PE710

- 2020 Pierce Enforcer
- GVWR 46 500 lbs
  - GAWR Front -19 500
  - GAWR Rear - 27 000
- Detroit Diesel DD13 505hp engine
- Allison 4000 EVS 6 speed Transmission
- Hale 1500gpm pump with Husky Foam System
- 750 gallon water tank and 25 gallon foam tank
- Height  9’ 7”
- Length  30’ 9”
- Width (mirror to mirror) - 9’ 9”
- Fuel tank 65 gallons - Dual Fills
- OshKosh Tak 4 Independent Suspension
## E710 vs 2018 MCFRS Pumper

<table>
<thead>
<tr>
<th></th>
<th>E710</th>
<th>MCFRS 2018 Engine</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power Train</strong></td>
<td>Detroit Diesel 505hp</td>
<td>Cummins L9 450hp</td>
</tr>
<tr>
<td><strong>Front Suspension</strong></td>
<td>Tak 4 Independent</td>
<td>Straight Axle/Leaf Spring/Buffers</td>
</tr>
<tr>
<td><strong>Seating</strong></td>
<td>Six</td>
<td>Four</td>
</tr>
<tr>
<td><strong>LD Intakes</strong></td>
<td>2 x side and 1 x front</td>
<td>2 x side and 1 x rear</td>
</tr>
<tr>
<td><strong>Foam System</strong></td>
<td>Husky - 25 gallon tank</td>
<td>FoamLogic - 50 gallon tank</td>
</tr>
<tr>
<td><strong>Hose</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Hose Reel</strong></td>
<td>None</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Trash Line</strong></td>
<td>1 ½ x 150ft front bumper</td>
<td>None</td>
</tr>
<tr>
<td><strong>Deck Gun</strong></td>
<td>Akron Model # 2499 Quad Stacked</td>
<td></td>
</tr>
</tbody>
</table>
Safety Systems

Automatic Traction Control (ATC)
- applies the service brake to a spinning wheel so that the torque can be transferred through the differential to the wheel that has the traction
- reduces engine torque when both wheels are spinning to improve traction
- ATC light located in the cab will light when the ATC feature is active
- May be momentarily disengaged by “Offroad Traction” switch

Electronic Stability Control (ESC)
- stabilizes the vehicle during cornering maneuvers
- Compares where you are steering and where the vehicle is actually going.
- Intervenes by applying the brakes to individual wheels asymmetrically in order to create torque about the vehicle’s vertical axis
- system may reduce engine power or operate the transmission to slow the vehicle down

Frontal impact protection systems

Side roll protection systems
Powertrain

Motor: Detroit Diesel DD13 505hp

Transmission: Allison 4000P EVS 6 speed
Fluid: Synthetic TES-295

Max Speed: 68mph

Maintenance: Oil and transmission dipsticks can be accessed via access panel in crew cab.
Cab Tilt

Refer to following link - same as MCFRS 2018 Pumper

Cab Tilt
Motor

Turbo

AC Compressor

Alternator
Motor

- Power Steering Reservoir
- Transmission Dipstick and Fill
- Oil Dipstick
Motor

Engine Oil Fill

Washer Fluid
Data Plate

Located at the driver’s seat side of the motor housing

Always verify fluid type before adding
The Detroit DD13 engine uses a completely integrated emissions system that combines exhaust gas recirculation (EGR), diesel particulate filter (DPF), diesel oxidation catalyst (DOC) and selective catalytic reduction (SCR) to efficiently meet current emissions standards. Exhaust gases are treated downstream of the engine instead of requiring complex changes to the engine. It does this by injecting a small amount of diesel exhaust fluid (DEF) into the exhaust stream which reacts with the NOx in the SCR catalyst, forming nitrogen and water. The nitrogen and water, safe elements in the air we breathe, are released into the environment.
Regeneration Indicators

**Parked Regeneration Procedure**

- **The engine should be fully warmed up (cooler temperature above 185F)**
- **Engine must be at slow idle (can not be in Fast Idle or PTO Mode)**
- **The transmission must be in neutral**
- **Set the park brake (cycle the park brake OFF to ON)**
- **Press and release the clutch pedal (if configured)**
- **Hold the DPF Switch to the ON position for five (5) seconds and release (engine speed will increase and DPF Lamp will go out)**

  ![DPF Switch]

  **Initiate/Cancel Regeneration**

  The regeneration will take approximately 20-40 min.

  The regeneration is complete when the engine returns to low idle and the DPF lamp remains off.

  If the DPF lamp comes back on the regeneration failed. (Contact the Customer Support Center)

**To Cancel a Parked Regeneration hold the DPF Switch to the ON position for five (5) seconds and release.**

A Parked Regeneration will stop if the key is turned to the off position, the truck is put into gear or the parking brake is released.

