

FEDERAL FIRE SAN DIEGO

PUMPER OPERATOR TASKBOOK



Name: _____ Rank: _____

Station: _____ Date: _____

FEDERAL FIRE DEPARTMENT SAN DIEGO	PUMPER OPERATOR TASK BOOK	EFFECTIVE DATE December 27, 2018
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Fire & Emergency Services

Federal Fire Department San Diego "Metro"

And

International Association of Firefighters Local F-33

Agree to Pumper Operator Task book

Dated 27 December, 2018



 San Diego Metro Fire Chief Mary Anderson

12/21/18

Date



 Union President Local F-33 Michael Massone

12/21/18

Date

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The Federal Fire Department Standardization Committee has developed this Task Book to provide a training format and certification of the minimum skill level needed to successfully operate this apparatus as the driver and equipment operator. Each Task Book lists the job performance requirements for the specific certification in a format that allows a candidate to be trained and evaluated during the training sessions. To achieve certification, the applicant must successfully complete **ALL** task and job performance requirements listed in this Task Book.

Before a certification can be issued, successful job performance of all sections must be observed and recorded by a qualified and approved trainer.

These job performance requirements serve as general guidelines. As such, they are not intended to replace specific sequences of apparatus or equipment operation that may be outlined by manufacturer specifications. Training shall follow department standard operating procedures. **IF** you are unsure about the safe operating principles and limitations of the specific make of your apparatus, refer to the manufacturer operation

manual. When a conflict with department procedures and manufacturer specifications occur, manufacturer procedures will govern the task. **Err on the side of safety.** Trainers should have manufacturer specifications and department standard operational guidelines available. **DO NOT** contact the manufacturer directly.

There is a six-month time restriction from beginning a certification to the time of completion. If a trainee does not complete the certification in the six-month time limit, they must start the entire process over. The completed Task Book must be received by the Training Captain, Operations Chief or Training Chief no later than thirty (30) days after completion of training.

Instructions:

- Trainer:
1. Must be an Engineer or higher, certified on the apparatus and possess a current license with appropriate endorsement(s), before conducting any training.
 2. Ensure that all information, dates, and hours are recorded accurately in this Task Book.

- Trainee:
1. Must have a current applicable license or permit, with appropriate endorsement(s), in their possession and show it to the trainer at **each** training session.

Note: Drivers must follow all restrictions on their license. Example: a 64 restriction (automatic transmission only) cannot drive a manual transmission apparatus.
 2. Check to see that the trainer is certified for the apparatus you will be utilizing.
 3. Complete driver’s license information on the certification page(s).
 4. When all Task Book information has been documented, obtain required signatures and forward the completed Task Book to the Training Chief or Battalion Training Captain.

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The Training Chief or Battalion Training Captain will review this Task Book to determine that all the information is complete and correct. The certification information form will be removed, filed at Training, and the Task Book will be returned to the trainee for future reference.

A CLASS "C" LICENSE WITH A FIREFIGHTER ENDORSEMENT IS REQUIRED TO DRIVE THIS APPARATUS.

<p>TRAINING DIVISION USE ONLY</p> <p>Driver Training Officer Signature: _____</p> <p>Training Chief Signature: _____</p>
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PUMPER OPERATOR CERTIFICATION

THE SECTION BELOW MUST BE COMPLETED IN ITS ENTIRETY BEFORE AN APPARATUS CERTIFICATION WILL BE ISSUED.

Apparatus No: _____ @ Station: _____ Return certification to Station # _____

Name (Print): _____

Rank: _____ Station: _____ Battalion: _____

CDL#: _____ Exp: ____/____/____ Physical: ____/____/____ Exp: ____/____/____

Class: _____ Endorsement(s): _____ Restriction(s): _____

This trainee has satisfactorily completed a twenty-five (25) hour training course in the operation of this vehicle, demonstrating the requisite knowledge and skills to effectively and safely operate this classification of apparatus. Training time may be **NOT** be reduced even if trainee is previously certified on other apparatus. Total training hours required for certification will depend upon the trainee’s skill level and **NOT** the minimum hourly requirement. Training time shall never be less than the minimum requirements.

Training will be limited to a **maximum** of six (6) hours per shift. Trainee **won’t operate** until certified.

Dates of Training from: _____ / _____ / _____ To: _____ / _____ / _____
Month Day Year Month Day Year

Trainee Signature: _____

* Trainer: _____
Print Name and Rank Signature

* Supervisor: _____
Print Name and Rank Signature

* Battalion Chief: _____
Print Name Signature

* Your signature certifies that the above person has completed the certification program detailed in this booklet. This individual has completed the minimum number of training hours and demonstrated a driving and operating ability that is consistent with all department standards and procedures.

