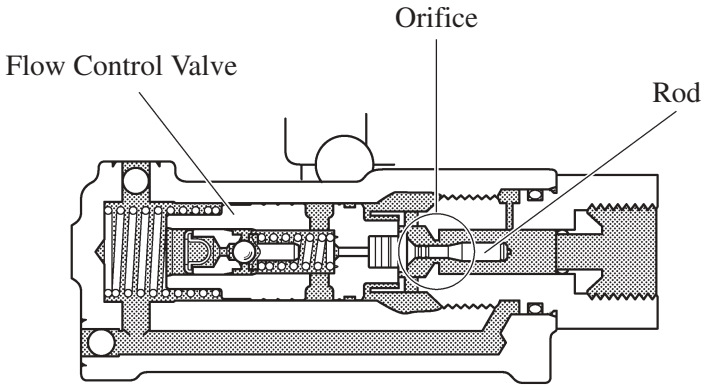
■POWER STEERING VANE PUMP

1. Construction

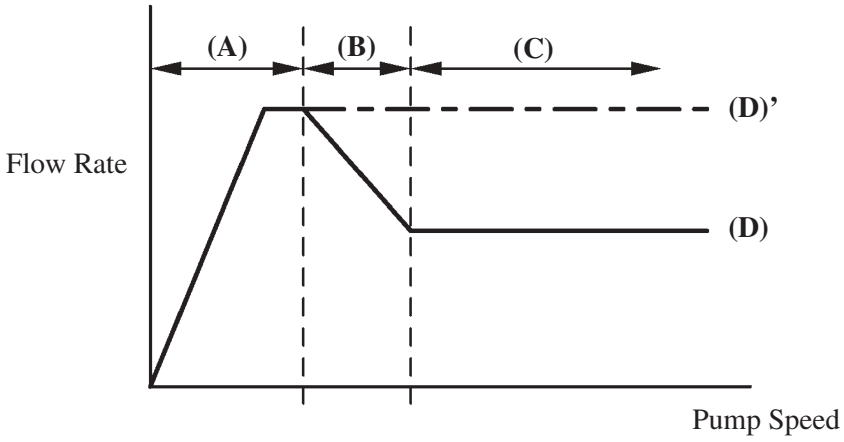
The rod type flow control valve, which adjusts flow rate according to the pump speed and load by moving the inside rod to change the opening area of the orifice, is used in this pump.



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2. Operation

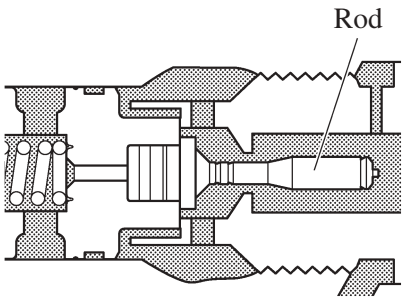
▶ Flow Rate Characteristics ◀



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At Low Pump Speed Range (A)

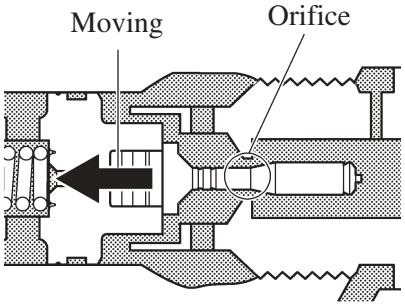
The flow rate increases proportionally to pump speed.



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At Middle Pump Speed Range without Steering (B)

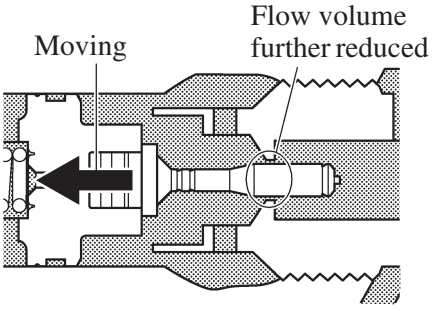
The flow control valve moves to the left, the flow rate is decreased due to reducing of orifice area, which related to the rod shaft diameter at each certain position.



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At High Pump Speed Range without Steering (C)

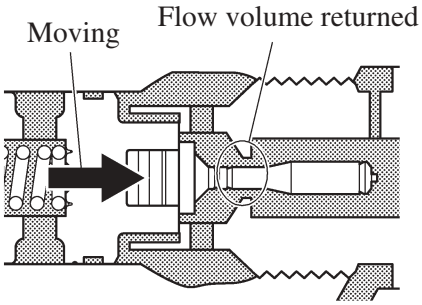
The flow control valve moves further to the left, flow rate is further reduced by maximum rod shaft diameter.



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During Pressure Loading (D → D')

When operating the steering in the middle or high pump speed range, the pressure inside the vane pump is increased pushing the flow control to moves back to the right which is result in increasing of the flow rate.



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