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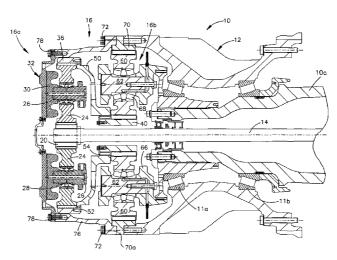
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(54) Title: AXLE ASSEMBLY



(57) Abstract: An axle assembly including a housing, a tire supporting hub mounted for rotation with respect to the housing, a drive axle and a planetary unit for coupling the drive axle to the tire supporting hub, such that rotation in the axle produces rotation in the hub. The planetary unit includes a sun gear, at least one planet gear and a ring gear, with the planet gear being in co-meshing engagement with the sun and ring gears. Damping material is used to inhibit or reduce the transmission of vibrations produced by the gear meshes during vehicle operation to the planetary unit cover. In one construction, the planetary unit includes a cover portion and a carrier portion with damping material, such as copper, disposed between the portions. In another construction, bushings made from damping material, such as brass or bronze, are disposed between the planetary gear (or gears) and the pin member which supports the planetary gear. Since the pins form part of the cover/carrier, vibrations generated by gear meshes in the planetary unit are inhibited or dissipated by the bushings and do not travel from the planet gears to the pin members and/or to the planetary cover.





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

International application No. PCT/US03/02335

US CL: 4-75/928, 547, 501; 180/372, 378 cording to International Particular Classification (IPC) or to both national classification and IPC FIELDS SEARCHED Inimum documentation searched (classification system followed by classification symbols) U.S.: 4-75/921, 258, 328, 346, 347, 301; 180/371, 372, 378 DOCUMENTS CONSIDERED TO BE RELEVANT Category* Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. US 3,770,074 A (SHERMAN) 6 November 1973, Fig. 1 US 1,818,447 A (BAKER) 11 August 1931, page 1 US 2,802,542 A (GERST) 13 August 1957, Fig. 1 US 4,020,716 A (TOTH et al) 3 May 1977, Fig. 1 US 4,380,274 A (ABRAHAM et al) 19 April 1983, Fig. 1 US 4,380,274 A (ABRAHAM et al) 19 April 1983, Fig. 1 US 6,458,057 B2 (MASSACCESSI et al) 1 October 2002, Fig. 1 Further documents are listed in the continuation of Box C. Special categories of clied documents Special categories at clied documents Special categories at clied documents Special categories at clied documents A, P US 6,458,057 B2 (MASSACCESSI et al) 1 October 2002, Fig. 1 1, 5, 10 A, P US 6,458,057 B2 (MASSACCESSI et al) 1 October 2002, Fig. 1 Special categories at clied documents Comment pathibated on or after the international filling data Special categories at clied documents A Comment pathibated at the categories at clied documents and comments Special categories at clied documents Special categories at clied documents Special categories at clied documents Comment pathibated at the categories at clied document is document which are an action of the categories at	A. CLASSIFICATION OF SUBJECT MATTER				
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