



# Shop Order

Carrier Truck Center Inc  
 O/A Carrier Centers  
 645 Athlone Place  
 Woodstock, ON N4S 7V8

North Algona Wilberforce Township  
 1091 Shaw Woods Road  
 RR #1  
 Eganville, ON K0J 1T0

**Exp. Date:** 01/03/2020  
**Quote No:** North Algona, ON-0021  
**Job/Order No:** 21408  
**BODY:** 00-10-15 Metalfab Pumper - ULC 05/13

11/19/2021

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PART NO	S	DESCRIPTION	QTY	ID
		<b>== Metalfab Pumper - ULC 05/13 - 0.000 ==</b>	<b>1</b>	<b>MTL</b>
	S	<b>Change Order F</b>	<b>1</b>	<b>MTL</b>
<b>00-05-0020</b>	S	<b>Dealer - Carrier Centers Emergency Vehicles - Rod</b>	<b>1</b>	<b>MTL</b>
00-10-1500		Metalfab Pumper	1	MTL
00-20-1000		Company Profile	1	MTL
00-20-1500		Standard Body Warranty	1	MTL
00-20-1550		Metalfab Limited Ten (10) Year Paint and Corrosion Warranty	1	MTL
00-20-1800		Polypropylene Tank Lifetime Warranty	1	MTL
<b>00-20-2100</b>	S	<b>Plant Inspection Visits - Pre delivery - by CCEV</b>	<b>1</b>	<b>MTL</b>
		Apparatus to be 100% complete, green tagged ready for delivery prior to inspection.		
		Ready for inspection date to be advised a minimum of three (3) weeks prior to allow for travel arrangements		
<b>00-20-3000</b>	S	<b>No Bonding Requested</b>	<b>1</b>	<b>MTL</b>
00-20-3500		Certification for Fusion Welding of Aluminum	1	MTL
<b>00-20-4000</b>	S	<b>Quality System registered to ISO 9001:2015</b>	<b>1</b>	<b>MTL</b>
00-20-4500		Fire Apparatus Manufacturers' Association Membership	1	MTL
		<b>GENERAL INFORMATION</b>	<b>1</b>	<b>MTL</b>
10-11-0000		Intent E	1	MTL
<b>10-11-0110</b>		<b>Vehicle data recorder included with chassis</b>	<b>1</b>	<b>MTL</b>
<b>10-11-1100</b>	S	<b>ULC S515-13 and NPFA 1901-2016 Compliance</b>	<b>1</b>	<b>MTL</b>
<b>10-11-1700</b>	S	<b>&gt; ULC Testing - Pumper - Imperial units of measure</b>	<b>1</b>	<b>MTL</b>
		ENG. NOTE:		
		Note in the shop note if the Fire Department wishes to witness the test		
		Pump to be tested to 1050 IGPM as advised by Rod Harris by e-mail on 09.14.2020		
<b>10-11-2100</b>	S	<b>Maximum length - 31 feet</b>	<b>1</b>	<b>MTL</b>
<b>10-11-2200</b>	S	<b>Maximum height -10 feet</b>	<b>1</b>	<b>MTL</b>
<b>10-11-2400</b>		<b>Overall length is 30' or more</b>	<b>1</b>	<b>MTL</b>
10-11-2500		General Construction	1	MTL
<b>10-11-2600</b>	S	<b>Preconstruction Meeting - at the purchaser's location - by CCEV</b>	<b>1</b>	<b>MTL</b>
<b>10-11-3000</b>		<b>Manuals - two copies</b>	<b>1</b>	<b>MTL</b>
		***Two copies of manuals are required.		
		One printed, one on USB.		
<b>10-11-3600</b>	S	<b>&gt; Delivery - FOB Fire Department - by CCEV</b>	<b>1</b>	<b>MTL</b>
		ENG. NOTE:		
		Note in the shop note if more than 4 hours of training is required		
		Delivery to be 12-14 months from PO date of January 16.2020.		
<b>10-11-4200</b>	S	<b>Payment Terms - Chassis and Body COD</b>	<b>1</b>	<b>MTL</b>
<b>10-20-1400</b>	S	<b>&gt; Hose capacity exceeding ULC/NPFA requirements</b>	<b>1</b>	<b>MTL</b>
		ENG. NOTE:		
		Specify the type of hose and quantity of hose to be carried on the vehicle		

