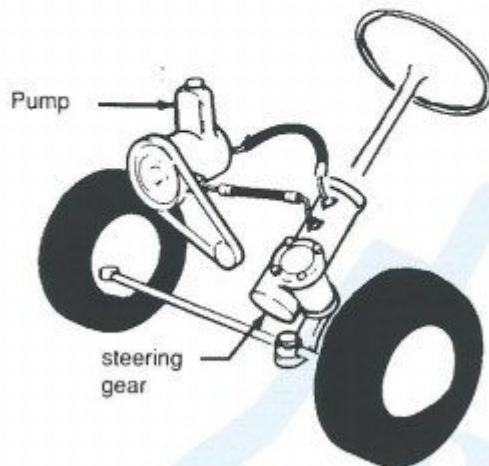
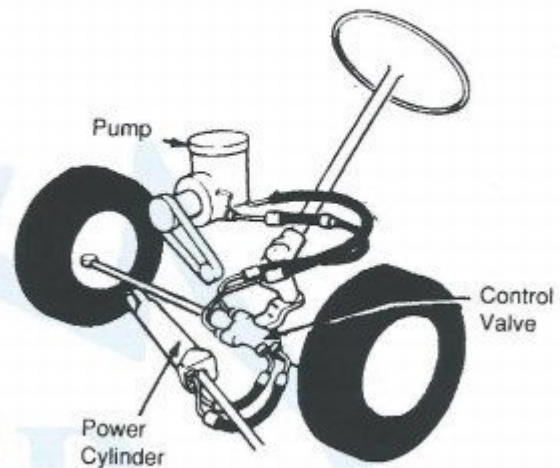


## POWER STEERING SYSTEMS

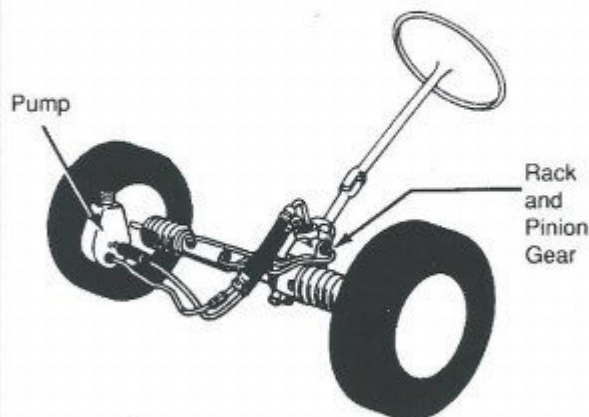
### INTEGRAL SYSTEM



### LINKAGE SYSTEM



### RACK AND PINION SYSTEM



#### Integral System

The Integral System consists of a power steering pump, pump reservoir, pressure and return hoses and a steering gear. The Integral System was the most popular system used between 1960 and 1985, and is still in use today. The name Integral is derived from the design feature of integrating the power cylinder function and the control valve function along with the gear function in the same housing. The integral system uses the parallelogram linkage design.

#### Rack and Pinion System

The Rack and Pinion System is similar to the Integral System because the power cylinder function, control valve function and gear function are in the same housing. The name Rack and Pinion is derived from the use of a pinion gear and a rack gear. This is the most compact system requiring fewer linkage parts resulting in a substantial weight savings. This system is becoming very popular, especially with front wheel drive vehicles. This is the system of the future.

#### Linkage System

The Linkage System is the oldest of the power steering systems. It consists of a power steering pump, a control valve, power cylinder, steering gear, pressure and return hoses and cylinder hoses. The name Linkage System derives from the separate power cylinder, control valve and gear functions linked together through mechanical and hydraulic devices. This system uses the parallelogram linkage design and consists of the highest number of components. The Linkage System was used through the seventies.