EVAPORATIVE LOSS CONTROL SYSTEM

XKE Models

On all 1970 Jaguar XKE models a sealed filler cap is used to prevent fuel vapors escaping to atmosphere. In addition the neck of the fuel filler is extended into the tank to help control the fill level. A small fuel expansion tank is fitted above the level of the main tank. Expansion of fuel in a full system under higher temperature conditions is controlled by a pipe connection which allows fuel to overflow into the expansion tank. As the fuel in the main tank is used, the overflow fuel in the expansion tank will be drawn back through a pipe connecting the bottom of the expansion tank with the main tank. (See Figure 4, 5, and 6).

Two additional restricted vent pipes feed from the upper part of the expansion tank to the filler neck side and the rear corner of the main fuel tank. (See Figure 7).

A fourth pipe vents the top of the expansion tank and runs over the rear subframe and along the underside of the vehicle to the engine compartment where it is connected to a charcoal canister. An additional pipe from the canister connects to the crankcase breather housing at the front of the cylinder head and, subsequently via piping to the constant depression area of the carburetters. Thus when the engine is running, any vapors stored in the charcoal will be purged into the engine. (See Figure 8 and 9).

The carburetter float chambers are vented to the engine side of the air cleaner element, therefore preventing these vapors from escaping to the atmosphere.

