



Fire Protection Training

Procedures Handbook 4300

PUMPING

TOPIC/EQUIPMENT: PUMP FROM DRAFT, CDF HYDROSTAT ENGINE MODEL #5, #14, OR #15

CATEGORY: Performance Examination

POINTS POSSIBLE: 100

TIME ALLOWED: 1 minute and 20 seconds

BEHAVIORAL OBJECTIVE:

Condition: A CDF Hydrostat engine Model #5, #14 or #15, 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 20 seconds.

MATERIALS NEEDED:

- One (1) Model #5, #14 or #15 Hydrostat engine
- One (1) Length 1 ½" hose or;
- Two (2) Lengths 1 ¾" hose
- One (1) 1 ½" combination nozzle with shutoff
- 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) Clip board
- One (1) Tally sheet

4314.26.1



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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., relief valve not set, no fire stream produced, transmission left in gear, tank suction valve not closed, 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
HYDROSTAT ENGINE
MODEL #5, #14, OR #15

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 | * |
| 4. Engage primer for no longer than 30 seconds | * |
| 5. Return to cab and place foot on service brake | 5 |
| 6. Set transfer valve in proper position | 15 |
| 7. Adjust throttle to indicate 2000 RPM (+/- 200 RPM) on tachometer | * |
| 8. Engage midship pump lever until 100 PSI (+/- 20 PSI) is registered on pump pressure gauge | * |
| 9. Return to pump panel and loudly state "Water Coming" | 5 |
| 10. Slowly open discharge valve completely | 5 |
| 11. Return to cab and place foot on service brake | 5 |
| 12. Adjust pump lever to indicate 150 PSI (+/- 20 PSI) on pump pressure gauge | 10 |

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Score Sheet

PUMP FROM DRAFT – CDF
HYDROSTAT ENGINE
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13. Turn 4-way valve switch to the ON position

*

14. Set relief valve at 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

15. Return to pump panel, loudly state "Shut Down"

5

16. Slowly close discharge valve completely

5

17. Return to cab and place foot on service brake

5

18. Disengage pump

10

19. Return engine to idle

10

20. Idle engine for a minimum of one minute

10

21. Turn 4-way valve to the OFF position

*

22. Turn off engine

5

EXAMINATION COMPLETED

Student will open tank suction valve and drain hard suction hose

ENTER TOTAL TIME:

POINTS POSSIBLE:

100

POINTS DEDUCTED:

FINAL SCORE

COMMENTS:

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