

SECTION A

FUEL TANK AND FUEL SYSTEM

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DIVISION II

DESCRIPTION AND OPERATION

80-1 DESCRIPTION OF FUEL TANK AND FUEL SYSTEM

In all models except station wagons, the fuel tank is attached under the trunk floor pan by two straps and is of the center fill design. The filler neck extends from the rear upper center of the tank to a point just forward of the rear bumper. See Figure 80-1. To fill the tank, pull down the spring-loaded license plate bracket and remove the filler cap.

In station wagons, a longer filler neck extends to a door in the left rear quarter panel behind the rear wheel. See Figures 80-2 & 3. The filler in station wagons is made up of two sections joined by a short hose and clamps. To fill the tank, lift the spring-loaded filler door and remove the filler cap.

Filler necks are soldered into the tank in all lower series cars. See

Figure 80-1. In upper series cars, the lower end of the filler slides through an O-ring seal and is held in position by a bracket and screw near the upper end. See Figure 80-4.

In all models except station wagons, the tank is vented during operation by a special breather, rather than at the filler cap. (A "NO VENT" type filler cap is used.) In Specials and Skylarks, this breather consists of two pipes extending from the upper left rear corner of the tank; one pipe vents the left rear corner and the other pipe leads to the right front corner. Two rubber hoses are held in position vertically to prevent fuel loss from fuel sloshing. See Figure 80-1. With this arrangement of vents, the uppermost part of the tank is always vented, whether the car is sideways to a slope or straight with the slope. This prevents fuel loss due to expansion of trapped air.

In LeSabres, Wildcats and Electras, the breather functions the same as in Specials, but is

located at the right front upper corner. See Figure 80-4.

In Rivieras, this breather is an inverted U-shaped pipe extending upward from the right front corner of the tank and is fastened to the body. See Figure 80-5. In Rivieras, this pipe provides the only venting both during operation and during filling.

In all models except Rivieras and station wagons, the tank is vented during filling by a baffle which extends from the lower end nearly to the upper end in the upper inside of the filler.

In station wagons, the tank is vented only at the filler cap. A special external vent pipe extends from the top of the tank to a point in the filler neck just under the cap. See Figures 80-2 & 3.

The tank outlet consists of a combination fuel pick-up, filter and fuel gauge tank unit. The tank unit can be removed by removing a cam ring which retains the unit; in Specials and Skylarks, this can be accomplished without lowering the fuel tank.

The fuel line isterne coated welded steel tubing. Connections from the tank unit to the line and from the line to the fuel pump are made with synthetic rubber hose attached with spring clamps.

All V-8 engines have a replaceable pleated paper filter located in the carburetor inlet. All V-6 engines have a sintered bronze filter located in the carburetor inlet.

All air conditioner cars (except V-6 engine cars) have a vapor return system. These cars have a special fuel pump which has a metering outlet. Any vapor which forms is bled off and returned to the fuel tank, along with continuously circulating fuel, through a separate line. This system keeps fuel recirculating to the pump, thereby greatly reducing any possibility of vapor lock. All 400 and 430 engine cars have the vapor return system, regardless of whether or not they are equipped with an air conditioner.

DIVISION III

SERVICE PROCEDURES

80-2 REMOVAL OF FUEL TANK OR FUEL GAUGE TANK UNIT

The fuel gauge tank unit is combined with the pick-up pipe and the tank filter. On Specials and Skylarks, it is not necessary to lower the fuel tank to replace the tank unit. However, all other series require lowering the fuel tank to replace the tank unit.

To lower a fuel tank, proceed as follows:

1. Syphon all fuel from tank into a clean container.
2. Disconnect fuel hose and vapor return hose from gauge tank unit.
3. Remove ground (black) wire screw.
4. Unplug tan wire from gauge unit.
5. Disconnect vent hoses.
6. Remove screw from filler neck bracket.

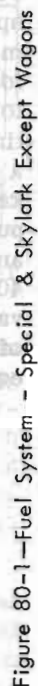
7. Disconnect support straps and lower tank.