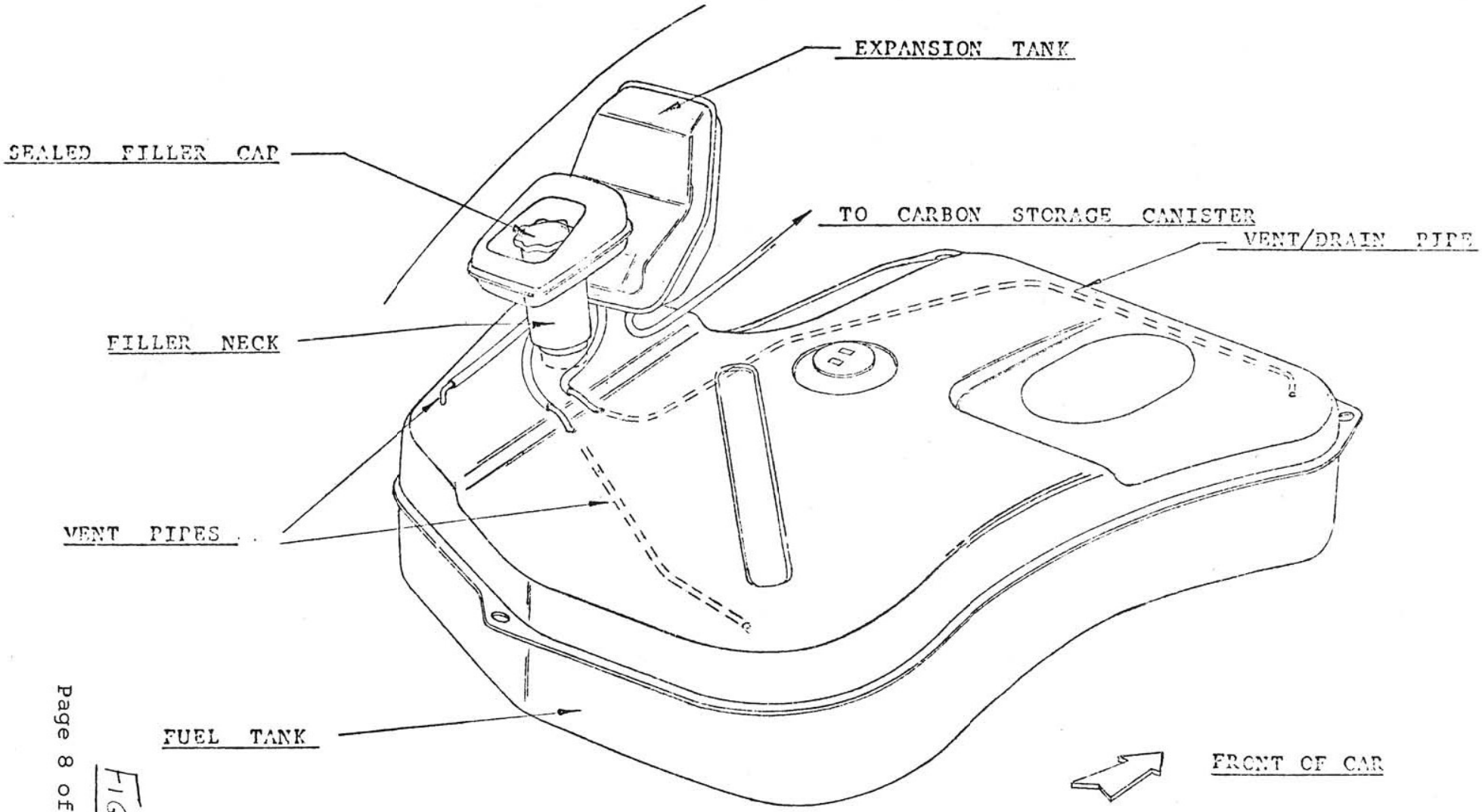

EXPANSION TANK
SEALED FILLER CAP
TO CARBON STORAGE CANISTER
VENT/DRAIN PIPE
FILLER NECK
VENT PIPES
FUEL TANK
FRONT OF CAR

FIG 4.

