

## Wiggins Installation Information 4

### High Tank Installation

Where the fuel tank is too high for the receiver to be located near the bottom of the tank, or where the tank itself is inaccessible, it is necessary to plumb a fill line between the tank and the receiver. We do not recommend use of less than a 2" nominal line size pipe. The following must be considered with high tank installations:

- Specific gravity of diesel fuel #2 is approximately 0.90. The conversion of this to head pressure is 0.390 psi per foot of height.
- Approximately 100 GPM, a 2" nominal line size pipe has a pressure drop of 0.084 psi per foot of pipe; a 45° elbow has 0.235 psid; a 90° elbow has 0.436 psid.
- The ZZ9A nozzle will automatically shut off at approximately 5.5 psi.
- To avoid special installations, elbows in the fill line should be kept to a minimum. The following information is useful to approximate pressure build up.

With diesel #2 static head pressure = 0.390 psi/ft height, therefore:

6 feet head height = 2.34 psi

12 feet head height = 3.90 psi

At 100 GPM flow with nominal line size pipe:

Each 12" of pipe = 0.084 psi pressure drop

Each 45° elbow = 0.235 psi pressure drop

Each 90° elbow = 0.436 psi pressure drop

Example:

Tank Height = 6' = 2.34 psi

Length of Pipe = 5' = (5 x .084) = .42 psi

1 45° Elbow = .235 psi

Total Pressure Build Up = 2.995 psi

Note: Pressure build up should not exceed 5.5 psi.

If fuel tank is too high or system is marginal and premature shut off occurs, check with factory.

#### Nozzle Operation

Grip nozzle by handling loop. With fingers, move actuating ring rearward and remove dust plug. Actuating ring will remain back in what could be described as the "cocked position".

Be certain nipple is clean (by wiping with cloth), then push ZZ9A nozzle onto nipple until nozzle bottoms out and actuating ring moves forward (unlocks) locking nozzle on nipple.

Note: Mechanism may trip before nozzle is on far enough to lock. If this occurs, pull back on actuating ring, relocking the latching mechanism. **DO NOT FORCE OR POUND ONTO NOZZLE - RECOCK LATCHING MECHANISM.** Push nozzle onto nipple and allow to latch.

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