



# Fire Protection Training

Procedures Handbook 4300

PUMPING

**TOPIC/EQUIPMENT:** PUMP FROM DRAFT, CDF ENGINE MODEL #9, #11

**CATEGORY:** Performance Examination

**POINTS POSSIBLE:** 100

**TIME ALLOWED:** 1 minute (without relief valve)  
1 minute and 15 seconds (with relief valve)

**BEHAVIORAL OBJECTIVE:**

*Condition:* A CDF Model #9 or #11 engine, 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 main 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 without a relief valve, 1 minute 15 seconds with a relief valve.

**MATERIALS NEEDED:**

- One (1) CDF Model #9, or #11 engine with an empty water tank
- One (1) 100' length of 1 ½' or 1 ¾' hose with nozzle and shut off
- Three (3) Sections 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) Clipboard
- One (1) Tally sheet

4314.36.1



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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., no fire stream produced, transmission left in gear, 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 1/2" or 1 3/4" 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 #9, #11

DATE \_\_\_\_ / \_\_\_\_ / \_\_\_\_ TEST # \_\_\_\_ RETEST # \_\_\_\_ UNIT # \_\_\_\_

STUDENT'S NAME \_\_\_\_\_

EVALUATOR'S NAME \_\_\_\_\_

## **STEPS AND PROCEDURES**

## **POINTS**

1. Place foot on service brake

5

2. Start main engine

10

### TIME START

3. Set main engine idle at 1,200 RPM (+/- 200 RPM)

10

4. Close tank suction valve completely

\*

5. Engage primer for no longer than 30 seconds

\*

6. Start pump engine

\*

7. If equipped with pressure relief valve, turn 4-way valve switch to the ON position

\*

8. Adjust pump panel throttle to indicate 100 PSI (+/- 20 PSI) on the pump pressure gauge

\*

9. Loudly state "water coming"

5

10. Slowly open discharge valve completely

5

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

10

12. If equipped with pressure relief valve, set the relief valve at 150 PSI (+/- 20 PSI)

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# Score Sheet

PUMP FROM DRAFT, CDF ENGINE  
MODEL #9, #11

## STEPS AND PROCEDURES

## POINTS

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

13. Loudly state "shut down"

5

14. Slowly close discharge valve completely

5

15. Adjust pump panel throttle until pump engine returns to idle

10

16. Idle pump engine for approximately 30 seconds

5

17. If equipped with pressure relief valve, turn 4-way valve OFF

\*

18. Shut off pump

10

19. Open tank suction valve completely

5

20. Return to cab, place foot on service brake

5

21. Return main engine to idle

5

22. Shut off main engine

5

EXAMINATION COMPLETED

Student will drain hard suction hose

ENTER TOTAL TIME:

POINTS POSSIBLE:

POINTS DEDUCTED:

FINAL SCORE

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# Score Sheet

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**COMMENTS:**

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