



# Performance Examination

4100 Sub JAC Handbook

PUMPING FROM HYDRANT

**TOPIC:** JAC PERFORMANCE EXAM

**CATEGORY:** Pumping from Hydrant

**POINTS POSSIBLE:** 100 points

**TIME ALLOWED:** 3:30: For engine without pressure relief valve  
3:45: For engine with pressure relief valve

**BEHAVIORAL OBJECTIVE:**

*Condition:* An engine, a full tank of water, and the following items and conditions: Tank suction valve open, pressure relief valve off, tank fill valve set appropriately, suction inlet valve closed, a preset 1 ½" or 1 ¾" hoseline, two spanner wrenches, a hydrant wrench and a section of 2 ½" soft suction hose for Type III engines and a 5" soft suction hose for Type I's.

*Behavior:* The apprentice will spot the engine at the hydrant, connect a pre-set 1 ½" or 1 ¾" hoseline, and supply an uninterrupted stream of water, at 150 psi (± 20 psi). The apprentice will then switch from tank water to hydrant as a water source. The apprentice will then return the apparatus to its original condition.

*Standard:* Following steps and procedures according to the attached score sheet, with a minimum 80% accuracy.

**MATERIALS NEEDED:**

- One (1) engine
- One (1) pre-set 1 1/2" or 1 3/4" hoseline with nozzle and shut off
- One (1) 2 1/2" soft suction hose for Type III engine OR
- One (1) 5" soft suction hose for Type I engine
- One (1) hydrant wrench
- Two (2) spanner wrenches
- Full structure PPE

**PROCEDURES:**

The examination will begin when the apprentice either exits the cab or starts the pump. The examination will end when the apprentice 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.



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## **SCORING:**

Points are assigned for each step completed correctly. For each step missing or performed incorrectly, the points will be deducted. If any step is Pass/Fail, it must be completed correctly to receive a passing score. If the step is scored as Fail, it will result in failure of the performance test not just that step.

If there are no "Fail" steps, any missed points are deducted from the 100 points and the final score is determined. If there are any "Fail" steps, that will constitute a failure of the exam and a score of zero.

**A score of "zero" will be given if during the examination the FAE performs any step or procedure that would jeopardize the safety of personnel or damage the equipment (i.e. relief valve not set, no fire stream produced, etc.**

## **SPECIAL NOTES:**

Before the examination begins the apprentice 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 apprentice will be in full structural PPE, without SCBA.



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DATE \_\_\_\_ / \_\_\_\_ / \_\_\_\_ NAME \_\_\_\_\_

PROCTOR'S NAME: \_\_\_\_\_

YEAR:  - 1<sup>ST</sup>  - 3<sup>RD</sup>

## STEPS AND PROCEDURES:

Points

### TIME STARTS WHEN THE APPRENTICE EXITS THE CAB OR STARTS THE PUMP

- |    |  |                  |
|----|--|------------------|
| 1. | Spot engine at designated hydrant  | <u>5</u>         |
| 2. | Shift transmission to neutral  | <u>5</u>         |
| 3. | Set spring brake   | <u>5</u>         |
| a. | <b><u>For Type III engines with skid mount pumps:</u></b> Set main engine idle at 1200 rpm ( $\pm 200$ ) | <u>5</u>         |
| 4. | Set chock blocks in accord with CAL FIRE policy  | <u>Pass/Fail</u> |
| 5. | Prepare the engine to pump   | <u>10</u>        |
| o  | <b><u>For model #5, #14 or #15:</u></b>  |                  |
| ▪  | Put tank suction valve switch in OPEN position   |                  |
| ▪  | Set transfer valve in proper position  |                  |
| ▪  | Adjust throttle to indicate 2000 RPM ( $\pm 200$ RPM) on tachometer                                      |                  |
| o  | <b><u>For model #9 or #11:</u></b>   |                  |
| ▪  | Start the skid mount pump engine   |                  |
| o  | <b><u>For model #16:</u></b>   |                  |
| ▪  | Engage midship pump  |                  |
| ▪  | Place transmission in "D" or 5 <sup>th</sup> gear  |                  |
| o  | <b><u>For Contract Engines:</u></b>  |                  |
| ▪  | Follow Unit's policies and manufacturer guidelines   |                  |
| 6. | Adjust pump pressure to 100 psi ( $\pm 20$ psi)  | <u>5</u>         |



