

Lebanon Driver / Operator Qualifications

Engine 512 – Pumper/Tanker

Prerequisites

1. Signed off on Brush 517
2. Over 21 years old or has a valid NC CDL

Co-requisites

1. NC certification classes:
 - Emergency Vehicle Driver
 - Introduction to Fire Pumps
 - Basic Pump Operations
 - Pump Hydraulics

Driving

1. Squad 519 Driving items 1-3 plus.
2. Understands the use of air brakes including increased braking distance, causes of fading, minimum required air pressure, normal operating pressure, meaning of two air pressure readings and low air alarm.
3. Knows normal and abnormal readings for oil, temp, trans and voltage gauges and what to do for a abnormal reading.
4. Understands two methods of setting high idle and when it should and should not be set.
5. Understands forward hose lay, reverse hose lay, catching a hydrant and catching a mailbox. Knows when to use each.

Equipment

1. Squad 519 Equipment items 1-5 plus:
2. Proficient at setting up generator and lighting

Pumping

1. Can perform preferred method of engaging pump including items changed and checked in cab, setting wheel chocks, obtaining reasonable pressure and setting the relief valve.
2. Demonstrates correctly setting the relief valve including: speed of adjustment, how to determine when valve opens, why it's manufacturer/NFPA recommends that it is operated daily and its setting while the pump is not in use.
3. Knows the meaning and differences between 'Pump Engaged' and 'OK to Pump'.
4. Can switch from a static water source to a pressurized water source and back while flowing water and maintaining a near constant discharge pressure.
5. Demonstrates establishing a draft both by back flowing water and using the primer pump. Can describe when each method is used. Understands restrictions on maximum use of primer pump.
6. Knows the typical nozzle pressure and flow rate for fog nozzle, smooth bore handheld nozzle and smooth bore master stream nozzles.
7. Knows the friction loss rates for 1", 1.75", 2.5", 3" and 5" hose at typical flow rates.

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8. Can set the pump to concurrently flow different lines at different pressures.
9. Can setup and draft water from a dump tank, dry hydrant or pond.
10. Knows the differences between the pump's relief valve and an intake relief valve.
11. Understands why the TRV light would come on and the needed operational changes.
12. Understands the problems caused by air when connecting LDH supply lines and what to do operationally to avoid these problems.
13. Knows the maximum pressure for LDH supply hose per NFPA
14. Understands the maximum time the primer pump can be run without causing damage to it.
15. Understands the importance of brakes on pump valves and uses appropriately.
16. Understands why the manufacturer/NFPA recommend valves be operated daily.
17. Can determine when they are "pumping at capacity" and possible reactions to this condition.
18. Knows 3 different horn signals.
19. Know how to back-flush the pump, why it is important and when it should be done.
20. Demonstrates proficiency running a water shuttle tanker operation including the efficient use of jet-dump
21. Demonstrates the setup and operation of the deck gun and a remote master stream.
22. Demonstrates nurse feeding both as a receiver and supplier of water. Knows standard pressures to use both as primary and secondary tanker supplying a Siamese.
23. Understands the effects of water hammer and how to prevent it.
24. Knows how to check primer oil level