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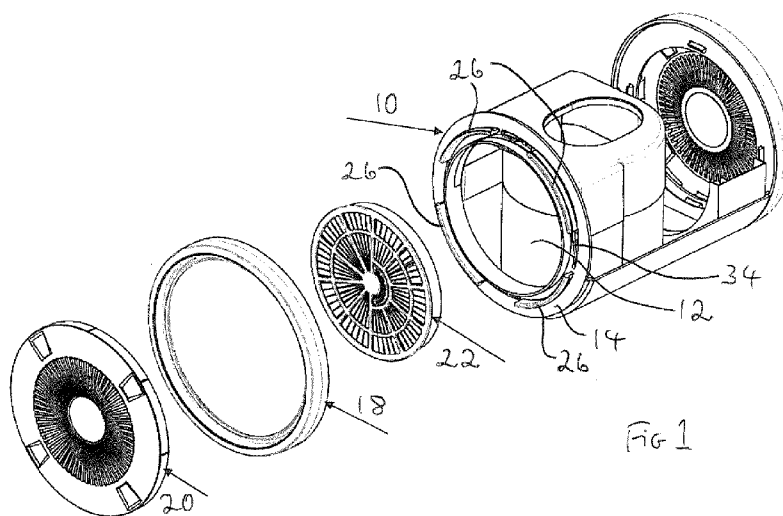
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Published:

- with international search report (Art. 21(3))
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28 February 2013

(54) Title: SUPPORTING ARRANGEMENT FOR A WHEEL



(57) Abstract: An arrangement for supporting a wheel for rotation about an axis, comprising a wheel carrier part having an at least partially annular carrier formation extending therefrom generally in the direction of the axis, a wheel encircling at least part of the carrier formation and a retaining member releasably engaging the carrier part and affording a bearing surface with which a complementary bearing surface of the wheel co-operates to support the wheel for said rotation.



INTERNATIONAL SEARCH REPORT

International application No  
PCT/GB2012/051056

<p>A. CLASSIFICATION OF SUBJECT MATTER                  INV. A47L9/00 A47L9/12 B60B37/10                  ADD.</p>		
<p>According to International Patent Classification (IPC) or to both national classification and IPC</p>		
<p>B. FIELDS SEARCHED</p>		
<p>Minimum documentation searched (classification system followed by classification symbols)                  A47L B60B</p>		
<p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched</p>		
<p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)                  EPO-Internal, WPI Data</p>		
<p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</p>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 94 08 814 U1 (SIEMENS AG [DE]) 29 September 1994 (1994-09-29) the whole document -----	1-4,11
X	EP 0 688 528 A1 (AEG HAUSGERAETE GMBH [DE]) 27 December 1995 (1995-12-27) figures 2,3 -----	1-4,11
X	US 5 603 555 A (DICKEY GARY D [US] ET AL) 18 February 1997 (1997-02-18) figures 2-5,12 -----	1-4,6
A	US 2002/038973 A1 (GODWIN CRAIG RICHARD [US]) 4 April 2002 (2002-04-04) paragraph [0003]; figures 17,18,24,25 ----- -/--	5
<p><input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.</p>		
<p>* Special categories of cited documents :</p>		
<p>"A" document defining the general state of the art which is not considered to be of particular relevance                  "E" earlier application or patent but published on or after the international filing date                  "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)                  "O" document referring to an oral disclosure, use, exhibition or other means                  "P" document published prior to the international filing date but later than the priority date claimed</p>		<p>"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                  "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                  "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                  "&amp;" document member of the same patent family</p>
<p>Date of the actual completion of the international search  6 December 2012</p>		<p>Date of mailing of the international search report  14/12/2012</p>
<p>Name and mailing address of the ISA/                  European Patent Office, P.B. 5818 Patentlaan 2                  NL - 2280 HV Rijswijk                  Tel. (+31-70) 340-2040,                  Fax: (+31-70) 340-3016</p>		<p>Authorized officer  Masset, Markus</p>

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/GB2012/051056

## Box No. 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.: 10  
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:  
see FURTHER INFORMATION sheet PCT/ISA/210
  
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 No. 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 fees, this Authority did not invite payment of additional fees.
  
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.:

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- 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(completely); 11(partially)

A supporting arrangement for a wheel and its carrier formation

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2. claims: 1, 6-9(completely); 11(partially)

A supporting arrangement for a wheel including an airflow duct

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**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

Continuation of Box II.2

Claims Nos.: 10

Present claim 10 relates to a surface treating head by reference to the figures of the application. Therefore, claim 10 lacks clarity (Art. 6 and Rule 6.2(a) PCT). This lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.2), should the problems which led to the Article 17(2) declaration be overcome.

## INTERNATIONAL SEARCH REPORT

International application No  
PCT/GB2012/051056

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2 468 151 A (DYSON TECHNOLOGY LTD [GB]) 1 September 2010 (2010-09-01) page 4, line 12 - page 7, line 18; figure 2	1,2,6,11
X	----- JP 2002 355198 A (HITACHI LTD) 10 December 2002 (2002-12-10) abstract; figures 2,4,12,14	1,2,6-9, 11
A	----- US 7 076 831 B1 (JI HEON PYEONG [KR] ET AL) 18 July 2006 (2006-07-18) figures 5-10 -----	1,2,6-9, 11

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/GB2012/051056

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
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