

# SECTION A

## FUEL TANK AND FUEL SYSTEM

### CONTENTS

Division	Subject	Paragraph
I	SPECIFICATIONS AND ADJUSTMENTS:	
II	DESCRIPTION AND OPERATION: Description of Fuel Tank and Fuel System.....	80-1
III	SERVICE PROCEDURES: Removal of Gas Tank or Gas Gauge Tank Unit.....	80-2
IV	TROUBLE DIAGNOSIS:	

## 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 Figures 80-1, 4 and 5. To fill the tank, pull down the spring-loaded license plate bracket and remove the filler cap.

All station wagons have the fuel tank mounted in the left rear quarter panel area. See Figure 80-3. To fill the tank, lift the spring-loaded filler door and remove the filler cap.

Filler necks are soldered into the tank in all series cars, (except Riviera). See Figures 80-1 thru 5.

In all models except station wagons, the tank is vented by a special breather, rather than at the filler cap. (A "NO VENT" type filler cap is used.) This breather consists of two pipes extending from the upper right front 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 Figures 80-1 and 4. 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 Rivas, 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 Rivas, this pipe provides the venting both during operation and during filling.

In all models except Rivas 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. See Figure 80-3

In all models except Riviera the tank outlet consists of a combination fuel pick-up, filter and fuel gage tank unit. In Rivas, the tank outlet consists of a combination fuel pick-up, filter, fuel gage tank unit and fuel pump assembly. The tank unit can be removed by removing a cam ring which retains the unit.

The fuel line is 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 engines have a replaceable pleated paper filter located in the carburetor inlet.

