



# Shop Order

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

Municipality of Brighton, ON

**Exp. Date:** 06/22/2020  
**Quote No:** 10006-0528  
**Job/Order No:** 21678  
**BODY:** 00-10-15 Metalfab Pumper - ULC 05/13

05/24/2022

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PART NO	S	DESCRIPTION	QTY	ID
		<b>== Metalfab Pumper - ULC 05/13 - 0.000 ==</b>	1	MTL
	S	<b>Change Order I</b>	1	MTL
00-05-0020		<b>Dealer - Carrier Centers Emergency Vehicles - Rod</b>	1	MTL
00-10-1520	U	<b>Metalfab Pumper</b>	1	
00-20-1000		Company Profile	1	MTL
00-20-1501	S	<b>Extended Body Warranty - One year bumper to bumper</b>	1	MTL
00-20-1550		Metalfab Limited Ten (10) Year Paint and Corrosion Warranty	1	MTL
00-20-1700		<b>Hale Pump Warranty - 5 years</b>	1	MTL
00-20-1800		Polypropylene Tank Lifetime Warranty	1	MTL
00-20-2100	S	<b>Plant Inspection Visit - Not applicable</b>	1	MTL
		There will be no visits at Metalfab. The customer will review the truck at it's hall during the shipping from Metalfab to Carrier's Brantford facility. As advised by Rod Harris by e-mail on 01.13.2021.		
00-20-2500	S	<b>Engineering approval drawing as per purchase order</b>	1	MTL
		The department will approve all drawings prior to build - as per purchase order		
00-20-3000	S	<b>No Bonding Requested</b>	1	MTL
00-20-3500		Certification for Fusion Welding of Aluminum	1	MTL
00-20-4000	S	<b>Quality System registered to ISO 9001:2015</b>	1	MTL
00-20-4500		Fire Apparatus Manufacturers' Association Membership	1	MTL
		<b>GENERAL INFORMATION</b>	1	MTL
10-11-0000		Intent E	1	MTL
10-11-0110		<b>Vehicle data recorder included with chassis</b>	1	MTL
10-11-1101	S	<b>ULC S515-13 and NFPA 1901-2016 Compliance E</b>	1	MTL
10-11-1500		<b>&gt; ULC Testing - Pumper - Imperial units of measure</b>	1	MTL
		<b>ENG. NOTE:</b> Note in the shop note if the Fire Department wishes to witness the test		
		<b>Tested to 1050 IGPM</b>		
10-11-2100		Maximum length not specified E	1	MTL
10-11-2200		Maximum height not specified E	1	MTL
10-11-2400		<b>Overall length is 30' or more</b>	1	MTL
10-11-2500		General Construction	1	MTL
10-11-3000		<b>Manuals - two copies</b> ***Two copies of manuals are required.	1	MTL
10-11-3600	S	<b>&gt; Delivery - FOB Fire Department - by CCEV</b>	1	MTL
		<b>ENG. NOTE:</b> Note in the shop note if more than 4 hours of training is required		
		<b>Delivery requested by October 3rd, 2021 as per Purchase Order</b>		
10-11-4300	S	<b>Payment Terms - Chassis and Body COD upon pickup at Metalfab</b>	1	MTL
		The terms will be COD upon pickup at Metalfab as per Purchase Order		

PART NO	S	DESCRIPTION	QTY	ID
10-20-1400	S	> <b>Hose capacity exceeding ULC/NFPA requirements</b> <b>ENG. NOTE:</b> Specify the type of hose and quantity of hose to be carried on the vehicle  <b>Hose bed able to hold min.</b> <b>1000 feet 4" Storz high volume rubber supply hose,</b> <b>600 feet 2" rubber supply line and</b> <b>600 feet of 1.75" rubber attack line.</b> <b>***Additional weight allowance of 1236 lbs.***</b>	1	MTL
10-20-2000		Equipment carrying capacity - standard ULC Pumper	1	MTL
		<b>CHASSIS INFORMATION</b>	1	MTL
20-11-1000	S	<b>Chassis Freightliner M2 106 four door</b> 47,000 lb GVWR 16,000 lb front axle 31,000 lb rear axle Wheelbase of 258" and Cab to Axle of 145.08" Cummins L9 350 hp @ 2000 rpm 2200 governed rpm 1000 lb/ft @ 1400 rpm 60 mph top road speed to meet NFPA 275 amp alternator Cummins engine brake (activates stop lamps) 3000 EVS automatic transmission Driveline series Meritor MXL17T 189 litre fuel tank, LH ESC Single color red L0762 EB Med Red Elite - sample sent 09.25.2020 and approved 10.21.2020 by Rod Harris by e-mail ***Add to chassis when ordering: Work light under the hood (\$120.00) Tires changed to Michelin XDY as requested by Rod Harris by e-mail 09.30.2020 As requested on Purchase Order - Chassis was ordered August 31st, 2020 and cutoff date for chassis changes is October 22nd, 2020	1	MTL
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		<b>Fluid capacity plate</b>	1	MTL
20-21-0600		<b>Pumping test plate</b>	1	MTL
20-21-1030		<b>Maximum riders sign - 5 persons</b>	1	MTL
20-21-1510		<b>Seat belt warning labels - 4 door chassis</b>	1	MTL
20-21-1520		<b>Helmet warning label - do not wear helmet</b>	4	MTL
20-21-1560	S	<b>LED Tire Pressure Indicators - Single Axle - shipped loose for end user install</b> Required for NFPA 4.13.4	1	MTL
20-21-1600		<b>Apparatus Information Label</b> 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"	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		<b>Front mudflaps provided with chassis E</b>	1	MTL
20-21-4000		Rear mudflaps - Metalfab Logo	1	MTL
20-31-0200		Fuel fill label -Ultra Low Sulfur Diesel only	1	MTL
20-31-1100		<b>Alum tread fuel tank covers, diamond grip steps, Conv - 4 dr</b> All steps are to be full width under the doors as space allows. Steps shall be aligned with running boards or rub rail where applicable. All cab steps are to ergonomic and allow for easy and safe access/egress.	1	MTL
20-31-1900	S	<b>Chassis cab painted single tone by chassis OEM</b>	1	MTL

