



ANN ARBOR FIRE DEPARTMENT

Standard Operating Procedures - 7.05 Hose Loads and Pump Operations



HOSE LOADS AND PUMP OPERATIONS

Effective: September 24, 2021
Scheduled Review: September 24, 2024
Approved: Fire Chief Mike Kennedy

I. PURPOSE

This procedure establishes the type and quantity of fire hose carried on suppression apparatus including the proper loading.

II. PRECONNECTS - ALL SUPPRESSION APPARATUS

All suppression apparatus has two transverse hose beds for pre-connected fire hose lines. These pre-connects are located directly adjacent to the pump panel.

- Pre-connect #1 (closest to cab) shall be loaded with four (4), fifty-foot (50) sections of 1 3/4" yellow Mercedes KrakenExo hose. The total length will be 200'. This hose load will have an Elkhart XD 7/8" smooth bore nozzle.
- Pre-connect #2 shall be loaded with four (4), fifty-foot (50) sections of 1 3/4" hose of a uniform color. The total length will be 200'. This hose load will have TFT Dual-Force automatic nozzle in low pressure setting

III. LEADER LINE – ENGINE COMPANY

The driver's side static hose bed shall have 400' of 2 1/2" hose with a y-gate. The 2 1/2" shall be loaded in a flat load Attached to this y-gate shall be 150' of 1 3/4" in a strapped bundle. The primary / attached bundle shall have an Elkhart XD 7/8" smooth bore nozzle. Each engine shall have a second 150' bundle of 1 3/4" with a TFT Dual Force automatic nozzle (low setting).

IV. LARGE DIAMETER SUPPLY LOAD - ENGINE COMPANY

The center static hose bed shall have 800' of 5" supply line. One reserve engine still has 4" supply. This shall be loaded in a flat load.

V. 2 1/2" STATIC LOAD - ENGINE COMPANY

The company officer's side static hose bed shall have 400' of 2 1/2" hose. This hose load shall have a 2 1/2" TFT smooth bore with 1" and 1 1/8" stacked tips without pistol grip. This shall be loaded in a flat load.

VI. STANDPIPE HOSE AND EQUIPMENT

High-Rise Hose Cache - Each engine and ladder company will have one (1) high-rise cache. Ladder 1-5 shall be recognized as an engine company for the purposes of this SOP.

The cache consists of three bundles of hose as indicated below:

Two (2) 50-foot lengths of 2" hose packaged in the Denver Load configuration with designated hose straps. The high-rise cache shall not be used as a secondary line for leader line operations.

One (1) High-Stack Tip Nozzle package: without pistol grip, stacked 1" and 1 1/8" smooth-bore tip nozzle

High-Rise Kit - All suppression companies will have one (1) high-rise kit.



ANN ARBOR FIRE DEPARTMENT

Standard Operating Procedures - 7.05 Hose Loads and Pump Operations



- One (1) Pressure gauge
- Two (2) High-Rise elbow
- One (1) Gate Valve
- Two (2) Spanner Wrenches
- One (1) Swiveling Bell Reducer
- One (1) Increased Adapter
- One (1) Standard wire brush
- One (1) Aluminum 18" pipe wrench
- One (1) Elongated flathead screwdriver
- One (1) Long-nose needle pliers
- Two (2) Fat Ivan Door Props



ANN ARBOR FIRE DEPARTMENT

Standard Operating Procedures - 7.05 Hose Loads and Pump Operations



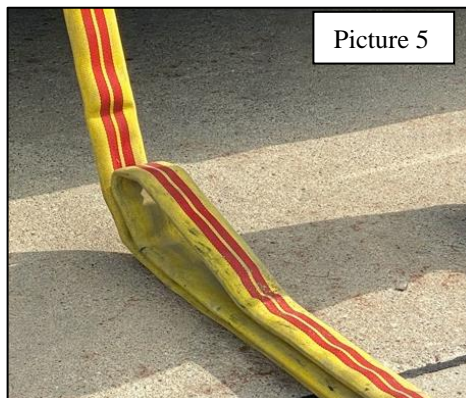
TRIPLE LAYER LOAD

All transverse hose bed preconnects shall be loaded in the triple layer load as outlined below.

LAYOUT

Ensure that all sections of hose are walked out and free of water and air. Consider a male to female donut roll to ensure hose is completely clear. Re-connect all lengths of hose together. Ensure all hose is flat with no twists.