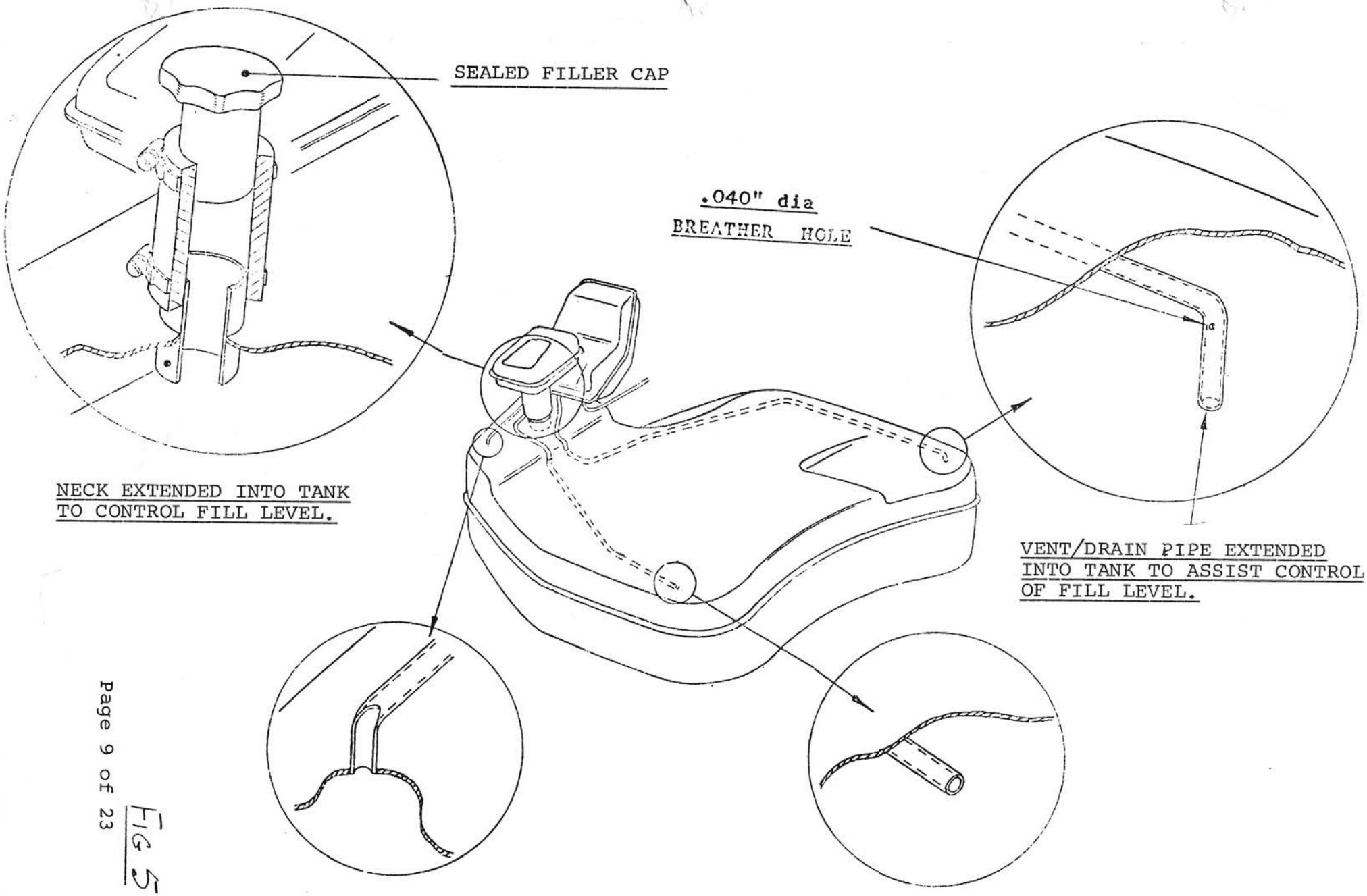

SEALED FILLER CAP
.040" dia
BREATHER HOLE
NECK EXTENDED INTO TANK
TO CONTROL FILL LEVEL.
VENT/DRAIN PIPE EXTENDED
INTO TANK TO ASSIST CONTROL
OF FILL LEVEL.