PART NO	S	DESCRIPTION	QTY	ID
20-31-4700	S	> <b>Extend front bumper, gravshld with hosewell, cover, and lift and turn latch</b> <b>ENG. NOTE:</b> Note location of preconnect elbow Note special capacity requirements_____	1	MTL
		<b>***Bumper to be extended approximately 24" ahead of cab to allow piping behind the compartment.</b> <b>Door shall have lift and turn latch.</b> <b>Hose well to have capacity for minimum 150' x 1-3/4" rubber hose and nozzle.</b> <b>Drain holes and plastic tile will be installed in bottom of hose well compartment.</b> <b>The connection for the discharge will be on the upper back wall of the compartment as requested by Rod Harris by e-mail on 12.08.2020</b>		
20-31-7500	S	<b>Console in cab</b> Install switch panel (50-11-0900), siren (50-11-1495) and traffic bar controller (50-11-6610) on the front raised portion. There will be a pump shift (30-51-0500) on the console, power bar 20-99-05AA and shoreline (20-51-6200) on the rear. There will be a USB connection (20-90-1600) and two (2) 12-volt sockets (20-90-1500) on the front face of the console. Storage area with mesh netting cover rear of console. Gray Zolatone finish. See sketch and photo in F:/Data/Jacques/Current Projects/Brighton/Pictures Layout to be sent to Customer for approval before construction as per Purchase Order. Customer approval received by e-mail on 09.23.21 and removed the binder slots	1	MTL
20-41-0900		<b>Auxiliary braking system disabled when pumping</b>	1	MTL
20-41-1100		Transmission programming - Allison WT	1	MTL
20-41-1500		Extend exhaust pipe - RS front of rear wheels E 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.	1	MTL
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	S	<b>Rear Tow Hooks - through rear of body</b> <b>*** Flat bar tow hooks through rear of body (2). There will be a rubber gasket and stainless steel trim applied on the body around the hooks. As requested by Rod Harris by e-mail on 08.31.2020</b>	1	MTL
20-51-0710		<b>Master Battery Disconnect included with Freightliner chassis</b>	1	MTL
20-51-2500		<b>Back up alarm included with chassis</b>	1	MTL
20-51-3100	S	<b>Air inlet not requested</b>	1	MTL
20-51-3400		Protection valve installed for air operated accessories	1	MTL
20-51-6200	S	> <b>120 volt 20 A shore line connection in chassis cab</b> <b>ENG. NOTE:</b> 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 1. Located in cab for the 20-51-6500 battery conditioner to plug into 2. Located on back of cab console (20-31-7500) and will have the power bar (20-99-05AA) to plug into Minimum 12" from floor to meet ULC As requested by Rod Harris by e-mail on 08.31.2020	2	MTL
20-51-6600		<b>Kussmaul Pump Plus conditioner/compressor</b> Conditioner to be located in cab under/behind rear seat. Compressor to be located inside pump house with a protective guard if required	1	MTL
20-51-7101	S	<b>Electric System Management - VMUX</b>	1	MTL
20-51-7500		<b>Super Auto eject for 120 v - 20 A with sealed enclosure</b> Located in left side cab step area. Minimum 24" from grade.	1	MTL