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**Engine Indicator Lamps – Driver Actions**

<table>
<thead>
<tr>
<th>INDICATOR LAMP</th>
<th>DESCRIPTION</th>
<th>DRIVER ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amber Warning Lamp (AWL)</td>
<td>Indicates a fault with the engine controls.</td>
<td>Vehicle can be driven to end of shift. Call for service.</td>
</tr>
<tr>
<td>Red Stop Lamp (RSL)</td>
<td>Indicates a major engine fault that may result in engine damage. Engine derate and/or shutdown sequence will be initiated.</td>
<td>Move the vehicle to the nearest safe location and shutdown the engine. Call for service.</td>
</tr>
<tr>
<td>DPF Regeneration Lamp</td>
<td>Solid yellow indicates a parked regeneration may be needed. Blinking yellow, derate and/or shutdowns are possible as soot load continues to increase. Lamp will shut off during parked regeneration.</td>
<td>Bring Vehicle to highway speeds to allow for an Automatic Regeneration OR Perform a Parked Regeneration</td>
</tr>
<tr>
<td>High Exhaust System Temperature Lamp (HEST)</td>
<td>This is a information indicator. It indicates exhaust temperature is above a preset limit and the unit is operating at low vehicle speed. Lamp is yellow.</td>
<td>Vehicle can be driven.</td>
</tr>
<tr>
<td>Malfunction Indicator Lamp (MIL)</td>
<td>Yellow lamp Indicates a failure of an Emission Control device. May illuminate at the same time as the Amber Warning Lamp.</td>
<td>Vehicle can be driven to end of the shift. Call for service.</td>
</tr>
</tbody>
</table>

**Detroit Diesel Customer Support Center:** 313-592-5800
Active and Parked Regeneration

Pierce Enforcer Regeneration
Fuel and DEF

Diesel Exhaust Fluid (DEF)
- Fluid level displayed on dashboard gauge panel and in Command Zone display
  - 4.5 gallon tank
  - Fill on driver’s side co-located with diesel fuel fill
  - Light blue cap
  - Must open spring-loaded door to access

Diesel Fuel
- Fills on both sides of the apparatus at the rear wheel well
  - 65 gallon capacity
Front Suspension

TAK 4 IFS Independent Suspension
Load Ratings - 19 500 lbs
Cramp Angle - Up to 45°
Wheel Travel - Up to 10"
Dual Steering Gear
Suspension Spring Type - Torsion Bar
KONI heavy-duty telescoping shock absorbers
Tak 4 Independent Suspension

**Steering** - TAK-4 IFS is a mechanical-over-hydraulic steering system with two steering gears that provide power to the steering linkage.

**Control Arm** - Cast steel alloy and ductile iron upper and lower control arms allow the front wheels to take on potholes one at a time.

**Springs** - Torsion Bar
Rear Suspension

- Standens, semi-elliptical, leaf springs
- 3.00" wide x 53.00" long
Front and Rear Brakes

**Front** - Bendix ADB22X 17” Disc Brakes

**Rear** - Meritor DiscPlus EX225 Disc

For more information click on link below

BRAKES
Shoreline

- 20 amp, 120v NEMA 5-20 plug with green indicator light and voltage indicator.
- Next to driver’s door
- Not an auto-eject plug
Class A Foam System

- Husky 3 Foam System
  - Press System ON/OFF
  - Select Tank or Draft
  - Set foam injection rate
  - Check System status lights

Specifications and Video
Pumper Orientation

E710 is similar to the 2018 Pierce Enforcer placed in service by MCFRS. Use the following link to access the orientation for the specifics listed as they are identical to what is installed on E710.

2018 Pierce Enforcer Orientation

- Officer Seat Area
- Dashboard Display
- Driver’s Seat
- Warning Light Controls
- Cab Door Locks
- Start/Stop Motor
- HVAC/High Idle/Pump Shift
- Jake Brake/ATC/Mirror Heat
- Mirror/Wiper Controls

Pierce Enforcer Information

- Siren Brake/Headlights/E-Master
- Command Zone
- Rear Camera
- SCBA Brackets/Retainers
- Pump Panel
- Class B Foam
- Scene Lighting
- Hose Loads
Thank You

Cabin John Park’s Engine Apparatus Committee

- Life Member/Board Director Scott Stone - Chair
- Chief (retired) John McDonald
- Crew Chief Steve Wolff
- MFF Steve Laughman
- MFF Steve Hobson
- FFII Nathan Rodney

For further information on this engine orientation, please contact Chief Corinne Piccardi.