FIG 5

1970 JAGUAR XK-E TYPE
EVAPORATIVE EMISSION CONTROL SYSTEM

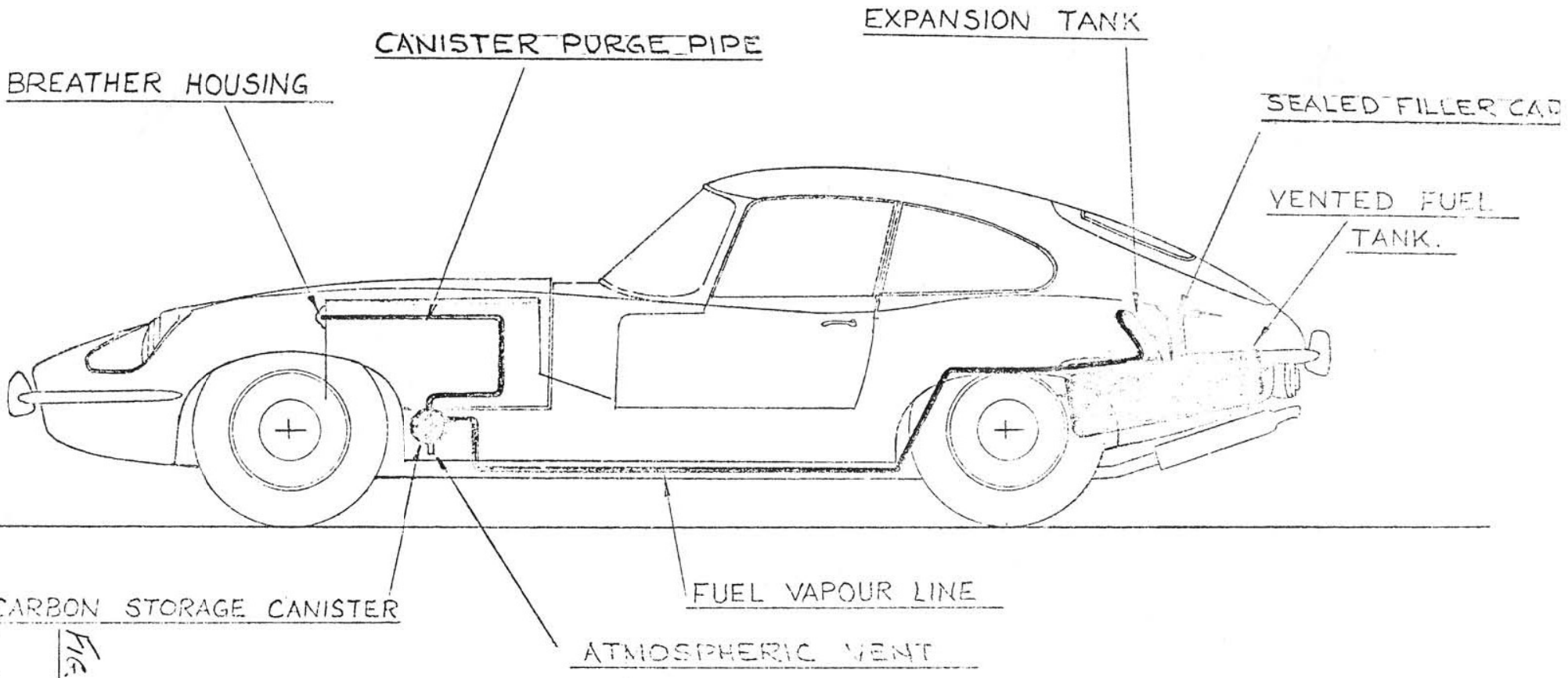
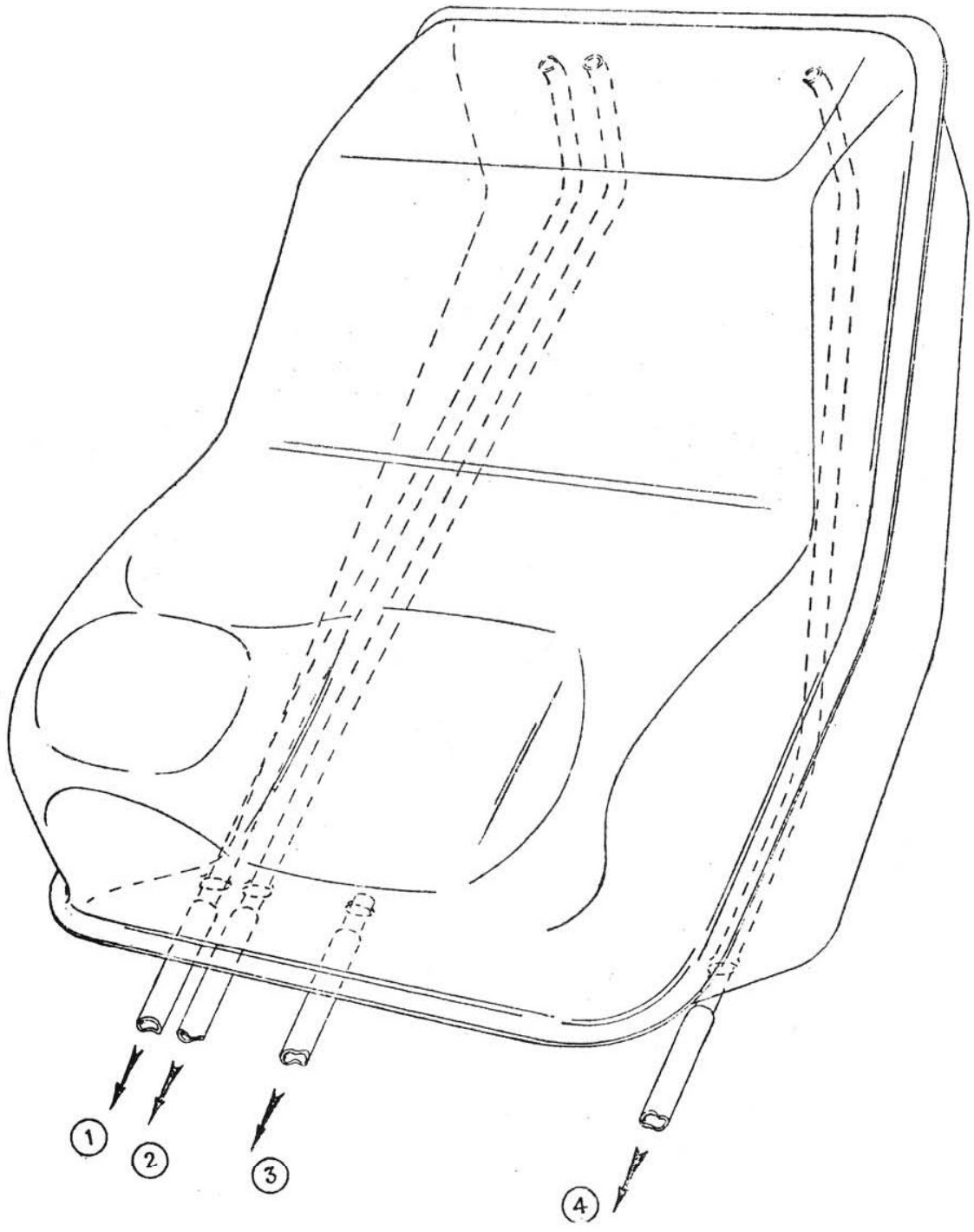


Fig 6

FUEL EXPANSION TANK



(1) RESTRICTED VENT PIPE TO FILLER NECK SIDE OF FUEL TANK.

(2) RESTRICTED VENT PIPE TO REAR CORNER OF FUEL TANK.

(3) VENT/DRAIN PIPE TO FRONT (LOWEST) CORNER OF FUEL TANK.

