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.

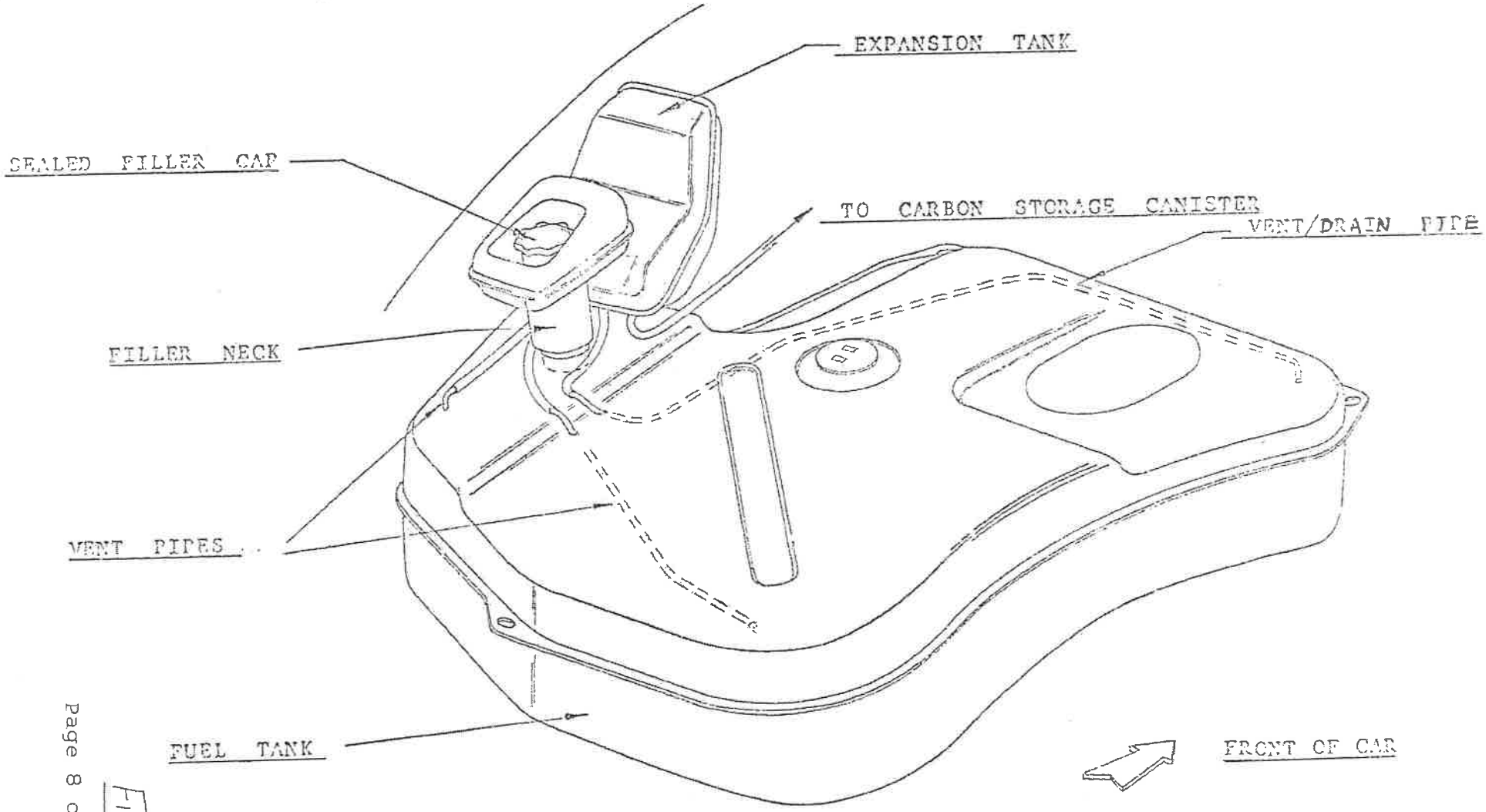

EXPANSION TANK
SEALED FILLER CAP
TO CARBON STORAGE CANISTER
VENT/DRAIN PIPE
FILLER NECK
VENT PIPES
FUEL TANK
FRONT OF CAR

