FOAM START-UP PROCEDURE
MAIN PUMP & JOCKEY PUMP

By: __________________

Customer: ______________________________________ Date: __________

Job No.: __________________________ Pump Model No.: ____________

Pump Description: ___________________________ Serial No.: _________

Design Conditions: ______________ GPM ______________ PSI

Motor Horsepower: _______________ Voltage: ______________

RPM: ___________________________ Test Site Location: __________________

City/State: _______________________________________________________

Contractor: _________________________ Contact: _______________________

-----------------------------------------------------------------------

A. Inspect installation of all pumps. _____ Initial

B. Check to make sure all skids are properly anchored to the floor. _____ Initial

C. Check to make sure all piping is supported and not being supported by the pump. _____ Initial

D. Check the alignment of all pumps after the contractor has anchored the skid and realigned the pumps. _____ Initial

E. Check to make sure all pumps turn by hand. _____ Initial

F. Check supply voltage to control panel of each pump. _____ Initial

G. Bump each pump to check rotation of pump. _____ Initial

H. Check for correct relief valve setting and plumbing. _____ Initial

I. Complete foam pump and controller test sheets (see attached). _____ Initial

J. Check for any leaks or abnormalities before and during operation. _____ Initial

K. Witness contractor’s sprinkler tests. _____ Initial
FUNCTIONAL TEST PROCEDURE
FOR ELECTRIC MAIN FOAM PUMP AND CONTROLLERS

Test Location:______________________________________________________

City/State:_________________________________________________________

Pump Rep.:_____________  Date of Test:__________   Job No.:__________

Model No.:________________________ Serial No.:_______________________

Pump Controller Model No.: __________________________________________

Controller Serial No.:_________________________  Unit Ratings:__________

1) Verify correct operation of controller and rotation of pump driver. _____ Initial

2) Measure and record voltage and amperage at various loads (see attached sheet).

3) Read and record reduced voltage sequencing timer setting (if applicable). _____ Seconds

4) Read and record sequential start timer setting (if applicable). _____ Seconds

5) Read and record minimum run timer setting. _____ Minutes

6) Read and record minimum run timer shutdown mode.

7) Perform 10 automatic starts. _____ Initial

   1  2  3  4  5  6  7  8  9  10

8) Perform 10 manual starts. _____ Initial

9) Verify controller operation by lowering system pressure

   until pump starts. _____ Initial

   Read and record pressure switch start setting:______________.

   Read and record pressure switch stop setting:______________.

10) At the direction of the person conducting the test, determine the condition the

    controller should be left in at the end of the test.

    Circle One:       ON       OFF
FUNCTIONAL TEST PROCEDURES
FOR JOCKEY FOAM PUMP AND CONTROLLERS

Test Location:_____________________________________________________

City/State:__________________________________________________________

Pump Rep.:_________  Date of Test:__________   Job No.:__________

Model No.:________________________ Serial No.:_______________________

Controller Serial No.: ________________________________________________

Options:________________________________________________________________

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1)  Verify correct operation of controller and rotation of pump driver.  ____ Initial

2)  With pump under load condition, measure and record:

    Line Voltage L1-L2:_____________________________Volts AC.
    Line Voltage L2-L3:_____________________________Volts AC.
    Line Voltage L1-L3:_____________________________Volts AC.

    Line Amperage L1:______________________________Amps AC.
    Line Amperage L2:______________________________Amps AC.
    Line Amperage L3:______________________________Amps AC.

-----------------------------------------------------------------------------

3)  Verify controller operation by lowering system pressure until
    pump starts.  ____ Initial

    Read and record pressure switch start setting:_______________.
    Read and record pressure switch stop setting:_______________.

4)  At the direction of the person conducting the test, determine the condition the
    controller should be left in at the end of the test.

    Circle One:           HAND               OFF               AUTO
FUNCTIONAL TEST PROCEDURE
FOR AUTOMATIC TRANSFER SWITCHES

Test Location:______________________________________________________
City/State:_________________________________________________________
Pump Rep.:_____________  Date of Test:__________  Job No.:__________
Firetrol Model No.:__________________________________________________
Unit Serial No.:_______________________  Unit Ratings:__________________

1) The flange mounted test switch should be used to simulate a loss of normal
   power. This will cause the generator to start and take the load of the fire
   pump. This test should be done while the pump is running at rated load.
   ____ Initial

2) At least half of the manual and automatic operations of the fire pump
   controller should be performed while on emergency power.
   ____ Initial

3) Verify correct sequence of operation on transfer back to normal power.
   ____ Initial
MOTOR PERFORMANCE RECORD
FOR ELECTRIC FOAM PUMP

Test Location: ________________________________________________________

Date of Test: _____________________  Job No.: ____________________

Notes:________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

Motor Rated at ____________ FLA, and _______________ Locked Rotor.

