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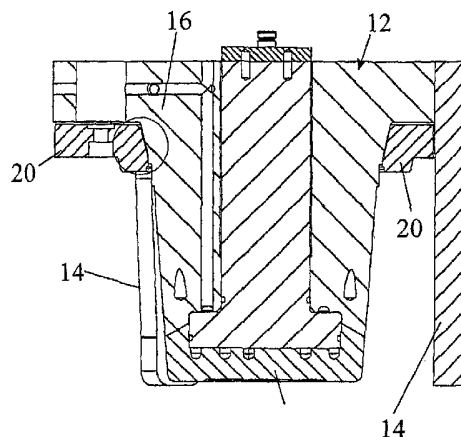
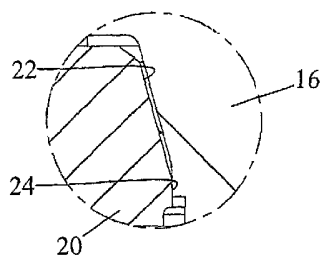
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**Declaration under Rule 4.17:**

— as to applicant's entitlement to apply for and be granted  
a patent (Rule 4.17(ii)) for the following designations AE,  
AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,  
CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE,  
EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,  
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MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM,  
PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY,  
TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA,

[Continued on next page]

(54) Title: INJECTION COMPRESSION MOULD WITH VENTING MEANS



(57) Abstract: A mould for injection compression moulding of an article, comprises a female mould part (10) and a core (16) for mounting in use on the platens of an injection moulding machine for movement towards and away from one another between an open and a closed position. A sealing ring (20) surrounds the core 16 for effecting a seal between the female mould part (10) and the core (16). The core (16), the female mould part (10) and the sealing ring (20) together define a closed mould cavity as the core approaches the closed position. In the invention, the sealing ring (20) has a tapering surface (22) that seals against a tapering surface (26) on the core (16) only after the core has reached the closed position, leaving a venting clearance between the tapering surfaces (24, 26) of the sealing ring (20) and the core (16) as the core (16) approaches the closed position.

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ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

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27 October 2005

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— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

PATENT COOPERATION TREATY

PCT

REC'D 23 AUG 2005  
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INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

|  |   |   |
|--|---|---|
| Applicant's or agent's file reference<br>P7404     | <b>FOR FURTHER ACTION</b><br>see Form PCT/ISA/220 as well as, where applicable, item 5 below. |   |
| International application No.<br>PCT/GB2004/005422 | International filing date (day/month/year)<br>30/12/2004                                      | (Earliest) Priority Date (day/month/year)<br>16/01/2004 |
| Applicant<br>CLARKE, Peter Reginald                |   |   |

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.  
 It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b.  With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2.  **Certain claims were found unsearchable** (See Box II).

3.  **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

INJECTION COMPRESSION MOULD WITH VENTING MEANS

5. With regard to the **abstract**,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 4, 5

as suggested by the applicant.

as selected by this Authority, because the applicant failed to suggest a figure.

as selected by this Authority, because this figure better characterizes the invention.

b.  none of the figures is to be published with the abstract.

