



# Fire Protection Training

Procedures Handbook 4300

ROPES & KNOTS

**TOPIC:** How To Tie A Double Figure Eight Knot On A Bight

**TIME FRAME:** 20 Minutes

**LEVEL OF INSTRUCTION:**

**BEHAVIORAL OBJECTIVE:**

*Condition:* A piece of rope per student

*Behavior:* The student will tie a double figure eight knot on a bight.

*Standard:* With a minimum of 70% accuracy within 40 seconds

**MATERIALS NEEDED:**

- One piece of rope per student
- Stop watch
- Performance examinations

**REFERENCES:** None

**PREPARATION:** Knot tying is a basic firefighting skill. In emergency operations it is important that each knot be tied quickly and without error. A knot which is used inappropriately or which fails because it was tied improperly can further harm victims, injure fellow firefighters and become an embarrassment to you.

The double figure eight knot on a bight is another fundamental rescue knot. It is used often to replace the Bowline on a bight knot.



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HOW TO TIE A DOUBLE FIGURE  
EIGHT KNOT ON A BIGHT

## OPERATIONS

## KEY POINTS

1. Form a bight
2. Grasp bight
3. Release closed end of bight
4. Grasp rope
5. Form a loop
6. Pass original bight
7. Position knot
8. Pass closed end of bight
9. Pass the double bight
10. Extend single bight

**INSTRUCTOR NOTE:** It is recommended that a student who can correctly tie the knot using a different technique than that taught in this lesson be allowed to do so.

- 1a. Each leg 4' long
- b. Closed end up
- 2a. With either hand
- b. 2' from closed end of bight
- 4a. At midpoint of all four legs
- b. With running part end on right
- 5a. Twisting bight
- b. 360°c. To the right
- 6a. Without releasing running part or standing part
- b. Behind
- c. Through the loop
- d. Towards the firefighter
- 7a. Within 6" of running part end
- b. Leave knot loose
- 8a. Back down through the bight's exit point from the figure eight knot
- b. To midpoint of the bight legs
- 9a. Back through the single bight
- 10a. To a point below the original figure eight knot



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## OPERATIONS

## KEY POINTS

11. Tighten knot

- 11a. Holding running part end and standing part in either hand
- b. Alternately pull all four legs of double bight in opposite directions
- c. Keeping both bights equal size



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***APPLICATION:***

Student to practice until proficient.

***EVALUATION:***

A performance examination.

***ASSIGNMENT:***

To be determined by instructor(s).

# Performance Examination

HOW TO TIE A DOUBLE FIGURE  
EIGHT KNOT ON A BIGHT

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## POINTS

INSTRUCTOR NOTE: It is recommended that a student who can correctly tie the knot using a different technique than that taught in this lesson be allowed to do so.

### TIME START

- |     |  |           |
|-----|--|-----------|
| 1.  | Form a bight with each leg four feet long and the closed end of the bight up   | <u>10</u> |
| 2.  | Grasp the bight with either hand at the midpoint of both legs with the running part end on the right   | <u>10</u> |
| 3.  | Allow the closed end of the bight to fall by releasing the hand holding the bight up   | <u>5</u>  |
| 4.  | Form a loop by twisting the newly formed bight 360o to the right   | <u>5</u>  |
| 5.  | Without releasing either hand pass the original bight behind and through the loop towards the firefighter                                      | <u>20</u> |
| 6.  | Leaving the knot loose, position it within 6" of the running part end  | <u>10</u> |
| 7.  | Pass the closed end of the bight back down through the bight's exit point from the figure eight knot until the midpoint of the legs is reached | <u>10</u> |
| 8.  | Pass the double bight back through the single bight until the single bight reaches a point below the original figure eight knot                | <u>10</u> |
| 9.  | Tighten the knot by alternately pulling each of the four legs of the double bight in opposite directions                                       | <u>10</u> |
| 10. | Adjust knot so that each bight remains equal in size to the other  | <u>10</u> |

### TIME STOP

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

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**POINTS**

**POINTS POSSIBLE:**          100    

**POINTS DEDUCTED:**

**FINAL SCORE:**

**EVALUATOR'S SIGNATURE:**

**DATE:**

**COMMENTS:**

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