Shop Order

North Queens Fire Association Fire Chief
9793 Hwy 8
Caledonia, NS B0T 1B0

Exp. Date: 05/03/2017
Quote No: EQUNS-0017
Job/Order No: 19739
BODY: 00-10-15 Metalfab Pumper - ULC 05/13

01/11/2019

PART NO	S	DESCRIPTION	QTY	ID
		== Metalfab Pumper - ULC 05/13 - 0.000 ==	***1***	***MTL***
	S	***CHANGE ORDER D***	***1***	***MTL***
00-10-1500		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
00-20-1700		***Hale Pump Warranty - 5 years***	***1***	***MTL***
00-20-1800	***S***	***Tank Lifetime Warranty***	***1***	***MTL***
00-20-2000		Plant Visits - unlimited at customer expense	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
10-11-0105		Vehicle Data Recorder not requested E	1	MTL
10-11-1100	***S***	***ULC S515-13 Compliance***	***1***	***MTL***
10-11-1500	>	ULC Testing - Pumper	1	MTL
		ENG. NOTE:		
		Note in the shop note if the Fire Department wishes to witness the test		
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
		***Two copies of chassis manuals are required.		
10-11-3600	***S***	***> Delivery - FOB Fire Department***	***1***	***MTL***
		ENG. NOTE:		
		Note in the shop note if more than 4 hours of training is required		
10-11-4000		Payment Terms - Chassis Net 10 days, Balance COD	1	MTL
10-20-1400	***S***	***> Hose capacity exceeding ULC/NFPA requirements***	***1***	***MTL***
		ENG. NOTE:		
		Specify the type of hose and quantity of hose to be carried on the vehicle		
		Hose bed to carry minimum;		
		1000 ft of 4"		
		400 ft of 2-1/2"		
		400 ft of 1-3/4"		
		******Weight of hose exceeding ULC/NFPA requirements is 201 pounds******		
10-20-2000		Equipment carrying capacity - standard ULC Pumper	1	MTL
		CHASSIS INFORMATION	**1**	**MTL**
20-11-1000	***S***	***Chassis supplied by Metalfab - International 7600 4 door tandem***	***1***	***MTL***
		70,000 lb GVW 18,000 lb front axle 52,000 lb rear axle		

PART NO	S	DESCRIPTION	QTY	ID
		182" cab to axle 293" wheelbase		
		Navistar N13 SCR 475 HP @1700 rpm, 2100 governed rpm		
		1700 lb-ft @ 1000 rpm		
		Allison 4000 EVS automatic transmission, 320 Amp alternator		
		265 Liter fuel tank - one each side		
		NAV 2846 Candy Apple Red (Customer to sign off on spray out)		
		Diamond logic with switch packs in dash		
20-11-1500		2013 Emission chassis modifications	1	MTL
20-11-1600	***S***	***Chassis Motor Vehicle Inspection as supplied by chassis dealership***	***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***	***4***	***MTL***
20-21-1540		***Tire Pressure Indicators - Tandem 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		Non removable key	1	MTL
20-21-2500		Shifter lock not required E	1	MTL
20-21-3500		Rear step warning label	1	MTL
20-21-3800		Front mudflaps	1	MTL
20-21-4000		Rear mudflaps - Metalfab Logo	1	MTL
20-31-0200		Fuel fill label -Ultra Low Sulfur Diesel only	1	MTL
20-31-1000	***U***	***Price Adjustment***	***1***	
20-31-1100	***S***	***Alum tread fuel tank covers, diamond grip steps, Conv - 4 dr***	***1***	***MTL***
		There will be three (3) steps so the height between each is 12" to 14". The steps will		
		be continuous front to rear as much as possible.		
20-31-1900	***S***	***Chassis cab painted by chassis OEM***	***1***	***MTL***
		International to paint chassis cab 3 tone (gloss black top, flat black hood, all else		
		red)		
20-31-19AA	***U***	***Paint side of the hood gloss black to follow the cab paint line***	***1***	
		The side of the hood will be painted gloss black to match the rest of the chassis cab.		
		The line will match the paint line of the chassis cab. The top of hood will remain flat		
		black.		
20-31-4700	***S***	> ***Extend front bumper, gravshld with preconnected hosewell***	***1***	***MTL***
		ENG. NOTE:		
		Note location of preconnect elbow		
		Note special capacity requirements_____		
		*****Bumper to be extended 24" ahead of cab with a center compartment to carry**		
		150' of 2.5" hose which will require a compartment 15" deep. The swivel hose		
		fitting is installed above the bumper and there is a slot in the compartment cover		
		to allow the hose to be preconnected.		
20-31-7500	***S***	***Console in cab***	***1***	***MTL***
		Install siren, Customers radios 50-35-0500, Q2B siren control, USB port		
		20-99-05AA and pump shift in console.		
		Thermal Imaging Camera 80-99-10AA and two gang chargers 80-99-10AA are to		
		be integrated into the console design as well		
		Camera monitor 20-52-4088 and GPS monitor 20-99-10AA will be installed on		
		top of dash		
		Storage area with hinged cover and lift and turn latch provided at rear of		
		console.		
		Gray Zolatone finish		
		Design to be approve by NQFA before build.		