8. To install a fuel tank, reverse above procedure.

To remove a fuel gauge tank unit, proceed as follows:

1. In Specials and Skylarks with tank still in car, make sure tank is less than half full so that fuel will not spill from gauge unit hole.
2. Make sure all connections are removed from the fuel gauge tank unit as described above.
3. Unscrew cam ring using Wrench J-21518 for Specials, Skylarks or Rivas; use Wrench J-22554 for LeSabres, Wildcats or Electras.
4. Remove fuel gauge tank unit.
5. Make sure O-ring seal is in place. Install new tank unit, being careful not to bend or damage it.
6. Finish gauge unit installation by reversing above steps. Make sure tan wire and black wire connections are clean and tight.





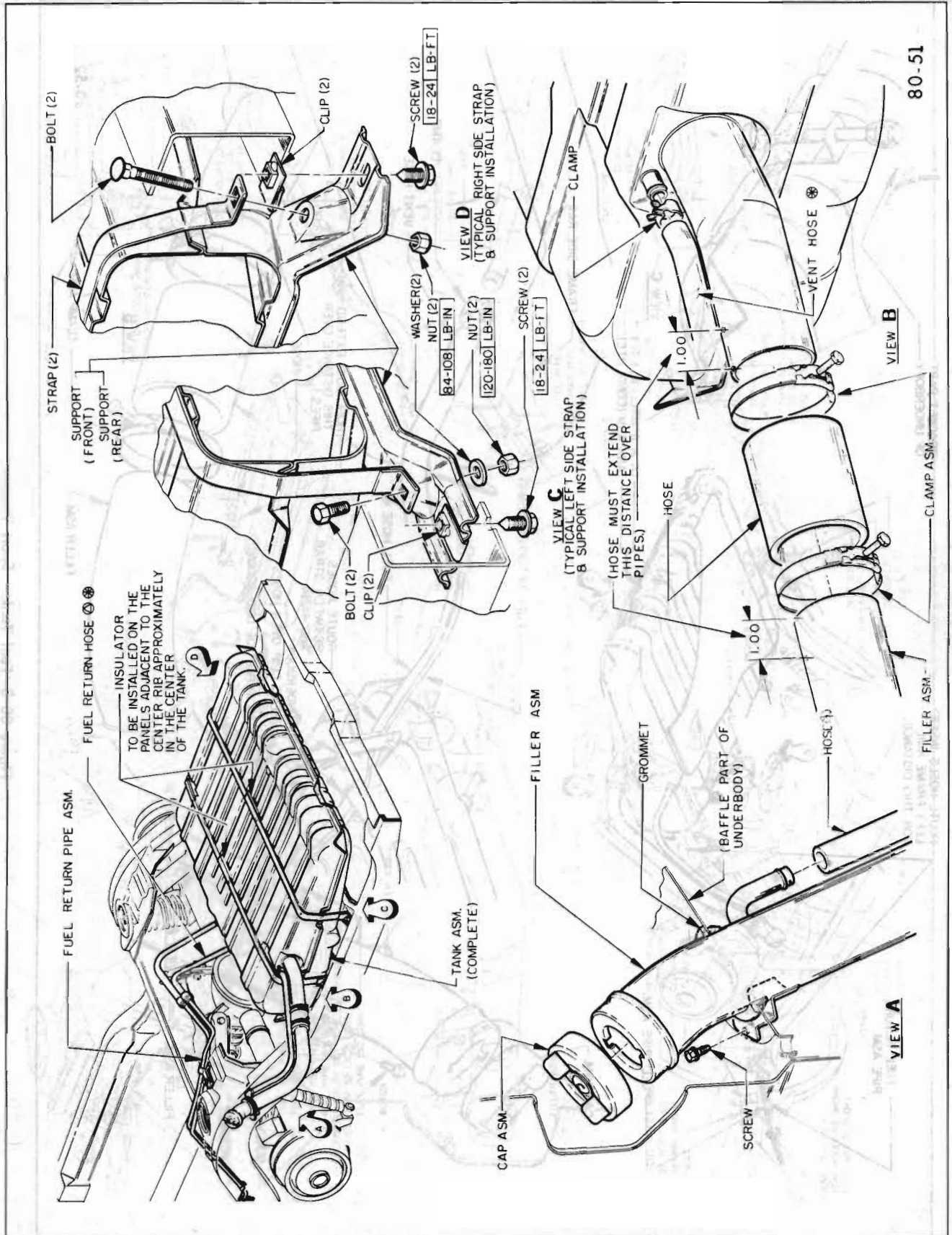


Figure 80-2—Fuel Tank - Special Wagons

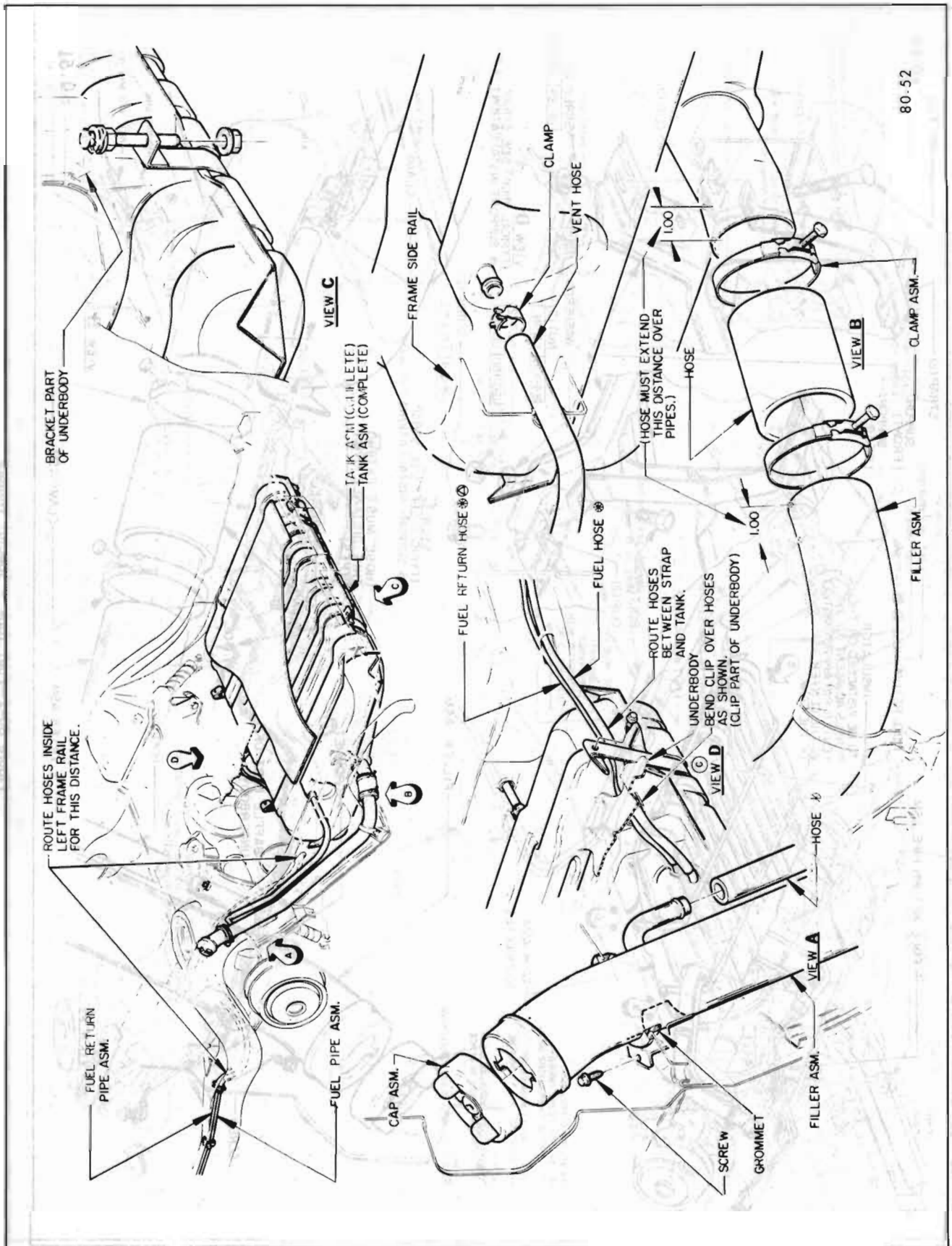
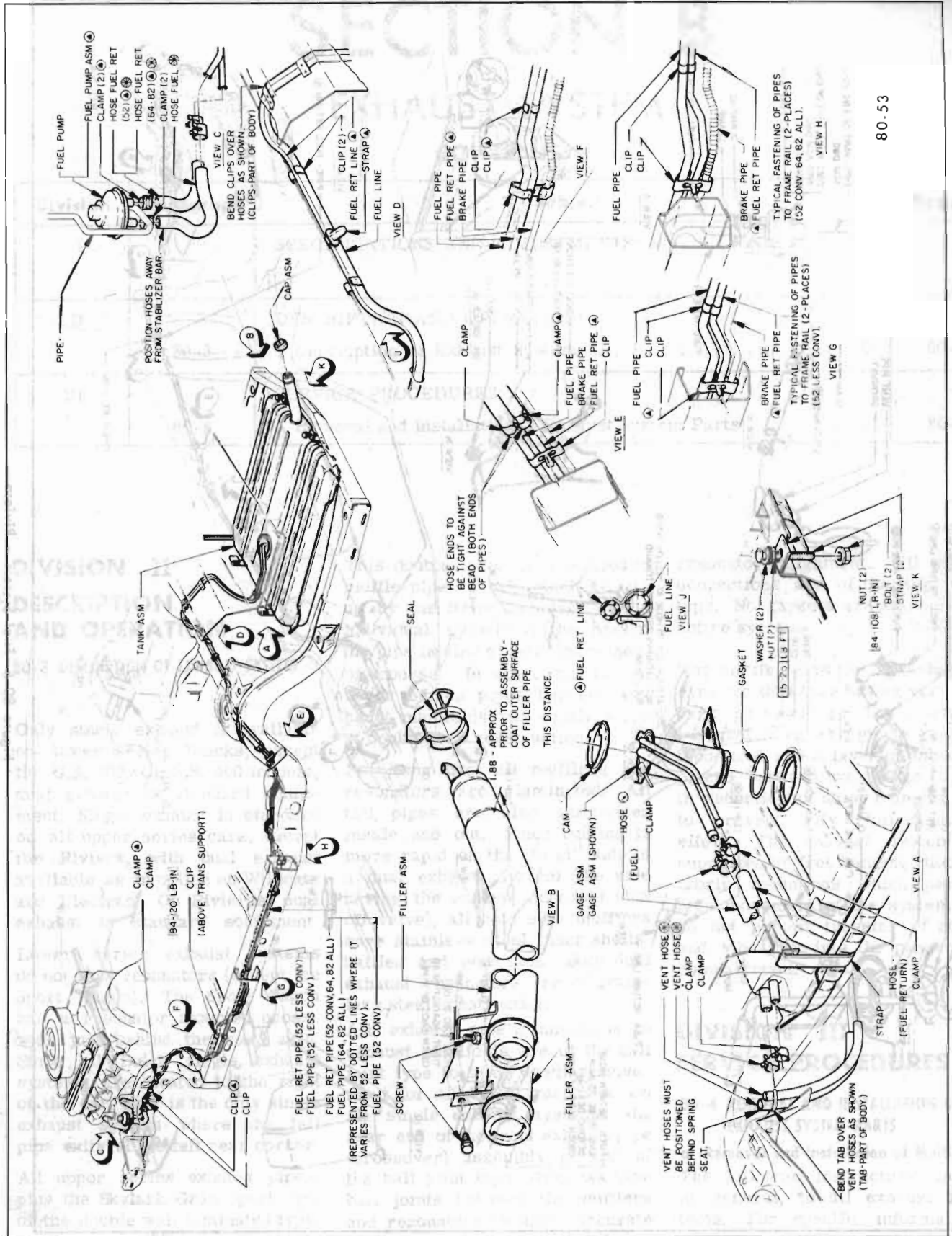


Figure 80-3—Fuel Tank - Sport Wagons



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Figure 80-4—Fuel System - LeSabre, Wildcat & Electra



Figure 80-5—Fuel System - Riviera