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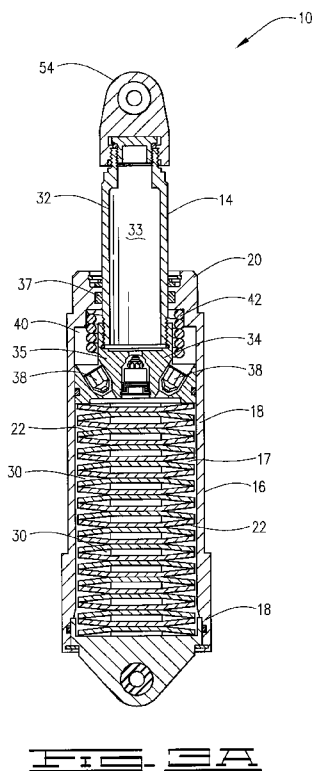
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[Continued on next page]

(54) Title: HELICOPTER LANDING GEAR DAMPER



(57) Abstract: A damper for a landing gear of a helicopter having a barrel, a piston defining a first hydraulic cavity between the piston and a bottom end of the barrel and a second hydraulic cavity between the piston and a top of the barrel, a stack of disc springs disposed within the first hydraulic cavity in a compressed state between the bottom end of the barrel and the piston. Each of the disc springs having a substantially concave side and an opposing substantially convex side, the disc springs stacked in an alternating pattern such that any two adjacent washers have their like sides positioned adjacent to each other. A spring disposed within the second hydraulic cavity such that the spring is compressed between the compression member and the top of the barrel when the piston is in an extended position. A hydraulic fluid is disposed inside at least a portion of the first hydraulic cavity and at least a portion of the second hydraulic cavity. At least one valve is disposed in the piston so as to establish fluid communication between the first hydraulic cavity and the second hydraulic cavity so as to allow bilateral fluid communication between the first hydraulic cavity and the second hydraulic cavity.

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**A. CLASSIFICATION OF SUBJECT MATTER***B64C 25/58(2006.01)i, B64C 25/52(2006.01)i, B64C 25/06(2006.01)i*

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)

B64C 25/58; B64C 25/26; B64C 25/60; A63H 27/02; F16F 9/46; B64C 25/50

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) &amp; Keywords: landing, gear, piston, spring

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2006-0144993 A1 (DAYU HSU and WILLIAM DAVID COOK) 06 July 2006 See paragraphs 19-25 and figures 1-4.	1-19
A	US 4337912 A1 (WILLIAM J. WATTON) 06 July 1982 See column 2, line 15 - column 3, line 47 and figures 1-4.	1, 10
A	EP 0212022 A1 (PNEUMO ABEX CORPORATION) 04 March 1987 See column 5, line 1 - column 10, line 39 and figures 1-11.	1, 10

 Further documents are listed in the continuation of Box C. See patent family annex.

\* Special categories of cited documents:

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"&amp;" document member of the same patent family

Date of the actual completion of the international search

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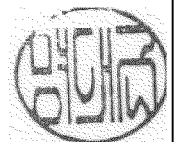
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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

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**PCT/US2010/037124**

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2006-0144993 A1	06.07.2006	EP 1659058 A2 US 7175134 B2	24.05.2006 13.02.2007
US 4337912 A1	06.07.1982	None	
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