TRAINING DIVISION USE ONLY

Battalion Training Officer Signature: _____

Training Chief Signature: _____

DRIVER TRAINING / PUMPER OPERATOR

DATE	TIME	HRS	APP	TASK	STA	SUPERVISOR NAME
	FROM:					PRINT:
	TO:					SIGN:
	FROM:					PRINT:
	TO:					SIGN:
	FROM:					PRINT:
	TO:					SIGN:
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TOTAL HOURS

EVOC DRIVER TRAINING CERTIFICATION FOR APPARTUS TYPE

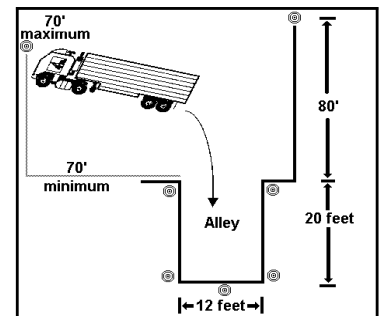
INSTRUCTIONS

- A. The trainer will check (S) off each box after successful completion of the performance requirements by the trainee.
- B. Sections with multiple boxes are to be initialed after each evolution is successfully completed.
* **Driving skills can be demonstrated during normal driving** after completion of required practice training and basic skill demonstration in an approved practice area.

EXAMPLE:

1. * **Alley Dock (Backing into station) (DMV)**

Dock the vehicle from a 90° angle in one movement, without touching any cones or stanchions, staying within all boundary lines, and stopping within one (1) foot of the dock or stop line. Pulling forward will result in a penalty.



- C. Trainee must complete a minimum of ten (10) hours of driving to include:
1. Normal street / traffic conditions
 2. Multiple turns and lane changes
 3. Freeways
 4. Up / down hills requiring shifting
 5. Railroad crossing
 6. Underpass / low clearance areas
 7. Unusual operating conditions for the vehicle and area being driven
 8. Semi-improved surface operation
 9. Maneuvers listed in the Driving Skills section

NOTE: Driving requirement(s) may be adjusted or eliminated if not in the available operation area.

- D. Trainee must complete a minimum of ten (10) hours of pump operations, hose lays, and hydraulics demonstrating the requisite knowledge and skills to successfully and effectively perform all pumping tasks.
- E. Trainee must complete a minimum of five (5) hours using all apparatus forms, performing apparatus maintenance, and operating and maintaining auxiliary equipment.
- F. Resources:
1. Manufacturer's Maintenance and Operating Manuals
 2. Federal fire Department San Diego Policies and Procedures
 3. California Vehicle Code and Department of Motor Vehicle Commercial Driver Handbook
 4. Pierce Contender / Saber Operator Manual
 5. IFSTA Pumper Operator
 6. IFSTA Aircraft Rescue and Firefighting
 7. Department of Defense CDC 10023W Driver/Operator

TRAINEE MUST DEMONSTRATE AND ARTICULATE KNOWLEDGE OF THE FOLLOWING INFORMATION:

PREPARATION

- A. Read the apparatus operation manual and ancillary equipment manuals completely
- B. Articulate an understanding of all danger, warning, and caution notices stated in the apparatus Operation manual.

APPARATUS DESCRIPTION

- A. Manufacturer _____
- B. Apparatus Type _____
- C. GVWR _____
- D. Engine Manufacturer _____
- E. Engine Type _____
- F. # of cylinders _____ / _____
- G. Governed speed _____ RPM
- H. Max Horsepower _____ @ _____ RPM
- I. Max Torque _____ lbs @ _____ RPM
- J. Transmission Type _____

APPARATUS SPECIFICATIONS

- A. Height (clearance) _____ Width _____ Turning Diameter _____
- B. Length _____ Chassis overhang – Front _____ Rear _____
- C. Equipment overhang – Front _____ Rear _____
- D. Tire pressure – Front _____ Rear _____
- E. Air brake can size – Front _____ Rear _____
- F. Maximum stroke – Front _____ Rear _____

VERIFICATION OF OPERATIONAL STATUS OF VEHICLE

- A. Checks that parking brake is set
- B. Performs Pre-trip inspection
- C. Performs air brake system test and logs brake measurements
LF _____ LR _____ RF _____ RR _____
- D. Performs daily, weekly, and monthly assigned checks
- E. Knowledge of all forms that apply to this apparatus
- F. Performs "Walk Around" prior to entering cab to drive
 1. Secures equipment
 2. Compartment doors closed
 3. Disconnects electrical cords
 4. Wheel blocks up and stowed
 5. clear to process
- G. Adjusts seats and mirrors
- H. Checks that radios are operational and volume is correctly set.

STARTING

- A. Fastens seatbelt
- B. Locates gauges, switches, and controls
- C. Battery /Master ignition switch "**ON**"
- D. Transmission in neutral
- E. Ignition to "**ON**" position
- F. Starts engine
- G. If **No Start**
 1. Repeat steps B thru E
 2. Maximum crank time is 15 seconds, then rest for 15 seconds. Repeat 3 times.
 3. If still **no start**, then call for repair
- H. Runs engine at low idle (600-800 RPM) for two minutes to lubricate engine and turbocharger

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- I. Checks gauges (at 1000 RPM)
- | | |
|---------------------------------------|--|
| 1. Oil pressure reading _____ PSI | Normal reading should be _____ PSI |
| 2. Air pressure reading _____ PSI max | Driving pressure range is _____ to _____ PSI |
| 3. Voltmeter reading _____ Volts | Normal reading should be _____ Volts |
| 4. Ammeter reading _____ Amps | Normal reading should be _____ Amps |
| 5. Engine temperature _____ ° F | Normal operating temperature should be _____ ° F |
| 6. Transmission temperature _____ ° F | Normal operating temperature should be _____ ° F |
- WARNING - DO NOT** operate vehicle if gauge readings are outside of normal operating range, either high or low
- J. Checks that Retarder / Jake Brake control switch(es) are “**ON**”