PART NO	S	DESCRIPTION	QTY	ID
		For weight and balance purposes, the desired hose load for this vehicle is as follows:		
		600' of 1.75" (45mm) attack hose		
		600' of 2.5" (65mm) attack hose		
		1200' of 4" (100mm) supply hose		
		***Additional weight allowance of 1048 lbs for a total of 1656 lbs.***		
10-20-2000		Equipment carrying capacity - standard ULC Pumper	1	MTL
		<b>CHASSIS INFORMATION</b>	1	MTL
20-11-1000	S	<b>Chassis supplied by Metalfab - International HV607</b>	1	MTL
		International HV607 SBA two door extended cab		
		42,000 lb GVWR 16,000 lb front axle 26,000 lb rear axle		
		226" wheelbase 132.9" cab to axle		
		Cummins L9 350 hp @ 2000 rpm 2200 governed rpm		
		1000 lb-ft torque @ 1400 rpm		
		Allison 3000 EVS automatic transmission		
		325 amp alternator		
		Cummins exhaust brake (wired for stop stop light (8VTV) included in chassis spec)		
		10' Vertical exhaust		
		Keyless ignition		
		189 Litre fuel tank - LH		
		Power windows and door locks		
		Tilt/Telescoping steering column		
		Air ride drivers and Officers seat - NFPA		
		Top speed to be 68 MPH to meet NFPA		
		No seats in extended part of cab.		
		Color 9219 Winter White over 2613 Red - two tone paint design 209 as listed in tender document		
		Add to chassis spec - air tank drains to have cable pull cords.		
20-11-1500		2013 Emission chassis modifications	1	MTL
20-11-1700	S	<b>Chassis Motor Vehicle Inspection required - by CCEV</b>	1	MTL
20-21-0500		Fluid capacity plate	1	MTL
20-21-0600		Pumping test plate	1	MTL
20-21-1000		Maximum riders sign - 2 persons	1	MTL
20-21-1500		Seat belt warning labels - 2 door chassis	1	MTL
20-21-1560		LED Tire Pressure Indicators - Single Axle	1	MTL
20-21-1600		Apparatus Information Label	1	MTL
		An information label is provided in the chassis cab, visible to the driver, stating: "When manufactured, this vehicle was: ** m high ** m long ** kg GVW Changes in height since the apparatus was manufactured shall be noted on this plate by the Fire Department"		
20-21-2000	S	<b>Non removable key</b> <b>Keyless ignition included with chassis</b>	1	MTL
20-21-2500		Shifter lock not required E	1	MTL
20-21-3500		Rear step warning label	1	MTL
20-21-3800		Front mudflaps	1	MTL
20-21-4001	S	<b>Rear mudflaps - Black without a logo</b> <b>Mud flap to be black to meet Section 2.10 of tender</b>	1	MTL
20-31-0200		Fuel fill label -Ultra Low Sulfur Diesel only	1	MTL
20-31-0600		<b>Alum tread fuel tank covers, diamond grip steps, Conv - 2 dr</b> <b>All steps are to be full width under the doors as space allows.</b> <b>Steps shall be aligned with running boards or rubrail where applicable.</b> <b>All cab steps are to ergonomic and allow for easy and safe access/egress.</b>	1	MTL
20-31-1900	S	<b>Chassis cab painted by the chassis OEM - two tone</b>	1	MTL
20-31-7500	S	<b>Console in cab - in back of cab</b> <b>Storage area in the back of the cab above the pass through storage (20-35-99AA) will consist of:</b>	1	MTL

PART NO	S	DESCRIPTION	QTY	ID
		<p>Tray that measures 48" wide x 24" deep with a 5" high lip at the front tapering up to a 12" tall back plate at the back of the cab. There will be a mesh cover permanently attached to the rear 12" plate and will attach at the front with two (2) footman loops and velcro straps.</p> <p>Under the tray will have a slotted compartment for two (2) binders on the flat, side by side which will each measure 2" high x 12" wide x 12" deep. The opening will be covered by the mesh tarp covering the top portion.</p> <p>There will be two (2) binder slots installed between the driver and officer seat (on the side wall of the pass through compartment 20-35-99AA). The slots will measure 10" wide x 10" tall by 2" deep each</p> <p>The finish will be grey Zolatone.</p> <p>There is a sample drawing saved at F:/Data/Jacques/Current Projects/North Algona Wilberforce/Pictures/interior sketches</p> <p>As requested from Rod Harris by e-mail on 12.07.2020</p> <p>Approval drawing to be provided prior to manufacturing</p>		
20-35-99AA	U	<p><b>Cab side compartments under rear windows with Amdor roll up doors (painted red)</b></p> <p>Two (2) cab side pass through compartments that measure approximately 18" wide x 17" high door opening (door header will be right under the cab window) will be installed in the cab, one each side, forming a full depth transverse compartment. The compartments will be installed between the rear of the front cab doors and the back of the cab as large as possible. A roll up door is installed on each compartment.</p> <p>The area above the transverse compartment shall be configured to allow for secure storage for binders, maps, clipboards, two (2) helmets and first aid equipment. This storage shall meet NFPA 1901 requirements for in-cab storage.</p> <p>As described in 20-31-7500 / 80-20-5015</p> <p>As requested by Rod Harris by e-mail on 12.07.2020</p> <p>Approval drawing to be provided prior to manufacturing</p> <p>****Roll up doors are to be painted red to match cab****</p> <p>See also pictures in the Word document at F: data-ryan-Tenders-2019 Tenders-North Algona Wilberforce Proposal SOPT in file</p> <p>Final layout for space was approved by Rod Harris by e-mail on 04.13.2021</p>	1	
20-41-0900		<b>Auxiliary braking system disabled when pumping</b>	1	MTL
20-41-1100		Transmission programming - Allison WT	1	MTL
20-41-1700	S	<b>Special clearance for vertical exhaust pipe</b>	1	MTL
20-41-1800	S	<p><b>Battery boost terminals required - in drivers side cab step area</b></p> <p>Drivers side under extended cab area as shown on the proposal drawing. The terminals shall be color-coded and equipped with weatherproof covers.</p>	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
20-41-5000		<p><b>Rear Tow Hooks - under body</b></p> <p>*** Flat bar tow hooks under rear step (2)</p> <p>Units are designed for 45-degrees side pull as requested in the tender but will not be designed for lifting or upward pull. Damage to the body due to to side pulling will be the responsibility of the department and towing company.</p>	1	MTL
20-51-0700		<b>Master Battery Disconnect included with chassis</b>	1	MTL
20-51-2500		<b>Back up alarm included with chassis</b>	1	MTL
20-51-3400		Protection valve installed for air operated accessories	1	MTL
20-51-4000		<p><b>Auto eject for air inlet - LS</b></p> <p>Located in drivers side cab step area</p> <p>Additional to the Kussmaul compressor included with 20-51-6620</p>	1	MTL
20-51-6200	S	<p><b>&gt; 120 volt 20 A shore line connection</b></p> <p>ENG. NOTE: Requires 20-51-75 120 volt auto eject or 20-51-80 120 volt inlet</p> <p>Standard 5-20R duplex receptacle, not fused</p>	5	MTL

