

### Design of Injection System

The complete assembly consists of:  
injection pump with control gear  
cold starting device  
automatic choke  
injector  
feed pump with pre- and fine filter

Please find hereunder a description of aforementioned parts/components:

#### Injection Pump with Control Gear

The injection pump comprises the following sub-assemblies:

Pump housing with  
camshaft with built-in revolution counter sending unit  
tappet rods with tappet springs  
three-dimensional control cams  
governor gear and spring  
control cam actuated rocker mounted on eccentric shaft.

Pump body with  
plungers and plunger springs  
suction valves  
delivery valves  
fuel pressure maintenance valve.



#### Operation of Injection Pump

##### Drive of Plunger

The travel of tappet rod is determined by the shape of the cam which ensures TDC position over wide angular range. Down travel of the plunger equals that of the tappet rod up to lower rest position of the plunger. Whilst the tappet rod follows the cam, the plunger rests on the control cam actuated rocker. When the tappet rod travels up again the plunger is likewise carried up again until it arrives at TDC.