AIR BRAKE SYSTEMS

- A. Describes operation of apparatus compressed air system **C.O.L.A**
1. **C** Governor Cut in _____ PSI
 2. **O** Governor Cut out _____ PSI
 3. **L** Low air warning _____ PSI
 4. **A** Applied Pressure _____ PSI Loss in _____ minutes
- B. Spring brake
1. Describes the operation and function of the spring brake system
 2. Describes and demonstrates how to apply and release both front and rear parking brakes
 - a. Apply front brake only after applying rear brake system
 - b. Releasing rear brake system automatically releases front brake system

DRIVING APPARATUS

- A. Checks that crew is seated and seat belts are fastened
- B. Foot on brake
- C. Pre-selects appropriate gear for road, weather, and operating conditions
- D. Releases parking brake
- E. Does not allow apparatus to roll back
- F. Acceleration
 - 1. Applies light accelerator pressure to begin movement
 - 2. Eases off accelerator as desired speed is reached
 - 3. Avoids full throttle acceleration from a stop
 - 4. Consistent, smooth, and controlled
- G. Braking
 - 1. Anticipates stops and roadway imperfections
 - 2. Slows down and brakes before roadway imperfections such as dips and drainage swales
 - 3. Correctly utilizes retarder system controls to slow vehicle
 - 4. Allows engine to act as a brake (down shift to achieve if necessary)
 - 5. Brakes into turn - Accelerates out of turn
 - 6. Leaves room to go around stopped vehicles or obstacles
 - 7. Consistent, smooth, and controlled
- H. Operates engine in proper power range
- I. Operates vehicle with awareness of chassis length and chassis and equipment overhang
 - 1. Considers vehicle length when changing lanes
 - 2. Slows sufficiently at bumps and dips in roadway to prevent apparatus chassis from bottoming out on suspension.
- J. Chooses correct lane for driving conditions
- K. Follows all Fire Department Policies, Procedures, and California Vehicle Code regulations

L. Turning

1. Plans and adjusts for extended turning radius of vehicle
2. Uses mirrors consistently during driving, maneuvering into and during turns, or for apparatus positioning to monitor for possible hazards
 - a. Awareness of lack of visibility behind apparatus
 - b. Awareness of all vehicles and obstacles in possible turning areas
3. Utilizes turn signals well in advance of maneuver(s) to alert others of intentions
4. Preselects appropriate gear to slow and control apparatus before and during turns
5. Starts and completes turn in proper lane
6. Proper hand position on steering wheel
7. Does not let steering wheel slip through hands
8. Avoids turning steering wheel while stopped

 M. **DOES NOT** idle engine for long periods of time as damage to turbo and injectors will occur from poor engine lubrication?

- a. When idling for long periods is required by operations, increase idle level to a minimum of 900 RPM (High Idle) to cool and lubricate engine and turbocharger
- b. Detroit Series 60 engine - 20 minutes or more idle time
- c. Detroit 8V92 - 10 minutes or more idle time

DRIVING CAUTIONS A. Understands and applies height and weight restrictions to operation of the apparatus

1. High center of gravity
2. Mass of water in motion (4,000+ lbs.)
3. Partially empty water / foam tanks increase vehicle instability due to sloshing of fluid
4. Reduced braking ability due to heavy weight (_____ lbs. GVWR)

 B. **NO** sharp turns at any speed above 10 mph

1. Preselects appropriate gear to slow apparatus for driving conditions and turns
2. Does not brake while turning whenever possible, except at low speeds
3. Checks the speedometer **BEFORE** making any turn a.
DOES NOT attempt to estimate your speed
4. Remember, mass in motion will continue to move in the same direction
5. When responding to emergencies, accelerate fast while straight, but brake and downshift before going into a turn or curve

- C. **NEVER** allow vehicle to coast in neutral
 1. **TRANSMISSION DAMAGE WILL OCCUR**
 2. **ENGINE BRAKING** is not available
 3. **POWER** is not available when needed

BACKING

- A. When and how to back
- B. Use of emergency lights
- C. Utilization of crew
 1. Uses personnel to back apparatus at all times, including other responders, if necessary
 2. Stops immediately if backing personnel are lost from sight
- D. Communicates with the crew
 1. Removes communication headset to hear crew outside apparatus
 2. Ensures crew utilizes all backup warning devices
- E. Sets up backing maneuver by proper positioning
- F. Uses appropriate speed while backing
- G. Procedure when alone
- H. Turning radius when backing is _____ feet
- I. Avoids over steering while backing

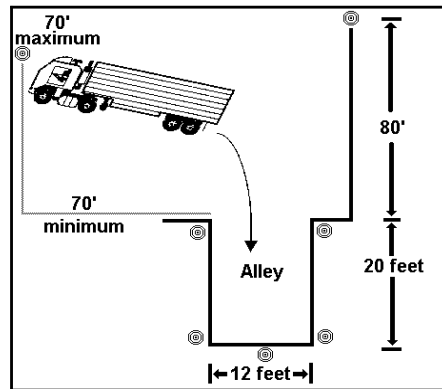
DRIVING SKILLS

A. Demonstrates the following driving skills / maneuvers:

* **Driving skills can be demonstrated during normal driving** after completion of required practice training and basic skill demonstration in an approved practice area(s).

