



# FIRE PROTECTION TRAINING

Procedures Handbook 4300

MOBILE EQUIPMENT

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**TOPIC:** Fire Apparatus Identification

**TIME FRAME:** :20

**LEVEL OF INSTRUCTION:** Level I

**BEHAVIORAL OBJECTIVE:**

*Condition:* Given a written quiz

*Behavior:* The student will list and describe the criteria used to classify the different types of fire apparatus.

*Standard:* With a minimum of 80% accuracy

**MATERIALS NEEDED:**

- Writing board and pens
- Easel
- Appropriate visual aids
- Audio visual equipment
- Various fire apparatus

**REFERENCES:**

- IFSTA, Pumping Apparatus, 1<sup>st</sup> Edition
- Field Operations Guide, ICS 420-I
- IFSTA, Aerial Apparatus Driver/Operator 1<sup>st</sup> Edition
- [www.fire.ca.gov](http://www.fire.ca.gov)

**PREPARATION:**

Uniform standards have been developed under ICS for categorizing types of fire apparatus. By understanding these standards, firefighters will have an understanding what the capabilities; equipment and staffing are on a particular apparatus prior to it arriving on an incident.



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IDENTIFICATION

PRESENTATION	APPLICATION
<p><b>I. FIREFIGHTING APPARATUS</b></p> <p>A. Engines</p> <ol style="list-style-type: none"><li>1. A ground vehicle which carries: hose, water, personnel, and a pump capable of producing an effective fire stream</li><li>2. ICS Types<ol style="list-style-type: none"><li>a. To be an ICS Type I engine must meet all minimum criteria listed</li><li>b. Type I<ol style="list-style-type: none"><li>(1) 1000 GPM pump</li><li>(2) 400 gallons of water</li><li>(3) 1200' of 2-1/2" hose</li><li>(4) 400' of 1-1/2" hose</li><li>(5) 200' of 1" hose</li><li>(6) 20' ladder</li><li>(7) 500 GPM master stream</li><li>(8) 4 personnel</li></ol></li><li>c. Type II<ol style="list-style-type: none"><li>(1) Most CAL FIRE Schedule A engines are Type I, but do not meet personnel criteria, therefore, they become Type II or lower</li><li>(2) 500 GPM pump</li><li>(3) 400 gallons of water</li><li>(4) 1000' of 2-1/2" hose</li></ol></li></ol></li></ol>	



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<ul style="list-style-type: none"><li>(5) 500' of 1-½" hose</li><li>(6) 300' of 1" hose</li><li>(7) 20' ladder</li><li>(8) 3 personnel</li><li>d. Type III<ul style="list-style-type: none"><li>(1) The large majority of CAL FIRE Schedule B engines fall within this category</li><li>(2) 120 GPM pump</li><li>(3) 300 gallons of water</li><li>(4) 1000' of 1-½" hose</li><li>(5) 800' of 1" hose</li><li>(6) 3 personnel</li></ul></li><li>e. Type IV<ul style="list-style-type: none"><li>(1) 50 GPM pump</li><li>(2) 200 gallons of water</li><li>(3) 300' of 1-½" hose</li><li>(4) 800' of 1" hose</li><li>(5) 3 personnel</li></ul></li></ul>	



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3. CAL FIRE engine fleet					
<u>MODEL #</u>	<u>GPM MAIN</u>	<u>GPM AUX</u>	<u>GALLONS</u>	<u>ICS TYPE</u>	
1	300	85	500	III	
5*	300	85	500	III	
9	500	N/A	650	III**	
11	500	N/A	1250	III	
14*	500	N/A	500	III**	
15	500	N/A	500	III**	
16	1000	N/A	750	I	
17	500	N/A	750	III**	
18	1000	150	600	III***	
19	1000	N/A	600	III**	
24*	500	N/A	500	III	
25	1000	175	500	III	
34*	500	180	500	III**	
35	500	180	500	III**	
<b>NOTES:</b>					
* Four wheel drive engines					
** With sufficient 2-½” hose, personnel and/or a 20’ ladder this may become a Type II engine					
*** With sufficient 2-½” hose and personnel this may become a Type I engine					
<ul style="list-style-type: none"> <li>a. CAL FIRE maintains and staffs approximately 336 state fire engines</li> </ul>					
<ul style="list-style-type: none"> <li>B. Bulldozers (Dozer)           <ul style="list-style-type: none"> <li>1. A ground vehicle characterized by a front mounted blade utilized to construct: roads, fuel breaks, and firelines by moving earth.</li> <li>2. ICS types               <ul style="list-style-type: none"> <li>a. Type I (heavy)                   <ul style="list-style-type: none"> <li>200 horse power</li> </ul> </li> </ul> </li> </ul> </li> </ul>					



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<ul style="list-style-type: none"><li>Example: Caterpillar D-7 or larger</li><li>b. Type II (medium)<ul style="list-style-type: none"><li>100 horse power</li><li>Example: Caterpillar D-5 or D-6</li></ul></li><li>c. Type III (light)<ul style="list-style-type: none"><li>50 horse power</li><li>Example: Caterpillar D-4</li></ul></li><li>C. Heavy equipment transport (Transport)<ul style="list-style-type: none"><li>1. A ground vehicle designed to carry fire control and heavy construction equipment</li><li>2. ICS Types<ul style="list-style-type: none"><li>a. Type I (heavy)<ul style="list-style-type: none"><li>Example: Capable of carrying caterpillar D-7 or larger</li></ul></li><li>b. Type II (medium)<ul style="list-style-type: none"><li>Example: Capable of carrying caterpillar D-5 or D-6</li></ul></li><li>c. Type III (light)<ul style="list-style-type: none"><li>Example: Capable of carrying caterpillar D-4</li></ul></li></ul></li><li>3. Dozer Tender-fuel, lug, tools to service dozers and other heavy equipment</li></ul></li><li>D. Water tenders<ul style="list-style-type: none"><li>1. A ground vehicle designed to carry a large quantity of water</li><li>2. ICS Types<ul style="list-style-type: none"><li>a. Type I</li></ul></li></ul></li></ul>	