Fig 4

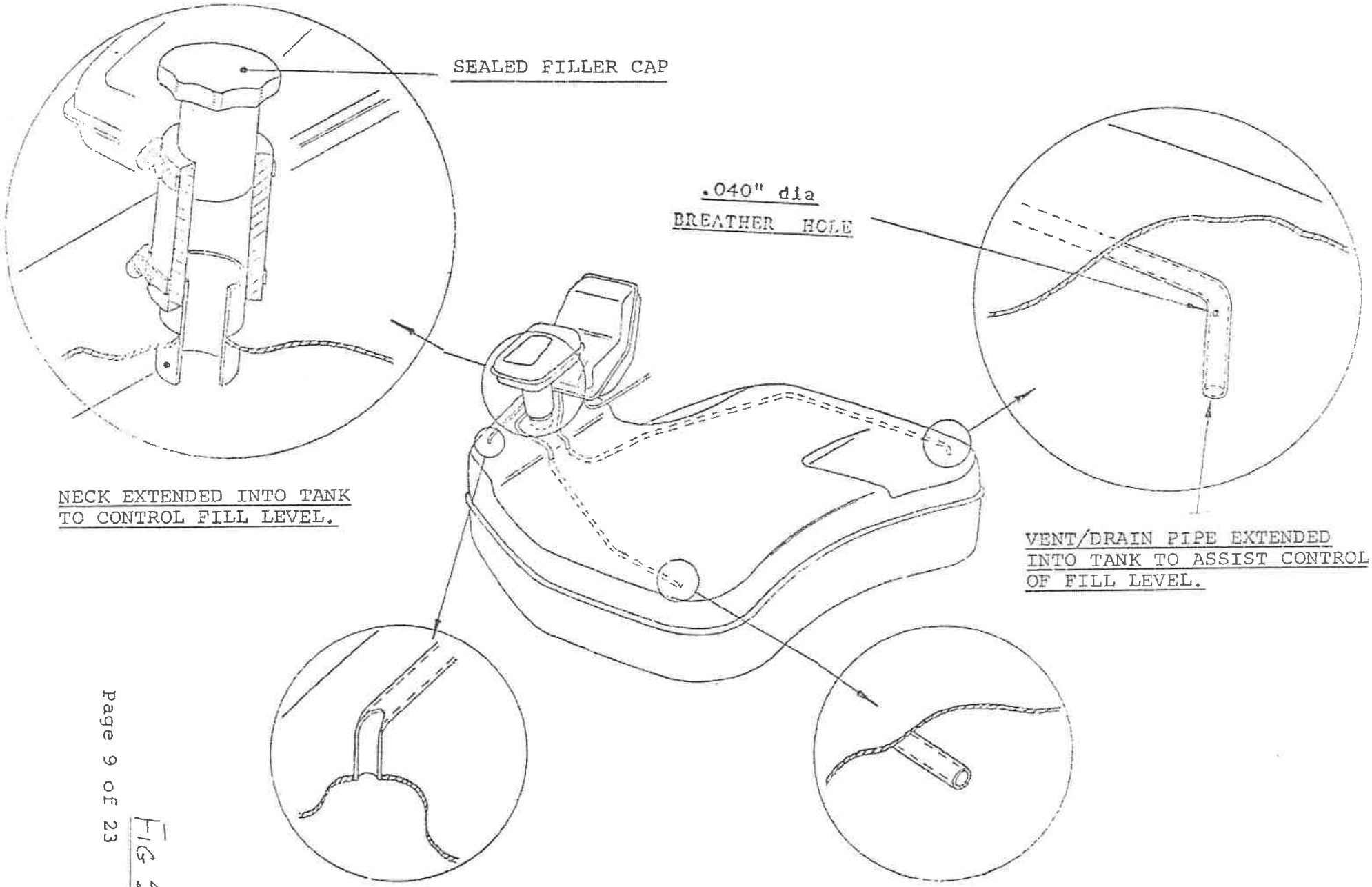

SEALED FILLER CAP
.040" dia
BREATHER HOLE
NECK EXTENDED INTO TANK
TO CONTROL FILL LEVEL.
VENT/DRAIN PIPE EXTENDED
INTO TANK TO ASSIST CONTROL
OF FILL LEVEL.