PART NO	S	DESCRIPTION	QTY	ID
20-51-8505		<b>Engine compartment light included with chassis E</b> Freightliner part # 469-014	1	MTL
20-51-9001	S	<b>Air horns included w/chassis</b> Air horns on hood with single foot switch and electric button on dash to control horn / air horn from steering wheel button - included with the chassis. As requested by Rod Harris by e-mail on 08.31.2020	1	MTL
20-52-3500		> <b>Chassis steering wheel lined up by Metalfab E</b> ENG. NOTE: Freightliner, Sterling, and Spartan only	1	MTL
20-52-40AA	U	<b>FRC InView 360 - Front, Left, Right and Rear view camera system</b> FRC SNB100-B00 (kit with four cameras) and SNA010-B10 (7.4" monitor) Video only (no SD Card(s) included. Monitor located on top center dash area - rigidly mounted. Not available in dash due to AM/FM radio Camera's located as per FRC's installation manual SOPT#1225	1	
20-60-0400		Chassis wheelbase does not change	1	MTL
20-90-1500	S	> <b>12 volt power point</b> ENG. NOTE: Specify location in shop note  There will be two (2) 12-volt sockets supplied and installed on the front of the console (20-31-7500) as shown on the console sketch supplied by Rod Harris by e-mail on 12.08.2020. The sketch is saved at F:/Data/Jacques/Current Projects/Brighton/Pictures	2	MTL
20-90-1600	U	<b>Dual USB connection in console</b> There will be a dual USB connection supplied and installed on the front of the chassis console 20-31-7500 as requested by Rod Harris by e-mail on 08.31.2020 SOPT 148	1	
20-99-05AA	U	<b>Power bar on chassis console</b> Supply and install a power bar on the rear of the console (20-31-7500) as requested by Rod Harris by e-mail on 08.31.2020 SOPT 1072	1	
<b>PUMP AND PLUMBING</b>				
30-11-5600	S	<b>Hale QFLO Single stage 1050 IGPM</b>	1	MTL
30-12-3300		<b>Mechanical seal for Hale QFLO pump</b>	1	MTL
30-15-0104		<b>Plumbing - Hale manifold pump SM SS E</b>	1	MTL
30-20-0500		Valves and controls - side mount panel	1	MTL
30-20-1002		<b>Akron valves specified</b> Akron valves to be supplied as requested by Rod Harris by e-mail on 08.31.2020	1	MTL
30-20-1600	S	<b>Piping stainless steel - general</b>	1	MTL
30-20-1700	S	<b>1-1/2" thread specifications - NPSH</b> Customer to confirm - as confirmed by Rod Harris by e-mail on 08.31.2020	1	MTL
30-20-1800	S	<b>2-1/2" thread specifications - CSA</b> Customer to confirm - as confirmed by Rod Harris by e-mail on 08.31.2020	1	MTL
30-20-2000		<b>Piping hydrostatic test</b>	1	MTL
30-20-2500	S	<b>Anodes in suction and discharge piping</b> 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.	1	MTL
30-21-5560	S	<b>Tank to Pump SS 3" w/ check valve manifold pump</b>	1	MTL
30-22-0520	S	<b>Tank Fill valve 2" SS</b>	1	MTL
30-31-4010	S	<b>Suction - 6" gated each side SS manifold pump</b>	1	MTL
30-31-7200		> <b>Hale master intake suction valve - electric control</b> ENG. NOTE:	2	MTL

PART NO	S	DESCRIPTION	QTY	ID
		Required for top mount panels Show location in Shop Note		
		*** Suction to be gated is the left side 6" inlet and right side 6" inlet. Both electric controls are located on the left side pump operators panel in L1. Manual palm wheel overrides are located adjacent to the corresponding intake (left side and right side)		
30-32-7530	S	Suction - 2-1/2" left side SS, bleeder, Hale manifold pump	1	MTL
30-32-8030	S	Suction - 2-1/2" right side SS, bleeder, Hale manifold pump	1	MTL
30-40-2020	S	4" right discharge SS, plumbed 3", Hale manifold pump, slo close, 4" Storz cap	1	MTL
30-41-2020	S	2-1/2" RS discharge SS, bleeder, Hale manifold pump	2	MTL
30-41-2520	S	2-1/2" LS discharge SS, bleeder, Hale manifold pump	2	MTL
30-43-1520	S	2-1/2" rear discharge SS, plumbed 2-1/2", bleeder *** Both Left Side as requested by Rod Harris by e-mail on 12.08.2020	2	MTL
30-44-0720	S	1-3/4" speedlay (each) front of pumphouse SS, plumbed 2" Aluminum trays on UHMW slides with rollers at each end (bottom and each side). Each speedlay shall have minimum capacity for 200' x 1-3/4" hose and nozzle. Bleeder valve on pump panel. Forward discharge will be plumbed towards the left side of the pump house Rearward discharge will be plumbed towards the right side of the pump house As requested by Rod Harris by e-mail on 08.31.2020	2	MTL
30-44-1021	U	1-1/2" front trash line SS, plumbed 2", hosewell Automatic Bleeder/drain will be installed at lowest point of plumbing near the pump with an automatic drain drain at the front of the unit under the front bumper. As requested by Rod Harris by e-mail on 11.26.2020 See also 20-31-4700 for hose capacity, cover, etc. As requested by Rod Harris by e-mail on 12.08.2020	1	
30-51-0500	S	Pump shift-Midship air ***Includes "Pump Engaged" and "OK to Pump" indicator lights on chassis instrument panel ***Includes "Throttle Ready" indicator light on Pump operating panel	1	MTL
30-51-0700		Pump Gearbox mounted manual over ride for pump shift E	1	MTL
30-51-66AA	U	FRC Total Control TCA100 The governor will be an FRC Total Governor TCA100 as approved by Rod Harris by e-mail on 09.02.2021	1	
30-51-7000	S	Suction side relief V/V, manifold pump	2	MTL
30-51-7713	S	Trident Air Primer 3 barrel 3 location Location 1 - main pump Location 2 - left side 6" inlet pre-prime Location 3 - right side 6" inlet pre-prime	1	MTL
30-51-7720	S	Additional air tank for air primer system An additional air tank is provided to improve air primer capacity	1	MTL
30-51-8100		Heat exchanger included with chassis	1	MTL
30-52-1000		Master drain V/V, 12 port	1	MTL
30-52-2000		Drain valve for foam system header	1	MTL
30-52-55AA	U	Hale Smart Foam 2.1A Both 1-1/2" speedlays and the front trash line are plumbed for foam as per tender. SOPT in file	1	
30-52-9100		Foam concentrate label at foam tank fill	1	MTL
30-52-9200		Foam System Instruction Plates	1	MTL
30-52-9400		NFPA Foam System certification test	1	MTL
		WATER AND FOAM TANKS	1	MTL

