



Shop Order-00-10-15: Unclassified

Carrier Truck Centers Inc.
 O/A Carrier Centers Emergency Vehicles
 6 Edmondson Street
 Brantford, ON N3T 5N3

Muskoka Lakes Fire Department
 1 Bailey Street, Box 129
 Port Carling, ON P0B 1J0

Exp. Date: 01/29/2016
Quote No: RMUON-0102 **Job/Order No:** 18978
BODY: 00-10-15 Metalfab Pumper - ULC 05/13

02/08/2017

PART NO	S	STN CODE	DESCRIPTION	QTY	ID
			== Metalfab Pumper - ULC 05/13 - 0.000 ==	1	MTL
			Change Order A	1	MTL
00-10-1500	S		Metalfab Pumper E	1	MTL
00-20-1000			Company Profile E	1	MTL
00-20-1500			Standard Body Warranty	1	MTL
00-20-1550			Metalfab Limited Ten (10) Year Paint and Corrosion Warranty	1	MTL
00-20-1600			Waterous Pump Warranty - 5 years	1	MTL
00-20-1800	S		Brayneck Canaplast Lifetime Warranty	1	MTL
00-20-20AA	U <		PreConstruction Meeting - By Carrier	1	
			There shall be a pre-construction meeting held at the customer's location.		
			By Carrier		
00-20-2100	S		Plant Inspection Visits - By Carrier	1	MTL
00-20-3000	S		No Bonding Requested	1	MTL
00-20-3500			Certification for Fusion Welding of Aluminum	1	MTL
00-20-4000			Quality System registered to ISO 9001:2008	1	MTL
00-20-4500			Fire Apparatus Manufacturers' Association Membership	1	MTL
			GENERAL INFORMATION	1	MTL
10-11-0000			Intent E	1	MTL
10-11-0110			Vehicle data recorder included with chassis	1	MTL
10-11-1101	S		ULC S515-13 and NFPA 1901-2009 Compliance	1	MTL
10-11-1500		>	ULC Testing - Pumper	1	MTL
10-11-2100			Maximum length not specified E	1	MTL
10-11-2200			Maximum height not specified E	1	MTL
10-11-2400			Overall length is 30' or more	1	MTL
10-11-2500			General Construction	1	MTL
10-11-3000			Manuals - two copies	1	MTL
10-11-3600	S >		Delivery - FOB Fire Department - By Carrier	1	MTL
10-11-4200	S		Payment Terms - Chassis and Body COD	1	MTL
10-20-1400	S < >		Hose capacity exceeding ULC/NFPA requirements	1	MTL
			The hosebed capacity shall exceed ULC Requirements. The main hosebed shall carry colour coordinated hose :		
			Preconnected		
			- 8 - 50' length - 400' of 1-3/4" (45mm)		
			- 4 - 50' length - 200' of 2-1/2" (65mm)		
			Main Hosebed		
			- 5 - 100' length - 500' 4" (100mm)		
			- 2 - 50' length - 100' 4" (100 mm)		
			- 12 - 50' length - 600' of 2-1/2" (65 mm)		

