# Springdale Fire Department
## Policy & Procedures Manual
### Volume 5 – General
### Section 501 – Miscellaneous
### 501.7 – Apparatus Weekly Pump Check

Following the routine daily check and the weekly maintenance check, the apparatus pump check will be performed on a weekly basis. During this pump check process, discharge pressures should never exceed 250 psi.

- Set wheel chocks.
- If equipped with a manual pump panel throttle control.
  - Manipulate throttle to assure that the engine rpms reach the rated engine governed speed (plus or minus 10% of rated engine speed).
  - Reduce engine rpms to 1500 conventionally (turning throttle control).
  - Reduce engine rpms to idle speed by using the emergency throttle stop (depress center button of throttle control).
- If equipped with an electric pressure governor control (electric throttle).
  - Manipulate throttle switch to assure that the engine rpms reach the rated engine governed speed (plus or minus 10% of rated engine speed).
  - Manipulate throttle switch to reduce engine rpms to 1500.
  - Reduce engine rpms to idle speed by using the emergency shut down switch (depress red emergency shut down button).
- Engage fire pump.
  - Assure all indicating light systems are operating (Pump Engaged, OK to Pump, OK to Open Throttle Light on pump panel, Foam and Water Tank Level Lights).
- Monitor pump panel tachometer, engine oil pressure gauge, engine water temperature gauge, and pump hours gauge throughout the exercise and check process.
  - Assure that pump panel gauges read equally with the dashboard gauges (plus or minus 10% differential of dashboard gauges).
- Exercise primer valve and assure pump is properly and completely primed.
  - Tank to pump line open.
- Increase net pump discharge pressure to 150 psi.
  - Check all line discharge gauges to assure that none show pressure (unless discharge valve is open).
- Open valves on all discharge lines that are either capped or terminated with a gated wye or that can be capped.
  - Open engine cooler valve.

- Assure that all charged discharge gauges read equally with the master discharge gauge (plus or minus 10% differential of master gauge).

- Open tank refill line sufficiently to prevent pump overheating.
  - Do not overpressure tank refill line.

- If equipped with a pressure relief valve.
  - Remove pressure relief valve strainer, clean strainer screen if necessary.
  - Activate and Deactivate pressure relief valve control switch while strainer is removed to clear any debris from line, reinstall strainer.
  - Manipulate setting of relief valve throughout operating range from lowest to highest pressure setting.
  - Adjust net pump discharge pressure accordingly to allow for operation of pressure relief valve.
  - Assure pressure relief valve indicating lights are operating (Open, Closed).
  - Re-Set pressure relief valve at desired pressure.

- If equipped with pressure governor (instead of pressure relief valve).
  - Switch from Throttle Control to Pressure Control.
  - Assure indicating lights are operating (Throttle, Pressure).
  - Set net pump discharge pressure at 150 psi.
  - Close and open tank refill line to assure the pressure governor maintains net pump discharge pressure.

- Exercise all discharge valves that are charged.
  - Fully open and close valves a minimum of three times.
  - Clean discharge valve control rods.

- Close all discharge valves and Tank Re-Fill Valve.

- Manipulate pump transfer switch (if equipped with pressure governor, switch to Throttle Control).
  - Assure indicating lights are operating (Pressure, Volume).
  - Assure net pump discharge pressure adjusts according.
    - Switching from Volume to Pressure should approximately double net pump discharge pressure.
    - Switching from Pressure to Volume should approximately reduce pump discharge pressure by 50%.
    - Re-Set transfer switch to Volume.

- Perform high net pump pressure test.
  - Confirm that all discharge valves are closed, including tank re-fill.
  - Assure pump can develop 250 psi static discharge pressure in both volume and pressure modes.
  - Re-set pump setting to volume position.
  - Reduce engine to idle speed.

- Disengage Fire Pump.
  - Assure apparatus transmission shifts completely from pump mode to road mode.
- Exercise all valves that were not exercised while pump was engaged.
  - Deck Gun, Pre-connected lines, Gated Wyes, Intake Valves.
    - If applicable: Aerial Discharge, Eductor Valve.
  - Fully open and close valves a minimum of three times.
  - Clean discharge valve control rods.
- Exercise all Drain Valves.
  - Master pump drain.
  - Intake drains.
  - Relief valve.
  - Discharge drains, including aerial drain (if applicable).
- Reset pump settings and serviceability.
  - Assure all valves and controls are reset to road ready position.
  - Refill water tank (if necessary).