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB2004/005422

|  |   |                       |
|--|---|-----------------------|
| <b>A. CLASSIFICATION OF SUBJECT MATTER</b><br>IPC 7 B29C45/56 B29C45/34 B29C45/26  |   |                       |
| According to International Patent Classification (IPC) or to both national classification and IPC  |   |                       |
| <b>B. FIELDS SEARCHED</b><br>Minimum documentation searched (classification system followed by classification symbols)<br>IPC 7 B29C   |   |                       |
| Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  |   |                       |
| Electronic data base consulted during the international search (name of data base and, where practical, search terms used)<br>EPO-Internal, PAJ  |   |                       |
| <b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>  |   |                       |
| Category *   | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
| X  | EP 1 314 534 A (SUMITOMO HEAVY INDUSTRIES, LTD; YOSHINO KOGYOSHO CO., LTD)<br>28 May 2003 (2003-05-28)  | 1,4,5                 |
| Y  | paragraph [0169] - paragraph [0175];<br>figures 1,2,7-9,24,25<br>paragraph [0022] - paragraph [0031]<br>paragraph [0052]  | 2,3                   |
| Y  | -----<br>US 5 217 732 A (RUDOLF ET AL)<br>8 June 1993 (1993-06-08)<br>column 2, line 28 - line 41<br>column 2, line 56 - line 64<br>column 2, line 3 - line 25<br>column 5, line 29 - line 31<br>claims 1,8; figures 5,6<br>-----<br>-/--         | 2,3                   |
| <input checked="" type="checkbox"/> Further documents are listed in the continuation of box C.   |   |                       |
| <input checked="" type="checkbox"/> Patent family members are listed in annex.   |   |                       |
| * Special categories of cited documents :  |   |                       |
| "A" document defining the general state of the art which is not considered to be of particular relevance   | "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention   |                       |
| "E" earlier document but published on or after the international filing date   | "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  |                       |
| "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)                | "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. |                       |
| "O" document referring to an oral disclosure, use, exhibition or other means   | "&" document member of the same patent family   |                       |
| "P" document published prior to the international filing date but later than the priority date claimed   |   |                       |
| Date of the actual completion of the international search<br><br><div style="text-align: center; font-size: 1.2em;">15 April 2005</div>  | Date of mailing of the international search report<br><br><div style="text-align: center; font-size: 1.2em;">22. 08. 2005</div>   |                       |
| Name and mailing address of the ISA<br>European Patent Office, P.B. 5918 Patentlaan 2<br>NL - 2280 HV Rijswijk<br>Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,<br>Fax: (+31-70) 340-3016 | Authorized officer<br><br><div style="text-align: center; font-size: 1.2em;">Brunswick, A</div>   |                       |

## INTERNATIONAL SEARCH REPORT

 International Application No  
 PCT/GB2004/005422

| C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT |   |                       |
|--|---|-----------------------|
| Category °   | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
| Y  | GB 1 182 130 A (ROLINX)<br>25 February 1970 (1970-02-25)<br>column 2, line 79 - line 102<br>figure 1<br>-----   | 2,3                   |
| Y  | PATENT ABSTRACTS OF JAPAN<br>vol. 1998, no. 14,<br>31 December 1998 (1998-12-31)<br>-& JP 10 249894 A (MEIKI CO LTD),<br>22 September 1998 (1998-09-22)<br>abstract; figures 1-3<br>-----             | 2,3                   |
| A  | PATENT ABSTRACTS OF JAPAN<br>vol. 018, no. 422 (M-1651),<br>8 August 1994 (1994-08-08)<br>-& JP 06 126740 A (MITSUBISHI PLASTICS IND<br>LTD), 10 May 1994 (1994-05-10)<br>abstract; figure 1<br>----- | 1-4                   |
| A  | MENGES ET AL: "Venting of molds"<br>HOW TO MAKE INJECTION MOLDS, 2000, pages<br>259-264, XP002252598<br>the whole document<br>-----   | 1-3                   |

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/GB2004/005422

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-5

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-5

Taper angles for the sealing ring

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2. claims: 1, 6-8

Guiding fingers for alignment of the mould parts

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB2004/005422

| Patent document cited in search report | A | Publication date | Patent family member(s) | Publication date |
|--|---|------------------|-------------------------|------------------|
| EP 1314534                             | A | 28-05-2003       | CN 1425547 A            | 25-06-2003       |
|  |   |                  | EP 1314534 A2           | 28-05-2003       |
|  |   |                  | JP 2004174714 A         | 24-06-2004       |
|  |   |                  | TW 555636 B             | 01-10-2003       |
|  |   |                  | US 2003099794 A1        | 29-05-2003       |
| -----                                  |   |                  |                         |                  |
| US 5217732                             | A | 08-06-1993       | NONE                    |                  |
| -----                                  |   |                  |                         |                  |
| GB 1182130                             | A | 25-02-1970       | FR 1576112 A            | 25-07-1969       |
| -----                                  |   |                  |                         |                  |
| JP 10249894                            | A | 22-09-1998       | NONE                    |                  |
| -----                                  |   |                  |                         |                  |
| JP 06126740                            | A | 10-05-1994       | NONE                    |                  |
| -----                                  |   |                  |                         |                  |