

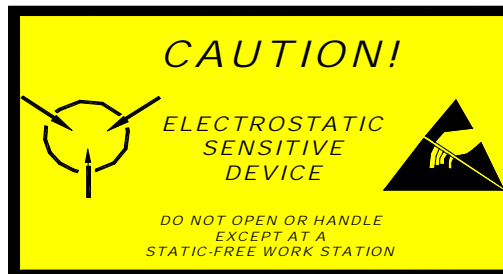


06-015A

16 November, 2006

## **CORRECTIVE ACTION FOR "STALLING" PU-20 PUMPS**

- I. PURPOSE:**  
To provide guidance to eliminate physically having to turn the PU-20 pump fan to get the pump to start up.
- II. TOOLS:**  
Flat Head Screwdrivers  
Phillips Head Screwdrivers
- III. PARTS:**  
None



The electronics used in T-API analyzers are sensitive to Electrostatic Discharge (ESD). When working on any T-API device, please ensure that you are properly grounded prior to handling or touching any electronic circuitry in the analyzers! For more information on how to protect sensitive components from ESD during handling, please contact T-API customer service and ask for the ESD Service note number 03-022A.

- IV. PROCEDURE:**
1. Disconnect the analyzer from its power source.
  2. Remove the top cover of the analyzer.
  3. Locate the internal PU-20 pump (\*Note in the M401 there are two pumps, the smaller pump is the photometer pump that has the 800cc critical flow orifice attached to it).
  4. Note the orientation of the INTAKE and EXHAUST ports on the top of the pump.

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5. Remove the four (4) screws that hold the pump head to the body.
6. Remove the pump head to expose the diaphragm and the diaphragm clamping screw.
7. Physically turn the fan on the end of the pump until the piston is at its highest point in its rotation (Top Dead Center position or TDC). (TDC is indicated when the COUNTER WEIGHT on the CONNECTING ROD is pointing straight down toward the base plate.)
8. While holding the fan to keep the piston at TDC, reinstall the pump head insuring that the INTAKE and EXHAUST ports are in the same positions as they were when the pump head was disassembled.
9. Reconnect the power source.
10. Test the pump by energizing the analyzer and looking for the fan on the end of the pump to turn.
11. After a successful test of the pump, disconnect the analyzer from the power source again.
12. Replace the top cover of the analyzer.
13. Return the analyzer to service.

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