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- |     |  |                  |
|-----|--|------------------|
| 7.  | Connect pre-set hoseline to engine   | <u>5</u>         |
| 8.  | On skidmount and hydrostat engines, readjust pump panel throttle to 150 psi ( $\pm$ 20 psi) on the pressure gauge  | <u>10</u>        |
| 9.  | If equipped, set pressure relief valve   |                  |
| a.  | Turn pressure relief valve switch to the ON position   |                  |
| b.  | Set relief valve to 150 psi ( $\pm$ 20 psi)  | <u>Pass/Fail</u> |
| 10. | Remove appliances from engine and flush hydrant  |                  |
| a.  | Remove soft suction hose   |                  |
| b.  | Remove hydrant wrench, two spanner wrenches and any necessary adaptors   |                  |
| c.  | Uncap and flush hydrant by opening and closing completely  | <u>10</u>        |
| 11. | Connect double female adaptor to hydrant if necessary  | <u>5</u>         |
| 12. | Connect soft suction hose to the hydrant and to the suction inlet  | <u>5</u>         |
| 13. | Slowly and safely open the hydrant completely  | <u>5</u>         |
| 14. | Remove any kinks from soft suction hose so that an effective fire stream can be maintained.  | <u>Pass/Fail</u> |
| 15. | Slowly open suction inlet valve completely (Suction drain or primer may be used to exhaust air from the system.) while maintaining 150 psi ( $\pm$ 20 psi) | <u>10</u>        |
| 16. | Close tank suction valve completely  | <u>5</u>         |
| 17. | Readjust pump pressure to 150 psi ( $\pm$ 20 psi)  | <u>5</u>         |

**TIME STOPS**

**ENTER TIME:**

   :   

**EXAMINATION CONTINUES BUT IS NOT TIMED**



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- |   |   |                  |
|---|---|------------------|
| 18.   | Shut down hoseline by loudly stating "Shut Down"  | <u>5</u>         |
| 19.   | Slowly close discharge valve completely.  | <u>5</u>         |
| 20.   | Adjust throttle until pump engine returns to idle .   | <u>5</u>         |
| 21.   | If equipped, turn pressure relief valve off <ul style="list-style-type: none"><li>▪ It is a failure to shut off pressure relief valve while the valve is under pressure</li></ul> | <u>Pass/Fail</u> |
| 22.   | Shut down pump  | <u>10</u>        |
| <b>a. <u>Engines with midship pump:</u></b>   |   |                  |
| <ul style="list-style-type: none"><li>▪ Shift transmission to neutral and disengage midship pump</li><li>▪ Shift transmission to road gear to be sure the pump is disengaged, then return to neutral.</li></ul> |   |                  |
| <b>b. <u>Engines with skid mount pump</u></b>   |   |                  |
| <ul style="list-style-type: none"><li>▪ Idle for 30 seconds</li></ul>   |   |                  |
| 23.   | If tank is not full, open tank fill valve and fill tank   | <u>5</u>         |
| 24.   | Open tank suction valve completely then close suction inlet valve   | <u>5</u>         |
| 25.   | Close hydrant slowly and completely and disconnect soft suction   | <u>5</u>         |

Return engine to response ready condition

**EXAMINATION ENDS**

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

**TOTAL POINTS POSSIBLE:** 100

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

**ENTER THE FINAL SCORE:** \_\_\_\_\_



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**LESS THAN 80 POINTS, OVER TIME OR ANY STEP MARKED AS FAIL:**      Fail

**COMMENTS:** \_\_\_\_\_  
\_\_\_\_\_  
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\_\_\_\_\_