All air conditioner cars (except L-6

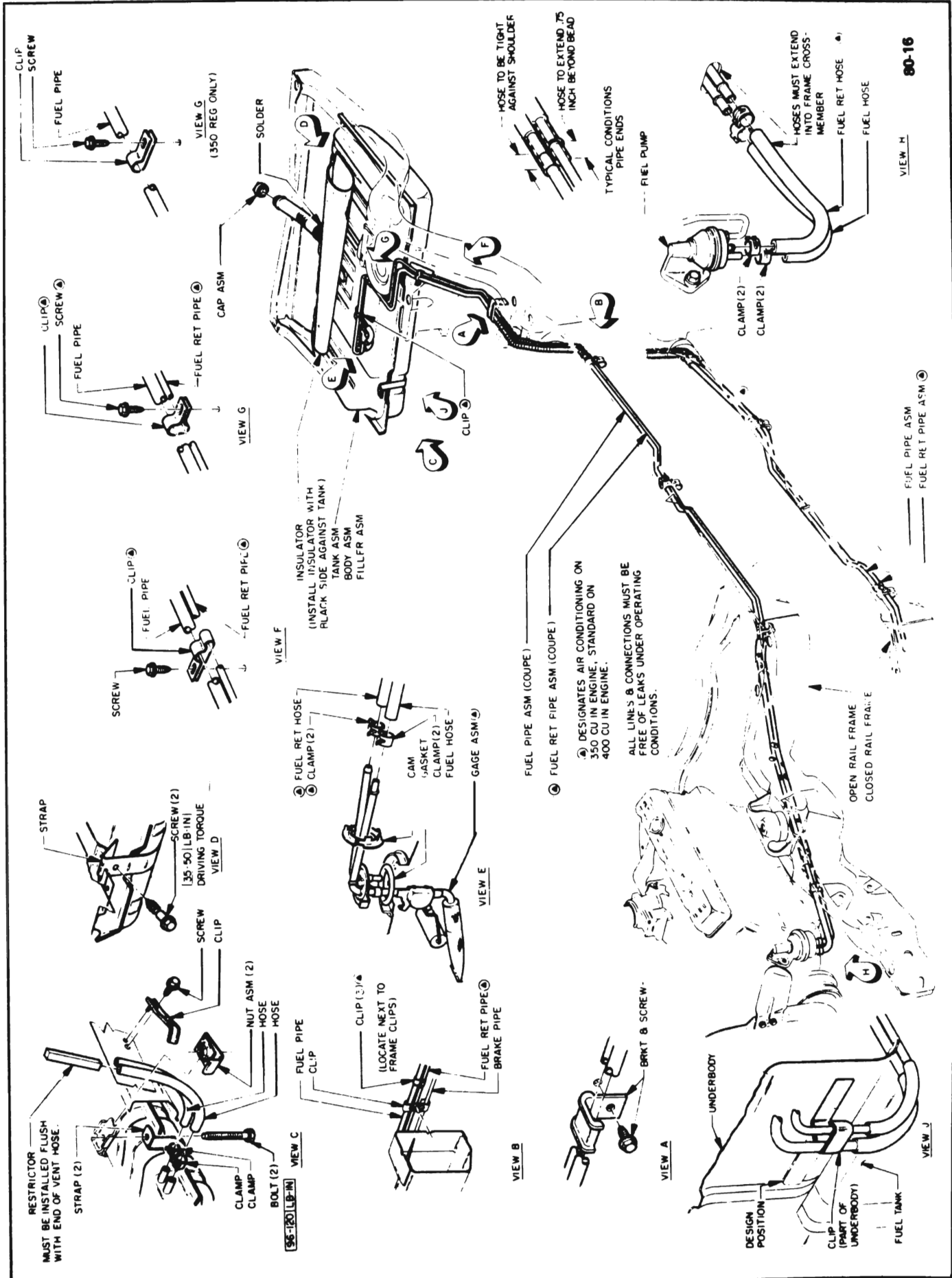


Figure 80-1 Fuel System - V-8 Special and Skylark Except Wagons

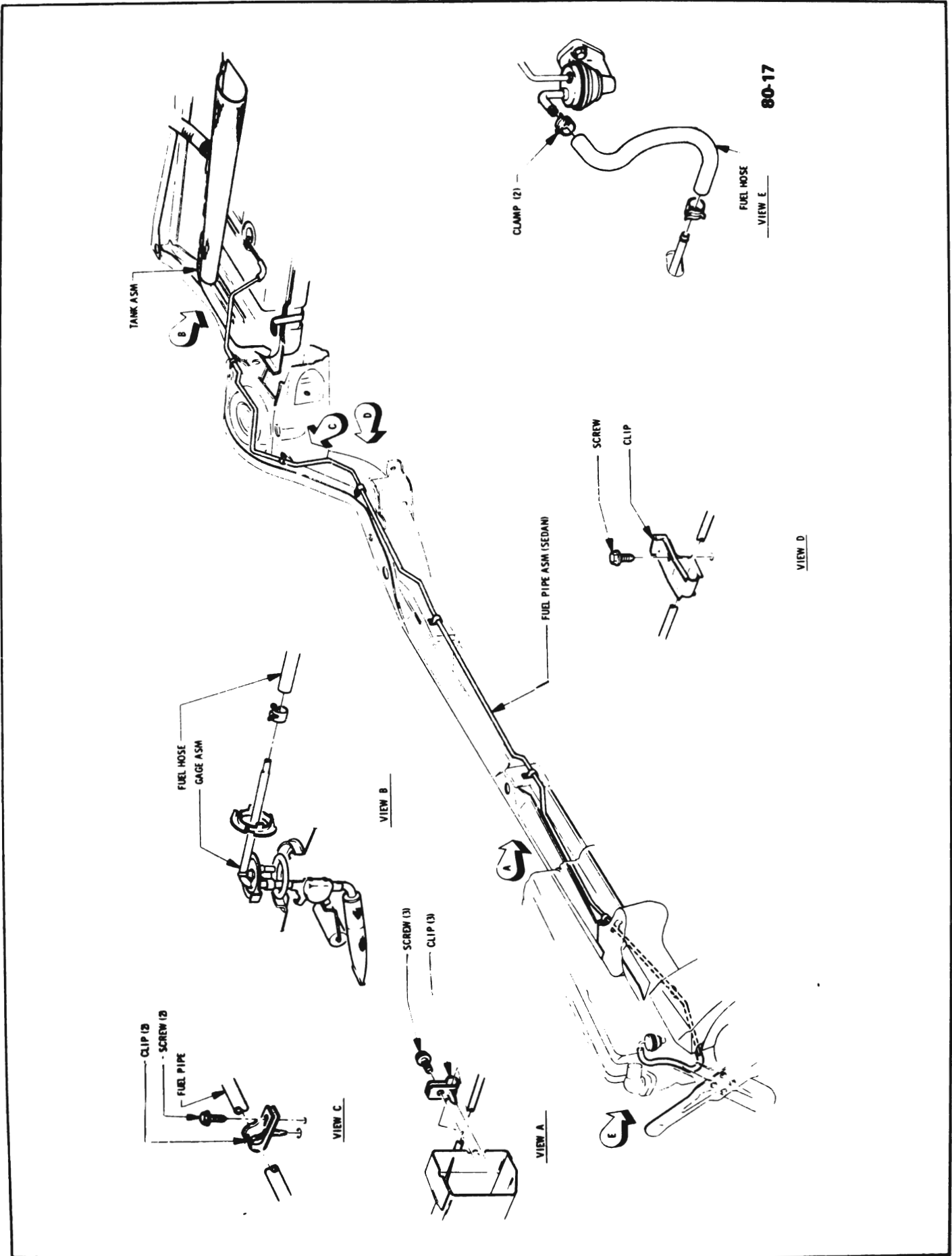


Figure 80-2 Fuel System - L-6  
Special and Skylark

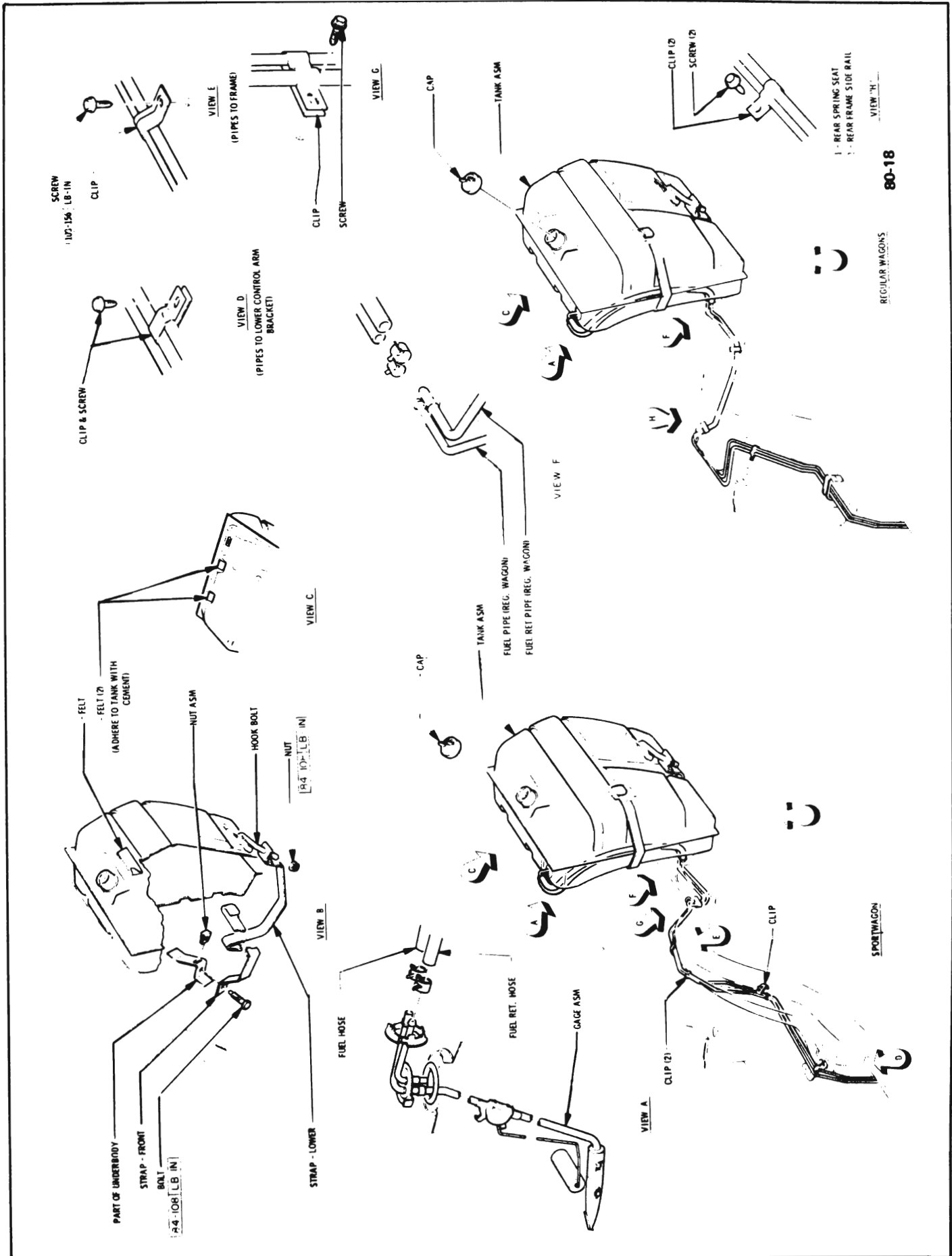


Figure 80-3 Fuel System - All Wagons



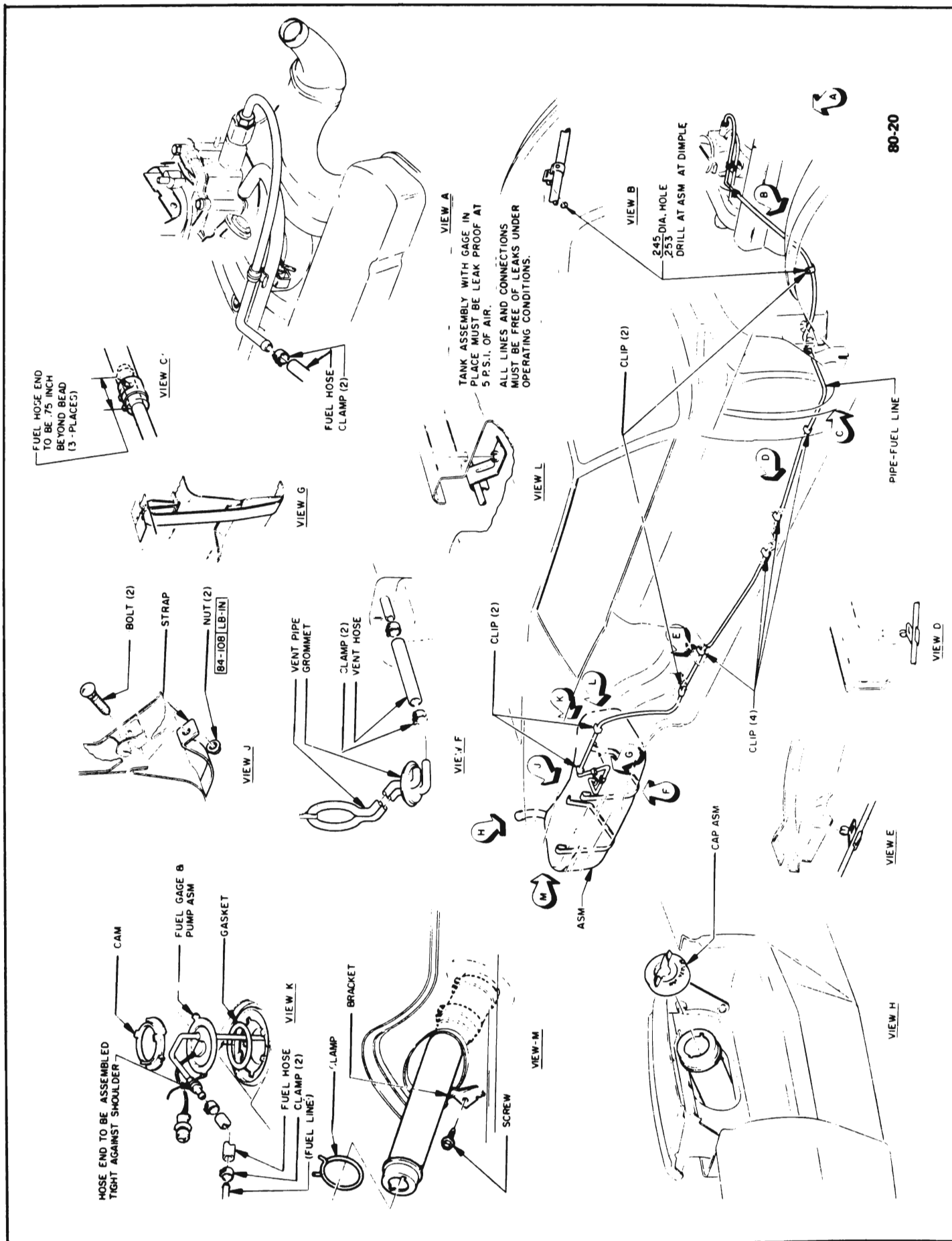


Figure 80-5 Fuel System - Riviera

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 cool fuel recirculating to the pump, thereby greatly reducing any possibility of vapor lock. All 400 and 430 cu.in. 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

