

The KUGELFISCHER petrol injection pump of the PL 0 series represents the result of further development of the PL 00 series, tried and tested in over 150 000 applications. The principles of the PL 00 pump were maintained, since these had been proven good after being tested in the harshest operating conditions, in car and boat racings, in rallies, in the tropics, in deserts and in normal service under ordinary conditions. The new PL 0 pump does, however, incorporate a number of important improvements and thus meets modern requirements even better. The new pump is also a step in the direction of introducing petrol injection on a broad basis as a means of improving the fuel/air mixture and thus combustion itself.

The increased timing speed and the precise operation of the governor enable the programmed fuel-air ratio to be kept within narrow limits so that the existing exhaust gas regulations in the USA and those planned in Europe (California Test and European Driving Cycle respectively) can be met without additional equipment being required.

The pump itself is completely maintenance-free.

Great efforts have been made components much smaller and decrease their in number. This affords the advantage of low weight and small volume.

Further advantages and features of the PL 0 pump, which have been taken over from the PL 00 series, are as follows:

The in-line pump with programmed stroke control guarantees equal metering of the fuel quantity for each cylinder.

Since the injections follow the firing order of the engine, the fuel can be injected either into the intake pipe or directly into the cylinder, whichever is preferred.

Metering of the injected fuel quantity is done without lag and this is achieved by way of a direct connection between the control cam of the injection pump and the throttle valve as well as with the aid of a magnetic turbulence generator which corrects the injected fuel amount in dependence on the speed of the engine.

This design obviates the need for a special device for acceleration.

The control cam, which has been designed according to the engine characteristics, determines the optimal fuel amount for each throttle valve position and every speed.

During downhill runs, when the accelerator pedal is in idling position, the fuel supply is entirely cut-off above a certain engine speed.

The automatic cold starting device guarantees good starting response even at lowest temperatures.

The automatic choke, which is controlled by the temperature of the cooling water, ensures smooth engine running before operating temperature has been reached.

Since in KUGELFISCHER injection systems even the smallest injection amount is exactly metered, jerk-free driving in direct gear even at low speed is as easy as smooth and swift acceleration.

There are also the well-known advantages of increased output at decreased specific fuel consumption.

PL 0 KUGELFISCHER petrol injection pumps are available for supply as 4- or 6-cylinder units and may be used also in turbo-charged engines as well as marine and aero engines.