

PE710



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

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

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 o 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 o 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.



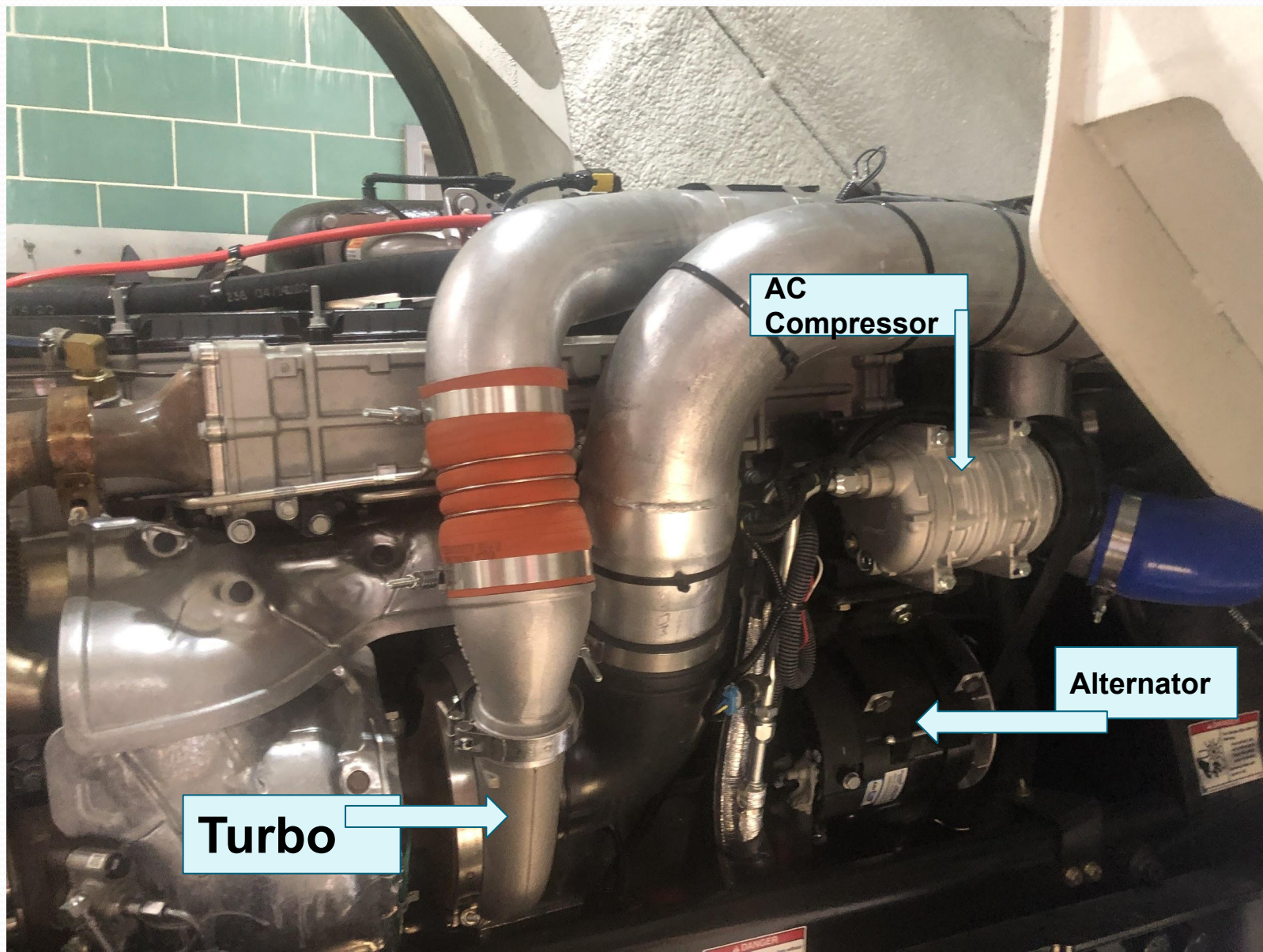
Cab Tilt

Refer to following link - same
as MCFRS 2018 Pumper

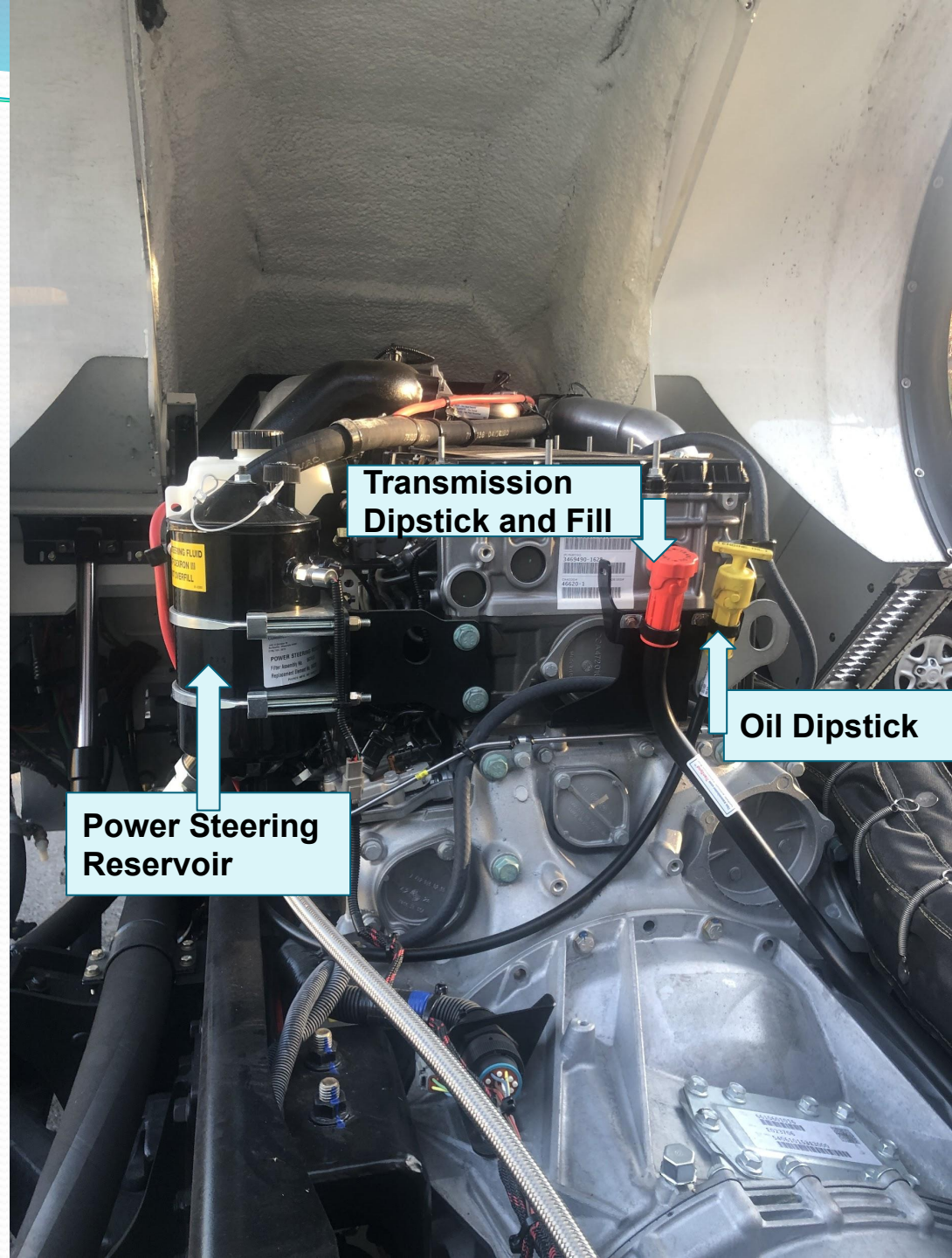
Cab Tilt



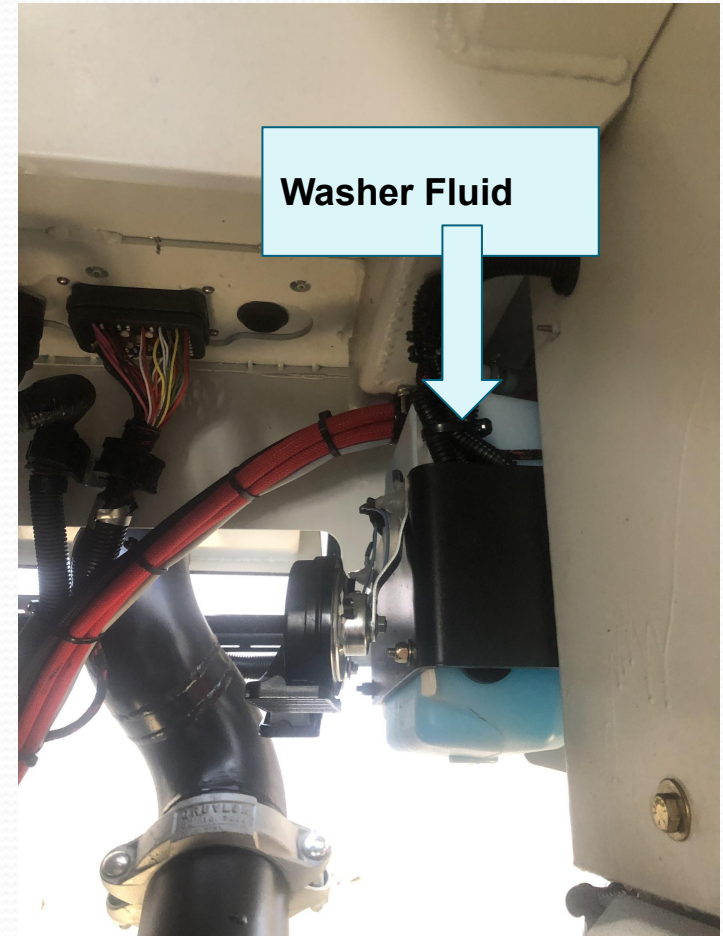
Motor



Motor



Motor



Data Plate

Pierce

Manufactured by: Pierce Manufacturing, Inc.
- Custom Designed and Manufactured Exclusively For -

CABIN JOHN PARK VOLUNTEER FIRE DEPT. INC.

OSHOSH
Oshkosh Corporation
VEHICLE EMISSION
CONTROL INFORMATION
Vehicle Family: LOSH2VOC000
Sub-Category: Vocational Vehicles
above 33,000 lbs GVWR
