Title: POSITIONING SYSTEM FOR WIND TUNNEL AND METHOD OF USE

Abstract: A positioning system (10) is provided for use in a wind tunnel (12) that results in accurate and dynamic orientation for a model (14) while reducing aerodynamic interference. The system includes a pitch-yaw sleeve (36) having a generally cylindrical shape and a torque tube disposed askew within the sleeve and rotatable about its longitudinal axis to drive a shaft. The shaft is generally elongated and crooked. The sting, to which a model is affixed, is rotatably attached to a distal end of the shaft. Rotation of the pitch-yaw tube (38) and/or the pitch-yaw sleeve (36) provides precise pitch and yaw orientation of the model (14), and rotation of the sting relative to the shaft provides precise roll orientation.

[Continued on next page]
before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.

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.

(88) Date of publication of the international search report:
19 May 2005
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G01M/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G01M

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)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>FR 2 159 548 A (ONERA) 22 June 1973 (1973-06-22) the whole document</td>
<td>1,13</td>
</tr>
<tr>
<td>A</td>
<td>US 4 658 635 A (PSZOLLA ET AL) 21 April 1987 (1987-04-21) column 3, line 4 - line 20; figure 1</td>
<td>1,13</td>
</tr>
<tr>
<td>A</td>
<td>GB 767 996 A (SIR W. G. ARMSTRONG WHITWORTH AIRCRAFT LIMITED) 13 February 1957 (1957-02-13) page 1, line 83 - page 2, line 30; figure 1</td>
<td>1,13</td>
</tr>
</tbody>
</table>

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Patent family members are listed in annex.

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Date of the actual completion of the international search: 5 April 2005
Date of mailing of the international search report: 13/04/2005

Name and mailing address of the ISA
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<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
</table>
| A        | PATENT ABSTRACTS OF JAPAN  
vol. 2000, no. 08,  
6 October 2000 (2000-10-06)  
-& JP 2000 131186 A (FUJI HEAVY IND LTD),  
12 May 2000 (2000-05-12)  
abstract | 1,13 |

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<table>
<thead>
<tr>
<th>Patent document cited in search report</th>
<th>Publication date</th>
<th>Patent family member(s)</th>
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</tr>
</thead>
<tbody>
<tr>
<td>FR 2159548</td>
<td>22-06-1973</td>
<td>FR 2159548 A5</td>
<td>22-06-1973</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CA 1245359 A1</td>
<td>22-11-1988</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EP 0195308 A1</td>
<td>24-09-1986</td>
</tr>
<tr>
<td>GB 767996</td>
<td>13-02-1957</td>
<td>NONE</td>
<td></td>
</tr>
<tr>
<td>JP 2000131186</td>
<td>12-05-2000</td>
<td>NONE</td>
<td></td>
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