PART NO	S	DESCRIPTION	QTY	ID
40-11-2100		Polypropylene water tank (Imperial gallons)	1	MTL
40-11-2200		Water tank capacity certification (tank manufacturer)	1	MTL
40-11-6000	S	<b>Tank capacity 1400 Imperial Gallons</b> The tank can have a blister on on the left side (specifically behind L2 compartment) to compensate the water volume loss for the suction hose storage in the tank (60-40-5500) as approved by Rod Harris by e-mail on 10.21.2020	1	MTL
40-12-6500		<b>Foam Tank - 30 l gallon</b>	1	MTL
40-13-0100	S	> <b>Through the tank tunnel - up to 20 cu ft</b> <b>ENG. NOTE:</b> Charge 60 per cubic foot of tunnel volume  For storage of portable tank - see also 60-40-9500 For storage of customer supplied suction hoses - see also 60-40-5500 As requested by Rod Harris by e-mail on 10.21.2020	2	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	S	<b>3/4" water level gauge connection</b>	1	MTL
40-23-1000	S	<b>3/4" foam level gauge connection</b>	1	MTL
40-23-1050		<b>4" Fireman's Friend connection</b>	1	MTL
40-23-1060		<b>10" Newton dump connection</b>	1	MTL
40-30-0400		3" plug in sump box	1	MTL
40-30-1000		Water Fill Box front left corner	1	MTL
40-31-3500		<b>10" rear Newton dump, stainless steel</b>	1	MTL
40-31-3600		<b>Newton dump - stainless steel 36" telechute</b>	1	MTL
40-31-5510		<b>Electric operator for Newton dump, side mount</b> Switch located left side above tail light module and lower level flasher.	1	MTL
40-31-5610		> <b>Rotating dump chute for Newton dump SS</b> <b>ENG. NOTE:</b> Requires top mount control on dump valve	1	MTL
40-31-5800		<b>Support for rotating dump chute if necessary</b> Engineering to determine if this support is required	1	MTL
40-31-9000	S	<b>4" Storz rear fill, Fireman's Friend, bleeder</b> Located left of Newton dump as requested by Rod Harris by e-mail on 08.31.2020. Extended out so an attached LDH will clear the dump chute.	1	MTL
		<b>ELECTRICAL</b>	1	MTL
50-11-0300		<b>Base electrical system - multiplex E</b>	1	MTL
50-11-0600		<b>Warning Light Certification</b>	1	MTL
50-11-0700		<b>Low Voltage Electrical system test</b>	1	MTL
50-11-0800		<b>Low Voltage Electrical System Documents</b> As required by ULC and NFPA standards	1	MTL
50-11-0900	S	<b>Rocker switch panel with master warning switch</b> ***Rocker switch assignments: <b>MASTER</b> -LIGHT BAR RED -LIGHT BAR WHITE -FLASHING WARNING -LEFT SCENE -REAR SCENE -RIGHT SCENE	1	MTL
50-11-1495	U	<b>Whelen 295SLSC1 with detachable Mic</b> There will be a Whelen 295SLSC1 with detachable mic supplied with a 100-watt siren speaker 50-11-1620 as requested by Rod Harris by e-mail on 01.05.2020 It will be mounted in console 20-31-7500 as requested by Rod Harris by e-mail on 08.31.2020	1	