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<ul style="list-style-type: none"><li>(1) 300 GPM pump</li><li>(2) 2000 gallons of water</li></ul> <p>b. Type II</p> <ul style="list-style-type: none"><li>(1) 120 GPM pump</li><li>(2) 1000 gallons of water minimum</li></ul> <p>c. Type III</p> <ul style="list-style-type: none"><li>(1) 50 GPM pump</li><li>(2) 1000 gallons of water minimum</li></ul> <p>E. Crew Transport</p> <ul style="list-style-type: none"><li>1. Any vehicle designed primarily to transport personnel to an emergency incident or project</li><li>2. ICS Types<ul style="list-style-type: none"><li>a. Type I<ul style="list-style-type: none"><li>(1) Capable of carrying a minimum of 30 passengers</li></ul></li><li>b. Type II<ul style="list-style-type: none"><li>(1) Capable of carrying a minimum of 20 passengers</li></ul></li></ul></li></ul>	<p>Can a CAL FIRE model #11 be considered a water tender? Yes - type II</p> <p>What is the primary disadvantage of a Type II water tender? Half the water capacity</p>



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<ul style="list-style-type: none"><li>c. Type III<ul style="list-style-type: none"><li>(1) Capable of carrying a minimum of 10 passengers</li></ul></li></ul> <p><b>II. MUNICIPAL - STRUCTURAL FIREFIGHTING APPARATUS</b></p> <p>A. Traditional typing</p> <ul style="list-style-type: none"><li>1. Engines<ul style="list-style-type: none"><li>a. CAL FIRE personnel staff approximately 750 Schedule A engines</li><li>b. Triple combination<ul style="list-style-type: none"><li>(1) Hose</li><li>(2) Water</li><li>(3) Pump</li></ul></li><li>c. Quint combination<ul style="list-style-type: none"><li>(1) Hose – 800' of supply hose 400' of attack hose</li><li>(2) Water – 300 gal tank minimum</li><li>(3) Pump – 1000 GPM minimum</li><li>(4) 85' of ground ladders</li><li>(5) 50' aerial ladder or elevating platform minimum</li></ul></li></ul></li><li>2. Trucks<ul style="list-style-type: none"><li>a. Type I<ul style="list-style-type: none"><li>(1) 115' of ground ladders minimum</li></ul></li></ul></li></ul>	



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<ul style="list-style-type: none"><li>(2) 75' aerial ladder or elevating platform</li><li>(3) 4 personnel (4) 500 GPM elevated stream</li><li>b. Type II<ul style="list-style-type: none"><li>(1) 115' ground ladders</li><li>(2) 50' aerial ladders or elevating platform</li><li>(3) 4 personnel</li><li>(4) 500 GPM elevated stream</li></ul></li><li>c. Functions<ul style="list-style-type: none"><li>(1) Rescue</li><li>(2) Ventilation</li><li>(3) Salvage</li><li>(4) Overhaul</li><li>(5) Lighting</li><li>(6) Extrication</li></ul></li><li>3. Rescue<ul style="list-style-type: none"><li>a. Variety of capabilities<ul style="list-style-type: none"><li>(1) High angle rescue</li><li>(2) Low angle rescue</li><li>(3) Confined space rescue</li><li>(4) Trench rescue</li><li>(5) Extrication/disentanglement</li></ul></li></ul></li></ul>	



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<ul style="list-style-type: none"><li>b. CAL FIRE operates approximately 215 rescue units</li><li>4. Squad<ul style="list-style-type: none"><li>a. Historically used to carry extra personnel</li><li>b. Squads are used throughout the fire service today as an “Agency Specific”</li></ul></li><li>5. Ambulance<ul style="list-style-type: none"><li>a. Primary function is to provide <b>transportation and either advanced or basic life support</b> for the sick or injured.</li></ul></li><li>6. Paramedic Unit (Medic)<ul style="list-style-type: none"><li>a. Primary function is to provide <b>advanced life support</b> for the sick or injured.<ul style="list-style-type: none"><li>(1) May be an Engine, Ambulance , Rescue or Squad</li></ul></li></ul></li><li>7. Other specialized apparatus<ul style="list-style-type: none"><li>a. Brush Patrol (Patrol)<ul style="list-style-type: none"><li>(1) Can be classified as a Type VI engine</li></ul></li><li>b. Hazardous material unit</li><li>c. Breathing support unit</li><li>d. Mobile command post/communications unit</li><li>e. Lighting unit</li></ul></li></ul>	<p>What are the squads apparatus in your area used for?</p>



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<ul style="list-style-type: none"><li>(1) Sometimes combined with breathing support unit</li><li>f. Crash/rescue (ARFF)</li><li>g. Foam tender</li><li>h. Fire boat</li><li>i. Mobile kitchen</li><li>j. Utility</li></ul>	



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## **SUMMARY:**

Many different types of apparatus are available for emergency response. Each has an intended use. Classifications to standardize apparatus nomenclature and complements have been developed using ICS. This standardization has improved operational efficiency on incidents.

## **EVALUATION:**

A written quiz.

## **ASSIGNMENT:**

To be determined by instructor(s).