


3. Title: AN IMPROVED MAGNETIC SEAL

4. Abstract: The invention herein is a seal to seal a rotating shaft (1) to housing (2). The seal has a stator (10) and a rotor (50), magnetically and mechanically coupled. The mechanical couple is provided through an interlocking annular groove (54) provided on one component and a flange face (21) on the other component. The mechanical couple allows the two components to become interconnected once a predetermined range of free movement of the rotor (50) is exceeded. The stator (10) and rotor (50) are also mechanically coupled through a plurality of magnets (61) positioned on either the stator (10) or rotor (50). After the predetermined range is exceeded, the rotor (50) slips along the shaft (1) while the stator (10) remains fixed, maintaining a seal in during axial movement of the rotating shaft (1).
TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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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.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

<table>
<thead>
<tr>
<th>IPC(7)</th>
<th>US CL</th>
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<tbody>
<tr>
<td>F16J 19/53, 15/54, 15/56</td>
<td>277/346, 347, 348, 370, 378, 411, 412</td>
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</table>

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)


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 practicable, search terms used)

<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>
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<tr>
<td>Y</td>
<td>US 5174583 A (ORLOWSKI) 08 August 1991 (08.08.1991), col.3, ln.1-45</td>
<td>2</td>
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<tr>
<td>Y</td>
<td>US 6029978 A (PELSTRING) 22 September 1997 (22.09.1997), col.2, ln.24-31, col.5, ln.54-63, col.6, ln.1-5</td>
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See patent family annex.

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Telephone No.: (555)555-5555

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