PART NO	S	DESCRIPTION	QTY	ID
50-11-1620	S	> <b>Siren speaker,100 watt, in front bumper</b> ENG. NOTE: AS124 speaker 1570860  The siren speaker will remain the same as originally specified as requested by Rod Harris by e-mail on 01.05.2021	1	MTL
50-11-2600		<b>Siren to be accessible to driver and officer</b>	1	MTL
50-11-61AA	U	<b>Whelen Justice LED light bar - Red and White pods</b> There will be a 56" Justice LED light bar supplied and installed. The pods will be as follows - from left side to right side: Red, Red,_,Red,Red,White,_,_,White,Red,Red_Red,Red WECAD saved at F:/Data/Jacques/Current Projects/Brighton As requested by Rod Harris by e-mail on 10.21.2020	1	
50-11-6610	S	<b>Rear LED Traffic Advisor warning lights - flush mount</b> TAM83 Controller to be installed in the front raised part of the console (20-31-7500) as requested by Rod Harris by e-mail on 12.08.2020 The model of the Traffic Advisor will be a TAM83 to fit the area. As requested by engineering and approved by Rod Harris by e-mail on 06.08.2021	1	MTL
50-11-8001	S	> <b>Rear beacons not requested</b> ENG. NOTE: Confirm that necessary lighting for ULC/NFPA is present	1	MTL
50-12-8544	U	<b>Whelen M6C front flasher - LS Blue / RS red (pr)</b> There will be a pair of front Whelen M6C flashers supplied and installed on the front grill. The LS will be blue and the RS will be red as requested by Rod Harris by e-mail on 08.31.2020	1	
50-12-8620	S	<b>Rear LED flashers (pr)-Whelen red/blue LED M9C - Upper</b> Located upper rear corners at rear of body. Left side to be blue and right side to be red as advised by Rod Harris by e-mail on 08.31.2020. The model will be M9C series.	1	MTL
50-12-86AA	U	<b>Front side intersection lights - Whelen LINZ6 clear lens and red LED (pr)</b> There will be a pair of Whelen LINZ6 flashers supplied and installed on the side of the chassis bumper. The lens will be clear and the flasher will be a red LED as requested by Rod Harris by e-mail on 08.31.2020	1	
50-12-8820	S	<b>Body side inter lts (pr)-Whelen red LED M9C - Upper</b> Located on the front and rear upper part of sides on the body. The model will be M9RC series with clear lens and red LED. As requested by Rod Harris by e-mail on 12.08.2020	2	MTL
50-12-8900	S	> <b>Body side inter lts (pr)-Whelen red flasher/clear lens LED 400 - Lower</b> ENG. NOTE: Required if distance between front and rear side intersection lights exceeds 25'  Located in the front and rear upper corners of rear fenders The lens will be clear to match the remainder of the flashers. As confirmed by Rod Harris by e-mail on 06.08.2021	2	MTL
50-21-5100		> <b>Compartment lighting - LED tube lights in each compartment (rollup doors)</b> ENG. NOTE: Rollup doors only	1	MTL
50-21-5600	S	<b>Door Ajar warning light with buzzer</b> Warning label in cab to read: "Do Not Move Apparatus when Light is on" As requested on Pg 17 of tender	1	MTL
50-21-8001	S	<b>Step lights for body steps - LED</b> Switched when park brake is applied.	1	MTL

PART NO	S	DESCRIPTION	QTY	ID
50-21-8201	S	<b>Step lights for chassis steps - LED</b> Switched when park brake is applied.	1	MTL
50-21-8510	S	<b>Rear clearance lights on rubber arms (pr)</b> There will be a set of Marker lights on rubber arms supplied and installed on the rear bumper as requested by Rod Harris by e-mail on 08.31.2020	1	MTL
50-21-8600		LED clearance lts and reflectors	1	MTL
50-21-8800		<b>LED intermediate turn signal/clearance/reflector length &gt;30'</b>	1	MTL
50-22-0800	S	<b>Whelen M6 LED tail/brake-turn-backup-warning module (pr)</b> There will be a quad M6 light module on the rear of the body for the turn signal/backup/brake and flasher module. The flasher will red on the LS and blue on the RS as requested by Rod Harris by e-mail on 08.31.2020 The lens on the flashers will be clear to match the remainder of the flashers. As confirmed by Rod Harris by e-mail on 06.08.2021	1	MTL
50-31-6560		<b>Ground lighting (LED Lumabar) - 4 door chassis</b> Switched when park brake is applied.	1	MTL
50-31-6570		<b>Ground lighting (LED Lumabar) - side mount body</b> Switched when park brake is applied.	1	MTL
50-35-05AA	U	<b>Provision for installation of customer supplied radio components</b> Pre-wiring for a two-way radio (power and ground) will be terminated in the center roof console. Power will be wired through the master disconnect. Customer provided DIN mount arrived at Metalfab on 09.02.2020. Metalfab will install a pump panel kit that Carrier will supply - all wiring will terminate in the center roof console. As requested by Rod Harris by e-mail on 08.31.2020	1	
50-35-0600	U	<b>Antenna base only - Mobile radio antenna provided by customer</b> An antenna base shall be installed on the cab roof centered from left to right and front to back behind the light bar. The cable shall be routed to the centre roof console as requested by Rod Harris by e-mail on 08.31.2020. Customer supplied antenna arrived at Metalfab 09.02.2020	1	
50-99-05AA	U	<b>Whelen M9 LED scene lights - M9LZC (pr)</b> One (1) pair on front and rear corner of LS body - inboard of flashers. Switched in cab and these lights can be managed to shed One (1) pair on upper rear of the body. Switched in cab and when transmission is placed in reverse gear as confirmed by Rod Harris by e-mail on 08.31.2020. These lights cannot be managed to shed - required for ULC One (1) pair on front and rear corner of RS body - inboard of flashers. Switched in cab and these lights can be managed to shed SOPT 571 As requested by Rod Harris by e-mail on 08.31.2020	3	
50-99-06AA	U	<b>Light tower wiring provision</b> There will be a pre-wired power connection only as requested in the tender. It will be a 12-volt - 100-amp breaker at the battery fuse for customer use. No light tower is included as per Purchase Order.	1	
50-99-10AA	U	<b>Hose bed cover lights - 40" LED lumabars</b> Switched when park brake is applied.	1	
		<b>BODY</b>		
60-10-1400	S	<b>Single axle extruded aluminum body - full width hose bed</b> The hose bed will be full width and there will be no fender tops as requested by Rod Harris by e-mail on 08.31.2020	1	MTL
60-10-4100		No "beavertail" rear step supports	1	MTL
60-10-4600		Painted fender surround E	1	MTL
60-10-4770	S	<b>Removable stainless steel fender trim - single axle required for 315 tires</b> The rear fender trim will be removable to cover the rear 315 size tires	1	MTL



