

**FD2 – Preparation of Specifications for United Kingdom Patents
Final Mark Scheme 2016**

Answer

Introduction and Description

| | |
|--|------------------------|
| Title [½ mark for a title + ½ mark for title to reflect what is claimed] | 1 mark |
| Statement of field | 1 mark |
| Prior Art | 2 mark |
| Statement of invention and general description - express statement of what feature of each claim does [½ mark] and corresponding advantage [½ mark], with a focus on features that are identified in the mark scheme and fall-back options, even when not claimed (e.g. method) | 10 marks |
| Figures: | |
| i) Page numbering | 1 mark |
| ii) Feature numbering | 1 mark |
| iii) Figure description (including reference to non-limiting examples) | 2 marks |
| Specific description: - description of figures and how mount and insert work and inter-relate [max 10 marks if Fig 2 described in specific description but not described as prior art] | 18 marks |
| | TOTAL: 36 marks |

Claims

| | |
|--|------------------------|
| Independent mount claim | 15 marks |
| Independent insert claim | 15 marks |
| Independent kit (mount + insert) claim | 4 marks |
| Dependent claims | 24 marks |
| Omnibus claim | 2 marks |
| | TOTAL: 60 marks |

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Suggested Claims

1st Apparatus Claim:

15 marks are available for statement of the three following features:

- i. A mount/body **[1 mark]**
- ii. for mounting a machine tool accessory to a machine tool bed **[5 marks]**,
- iii. the mount/body comprising a gripping mechanism **[1 mark]** operable to extend into a slot/aperture located in the machine tool bed **[3 marks]** to grip an insert located in the slot/aperture to attach the mount/body to the insert **[3 marks]**.

OR

the mount/body comprising a pair of arms **[1 mark]** configured to extend into a slot located in the machine tool bed **[3 marks]** and to grip an insert located in the slot to attach the mount/body to the insert **[3 marks]**.

[Remaining **2 marks** for language and style.]

If the candidate has obtained 15 marks, consider deducting marks cumulatively from the maximum 15 marks for unnecessary restrictions to the claim. Examples:

Catastrophic (0 marks)

- Including the insert with its novel features
- If claim lacks novelty [*marks may be reclaimed through accurate dependent claims against both mount and insert. However, candidate then has no scope for claiming kit of parts*]

Major (max 5 marks)

- Positive recital of an insert and claim is directed to apparatus to attach accessories to a machine tool bed
- If claim lacks novelty [*marks may be reclaimed through accurate dependent claims against both mount and insert. However, candidate then has no scope for claiming kit of parts*]

Less major (max 10 marks):

- Inclusion of machine tool accessory

Minor (deduct 2 marks each):

- Attachment to machine tool bed
- Inclusion of features a-f

Other restrictions to be agreed and documented here.

The maximum deduction is 15 marks.

Total: 15 marks

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Dependent claims:

Award **marks** per dependent claim, up to a maximum of **12 marks**.

[gripping mechanism is pair of arms = **2 marks**]

- a) at least one arm is moveable relative to the mount/body [**1 mark**].
 - i) the other arm is fixed relative to the mount [**1 mark**]
 - ii) moveable = pivotally attached to the mount/body [**1 mark**]
- b) the first arm is moveable between a first position and a second position, the first position providing a separation between the first and second arm that is sufficient to allow the insert to be located between the first and second arms, the second position providing a reduced separation between lower ends of the arms so that the insert is gripped between the arms [**2 marks**].
 - c) a biasing means [**1 mark**] is provided to bias the first arm towards the second position (to grip said insert) [**1 mark**].
 - d) the mount/body comprises a manually actuated handle that allows a user to move the first arm [**1 mark**].
 - e) mount/body plus machine tool accessory [**1 mark**].
 - f) machine tool accessory is a tool setter [**1 mark**].

Total: 12 marks

2nd Apparatus Claim:

15 marks are available for statement of the four following features:

- iv. An insert [**1 mark**]
- v. for mounting a mount/body for a machine tool accessory to a machine tool bed, the machine tool bed having at least one slot/aperture formed therein [**4 marks**],
- vi. wherein the insert is configured to be substantially contained within the slot when inserted therein/dimensioned to be received within the slot/aperture [**4 marks**], and
- vii. wherein the insert comprises an expansion mechanism to expand [an actuator operable to increase an external dimension of the insert] to attach/secure the insert in a slot of a machine tool bed [**4 marks**].

[remaining **2 marks** for style and wording]

If the candidate has obtained 15 marks, consider deducting marks cumulatively from the maximum 15 marks for unnecessary restrictions to the claim. Examples:

Catastrophic (0 marks)

- Including the mount with its novel features
- Insert mounted in a machine tool bed
- If claim lacks novelty [*marks may be reclaimed through accurate dependent claims against both mount and insert. However, candidate then has no scope for claiming kit of parts*]

Major (max 5 marks)

- Positive recital of mount and claim is to apparatus to attach accessories to a machine tool bed
- No definition of insert contained within slot

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- Inclusion of g-l
- If claim lacks novelty [*marks may be reclaimed through accurate dependent claims against both mount and insert. However, candidate then has no scope for claiming kit of parts*]

Medium (max 10 marks):

- Means to fix, unless include feature vii
- No inclusion of what expansion mechanism does

Minor (deduct 2 marks each):

- No “suitable for” clause (v)
- No inclusion of slot/aperture in machine tool bed

Other restrictions to be agreed and documented here.

The maximum deduction is 15 marks.

Total: 15 marks

Dependent claims

Award **marks** per dependent claim, up to a maximum of **12 marks**.

g) expansion mechanism comprises an expandable member and expansion of the expandable member causes the insert to be held within the slot by friction [**3 marks**].

h) expansion mechanism (for fixing the insert within a slot) further comprises one or more element having a tapered profile and engagement of the one or more element with the insert causes movement (e.g. expansion or contraction) of the expandable member [**3 marks: if only expansion claimed = 2 marks**].

i) one or more element is a tapered screws [**1 mark**].

j) insert is configured to be fixed within a T-slot formed in the bed of a machine tool [**2 marks**].

k) insert is arranged to lie flush with or below the surface of the machine tool bed when inserted in the slot [**2 marks**].

Total: 11 marks

3rd Apparatus Claim:

4 marks are available for statement of the three following features:

viii. A kit/apparatus comprising:

ix. a mount for a machine tool accessory [as claimed in any one of Claims a to f] [**2 marks**]

x. an insert [as claimed in any one of Claims g to l] [**2 marks**].

Total: 4 marks

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Dependent Claim:

l) further comprising at least one shim positioned adjacent to the insert **[1 mark]**

Total: 1 mark

- No marks are awarded for trivial claims, such as specific dimensions.
- Mark for a specific claim is halved if it combines features that should appear in separate dependent claims.
- Consider whether the pre-amble is correct and whether the claim is in a sensible place in the dependent claims when awarding mark.

Omnibus claim

- i) a mount as described herein and illustrated in Figure 5.
- ii) an insert as described herein and illustrated in Figures 3 and 4.

2 marks

Total: 2 marks

Method claim:

If a candidate provides a method claim that adds value over the apparatus claims, then award up to 4 bonus marks

e.g. repeatable and firm attachment of mount to bed in identical position

Abstract

Title (same as title at top of script)

1 mark

Figure

1/2 mark

Text

- must state: technical field or main use **[1 mark]**, both mount and insert **[1 mark]**, use of reference numerals **[1/2 mark]**

2 1/2 marks

TOTAL: 4 marks

GRAND TOTAL: 100 marks