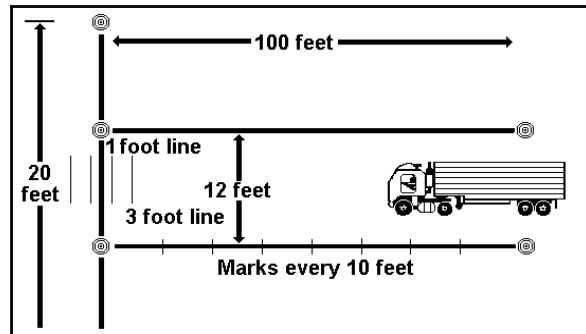
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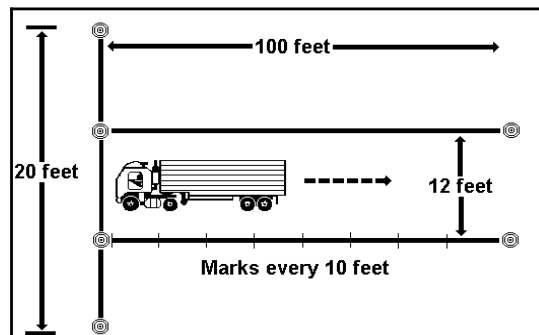


2. * **Forward Stop (Limit Line) (DMV)**

Drive down a 12-foot-wide lane and stop when the driver estimates that the bumper is even with the stop line. Driver is allowed to make **one** stop only, to be within one (1) foot of the stop line.

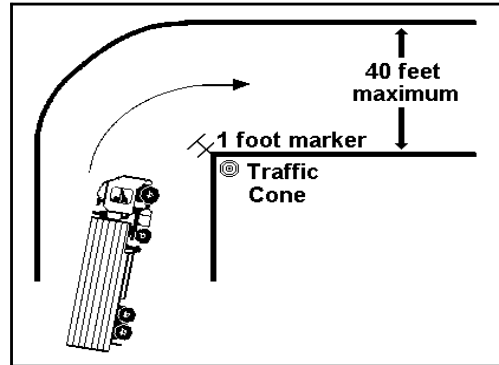


3. * **Straight Line Backing (DMV)** May be combined with forward stop (Limit Line). Drive in reverse in a 12 foot wide lane without going outside the cones or boundary lines



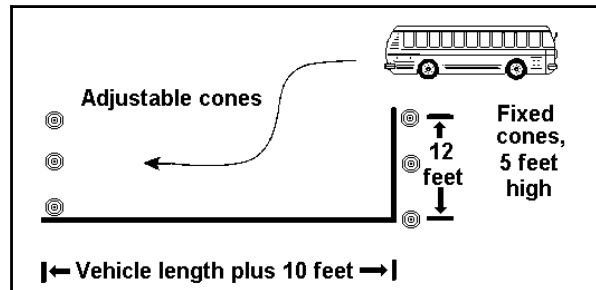
4. * **Measured Right Turn (DMV)**

Make a right turn around a corner with the back axles of the vehicle within one (1) foot of the designated cone, without striking it.



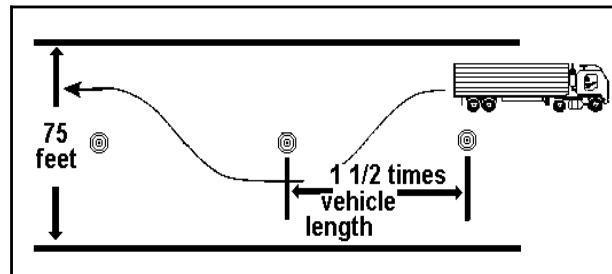
5. * **Parallel Parking (DMV)**

Park in a designated area without striking any cones or boundary lines.



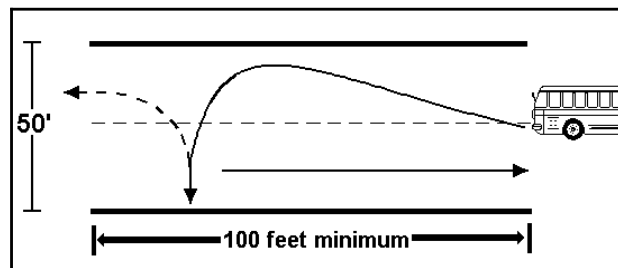
6. **Serpentine**

Maneuver vehicle both forward and in reverse around 3 cones in a serpentine manner without striking any cones and staying within the boundary lines.



7. **Three-point U-turn**

Driver turns the vehicle 180 degrees, staying inside the cones or boundary lines. There is no limitation on the number of maneuvers used to accomplish this skill.