PART NO	S	DESCRIPTION	QTY	ID
20-41-0600		Intake air shutoff for engine not required	1	MTL
20-41-0900		***Auxiliary braking system disabled when pumping***	***1***	***MTL***
20-41-1100		Transmission programming - Allison WT	1	MTL
		***Includes "Pump Engaged" light next to pump shift on chassis instrument panel.		
20-41-1500	***S***	***Extend exhaust pipe - RS front of rear wheels E***	***1***	***MTL***
		Engineering to specify exhaust pipe material as required by the chassis manufacturer.		
		Engineering to sign off on the exhaust configuration to make sure it meets the chassis manufacturer's emission specifications.		
20-41-1801		***Battery boost terminals not required - batteries accessible***	***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	***S***	***Rear Tow Hooks - through rear of body E***	***1***	***MTL***
		***** Smaller flat bar tow hooks as shown on the proposal drawing (2)**		
20-41-5105	***U***	***Tow eye on rear of body for tie off point***	***1***	
		There will be a tie off point on the rear upper portion of the body to be used when a firefighter is standing on the rear intermediate step 60-31-5888.		
20-51-0700		***Master Battery Disconnect included with chassis***	***1***	***MTL***
20-51-2500		***Back up alarm included with chassis***	***1***	***MTL***
20-51-3000	***S***	***Air inlet with matching fitting - LS***	***1***	***MTL***
		Install on LS chassis step area		
20-51-3400		Protection valve installed for air operated accessories	1	MTL
20-51-5600	***S***	***Flashing headlights w/ daytime running lights - ordered with chassis***	***1***	***MTL***
20-51-6200	***S***	***> 120 volt 20 A shore line connection in chassis cab***	***2***	***MTL***
		ENG. NOTE:		
		Requires 20-51-75 120 volt auto eject or 20-51-80 120 volt inlet		
		Standard 5-20R duplex receptacle in chassis cab, not fused		
		One to be mounted to plug battery conditioner 20-51-6500		
		One to be used as required for 80-99-10AA, located on cab console - a power bar will be installed as well if necessary for customer supplied components		
		Minimum 12" from floor level		
20-51-6500		***Kussmaul Autocharge 1000 battery conditioner w/battery saver***	***1***	***MTL***
		Mounted under or behind rear seat framing		
20-51-7102	***S***	***Electric System Management included with chassis - Diamond Logic***	***1***	***MTL***
20-51-8010	***S***	***120 volt - 20 A volt inlet***	***1***	***MTL***
		Install on LS chassis step area		
20-51-8500	***S***	***Engine compartment lights (pair) to meet ULC***	***1***	***MTL***
		One required each side to light up complete engine compartment		
		Activated when park brake is set		
20-51-9110		***Air horns on hood, chassis OEM switch controlled E***	***1***	***MTL***
		Momentary switch on dash at Officers location and switch on steering wheel included with the International chassis.		
20-52-1100	***S***	***> Red/white dome light (ea) - surface mount***	***4***	***MTL***
		ENG. NOTE:		
		Specify location in shop note		
		Locate three in crew area and one in officer area in ceiling above seating positions		
20-52-3000		> Chassis steering wheel lined up by others	1	MTL
		ENG. NOTE:		
		Required for all chassis except Freightliner, Sterling, Spartan		
20-52-4088	***U***	***< Back up camera with 4 cameras and 7" screen***	***1***	
		SOPT 888 - Rear View Safety Model RVS-062710 and monitor mount RVS-1417		
		Monitor mounted on top of cab dash		