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10-20-2000			Equipment carrying capacity - standard ULC Pumper	1	MTL
			CHASSIS INFORMATION	1	MTL
20-11-1000	S		Chassis supplied by Metalfab - Freightliner M2 106 Four door	1	MTL
20-11-1500			2013 Emission chassis modifications	1	MTL
20-11-1700	S		Chassis Motor Vehicle Inspection required - ON By Carrier	1	MTL
20-21-0500			Fluid capacity plate	1	MTL
20-21-0600			Pumping test plate	1	MTL
20-21-1030			Maximum riders sign - 5 persons	1	MTL
20-21-1510			Seat belt warning labels - 4 door chassis	1	MTL
20-21-1520			Helmet warning label - do not wear helmet	3	MTL
20-21-1530			Tire Pressure Indicators - Single Axle	1	MTL
20-21-1600			Apparatus Information Label	1	MTL
20-21-2000			Non removable key	1	MTL
20-21-2500			Shifter lock not required E	1	MTL
20-21-3500			Rear step warning label	1	MTL
20-21-3810			Front mudflaps provided with chassis	1	MTL
			E		
20-21-4000			Rear mudflaps - Metalfab Logo	1	MTL
20-31-0200			Fuel fill label -Ultra Low Sulfur Diesel only	1	MTL
20-31-1100			Alum tread fuel tank covers, diamond grip steps, Conv - 4 dr	1	MTL
20-31-1500	S	>	Special compartments in chassis steps as room permits	2	MTL
20-31-1900	S		Chassis cab painted white over red by Freightliner	1	MTL
20-31-4600	S	<	Extend front bumper, gravel shield, 12000 winch, compartments	1	MTL
			E		
			The front bumper is extended approx 18" for installation of a fixed Warn Winch M12000 P/N 17801 with 125' of 3/8" wire rope and 12' tethered remote.		
			A storage box shall be fabricated and installed between the frame rails of the front bumper and be of sufficient size to house the winch and control. The box shall have a hinged deck plate cover equipped with a lift and turn latch and gas strut to act as a door stay.		
			The winch shall deploy through an opening in the front of the bumper and be equipped with captive rollers (ordered with Winch) on all four side of the bumper opening.		
20-31-7500	S		Console in cab	1	MTL
20-41-0600	S		Intake air shutoff for engine not requested	1	MTL
20-41-0900			Auxiliary braking system disabled when pumping	1	MTL
20-41-1100			Transmission programming - Allison WT	1	MTL
20-41-1500			Extend exhaust pipe - RS front of rear wheels	1	MTL
			E		
20-41-1900			Battery boost terminals with chassis E	1	MTL
20-41-2000			Chassis batteries remain in OEM location	1	MTL
20-41-2510			Fuel fill at step fuel tank under cab	1	MTL
20-41-2600			Chassis fuel tank remains in OEM location	1	MTL
20-41-5010			Rear Tow Hooks - through rear of body	1	MTL
20-51-0710			Master Battery Disconnect included with Freightliner chassis	1	MTL
20-51-2500			Back up alarm included with chassis	1	MTL
20-51-3400			Protection valve installed for air operated accessories	1	MTL
20-51-4000			Auto eject for air inlet - LS	1	MTL
20-51-6200	S	>	120 volt 20 A shore line connection in chassis cab	1	MTL
20-51-6200	S	>	120 volt 20 A shore line connection in compartment L3	1	MTL
20-51-6600	S		Kussmaul Pump Plus conditioner/compressor	1	MTL
20-51-7100			Electric System Manager	1	MTL
20-51-7500			Super Auto eject for 120 v - 20 A with sealed enclosure	1	MTL
20-51-8500			Engine compartment lights (pair)	1	MTL
20-51-9001	S		Air horns supplied with Freightliner chassis	1	MTL
20-52-3500		>	Chassis steering wheel lined up by Metalfab	1	MTL
			E		