APPARATUS AUXILIARY AND SAFETY SYSTEMS

A. Radio policies and operating procedures

B. Load Manager

- 1. Purpose and function of Load Manager
- 2. Which systems are controlled by the Load Manager
- 3. Order in which the Load Manager sheds systems
- 4. How and when the Load Manager can be bypassed
- 5. Possible consequences of bypassing the Load Manager
- 6. Proper way to reset the Load Manager

C. Antilock Braking System (ABS)

- 1. Describes ABS operation
- 2. ABS prevents wheel _____
- 3. Wheels effected _____
- 4. Utilizes normal brake pedal pressure during stops (DO NOT PUMP BRAKE PEDAL)
- 5. ABS warning light remains lit until _____ MPH (color) _____
- 6. Reports malfunction if warning light stays on (color) _____
- 7. ABS brake system operational technique

USE IN EMERGENCY SITUATIONS ONLY

STOMP - the brake pedal to the floorboard **STAY** - on the brake pedal, do not let up

1. Releasing the pedal resets the ABS computer, **INCREASING** the stopping distance

STEER - around the hazard(s)

1. The vehicle will handle well with ABS system working

Automatic Traction Control (ATC) (IF APPLICABLE)

- 1. Theory of operation
 - 2. What ATC does when wheel spin develops
 - 3. Locate the control switch
 - 4. The switch label indicates _____
Normal control switch position _____ (up / down)
 - 5. Explains why the green indicator light might illuminate
 - 6. Explains what to do if the green indicator light remains illuminated
- D. Emergency engine shut down – **TURN OFF IGNITION SWITCH**
- a. **D**etroit **D**iesel **E**lectronic **C**ontrol (DDEC) unit on the Detroit series 60 engine will shut the engine down by turning the fuel off as in a normal shutdown procedure

SECONDARY BRAKING DEVICES**Jake Brake**

- 1. Theory of operation and normal switch position
- 2. Proper use
- 3. Turns off when pumping
- 4. Procedure for wet conditions
 - a. Switch position
 - b. Use / non - use of Jake Brake

SHIFTING APPARATUS WITH AUTOMATIC TRANSMISSIONS

- A. Maintains engine speed in power range (1600 - 2100 RPM)

WARNING - DO NOT LUG OR OVER SPEED ENGINE

- B. Maintains and selects appropriate transmission gear for road, weather, and operating conditions to retain engine speed in power range
- C. Properly uses the MODE switch
- D. Manually selects lower gear when engine lugs or transmission cycles between gears
 - 1. Allison transmissions **WILL NOT** shift to a manually selected gear until the transmission is in the correct operating range, even if you incorrectly select a gear
- E. **DOES NOT** descend a hill in a gear higher than that required to ascend

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CODE 3 POLICY

- | | |
|--|---|
| <input type="checkbox"/> A. Speed | <input type="checkbox"/> E. Freeway |
| <input type="checkbox"/> B. Lights, siren, and opticom | <input type="checkbox"/> F. Railway crossings |
| <input type="checkbox"/> C. Intersection | <input type="checkbox"/> G. School bus |
| <input type="checkbox"/> D. Passing | <input type="checkbox"/> H. Describes sequence of code light activation |

UNIMPROVED OR SEMI-IMPROVED SURFACE OPERATIONS

- A. **DOES NOT** operate this class of apparatus off road at any time (unimproved surfaces include dirt, sand, loose soil or gravel, scrub, and grass)
- B. Remember the GVWR of this apparatus is _____ #
- C. Operation on **semi-improved** (other than fully engineered) surfaces **MUST** be done with extreme care as structural stability of surface and underlying soil is unknown
1. Soil or surfaces other than dedicated streets or highways have unknown load bearing capability
 - a. Gravel roadways or parking areas
 - b. Back country roads (private and fire), culverts, bridges
 - c. Paved surfaces other than dedicated streets
 - d. Private drive ways
 - e. Sidewalks
 - f. Parking structures
 - g. Adjacent to surfaces at the top of slopes
 - h. Adjacent to surfaces or slopes above soil held in position by retaining walls
 2. Improved or engineered surfaces are load rated at 500 PSI
- D. Carefully inspects apparatus for damage after operation on an unimproved or semi - improved surface
- E. Carefully inspects between dual tires to determine if rocks or other material is caught between the dual tires after all operations on any semi-improved surface

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SECURING APPARATUS FROM DRIVING

- A. Curbs wheels when on incline
- B. Sets all parking brakes
- C. Transmission in neutral
- D. Checks the engine temperature (normal temp _____ B)
 1. For high temperature idle at _____ to _____ RPM until normal temperature achieved
 2. **DOES NOT** idle engine for long periods of time as damage to turbocharger and injectors will occur (Detroit 8v92 - 10 minutes or more; Detroit Series 60 - 20 minutes or more)
 3. When idling for long periods is required by any operation, increase idle level to a minimum of 900 RPM (High Idle) to cool and lubricate the engine and turbocharger
 4. Normal engine idle speed is _____ RPM
- E. Control switches to "Off" (1) Ignition (2) Master (3) Battery
- F. Wheel block(s) down (manufacturer supplied wheel blocks only) or in station parking cradle
- G. Post trip vehicle inspection
 1. Air and fluid leaks
 2. Apparatus damage
 3. Equipment missing or damaged
 4. Resupply apparatus
 5. Clean apparatus
 6. Plug in air and / or electrical lines

