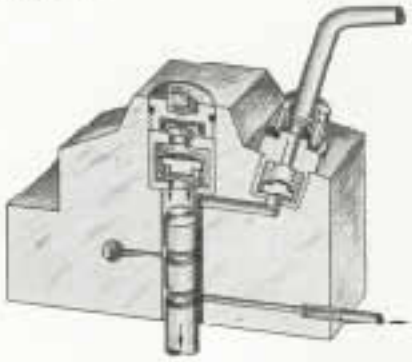
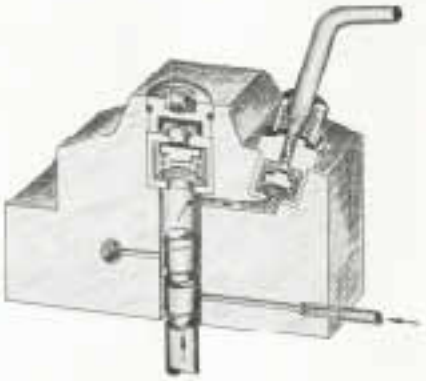
Fuel Delivery

The fuel fed to the injection pump is kept under constant pressure with the aid of the pressure maintenance valve, which also takes up all pressure variations before the suction valves.

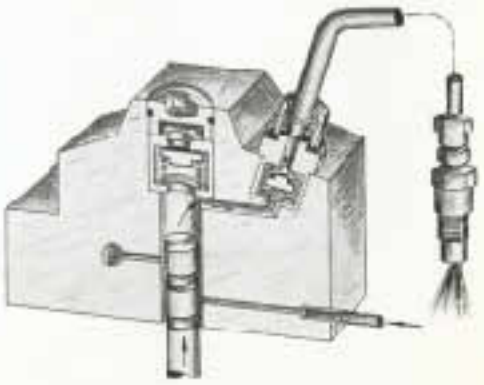
The fuel enters the high pressure chamber during the downward travel of the plunger (suction stroke) by way of gravity feed.



When the plunger arrives at its lower rest position the suction valve is shut by force of the suction valve spring.



When the plunger starts to travel upwards, pressure is built up whilst the suction valve, which is now kept shut not only by force of a spring but also by the increasing pressure, prevents the fuel from flowing back to the suction chamber. As a result of the increasing pressure the spring-loaded delivery valve now opens the passage to the injection pipe through which the pressure is transferred to open the injector the very moment 'opening pressure' is reached. Injection begins.



During the entire upward travel of the piston fuel is delivered (delivery stroke).