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(54) Title (EN): FUEL TANK SYSTEM AND METHOD FOR DETECTING AUTOMOTIVE FUEL SYSTEM LEAKS

(54) Title (FR): SYSTÈME DE RÉSERVOIR DE CARBURANT ET PROCÉDÉ DE DÉTECTION DE FUITES DE CIRCUIT DE CARBURANT DE VÉHICULE AUTOMOBILE

(57) Abstract:

(EN): A fuel tank system according to the present disclosure includes a fuel tank, a purge canister a valve assembly and a controller. The valve assembly has an upstream canister valve that moves between an open position and a closed position to close an upstream vent line that fluidly connects the fuel tank and the purge canister. The controller (i) conducts a first pressure test that measures a pressure in the fuel tank over a time, (ii) closes the upstream canister valve based on a determination that a leak exists, (iii) conducts a second pressure test that measures a pressure in the fuel tank over a time subsequent to closing the upstream canister valve and (iv) determines a location of the leak based on comparing the first pressure test and the second pressure test.

(FR): La présente invention concerne un système de réservoir de carburant qui comprend un réservoir de carburant, une soupape de purge, un ensemble soupape et un dispositif de commande. L'ensemble soupape comprend une soupape de purge amont qui se déplace entre une position ouverte et une position fermée pour fermer une conduite d'air amont qui raccorde de manière fluide le réservoir de carburant à la soupape de purge. Le dispositif de commande (i) effectue un premier essai de pression qui mesure une pression dans le réservoir de carburant pendant un laps de temps, (ii) ferme la soupape de purge amont sur la base d'une détermination selon laquelle il existe une fuite, (iii) effectue un second essai de pression qui mesure une pression dans le réservoir de carburant pendant un laps de temps suivant la fermeture de la soupape de purge amont et (iv) détermine un emplacement de la fuite sur la base de la comparaison du premier essai de pression et du second essai de pression.

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