



Did YOU know?

Trident Air Primer

The widespread use of air operated priming devices begins with the arrival of the 2018 Freightliner Tankers and 2018 Pierce Engines. Prior to these apparatus the rotary vane electric powered primer was standard.

The Trident Air Primer has the following features:

- Uses chassis air supply from engine driven air compressor
 - * No electric motor, solenoid valve, or heavy battery cables
- Design allows continuous primer operation – no motor or mechanical components to overheat
- Vacuum produced by venturi action within primer body



Controller - Automatic System

The automatic system monitors the discharge pressure near the pump impeller and automatically engages the main pump primer when conditions indicate a loss of prime. The automatic system only evacuates air from the main pump housing.

There are three conditions that must be met for the auto primer to engage:

1. The pump is in gear and the OK to PUMP light is illuminated
2. The auto primer control button is in the "AUTO PRIME" position and the light is illuminated
3. The pump discharge pressure in the main pump body drops below 20psi

The manual system requires the operator to physically engage the primer much like traditional rotary vane primers. Instead of a pull handle, the air primer has a push button controller to operate the primer. The operator simply depresses the desired primer button to engage the primer and releases the button to disengage the primer. Unlike traditional mechanical primers, there is no time limitation when engaging the air primer.

A combination system includes an automatic system on the main pump with manual priming mechanisms on individual intakes. The primers on the individual intakes are located on the outboard side of the intake valve, so the intake may be primed prior to opening. The presence of individual intake primers replaces the 4-way priming selector that was present on the Crimson engines.



Controller - Manual System

Members are encouraged to seek additional information at the Driver Training website.