

ABSTRACT

HYDRAULIC SUSPENSION APPARATUS, HYDRAULIC SUSPENSION SYSTEM HAVING SAME, AND VEHICLE

A hydraulic suspension apparatus and a hydraulic suspension system (1000) and a vehicle having same are provided. The hydraulic suspension apparatus includes a liquid storage apparatus and a reducer (200). The liquid storage apparatus is arranged on a vehicle body and is configured to store oil. The reducer (200) has a reducer housing (201), a piston (202), and a piston rod (203). The reducer housing (201) is connected to an axle. The piston (202) is located in the reducer housing (201) and fits the reducer housing (201) to define an upper chamber (2011) and a lower chamber (2012). An end of the piston rod (203) is connected to the piston (202). The piston rod (203) is connected to the vehicle body. An oil channel (204) is provided in the piston rod (203). The oil channel (204) is communicated with the lower chamber (2012) and the liquid storage apparatus, to make oil flowable between the liquid storage apparatus and the lower chamber (2012). The apparatus and the system can improve the operational stability of the vehicle without damaging the comfort of the vehicle.