FIG 5

1970 JAGUAR XK-E TYPE
EVAPORATIVE EMISSION CONTROL SYSTEM

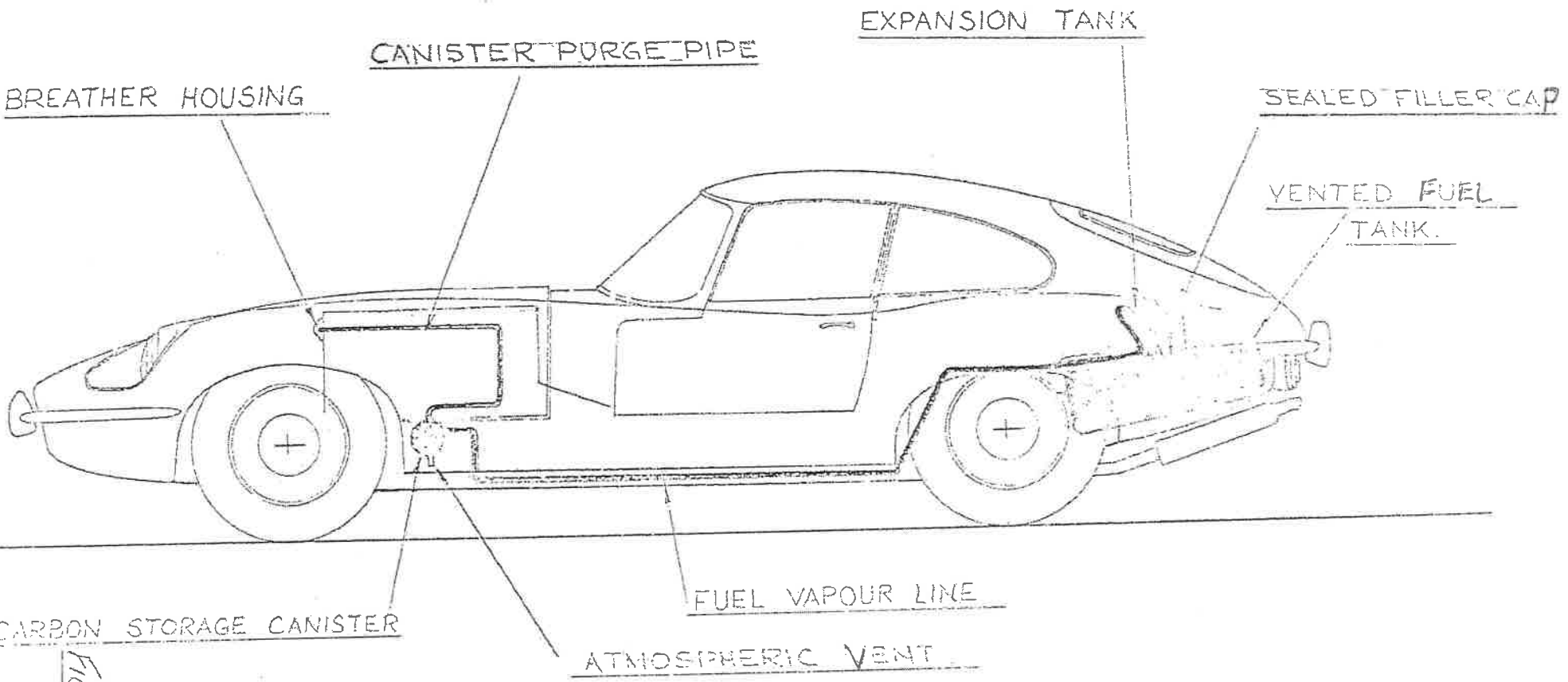
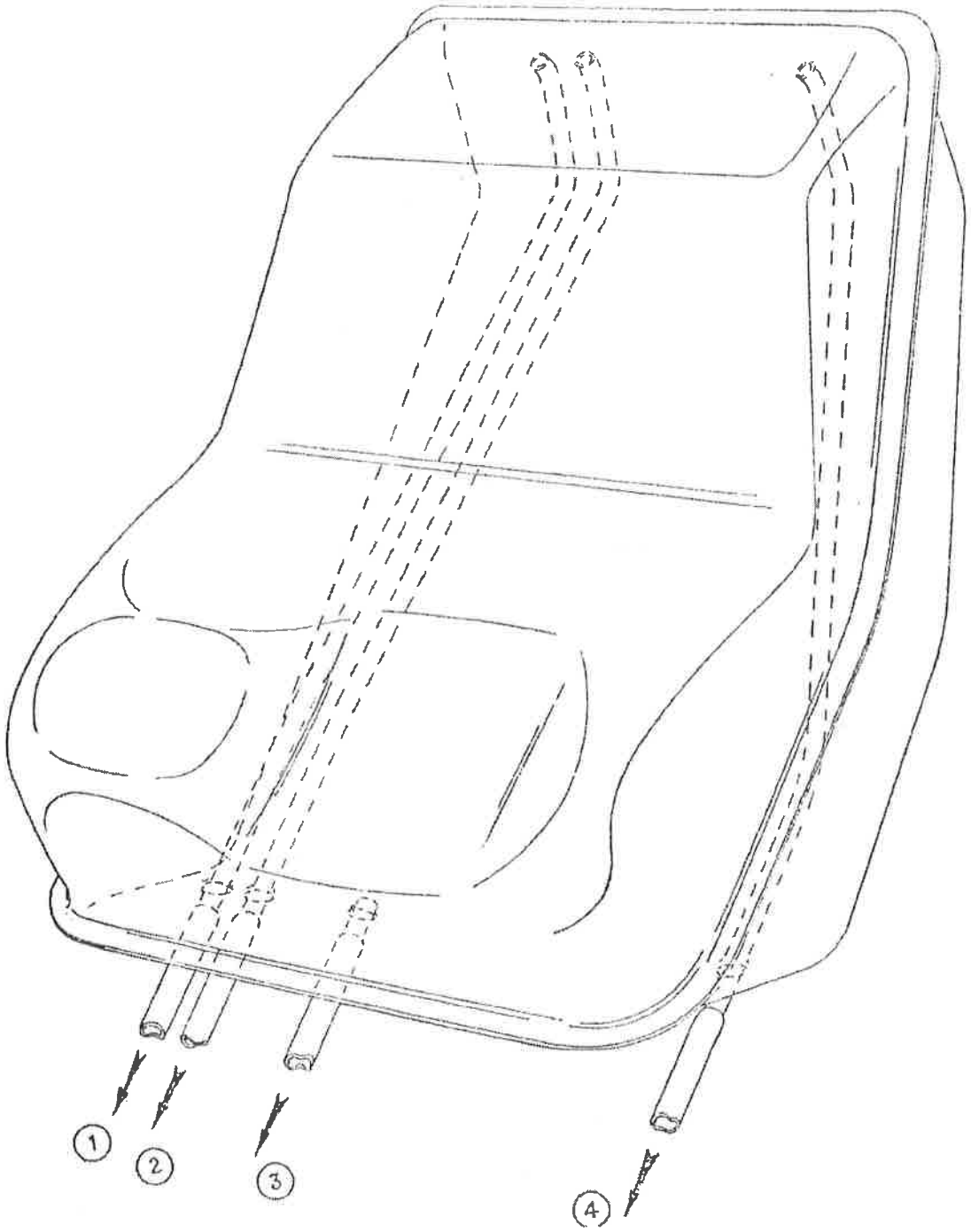