PART NO	S	DESCRIPTION	QTY	ID
60-10-5400		> Diamondback pumphouse steps <b>ENG. NOTE:</b> Maximum height of step is 24" from ground	1	MTL
60-10-5430		> Diamondback 19" rear step <b>ENG. NOTE:</b> Maximum height of rear step is 24" from ground	1	MTL
60-10-6500		<b>Bolt on extruded aluminum rub rail E</b> <b>Bolt on rub rails will have reflective stripe inside as requested by Rod Harris by e-mail on 08.31.2020</b>	1	MTL
60-11-0300	S	> <b>Front left side compartments full height</b> <b>ENG. NOTE:</b> Specify critical dimensions in shop note  <b>Compartment will be full width to match the right side. There will be a partition between the pump panel and the rear storage to support two (2) adjustable shelves (60-31-9600)</b>	1	MTL
60-11-0700		> <b>Front right side compartments full height E</b> <b>ENG. NOTE:</b> Specify critical dimensions in shop note	1	MTL
60-11-1000		> <b>Rear left side compartments full height E</b> <b>ENG. NOTE:</b> Specify critical dimensions in shop note	1	MTL
60-11-1400	S	> <b>Rear right side compartments full height</b> <b>ENG. NOTE:</b> Specify critical dimensions in shop note  <b>There will be 27" of space from the compartment floor to the depth change to allow the storage of a customer supplied Tempest ventilation fan. As requested by Rod Harris by e-mail on 11.26.2020</b>	1	MTL
60-11-2000		> <b>High side compartment (over 18") each</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	2	MTL
60-11-3100		<b>No rear compartment E</b>	1	MTL
60-11-5500		<b>Rollup door - standard height</b> Natural aluminum finish Includes magnetic door switch, LED tube lights, rubber bumpers to prevent pinch point	2	MTL
60-11-5520		<b>Rollup door - full height</b> Natural aluminum finish Includes magnetic door switch, LED tube lights, rubber bumpers to prevent pinch point	4	MTL
60-11-5655	U	<b>Amdor pull straps - High side compartments - L2, R2</b>	1	
60-11-5660	U	<b>Amdor pull straps - L1, L3, R1, R3 compartments</b>	1	
60-31-4100		Extruded aluminum handrails Minimum 2" clearance from handrail to any surface	1	MTL
60-31-5500	S	<b>Steps at rear of body (folding) with LED lights - LS only</b> Maximum height between steps is 18" There will be steps on the left side at the rear body only. As requested by Rod Harris by e-mail on 02.19.2021	1	MTL
60-31-5600	S	<b>Grab handles at front of body next to pump panel</b> There will be grab handles on the front of the body	1	MTL

