DIPACO now has available the plunger and barrel for building Power Stroke pre-injection metering (PRIME) or split-shot injectors. The part number is DPE06060/31.


PRIME injectors prolong the injection time to decrease emissions without reducing power. Fuel is delivered to the injector past a check valve in the same manner as in standard injectors. As the intensifier piston is forced down the fuel is pressurized and the check ball in the barrel is lifted off its seat and fuel injection begins. Cut into the plunger is a groove which receives fuel through bleed holes at the end of the plunger as the fuel is pressurized. As the piston travels down the groove aligns with a port in the barrel. When this happens, pressure drops below the piston, the check ball re-seats, and injection is suspended. As the plunger travels further, the port in the injector is covered and fuel injection recommences.

The DPE06060/31 P&B group includes the plunger and barrel as well as the check ball, retaining spring, plunger spring, plunger retaining washer, and retaining ring to insure correct operation. The plunger and barrel are matched under very close tolerances and must not be interchanged with other P&B assemblies. Each P&B group is tested at the time of manufacture and made up of all new parts.

The picture to the right shows the plunger with the groove and bleed holes at the end as well as the port in the barrel.