PART NO	S	DESCRIPTION	QTY	ID
		Location of receptacles as follows; Receptacle #1 - In cab rear crew transverse area for battery conditioner to plug into. Receptacle #2 - In cab rear crew transverse area - left side (as approved by Customer - ref 20-35-99AA) Receptacle #3 - In cab rear crew transverse area - right side (as approved by Customer - ref 20-35-99AA) Receptacle #4 - in L1 compartment - Mount on front side wall approximately 12" from floor close to roll up door. Receptacle #5 - in R1 compartment - Mount on front side wall approximately 12" from floor close to roll up door.		
20-51-6620	U	<b>Kussmaul Pump Plus 1200</b> Both the battery conditioner (120 Volt AC) and the compressor (12 Volt DC) will be installed in the rear portion of the cab where room permits. Pump plus kit 52-27-1106 p/n 1034005 SOPT #547 - truck specific	1	
20-51-7102	S	<b>Electric System Manager included with chassis - through Diamond Logic</b>	1	MTL
20-51-7500	S	<b>Super Auto eject for 120 v - 20 A with sealed enclosure</b> Located in drivers side cab step area	1	MTL
20-51-8510	S	<b>Engine compartment lights LED (pair)</b> The lights in the engine compartment will be interlocked with the park brake only as approved by Rod Harris by e-mail on 04.27.2021.	1	MTL
20-51-90AA	U	<b>Air horns to be installed under the bumper - each side of siren speaker</b> There will be a set of air horns installed under the front bumper to match the customer's 2010 Seagrave Pumper. See photo in F:/Data/Jacques/Current projects/North Algona Wilberforce/Pictures The siren speaker 50-11-1610 will be mounted between the air horns as requested by Rod Harris by e-mail on 12.07.2020. The horns will be controlled by chassis OEM switches 20-51-9110 SOPT 1094	1	
20-51-9110	S	<b>Air horns to be OEM switch controlled</b> Air horns shall be operated by the chassis supplied lanyard for driver and the momentary switch on the center portion of the dash.	1	MTL
20-52-0010	U	<b>Air horn control on pump panel</b> Located on left side pump operators panel and labeled "Air Horns".	1	
20-52-1010	U	<b>Federal gooseneck LED map light in cab - mounted on dash</b> SOPT #291 P/n 1032001	1	
20-52-3000		> Chassis steering wheel lined up by others <b>ENG. NOTE:</b> Required for all chassis except Freightliner, Sterling, Spartan	1	MTL
20-60-0400		Chassis wheelbase does not change	1	MTL
20-90-1810	U	<b>Extend air tank drain/moisture ejectors to rubrail and tag/label</b> <b>PUMP AND PLUMBING</b>	1	MTL
30-11-5610	S	<b>Darley LDM Single stage 1050 IGPM</b> Pump to be tested as 1050 IGPM as advised by Rod Harris by e-mail on 09.14.2020	1	MTL
30-15-0204	S	<b>Plumbing - manifold pump SM SS</b>	1	MTL
30-20-0500	S	<b>Valves and controls - side mount panel</b> Each discharge control and pressure gauge will be in a single bezel as approved by Rod Harris by e-mail on 04.27.2021	1	MTL
30-20-1002		<b>Akron valves specified</b>	1	MTL
30-20-1600		<b>Piping stainless steel - general</b>	1	MTL
30-20-1700	S	<b>1-1/2" thread specifications - NPSH</b>	1	MTL

PART NO	S	DESCRIPTION	QTY	ID
30-20-1800	S	<b>2-1/2" thread specifications - CSA</b>	1	MTL
30-20-2000		Piping hydrostatic test	1	MTL
30-20-2500		<b>Anodes in suction and discharge piping</b>	1	MTL
		Install one anode on discharge side of pump, one anode on suction side of pump - do not use teflon tape or thread sealant. Paint flange silver and mask brass anode before painting for visibility.		
30-21-5560		<b>Tank to Pump SS 3" w/ check valve manifold pump</b>	1	MTL
30-22-0520		<b>Tank Fill valve 2" SS</b>	1	MTL
30-31-4010	S	<b>Suction - 6" each side manifold pump</b>	1	MTL
		Left side shall have a 6" long handle chrome cap installed. Right side shall have a 6" x 4" adapter with 4" Storz connection and cap installed (ref 80-99-06AA) as changed on Change Order A.		
30-31-72AA	U	<b>Darley Master Intake Suction Valve - Electric control</b>	1	
		The left side and right side large intakes will be gated. The electric controls for both MIV's are located on the left side operator panel. The manual override control shall be located by the corresponding valve.		
30-32-7535	S	<b>Suction - 2-1/2" left side SS, bleeder, manifold pump</b>	1	MTL
30-32-8035	S	<b>Suction - 2-1/2" right side SS, bleeder, manifold pump</b>	1	MTL
30-40-2025	S	<b>4" right discharge SS, plumbed 3", manifold pump, bleeder, 4" Storz connection</b>	1	MTL
		A removable stainless steel garnish ring (split) shall be installed around the discharge pipe allowing for valve removal or maintenance without removing the top pump panel.		
30-40-25AA	U	<b>4" Rear discharge SS - right side - 3" piping and valve, 4" storz connection</b>	1	
		Bleeder required. 30 degree 4" Storz elbow connection SOPT #305 - truck specific		
30-41-2025	S	<b>2-1/2" RS discharge SS, bleeder, manifold pump</b>	1	MTL
		A removable stainless steel garnish ring (split) shall be installed around the discharge pipe allowing for valve removal or maintenance without removing the top pump panel.		
30-41-2525	S	<b>2-1/2" LS discharge SS, bleeder, manifold pump</b>	1	MTL
		A removable stainless steel garnish ring (split) shall be installed around the discharge pipe allowing for valve removal or maintenance without removing the top pump panel.		
30-43-1520		<b>2-1/2" rear discharge SS, plumbed 2-1/2", bleeder</b>	1	MTL
		***Left Side		
30-44-0520		<b>1-1/2" crosslay (each) SS, 2" valve, bleeder</b>	2	MTL
		Capacity for 200' x 1-3/4" hose and nozzle in each hose lay. Divider to be adjustable. Equipped with stainless steel rollers on each end. The drains will be auto drains as requested in section 3.23 of the tender		
30-44-6520	S	<b>Piping for monitor SS, plumbed 3", bleeder</b>	1	MTL
		Monitor piping will be centered left to right transversely and toward the rear of the area behind the crosslays.		
30-51-0500	S	<b>Pump shift-Midship air on/under chassis dash</b>	1	MTL
		***Includes "Pump Engaged" and "OK to Pump" indicator lights in cab. ***Includes "Throttle Ready" indicator light on Pump operating panel The pump shift will be in the chassis dash where room permits or under the dash. The department is willing to remove some 12-volt plugs to make this happen. As requested by Rod Harris by e-mail on 12.07.2020 Location to be approved by customer prior to installation		