Fig 1

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

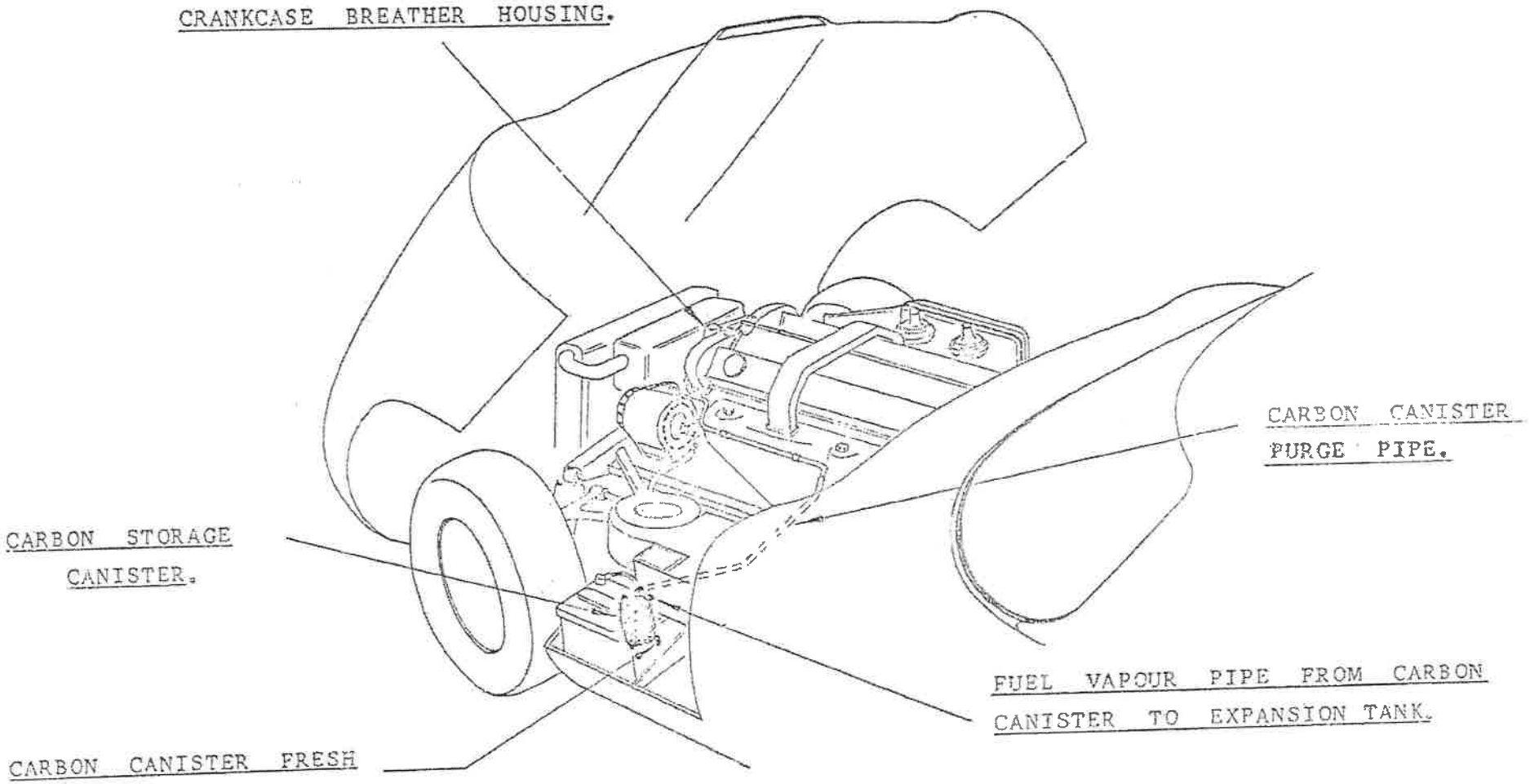

CRANKCASE BREATHER HOUSING.
CARBON CANISTER PURGE PIPE.
CARBON STORAGE CANISTER.
FUEL VAPOUR PIPE FROM CARBON CANISTER TO EXPANSION TANK.
CARBON CANISTER FRESH AIR INTAKE.

