



Midwest Regional Refurbishment Center

816 Commercial Avenue
 Weyauwega, WI 54983
 Phone 920-867-2142
 Fax 920-867-2624

Date: 08/29/22

To: Rochester Hills

From: Brian Bessette

Subject: Incoming Inspection and Tear down.

Chief,

The following is a list of additional defects identified during our incoming inspection and tear down of the Rochester Hills Fire Department, Pierce Ladder unit #20887TR, F7463

The list includes items that are not already included in the original scope of work.

I have provided an estimate for each item listed below. Please review the list and identify which items, if any, you would like us to repair by marking a YES in the yes/no box and send back to me with your written approval.

* The aerial items will need to be repaired to achieve a 3rd party UL aerial certification.

Item	Description	Cost	Yes / No
1.	Lower valve on engine cooler is leaking. Engine cooler is corroded and expanded. Replace engine cooler and cooler lower 3/4" valve. Test to verify leak was repaired.	\$ 585.00	Yes
2.	Tailpipe is corroded. Replace exhaust tailpipe and clamp.	\$ 257.00	Yes
3.	Rear axle brake dust coves are missing. Install four (4) rear axle, upper and lower brake dust	\$ 406.00	No

	covers.		
4.	Water pump primer not functioning. Replace primer pump.	\$ 1,082.00	Yes
5.	Discharge controls operate hard. Replace ten (10) control rods and locking mechanical controls at driver's side pump panel. Controls will be cleaned and tested for proper operation. Replace u-joints for passenger's side large diameter discharge hand wheel linkage.	\$ 1,057.00	Yes
6.	Master drain leaks for water pump. Replace master drain valve. Included in #13, If #13 is yes, no answer required.	\$ 531.00	N/A
7.	The following water pump valves were identified as leaking passed or at flange of valve. <ul style="list-style-type: none"> • Passenger's side large diameter. • Driver's side auxiliary inlet. • Tank fill. • Tank to pump. Rebuild valves to include seats, O-rings, and stainless-steel balls.	\$ 1,754.00	Yes
8.	Pressure governor display is cracked around buttons. Replace Class 1 pressure governor display. Program and test for proper function.	\$ 1,875.00	Yes
9.	Discharge #3 valve is leaking around valve body. Replace # 3 discharge valve.	\$ 884.00	Yes
10.	Aerial discharge valve is leaking around gasket, on pump side of valve. Replace gasket for aerial discharge valve.	\$ 292.00	Yes
11.	Manual pump shift cable at driver's side pump panel will not operate. Replace manual pump shift cable and linkage at driver's side pump panel.	\$ 241.00	Yes
12.	Upper waterway swivel leaks at rear of ladder.	\$ 499.00	Yes

	Install service kit in waterway swivel at rear of ladder.		
13.	<p>Pump test indicates above normal pump wear.</p> <ul style="list-style-type: none"> 150 PSI test 26% higher rpms than original 3rd party. 1531 rpms compared to 2000rpms <p><u>PUMP OVERHAUL, WATEROUS</u></p> <p>The master drain assembly and connecting tubing will be removed and set aside for servicing.</p> <p>The pump drive unit and drivelines will be removed. The pump body will be split and the lower portion of the pump body, along with the impeller assembly, will be removed for bench service. The upper and lower pump halves will be carefully cleaned and inspected for abnormal wear on the stripping edges or other damage. Any damage to the center case will be identified in writing and forward to the fire department with a parts and labor estimate if replacement is needed.</p> <p>An entirely new impeller assembly will be installed, to include new impellers, wear rings, impeller shaft and seals/gaskets. Standard packing is included. The pump body will be reassembled following the manufacturers tightening sequence and fastener torque specifications. The pump drive unit and driveline will be reinstalled. The driveline and drive unit will be serviced, including oil change in the drive unit and greasing of the U-joints. The master drain valve and connecting tubing will be reinstalled.</p> <p>The pump master drain valve will be replaced with new and reinstalled on the pump. The connecting link and drain tubing will be reconnected and the valve will be checked for smooth operation and proper sealing.</p> <p>The pump will be dynamically tested for leaks and to ensure the performance meets the manufacturers flow and pressure standards. A Pierce Manufacturing pump certification will be provided when the work is complete.</p> <p>#6 Not required if #13 yes</p>	\$ 15,658.00	Yes
14.	<p>The following electrical items are not functioning proper.</p> <ul style="list-style-type: none"> Engine compartment light. 	\$ 352.00	Yes