PART NO	S	DESCRIPTION	QTY	ID
30-51-0700		Pump Gearbox mounted manual over ride for pump shift E	1	MTL
30-51-6640	S	<b>Class One "TPG Plus" Governor/Throttle - PSI</b> Customer confirmed that governor will be setup in PSI. As advised by Rod Harris by e-mail on 09.04.2020	1	MTL
30-51-7000		<b>Suction side relief V/V, manifold pump</b> One for the left side MIV-E One for the right side MIV-E	2	MTL
30-51-7713		<b>Trident Air Primer 3 barrel 3 location</b> Location #1 - Main pump Location #2 - Left side MIV pre-prime Location #3 - Right side MIV pre-prime	1	MTL
30-51-7720		<b>Additional air tank for air primer system</b> An additional air tank is provided to improve air primer capacity	1	MTL
30-51-8100		<b>Heat exchanger included with chassis</b>	1	MTL
30-51-8500		<b>Pump cooler with control valve, check valve</b> Plumbed to the water tank fill tower.	1	MTL
30-52-1000		Master drain V/V, 12 port	1	MTL
30-52-3001		Foam system not requested E	1	MTL
		<b>WATER AND FOAM TANKS</b>	1	MTL
40-11-2100		Polypropylene water tank (Imperial gallons)	1	MTL
40-11-2200		Water tank capacity certification (tank manufacturer)	1	MTL
40-11-5000	S	<b>Tank capacity 4400 litre / 968 Imperial Gallons</b>	1	MTL
40-21-0500		<b>3" tank to pump connection</b>	1	MTL
40-22-0500		<b>2" tank fill connection</b>	1	MTL
40-23-0500		1" water level gauge 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 E	1	MTL
40-31-6050		Rear fill not requested E	1	MTL
		<b>ELECTRICAL</b>	1	MTL
50-11-0450		<b>Base electrical system - International Diamond Logic multiplex</b>	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 As required by ULC and NFPA standards	1	MTL
50-11-0900	S	<b>Rocker switch panel with master warning switch - with chassis</b> ***Rocker switch assignments: <b>MASTER</b> -LIGHT BAR RED -LIGHT BAR CLEAR -REAR BEACONS -FLASHING WARNING -RIGHT SCENE -LEFT SCENE -REAR SCENE	1	MTL
50-11-1493	U	<b>Whelen 100 Watt siren - Model 295HFS2</b> p/n 1001157	1	
50-11-1610	U	<b>Siren Speaker, 100 Watt Whelen SA314A under front bumper</b> The speaker will be installed under the front bumper between the air horns (20-51-90AA) to match the 2010 Seagrave Pumper - picture saved in F:/Data/Jacques/Current Project/North Algona Wilberforce/Pictures/100_0817. As requested by Rod Harris by e-mail on 12.07.2020	1	
50-11-2600		<b>Siren to be accessible to driver and officer</b>	1	MTL
50-11-6100	S	<b>Whelen F4N0QLED LED light bar NFPA</b> Two red front corner flashers Two red front facing flashers Two white front facing flashers	1	MTL