PART NO	S	DESCRIPTION	QTY	ID
20-60-0400		Chassis wheelbase does not change	1	MTL
20-90-1600	***U***	***Kussmaul USB dual port***	***1***	
		SOPT 467a - P/N 1521659		
		Install on 20-31-7500 console		
20-99-10AA	***U***	***< Garmin GPS with 6" screen***	***1***	
		SOPT		
		Mount adjacent to back up camera monitor on top of dash		
20-99-25AA	***U***	***Bumper guides, chrome, lighted***	***1***	
		The front bumper will have chrome guides with lighted ends.		
		PUMP AND PLUMBING	**1**	**MTL**
30-11-8100		***Hale QMAX 1250 IGPM single stage pump***	***1***	***MTL***
30-12-3500		***Mechanical seal for Hale QMID/QMAX/QTWO pumps***	***1***	***MTL***
30-15-0104		***Plumbing - Hale manifold pump SM SS E***	***1***	***MTL***
30-20-0500		Valves and controls - side mount panel	1	MTL
30-20-1002		***Akron valves specified***	***1***	***MTL***
30-20-1600		***Piping stainless steel - general***	***1***	***MTL***
30-20-1700	***S***	***1-1/2" thread specifications - NPSH***	***1***	***MTL***
30-20-1800	***S***	***2-1/2" thread specifications - NSZ1***	***1***	***MTL***
		Customer to supply sample thread coupling (male and female)		
30-20-2000		Piping hydrostatic test	1	MTL
30-20-2500		***Anodes in suction and discharge piping***	***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.		
30-21-9515	***S***	***Tank to Pump 4" Ball valve SS, electric control with check valve manifold pump***	***1***	***MTL***
30-22-2020		***Tank Fill valve 3" SS***	***1***	***MTL***
30-31-4010	***S***	***Suction - 6" each side manifold pump***	***1***	***MTL***
30-31-7200		***< > Hale master intake suction valve - electric control***	***2***	***MTL***
		Left side and right side 6" inlets are gated		
		Both controls to be installed on LS panel		
		Manual override is adjacent to the respective valve		
		ENG. NOTE:		
		Required for top mount panels		
		Show location in Shop Note		
30-32-8200	***U***	***< 4" Storz inlet, 4" valve, Navigator electric control, bleeder***	***1***	
		SOPT 365b		
		Left side pump panel		
		Customer will provide a 4" Storz x 2-1/2" female NSZ1swivel adapter with 2-1/2" CP Plug		
		4" Storz cap is not required.		
30-40-2020	***S***	***4" right discharge SS, plumbed 3", Hale manifold pump, bleeder***	***1***	***MTL***
30-41-2020	***S***	***2-1/2" RS discharge SS, bleeder, Hale manifold pump***	***2***	***MTL***
30-41-2520		***2-1/2" LS discharge SS, bleeder, Hale manifold pump***	***2***	***MTL***
30-44-0520		***1-1/2" crosslay (each) SS, 2" valve, bleeder***	***2***	***MTL***
		Minimum capacity of 200' x 1-3/4" hose in each lay and is equipped with stainless steel rollers on each end.		
30-44-1140	***U***	***2.5" front discharge (trashline) SS piping***	***1***	
		There will be a 2.5" front trash line plumbed to the front bumper with a swivel connection above the bumper surface.		
30-44-6520	***S***	***Piping for monitor SS, plumbed 3", autodrain bleeder***	***1***	***MTL***
		Centered in space behind Crosslays for the TFT Hurricane RC monitor 80-99-15AA		

PART NO	S	DESCRIPTION	QTY	ID
30-51-0500		***Pump shift-Midship air***	***1***	***MTL***
		***Includes "Pump Engaged" and "OK to Pump" indicator lights on chassis instrument panel		
		***Includes "Throttle Ready" indicator light on Pump operating panel		
30-51-0700		Pump Gearbox mounted manual over ride for pump shift E	1	MTL
30-51-6700		***FRC Pump Boss Governor/Throttle engine display***	***1***	***MTL***
30-51-7000	***S***	***Suction side relief V/V, manifold pump***	***3***	***MTL***
		One for each MIV		
		One for 4" left inlet		
		Preset each valve at 130 PSI		
30-51-7700	***S***	***Primer Hale oil less ESP with oil tank Hale***	***1***	***MTL***
		Indicator light on panel to show when primer is operating. Disconnect switch to be mounted inside the console so they are not shut off accidentally.		
30-51-7800		***Pre Primer for gated suction Hale primer***	***2***	***MTL***
30-51-8100		***Heat exchanger included with chassis***	***1***	***MTL***
30-52-1000		Master drain V/V, 12 port	1	MTL
30-52-3001		Foam system not requested E	1	MTL
		WATER AND FOAM TANKS	**1**	**MTL**
40-11-2100		Ultra-Tank water tank (Imperial gallons)	1	MTL
40-11-2200		Water tank capacity certification (tank manufacturer)	1	MTL
40-11-7500	***S***	***Tank capacity 3000 Imperial Gallons***	***1***	***MTL***
40-21-1000		***4" tank to pump connection***	***1***	***MTL***
40-22-1500		***3" 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***
40-23-1060		***10" Newton dump connection***	***1***	***MTL***
40-30-0500		***Sump drain valve (3" gate valve) with linkage E***	***1***	***MTL***
40-30-1100		***Water Fill Box middle left side***	***1***	***MTL***
40-31-3500		***10" rear Newton dump,stainless steel***	***1***	***MTL***
40-31-4700		***Newton dump, top mount manual operation***	***1***	***MTL***
		Lock open device is required		
40-31-5688	***U***	***Stainless Steel Swivel Dump chute - Rotating with lock***	***1***	
		Install bumper/stop as required to prevent chute from hitting tail lights/emergency flashing lights.		
40-31-9000	***S***	***4" Storz rear fill, Fireman's Friend, bleeder***	***1***	***MTL***
		Left of dump as shown on the proposal drawing - Locate to allow adequate clearance to Zico access ladder		
		Include a bleeder valve to relieve pressure when disconnecting		
		ELECTRICAL	**1**	**MTL**
50-11-0450		***Base electrical system - International Diamond Logic multiplex***	***1***	***MTL***
		****** All connections to be soldered and heat shrink ******		
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
		As required by ULC and NFPA standards		
50-11-0900		***Rocker switch panel with master warning switch***	***1***	***MTL***
		Through Diamond Logic - switches are on dash as supplied by International MASTER		
		-LIGHT BAR RED		
		-LIGHT BAR CLEAR		
		-REAR BEACONS		
		-FLASHING WARNING		
		-FRONT BROW LIGHTS		
		-LEFT SCENE		
		-RIGHT SCENE		
		-DITCH LIGHTS		
		-REAR FLOODS		

