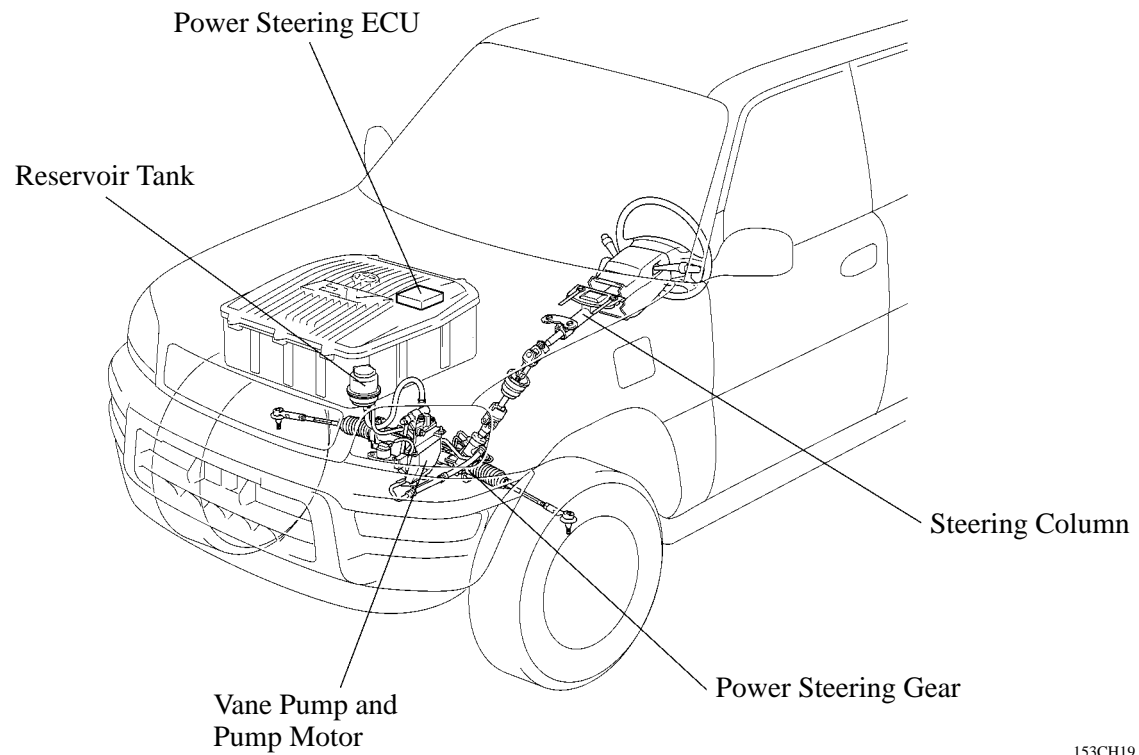


## STEERING

### DESCRIPTION

- A rack and pinion type steering gear box is used.
- An EHPS (Electro-Hydraulic Power Steering) is used.
- The steering column has adopted an energy absorbing mechanism that uses an energy absorbing plate.



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### ► Specifications ◀

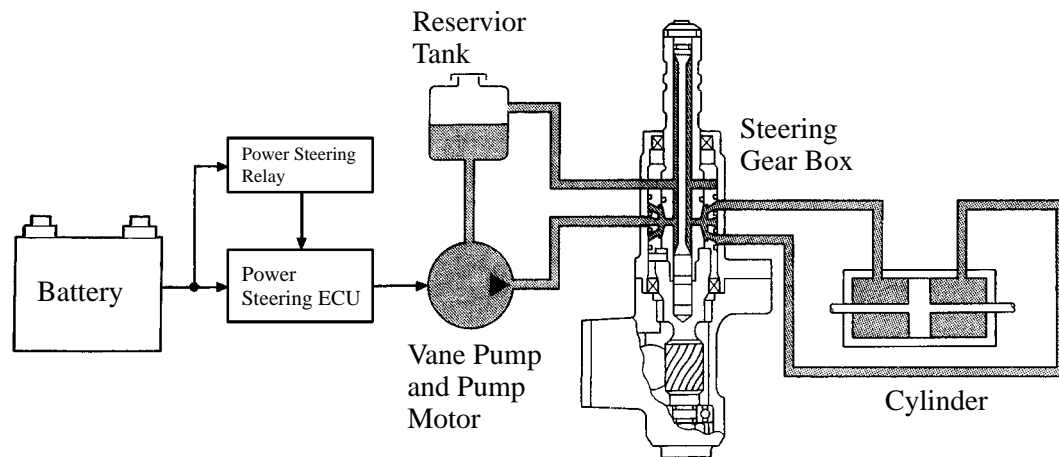
Gear Ratio (Overall)		18.1
No. of Turns Lock to Lock		3.27
Rack Stroke	mm (in.)	128 (5.04)
Fluid Type		TOYOTA POWER STEERING FLUID EH or Equivalent

## ■ EHPS (ELECTRO-HYDRAULIC POWER STEERING)

### 1. General

The EHPS uses the power steering ECU to control the electric motor and drives the vane pump to generate the hydraulic pressure that is needed for the power assist.

### 2. System Diagram



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### 3. Function of Major Components

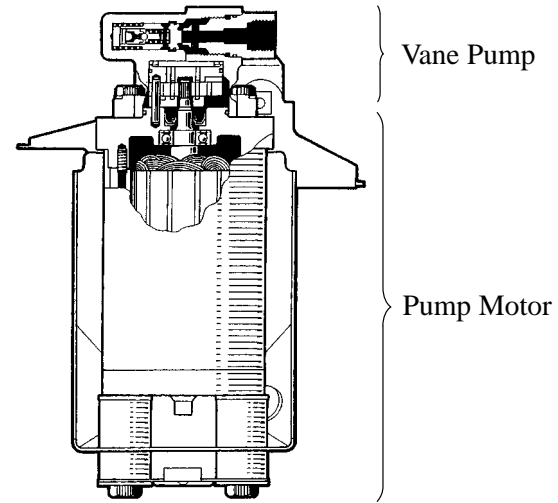
Components	Function
Vane Pump and Pump Motor	The pump motor drives the vane pump to generate the hydraulic pressure that is needed for the power assist.
Power Steering ECU	Protects the system by detecting any malfunction.
Power Steering Relay	Supplies power to the pump motor.

## 4. Construction and Operation

### Vane Pump and Pump Motor

The vane pump is the type that is driven by an electric pump motor that is installed at the bottom of the pump.

The pump and the motor are the highly efficient type that reduces the consumption of electrical power.



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### Power Steering ECU

The power steering ECU is integrated in the power control unit box.

To protect the pump motor and the power steering ECU from overheating, a thermistor is used to monitor the temperature. If the temperature exceeds the predetermined value, the current that is supplied to the pump motor is shut off.

When this occurs, the vehicle's steering operates as a manual steering system.

After some time elapses and the temperature of the pump motor and the power steering ECU becomes lower than the predetermined value, the current to the pump motor is applied again, thus reinstating the power steering function.

No warning light has been provided.

## TIRES

### ■ DESCRIPTION

Low rolling resistance tires (195/80R16 size) are used.