PART NO	S	DESCRIPTION	QTY	ID
		Two red end flashers		
50-11-6501	S	Rear Directional Light not requested	1	MTL
50-11-8630	U	Rear LED beacons-Whelen MCFLED2* (pr) red right side, amber left side	1	
50-12-8000		Additional body side intersection light not required	1	MTL
		Distance between front and rear side intersection light does not exceed 25'		
50-12-8520	S	Front LED flashers (pr)-Whelen red LED 600 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
50-21-2535	U	FRC telescoping SPECTRA LED 12V flood (ea) - left side front of pump house SPA530-Q15-SR-ON-SW-NS Includes Steady Rest (SR), Hazard Switch (SW) and No Scratch (NS) option The hazard switch (SW) shall be wired to the door ajar warning circuit to alert the operator if the light has been left extended prior to travel. This light can be managed to shed. SOPT #395 - truck specific The lights will be controlled by switches on the pump panel (50-21-2536) as requested by Rod Harris by e-mail on 12.07.2020	1	
50-21-2536	U	Extenda light control switch There will be a switch supplied and installed on the pump panel to control the single extenda light (50-21-2535) as requested by Rod Harris by e-mail on 12.07.2020	1	
50-21-5100		> Compartment lighting - LED tube lights in each compartment (rollup doors) ENG. NOTE: Rollup doors only	1	MTL
50-21-5500	S	Door Ajar warning light Light on dash included with the Diamond Logic package with chassis Bilingual warning label in cab to read: "Do Not Move Apparatus when Light is on" The single DiamondLogic light on the chassis dash will be acceptable as approved by Rod Harris by e-mail on 04.22.2021	1	MTL
50-21-8001		Step lights for body steps - 4" LED Switched when park brake is set.	1	MTL
50-21-8200	S	Step lights for chassis steps - LED - 2-door chassis Switched when park brake is set	1	MTL
50-21-8600		LED clearance lts and reflectors	1	MTL
50-21-8605	U	Polished aluminum license plate holder with LED light	1	
50-21-8800	S	LED intermediate turn signal/clearance/reflector length >30' The marker lights will be installed in the bolt on rub rails (60-10-6500) as per Metalfab standard.	1	MTL
50-22-0750	S	Whelen 64 LED CAST 4V tail/brake-turn-backup-warning module (pr)	1	MTL
50-31-1700	U	3000 Watt digital inverter The inverter (p/n 1031834) will be installed within 6' of chassis batteries as per manufacturer instructions so will need to be installed inside chassis cab The remote switch for powering up the inverter will be mounted on the pump operator's panel. See 51-31-3010 for wiring details. SOPT #405a - truck specific Will be installed after the ULC test and will be rated at 2200 watt as per section 7 of the tender	1	
50-31-6021	U	Whelen C9SL LED scene lights (pr) - left side Located on the upper front and rear corners of the left side of body. Switched in cab. These lights can be managed to shed.	1	

PART NO	S	DESCRIPTION	QTY	ID
50-31-6022	U	<b>Whelen C9SL LED scene lights (pr) - rear facing</b> Located on the upper rear corners of the rear of body. Switched in cab and will also activate when the transmission is placed in reverse gear. These lights cannot be managed to shed as they are required for ULC.	1	
50-31-6023	U	<b>Whelen C9SL LED scene lights (pr) - right side</b> Located on the upper front and rear corners of the right side of body. Switched in cab. These lights can be managed to shed.	1	
50-31-6550		<b>Ground lighting (LED Lumabar) - 2 door chassis</b> Switched when park brake is set.	1	MTL
50-31-6570		<b>Ground lighting (LED Lumabar) - side mount body</b> Switched when park brake is set.	1	MTL
50-31-6595	U	<b>Ground Lighting (LED Lumabar) - under each compartment</b> There will be LED Lumabar installed under the L1, L3, R1 and R3 compartments and will be switched when teh park brake is set	1	
50-35-0510	U	<b>Wiring provided for customer supplied and installed radio</b> Power and ground are supplied and labeled for the future installation of a Customer supplied and installed radio. Incorrect Power cable arrived at Metafab on 09.02.2020 and was given to inventory control - return with the completed unit (ship loose). Location of power wire to be coiled under the chassis dash as requested by Rod Harris by e-mail on 12.07.2020 Wired through master disconnect - As advised by Rod Harris by e-mail on 09.02.2020 and 09.14.2020	1	
50-35-0559	S	<b>Mobile radio antenna provided by customer</b> Carrier supplied antenna base arrived at Metafab on 09.02.2020 and was given to inventory control. It will be installed behind the light bar centered from left to right and minimum 18" behind light bar as requested by Rod Harris by e-mail on 09.14.2020. The cable will be coiled up under the chassis dash as requested by Rod Harris by e-mail on 12.07.2020	1	MTL
50-99-10AA	U	<b>Hose bed cover lights - 40" LED Lumabars on under side of covers (4 total)</b> Switched when hose bed cover is opened	1	
51-31-3010	S	<b>&gt; 120 volt wiring for inverter</b> <b>ENG. NOTE:</b> Specify number and capacity of circuits, location and complete specifications of all electrical devices to be installed.  There will be an electrical panel installed in the L1 compartment for all the shoreline outlets (20-51-6200) except for the one plugged to the battery conditioner (crew cab, R1 and L1 compartments). The transfer switch 51-31-3100 shall be wired to the inverter system to supply power to the 20-51-6200 outlets when the shoreline is not plugged in while the truck is sitting at the Fire Hall. As requested by Rod Harris by e-mail on 12.07.2020 The layout of the components in L1 compartment to be approved by customer before installation	1	MTL
51-31-3100	S	<b>&gt; Automatic 110 volt transfer switch</b> <b>ENG. NOTE:</b> Requires 20-51-75 or 20-51-80 120 volt inlet  Wired to receptacles 2 to 5 referenced in 20-51-6200. To be installed in the L1 compartment beside the electrical panel 51-31-3010 as requested by Rod Harris by e-mail on 12.07.2020 The layout of the components in L1 compartment to be approved by customer before installation	1	MTL