PART NO	S	DESCRIPTION	QTY	ID
50-11-1400		Federal PA300 100 watt siren	1	MTL
50-11-1620		Siren speaker,100 watt, in front bumper	1	MTL
50-11-2011	***U***	***Install Customers Q2B siren - through front bumper***	***1***	
		Activated by a momentary switch on chassis dash, powered by Master Warning switch so not active unless Master Switch is on.		
		Provide a dual position momentary switch and install in the row above the park brake as close to the officer seating position as possible.		
		Disconnect switch to be mounted inside the console so they are not shut off accidentally.		
50-11-2600		***Siren to be accessible to driver and officer***	***1***	***MTL***
50-11-6501	***S***	***Rear Directional Light not requested***	***1***	***MTL***
50-11-8600	***S***	***Rear LED beacons-Whelen MCFLED2R (pr) both red***	***1***	***MTL***
50-12-8500	***S***	***Front LED flashers (pr)-Whelan red LED 400***	***2***	***MTL***
50-12-8600	***S***	***Rear LED flashers (pr)-Whelen red LED 400***	***1***	***MTL***
50-12-8700	***S***	***Front side inter lts (pr) - Whelen red LED 400***	***1***	***MTL***
		The front side flasher will be installed on the side of the bumper (not on the side of the chassis hood).		
50-12-8800	***S***	***Body side inter lts (pr)-Whelen red LED 400***	***1***	***MTL***
50-12-8901	***S***	***> Add'l body side inter lts (pr)-Whelen red LED 400 with integral flasher***	***1***	***MTL***
		ENG. NOTE:		
		Required if distance between front and rear side intersection lights exceeds 25'		
50-21-1688	***U***	***TecNiq E96 surface mount ditch lights for rear fenders (LED pr)***	***1***	
		Switched in cab and also activated when transmission is placed in reverse gear.		
		Managed by Diamond Logic.		
		P/N 1571012		
50-21-5100		***> Compartment lighting - LED tube lights in each compartment (rollup doors)***	***1***	***MTL***
		ENG. NOTE:		
		Rollup doors only		
		Low side compartments will have grommet mounted LED lights in front side wall.		
50-21-5500		***Door Ajar warning light***	***1***	***MTL***
		By Diamond Logic - warning light is on dash as supplied by International		
		Bilingual Warning label in cab to read:		
		"Do Not Move Apparatus when Light is on"		
50-21-5550		***Equipment rack not stowed warning light***	***2***	***MTL***
		By Diamond Logic - warning light(s) is on dash as supplied by International		
		Bilingual Warning label in cab to read:		
		"Do Not Move Apparatus when Light is on"		
50-21-8001		***Step lights for body steps - 4" LED***	***1***	***MTL***
		Activated when park brake is set		
50-21-8201	***S***	***Step lights for chassis steps - LED***	***1***	***MTL***
		Activated when park brake is set		
50-21-8600		LED clearance lts and reflectors	1	MTL
50-21-8800		***LED intermediate turn signal/clearance/reflector length >30'***	***1***	***MTL***
50-22-0700	***S***	***Whelen 64 LED tail/brake-turn-backup module (pr)***	***1***	***MTL***
50-31-6006	***S***	***> Scene lights (pr) - Federal QL97 LED - Right side***	***1***	***MTL***
		ENG. NOTE:		
		Specify location		
		Two on right side located top front and top rear corners - switched in cab		
		Managed by Diamond Logic.		
50-31-6007	***U***	***Scene lights (pr) - Federal QL97 LED - Left side***	***1***	
		Two on left side located top front and top rear corners - switched in cab		
		Managed by Diamond Logic.		