Emissions component: LRR3
THIS VEHICLE COMPLIES WITH U.S.
EPA REGULATIONS FOR 2020 MODEL
YEAR HEAVY-DUTY VEHICLES

Mo./Yr of Mfg	Jul - 2020	Job No.	34426	WO No.	25822962
GVWR	21,092 KG (46,500 LB)	Tire-Limited Max Speed	68 mph	Chassis	Enforcer
GAWR		TIRES		RIMS	
Front	8,845 KG (19,500 LB)	425/65R22.5 (L)	22.50x12.25	689 kPa (100 PSI)	SINGLE
Rear	12,247 KG (27,000 LB)	12R22.5 (H)	22.50x8.25	827 kPa (120 PSI)	DUAL

THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S. FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

VIN	4P1BAAGF1LA022102	TYPE	Emergency Vehicle
CUSTOM HIGH GRADE PAINT FINISH			
White	Pierce No. 10	Sikkens Autocoat BTLV Basecoat	FLNA4040
None	Pierce No. 0	NA	NA

FLUID CAPACITIES
Verify All Fluid Capacities and Perform All Maintenance Items outlined in the Chassis Operation Manual At The Recommended Time Intervals

Component	Fluid Capacity		Fluid Type	
Engine DD13	37.6	Liter	40.0	Quart
Trans 4000 EVS	36.9	Liter	39.0	Quart
Coolant	53.0	Liter	56.0	Quart
Power Steering	3.8	Liter	4.0	Quart
Front Axle				
Rear Axle (#2 or Single)	21.8	Liter	23.0	Quart
Rear Axle (#3)	0.0	Liter	0.0	Quart
Cab Tilt	3.8	Liter	4.0	Quart
Gen None - KW	0.0	Liter	0.0	Quart
(Refer to Owners Manual for Temperature Ranges)				
Transfer Case	0.0	Liter	0.0	Quart
Equipment Rack - Per Reservoir	0.0	Liter	0.0	Quart
Breathing Air Compressor	0.0	Liter	0.0	Quart
CAPS Compressor	0.0	Liter	0.0	Quart
Water Pump Transmission	3.8	Liter	4.0	Quart
Water Pump Primer	0.0	Liter	0.0	Quart
A/C Compressor	Refrigerant Charge		Oil Charge	Oil Type
	4 lbs 8 oz		12.8 oz	PAG 46

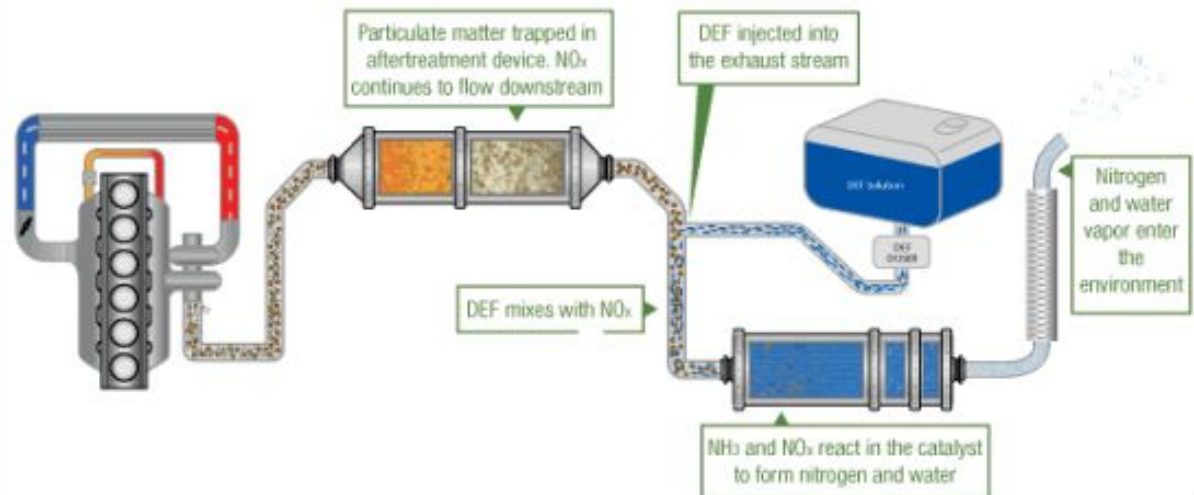
Located at the driver's seat side of the motor housing

