

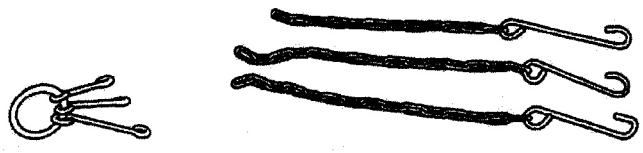
## **Chapter 9**

### **Engine & Transmission Removal**

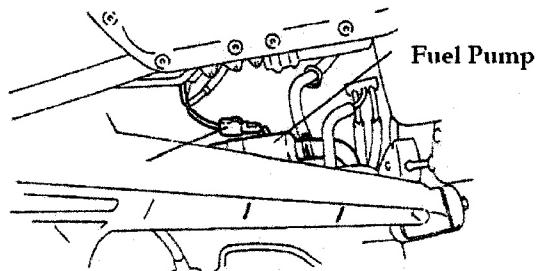
#### **Complete Engine and Transmission Removal**

## Engine Removal

ST	89990 4100	Straight Pin	For DOJ Model Spring Pin
	49960 5400	Engine Hanger	Engine and or Transmission Removal



## Engine Removal



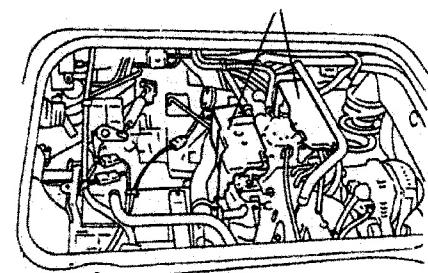
1. Disconnect Fuel Pump Connection (Above)
2. Start Engine Until Run Out of Fuel
3. Disconnect Battery (-) Terminal
4. Remove Engine Cover Trap Door
5. Remove Rear Bumper and Rear Hood  
[Truck] Disconnect Back Lamp Etc.

Continued

## Engine Removal

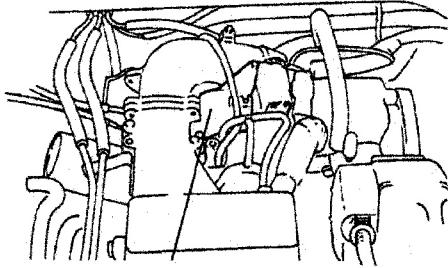
6. Remove Air Cleaner Case
  1. Remove Hose From Air Cleaner
  2. Remove Entire Unit
7. Jack Up Vehicle
8. Remove Diagnal Member R & L
9. Remove Muffler
  1. Remove Exhaust Pipe Cover
  2. Remove Heat Sheild (Rear)
  3. Remove Heat Sheild (Front)
  4. Remove Exhaust Manifold Plate
  5. Remove Hanger Bracket
  6. Remove (4) Bolts from Muffler Cover
  7. Disconnect Temp Sensor
  8. Remove Remaining Attachment Muffler Components
10. Remove Caburetor Cover (NA Vehicle) or Throttle Body Protector (SC) Vehicle