(4) FUEL VAPOR PIPE TO CARBON STORAGE CONISTER.

FIG. 7

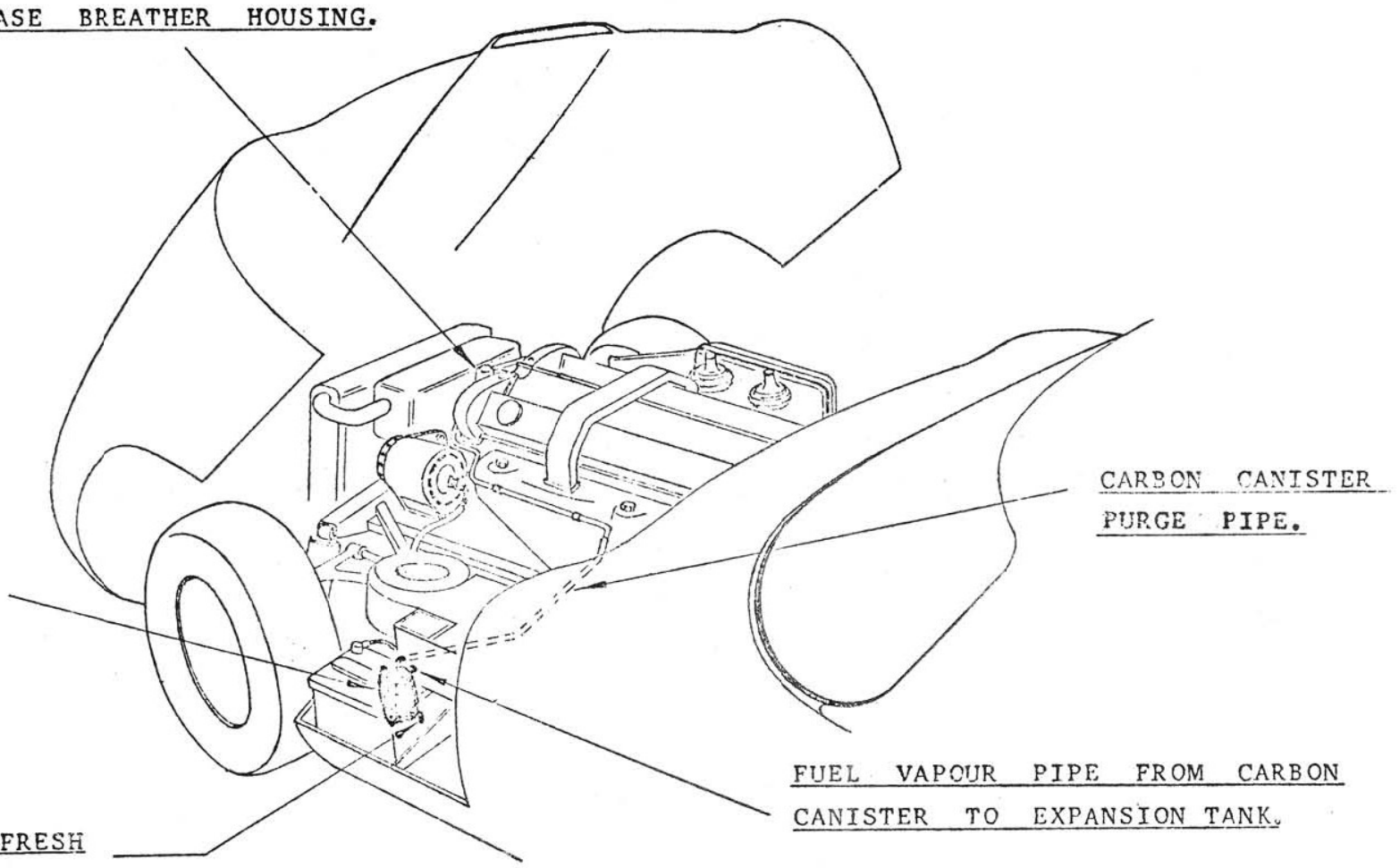

CRANKCASE BREATHER HOUSING.
CARBON CANISTER PURGE PIPE.
CARBON STORAGE CANISTER.
FUEL VAPOUR PIPE FROM CARBON CANISTER TO EXPANSION TANK.
CARBON CANISTER FRESH AIR INTAKE.

Fig. 2