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20-60-0400			Chassis wheelbase does not change	1	MTL
20-99-0015	U		Stud block in console - 4 terminal, 20A	1	
20-99-0020	U		Glove dispenser on console	1	
20-99-04AA	U		Air Horn Button/Evacuation Alarm on Pump Panel	1	
20-99-10AA	U		Extend air tank moisture ejector cables to rubrail and tag	1	
			PUMP AND PLUMBING	1	MTL
30-11-3002	S		Waterous CXVPA PTO driven pump - 1050 IGPM	1	MTL
30-15-0304			Plumbing - non manifold pump SM SS	1	MTL
			E		
30-20-0500			Valves and controls - side mount panel	1	MTL
30-20-1002			Akron valves specified	1	MTL
30-20-1620	S		Piping stainless steel - non manifold pumps	1	MTL
30-20-1700	S		1-1/2" thread specifications NPSH	1	MTL
			E		
30-20-1800	S		2-1/2" thread specifications CSA	1	MTL
30-20-19AA	U		6" suction thread specifications - NH	1	
30-20-2000			Piping hydrostatic test	1	MTL
30-20-2510	S		Anodes in suction and discharge piping - non manifold pump	1	MTL
30-21-95AA	U	<	Tank to Pump 4" Akron Air Valve	1	
			One air actuated 4" Akron valve shall be installed between the pump suction and the booster tank. Includes flex hose with stainless steel hose clamps for connection to the 4" tank sump outlet. The valve control shall be located at the pump operator's panel and shall visually indicate the position of the valve at all times.		
			A check valve shall be provided in the tank to pump supply line to prevent the possibility of "back filling" the water tank.		
30-22-0520			Tank Fill valve 2" SS	1	MTL
30-31-4020			Suction - 6" not gated each side SS non manifold pump 6" header	1	MTL
30-31-51AA	U		Suction - 4" SS piping to rear - electric b/f - 6" connection	1	
30-31-7210		>	Waterous master intake suction valve - electric control	1	MTL
30-32-7550			Suction - 2-1/2" left side SS, bleeder, non manifold pump	1	MTL
30-32-8050			Suction - 2-1/2" right side SS, bleeder, non manifold pump	1	MTL
30-40-2006			4" right discharge, plumbed 3", non manifold pump	1	MTL
30-41-2040			2-1/2" RS discharge SS, bleeder, non manifold pump	1	MTL
30-41-2540			2-1/2" LS discharge SS, bleeder, non manifold pump	2	MTL
30-43-1520			2-1/2" rear discharge SS, plumbed 2-1/2", bleeder	1	MTL
30-44-0720	S		1-1/2" speedlay preconnect in pumphouse SS, plumbed 2"	2	MTL
30-44-6520			Piping for monitor SS, plumbed 3", bleeder	1	MTL
30-51-0400	S		Pump shift - PTO	1	MTL
30-51-1500			Power shift PTO - Automatic transmission	1	MTL
30-51-1501			PTO driveshaft	1	MTL
			E		
30-51-67AA	U		FRC Pump Boss Governor/Throttle engine display	1	
30-51-7000	S		Suction side relief V/V, for electric MIV	1	MTL
30-51-7002			Suction side relief V/V, non manifold pump	1	MTL
30-51-8100			Heat exchanger included with chassis	1	MTL
30-51-8500			Pump cooler with control valve, check valve	1	MTL
30-52-3001			Foam system not requested	1	MTL
			E		
30-99-0015	U		Trident air primer - two locations	1	
30-99-05AA	U		Air Operated Master Drain	1	
30-99-10AA	U	<	2-1/2" Speedlay Preconnect in pumphouse, SS	1	
			Speedlay to have capacity of minimum of 200 ft of 2-1/2" hose and nozzle.		
			Speedlay tray is oriented in front of the 1-1/2" speedlays as shown on the proposal drawing .		
			The speedlay tray will slide on UHMW and is removable.		
			Tray is fabricated from aluminum plate.		
			Hose rollers are installed around the speedlay openings (Two (2) vertical hose rollers and one (1) horizontal at the bottom).		