PART NO	S		DESCRIPTION	QTY	ID
50-31-6011			***Scene light boxes not required E***	***1***	***MTL***
50-31-6560			***Ground lighting (LED Lumabar) - 4 door chassis***	***1***	***MTL***
50-31-6570			***Ground lighting (LED Lumabar) - side mount body***	***1***	***MTL***
			Activated when park brake is set		
50-35-0500	***S***		***Installation of customer supplied mobile radio***	***2***	***MTL***
			Install in the 20-31-7500 console		
			Radios and Radio information list to be obtained at the pre-construction meeting		
			Mount mike clips on top of console		
			Motorola HSN4040A speaker and two (2) radio brackets were delivered to Metalfab 10.26.2018.		
50-35-0560			***VHF antenna with base - commercial chassis***	***1***	***MTL***
			Customer to specify any special mounting location or spacing requirements		
			_____		
50-35-0590			***Cellular/TMR antenna with base - commercial chassis***	***1***	***MTL***
			Customer to specify any special mounting location or spacing requirements		
			_____		
50-99-0010	***U***		***FRC SOBRITE LED rear floods (pr)***	***1***	
			Note that these lights are also used as rear step lights and cannot be managed.		
			Model SRA110-07B		
50-99-0020	***U***		***Electrical provision for cab windshield fans***	***1***	
			Provide breaker in electrical box, and terminated wires in each cab A post to allow customer installation of dash fans with integral switches if they find necessary. Terminated wires to be long enough to allow installation at top or bottom of A post, label wires at each end and do not connect wires to breaker		
50-99-05AA	***U***		***FRC SPA600-K20-603-P1 Tripod LED 120 volt telescoping light (ea)***	***2***	
			SOPT 632		
			P/N 1031595		
			5-15 straight plug (P1) unless otherwise specified		
			Mounted on rear with the 603 mounting brackets as shown on the proposal drawing		
50-99-15AA	***U***		***Hose bed cover lights - LED strip lights to meet ULC***	***1***	
			Activated when park brake is set		
50-99-20AA	***U***	**<**	***FRC 12VDC LED brow light with universal mount***	***2***	
			SOPT 85a		
			FRC #SPA830-Q20		
			Two (2) brow lights mounted to the front brow of the cab inboard of the outer front marker lights as shown on the proposal drawing.		
			Switch in cab		
			Managed by Diamond Logic.		
51-31-2850	***U***		***Vanner VLT12-3000 watt inverter***	***1***	
			A Vanner VLT12-3000 watt pure sine wave inverter will be installed to supply clean power for laptops. The inverter can be mounted under a rear crew seat if required.		
			BODY	**1**	**MTL**
60-10-1600			***Tandem 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	***S***	***>***	***Diamondback pumphouse steps***	***1***	***MTL***
			ENG. NOTE:		
			Maximum height of step is 24" from ground		
			The aluminum grip strut non slip surface will be painted silver.		
60-10-5430	***S***	***>***	***Diamondback 19" rear step***	***1***	***MTL***
			ENG. NOTE:		
			Maximum height of rear step is 24" from ground		

PART NO	S	DESCRIPTION	QTY	ID
		The aluminum grip strut non slip surface will be painted silver.		
60-10-6500		***Bolt on extruded aluminum rub rail E***	***1***	***MTL***
60-11-0250		***> Second front left side compartments intermediate height***	***1***	***MTL***
		ENG. NOTE:		
		Specify critical dimensions in shop note		
60-11-0300		***> Front left side compartments full height E***	***1***	***MTL***
		ENG. NOTE:		
		Specify critical dimensions in shop note		
60-11-0650		***> Second front right side compartments intermediate height***	***1***	***MTL***
		ENG. NOTE:		
		Specify critical dimensions in shop note		
60-11-0700		***> Front right side compartments full height E***	***1***	***MTL***
		ENG. NOTE:		
		Specify critical dimensions in shop note		
60-11-0900		***> Rear left side compartments intermediate height***	***1***	***MTL***
		ENG. NOTE:		
		Specify critical dimensions in shop note		
60-11-1300		***> Rear right side compartments intermediate height***	***1***	***MTL***
		ENG. NOTE:		
		Specify critical dimensions in shop note		
60-11-1900		***> Low side compartment (up to 18") each***	***4***	***MTL***
		ENG. NOTE:		
		Specify critical dimensions in shop note		
		Specify type of door		
		Specify flip up or drop down		
		Specify which side of body		
60-11-3100		***No rear compartment E***	***1***	***MTL***
60-11-4500	***S***	***Flush mount aluminum door - single with "D" handle***	***4***	***MTL***
		Doors are to be flip up with gas struts		
60-11-5510		***Rollup door - intermediate height***	***4***	***MTL***
		Natural aluminum finish		
		Includes magnetic door switch, LED tube lights, rubber bumpers to prevent pinch point		
60-11-5520		***Rollup door - full height***	***2***	***MTL***
		Natural aluminum finish		
		Includes magnetic door switch, LED tube lights, rubber bumpers to prevent pinch point		
60-11-5660	***U***	***Amdor Flex strap***	***1***	
		There will be an Amdor Flex strap installed in the L1 and R1 compartments.		
60-11-61AA	***U***	***Whelen F4N0QLED light bar with red filters and full pods***	***1***	
		The F4N0QLED light bar will be upgraded to include red filters and every forward pod will have a flasher included.		
60-31-4100		Extruded aluminum handrails	1	MTL
		Minimum 2" clearance from handrail to any surface		
60-31-5000		***Zico access Ladder at rear of unit***	***1***	***MTL***
		Left side at rear as shown on the proposal drawing		
		Minimum 7" clearance between rung and any obstruction		
60-31-5600		Steps and grab handles at front of body next to pump panel	1	MTL
		Maximum height between steps is 18"		

