



# Performance Examination

4100 Sub JAC Handbook

PUMP FROM TANK

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**TOPIC:** JAC PERFORMANCE EXAM

**CATEGORY:** Pump from Tank

**POINTS POSSIBLE:** 100 points

**TIME ALLOWED:** 1 minute; 30 seconds: engines without pressure relief valve  
1 minute; 45 seconds: engines with a pressure relief valve

**BEHAVIORAL OBJECTIVE:**

*Condition* An engine with a full tank of water, and the following items and conditions: Tank suction valve open, tank fill valve set appropriately, suction inlet valve closed, and apprentice in PPE.

*Behavior:* The apprentice will spot the engine in a pre-designated location, chock the engine, connect a pre-set 1 1/2" or 1 3/4" hoseline, engage the pump, charge the hoseline, and deliver an uninterrupted fire stream using the tank as a water source. The apprentice will return the apparatus to its original condition.

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

**MATERIALS NEEDED:**

- One (1) CAL FIRE engine
- One (1) pre-set 1 1/2" or 1 3/4" hoseline with nozzle and shut off
- Full wildland or structure PPE crewmember.



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## **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.

## **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.

**NOTE: A score of "zero" will be given if during the examination the apprentice 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 wildland or structure PPE.



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

PROCTOR'S NAME: \_\_\_\_\_ YEAR:  - 1<sup>ST</sup>  - 3<sup>RD</sup>

## STEPS AND PROCEDURES:

Points

Apprentice is positioned in the engine, seatbelts fastened, and in PPE

### TIME STARTS WHEN THE APPRENTICE SETS THE SPRING BRAKE

- |    |   |                  |
|----|---|------------------|
| 1. | Spot engine, set spring brake and place transmission in neutral   | <u>5</u>         |
| a. | <b><u>For engines with skid mount pumps:</u></b> Set main engine idle at 1200 rpm ( $\pm 200$ )               |                  |
| 2. | Set chock blocks in accord with Cal Fire policy   | <u>Pass/Fail</u> |
| 3. | Prepare the engine to pump  | <u>10</u>        |
| a  | <b><u>For model #1:</u></b>   |                  |
| 1. | Engage midship pump lever/switch  |                  |
| 2. | Place transmission in 2 / 4   |                  |
| 3. | Adjust pump panel throttle until transmission shifts to 4 <sup>th</sup> gear and adjust pressure to 150 psi   | <u>5</u>         |
| b  | <b><u>For model #5:</u></b>   |                  |
| 1. | Shift transfer case to neutral (if equipped with air shift, skip this step)                                   |                  |
| 2. | Engage midship pump lever   |                  |
| 3. | Place transmission in 3 <sup>rd</sup>   |                  |
| 4. | Adjust pump panel throttle until transmission shifts into 3 <sup>rd</sup> gear and adjust pressure to 150 psi | <u>5</u>         |
| c  | <b><u>For hydrostat model #5, #14 or #15:</u></b>   |                  |



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1.	Set transfer valve in the proper position	
2.	Adjust throttle to indicate 2000 rpm, ( $\pm 200$ rpm) on tachometer	<u>5</u>
d	<b><u>For model #9 or # 11:</u></b>	
1.	Start pump engine	<u>5</u>
e	<b><u>For Contract Engines:</u></b>	
1.	Follow Unit's policies and manufacturer guidelines	<u>5</u>
4.	Adjust pump panel to indicate 100 psi ( $\pm 20$ psi) on the pump panel gauge. (Engine Model #1 & # 5 remain at 150 psi)	<u>5</u>
5.	Loudly state "water coming"	<u>5</u>
6.	Slowly open discharge valve completely	<u>5</u>
7.	On skidmount and hydrostat engines, readjust pump panel throttle to 150 psi ( $\pm 20$ psi) on the pressure gauge	<u>10</u>
8.	If equipped, set pressure relief valve	<u>Pass/Fail</u>
a.	Turn pressure relief valve to the ON position	
b.	Set relief valve at 150 psi ( $\pm 20$ psi)	
9.	Readjust to 150 psi if necessary	<u>5</u>
<b>EXAMINATION CONTINUES BUT IS NOT TIMED</b>		<b>ENTER TIME:</b>
		<u>:</u>
10.	Loudly state "Shutting Down"	<u>5</u>
11.	Adjust throttle until pump engine returns to idle	<u>5</u>
12.	If equipped, turn pressure relief valve off	<u>Pass/Fail</u>



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**It is a failure to shut off pressure relief valve while the valve is under pressure**

13. Shut down pump 10

**a. Engines with midship pump:**

1. Shift transmission to neutral and disengage midship pump 5

2. Shift transmission to road gear to be sure the pump is disengaged, then return to neutral. 5

**b. Engines with skid mount pump:**

1. Idle for 30 seconds 5

Return engine to response ready condition

- Fill tank if necessary

**EXAMINATION ENDS**

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

**TOTAL POINTS POSSIBLE:** 100

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

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

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

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