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			The bottom horizontal hose roller will be located in such a way to help hold the speed lay tray in place (similar to M16-18401, Quadra Island).		
			WATER AND FOAM TANKS	1	MTL
40-11-2100	S		Brayneck Canaplast water tank (Imperial gallons)	1	MTL
40-11-2200			Water tank capacity certification (tank manufacturer)	1	MTL
40-11-4500			Tank capacity 800 Imperial Gallons	1	MTL
40-13-0100		>	Through the tank tunnel - up to 1200 gallon tank	1	MTL
40-21-1000			4" tank to pump connection	1	MTL
40-22-0500			2" tank fill connection	1	MTL
40-23-0500			1" water level gauge connection	1	MTL
40-23-1050			4" Fireman's Friend connection	1	MTL
40-30-0400			3" plug in sump box	1	MTL
40-30-1000			Water Fill Box front left corner	1	MTL
40-31-0400			Rear dump valve not requested	1	MTL
40-31-9000			4" Storz rear fill, Fireman's Friend	1	MTL
			ELECTRICAL	1	MTL
50-11-0500			Base electrical system	1	MTL
50-11-0600			Warning Light Certification	1	MTL
50-11-0700			Low Voltage Electrical system test	1	MTL
50-11-0800			Low Voltage Electrical System Documents	1	MTL
50-11-0900	S		Rocker switch panel with master warning switch	1	MTL
50-11-1460			Federal EQ2B 200 watt siren	1	MTL
50-11-1631			Siren speaker, 200 watt for EQ2B, in front bumper	1	MTL
50-11-2600			Siren to be accessible to driver and officer	1	MTL
50-11-3500			Horn ring transfer switch	1	MTL
50-11-6100	S		Whelen F4N0QLED LED light bar NFPA	1	MTL
50-11-66AA	U		Rear LED Traffic Advisor warning lights - flush mount - TAM83	1	
50-12-8520	S		Front LED flashers (pr)-Whelen red LED 600 with integral flasher	1	MTL
50-12-8610	S		Rear LED flashers (pr)-Whelen red LED 600 with integral flasher	1	MTL
50-12-8620	S		Rear LED flashers (pr)-Whelen red LED 900 with integral flasher	1	MTL
50-12-8710	S		Front side inter lts (pr) - Whelen red LED 600 with integral flasher	1	MTL
50-12-8810	S		Body side inter lts (pr)-Whelen red LED 600 with integral flasher	1	MTL
50-12-8820	S		Body side inter lts (pr)-Whelen red LED 900 with integral flasher	2	MTL
50-21-2540	S		FRC telescoping SPECTRA LED 12V flood with hazard option (ea)	4	MTL
50-21-2599	U		Hazard Light Circuit for Telescopic Floods (4)	1	
50-21-5100		>	Compartment lighting - LED tube lights in each compartment (rollup doors)	1	MTL
50-21-5500	S		Door Ajar/Telescoping light warning light	1	MTL
50-21-8001			Step lights for body steps - 4" LED	1	MTL
50-21-8201	S		Step lights for chassis steps - LED	1	MTL
50-21-8600			LED clearance lts and reflectors	1	MTL
50-21-8800			LED intermediate turn signal/clearance/reflector length >30'	1	MTL
50-22-0750	S		Whelen 64 LED CAST 4V tail/brake-turn-backup-warning module (pr)	1	MTL
50-31-6610			Ground lighting (4" LED) - 4 door chassis	1	MTL
50-31-6620			Ground lighting (4" LED) - side mount body	1	MTL
50-99-0015	U		Antenna base on chassis cab	1	
50-99-05AA	U	<	Foot Switch for Right Side EQ2B Siren Activation	1	
			There shall be a foot switch installed on the right side for officer siren activation.		