PART NO	S	DESCRIPTION	QTY	ID
60-31-5700	***S***	***Pull out step under body (each)***	***2***	***MTL***
		The pull out steps are to be installed under the R2 and R5 compartments to assist in reaching the suction hoses 80-11-5000 on the Zico LAS 60-41-9001.		
60-31-5888	***U***	***Rear Intermediate step to allow for hose bed repacking***	***1***	
		To be as wide as possible. The aluminum grip strut non slip surface will be painted silver.		
60-31-6500		Compartment matting-Turtle tile	1	MTL
60-31-8000		***BA bottle compt (ea)-fender well***	***4***	***MTL***
60-31-8210	***S***	***> Sliding vertical tool board - open/close latches***	***2***	***MTL***
		ENG. NOTE:		
		Specify location		
		The boards will be installed 8" from each side wall and have open/closed latches.		
		This tool boards will house the "Build a Pole" roof and salvage kit components (ref 80-99-20AA)		
60-31-8700		***> Sliding tray (ea) - 400 pound capacity with gas strut***	***6***	***MTL***
		ENG. NOTE:		
		Specify location		
		Reflective stripe is applied on the exposed edge for visibility when the compartment door is open.		
		Tray #1 - Left side front compartment at floor level		
		Tray #2 - Left side front compartment - adjustable (full depth)		
		Tray #3 - Left side second front compartment at floor level		
		Tray #4 - Left side rear compartment at floor level. To have adjustable dividers installed for rolled hose storage. Hose to be stored is as follows		
		One 4" x 50 ft hose		
		One 4" x 25 ft hose		
		Two 2-1/2" x 50 ft hoses		
		Two 2-1/2" pony length hoses		
		Tray #5 - Right side second front compartment at floor level		
		Tray #6 - Right side rear compartment at floor level		
60-31-9600		***> Adjustable shelf (ea)***	***3***	***MTL***
		ENG. NOTE:		
		Specify location		
		Reflective stripe is applied on the exposed edge for visibility when the compartment door is open		
		Shelf #1 - Left side front compartment - shallow depth		
		Shelf #2 - Left side front compartment - shallow depth		
		Shelf #3 - Left side second front compartment - full depth		
60-32-3500		***One adjustable hose divider***	***1***	***MTL***
		One adjustable and one fixed in center to support hose bed covers		
		Hand hold required in end		
60-32-7500		***Hose bed - aluminum***	***1***	***MTL***
		Hose bed to carry minimum;		
		1000 ft of 4"		
		400 ft of 2-1/2"		
		400 ft of 1-3/4"		
60-33-0000	***S***	***Paint exterior - Imron Elite - two tone***	***1***	***MTL***
		***** Paint codes to match cab**		
		Paint body red up to top of fender each side - pump house is all red except for top extrusion which will be black to match cab. Body from fender top up will be black to match cab. See the proposal drawing for paint line.		
60-33-0200		Undercoat vehicle with KROWN rust protection	1	MTL
60-33-0600		***Chassis wheels not painted***	***1***	***MTL***
		Polished aluminum wheels		

PART NO	S		DESCRIPTION	QTY	ID
60-33-1000			Paint pump and plumbing job colour	1	MTL
60-33-1500			Buffed finish compartment interior	1	MTL
60-33-2300	***S***	***<***	***Lettering - special graphics***	***1***	***MTL***
			Will have "North Queens Fire Association" on the porta tank cover and a Canadian flag at one end and a NS flag on the other end		
			Pictures are located in O:/Metalfabphotos/North Queens, NB/Utility		
60-33-3000			***Reflective stripe - 4" white***	***1***	***MTL***
			50% of perimeter each side and 25% of perimeter front		
60-33-3320	***U***		***Diamond Grade red / yellow chevrons***	***1***	
			The rear red and yellow chevrons will be Diamond grade.		
60-33-4600	***S***	***<***	***Aluminum cover over crosslays - with end tarps (black)***	***1***	***MTL***
			Weighted end tarps (black) - note that customer is responsible for ensuring preconnected hoses are secured within the hose bed		
60-33-50AA	***U***		***Power assisted main hose bed covers (electric)***	***1***	
			SOPT 190		
			Switches at rear, left side over tail lights		
			Weighted end tarps (black) - note that customer is responsible for ensuring preconnected hoses are secured within the hose bed		
60-40-4500	***S***	***<***	***6" x 10' Suction hose storage provisions***	***3***	***MTL***
			As shown on the proposal drawing, storage for the three 6" x 10' suction hoses 80-11-5000 - Two on LAS ladder rack, one on the portatank rack with additional 6" allowance in length for customer double female swivel		
60-41-1000	***S***		***Pike Pole tube incorporated with attic ladder tube 60-41-1500***	***2***	***MTL***
			For the storage of two 10' pike poles 80-13-2500		
60-41-1500	***S***		***Attic ladder tube with rear door***	***1***	***MTL***
			Right side over side compartments - rear access		
			For storage of the 10' attic ladder 80-14-8500		
			Door ajar switch required		
			Rear door to be aluminum tread plate with lift and turn latch		
60-41-6001		***>***	***Zico hydraulic portable tank rack***	***1***	***MTL***
			ENG. NOTE:		
			Specify mounting location desired.		
			If Portable tank is customer supplied, specify overall dimensions when the tank is in stored position		
			Left side for the 3000 gallon portable tank 80-15-1010		
			To be wired so only operable when park brake is engaged and the compartment doors over rear wheels are closed.		
			Flashing lights and reflective tape required at front and rear to indicate any areas that protrude beyond the body.		
			The rack will be wired to the Equipment rack not stowed warning light in cab.		
60-41-6010			***ZICO PTS switched at rear above tail light***	***1***	***MTL***
			Switch is located on same side as electric rack - left side		
60-41-6110			***Painted plate on exterior of Zico PTS***	***1***	***MTL***
60-41-7100			***Tread plate on body behind porta tank rack***	***1***	***MTL***
60-41-9001	***S***	***>***	***Zico hydraulic Ladder Access system***	***1***	***MTL***
			ENG. NOTE:		
			Specify mounting location desired.		
			If ladder(s) are customer supplied, specify overall length and width, width between side rails, rung spacing; also specify ladder brand and model		
			Right side for the 24' two section ladder 80-14-0500, the 16' roof ladder 80-14-6000, and provisions for two 6" suction hoses (ref 60-40-4500)		
			Note that the weight of this equipment is 290 pounds and the rated capacity of the LAS is 300 pounds		