MAINTENANCE PROCEDURES

- A. Describes frequency and procedure to replace
 - 1. Coolant filter # _____ Coolant capacity _____ gallons % Mix _____
 - 2. Power steering fluid type _____
 - 3. Engine oil type _____ Oil filter # _____ Engine oil capacity _____
 - 4. Transmission oil type _____ Filter # _____ Oil capacity _____
 - 5. Fuel type _____ Fuel primary filter # _____ Secondary filter # _____
Fuel capacity _____ gallons
 - 6. Differential oil type _____ Filter # _____ Oil capacity _____
 - 7. Front hub oil type _____ Weight _____ lbs.
 - 8. Air filter # _____
 - 9. Describes benefits of proper maintenance

B. Performs Monthly Apparatus Maintenance checks

- 1. Cleans and degreases apparatus
- 2. Inspects apparatus for leaks, defects, rust, cracked or chafing hoses, and repaint needs
- 3. Lubricates all grease points (zerk fittings) and other moving joints
- 4. Cleans excessive grease from all fittings and surfaces
- 5. Cleans and inspects all pump intake screens
- 6. Performs intake relief valve(s) test(s) and maintenance (if applicable)
- 7. Performs pressure governor test(s) and maintenance (if applicable)
- 8. Performs auxiliary equipment tests and maintenance

C. Cab Tilt Procedure

1. SAFETY considerations for cab tilt operation

- a. Secures all loose materials in cab and close doors
- b. Checks for apparatus equipment that may interfere with cab tilt and reposition it
- c. Checks for overhead obstructions

2. Engine ignition is _____ when cab is raised

3. Demonstrates proper procedure for raising the cab

4. After raising the cab, secures in position with safety support

5. Lowering cab

- a. Raises off safety support lock
- b. Releases safety catch and stow support rod (if equipped)
- c. Lowers cab
- d. Insures latches are secured (hold lowering toggle switch down until latches set and indicator light is **“Off”**)

PUMP SYSTEM DESCRIPTION

- A. Water Tank _____ gallon _____
- A. Auxiliary foam tank(s) _____ gallons _____ gallons _____
- B. Pump type _____ Output _____ gpm @ _____ rpm _____
- B. Auxiliary pump(s) type _____ Output gpm/rpm _____ / _____
- C. Intakes # and sizes _____
- C. Outlets # and sizes _____
- D. Cross lay lengths (1) _____ (2) _____ (3) _____
- D. Hose size _____ length _____
- E. Hose size _____ length _____
- E. Hose size _____ length _____
- F. Hose size _____ length _____
- F. Hose size _____ length _____
- G. Hose size _____ length _____

PUMPING

- | | |
|--|---|
| <ul style="list-style-type: none"> <input type="checkbox"/> A. Sets parking brake(s) <input type="checkbox"/> B. Emergency Lights "ON" <input type="checkbox"/> C. Turns Opticom "OFF" <input type="checkbox"/> D. Transmission in Neutral <input type="checkbox"/> E. Engages pump <input type="checkbox"/> F. Shifts to pump gear | <ul style="list-style-type: none"> <input type="checkbox"/> I. Pump Engaged light "ON" <input type="checkbox"/> J. Turns up radio volume <input type="checkbox"/> K. Shifts radio console to "Remote" <input type="checkbox"/> L. Operates Tank to Pump valve <input type="checkbox"/> M. Sets wheel blocks on LEFT Rear wheel <ul style="list-style-type: none"> 1. Forward and aft of wheel 2. Wheel blocks in complete alignment with tire (square to tread) 3. Collapsible wheel blocks MUST BE LOCKED OPEN |
|--|---|

PUMPING OPERATIONS OFF TANK

- A. Operates tank to pump valve. Why? _____
- B. Checks number and type of lines deployed
- C. Verbally and visually checks for Firefighter readiness and signal for water
 - 1. Returns signal properly
- D. Opens discharge valve(s)
- E. Throttles up to immediate pump pressure then applies calculated pressure
- F. Visually checks that Firefighter has water flowing

PUMPING OPERATIONS FROM HYDRANT

- A. Operates tank to pump valve and performs immediate tasks as required
- B. Secures supply line
- C. Connects soft suction supply hose(s)
- D. Closes tank valve
- E. Opens intake valve(s)
- F. Checks number and type of lines deployed
- G. Checks hydrant pressure
- H. Verbally and visually checks for Firefighter readiness and signal for water
 - 1. Returns signal properly
- I. Opens discharge valve(s)
- J. Throttles up to immediate pump pressure then applies calculated pressure
- K. Visually checks that Firefighter has water flowing

