



# Fire Protection Training

Procedures Handbook 4300

HANDTOOLS

**TOPIC:** Shovel; Round Point, Square Point, and Scoop

**TIME FRAME:** 30 Minutes

**LEVEL OF INSTRUCTION:**

**BEHAVIORAL OBJECTIVE:**

*Condition:* A written quiz

*Behavior:* The student will identify, describe the basic use, care, maintenance, and safety precautions associated with shovels.

*Standard:* With a minimum of 70% accuracy

**MATERIALS NEEDED:**

- Round point
- Student handouts
- Square point
- Scoop shovels

**REFERENCES:**

- None

**PREPARATION:** Various shovels are used in the fire services, from fighting wildland fires to the removal of debris at structure fires. It is important to you as a firefighter to know the various types and uses of these shovels. Choosing the wrong shovel for a task can have some unpleasant effects.



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PRESENTATION	APPLICATION
<p><b>I. TYPES</b></p> <ul style="list-style-type: none"><li>A. Round Point<ul style="list-style-type: none"><li>1. Long handle</li><li>2. Short handle</li></ul></li><li>B. Square Point<ul style="list-style-type: none"><li>1. Long handle</li><li>2. Short handle</li></ul></li><li>C. Scoop<ul style="list-style-type: none"><li>1. Long handle</li><li>2. Short handle</li></ul></li></ul> <p><b>II. PARTS</b></p> <ul style="list-style-type: none"><li>A. Handle</li><li>B. Shank</li><li>C. Rivet</li><li>D. Head or blade<ul style="list-style-type: none"><li>1. Heel</li><li>2. Face</li><li>3. Shoulder</li><li>4. Cutting edge</li><li>5. Point</li></ul></li></ul> <p><b>III. USES</b></p>	<p>Information sheet #1</p>



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<ul style="list-style-type: none"><li>A. Wildland Fires<ul style="list-style-type: none"><li>1. Digging</li><li>2. Scraping</li><li>3. Throwing dirt<ul style="list-style-type: none"><li>a. Overhead</li><li>b. Side arm</li><li>c. Underhand</li></ul></li><li>4. Chopping<ul style="list-style-type: none"><li>a. Light brush</li><li>b. Small limbs</li></ul></li></ul></li><li>B. Structure Fires<ul style="list-style-type: none"><li>1. Overhaul<ul style="list-style-type: none"><li>a. Searching for hidden fire</li></ul></li><li>2. Salvage<ul style="list-style-type: none"><li>a. Debris removal</li></ul></li></ul></li><li>C. Traffic Collisions<ul style="list-style-type: none"><li>1. Removal of<ul style="list-style-type: none"><li>a. Glass</li><li>b. Debris</li></ul></li></ul></li></ul>	
<p><b>IV. CARE AND MAINTENANCE</b></p> <ul style="list-style-type: none"><li>A. Inspect Tools Before and After Each Use:<ul style="list-style-type: none"><li>1. Handle</li></ul></li></ul>	



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<ul style="list-style-type: none"><li>a. Smooth<ul style="list-style-type: none"><li>(1) Sand as necessary</li><li>(2) Do not apply<ul style="list-style-type: none"><li>(a) Linseed oil</li><li>(b) Wax</li></ul></li></ul></li><li>b. Straight<ul style="list-style-type: none"><li>(1) Place out of service if<ul style="list-style-type: none"><li>(a) Warped</li><li>(b) Twisted</li><li>(c) Not properly aligned with head</li></ul></li></ul></li><li>c. Sound<ul style="list-style-type: none"><li>(1) Free of cracks</li><li>(2) Free of burns</li></ul></li><li>d. Clean and dry</li></ul> <p>2. Head</p> <ul style="list-style-type: none"><li>a. Free of cracks<ul style="list-style-type: none"><li>(1) If found place out of service</li><li>(2) Do not paint head<ul style="list-style-type: none"><li>(a) Paint will hide cracks</li></ul></li></ul></li><li>b. Free of burrs or chips<ul style="list-style-type: none"><li>(1) File as necessary</li></ul></li><li>c. Secure</li></ul>	