PART NO	S	DESCRIPTION	QTY	ID
		To be wired so only operable when park brake is engaged and the compartment doors over rear wheels are closed.		
		Flashing lights and reflective tape required at front and rear to indicate any areas that protrude beyond the body.		
		The rack will be wired to the Equipment rack not stowed warning light in cab.		
60-41-9010		***ZICO LAS switched at rear above tail light E***	***1***	***MTL***
		Switch is located on same side as electric rack - right side		
60-41-9100		***Manual locking system for LAS***	***1***	***MTL***
		Install information label at switch location to instruct operator to release locks prior to lowering the ladder.		
		INSTRUMENTATION	**1**	**MTL**
70-11-0000		Warning Label on Pump Operator's Panel	1	MTL
70-11-0500		Side mount instrument panel	1	MTL
		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		
70-11-1500		Stainless steel instrument panels	1	MTL
		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		
70-11-3200	***S***	***Colour coded tags***	***1***	***MTL***
		The two 1-1/2" crosslay preconnects are to be colour coded RED and GREEN		
70-11-4100		Stainless steel side panel hood left side	1	MTL
70-11-4500	***S***	***Diamondback grip type panel hood step right side***	***1***	***MTL***
		Requires LED light in front of body to illuminate step to meet ULC. The aluminum grip strut non slip surface will be painted silver.		
70-11-5000		Standard cover over rear top of pump house - no storage	1	MTL
70-11-5500		Right side tread plate pump access door	1	MTL
		No opening dimension less than 18"		
		Slot required for Primer level viewing		
70-11-7500		Heat pan-aluminum	1	MTL
70-11-8000		***Heater in pump compartment***	***1***	***MTL***
70-20-0500	***S***	***4-1/2" compound gauge - dual face 0-600***	***2***	***MTL***
		To be within 8" of each other - edge to edge. The gauges are to be mounted to leave an 8"x8" area beside them for the accountability tag bracket 70-99-0020 to be installed.		
70-20-1500		***2-1/2" pressure gauge - dual face 0-600***	***8***	***MTL***
		Gauge to be no more than 6" from edge of the gauge to the center of the control.		
70-20-2500		***Primer control***	***3***	***MTL***
70-20-3200		***FRC Pump Boss Governor Control***	***1***	***MTL***
		Throttle can be no lower than 42" and no higher than 72" from operator's standing position.		
70-20-3500		Electric water level gauge on pump panel, Class One	1	MTL
70-20-3610		***Remote PSTANK water level indicators each side, rear with driver E***	***1***	***MTL***
		Interlock with park brake so powered only when the park brake is set.		
70-20-6500		Test gauge panel	1	MTL
70-20-7500		***Heat exchanger control valve***	***1***	***MTL***
70-21-5500	***S***	***Panel readout for Battery Conditioner***	***1***	***MTL***
		Located on left side chassis steps near the 120-volt inlet.		
70-99-0020	***U***	***Accountability tag bracket***	***1***	
		Fabricate a loop from 3/8" stainless minimum 6" inside long minimum 2" deep		

