

Menlo Park Fire District Welcomes Its Newest Fire Engine

Fire Captain Steve Susa, Engineer/Paramedic John Renner and Firefighter Will Fitzsimmons welcome the newest member of the Menlo Park Fire Protection District to the fire family, a brand new 2015 Pierce Arrow XT, Type 1, Fire Engine.

The new Engine was recently delivered to Fire Station 4, located at Valparaiso and Alameda de las Pulgas, which is responsible for protecting portions of Atherton, Menlo Park, Unincorporated San Mateo County and the Stanford Linear Accelerator.



Firefighter Fitzsimmons, Engineer/Paramedic Renner and Captain Susa (From left to right)

Division Chief Jim Stevens, who is in charge of the District's Fleet Services said *"this American made, top of the line, fire engine uses the latest in emergency vehicle technology. From purchase, to design by our Apparatus Committee, which is comprised of firefighters and our mechanics, the custom build fire engine was carefully constructed in Appleton, Wisconsin by Pierce Manufacturing. A company with over 100 years of experience that first started building fire equipment in 1939"*.

The fully enclosed occupant crew cab now commonly accounts for over a third of the length of the fire engine and is designed and reinforced to protect the fire crew from not only a collision, but can also be used as a place of refuge during a wildfire.

With its modern and extra heavy duty suspension, this Engine more easily navigates through traffic or absorbs the shock of local traffic control devices like speed lumps, humps, or bumps located in the Fire District, or by providing for a more comfortable ride on long trips that can take this Engine anywhere in the State during Wildland Season. This Fire Engine was designed and built with crew safety and protection in mind.

At 9 feet 6 inches wide, and 30 feet 6 inches long, the Engine is two feet shorter than its predecessors. It weighs 42,766 pounds and is 10 feet 1 inch in height.



Menlo Park Fire District Engine 4 is a 2015 Pierce Arrow XT, Type 1

"This fire engine can accommodate a four person crew where everyone now faces forward in seats designed to safely secure both breathing equipment and firefighters in case of a collision. It allows for the rapid release of safety belts and self-contained breathing apparatus worn by firefighters and located in the seats themselves because we value rapid crew performance", said Fire Captain Steve Susa.

Equipped with air bags for front and side collisions, new LED emergency lighting, side reflective striping and rear reflective chevrons for maximum attention, this engine represents the latest in safety visibility needed for emergency fire apparatus where the color of the apparatus no longer matters.

The powerful Detroit Diesel DD3 motor is compliant with 2017 Greenhouse Gas requirements and standards. It produces up to 505 horsepower, more than enough for the 21 ton fire engine with all its equipment and crew of three, up the steepest roadway in the area.

The Fire District uses what is known as a “Type 1 Fire Engine”. This type of municipal fire engine uses a combination pump that can provide firefighters with up to 1500 gallons of water per minute during a fire. With its 650 gallons of on board water, it can quickly knock down small fires or pump up to six large hose lines for hours at time at larger emergencies making it highly versatile and adaptable.

How far has technology and safety taken us:

Fire Chief Schapelhouman said *“when I started here 35 years ago, we had a combination of 1950’s and 1960’s open cab equipment that carried two people facing forward and up to three that could ride on the tailboard or rear step of the rig if needed. We also had some newer 1970’s and 80’s partially enclosed cabs with jump seat rider’s facing backwards, that had partial roof coverage which helped a little when it rained, unless of course the apparatus had been outside, so when the driver gunned the motor a waterfall effect soaked you from about your waist to your feet but it was better than being on the convertible’s where you got soaked from head to toe. Most of the safety equipment wasn’t well secured and we rarely, if ever, wore the thin, pathetic, lap seat belts. You had to yell over the siren or radio to communicate. It was both exhilarating and frightening, all at the same time, while I wouldn’t trade that experience for anything, safety was an afterthought, if it was even considered at all. We were lucky those apparatus were both under powered and many used manual transmissions where you had to switch gears by hand, it’s so amazing to see how far we have come with these modern safety features although I have to emphasize that despite the improvements, there is nothing truly ever safe about responding to a real emergency code 3, or with red lights and siren on because other humans are involved and distracted driving is rampant”.*



Menlo Park Fire’s 2015 Engine 4 displayed next to a 1902 Steam Fire Engine sponsored by the California State Firefighters Association. Over 100 years of modern progress.

Division Chief Stevens said, *“The Fire District plans to order up to 3 more of the Arrow XT, higher quality fire engines, over the next two years based upon how this fire engines performs”. The Fire District upgraded to the top of the line models because of the wear and tear on the less expensive, mid-range quality units it purchased over a decade ago. Those Engines now are needing more repairs which leads to down time that creates deployment challenges for us”.*