PART NO	S	DESCRIPTION	QTY	ID
<b>51-31-4500</b>		<b>Dielectric strength test for line voltage system</b>	<b>1</b>	<b>MTL</b>
		<b>BODY</b>	<b>1</b>	<b>MTL</b>
60-10-1400		Single axle extruded aluminum body	1	MTL
60-10-4100		No "beavertail" rear step supports	1	MTL
60-10-4600		Painted fender surround E	1	MTL
60-10-4700		Integral aluminum fender trim	1	MTL
60-10-5400		> Diamondback pumphouse steps	1	MTL
		<b>ENG. NOTE:</b> Maximum height of step is 24" from ground		
<b>60-10-5440</b>	<b>S</b>	<b>&gt; Diamondback 12" rear step</b>	<b>1</b>	<b>MTL</b>
		<b>ENG. NOTE:</b> Maximum height of rear step is 24" from ground		
		<b>The rear step shall have angled corners and a marker light will be required on the side and at the rear to meet CMVSS</b>		
<b>60-10-6500</b>	<b>S</b>	<b>Bolt on extruded aluminum rub rail</b>	<b>1</b>	<b>MTL</b>
		There will be bolt on rub rails installed on the unit with bare aluminum finish (no reflective stripe) as requested by Rod Harris by e-mail on 07.27.2020		
<b>60-11-0300</b>		<b>&gt; Front left side compartments full height E</b>	<b>1</b>	<b>MTL</b>
		<b>ENG. NOTE:</b> Specify critical dimensions in shop note		
<b>60-11-0700</b>		<b>&gt; Front right side compartments full height E</b>	<b>1</b>	<b>MTL</b>
		<b>ENG. NOTE:</b> Specify critical dimensions in shop note		
<b>60-11-1000</b>		<b>&gt; Rear left side compartments full height E</b>	<b>1</b>	<b>MTL</b>
		<b>ENG. NOTE:</b> Specify critical dimensions in shop note		
<b>60-11-1400</b>		<b>&gt; Rear right side compartments full height E</b>	<b>1</b>	<b>MTL</b>
		<b>ENG. NOTE:</b> Specify critical dimensions in shop note		
<b>60-11-2000</b>		<b>&gt; High side compartment (over 18") each</b>	<b>2</b>	<b>MTL</b>
		<b>ENG. NOTE:</b> Specify critical dimensions in shop note Specify type of door Specify flip up or drop down Specify which side of body		
<b>60-11-2500</b>		<b>&gt; Rear compartment at step level</b>	<b>1</b>	<b>MTL</b>
		<b>ENG. NOTE:</b> Specify critical dimensions in shop note		
<b>60-11-5600</b>	<b>S</b>	<b>Rollup door - painted job colour - standard height - white in color - L2/R2/B1</b>	<b>3</b>	<b>MTL</b>
		Painted white to match white on cab Includes magnetic door switch, LED tube lights, rubber bumpers to prevent pinch point ***See also 20-35-99AA when ordering Amdor's (for the two additional ones required for cab transverse compartment)*** To be installed on the L2, R2 and back compartment of the body.		
<b>60-11-5600</b>	<b>S</b>	<b>Rollup door - painted job colour - standard height - color red - on chassis cab</b>	<b>2</b>	<b>MTL</b>
		Located on the extended chassis cab Painted red to match chassis cab Includes magnetic door switch, LED tube lights, rubber bumpers to prevent pinch point		
<b>60-11-5620</b>	<b>S</b>	<b>Rollup door - painted job colour - full height - white in color L1/L3/R1/R3</b>	<b>4</b>	<b>MTL</b>
		Painted white to match white on cab Includes magnetic door switch, LED tube lights, rubber bumpers to prevent		

PART NO	S	DESCRIPTION	QTY	ID
		pinch point They will be installed on the L1, L3, R1 and R3 compartments of the body		
60-11-5630	S	<b>Rollup door - painted job colour - to enclose pump panel - white in color</b> Painted white to match white on cab Includes magnetic door switch, LED tube lights, rubber bumpers to prevent pinch point	2	MTL
60-11-5655	U	<b>Amdor Pull straps - Flex HD - L2, R2 - black in color</b> The color of the strap is black as per Amdor standard	2	
60-11-5660	U	<b>Amdor Pull straps - Flex HD - L1, L3, R1, R3 - black in color</b> The color of the strap is black as per Amdor standard	4	
60-31-4000		<b>Extruded aluminum handrails - rubber inserts E</b> Minimum 2" clearance from handrail to any surface	1	MTL
60-31-5500	S	<b>Fixed auxiliary steps at rear of body with LED lights</b> Fixed steps for rear - 6 required. Cast Products - SP2012-1-D. Maximum height between steps is 18". Step ordering information and NFPA slip resistance compliance letter in file with the SOPT's.	1	MTL
60-31-6500	S	<b>Compartment matting - plastic interlocking tile</b>	1	MTL
60-31-7900	U	<b>Vertical unistrut tracking in all compartments</b>	1	
60-31-8003	U	<b>Double SCBA cylinder storage tubes in rear fender (ea)</b> Retaining loops included Door ajar switch required Customer to specify make and model of cylinder to be stored Sized for 2216 psi, Aluminum bottles. Make - Scott Model - 2216 Diameter of cylinder - 6-3/4" Overall length of cylinder - 24" Photo of valve/cap (to ensure retaining loop will fit) located in F:/Data/Jacques/Current Project/ North Algona Wilberforce/Pictures As advised by Rod Harris by e-mail on 09.04.2020	4	
60-31-8600	S	> <b>Sliding tray (ea) - 400 pound capacity - standard</b> <b>ENG. NOTE:</b> Specify location  Reflective stripe is applied on the exposed edge for visibility when the compartment door is open There will be 400lb trays with open/close latches installed in the following locations Tray #1 - Left side rear compartment - L3 at floor level Tray #2 - Right side rear compartment - R3 at floor level Tray #3 - Back compartment at floor level As requested by Rod Harris by e-mail on 08.31.2020	3	MTL
60-31-8800	S	> <b>Sliding tray (ea) - 600 pound capacity - 70 % capacity</b> <b>ENG. NOTE:</b> Specify location  ***Hardware requires 3-1/2" of compartment height Reflective stripe is applied on the exposed edge for visibility when the compartment door is open Tray location Tray #1 - Cab compartment - half depth - left side Tray #2 - Cab compartment - half depth - right side	2	MTL
60-31-9600	S	> <b>Adjustable shelf (ea)</b> <b>ENG. NOTE:</b> Specify location	11	MTL

