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**Declarations under Rule 4.17:**

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

[Continued on next page]

(54) Title: LINEAR ACTUATOR WITH POSITION SENSING SYSTEM

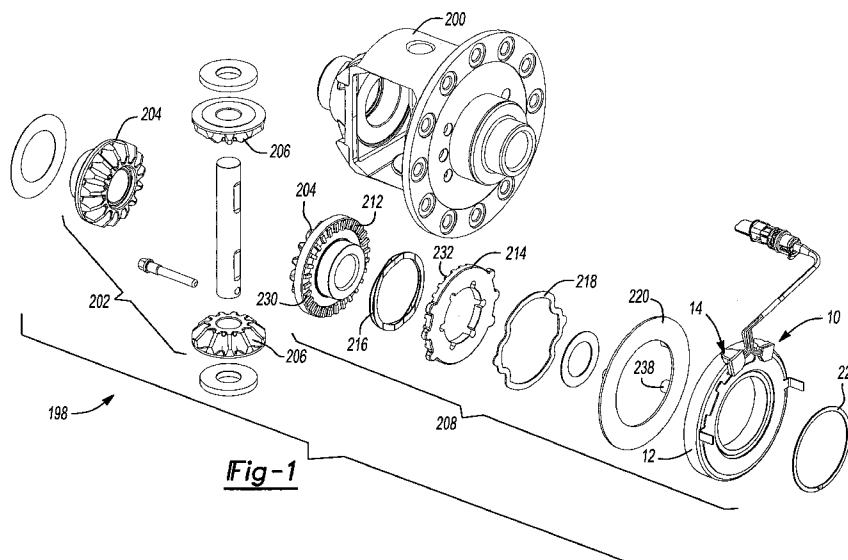


Fig-1

(57) Abstract: An electromagnetic actuator assembly with a frame, a movable plunger, first and second sensor targets that are coupled to a plunger for movement therewith, first and second sensors that are coupled to the frame and a controller. The first sensor is configured to sense a position of the first sensor target and to produce a first sensor signal in response thereto. The second sensor is configured to sense a position of the second sensor target and to produce a second sensor signal in response thereto. The controller that receives the first and second sensor signals and identifies three or more discrete points along a path of travel of the plunger. A differential assembly that incorporates the electromagnetic actuator assembly is also provided.

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 USPC - 475/231  
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**B. FIELDS SEARCHED**

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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)  
 Patbase, Google Patents

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2005/0277508 A1 (DEGOWSKE) 15 December 2005 (15.12.2005) entire document	1-18
Y	US 6,109,408 A (IKEDA et al) 29 August 2000 (29.08.2000) entire document	1-18
Y	US 6,769,524 B2 (YASUI et al) 03 August 2004 (03.08.2004) entire document	1-18
Y	WO 2006/053384 A1 (TIMMS) 26 May 2006 (26.05.2006) entire document	1-18
Y	US 6,771,472 B1 (MAO et al) 03 August 2004 (03.08.2004) entire document	3-4, 12-13, 18
Y	US 6,518,748 B2 (BUTZMANN et al) 11 February 2003 (11.02.2003) entire document	5, 7, 14, 16, 18
Y	US 5,600,237 A (NIPPERT) 04 February 1997 (04.02.1997) entire document	6, 15, 18
Y	US 2005/0279607 A1 (FUSEGI) 22 December 2005 (22.12.2005) entire document	10, 18

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\* Special categories of cited documents:

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