NA Vehicle



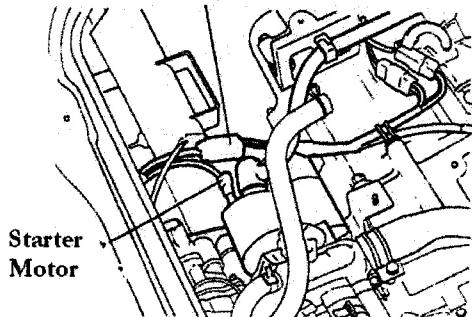
Caburetor Covers

SC Vehicle



Throttle Body Cover

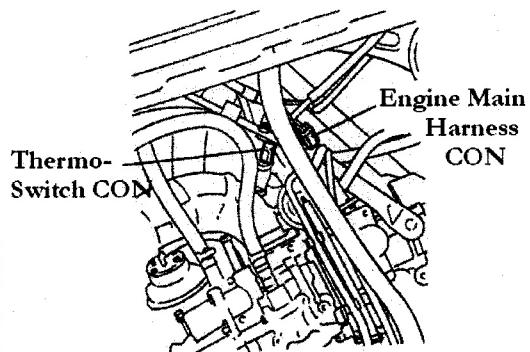
Transmission Harness



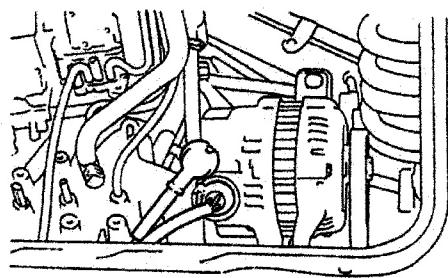
Starter Motor

## Engine Removal

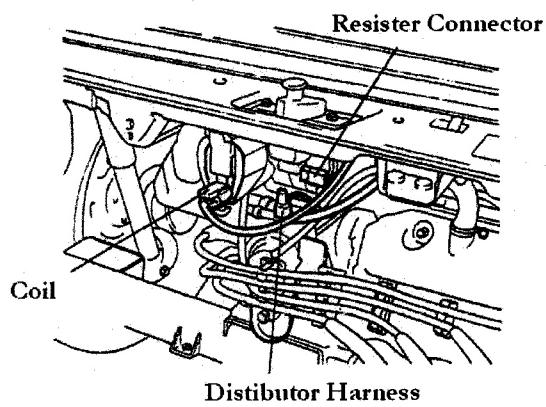
(3). Disconnect Main Harness and Thermo SW



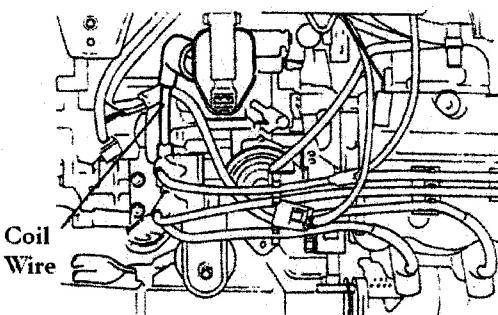
(4). Disconnect Alternator Connections



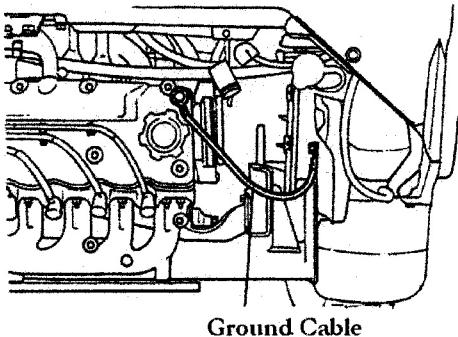
(5). Disconnect Ignition Coil  
(6). Disconnect Distributor Harness  
(7) Disconnect Resister CON



