



# Fire Protection Training

Procedures Handbook 4300

TOOLS & EQUIPMENT

**TOPIC:** How to Use a Back Pump

**TIME FRAME:** 30 Minutes

**LEVEL OF INSTRUCTION:**

**BEHAVIORAL OBJECTIVE:**

*Condition:* A back pump in an engine compartment and a simulated fire line

*Behavior:* The student will be remove a back pump from an engine, don the back pump, make a continuous 100' wet line, refill the back pump, return and secure the back pump in the appropriate compartment under simulated fire conditions.

*Standard:* With a minimum of 70% accuracy within 3 minutes

**MATERIALS NEEDED:**

- An engine with a back pump secured in a compartment
- Back pump refill source
- Stop watch
- Performance examinations

**REFERENCES:** None

**PREPARATION:** Numerous fires have been held in check by firefighters equipped only with back pumps. A firefighter skilled in the use of this tool can save hours of suppression effort by extinguishing hot spots, spot fires, and slop overs before they become major problems.



# Fire Protection Training

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HOW TO USE A BACK PUMP

## OPERATIONS

## KEY POINTS

1. Unfasten back pump
2. Remove back pump
3. Place back pump
4. Reposition self
5. Don back pump
6. Stand up
7. Remove trombone
8. Test back pump
9. Approach fire line

- 1a. Hold down strap
- 2a. From engine compartment
  - b. With one hand on handle
  - c. Tilt pump out of the compartment
  - d. Simultaneously lifting from compartment
- 3a. On solid flat service
  - b. Preferably no the engine
  - c. At waist level
- 4a. With back toward rear side of back pump
- 5a. Passing arms behind back and through shoulder straps
  - b. Adjusting strap tension as required
- 6a. Lifting back pump
  - b. Back straight
  - c. Using legs
- 7a. From atop handle
  - b. By reaching over shoulder
  - c. Passing trombone and hose assembly over the head
- 8a. Making repeated complete strokes
  - b. To prime pump and exhaust air
- 9a. With nozzle elevated
  - b. At anchor point
  - c. From up wind if possible
  - d. In the burn

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HOW TO USE A BACK PUMP

## OPERATIONS

## KEY POINTS

10. Apply water

10a. At base of fire

- b. Continuous wet line
- c. Finger over tip to make 12" wide pattern
- d. From crouched position

11. Continue water application

11a. With shoulders squared parallel to fire line

- b. Feet shoulder's width apart
- c. Sequentially sliding feet together, then shoulder width apart
- d. Concurrently pumping water from back pump
- e. Overlapping wet line from previous stroke
- f. With smooth even arm swings

12. Cool hotspot

12a. Remove finger over tip

- b. Direct water stream at hotspots farther ahead

13. Remove back pump

13a. At engine near refill tube

- b. Removing arms from shoulder straps
- c. Even fluid motions
- d. Placing back pump on the ground

14. Replace trombone

14a. Tightly

- b. In trombone mounting stand
- c. Conserving water



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## OPERATIONS

## KEY POINTS

15. Refill back pump

15a. Using hose on back pump refill station

b. With strainer in place

c. Until full

16. Replace back pump

16a. In bracket/compart-meat



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HOW TO USE A BACK PUMP

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***APPLICATION:***

Student to practice until proficient.

***EVALUATION:***

A performance examination.

***ASSIGNMENT:***

To be determined by instructor(s).

# Performance Examination

TIME START	<u>POINTS</u>
1. Unfasten back pump hold down strap and tilt back pump out of compartment.	<u>5</u>
2. Remove back pump from engine compartment and set it on a secure flat surface which is waist high. Preferably not the engine.	<u>10</u>
3. Position body so that student's back is adjacent to the back of the back pump.	<u>5</u>
4. Place arms behind the body and through the shoulder straps.	<u>10</u>
5. Lift the unit up onto the back using the legs.	<u>10</u>
6. Reach back over the head and remove the trombone keeping the nozzle elevated.	<u>10</u>
7. Test the back pump to ensure it is primed and operable prior to reaching fire line.	<u>10</u>
8. Approach the fire line with the nozzle elevated and begin applying water at an anchor point from the burn side of the fire line.	<u>10</u>
9. Make a continuous 100' wet line on the simulated fire line, by overlapping succeeding sprays of water. Finger should be placed over the tip to create a 12" wide spray pattern.	<u>10</u>
10. On instructor's command, remove finger from tip and use straight stream to cool a simulated hot spot.	<u>10</u>
11. Return the back pump to the engine and refill the unit at the back pump refill station. Do not remove the strainer to refill.	<u>5</u>
12. Replace and secure the back pump in the appropriate compartment.	<u>5</u>

TIME STOP

# Performance Examination

**POINTS**

**ENTER TOTAL TIME:**

**POINTS POSSIBLE:**      100

**POINTS DEDUCTED:**

**FINAL SCORE:**

**EVALUATOR'S SIGNATURE:**

**DATE:**

**COMMENTS:**

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