PART NO	S	DESCRIPTION	QTY	ID
		Reflective stripe is applied on the exposed edge for visibility when the compartment door is open Shelves will be installed in the following compartments Shelf #1 - Left side front compartment - L1 - full depth Shelf #2 - Left side rear compartment - L3 - half depth Shelf #3 - Left side rear compartment - L3 - half depth Shelf #4 - Right side front compartment - R1 - full depth Shelf #5 - Right side front compartment - R1 - half depth Shelf #6 - Right side rear compartment - R3 - half depth Shelf #7 - Right side rear compartment - R3 - half depth Shelf #8 - Left side front compartment - L1 - half depth Shelf #9 - Left side front compartment - L1 - half depth Shelf #10 - Right side front compartment - R1 - half depth Shelf #11 - Right side high side compartment - R2 - full depth of the compartment which will be approximately 12" As requested by Rod Harris by e-mail on 08.31.2020		
60-32-3550	S	Two adjustable hose divider (each) and one fixed to support hose bed covers Hand hold required in end of the two adjustable dividers The center fixed divider to stop 8" from back of hose bed. No hand hold cutout required on this divider only.	1	MTL
60-32-7500		Hose bed - aluminum	1	MTL
60-33-0100	S	Paint exterior - Imron Elite and clearcoat *** Paint code and colour - Red with Clearcoat to match the red on cab.	1	MTL
60-33-0200		Undercoat vehicle with KROWN rust protection	1	MTL
60-33-0600	S	Chassis wheels not painted - wheels are polished aluminum	1	MTL
60-33-1000		Paint pump and plumbing job colour	1	MTL
60-33-1600	S	Special paint compartment interior - grey zolatone Compartment interior will be standard grey Zolatone as was quoted to the Customer.	1	MTL
60-33-2000	S	Lettering - no lettering provided There will be no lettering supplied by Metalfab as requested by Rod Harris by e-mail on 09.14.2020	1	MTL
60-33-2300	U	Price Adjustment	1	
60-33-3300	S	Reflective stripe -1" - 4" - 1" 50% of perimeter each side and 25% of perimeter front. 3M Scotchlite material There will be 1" gold reflective above a 4" white reflective and 1" gold reflective below with a "Z" pattern on the L1/R1 compartment as approved by Rod Harris by e-mail on 08.07.2021	1	MTL
60-33-3310		Reflective stripe - red and yellow chevron at rear Minimum 50% of rear vertical surface. 3M printed Scotchlite material	1	MTL
60-33-3600		Reflective stripe - inside entry doors 96 square inches minimum of white reflective inside each cab door	1	MTL
60-33-4600	S	Aluminum cover over crosslays - with end tarps (black) & j-hooks A magnet will be installed in the rubber puck located ahead of the pump house that prevents the cover from hitting the cab. This will hold the cover in the open position without the use of a pin. The end tarps will be permanently mounted to the cover with a piece of flat bar and the bottom will have shock cord and j-hooks for the restraint. As requested by Rod Harris by e-mail on 07.27.2020	1	MTL
60-33-5005	U	Power assisted main hose bed covers with end tarps & j-hooks Door ajar switch required Switch(s) to be located on rear - left side over tail light module. SOPT #190	1	

PART NO	S	DESCRIPTION	QTY	ID
		The end tarps will be permanently mounted to the cover with a piece of flat bar and the bottom will have shock cord and j-hooks for the restraint. As requested by Rod Harris by e-mail on 07.27.2020		
60-40-5500	S	<b>Suction hose tube (each) with door - fully enclosed tube</b> Door ajar switch required. Tubes will be full enclosed and sized for the 6" x 12' suction hoses 80-11-5005. Teflon flooring slats shall be installed inside each compartment to enable the hoses to slide in and out smoothly. The handle will be a d-handle as requested by Rod Harris by e-mail on 09.14.2020	2	MTL
60-40-9000	S	> <b>Tube mount for ladders, with rear door - fully enclosed tube</b> <b>ENG. NOTE:</b> Specify location, ladders to be installed in this tube, complete dimensions of ladders if user supplied  Right side tube will house the three section 35' ladder 80-14-2510 and will have a d-handle as requested by Rod Harris by e-mail on 09.14.2020 Left side tube will house the 14' roof ladder 80-14-5510, 10' Attic ladder 80-14-8510 and have a 1/4 turn lift and turn latch due to the size of the door as requested by Rod Harris by e-mail on 12.07.2020. Door ajar switches required Slide pads shall be installed on the floor of the compartment to ease the removal and replacement of the ladders.	2	MTL
60-41-1000	S	<b>Pike Pole tube - rear access</b> Two (2) aluminum tubes for mounting 10' pike poles 80-13-2500 shall be installed. The tubes shall be furnished with an offset cutout in one end to allow the pike head to be inserted, turned, and locked into place. Mounting Location(s): With Ladder Storage 60-40-9000 in the right side with the 3-section ladder	2	MTL
60-41-1500	S	<b>Attic ladder tube - rear access</b> A tube for mounting a 10' attic ladder 80-14-8510 shall be installed Mounting Location: With Ladder Storage 60-40-9000 in the left side with the 14' roof ladder. As requested by Rod Harris by e-mail on 12.07.2020	1	MTL
60-42-05AA	U	<b>Protective box - hose bed cover switches</b> The hose bed cover switches (60-33-5005) will be protected by a box with a cover door. As requested by Rod Harris by e-mail on 07.27.2020	1	
		<b>INSTRUMENTATION</b>	1	MTL
70-11-0000		Warning Label on Pump Operator's Panel	1	MTL
70-11-0500	S	<b>Side mount instrument panel with rollup door - both sides</b> No gauge or visual display can be higher than 84" above the operator's standing position Midpoint of any control cannot be higher than 72" above the operator's standing position **** Pump panel layout to be provided to the customer for approval prior to production***	1	MTL
70-11-1500		<b>Stainless steel instrument panels</b> No gauge or visual display can be higher than 84" above the operator's standing position Midpoint of any control cannot be higher than 72" above the operator's standing position Quick release fasteners will be installed to keep the panel in place as requested in section 3.27 of the tender. The lower part of the panel will remain fixed to house the drains	1	MTL
70-11-3200		<b>Colour coded tags</b> Imperial units unless otherwise specified	1	MTL
70-11-5100	S	<b>Open storage at rear top of pump house</b> The area above the pump house will be open top storage about 18" wide and the full	1	MTL