(8). Remove Coil Wire and IGN Coil

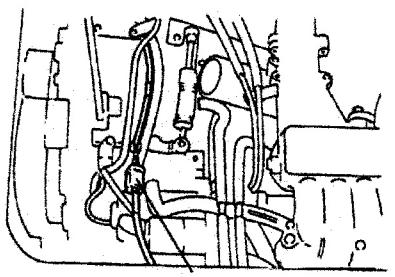


(9). Disconnect Engine Ground Cable



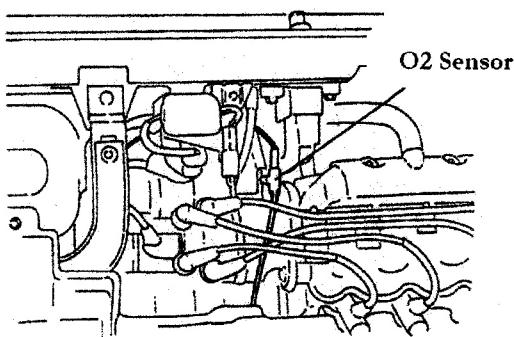
SC Vehicle

(1). Remove Starter Cable (+) and Harness CON  
(2). Disconnect Transmission CON

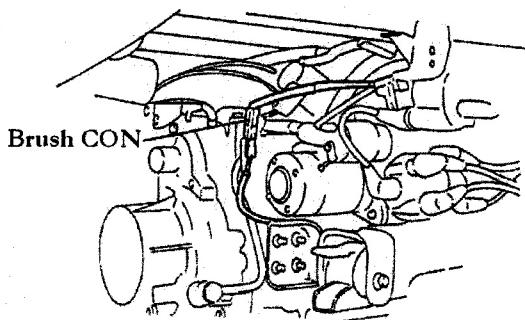


## Engine Removal

(3) Remove O2 Sensor CON

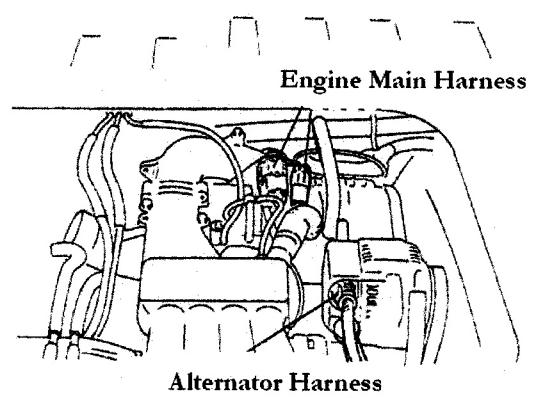


(4). ECVT Vehicle: Remove Brush CON

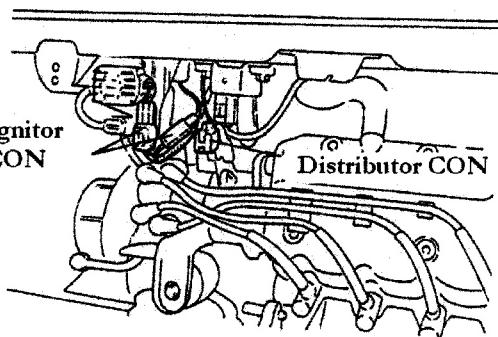


(5). Remove Engine Main Harness (2pc) and Thermo-Sw CON

(6). Remove ALT Termanal CON



(7). Disconnect Distributor and Ignitor CON

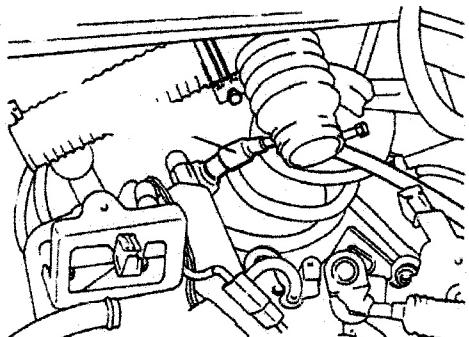


(8). Remove Ignition COil

(9). Remove Engine Ground

(12) Cable Removal

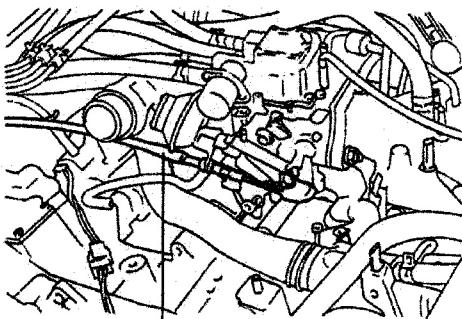
(1) Remove Speedometer Cable



## Engine Removal

NA Vehicle

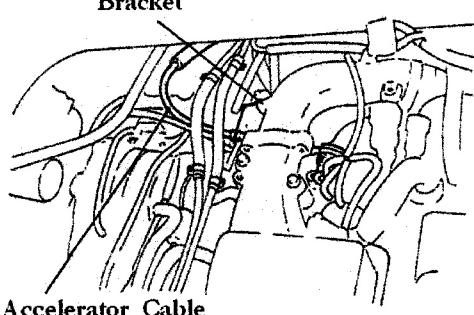
(2) Remove Accelerator Cable



Accelerator Cable

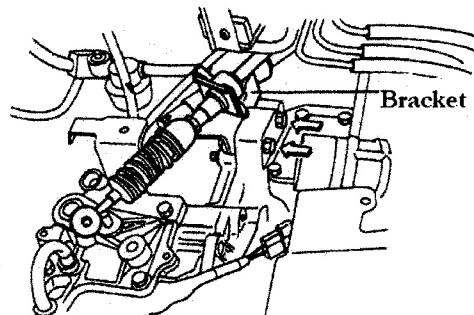
SC Vehicle

Bracket

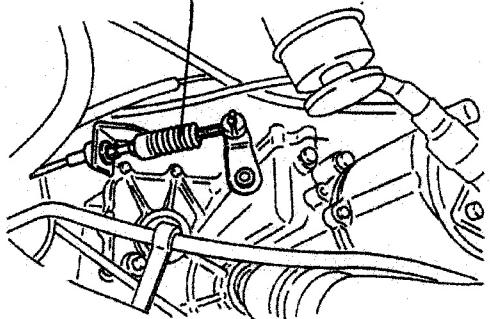


(3). Remove Shift Control Cable and Select  
Select Control Cable from Trans (MT)