PART NO	S	DESCRIPTION	QTY	ID
60-31-5800	S	<b>Bolt on Intermediate step over rear dump</b> The step on the body above the dump valve will have a yellow delienation stripe to meet NFPA	1	MTL
60-31-58AA	U	<b>Step surface in the hose bed</b> The rear of the hose bed will have a landing surface to assist in transitioning from the folding steps (60-31-5500) and the bolt on intermediate step (60-31-5800). The surface will be non slip and include the NFPA required delineation markings. As requested by Rod Harris by e-mail on 08.31.2020	1	
60-31-6500	S	<b>Compartment matting-Plastic Interlocking Tile</b>	1	MTL
60-31-8000		<b>BA bottle compt (ea)-fender well</b> Retaining loops included Door ajar switch not required Customer to specify make and model of cylinder to be stored Make - Scott Model - 2216 Diameter of cylinder - 7" Overall length of cylinder - _____ Photo of valve/cap (to ensure retaining loop will fit) saved in F:/Data/Jacques/Current Projects/Brighton/Pictures	4	MTL
60-31-8210	S	> <b>Sliding vertical tool board - open/close latch</b> ENG. NOTE: Specify location  There will be a a pull out tool board mounted in the L3 compartment between the vertical partition 60-31-8400 and the right side of the compartment (in the 16" space). As requested by Rod Harris by e-mail on 11.26.2020	1	MTL
60-31-8400	S	<b>Fixed vertical partition</b> There will be two (2) vertical partitions supplied and installed: Partition #1 - L3 compartment - 16" from rearward sidewall (towards right side of compartment) Partition #2 - R1 compartment, in the middle of the compartment, from the floor to the fixed shelf (60-31-9600) Note - one vertical partition is included in the L1 compartment to seperate the pump panel and storage area. As requested by Rod Harris by e-mail on 12.08.2020	2	MTL
60-31-9600	S	> <b>Adjustable shelf (ea)</b> ENG. NOTE: Specify location  Reflective stripe is applied on the exposed edge for visibility when the compartment door is open Shelf location: Shelf #1 - L1 compartment - Full depth - upper portion Shelf #2 - L1 compartment - Full depth - lower portion Shelf #3 - R1 compartment - Fixed at depth change Shelf #4 - R1 compartment - Full depth - lower portion on left side of compartment Shelf #5 - R1 compartment - Full depth - lower portion on left side of compartment Shelf #6 - R3 compartment - Shallow depth As requested by Rod Harris by e-mail on 12.08.2020	6	MTL
60-32-3550	S	<b>Two adjustable hose divider and two (2) fixed hose divider (each)</b> Hand hold required in end There will be two (2) adjustable dividers and two (2) fixed dividers to create the walkway (60-99-35AA) as requested by Rod Harris by e-mail on 12.08.2020	1	MTL
60-32-3560	U	<b>Price Adjustment</b>	1	
60-32-75AA	U	<b>Full width hose bed - aluminum</b> The hose bed will be full width (no fender tops) - as requested by Rod Harris by e-mail on 08.31.2020	1	

PART NO	S	DESCRIPTION	QTY	ID
60-33-0000		<b>Paint exterior - Imron Elite</b> *** Paint code and colour red to match cab	1	MTL
60-33-0200		Undercoat vehicle with KROWN rust protection	1	MTL
60-33-0600	S	<b>Chassis wheels not painted - Polished Aluminum wheels</b>	1	MTL
60-33-1000		Paint pump and plumbing job colour	1	MTL
60-33-1500		Buffed finish compartment interior	1	MTL
60-33-2000	S	<b>Lettering - no lettering provided</b> There will be no lettering included as advised by Rod Harris by e-mail on 01.13.2021	1	MTL
60-33-2200	U	<b>Price Adjustment</b>	1	
60-33-30AA	U	<b>Reflective stripe - 4" black - "Z" pattern L1/R1</b> The 4" black reflective stripe will have a :Z" pattern on the L1/R1 compartment. As requested by Rod Harris by e-mail on 08.31.2020 and approved by e-mail on 11.17.2021	1	
60-33-3310		<b>Reflective stripe - red and yellow chevron at rear</b> Minimum 50% of rear vertical surface. Printed 3M Scotchlite material	1	MTL
60-33-3600		<b>Reflective stripe - inside entry doors</b> 96 square inches minimum of white reflective material is installed inside each cab entry door	1	MTL
60-33-4600	S	<b>End tarps (black) for speedlays</b> Small tarps with velcro straps and footman's loops are installed to enclose each end. Configuration was approved by Rod Harris by e-mail on 08.31.2020	1	MTL
60-33-5000	S	<b>Aluminum cover over hose bed with end tarps - black</b> Door ajar switches required. The walkway 60-99-35AA will remain uncovered. Rear flaps with velcro straps will be provided on the rear of the cover to tie around footman's loops. Configuration was approved by Rod Harris by e-mail on 08.31.2020	1	MTL
60-40-5500	S	<b>Suction hose tube (each) with door - in water tank</b> Door ajar switches required. Tubes shall be fully enclosed and house the 6" x 10' customer supplied suction hose that measure 129" long and the dimension from tip to tip of the handle is 13". The tubes will be located in the water tank above the porta tank tube (60-40-9500). As requested by Rod Harris by e-mail on 10.21.2020 Dimensions of the 6" suction hose was supplied by Rod Harris by e-mail on 01.05.2021	2	MTL
60-40-9000		> <b>Tube mount for ladders, with rear door</b> <b>ENG. NOTE:</b> Specify location, ladders to be installed in this tube, complete dimensions of ladders if user supplied  Door ajar switch required. Tube shall be fully enclosed and house the Duo Safety 24' two section extension ladder 80-14-0505, the Duo Safety 14' roof ladder 80-14-5510, the Duo Safety 10' folding attic ladder 80-14-8510 and the two 14' pike poles 80-13-2518.	1	MTL
60-40-9500	S	> <b>Tube for customer portable tank storage, through tank</b> <b>ENG. NOTE:</b> Note location of tube, portable tank to be installed, dimensions of portable tank if customer supplied  Door ajar required. To house the customer supplied portable tank as requested by Rod Harris by e-mail on 12.08.2020. Portable tank info: Lenght: 135" Height: 29" Folded thickness: 8"	1	MTL

