, the one maximising the amount of water that can be captured and the other providing a chamber, between the two valves, from which

water can readily be squeezed peristaltically downwards. The client specifies that the two particular valves are rotated relative to one another, but is there an advantage associated with this, and is it applicable to any type of non-return valve?

That each member is formed of rubberised fabric, similar to that of the inflatable dinghy when the baler is fitted to such, which improves stowage compactness. This is practically vital in the context of an aircrew survival dinghy but quite useful with other inflatable dinghies.

Further subsidiary claims were expected to the cover flaps and the fact that a non-rigid conduit could then be rolled up beneath such flaps to maintain water tightness, the touch-and-close (Velcro™) fastening, and the reinforcing members.

In this case method claims were not expected.

A significant number of candidates not only had no claim to a survival dinghy but no mention of it in the description either, which might disadvantage the client severely during prosecution.

An apparatus omnibus claim was expected.

Candidates might find it useful first to make bullet point notes on the features of their dependent claims to enable them to structure these claims in a sensible order prior to writing them out. This might also provide some time advantage to candidates when writing out the claims since subsequent renumbering and awkward dependencies can be avoided.

Candidates might also wish to consider whether features that they have selected for a dependent claim would truly assist in prosecution and cause a UK-IPO examiner to change his mind when assessing novelty and inventive step. If a candidate is unable to envisage how the feature of a dependent claim might convince the examiner that an amended claim was now novel and inventive due to the inclusion of that dependent feature, then perhaps that feature ought not to be a dependent claim. A guide to this is the ability to specify, in the introduction, the problem solved or advantage obtained by the feature of the dependent claim.

One or two candidates included dimensions in their claims, eg 35 cm length – a good idea given the fact of human interaction and perhaps providing some scope later for distinguishing over stray prior art.

A total of 25 marks were available for the dependent claims.

## **SPECIFICATION**

The body of the specification should start with a title (Rule 12(4) & (6)). The title ought not to be narrower in scope than the independent claims.

The introductory portion of the description ought to explain the field of the invention sufficiently to assist the search examiner in determining the technical classification. Again, the field of the invention ought not to be narrower in scope than the subject matter of the independent claim(s).

The introductory portion of the description ought to acknowledge the known and relevant prior art and set the scene for the invention.

It was expected that the description should then include a summary of the invention, which provides some justification for the chosen claims including, to a general extent, the dependent claims. This justification may include an indication of any benefits or advantages provided by the independent and dependent claims. Care should be taken to distinguish between the use of the terms “the invention”, “aspects of the invention”, “preferred features” and “embodiments of the invention”.

Notwithstanding the obvious benefits to the client of setting out a cogent introduction and summary of invention, which provides an initial justification/arguments in favour of the novelty and inventive step of the drafted claims, for the purposes of the examination this section is helpful to the Examiners when reviewing the drafted claims, particularly where unexpected wording is used. Although this examination paper is drafted with a particular result in mind, the Examiners acknowledge that other solutions sometimes arise unexpectedly; a well constructed introduction may well prove invaluable in those circumstances. Also, candidates would continue to be well advised to carefully review their arguments set out in the introduction against their drafted claims and summary of invention section to ensure that they are consistent. This may be useful to candidates as an internal check to help ensure that they do not fall into the trap of failing to claim what they clearly understood the invention to be.

It is important to discuss in the preamble the specific advantages set out, and not simply to talk of the invention in any broad context.

Quite a few candidates are resorting to a preamble which just refers to claim numbers. Whilst this is acceptable and might save time, candidates should be careful to ensure that this brevity does not lead to inadequate supporting discussion.

A total of 8 marks were available for the introductory portion.

A list of figures ought to be provided (Rule 12(7)). Candidates are reminded that the drawings generally show embodiments of the invention and ought to be described as such. Consistent reference numerals ought to be used in the description and different drawings when referring to the same feature.

The body of the specification should continue with the description (Rule 12(4)).

A specific description setting out the structure of the apparatus in some detail, followed by its mode of operation, was looked for, with variations or other embodiments described separately and subsequently and in as much detail as possible. Again, candidates are reminded that the specific description generally describes embodiments of the invention and the wording of the text should therefore reflect this. The use of the word ‘preferably’ in the specific description can lead to doubt as to whether the feature being referred to is actually a necessary part of the particular embodiment being described. ‘Preferred features’ should be set out in the introduction /summary of the invention and the dependent claims.

