



Fire Protection Training

Procedures Handbook 4300

PUMPING

TOPIC/EQUIPMENT: PUMP FROM DRAFT, CDF ENGINE MODEL #1

CATEGORY: Performance Examination

POINTS POSSIBLE: 100

TIME ALLOWED: 1 minute and 10 seconds

BEHAVIORAL OBJECTIVE:

Condition: A CDF engine Model #1 properly chocked and set up to draft, with spring brake set, transmission in neutral, an empty water tank, a predetermined engine pressure of 150 PSI and the following items and conditions: Tank suction valve open, tank fill valve closed, suction inlet valve closed, a preconnected 100 foot length of 1 ½" or 1 ¾" hose with nozzle attached laying on the ground.

Behavior: The student will: Start the engine, prime the pump, obtain a draft, engage the pump, charge a 1 ½" or 1 ¾" line, and deliver an uninterrupted stream of water to a simulated fire using a drafting tank as a water source. The student will then return the apparatus to its original condition.

Standard: Following steps and procedures, in proper sequence according to the attached score sheet, with a minimum 70% accuracy within 1 minute and 10 seconds.

MATERIALS NEEDED:

- One (1) Model #1 engine with empty water tank
- One (1) 100' length 1 ½" hose or 1 ¾" hose with nozzle and shut off
- Three (3) Lengths hard suction hose
- One (1) Suction hose strainer
- One (1) Shovel
- One (1) 15' Length rope
- One (1) Stop watch
- One (1) Performance exam per student
- Two (2) Red pens for scoring
- One (1) Clip board
- One (1) Tally sheet



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PROCEDURES:

The examination will begin when the student either verbally or by conduct performs any step of the examination. The examination will end when the student either verbally or by conduct indicates the examination has been completed. At this time the evaluator will check to see that the engine pressure is properly set and that valves and controls are in the proper position.

SCORING:

Points will be deducted for each step omitted, performed improperly or performed out of sequence. Lettered procedures may be performed in any sequence within the numbered step without a loss of points. Steps designated by an asterisk (*) must be performed or the student fails the examination. A score of zero (0) will be given if during the examination the student performs any step or procedure that would jeopardize the safety of personnel or the equipment (i.e., tank suction valve not closed, suction inlet valve not opened, no fire stream produced, etc.).

SPECIAL NOTES:

Before the examination begins the student will be allowed to ask any clarifying questions and inspect the equipment. Once the examination begins the evaluator shall not answer any questions or intercede in any way unless safety violations occur that would injure personnel or damage equipment. The engine shall be set up with hard suction hose connected and placed in water source, the water tank empty, and a 1 ½" or 1 ¾" discharge hose connected. The examination will begin with the student, in full wildland safety clothing, seated in the cab of the engine with the door closed and seat belt on.

Score Sheet

PUMP FROM DRAFT – CDF
ENGINE MODEL #1

DATE ____ / ____ / ____ TEST # ____ RETEST # ____ UNIT # ____

STUDENT'S NAME _____

EVALUATOR'S NAME _____

STEPS AND PROCEDURES

POINTS

1. Place foot on service brake	5
2. Start engine and allow it to idle	*
TIME START	
3. Place valves in appropriate positions	*
a. Close tank suction valve completely	*
b. Open suction inlet valve completely	*
c. Turn primer selector to midship position	*
4. Engage primer for no longer than 30 seconds	*
5. Turn primer selector to "OFF" position	*
6. Return to cab and place foot on service brake	5
7. Engage midship pump lever/switch	*
8. Place transmission in 2-4	*
9. Adjust pump panel throttle until transmission shifts into 4 th gear	*
10. Adjust pump panel throttle to indicate 150 PSI (+/- 20 PSI) on the midship pump pressure gauge	*
11. Loudly state "water coming"	5
12. Slowly open discharge valve completely	5

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Score Sheet

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13. Adjust pump panel throttle to indicate 150 PSI (+/- 20 PSI) on midship pump pressure gauge 10

Student raises hands to indicate completion of timed portion of exam. If student has not produced an effective fire stream, a score of "0" will be given.

TIME STOP

ENTER TIME

EXAMINATION CONTINUES BUT IS NOT TIMED

14. Loudly state "Shut Down" 5

15. Slowly close discharge valve completely 5

16. Adjust pump panel throttle until main engine returns to idle 10

17. Return to cab and place foot on service brake 5

18. Shift transmission to neutral 10

19. Disengage midship pump (acceptable to put transmission into reverse then back into neutral for ease in disengaging pump) 10

20. With foot still on service brake, shift transmission into a road gear to be sure pump is disengaged 10

21. Shift transmission to neutral 10

22. Shut off main engine 5

EXAMINATION COMPLETED

Student will open tank suction valve, close suction inlet valve and drain hard suction hose

Score Sheet

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ENTER TOTAL TIME: _____
POINTS POSSIBLE: _____ 100
POINTS DEDUCTED: _____
FINAL SCORE _____

COMMENTS:

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