



# Fire Protection Training

Procedures Handbook 4300

PUMPING

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

**CATEGORY:** Performance Examination

**POINTS POSSIBLE:** 100

**TIME ALLOWED:** 3 minutes and 40 seconds

**BEHAVIORAL OBJECTIVE:**

*Condition:* A CDF Model #1 engine with a full tank of water, a predetermined engine pressure of 150 PSI and the following items and conditions: Tank suction valve open, tank fill valve closed, 100 feet of 1 ½" or 1 ¾" hose with nozzle attached laying on the ground, a 20 foot section of 2 ½" soft suction hose, a spanner wrench, a hydrant wrench, and a 3" to 2 ½" adapter.

*Behavior:* The student will: Spot the engine at the hydrant, set the spring brake, chock the engine in accord with CDF policy, start the pump, connect the discharge hose to an 1 ½" discharge outlet, apply an uninterrupted stream of water to a simulated fire and change over from using the tank as a water source to using the hydrant 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 3 minutes, 40 seconds

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## **MATERIALS NEEDED:**

- One (1) CDF Model #1 engine with a full tank of water
- One (1) 100' length of 1 ½" or 1 ¾" hose
- One (1) 1 ½" nozzle with shut-off
- One (1) 20' length of 2 ½" soft suction hose
- One (1) Hydrant wrench
- One (1) Spanner wrench
- One (1) 3" X 2 ½" double female adapter
- One (1) Stop watch
- One (1) Score sheet per student
- One (1) Performance examination test cover page
- Two (2) Red pens for scoring
- One (1) Clipboard
- One (1) Tally sheet

## **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. pump engaged before chocks are set, no fire stream produced, tank suction valve closed before hydrant is turned on and or suction inlet valve opened, etc.).

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## ***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 will be equipped with a 20' length of 2 ½" soft suction hose, a 3" to 2 ½" adapter, and a hydrant wrench. A length of 1 ½" or 1 ¾" discharge hose shall be in place near the hydrant. The examination will begin with the student, in full structure fire safety clothing, with the cab door closed and seat belt on, spots the engine at the hydrant and sets the spring brake.

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# Score Sheet

PUMP FROM HYDRANT, CDF  
ENGINE MODEL #1

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

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

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

## **STEPS AND PROCEDURES**

## **POINTS**

1. Spot engine at hydrant	*
2. Shift transmission to neutral	*
3. Set spring brake	*
TIME START	
4. Set chock blocks in accord with CDF policy	*
5. Return to cab and place foot on service brake	5
6. Engage midship pump lever/switch	*
7. Place transmission into 2 – 4	*
8. Adjust pump panel throttle until transmission shifts into 4 <sup>th</sup> gear	*
9. Adjust pump panel throttle to indicate 100 PSI ( $\pm$ 20 PSI) on the midship pump pressure gauge.	*
10. Connect hose to 1 ½" discharge	*
11. Loudly state "water coming"	5
12. Slowly open discharge valve completely	5
13. Adjust pump panel throttle to indicate 150 PSI ( $\pm$ 20 PSI) on the midship pump pressure gauge	10
14. Remove appliances and flush hydrant	

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# Score Sheet

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ENGINE MODEL #1

## STEPS AND PROCEDURES

## POINTS

a. Remove soft suction hose, double female adapter, hydrant wrench, and spanner wrench from engine	*
b. Uncap and flush hydrant	*
c. Unroll the soft suction hose	*
15. Connect soft suction hose to the hydrant and the suction inlet	*
16. Slowly open hydrant completely	*
17. If necessary, remove kinks from the soft suction hose so that an effective fire stream can be maintained	*
18. Slowly open suction inlet valve completely. (Drain valve or primer may be used to exhaust air from the system)	*
19. Simultaneously close tank suction valve and adjust pump throttle to maintain 150 PSI (+/- 20 PSI)	*

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: \_\_\_\_\_

20. Loudly state "shut down"	5
21. Slowly close discharge valve completely	5
22. Adjust pump panel throttle until pump engine returns to idle	10
23. Return to cab and place foot on service brake	5
24. Shift transmission to neutral	10
25. Disengage midship pump (acceptable to shift transmission into reverse then back into neutral for ease of disengaging pump)	10

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# Score Sheet

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## STEPS AND PROCEDURES

## POINTS

- |   |           |
|---|-----------|
| 26. With foot still on service brake, shift transmission to road gear to be sure pump is disengaged, then return to neutral | <u>10</u> |
| 27. Open tank fill valve, refill tank, then close tank fill valve completely  | <u>5</u>  |
| 28. Close hydrant slowly  | <u>*</u>  |
| 29. Open tank suction valve completely  | <u>5</u>  |
| 30. Close suction inlet valve completely  | <u>5</u>  |
| 31. Disconnect soft suction hose from hydrant and from suction inlet  | <u>5</u>  |

## EXAMINATION COMPLETED

Student will drain, roll and replace all hose, return all equipment to the engine, replace all caps, pick up chock blocks and return the engine to the starting point.

**ENTER TOTAL TIME:** \_\_\_\_\_

**POINTS POSSIBLE:** 100

**POINTS DEDUCTED:** \_\_\_\_\_

**FINAL SCORE** \_\_\_\_\_

## COMMENTS:

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