PART NO	S	DESCRIPTION	QTY	ID
		width of the pump house. There will be drains plumbed to below the chassis frame level, LED lights activated with the park brake and plastic interlocking tiles on the floor. As requested by Rod Harris by e-mail on 12.07.2020		
70-11-5500		<b>Right side tread plate pump access door</b> No opening dimension less than 18"	1	MTL
70-11-7550	U	<b>Extreme heat pan</b> The heat pan will enclose the bottom of the pump house as much as possible.	1	
70-11-8000		<b>Heater in pump compartment</b> Switch for the heater shall be located on the left side pump operators panel	1	MTL
70-11-8200	U	<b>Rubber seal around suction and discharge opening on side pump panels</b>	1	
70-20-1120	U	<b>4-1/2" compound gauge - dual face 0-400</b> To be within 8" of each other - edge to edge The intake gauge will be a Thuemling 50-50 Series Precision Drafting gauge as requested on Page 22 of the tender and the discharge gauge will be a standard gauge. Neither gauge will have a Metalfab logo due to the special layout. As requested by Rod Harris by e-mail on 12.07.2020	2	
70-20-2130	U	<b>2-1/2" pressure gauge - dual face 0-400</b> Gauge to be no more than 6" from edge of the gauge to the center of the control. Each discharge control and pressure gauge will be in a single bezel as approved by Rod Harris by e-mail on 04.27.2021	8	
70-20-2500	S	<b>Primer control - Trident for the main pump</b>	1	MTL
70-20-2501	S	<b>Additional Primer control - Trident for the MIV pre-prime</b>	2	MTL
70-20-3100		<b>Class One Governor Control</b> Throttle can be no lower than 42" and no higher than 72" from operator's standing position.	1	MTL
70-20-3500		Electric water level gauge on pump panel, Class One	1	MTL
70-20-3610		<b>Remote PSTANK water level indicators each side, rear with driver E</b> Interlock with park brake so powered only when the park brake is set.	1	MTL
70-20-6500		Test gauge panel Mount below the compound gauges for proper draining	1	MTL
70-20-7500		<b>Heat exchanger control valve</b>	1	MTL
70-20-7600		<b>Pump cooler control valve</b>	1	MTL
70-21-5500		<b>Panel readout for Battery Conditioner</b> Located in drivers side cab step area	1	MTL
71-21-45AA	U	<b>Price Adjustment</b>	1	
		<b>ACCESSORIES</b>		
80-11-5005	S	<b>6" x 12' lightweight suction hose (ea)</b> Tube mounted	2	MTL
80-12-2500	U	<b>Price Adjustment</b>	1	
80-12-2700	U	<b>Price Adjustment</b>	1	
80-12-4502	U	<b>Price Adjustment</b>	1	
80-13-1000	U	<b>Price Adjustment</b>	2	
80-13-1200	U	<b>Price Adjustment</b>	2	
80-13-2500		<b>Pike pole, fibreglass handle - 10' long</b> Tube mounted.	2	MTL
80-14-2510	U	<b>Duo Safety 35' three section ladder</b> Tube mounted.	1	
80-14-5510	U	<b>Duo Safety 14' roof ladder</b> Tube mounted.	1	
80-14-8510	U	<b>Duo Safety 10' folding attic ladder</b> Tube mounted.	1	

PART NO	S	DESCRIPTION	QTY	ID
80-18-0500	S	<p><b>SCBA bracket with strap - compt mount</b>                      SCBA cylinder size - 2216 psi, Aluminum bottles.                      Mounted on the back wall of the L2 compartment - evenly spaced - 15" on center.                      Department to supply the dimensions of the SCBA                      Make: Scott                      Model: 2216                      Length: 24"                      Diameter: 6-3/4"                      Width at the bottom - 14"                      Details provided by Rod Harris by e-mail on 04.22.2021 and 04.27.2021</p>	4	MTL
80-19-0500	U	<b>Price Adjustment</b>	2	
80-19-0600	U	<b>Price Adjustment</b>	2	
80-20-5015	S <	<p><b>Helmet holder - mounted (ea) - Zico UHH-1</b>                      SOPT #426</p>	2	MTL
		<p>There will be a Zico UHH-1 helmet bracket mounted on either side of the console 20-31-7500 under each rear window. As requested by Rod Harris by e-mail on 12.07.2020</p>		
80-99-06AA	U	<p><b>6" FNH x 4" Storz adapter for RS steamer</b>                      Kocheck S54R46 straight adapter                      Kocheck CC407-4 - 4" Storz cap                      SOPT 585 - truck specific                      Install on the right side 6" inlet and the rollup door must close. The fitting DOES NOT have a 30-degree droop and matches customer's previous unit. As requested by Rod Harris by e-mail on 08.25.2020</p>	1	
80-99-10AA	U	<p><b>6" female NST to 5" Male NST adapter supplied (shipped loose)</b>                      Kocheck 56L65</p>	1	
80-99-15AA	U	<p><b>Guard over rear scene lights (pr)</b>                      There will be a guard supplied and installed over the rear scene lights (50-31-6022) to protect them from being damaged by the suction hoses. As requested by Rod Harris by e-mail on 08.25.2021</p>	1	