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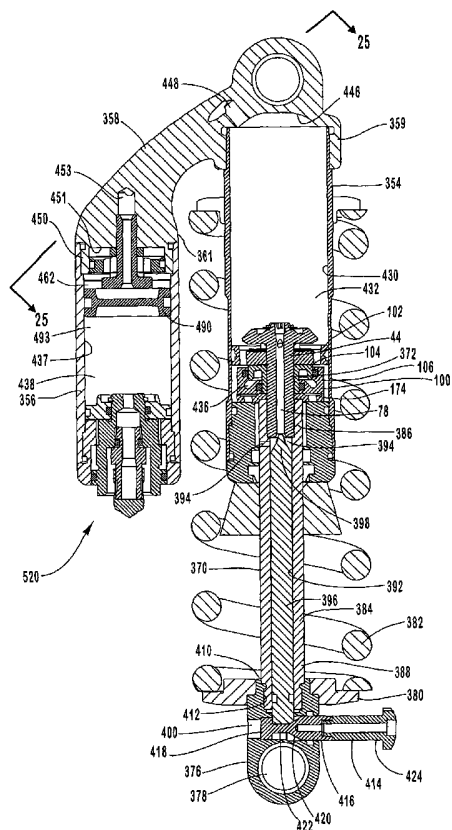
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[Continued on next page]

(54) Title: HYDRAULIC DAMPERS WITH PRESSURE REGULATED CONTROL VALVE AND REMOTE PRESSURE ADJUSTMENT



(57) Abstract: A suspension damper (10) includes a housing bounding a main chamber. A piston rod (34) is slideably disposed within the main chamber of the housing. A main piston (38) is mounted on the first end of the piston rod within the main chamber of the housing so as to slideably engage against the housing in sealed engagement, the main piston having a first side and an opposing second side with a compression port extending therebetween. A control valve assembly is disposed within the main chamber and bounds a sealed valve compartment. The control valve assembly (100) is movable between a first position wherein the valve compartment is compressed to a first volume and a second position wherein the valve compartment is expanded to an enlarged second volume, the control valve assembly being movable under pressure so as to provide variable compression damping properties.

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— *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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A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : F16F 9/34, 9/54 US CL : 188/314,322.2,299.1 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) U.S. : 188/314,322.2,299.1,322.19,322.13 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) brs																									
C. DOCUMENTS CONSIDERED TO BE RELEVANT <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Category *</th> <th style="width: 70%;">Citation of document, with indication, where appropriate, of the relevant passages</th> <th style="width: 20%;">Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">X</td> <td>US 5,400,880 A (RYAN et al) 28 March 1995 (28.03.1995) see figures 1,2</td> <td style="text-align: center;">1-7,12,15,16,18,19,21-29,33-42,44-49</td> </tr> <tr> <td style="text-align: center;">X</td> <td>US 5,957,252 A (BERTHOLD) 28 September 1999 (28.09.1999) See figures</td> <td style="text-align: center;">1-7,9,12-14,18-22,25-29,37-42, 44-49</td> </tr> <tr> <td style="text-align: center;">A</td> <td>US 5,533,586 A (THOMPSON) 9 July 1996 (09.07.1996)</td> <td></td> </tr> <tr> <td style="text-align: center;">A</td> <td>US 6,286,642 B1 (YI) 11 September 2001 (11.09.2001)</td> <td></td> </tr> <tr> <td style="text-align: center;">A</td> <td>US 6,254,067 B1 (YIH) 3 July 2001 (03.07.2001)</td> <td></td> </tr> <tr> <td style="text-align: center;">A</td> <td>US 5,664,649 A (THOMPSON et al) 9 September 1997 (09.09.1997)</td> <td></td> </tr> <tr> <td style="text-align: center;">A</td> <td>US 6,305,512 B1 (HEINZ et al) 23 October 2001 (23.10.2001)</td> <td></td> </tr> </tbody> </table>		Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X	US 5,400,880 A (RYAN et al) 28 March 1995 (28.03.1995) see figures 1,2	1-7,12,15,16,18,19,21-29,33-42,44-49	X	US 5,957,252 A (BERTHOLD) 28 September 1999 (28.09.1999) See figures	1-7,9,12-14,18-22,25-29,37-42, 44-49	A	US 5,533,586 A (THOMPSON) 9 July 1996 (09.07.1996)		A	US 6,286,642 B1 (YI) 11 September 2001 (11.09.2001)		A	US 6,254,067 B1 (YIH) 3 July 2001 (03.07.2001)		A	US 5,664,649 A (THOMPSON et al) 9 September 1997 (09.09.1997)		A	US 6,305,512 B1 (HEINZ et al) 23 October 2001 (23.10.2001)	
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Date of the actual completion of the international search 02 April 2004 (02.04.2004)	Date of mailing of the international search report <div style="text-align: center; font-size: 1.2em; font-weight: bold;">10 MAY 2004</div>																								
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer <div style="text-align: center;"> Jack Lavinder </div> Telephone No. (703) 308-1113																								