FIG. 2

CARBON STORAGE CANISTER

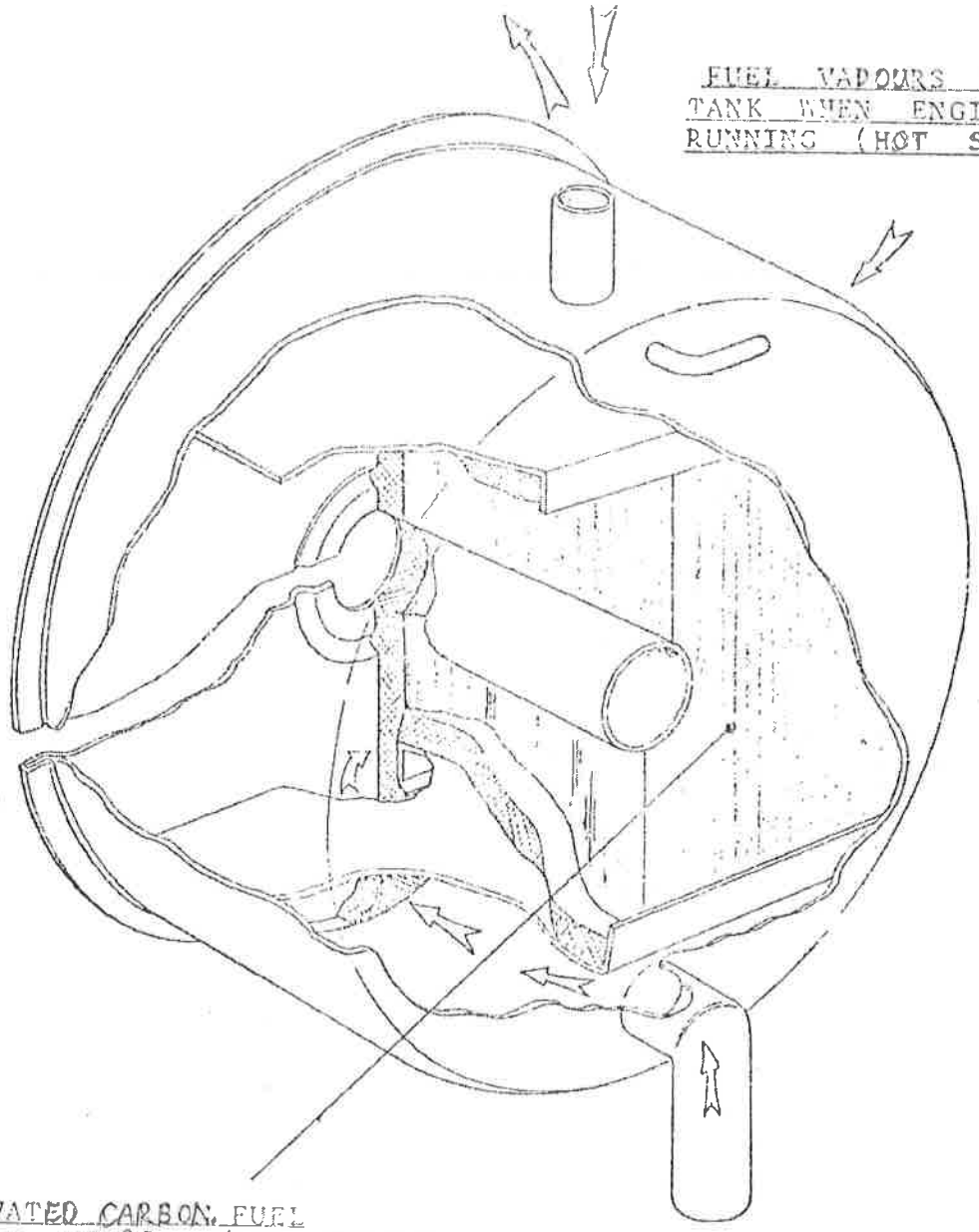


FIG. 9

EVAPORATIVE LOSS CONTROL SYSTEM

XJ 6 Models

On all 1970 Jaguar XJ 6 models two fuel tanks are mounted each side of the trunk. Both tanks incorporate sealed filler caps to prevent fuel vapors escaping to atmosphere. Both filler necks extend into the tanks and prevent filling to maximum capacity the resulting air space allows for any fuel expansion due to higher temperature conditions.

Venting pipes are connected to the top of each gas tank and are taken up the inside of the left rear quarter panel forming a fuel vapor separator, running into a single line along the underside of the car to a charcoal canister in the engine compartment.

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 10 and 11).

CRANKCASE BREATHER SYSTEM

XKE and XJ 6 Models

To ensure that piston blowby does not escape from the crankcase to the atmosphere, a small depression or vacuum is maintained under all engine operating conditions.

This is achieved by connecting a 3/8" diameter tube from the engine breather housing situated at the front of the cylinder head to the constant depression area of the carburetters.