*43-44-45-46-48000 Series* The fuel gage tank unit is combined with the pick-up pipe and the tank filter. All 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 gage tank unit.
3. Remove ground (black) wire screw.
4. Unplug tan wire from gage unit.
5. Disconnect vent hoses.
6. Disconnect support straps and lower tank.
7. To install fuel tank, reverse above procedure.

To remove fuel gage tank unit, proceed as follows:

1. Unscrew cam ring using Wrench J-21518 for Specials or Skylarks; use Wrench J-22554 for LeSabres, Wildcats or Electras.
2. Remove fuel gage tank unit.
3. Make sure "O" ring seal is in place. Install new tank unit, being careful not to bend or damage it.

4. Complete gage unit installation by reversing above steps. Make sure tan wire and black wire connections are clean and tight.

*49000 Series* The fuel gage tank unit is combined with the pick-up pipe, fuel filter and fuel pump assembly. It is not necessary to remove the fuel tank to remove this unit.

1. Fold back trunk floor covering over access hole cover.
2. Remove access hole cover.
3. Raise rear of car and support on jack stands.
4. Remove ground (black) wire screw.
5. Disconnect electrical harness plug.
6. Unscrew cam ring using Wrench J-21518.
7. Remove fuel gage tank unit.
8. To install, reverse removal procedures being careful not to damage unit. Be sure to reseal access cover during installation.