1. From the pump panel, ensure the pig tail is hanging, ready to be connected.
2. Roll first 50' section out and connect to pig tail. Make flat to ground. (Picture 1)
3. Roll and connect second 50' section to first. Make flat.
 - a. The first of two bends will be placed in section two at approximately 18'-22', to send the hose back towards the hose bed. (Picture 2)
4. Roll out and attach the third section of hose to the second. Make flat.
 - a. This section will follow the initial line and be on top.
 - b. Once this line returns to the engine and touches the pigtail the second bend is formed to send the line back away from the engine. All the while each line is being kept flat. Twists can be managed at couplings.
 - c. Attach the fourth and final section to the previous and stretch so the coupling of the fourth section is even with the first bend in section two. Adjust as needed. (Picture 3, 4)
5. No more than two crew members should be utilized to complete this lay out task.
6. The hose should now be approximately 66' long and have two bends. The nozzle and one bend will be away from the engine, and the pig tail and one bend at the pump panel.
7. The hose should now resemble a "Z" shape and be laid into equal thirds, flat and stacked. (picture 5)





ANN ARBOR FIRE DEPARTMENT

Standard Operating Procedures - 7.05 Hose Loads and Pump Operations



LOADING

Once the layout is completed and all hose is flat and adjusted to specifications it can be loaded. The pig tail can be placed on the officer side or folded to reach the driver side. (Picture 6)

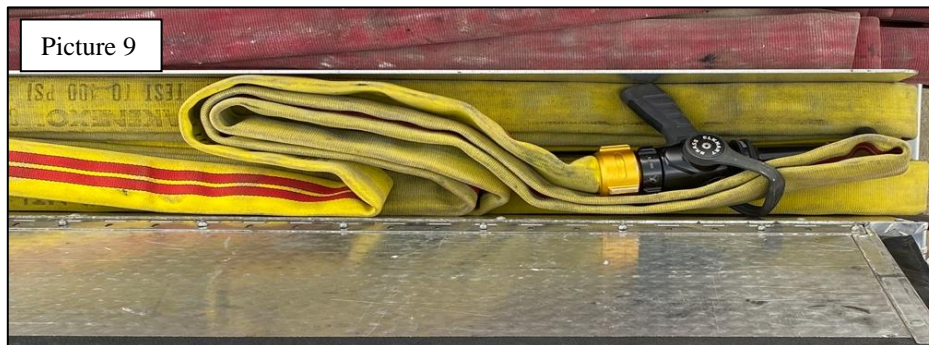


The line will now be loaded into the hose bed as a triple layer stack. Each stack will be laid out one next to the other, alternating sides until the last coupling and loop have reached the hose bed. Loading crew must be diligent to keep all three layers tight and together for optimal loading and deployment purposes. (Picture 7-8)



Once the final coupling and loop have reached the hose bed, attach the nozzle and orient it so the loop can pass through the bail or go around the nozzle (picture 9). Any loose layers will alter the nozzle loop length of the finished load, which can ultimately be adjusted but ideally will be just enough to go through the bail when done correctly

Place the nozzle on top of the hose load, and ensure it is secure and ready for deployment.





ANN ARBOR FIRE DEPARTMENT

Standard Operating Procedures - 7.05 Hose Loads and Pump Operations



DEPLOYMENT

The deployment process for this hose load is straight forward and easily done with one firefighter.

1. Once the suppression apparatus stops and an attack mode is chosen, the firefighter will approach the hose bed, get into a strong position, and grab the nozzle and loop.
2. The firefighter now steps off the ledge and faces the objective.
3. As the firefighter deploys the line, it is recommended that the firefighter split the loop from the bail and place the nozzle on the objective side shoulder and the loop on the non-objective side shoulder.
4. Once the firefighter has extended approximately 66', they should be looking to ensure the line has cleared the hose bed. Once the hose is completely clear, the firefighter can drop the loop and position the nozzle for fire attack.
5. If indicated, the firefighter can walk back to the first or second back coupling and drag that to the entry point for additional hose lengths.
6. Once in position with nozzle and hose, the firefighter can begin to mask up for entry.
7. The line shall be charged and bleed prior to entry into IDLH.

Tooled Deployment Consideration

Depending on incident variables, the firefighter can exit the apparatus, gather the irons and either place them at the front door. The firefighter can then return for hose deployment. Another option is with one hand, handle the irons and with the other hand grab the nozzle and loop. Having only one hand to use for deployment will prove to be a challenge but can be overcome through training.