PART NO	S	STN CODE	DESCRIPTION	QTY	ID
50-99-06AA	U <		Stainless Steel Scuff Plates for Telelight Heads There shall be a stainless steel scuff plate behind the head of each telescopic flood light to prevent chipping of the paint. Discuss at precon (back of cab?)	4	
50-99-07AA	U		Whelen 900 LED Scene Lights (Pair)	3	
50-99-10AA	U <		Inverter with Outlet A 1500 W inverter shall be provided in the chassis cab. The inverter shall operate from 12 V DC and provide 120 VAC. A standard duplex receptacle shall be wired to the inverter to provide AC power to required devices. The inverter to be installed on the side or front of the console where room permits. The receptacle will be installed on the back side of the console unless otherwise specified (beside the shoreline receptacle 20-51-6200), Minimum 12" off floor to meet ULC. Reference the SOPT for wiring sketch.	1	
50-99-15AA	U <		Whelen 900 Super LED - Green - Pair At rear below scene lights - separate switch in cab	1	
50-99-20AA	U		LED Amdor H20 Tube Lights for Rear Step Lighting	1	
51-31-4500			Dielectric strength test for line voltage system BODY	1	MTL
60-10-1400			Single axle extruded aluminum body	1	MTL
60-10-40AA	U		Flat back design with inset rear step/platform	1	
60-10-4500			Aluminum tread plate fender surround - single axle	1	MTL
60-10-4700			Integral aluminum fender trim	1	MTL
60-10-5440	S < >		Diamondback 12" rear step The rear step will be offset from the body to allow for ease of draining and cleaning. The rear step will not form any part of compartment design and will be inset between the rear flat back compartment arrangement.	1	MTL
60-10-6500			Bolt on extruded aluminum rub rail	1	MTL
60-11-0300		>	Eront left side compartments full height E	1	MTL
60-11-0700		>	Front right side compartments full height E	1	MTL
60-11-1000		>	Rear left side compartments full height E	1	MTL
60-11-1400		>	Rear right side compartments full height	1	MTL
60-11-2000		>	High side compartment (over 18") each	2	MTL
60-11-3100			No rear compartment	1	MTL
60-11-5500			Rollup door - standard height	2	MTL
60-11-5520			Rollup door - full height	4	MTL
60-31-0850	U		Oxygen cylinder storage	1	
60-31-4100			Extruded aluminum handrails	1	MTL
60-31-6500			Compartment matting-Turtle tile	1	MTL
60-31-80AA	U		Double SCBA Cylinder Storage Compartments	4	
60-31-8400			Fixed vertical partition	1	MTL
60-31-8800		>	Sliding tray (ea) - 600 pound capacity	3	MTL
60-31-9600	S >		Adjustable shelf (ea)	9	MTL
60-32-3550			Two adjustable hose divider (each)	1	MTL
60-32-7500			Hose bed - aluminum	1	MTL
60-33-0000			Paint exterior - Imron Elite	1	MTL
60-33-0200			Undercoat vehicle with KROWN rust protection	1	MTL
60-33-0600			Chassis wheels not painted	1	MTL
60-33-1000			Paint pump and plumbing job colour	1	MTL
60-33-1500			Buffed finish compartment interior	1	MTL

PART NO	S	STN CODE	DESCRIPTION	QTY	ID
60-33-2200			Lettering - 80 letters up to 3" tall - 3 colour	1	MTL
60-33-3200	S		Reflective stripe - 4" -1" white	1	MTL
60-33-3310			Reflective stripe - red and yellow chevron at rear	1	MTL
60-33-3600			Reflective stripe - inside entry doors	1	MTL
60-33-4000	S		End tarps for speedlays - black	1	MTL
60-33-5000			Aluminum cover over hose bed with end tarps - black	1	MTL
			E		
60-40-5500			Suction hose tube (each) with door	2	MTL
60-40-9000		>	Tube mount for ladders, with rear door	1	MTL
60-41-1000	S		Pike Pole tube	2	MTL
60-41-1500	S		Attic ladder tube	1	MTL
60-99-04AA	U		CPI - Lighted Folding Steps with Gasket	6	
60-99-05AA	U		Full width Intermediate rear step	1	
60-99-10AA	U		LED Hosebed Lighting	1	
60-99-15AA	U	<	Storage over pumphouse	1	
			The area above the pump house shall be equipped with two dunnage pans with an aluminum cover accessible from the top of the unit. The cover shall be fabricated of aluminum deck plate and shall incorporate hold open devices and D ring latch.		
			There shall be interior 4" LED lights, activate when doors are opened and from ground light switch in cab, and wired to the door ajar warning light in cab.		
			INSTRUMENTATION	1	MTL
70-11-0000			Warning Label on Pump Operator's Panel	1	MTL
70-11-0500			Side mount instrument panel	1	MTL
70-11-10AA	U		Linkage controls in LS front compartment	1	
70-11-3200			Colour coded tags	1	MTL
70-11-40AA	U		Lumabar lighting for left side pump panel	1	
70-11-4100			Stainless steel side panel hood left side	1	MTL
70-11-41AA	U		Lumabar lighting for right side pump panel	1	
70-11-55AA	U		Right side pump access panel in back wall of front right compartment	1	
70-11-7500			Heat pan-aluminum	1	MTL
70-11-80AA	U	<	25,000 BTU Pumphouse Heater	2	
			Two 25,000 BTU heaters shall be installed in the lower pump compartment area. The heaters shall be connected to the chassis engine coolant system and shall include 12V blowers. The heaters shall be controlled at the pump operator's panel.		
70-11-81AA	U		Pump Panel Suction/Discharge Gaskets	1	
70-20-0500			4-1/2" compound gauge - dual face 0-600	2	MTL
70-20-1500			2-1/2" pressure gauge - dual face 0-600	9	MTL
70-20-3200			FRC Pump Boss Governor Control	1	MTL
70-20-3510			Electric water level gauge on pump panel and at rear, Class One	1	MTL
70-20-6500			Test gauge panel	1	MTL
70-20-7500			Heat exchanger control valve	1	MTL
70-20-7600			Pump cooler control valve	1	MTL
70-21-2100		>	PTO Hourmeter	1	MTL
70-21-5500			Panel readout for Battery Conditioner	1	MTL
			ACCESSORIES	1	MTL
80-11-5000			6" x 10' lightweight suction hose (ea)	2	MTL
80-12-2500			6" barrel strainer	1	MTL
80-13-0500			Rubber mallet	1	MTL
80-13-2510			Pike pole, fibreglass handle - 6' long	1	MTL
80-13-25AA	U		Pike Pole, Fibreglass Handle - 8' Long	1	