	<ul style="list-style-type: none"> • License plate. • Ignition switch indicator. • One light driver's side pump panel light shield. 		
15.	<p>Two (2) Perimeter light on passenger's side of cab not functioning.</p> <p>Replace two (2) perimeter lights on passenger's side of cab. Test for proper function.</p>	\$ 222.00	Yes
16.	<p>Driver's side seat bottom worn.</p> <p>Replace driver's side seat cushion.</p>	\$ 590.00	Yes
17.	<p>Pinnable monitor guide cones are broken.</p> <p>Replace pinnable guide cones at ladder tip.</p>	\$ 526.00	Yes
18.	<p>* Pinnable waterway is very stiff and hard to swap sections.</p> <p>* Pinnable safety latch on mid-section bent and not function.</p> <p>Remove pinnable latching mechanism clean and or replace bushing to allow mobility.</p> <p>Replace cam latch weldment for pinnable.</p>	\$ 1,436.00	Yes
19.	<p>* Three (3) heat sensors are expired others expire December 22.</p> <p>Replace all twenty-six (26) heat sensors on aerial device.</p>	\$ 197.00	Yes
20.	<p>* Hydraulic relief pressure is low, 2900 psi on console gauge.</p> <p>Adjust pressure and test for proper function.</p>	\$ 292.00	Yes
21.	<p>* Aerial master and PTO indicator light in cab is not activating.</p> <p>Replace aerial mater and PTO switch panel.</p>	\$ 492.00	Yes
22.	<p>* Cracked weld on right side of base section where elevation cylinder mounts to base rail.</p> <p>Repair cracked weld, UL test weld and repair paint effected by welding.</p>	\$ 604.00	Yes

23.	* Emergency power unit pump leaking. Replace aerial emergency power unit.	\$ 1,269.00	Yes
24.	Cab lock latches and hoses are worn. Replace driver's and passenger's side cab lock latches and hose kit.	\$ 782.00	Yes
25.	Rear axle shoes and drums are worn unevenly. Replace driver's and passenger's side rear axle brake drums and shoes.	\$ 4,919.00	No
26.	Front brake pads are chipped in one spot. Replace front brake pads and rotor.	\$ 2,247.00	No
27.	Exhaust clamps are corroded and damaged. Replace exhaust clamps.	\$ 490.00	Yes
28.	Hydraulic hoses for power steering in TAK-4 and to reservoir are stiff and worn. Replace six (6) hydraulic hoses for power steering reservoir and TAK-4 gear boxes.	\$ 468.00	Yes
29.	Back-up alarm corroded. Replace back-up alarm.	\$ 109.00	Yes
30.	Tank fill hose and tank to pump hoses are worn. Replace tank fill and tank to pump hoses.	\$ 125.00	Yes
31.	Air intake filter was last replaced 2017. Air filter brackets are corroded. Replace air intake filter and brackets.	\$ 264.00	Yes
32.	Rubber radiator hoses and heater hoses are worn. Heater shut off valves are leaking. Replace rubber radiator hose, heater hose from engine with silicon hoses and constant torque clamps. Replace heater hose shut-off valves.	\$ 1,411.00	Yes

33.	Stainless steel hose from engine air compressor to air dryer is corroded. Replace stainless steel hose from engine air compressor to air dryer.	\$ 196.00	Yes
34.	Transmission cooler hoses are worn, and connectors corroded. Replace both transmission cooler hoses.	\$ 237.00	Yes
35.	Air dryer is corroded. Replace WABCO air dryer.	\$ 696.00	Yes
36.	Fuel fill hose is cut. Replace fuel fill hose.	\$ 197.00	Yes
37.	Engine, transmission, and radiator rubber mounting isolators are worn. Replace all ten (10) engine, transmission, and radiator mounting isolators.	\$ 207.00	Yes
38.	Lower aerial hydraulic lines and fittings are worn and corroded. Replace lower hydraulic hose kit.	\$ 6,588.00	Yes
39.	TAK-4 torsion bars are bent. Replace the TAK-4 torsion bars with upgraded torsion bars.	\$ 3,575.00	Yes
40.	TAK-4 toe control adjustment rods boots torn. Replace TAK-4 toe control adjustment control rods for alignment.	\$ 599.00	Yes
41.	* Delaminating corrosion on turntable by waterway bracket. Repair corrosion metal finish, prime, paint, and buff.	\$ 922.00	Yes
42.	Crack in body below D-1 compartment. Repair crack, metal finish, prime, paint and buff.	\$ 1,516.00	Yes
43.	Crack in body passenger's side near outrigger access panel, toward front of rear wheel. Repair crack, metal finish, prime, paint and buff.	\$ 1,845.00	Yes

44.	Corrosion around taillights on driver's and passenger's side body. Disassemble, repair corrosion, metal finish, prime, paint and buff.	\$ 1,971.00	Yes
Total			\$52,362.00

Customer's Approval Signature: _____

Date: _____