MT Vehicle

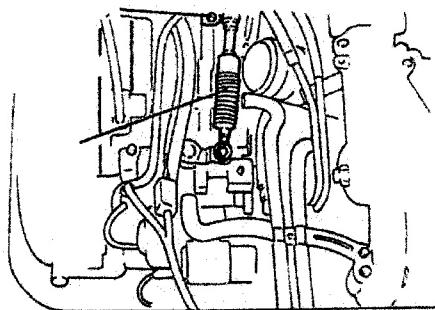


Select Control Cable



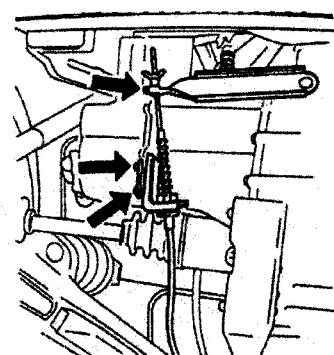
ECVT Vehicle

(4). Remove Complete Bracket and Cable



(5). Remove Clutch Cable from Fork Lever.  
Remove Cable Bracket from Trans

MT Vehicle



## Engine Removal

### (6). Remove Speedometer Cable

**Caution:** Secure Cables with Tape to the Body During Engine Removal

### (13). Hose Removal

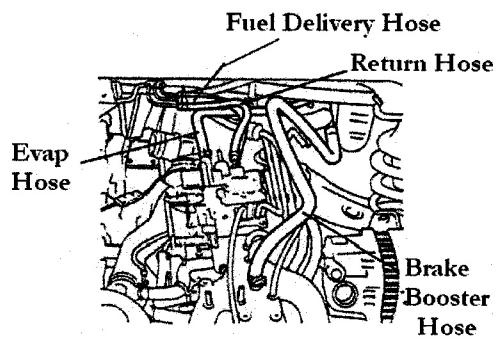
**Caution:** Mark Hoses by Function

#### NA Vehicle

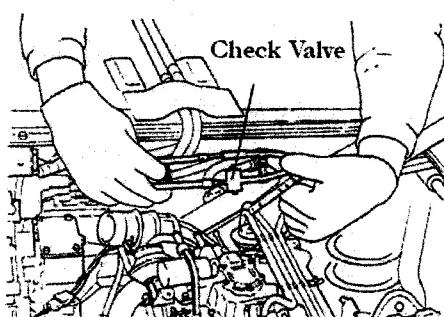
##### (1). Remove Vacuum Hoses

##### (2). Remove Evap Hose from Carburetor

##### (3). Remove Fuel Hose from Both Delivery and Return



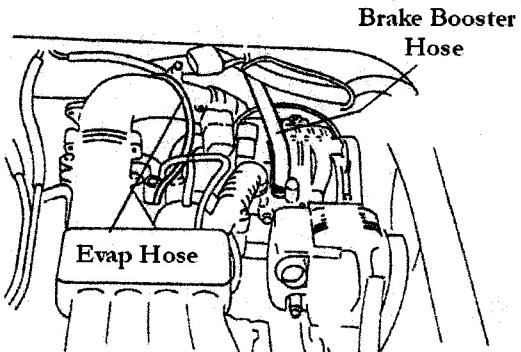
##### (4). 4WD Vehicles: Separate Hoses (2pc) at The Check Valve Location. Diagram Below.



