

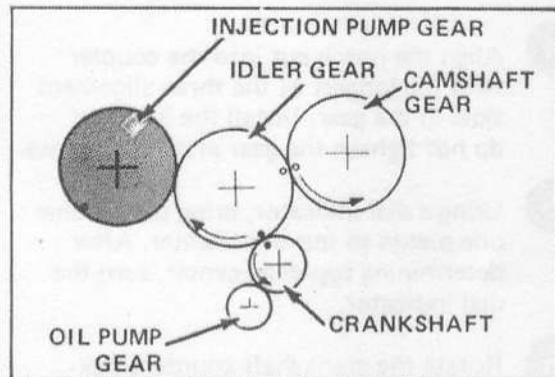
## ADJUSTMENTS

### Gear and Injection Pump Timing

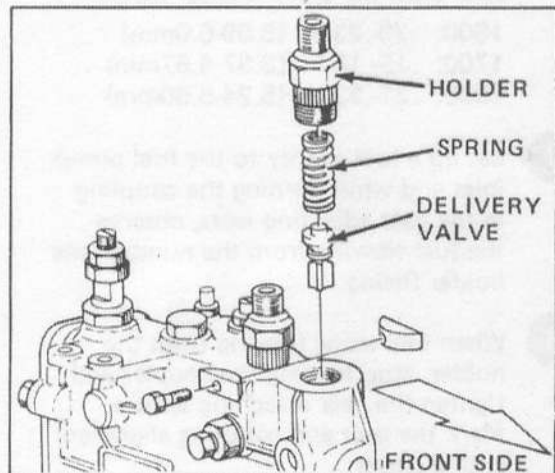
Models 1500, 1700 and 1900

Installing New Pump Coupling or Pump Gear-To-Coupling Alignment Mark Not Present

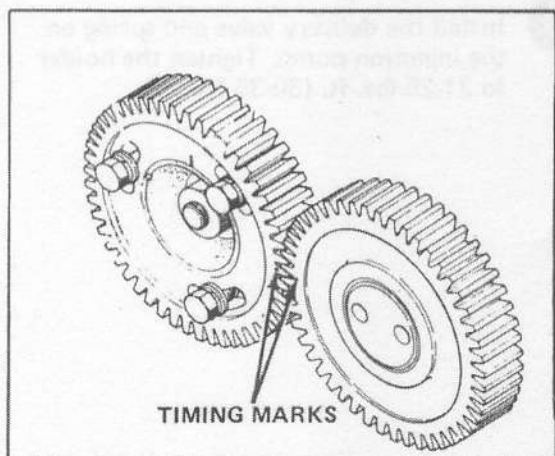
- 1 Install and time the idler gear to the crankshaft and camshaft as outlined under "Coupling and Gear With Alignment Marks" (steps 1-8).



- 2 Remove the delivery valve and spring from the injection pump number one holder fitting. After removing the valve and spring, install the holder finger tight.



- 3 Rotate the crankshaft counterclockwise until the idler gear-to-crankshaft timing mark will align with the timing mark on the injection pump gear.



ADJUSTMENTS

Gear and Injection Pump Timing

Models 1500, 1700 and 1900

Installing New Pump Coupling or Pump Gear-To  
Coupling Alignment Mark Not Present (Continued)

- 4 Align the notch cut into the coupler with the longest of the three alignment slots in the gear. Install the idler but do not tighten the gear attaching screws.
- 5 Using a dial indicator, bring the number one piston to top-dead-center. After determining top-dead-center, zero the dial indicator.
- 6 Rotate the crankshaft counterclockwise until the dial indicator reads:  
1500: .20-.23 in. (5.09-6.0mm)  
1700: .15-.18 in. (3.87-4.67mm)  
1900: .21-.22 in. (5.24-5.60mm)
- 7 Set up a fuel supply to the fuel pump inlet and while turning the coupling in the gear adjusting slots, observe the fuel flowing from the number one holder fitting.
- 8 When fuel stops flowing from the holder, stop turning the coupler and tighten the gear attaching screws. Mark the gear and coupling alignment with a chisel.
- 9 Install the delivery valve and spring on the injection pump. Tighten the holder to 21-25 lbs.-ft. (30-35 N·m).