CONSIDERATIONS WHEN PUMPING

- | | |
|---|--|
| <input type="checkbox"/> A. Sets discharge relief valve (if applicable) | <input type="checkbox"/> H. Avoids pump cavitation |
| <input type="checkbox"/> B. Sets intake relief valve (if applicable) | <input type="checkbox"/> I. Closes all compartment doors |
| <input type="checkbox"/> C. Monitors water tank level | <input type="checkbox"/> J. Secures all loose equipment |
| <input type="checkbox"/> D. Monitors all Engineer panel gauges | <input type="checkbox"/> K. Removes kinks in hose lines and tighten connections |
| <input type="checkbox"/> E. Proper engine cooling - Maximum Temperature _____ | <input type="checkbox"/> L. Visually checks under apparatus for fluid leaks and other signs of potential failure |
| <input type="checkbox"/> F. Emergency cooling procedures | <input type="checkbox"/> M. Ensures Fire Fighting Safety |
| <input type="checkbox"/> G. Checks pump for over heating | |

HOSE LAYS

- | | |
|---|---|
| <input type="checkbox"/> A. 1 ¾ pre-connect | <input type="checkbox"/> E. Aerial device or stand pipe |
| <input type="checkbox"/> B. Changeover | <input type="checkbox"/> F. Drafting |
| <input type="checkbox"/> C. Priming | <input type="checkbox"/> G. Internal Foam System |
| <input type="checkbox"/> D. Relay | <input type="checkbox"/> H. External foam Proportioner |

HYDRAULICS

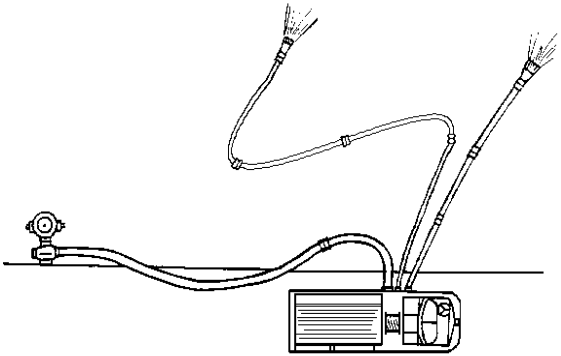
- A. Interior Attack 200 ft. 1 ¾" NP _____ FL _____ PDP _____ EL +/- _____
- B. Interior Attack 150 ft. 2 ½ " NP _____ FL _____ PDP _____ EL +/- _____
- C. SOF nozzle (2 ½" hose), flowing 250 GPM FL _____
- H. Initial Pump Pressure Hand lines _____ PSI
- I. Initial Pump Pressure Elevated streams _____ PSI Ladder System Loss _____ PSI
- J. Initial Pump Pressure Sprinkler System and Stand Pipe _____ PSI
- K. Pump Pressure Proportioners External _____ PSI
- L. Hand Held Straight Tips
 - 1. 15/16" tip (1 ¾" hose) NP _____ GPM _____ FL _____
 - 2. 1 1/8" tip (2 ½" hose) NP _____ GPM _____ FL _____

- M. Appliance Streams (supplied by two - 2 ½" lines)
- 1. 1 ¼" Straight tip NP _____ GPM _____ FLR _____
 - 2. 1 ½" Straight tip NP _____ GPM _____ FLR _____
 - 3. 1 ¾" Straight tip NP _____ GPM _____ FLR _____
 - 4. 2" Straight tip NP _____ GPM _____ FLR _____
 - 5. 500 GPM FOG NP _____ FLR _____

N. Calculate the Pump Pressure. **Line 1** is 200 feet of 1 ¾" hose with a 150 gpm fog nozzle.

Line 2 is 150 feet of 2 ½" hose with a 250 gpm fog nozzle.

SHOW ALL YOUR WORK.



Pump Pressure= _____ PSI

Line 1 Total pump pressure _____ PSI **Line 2** Total pump Pressure = _____ PSI

- F. Opens discharge to operating hose line
- G. Secures priming control to “OFF” position when water flowing
- H. Refills pump reservoir. Fluid type (If Applicable) _____

EMERGENCY COOLING

- A. Checks for obstructions
- B. Sheds load
- C. Heat exchanger operation
- D. Direct cooling operations

ADDITIONAL PUMP CONTROLS

- A. Electronic valve controls
- B. Manual pump override
- C. Deck gun gear valve and extension lock
- D. Bleeder valves

CAVITATION

- A. Recognizes cavitation
- B. Causes of cavitation
- C. Corrective actions

INTERNAL FOAM SYSTEM

- A. Turns system “ON”
- B. Selects % foam. Range _____ % to _____ %
- C. Selects discharges for foam operation. Outlets available are _____
- D. Throttles up to immediate pump pressure then applies calculated pressure
- E. Monitors foam and water supply availability
- F. Shut down operations

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- G. Purges system
- H. Refills tank(s) # gallons _____ # gallons in reserve _____
- I. Type foam nozzles available (size / GPM) _____
- J. Performs daily Husky System tests
 1. Checks foam tank fluid level
 2. Checks foam "ON" / "OFF" valve in the "ON" position
 3. Checks that the light under the flow label is illuminated and that the flowmeter states "0" when the system is turned "ON"