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<ul style="list-style-type: none"><li>(1) Head is tightly fastened to the handle</li><li>d. Sharp<ul style="list-style-type: none"><li>(1) Cutting and scraping edges properly sharpened<ul style="list-style-type: none"><li>(a) Use a 12" flat mill bastard file</li><li>(b) Apply even pressure across full width of the cutting edge</li><li>(c) Sharpened from a point 4" from the heel around the point and back to a point 4" from the opposite heel at 45° angle</li></ul></li><li>(2) Free of nicks and chips</li><li>(3) Permissible to treat with a rust inhibitor</li><li>(4) Tool guard in place whenever tool is not in use</li></ul></li></ul>	
<p><b>V. SAFETY PRECAUTIONS</b></p> <p>A. When Using</p> <ul style="list-style-type: none"><li>1. Maintain 10 foot interval</li><li>2. Maintain firm footing</li><li>3. Watch for obstructions<ul style="list-style-type: none"><li>a. Overhead</li><li>b. Within arc of swing</li></ul></li></ul>	



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<ul style="list-style-type: none"><li>4. Wear gloves and full safety uniform<ul style="list-style-type: none"><li>a. Pay particular attention when gloves are wet</li></ul></li><li>5. Concentrate on impact area to:<ul style="list-style-type: none"><li>a. Prevent ricochet or glancing blow</li><li>b. Avoid rocks and other hard objects</li><li>c. Avoid hazards<ul style="list-style-type: none"><li>(1) Beehives</li><li>(2) Electrical wires</li><li>(3) Barbed wire</li></ul></li></ul></li><li>6. Pace yourself</li><li>7. Use proper tool for the job</li><li>B. When Carrying<ul style="list-style-type: none"><li>1. Grasp at balance point with head forward</li><li>2. Carry on downhill side</li><li>3. Carry horizontally (parallel) to the ground</li><li>4. Sound off when passing another person with "coming through" and wait for that person to yield right of way</li><li>5. Cutting edge pointed downward</li></ul></li><li>C. When Passing<ul style="list-style-type: none"><li>1. Pass handle (butt) first</li><li>2. At arms length from other person<ul style="list-style-type: none"><li>a. Never toss</li></ul></li></ul></li></ul>	



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<p>D. When Grounding Tool</p> <ol style="list-style-type: none"><li>1. Place head of tool flat on ground with face up</li><li>2. Shield the head of the tool to the extent possible<ol style="list-style-type: none"><li>a. Use tool guards whenever practicable</li></ol></li><li>3. Place all crew tools in the same area</li></ol> <p>E. When Sharpening</p> <ol style="list-style-type: none"><li>1. Secure tool in vise<ol style="list-style-type: none"><li>a. Utilize wooden blocks or</li><li>b. Newman tool holder</li></ol></li><li>2. Use gloves</li><li>3. Use file with handle and a file guard in place</li><li>4. Rest the palm of the hand on the tip of the file<ol style="list-style-type: none"><li>a. Do not wrap the fingers over the tip of the file</li></ol></li><li>5. Sharpen in a motion away from the body</li><li>6. Remove tools from the vise if leaving the area</li><li>7. Check for sharpness, do not run finger across cutting edge</li></ol> <p>F. When Storing</p> <ol style="list-style-type: none"><li>1. Store in a clean, cool, dry area</li><li>2. Store in a secure area or in the proper compartment</li><li>3. Separate in-service and out-of-service tools</li></ol>	



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<ul style="list-style-type: none"><li>4. Always keep the tool guards in place</li><li>5. Secure tools properly in tool racks</li></ul>	



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## **SUMMARY:**

Proper knowledge and maintenance of tools will make the firefighter's job easier and safer. A properly maintained tool will also last longer.

## **EVALUATION:**

A written quiz.

## **ASSIGNMENT:**

To be determined by instructor(s).