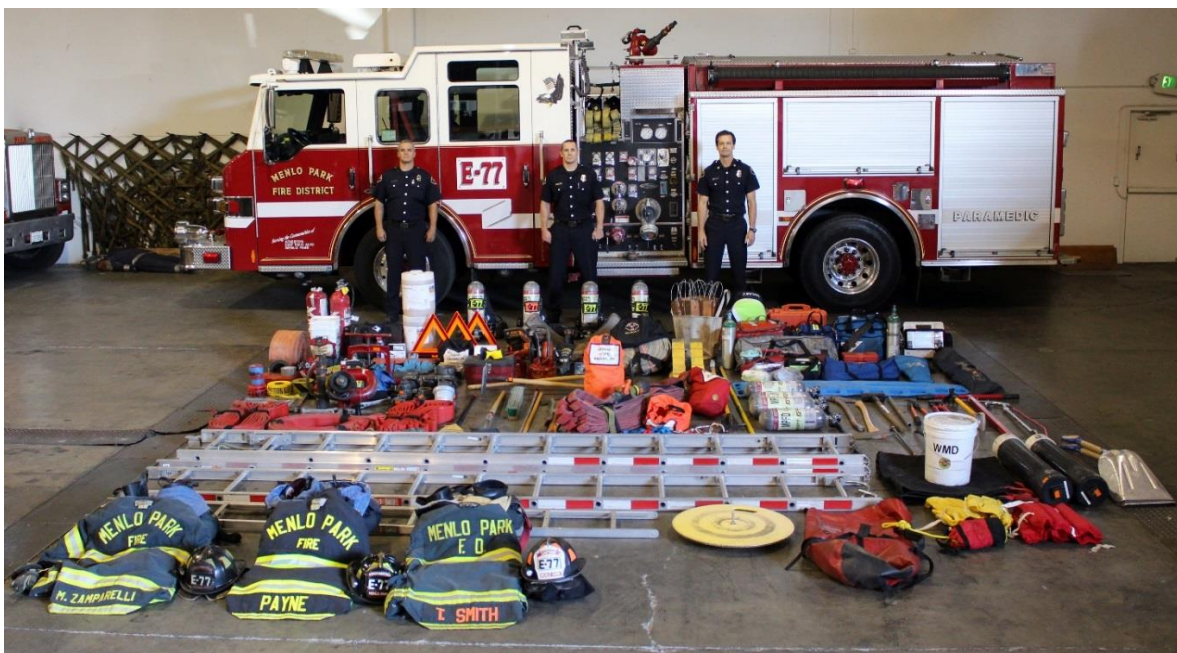
With over 300 traffic control devices, pot holes, constantly quickly speeding up and slowing down and maneuvering in and out of heavy traffic to an ever increasing and record number of emergency calls, the older engines are more regularly needing to have leaf springs or suspension and steering boxes repaired. The newer and heavier duty units should dramatically reduce those types of costly repairs and keep the Fire Engines in service.

What does a Fire Engine carry?

Today’s modern Fire Engines can better be described as a “multi-service platforms” that are the backbone of most fire organizations first response capability because of versatility of the equipment they carry for all types of emergencies.



This photo from the early 1950's shows what the Rescue Squad carries



Menlo Engine 77 and crew display all of the equipment on the Engine

With the required enclosed crew cab for safety that is 13 feet long and a pump control panel that is 5 feet long, that only leaves 12 feet of length for any remaining equipment compartments or storage space, needed to store all of the equipment shown above and several thousand feet of various hoses not shown.

Like many fire agencies, the District has literally come under fire itself in recent years by some who propose that smaller apparatus would be more appropriate, especially as traffic continues to get worse and some local jurisdictions entertain proposals ranging from reducing the number of roadway lanes to reducing the size, or width, of the roadways, in order to support pedestrian, bicycle walkways and lanes.

Fire Chief Schapelhouman said *“most people have no idea how much equipment one of these units carries, so when I ask them what do you feel we should leave behind, many say “well you have less fires so you could eliminate all of that”. What they don’t understand is while we could do that, it means that unit will no longer be considered a Fire Engine, it actually can be a smaller Squad/Rescue configuration, but that type of unit should only be added to a Fire Station that already has a Fire Engine, which is actually something I strongly support, but it could cost more money and requires more people, based upon an agencies actual call volume and community threat profile”, he said.*

Agencies that don’t have a Fire Engine in every Station run the risk of being the first ones to a fire with no way to control it, keep it from spreading or firefighters being able to enter a structure to perform a rescue in compliance with OSHA Standards, which can result in fines but more importantly puts both firefighters and the community at risk.

How much does a Fire Engine Cost?

At a cost of \$594,963.94, the traditional “fire engine” is anything but traditional any longer, except for perhaps the exterior bell on the front bumper which is unique to fewer and fewer fire agencies these days, but is revered by Menlo Park Firefighters who will be celebrating 100 years of service this year.

The crew cab alone is a sophisticated array of switches, gauges, radios, headphones, computers and other equipment like self-contained breathing apparatus built into seats, thermal imaging cameras and portable radios needed by all crew members.

The full complement of equipment can cost over \$100,000 and covers a wide variety of tools and equipment like chain saws, circular saws, portable lighting equipment, hand tools such as poles, axes, sledge hammers, salvage covers, rescue ropes, and harnesses for rescuers and victims and other equipment and supplies to deal with hazardous material spills and decontamination.



Menlo Park Firefighters attempt to save the life of a woman whose vehicle was struck by a Train

Most importantly the Fire Engine carries critical medical equipment used by the paramedics that can include a 12 lead EKG monitor and defibrillator, trauma equipment, OB kits, resuscitators, face masks, spinal immobilization devices, splints, or other supplies needed to save lives when minutes matter and seconds count.

End.