PART NO	S	STN CODE	DESCRIPTION	QTY	ID
80-14-0500			24' 2 section extension ladder PEL 24	1	MTL
80-14-5500			14' aluminum roof ladder PRL-14	1	MTL
80-14-8500			10' aluminum folding attic ladder FL-10	1	MTL
80-15-6500			6" external suction butterfly valve	1	MTL
80-18-0600	S		SCBA bracket - Bostrom Secureall	4	MTL
80-19-0500	S		Large folding wheel chock - aluminum (ea) not mounted	2	MTL
80-19-0600		>	Horizontal bracket for folding wheel chock (ea)	2	MTL
80-20-3000	S		Portable hand light with charger Streamlight Survivor	4	MTL
80-99-05AA	U	<	6" Steamer Replacement Screen	2	
			Two replacement screens for the 6" Steamer ports shall be supplied with the unit.		
80-99-10AA	U	<	TFT AB8NX-NX Steamer Port Ball Valve	1	
			A TFT AB8NX-NX steamer port ball valve shall be included with the apparatus.		
80-99-15AA	U	<	TFT Hurrigan Remote Controlled Monitor	1	
			One (1) monitor and nozzle shall be supplied and installed on the completed apparatus;		
			One (1) TFT Hurricane remote controlled monitor (XFIH-E**A).		
			One (1) TFT Panel Mount Monitor Operation Station (Y4E-RP).		
			One (1) TFT Master Stream 1250 ER Nozzle (M-ERP1250SNJ). Ordered with CSA threads.		
			One (1) TFT 3" Remote controlled telescoping waterway (XGA38VL-RL).		
			Nozzle swivel and monitor outlet to be 2-1/2" CSA thread.		
80-99-20AA	U	<	TFT Pro PAK Foam System	1	
			The apparatus shall be equipped with a TFT Pro-Pak Foam System.		
			Not mounted - shipped loose		
80-99-25AA	U		Collapsible Traffic Cones	5	
80-99-30AA	U		Physio Control Lifepac 1000 Automatic Defibrillator	1	
80-99-35AA	U		Flir-K45 Thermal Imaging Camera - Cab Mounted	1	
80-99-40AA	U		MaxxForce TFT 2-1/2" Nozzles	2	
80-99-45AA	U		MidForce TFT 1-3/4" Nozzles	3	