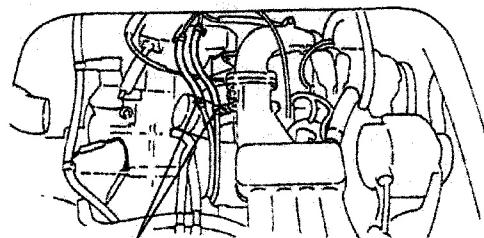
#### SC Vehicle

##### (1). Remove Brake Booster Hose from Supercharger

##### (2). Remove Evap Hose from Throttle Body



##### (3). Remove Fuel Hoses. See Below Diagram



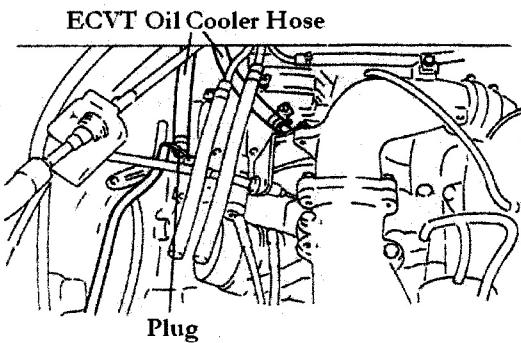
Disconnect Fuel Hose Here

##### (4). Separate 4WD Actuator Vacuum Hoses (2pc).

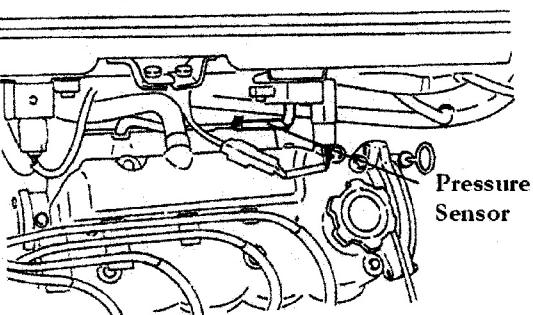
## Engine Removal

(5). ECVT Vehicle: Remove Oil Cooler Hose  
(2) Lines

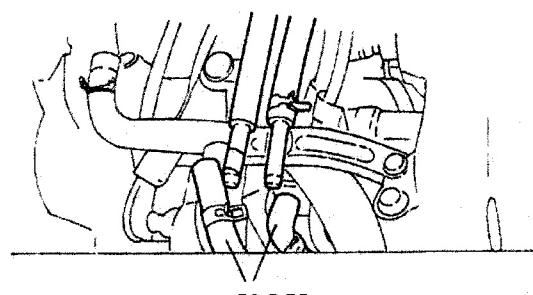
Caution: Plug the Lines After Removal



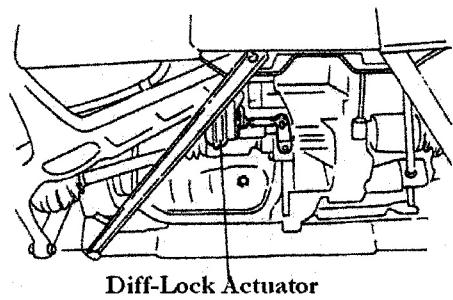
(6) Remove Pressure Sensor Hose



(7). Remove ISC (2) Hoses

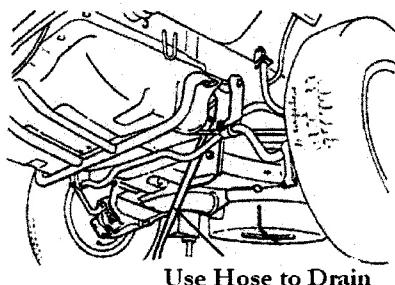


(14). Jack Up Rear  
(15). Remove Diff-Lock Actuator From Transmission (4WD Vehicle Only)

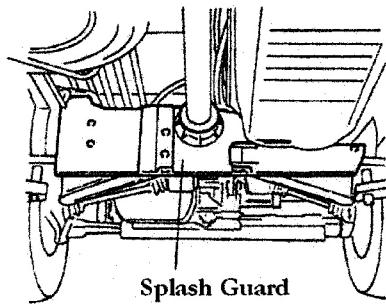


(16). Drain Coolant

Note: Never Re-Use Coolant



(17). Remove Splash Guard



## Engine Removal

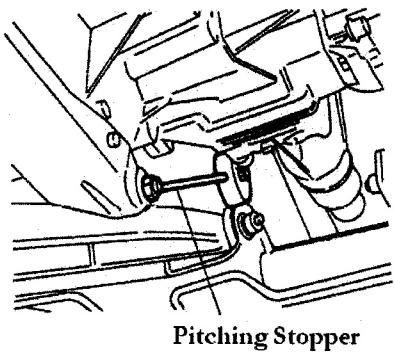
(18). Separate Drive Shaft From Transmission  
(4WD Only)

- (1). Remove Attachment Bolts
- (2). Drain Differential
- (3). Pull Shaft Out

**Caution:** Place Bucket Under Differential as Oil Will Leak Out.

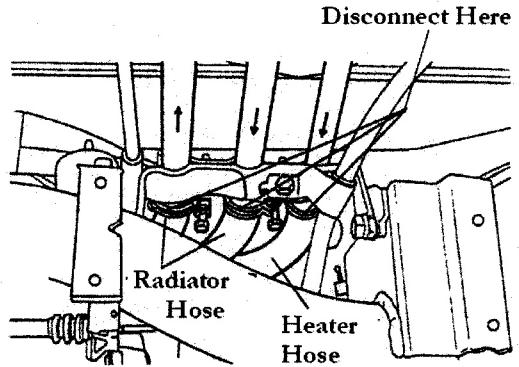
**Caution:** Wrap Ends of Drive Shaft to Prevent Scratches to the Surface.