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<tr>
<th>PUMP CONDITION</th>
<th>VOLTS A-B</th>
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PRE-START CHECKLIST
FOR DIESEL FOAM PUMP ENGINES

Test Location:______________________________________________________
City/State:_________________________________________________________
Pump Mfg.:_____________  Date of Test:__________   Job No.:__________
Model No.:________________________ Serial No.:_______________________
Engine Serial No.: ________________________________________________
Options:________________________________________________________________

1) Check engine oil level. ____ Initial
2) Check radiator level. ____ Initial
3) Check for leaks in the following areas:
   Oil drain plug. ____ Initial
   Fuel line connections. ____ Initial
   Coolant connections and drain plug. ____ Initial
4) Visually check engine and controller for loose cables, wires,
   fittings, and any physical damage. ____ Initial
5) Verify adequate fuel supply for test. ____ Initial
6) Purge air from fuel system. ____ Initial
7) Verify controller is off and cannot start. ____ Initial
   Connect batteries and energize chargers. ____ Initial
8) Push emergency run fuel operator in. ____ Initial
9) Confirm with pump representative that pump is wet, aligned
   and system is ready to operate.

Proceed to Functional Test Procedure for Diesel Fire Pump Controllers.
FUNCTIONAL TEST PROCEDURE
FOR DIESEL FOAM PUMP AND CONTROLLERS

Test Location:______________________________________________________
City/State:_________________________________________________________
Pump Rep.:___________ Date of Test:___________ Job No.:___________
Model No.:________________________ Serial No.:_______________________
Controller Serial No.: ______________________________________________
Options:________________________________________________________________

--------------------------------------------------------------------------------------------------------------------------------

1) Verify controller operation by lowering system pressure until
   pump starts. ____ Initial
   Read and record pressure switch start setting:_______.
   Read and record pressure switch stop setting:_______.
2) Read and record sequential start timer setting. ____ Seconds
3) Read and circle minimum run timer shutdown mode.
   5 minutes                     30 minutes                     NONE (manual shutdown)
4) Perform 10 automatic starts. ____ Initial
   Allow engine to run at full speed for 5 minutes/start.
   1           2           3           4           5           6           7           8           9           10
5) Perform 10 manual starts. ____ Initial
   Allow engine to run at full speed for 5 minutes/start.
   Alternate battery banks to allow 5 starts/bank.
   1           2           3           4           5           6           7           8           9           10
6) Verify alarm outputs for engine running, engine trouble, and
   main switch mis-set. ____ Initial
7) Verify correct operation of any additional alarms. ____ Initial
8) **Main engine alarm tests** - for each of the following three tests, the controller
   should be placed in automatic and the engine started using the “test” push
   button.
Verify correct operation of the following alarm inputs using jumpers and/or engine manufacturer’s test switches:

- Low oil pressure
- High water temperature
- Overspeed
- Low radiator level (FTA4000 ONLY)

The first three conditions should cause an engine shutdown if the controller is in a test mode.
Tests Passed. _____ Initial

9) **Crank cycle timer test** – to be performed only at the request of the authority having jurisdiction.

*For the following test, disable the engine-mounted starter to allow repeated operation of the starting contractors without cranking the engine.
*Place the controller in automatic and press the “test” push button.
*The crank cycle timer should attempt to crank the engine for a period of 15 seconds followed by a 15-second rest period. The starting attempts should be on alternating battery banks and should repeat 3 times for each battery bank.
*At the end of the test, the controller should lock out the starter, and light the “failed-to-start” indicator and sound the audible alarm.
*Re-connect the starter.
Tests Passed. _____ Initial

10) Set weekly test timer per customer request.
Record test date and time:__________________________________________

11) At the direction of the person conducting the test, determine the condition the controller should be left in at the end of the test.
Circle One: MANUAL OFF AUTOMATIC
ENGINE PERFORMANCE RECORD
FOR DIESEL DRIVEN FOAM PUMP

Test Location:______________________________________________________
Date of Test:________________________  Job No.:____________________
Notes:____________________________________________________________
__________________________________________________________________
__________________________________________________________________
Unit Rated at:____________________ HP at________________________ RPM.

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Log oil pressure at start of test:__________________________PSI
Log water temperature at start of test:________________________DEG
Log oil pressure at end of test:__________________________PSI
Log water temperature at end of test:________________________DEG

Log hour meter reading at start of test:____________________HOURS
Log hour meter reading at end of test:____________________HOURS

Total hours run during test:__________________________HOURS