SECURING APPARATUS FROM PUMPING

- A. Checks with officer for permission to shut down pump operations
 1. Verbally and visually checks for Firefighter readiness and signal for shutdown
 2. Returns signal properly
- B. Throttles down completely
- C. Closes hand line discharges and bleeds down line pressures
- D. Ensures water tank is full
- E. Resets relief valves to normal position (if applicable)
- F. Closes engine cooler
- G. Closes all open supply line intake(s) and discharge valves and bleeds down line pressures
- H. Transmission in neutral
- I. Pump to road position
- J. Normal engine temperature _____ °F
- K. Shuts down engine and warning lights when operations safely allow
- L. Relieves pressure on pump
- M. Ensures all equipment accounted for and secured
- N. Corrects hose list after loading hose and tagging any damaged hose

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- O. Performs walk around
 - 1. Secures equipment
 - 2. Compartment doors closed
 - 3. Wheel blocks up and stowed
 - 4. Clear to proceed

AUXILIARY EQUIPMENT

- A. Operates and maintains all fixed systems and equipment on the apparatus not specifically addressed in this standard
- B. Operates and maintains all portable auxiliary equipment assigned to this class apparatus
 - 1. **PERFORMS** Monthly Electrical Equipment Maintenance Check
 - 2. Specifications
 - a. Type _____ Manufacturer _____
 - b. Voltage _____ Amperage _____ Wattage _____
 - 3. Length of electric cords _____ feet Number of cords _____
 - 4. On and off operating sequence for standard generator unit
 - a. Disconnects loads before starting or securing unit

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DRIVER OPERATOR/RELIEF DRIVER OPERATOR PERFORMANCE EVALUATION SHEET

PRIMARY TASK: PRODUCE EFFECTIVE STREAMS – INTERNAL TANK		
Objective(s) 5.2.1(A)(B) FNPA Standard 1002		Notes
1.	Identifies objective and positions vehicle properly	<ul style="list-style-type: none"> • Ensure Generator is started before leaving cab. • Ensure both chocks are down. • Safely charge hose. • Assist in clearing hose out of bed if needed.
2.	* Sets vehicle in position with safety equipment	
3.	Transfers vehicle from road to pump (as applicable)	
4.	Opens compartment and sets radio to proper channel	
5.	Engages pump	
6.	Opens tank-pump	
7.	Put controller in appropriate mode. (normally Pressure)	
8.	Opens proper discharge valve and flows water from internal tank (Slowly)	
9.	Sets throttle speed properly +/-5 PSI,	
10.	Total pump pressure SET- Verbalizes	
11.	Sets pressure governor properly	
12.	Operates Auxiliary Cooling System properly	

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PRIMARY TASK: PRODUCE EFFECTIVE STREAMS – TRANSFER FROM INTERNAL TANK TO EXTERNAL SOURCE		
Objective(s) 5.2.1(A)(B) FNPA Standard 1002		Notes
1.	* Switches to external source	<ul style="list-style-type: none"> • Ensure hydrant is fully open, no water hammer. • Ensure Clean fire ground, couplings put away. • Beware of KINKS. • If necessary add additional lines from hydrant. • Ensure comfortable using ALL intakes.
2.	Sets throttle speed properly	
3.	Sets pressure governor properly	
4.	Operates Auxillary Cooling System properly	
Produce Effective Multi Streams – Pressurized Source		
		Notes
1.	Opens proper discharge valve for the 2nd line and 3rd line.	<ul style="list-style-type: none"> • Verbalizes pressure settings • Top off tank- SHUT tank fill. • Verbalizes Monitor all gages. • Verbalizes set cooling system or recirculate. • Ensure monitors discharge pressure gages
2.	Sets throttle speed properly +/-5 PSI.	
3.	Readjusts throttle speed properly for multi lines	
4.	Ensures pressure governor set properly	
5.	Sets Auxiliary Cooling System properly or recirculates	
6.	Monitors all gages	
Supply Water to Fire Sprinkler and/or Standpipe Systems		
		Notes
1.	Correctly deploy and assemble hoselines for stabdpipe operations	<ul style="list-style-type: none"> • Aware if needed appliances and/or fittings
2.	Should be two 3" lines connected to proper discharges	
3.	Pull appropriate discharge valve (slowly).	
4.	Set appropriate pump discharge pressure (+/- 5 psi).	
5.	Set pump pressure to initial pump pressure for sprinkler /Standpipes (150 psi)	
6.	Monitor and adjust pressure accordingly, monitor water level	

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FOAM OPERATIONS		
Objective(s) 5.2.1(A)(B) FNPA Standard 1002		Notes
1.	Identifies objective and positions vehicle properly	•
2.	Sets vehicle in position with safety equipment	
3.	Transfers vehicle from road to pump (as applicable)	
4.	Establishes water supply from static or pressurized water source	
5.	Engages pump	
6.	Deploys appropriate hose line or master stream device	
7.	Sets foam producing equipment	
8.	Opens discharge valve	
9.	Increases throttle to provide proper pressure	
10.	Flows proportioned foam and water mixture	
11.	Sets pressure control device	
12.	Operates Auxillary Cooling System properly	

OTHER SKILLS	
1.	Setup up Portable Lights and Ventilation fan at the door as directed.
2.	Throw and set a Roof ladder
3.	Tie off Saw to go top side.

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PUMPER OPERATOR

NOTES
