



Fire Protection Training

Procedures Handbook 4300

TOOLS & EQUIPMENT

TOPIC: How to Use a Backfire Torch

TIME FRAME: 30 Minutes

LEVEL OF INSTRUCTION:

BEHAVIORAL OBJECTIVE:

Condition: A backfire torch, a simulated fire line in an area cleared of combustible materials

Behavior: The student will be assemble, fire out a 25' section of simulated fire line, and disassemble a backfire torch under simulated fire conditions.

Standard: With a minimum of 70% accuracy

MATERIALS NEEDED:

- Backfire torch
- Fuel
- Matches or fusees
- Safety gear
- Fire extinguisher

REFERENCES: None

PREPARATION: The backfire torch is a valuable tool in all types of firing operations. Quite often when it is necessary to use this tool, time is critically short. In such cases, it is imperative that a firefighter assemble and place the backfire torch in operation without delay.



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HOW TO USE A
BACKFIRE TORCH

OPERATIONS

KEY POINTS

- | OPERATIONS | KEY POINTS |
|--------------------------------------|---|
| 1. Remove backfire torch | 1a. From engine compartment
b. After releasing hold down strap |
| 2. Shake torch | 2a. Vigorously
b. To mix fuel |
| 3. Place torch | 3a. On ground
b. In an area clear of combustible material |
| 4. Loosen and remove lock ring | 4a. Turning counter clockwise
b. Placing it on clean surface |
| 5. Loosen and remove fuel flow plug | 5a. Turning counter clockwise |
| 6. Reposition fuel flow plug | 6a. Turning clockwise
b. Into threaded retainer |
| 7. Remove fuel spout | 7a. From inverted position
b. From tank |
| 8. Inspect spout assembly components | 8a. Gasket
b. Spout
c. Wick |
| 9. Inspect fluid level | 9a. Tank 3/4 full maximum
b. Two parts diesel to one part gasoline |
| 10. Reposition spout assembly | 10a. Upright
b. On top of the tank
c. With wick pointed opposite torch handle |
| 11. Secure lock ring | 11a. Slide over spout assemble
b. Threaded end down
c. Seat threads on lock ring with threads on tank
d. Turn lock ring clockwise
e. Until hand tight |

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HOW TO USE A
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OPERATIONS

KEY POINTS

12. Open air vent

12a. Counter clockwise

b. 3/4 of the way open

13. Light torch wick

13a. Pouring small quantity of fuel on ground

b. Light fuel with match or fusee

c. Invert backfire torch to saturate wick with fuel

d. Holding torch over flame until wick ignites

14. Begin firing operation

14a. Torch remains inverted

b. Walk parallel to designated fire control line

c. Igniting fuel in direction of travel

15. Continue firing operation

15a. Trailing burning fuel slightly behind or

b. Swinging torch back and forth spreading burning fuel to the front and rear

c. While walking parallel to the fire line

16. Stop firing operation

16a. Upon reaching designated point

b. Blow out wick

17. Remove lock ring

17a. Counter clockwise

b. Placing on clean surface

18. Remove spout assembly

18a. From top of tank

b. Placing on clean surface

19. Refill tank

19a. 3/4 full

b. Two parts diesel to one part gasoline

20. Insert spout assembly

20a. Into tank

b. Wick first

c. When cool



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HOW TO USE A
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OPERATIONS

KEY POINTS

21. Replace lock ring

21a. Threaded end down

b. Seated with threads on tank

c. Turn clockwise

d. Until hand tight

22. Replace fuel flow plug

22a. To block fuel discharge

b. Turn clockwise

c. Until hand tight

23. Close air vent

23a. Turn clockwise

b. Until hand tight

24. Return backfire torch

24a. To engine storage compartment

b. Wipe down exterior of torch

25. Secure backfire torch

25a. With hold down strap



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HOW TO USE A
BACKFIRE TORCH

APPLICATION:

Student to practice until proficient.

EVALUATION:

A performance examination.

ASSIGNMENT:

To be determined by instructor(s).

Performance Examination

HOW TO USE A
BACKFIRE TORCH

	<u>POINTS</u>
1. Remove backfire torch from engine	___ 1
2. Shake torch vigorously to mix fuel	___ 2
3. Place torch in a clear area, loosen, and remove the lock ring	___ 2
4. Loosen and remove the fuel flow plug and place it hand tight in the retaining device	___ 5
5. Remove the fuel spout and check the fuel level in the tank. State whether tank is at 3/4 full level. Check gasket on spout and state its condition	___ 5
6. Turn spout assembly over and set it atop the backfire torch with the wick pointed away from the handle	___ 5
7. Slip the lock ring over the spout, threaded side down, and tighten the lock ring in place	___ 5
8. Open the air vent 3/4 of the way	___ 5
9. Pour a small amount of fuel on the ground and light it with a match or fusee	___ 10
10. Light the backfire torch wick by inverting the torch above the flaming fuel	___ 5
11. Walk parallel to the designated fire line spreading fire for a distance of 25' by either trailing the torch or by swinging arm forward and backward	___ 10
12. Upon completion of the firing exercise, blow out the wick and allow it to cool	___ 10
13. Remove the locking ring and place it on a clean surface	___ 5
14. Remove the spout assembly from the tank top and place it on a clean surface	___ 5

	<u>POINTS</u>
15. Refill the tank to the 3/4 full mark	___ 5
16. Insert the spout assembly wick first into the tank	___ 5
17. Replace the lock ring and hand tighten it	___ 5
18. Remove the fuel flow plug from the retainer and place it to block fuel flow to the spout	___ 5
19. Close the air vent fully	___ 5

POINTS POSSIBLE: ___ 100

POINTS DEDUCTED:

FINAL SCORE:

EVALUATOR'S SIGNATURE:

DATE:

COMMENTS:
