

FIREHOUSE[®]

Weekly Drill

DRILL #103: ROPES & KNOTS: PART 3

Introduction

In the first two parts of this three-part series, we looked at the different materials and types of ropes. This segment looks at the different knots used today in the fire service. Basically, a knot is used to fasten the rope to an object. Being a firefighter, we are using ropes for fire ground operations and rescues on a regular base.

First we have to understand some simple nomenclature about ropes:

- The **working end** is that part of the rope used for forming the knot
- The **running end** is that part of the rope used for hoisting or lifting
- The **standing end** is the segment of rope between the working and running ends

In addition to these different ends of the rope, there are three basic configurations used with ropes:

- A **bight** is a simple reversing in direction or “U Turn” in the rope forming a bend in the rope
- A **loop** is nothing more than a circle
- A **round turn** is formed much the same as the loop; however the working end needs to continue around and run parallel to the running end

The fire service uses eight basic knots, these being:

The figure eight – this is the most basic knot in the family of figure eight knots. The figure eight is rarely used by itself.

Figure eight on a bight – this knot creates a secure loop at the working end of the rope, which can then be used to attach the rope to objects. One feature this knot has is the loop or bight can be any size you want it to be. A safety knot can also be tied using the loose rope of the working end.

Figure eight follow-through – this knot is used when the working end will be wrapped around an object. Make sure to leave enough rope between the figure eight and the object you will wrap; then it's just a matter of following the figure eight knot with the working end and applying the safety knot.



Half hitch – is used in conjunction with another knot as this knot is not a securing knot.

Clove hitch – is used to attach the rope around an object and will hold tension in either direction.

Bowline – this knot has been used to secure the rope to an object or anchor point, however, this knot is not used that much anymore, as the figure eight knot has become the knot of choice these days.

Bend – is used to join two ropes of equal or unequal size together.

The safety knot – is used to secure the remaining rope at the working end of the rope. As the name implies, the safety knot adds a degree of safety to the original knot. You may also call this knot an overhand knot. In any event, this knot should always be used to finish any and all knots.

—Prepared by Russell Merrick