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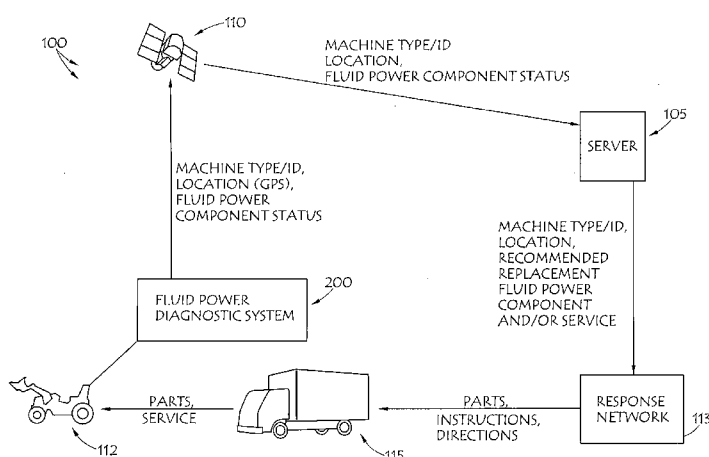


FIG. 1

(57) Abstract: Diagnostic and response systems and methods for a fluid power system acquire data from pressure and temperature sensors disposed in the fluid power system, analyze the data in a failure algorithm to build a history of cumulative damage to hoses in the fluid power system, communicates an indication of potential imminent hose failure to a central location when a level of the cumulative damage indicates imminent failure of a hose, analyze the information at the central location to determine an appropriate response, and transmit information about the fluid power system, including location, and identification of the hose about to fail to a response unit. The response unit responds to the location and replaces the component prior to failure, or the communication might include information that the hose has failed, such that the response unit replaces the failed hose to return the fluid power system to normal operation.