Always verify fluid type before adding



After Engine Exhaust Treatment

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 NO_x 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 (coolant 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.

Engine Indicator Lamps – Driver Actions

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

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

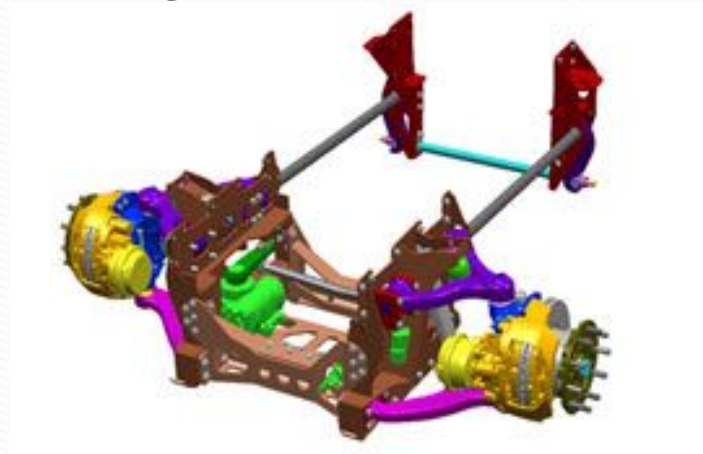
KONI heavy-duty telescoping shock
absorbers

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.

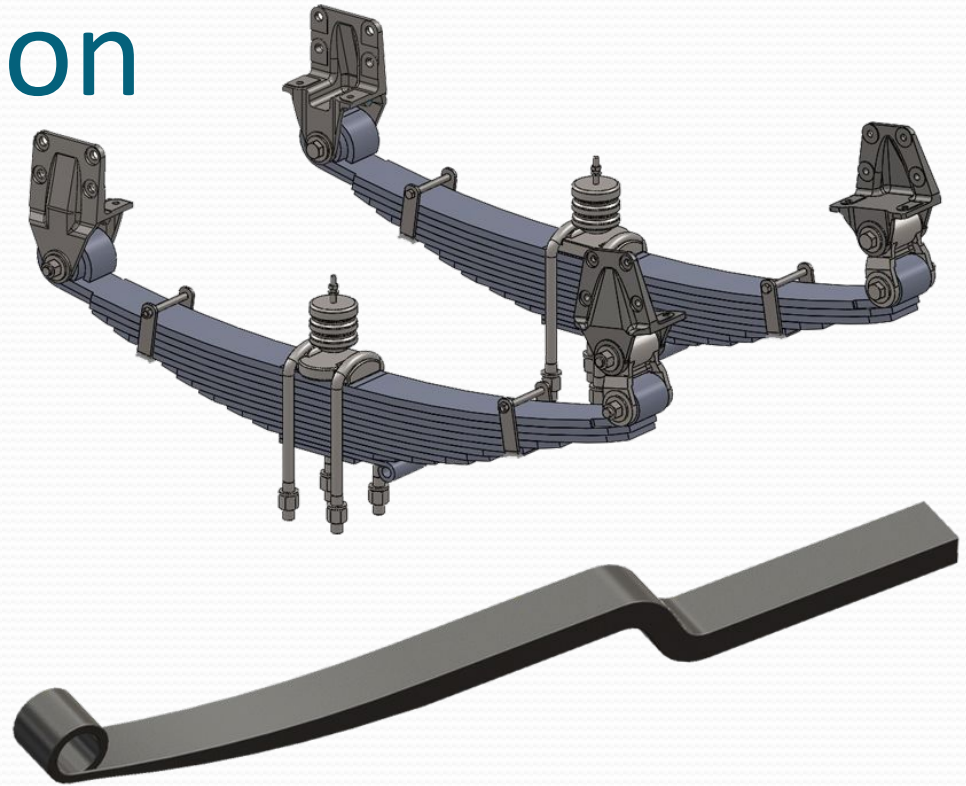
Control Arm - Cast steel alloy and ductile iron upper and lower control arms allow the front wheels to take on potholes one at a time.

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.