



# Fire Protection Training

Procedures Handbook 4300

HOSE APPLIANCES & TOOLS

**TOPIC:** Features Of A Fire Service Siamese Appliance

**TIME FRAME:** 20 Minutes

**LEVEL OF INSTRUCTION:**

**BEHAVIORAL OBJECTIVE:**

*Condition:* A written quiz

*Behavior:* The student will identify the parts and distinguishing features of a siamese appliance.

*Standard:* With a minimum of 70% accuracy

**MATERIALS NEEDED:**

- Siamese appliance
- Chalkboard and chalk
- Appropriate visual aids

**REFERENCES:**

- IFSTA, Essentials of Fire Fighting, 2nd Edition, Chapter 10

**PREPARATION:** In a major fire situation a simple 2 1/2" hose line may not supply sufficient water to meet fire flow requirements. The addition of a second line, used in conjunction with a siamese appliance, can increase the volume of water and significantly reduce friction loss.



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SIAMESE APPLIANCE

PRESENTATION	APPLICATION
<p><b>I. USES OF SIAMESE APPLIANCES</b></p> <ul style="list-style-type: none"><li>A. Combine Two Hose Lines into One</li><li>B. Examples<ul style="list-style-type: none"><li>1. Running parallel lines to an engine as supply lines</li><li>2. Connected at hydrant to allow an engine to boost hydrant pressure</li><li>3. Connected to a supply line to allow other apparatus to refill without shutting off the flow of water (Clappered siamese only)</li></ul></li></ul> <p><b>II. TYPES OF SIAMESE APPLIANCES</b></p> <ul style="list-style-type: none"><li>A. Straight Siamese<ul style="list-style-type: none"><li>1. Does not have a water direction flow control device</li><li>2. Must shut down operation to connect or disconnect lines</li></ul></li><li>B. Clappered Siamese<ul style="list-style-type: none"><li>1. Each outlet (discharge) has a flow control device or clapper valve which automatically shuts off water flow to unused outlet.</li><li>2. Allows apparatus to connect or disconnect without interrupting the pumping operations.</li></ul></li></ul> <p><b>III. PARTS OF A SIAMESE APPLIANCE</b></p> <ul style="list-style-type: none"><li>A. Inlet (Supply) Connections<ul style="list-style-type: none"><li>1. Clappered or</li><li>2. Unclappered</li></ul></li></ul>	



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<ul style="list-style-type: none"><li>3. Two female couplings</li><li>B. Outlet (Discharge) Connection<ul style="list-style-type: none"><li>1. Unclappered</li><li>2. Single male coupling</li></ul></li><li>C. Body<ul style="list-style-type: none"><li>1. The housing which<ul style="list-style-type: none"><li>a. Serves to contain and direct water flow</li><li>b. Protects interior parts</li></ul></li></ul></li><li>D. Swivels<ul style="list-style-type: none"><li>1. On each inlet (supply) connection</li></ul></li></ul>	
<p><b>IV. CARE AND MAINTENANCE</b></p> <ul style="list-style-type: none"><li>A. Gaskets<ul style="list-style-type: none"><li>1. Pliable</li><li>2. Good state of repair</li><li>3. In proper position</li></ul></li><li>B. Swivels<ul style="list-style-type: none"><li>1. Free spinning<ul style="list-style-type: none"><li>a. If not<ul style="list-style-type: none"><li>(1) Wash in warm soapy water</li><li>(2) Apply dry lubricant (graphite)</li></ul></li><li>b. Need to use periodically</li></ul></li><li>2. Round</li></ul></li></ul>	



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<ul style="list-style-type: none"><li>a. If run over or dropped may become oval shape</li><li>b. Repair or replace as needed</li></ul> <p>C. Threads</p> <ul style="list-style-type: none"><li>1. In good condition<ul style="list-style-type: none"><li>a. Free of<ul style="list-style-type: none"><li>(1) Nicks</li><li>(2) Burrs</li><li>(3) Tar</li><li>(4) Contamination and debris</li></ul></li><li>b. Repair or replace as necessary<ul style="list-style-type: none"><li>(1) Wash and brush with warm soapy water</li><li>(2) File off nicks or burrs</li></ul></li></ul></li></ul> <p>D. Body</p> <ul style="list-style-type: none"><li>1. Wash with brush and soapy water</li></ul> <p>E. Clapper</p> <ul style="list-style-type: none"><li>1. Exercise to ensure operation</li><li>2. Wash/immerse in warm soapy water</li></ul>	



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## ***SUMMARY:***

Siamese appliances are essential equipment for fireground evolutions which require an increase in the volume of water supplied to a single hose line.

## ***EVALUATION:***

A written quiz.

## ***ASSIGNMENT:***

To be determined by instructor(s).