The breather housing incorporates a flame trap and an oil separator elbow. The evaporative emission purge pipe from the charcoal canister feeds into this housing and then via the breather pipe to the carburetters. (See Figure 12).

CRANKCASE BREATHER HOUSING

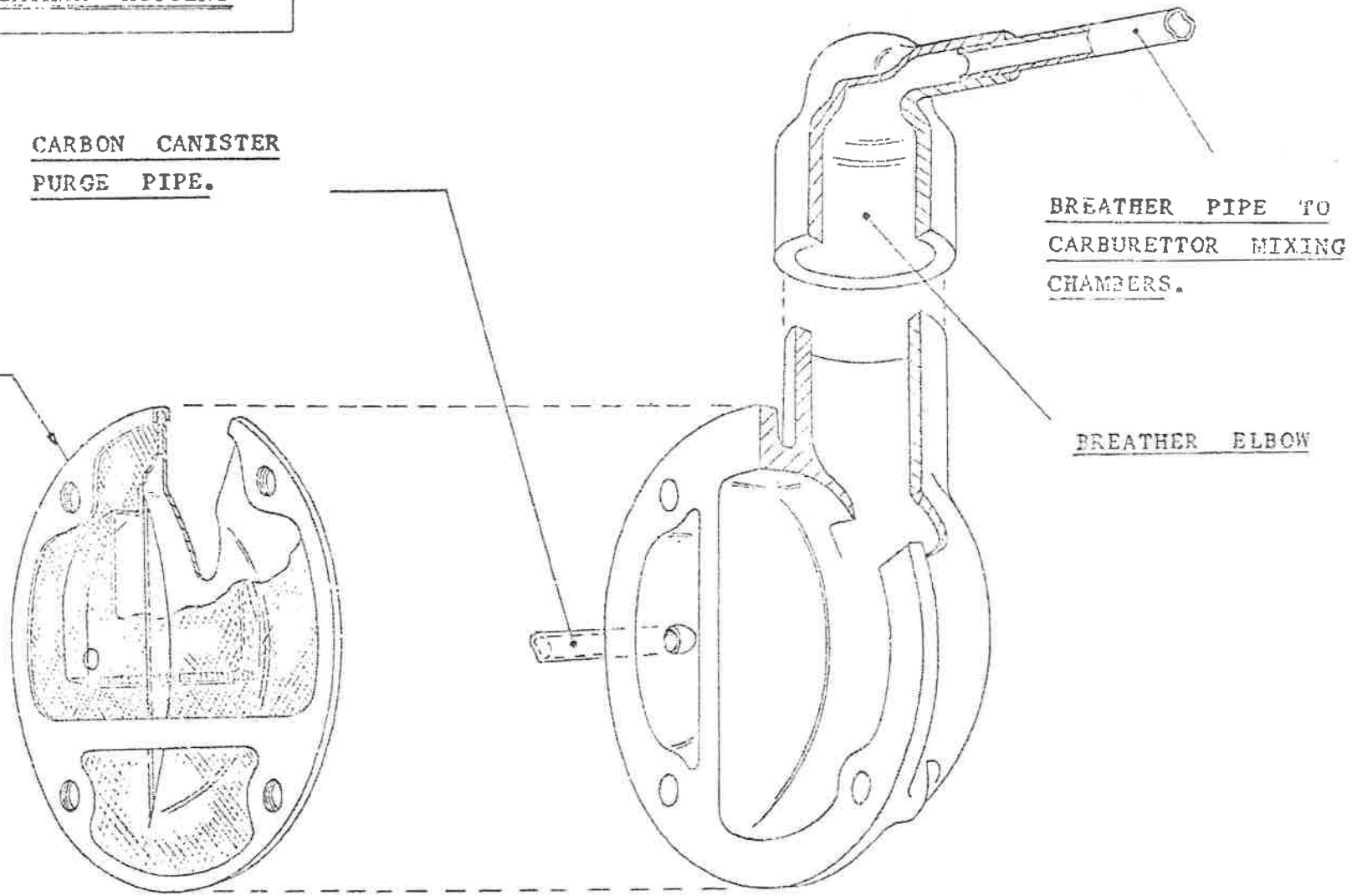


FIG 12