



Fire Protection Training

Procedures Handbook 4300

PUMPING

TOPIC/EQUIPMENT: PUMP FROM HYDRANT, CDF ENGINE MODEL #5

CATEGORY: Performance Examination

POINTS POSSIBLE: 100

TIME ALLOWED: 3 minute and 45 seconds

BEHAVIORAL OBJECTIVE:

Condition: A CDF engine Model #5 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, suction inlet 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 and 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, engage the pump, connect the discharge hose to a 1 1/2" 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. After completing this evolution 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 45 seconds.



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MATERIALS NEEDED:

- One (1) Model #5 engine with full tank of water
- One (1) 100' Length 1 ½" hose or 1 ¾" hose with nozzle and shut off
- One (1) 20' Length 2 ½" soft suction hose
- One (1) Hydrant wrench
- One (1) Spanner wrench
- One (1) 3" X 2 ½" double female adapter
- One (1) Stopwatch
- One (1) Performance exam per student
- 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, transfer case left in gear, no fire stream produced, tank suction valve closed before hydrant is turned on, and/or suction inlet valve opened, 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 will be equipped with a 20' length of 2 ½" soft suction hose, a hydrant wrench and a 3" x 2 ½" double female adapter. A length of 1 ½" or 1 ¾" discharge hose shall be in place of a hydrant. The examination will begin when the student, in full structure fire safety clothing, with the door closed and seat belt on, spots the engine at the hydrant and sets the spring brake.

Score Sheet

PUMP FROM HYDRANT – CDF
ENGINE MODEL #5

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. Shift transfer case to neutral (If equipped with air shift skip this step)	*
7. Engage midship pump lever/switch	*
8. Shift transmission to 4 th or Drive	*
9. Adjust pump panel throttle until transmission shifts into selected gear	*
10. Adjust pump panel throttle to indicate 150 PSI (+/- 20 PSI) on midship pump pressure gauge	*
11. Connect discharge hose to 1 ½" discharge outlet	*
12. Loudly state "Water Coming"	5
13. Slowly open discharge valve completely	5
14. Adjust pump panel throttle to indicate 150 PSI (+/- 20 PSI) on midship pump pressure gauge	10

4314.31.1

Score Sheet

PUMP FROM HYDRANT – CDF
ENGINE MODEL #5

15. Remove appliances and flush hydrant	*
a. Remove soft suction hose, hydrant wrench, 3" to 2 1/2" adapter, and spanner wrench from engine	*
b. Uncap and flush hydrant (If engine is in path of water flow from hydrant, deduct 5 points.)	*
c. Unroll soft suction hose	*
16. Connect soft suction hose to the hydrant and to the suction inlet	*
17. Slowly open the hydrant completely	*
18. If necessary, remove kinks from soft suction hose so than an effective fire stream can be maintained.	*
19. Slowly open suction inlet valve completely. (Drain valve or primer may be used to exhaust air from the system.)	*
20. 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
EXAMINATION CONTINUES BUT IS NOT TIMED	
21. Loudly state "Shut Down"	5
22. Slowly close discharge valve completely	5
23. Adjust pump panel throttle until main engine returns to idle	10
24. Return to cab and place foot on service brake	5
25. Shift transmission to neutral	10

4314.31.1

Score Sheet

PUMP FROM HYDRANT – CDF
ENGINE MODEL #5

26. Disengage midship pump (Acceptable to put transmission into reverse then back into neutral for ease in disengaging pump)	10
27. Shift transfer case to high range. (If equipped with air shift, skip this step.)	*
28. With foot still on service brake, shift transmission into road gear to be sure pump is disengaged, then return transmission to neutral.	10
29. Open tank fill valve, refill tank, then close tank fill valve completely	5
30. Close hydrant slowly	*
31. Open tank suction valve completely	5
32. Close suction inlet valve completely	5
33. Disconnect soft suction from the hydrant and from the suction inlet	5

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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