PART NO	S	DESCRIPTION	QTY	ID
60-41-1000	S	<b>Pike Pole tube in tube mount for ladders</b> Integral to the ladder tube - reference 60-40-9000.	2	MTL
60-41-1500	S	<b>Attic ladder tube in tube mount for ladders</b> Integral to the ladder tube - reference 60-40-9000.	1	MTL
60-99-15AA	U	<b>Hose bed cover locks - for standard hose bed covers</b> Manual pin style locks - to hold hose bed covers in open position.	1	
60-99-35AA	U	<b>Hose bed walkway</b> There will be a center walkway that measures 18" wide, will be covered with non-slip material and will be illuminated to meet ULC. As requested by Rod Harris by e-mail on 08.31.2020. SOPT 629	1	
<b>INSTRUMENTATION</b>				
70-11-0000		<b>Warning Label on Pump Operator's Panel</b>	1	MTL
70-11-0500	S	<b>Side mount instrument panel</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	1	MTL
70-11-0600	U	<b>Gauges and linkage controls in left front compartment HEAT Style design</b>	1	
70-11-1500	S	<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 The layout of the pump panel will need to be approved by the customer prior to the build - as requested on the Purchase Order. Approved with the proviso that the most room around the Tank to Pump and Tank Fill controls be provided so pump operator does not jam their hand on the compartment side wall (s) / door sill. As advised by Rod Harris by e-mail on 12.09.2021	1	MTL
70-11-3200	S	<b>Colour coded tags - Metric</b> Tags will be Metric units of measure as requested by Rod Harris by e-mail on 03.26.2021 Note: The ULC tag and Tank information label will remain in Imperial unit of measure.	1	MTL
70-11-4000		<b>Stainless steel side panel hood right side</b>	1	MTL
70-11-4100		<b>Stainless steel side panel hood left side</b>	1	MTL
70-11-5100	S	<b>Dunnage storage at rear top of pump house</b> The area above the pump house will have a dunnage area as requested by Rod Harris by e-mail on 08.31.2020.	1	MTL
70-11-5500	S	<b>Right side pump access door in R1</b> No opening dimension less than 18" Smooth hinged aluminum door with buffed finish to match compartment interior with a lift and turn latch will be provided.	1	MTL
70-11-7550	U	<b>Heat pan - aluminum extreme weather type</b>	1	
70-11-8000		<b>Heater in pump compartment</b> Switch located on the pump operators panel in L1	1	MTL
70-11-8200	U	<b>Rubber seal around suction and discharge openings on side 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	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	10	
70-20-2500	S	<b>Trident Primer control for main pump</b>	1	MTL
70-20-2501	S	<b>Additional Primer control - Trident - for the 6" inlet pre-primers</b>	2	MTL

PART NO	S	DESCRIPTION	QTY	ID
70-20-31AA	U	<b>FRC Total Control TCA100</b> The governor will be an FRC Total Governor TCA100 as approved by Rod Harris by e-mail on 09.02.2021	1	
70-20-3510	S	<b>Electric water level gauge on pump panel and at rear, Class One</b> The rear water level gauge will be interlocked with the park brake so that it is only operable when the park brake is applied as dicussed with Rod Harris by e-mail on 02.22.2021.	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
70-21-1500	S	<b>Electric Foam Level gauge on pump panel, Class One</b> Include access to and room for sender in front of body and back of pump house	1	MTL
70-21-5500		<b>Panel readout for Battery Conditioner</b> Located in left side cab step area.	1	MTL
		<b>ACCESSORIES</b>	1	MTL
80-12-4500		> <b>6" low level strainer with 1-1/2" venturi connection</b> <b>ENG. NOTE:</b> Gordon,  Kocek says to start at 50 psi but max would be 100 PSI on Jet Siphon  <b>Shipped loose, not mounted - Customer will mount with Customer's bracket/mount.</b>	1	MTL
80-13-0500		<b>Rubber mallet</b> Shipped loose, not mounted - Customer will mount with Customer's bracket/mount.	1	MTL
80-13-2518	U	<b>FlameFighter pike pole 14'</b> Tube mounted	2	
80-14-0505	U	<b>Duo Safety 24' two 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' attic ladder</b> Tube mounted	1	
80-18-0500	S	<b>SCBA bracket with strap - compt mount</b> There will be Zico ULLH SCBA brackets shipped loose with the unit. As requested by Rod Harris by e-mail on 11.26.2020	4	MTL
80-18-0600		<b>SCBA brkt w/strap - ZICO ULLH - crew cab mount</b> Installed in the chassis cab seat backs (Officer's and the three in rear)	4	MTL