(19). Remove Pitching Stopper. See Diagram Below.

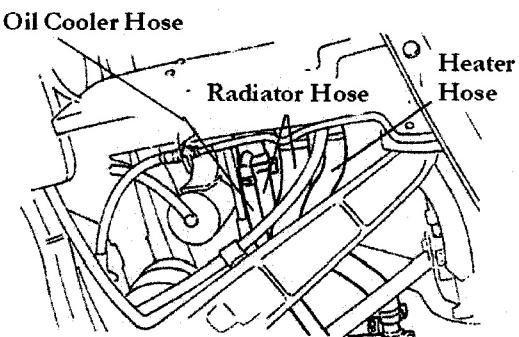


(20). Remove Radiator and Heater Hoses

### NA Vehicle Remove Hoses

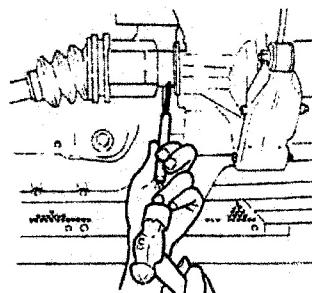


### SC Vehicle Remove Hoses



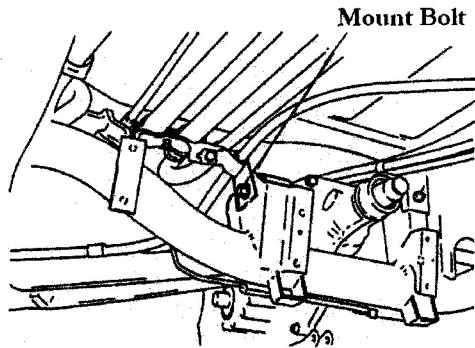
(21). Remove L & R Axel Shafts from Tranny

**Caution:** Be Careful Not to Damage Boots

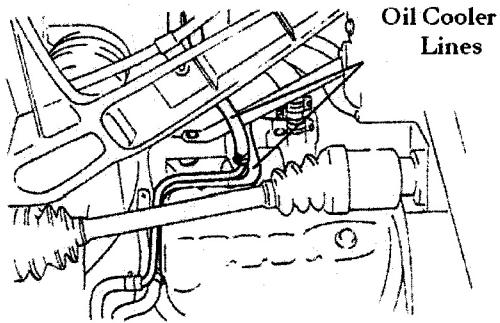


## Engine Removal

(22). Remove Front Mount Bolts

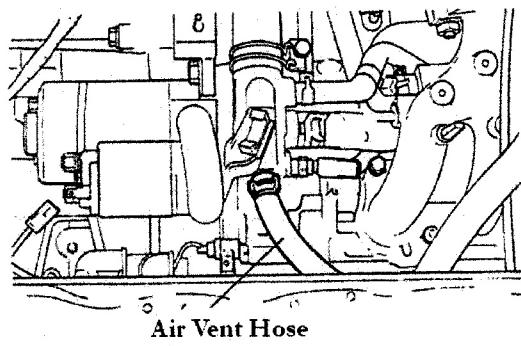


(23). ECVT Vehicle: Make Sure (2) Engine Oil Cooler Lines are Disconnected

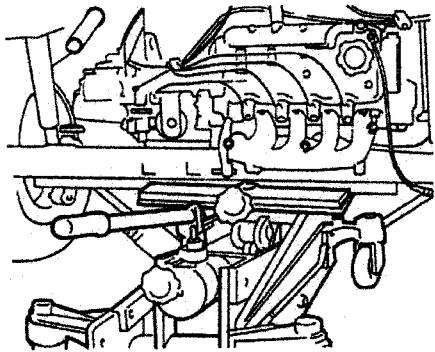


(24). Lower Vehicle

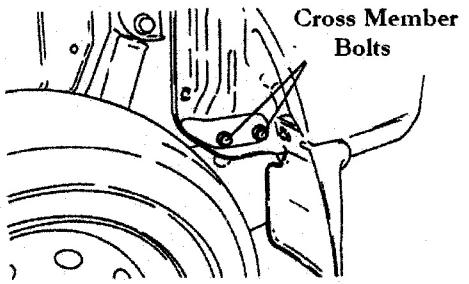
(25). Remove Radiator Vent Hose from Engine



(26). Place Engine Jack Under Engine



(27). Remove Engine Cross Member Bolts (4)



(28). Remove Engine and Cross Member Combined.

