



Fire Protection Training

Procedures Handbook 4300

PUMPING

TOPIC: PUMP CONFIGURATION ON CDF MODEL #9 AND #11 ENGINES

TIME FRAME: 1:00

LEVEL OF INSTRUCTION: Level II

BEHAVIORAL OBJECTIVE:

Condition: A written quiz

Behavior: The student will describe the types, components, and characteristics of the pumps found on CDF Model #9 and #11 engines.

Standard: With a minimum of 70% accuracy

MATERIALS NEEDED:

- CDF Model #9 or #11 Engine
- Chalkboard and chalk
- Appropriate visual aids
- Audio visual equipment

REFERENCES:

- Vehicle Operation and Maintenance Guide, (CDF Handbook 6804)

PREPARATION: CDF Model #9 and #11 engines were designed to address the urban interface problems associated with fire protection in California. In order to cope with the structure protection mission pump size and water capacity were increased while maintaining maneuverability in the off road wildland environment. Even if your station does not have one of these engines assigned to it you will encounter them frequently on emergency incidents and should be familiar with their pumping systems and capabilities.



Fire Protection Training

Procedures Handbook 4300

PUMP CONFIGURATION ON CDF
MODEL #9 AND #11 ENGINES

PRESENTATION	APPLICATION
<p>I. THE CDF MODEL #9 AND #11 ARE EQUIPPED WITH A SINGLE PUMP WHICH IS SKID MOUNTED</p> <p>NOTE: Check Vehicle Operation and Maintenance Guide (CDF Handbook 6804) for type</p> <ul style="list-style-type: none"> A. Water tank capacity: <ul style="list-style-type: none"> 1. Model #9 = 650 gallons 2. Model #11 = 1250 gallons B. Single stage centrifugal pump C. Rated pump capacity is: <p>NOTE: Point out plate with rated capacity</p> <ul style="list-style-type: none"> 500 GPM at 150 PSI 350 GPM at 200 PSI D. Pump packing is non-adjustable ceramic mechanical seal E. Fire pump is powered by skid mounted engine <p>II. PRIMER PUMP IS A HALE MODEL SMV-12</p> <ul style="list-style-type: none"> A. Electrically driven B. Rotary vane, positive displacement pump C. Primer oil reservoir is needed for lubrication and to ensure a seal within the pump case D. Engine oil is used in the primer reservoir 	



Fire Protection Training

Procedures Handbook 4300

PUMP CONFIGURATION ON CDF
MODEL #9 AND #11 ENGINES

PRESENTATION	APPLICATION
<p>III. PLUMBING SYSTEM</p> <p>NOTE: Point out all valves on the engine and trace the plumbing out.</p> <ul style="list-style-type: none">A. Water tankB. SumpC. Tank fill capD. Water level gaugeE. Trace inlet plumbingF. Trace discharge plumbingG. Show valves:<ul style="list-style-type: none">1. Tank suction valve2. Suction inlet valve3. Tank fill valve4. Main pump discharges	



Fire Protection Training

Procedures Handbook 4300

PUMP CONFIGURATION ON CDF
MODEL #9 AND #11 ENGINES

SUMMARY:

Even though your station may not have a Model #9 or #11 engine you will encounter them on emergency incidents and should have a basic understanding of their pumping systems and capabilities.

EVALUATION:

A written quiz.

ASSIGNMENT:

To be determined by instructor(s).