Candidates are reminded that a purpose of the description is to satisfy Section 14(2) and to ensure that the application does not fall foul of Section 72(1)c.

It would be advisable, therefore, that all the claimed features are clearly disclosed and that the terminology of the claims can be followed through to the specific description.

For simple mechanical cases, at least, one test of a specific description is whether it can be understood without the drawings. Some candidates did little other than refer to the drawings. Perhaps less practised candidates opening their specific description with the words “Figure 1 shows...” lead themselves into the trap of a description which relies too heavily on looking at the drawings.

A total of 22 marks were available for the specific description, with most of these marks being allocated to the sensible annotation of the drawings provided and the associated description of the embodiment.

## ABSTRACT

The abstract commences with the title (Rule 15(1)), and then indicates the technical field (Rule 15(3)(a)), the technical explanation of the invention (Rule 15(3)(b)) and the principle use of the invention (Rule 15(3)(c)). The abstract should indicate the figure which should accompany the abstract when published (Rule 15(4)). Where a feature of the invention included in the abstract is illustrated in a drawing, the feature must be followed by the reference for that feature used in that drawing (Rule 15(6)).

Some candidates omitted an Abstract. They cannot gain any points allocated to an Abstract that isn't there. Too many candidates included the unnecessary phrases "The invention comprises..." or "According to the invention", in their Abstract.

A total of 5 marks were available for the abstract.

## MISCELLANEOUS

Notes to the Examiner are rarely useful and do not gain marks since they do not form part of the drafted specification on which candidates are being examined. Other perennial advice is worth repeating also. Write on every other line. Perhaps make each claim the subject of a new page, or at least leave very large gaps between them. This way you make plenty of room for later amendments.

Whilst this might seem like an odd remark, candidates would do well prior to the exam to write on lined paper with their intended writing instrument and check to see whether they can easily read a photocopy of their work. Ball point pens are recommended. Some fibre tip or felt tip pens result in a feint photocopy.

Candidate Number:

Total:

Section	Criteria	Mark	Comment
INTRO			
Title	No narrower than main claims	1	
Field of Invention	Encompasses but no narrower than main claims	1	
Prior art	Acknowledge no more than prior art disclosures	1.5	
	Sensible description to set scene	1.5	
Summary of Invention	More than a list of claims – highlight how features of the claims overcome any problem highlighted in prior art/provide advantages	3	
DESC			
List of Figs	Sensible description of figs	2	
Labelling of Figs	Sensible labelling of figs, correct sheet numbering	2	
Description	Sufficient in detail to provide enabling disclosure of claims, provide back-up positions for all features, especially if not claimed	18	
MAIN CLAIM Sufficient & sensible breath - Novel	A (inflatable) dinghy/boat/vessel having 'through' the hull thereof a conduit having a non-return valve arranged to allow water only to flow out of the dinghy/boat/vessel	40	
DEPENDENT CLAIMS		25	
Suitable back-up positions for main alternatives.	Conduit enabling water to be driven/pumped (manually) out of the dinghy/boat/vessel through the non-return valve.		
	A pair of non-return valves arranged in series		
Sensible order	First valve in communication with second valve via conduit		
	Conduit is manipulable to enable water therein to be manipulated through the second valve		
Antecedence, dependencies.	Each valve comprises a fabric valve		
	Each fabric valve comprising a cone of material retained in a flattened configuration at one end		
	Formed of same material as dinghy/boat/vessel		
	First and second valve orientated orthogonally relative to each other		
	Conduit extends through the floor		
	Conduit has inlet above the floor and outlet below the floor		
	Conduit inlet formed into a funnel		
	Funnel has reinforcing material to retain its shape		
	At least one retaining strap extending between conduit and floor		
	At least one reinforcing strap extending along conduit		
	Conduit welded to hull		
	Cover		
Dimensions			
Omnibus claim			
ABSTRACT	Title, tech field, tech explanation, principle use, figure, reference numerals	5	