PART NO	S	DESCRIPTION	QTY	ID
		with end plates to bolt on the pump panel surface to allow accountability tags to be attached with carabiners. Send pictures to the fire department when the pump panel stainless is completed. Leave 8"x8" room beside the compound gauges.		
	S	***ACCESSORIES***	***1***	***MTL***
80-11-5000		***6" x 10' lightweight suction hose (ea)***	***3***	***MTL***
		Tray or tube mounted		
80-12-2500		***6" barrel strainer***	***1***	***MTL***
		Shipped loose - not mounted. Customer will mount.		
80-13-0500		***Rubber mallet***	***1***	***MTL***
		Shipped loose - not mounted. Customer will mount.		
80-13-1100	***S***	***Hose wrenches (triple) with holder***	***1***	***MTL***
		Ship loose		
80-13-1200	***S***	***Clare hose wrenches (double) with holder***	***2***	***MTL***
		Ship loose		
80-13-2500		***Pike pole, fibreglass handle - 10' long***	***2***	***MTL***
		Tube mounted		
80-13-4000		***Axe, pick head, fibreglass handle and bracket***	***1***	***MTL***
		Mounted as directed by Customer		
80-13-4500		***Axe, flat head, fibreglass handle and bracket***	***1***	***MTL***
		Mounted as directed by Customer		
80-14-0500		***24' 2 section extension ladder PEL 24***	***1***	***MTL***
		Mounted on LAS		
80-14-6000		***16' aluminum roof ladder PRL-16***	***1***	***MTL***
		Mounted on LAS		
80-14-8500		***10' aluminum folding attic ladder FL-10***	***1***	***MTL***
		Tube mounted		
80-15-1010		***3000 l gallon portable tank - Husky***	***1***	***MTL***
		Mounted on PTS		
		Per part number 1521397 the frame dimensions of the folded portable tank are 167" x 30" x 8"		
80-18-0600		***SCBA brkt w/strap - ZICO ULLH - crew cab mount***	***4***	***MTL***
80-99-0020	***U***	***Aluminum wheel chock and horizontal bracket under body***	***2***	
		1560493 SWC wheel chocks		
		1540825 WSB bracket		
		Mount under body ahead of LS rear wheels		
		Mount after the ULC test - note on equipment letter that wheel chocks to be provided by customer		
80-99-05AA	***U***	***TFT AJ8NX-NX 6" FNH x 6" MNH Elbow***	***2***	
		Install on steamer ports - one left side and one right side - leave adequate room so these can be left installed and not be over width - drawing and dimensions of the elbow are in the SOPT file (8.83`` OA)		
		P/N 1501168		
80-99-10AA	***U***	***Supply power for and mount Customer supplied bank charger(s), TIC, etc.***	***1***	
		Motorola bank charger:		
		120 VAC power required		
		18" wide x 11" deep x 12" high		
		Install on the back of the 20-31-7500 console		
		Bullard Thermal Imaging Camera (TIC):		
		12 VDC power required		

PART NO	S		DESCRIPTION	QTY	ID
			12" high x 7" wide x 7" deep Mounted on 20-31-7500 console - Delivered to Metalfab 10.26.2018 A flashlight gang charger will be purchased by the customer at a later date, provision to be made for this charger - estimate a space on the back of the console under the radio chargers of 19" wide x 6" high x 12" deep (extending towards the back of the truck). This matches flashlight gang chargers we have installed in the past. Include a 120 volt receptacle for this charger.		
80-99-15AA	*U*		*TFT Huricane RC monitor, Wireless Remote, Electric riser, 1250 gpm elect nozzle* SOPT #933 1 - XFIH-EL1A - Hurricane RC Monitor 1 - M-ERP1250NJ - Master Stream Nozzle (p/n 1521699) 1 - XGA38VL-RL - 18" Extenda-a-Gun (p/n 1521670) 1 - XGB-33 - Saddle bracket for Extenda-a-Gun (p/n 1521673) 1 - Y4E-RP - Panel mount monitor Controller - mounted on left side operators panel (p/n 1521671) Have Engineering confirm the TFT part numbers before ordering.	*1*	
80-99-20AA	*U*		*Build-a-Pole roof kit and salvage kit and mounting hardware (PAC)* Mounted on the slide out tool board in right front compartment See SOPT Build-a-Pole Roof kit includes 1 - 3' pike head, 1 - 3' trash hook, 1-13' D-handle, 1 - 4' ext pole Build-a-Pole Salvage kit includes 1 - 3' dry wall hook, 1 - squeegee, 1 - square nose shovel, 2 - 4' ext handles with rubber grip, 1 - 4' ext pole	*1*	
80-99-25AA	*U*	<	*Scott SCBA with 4500 psi 45 min cylinder complete with spare cylinder (ea)* The assembled SCBA will be mounted in the cab SCBA seat brackets and the spare cylinders will be mounted in the the SCBA tubes in the body rear fenders SOPT 779 - Each SCBA includes the following; ***One #SCT-X3214021000302 SCBA, AP-75, 4500 PSI, Standard Harness, E-Z Flo+ Regulator, PAK-Tracker,m NFPA 2013 ***One #SCT-201215-02 AV-3000 HT Facepiece, Kevlar, NFPA, Size Medium ***Two #SCT-804722-01 Cylinder and valve assembly, 4500 PSI, 45 minute - one cylinder is for the above SCBA and one spare cylinder Customer has confirmed that these numbers are correct	*4*	