



Shop Order

Carrier Truck Center Inc.
 O/A Carrier Centers Emergency Vehicles
 6 Edmondson Street
 Brantford, ON N3R 7J3

Township of Horton
 Horton Fire Department
 2253 Johnston Road
 Renfrew, ON K7V 3Z8

Exp. Date: 04/20/2018
Quote No: E-Horton-ON-0027
Job/Order No: 20230
BODY: 00-10-15 Metalfab Pumper - ULC 05/13

05/09/2019

Page 1

PART NO	S	DESCRIPTION	QTY	ID
		== Metalfab Pumper - ULC 05/13 - 0.000 ==	1	MTL
	S	Change Order G	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	Polypropylene Tank Lifetime Warranty	1	MTL
00-20-2100	S	Plant Inspection Visits - Costs covered by CCEV	1	MTL
		Three plant visits for three representatives		
		Pre-Construction		
		Mid build inspection		
		Pre-delivery inspection		
00-20-2800	S	\$25,000.00 Bid Bond required (Canada)	1	MTL
00-20-3500		Certification for Fusion Welding of Aluminum	1	MTL
00-20-4000	S	Quality System registered to ISO 9001:2015	1	MTL
00-20-4500		Fire Apparatus Manufacturers' Association Membership	1	MTL
		GENERAL INFORMATION	1	MTL
10-11-0000		Intent E	1	MTL
10-11-0110		Vehicle data recorder included with chassis	1	MTL
10-11-1101	S	ULC S515-13 and NFPA 1901-2016 Compliance	1	MTL
		Include the following to comply with NFPA 1901-2016		
		Any verbiage to be bilingual (English/French)		
		**Safety signs with text to meet Section 4.9.4		
		**Brake lights to operate with the engine auxiliary brake (Section 12.3.1.4.3).		
		**Safety delineation for standing and walking surfaces to meet Section 15.7.1.6		
		**Hose restraint safety signs at each hose storage area to meet Section 15.10.6		
10-11-1500	S	> ULC Testing - Pumper	1	MTL
		ENG. NOTE:		
		Note in the shop note if the Fire Department wishes to witness the test		
		Tested at 1050 IGPM and results shown in Metric (L/min)		
10-11-2100	S	Maximum length - 35' (420")	1	MTL
10-11-2200	S	Maximum height - 9' 06" (114")	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 - by CCEV	1	MTL
		ENG. NOTE:		
		Note in the shop note if more than 4 hours of training is required		

PART NO	S	DESCRIPTION	QTY	ID
10-11-4200	S	Payment Terms - Chassis and Body COD	1	MTL
10-20-1400	S	> Hose capacity exceeding ULC/NFPA requirements - ENG. NOTE: Specify the type of hose and quantity of hose to be carried on the vehicle	1	MTL
		Main hose bed shall carry the following as a minimum; 500' - 2-1/2" hose 200' - 1-1/2" hose 350' - 4" hi-vol hose 4 - 50' rolls of 1-1/2" hose		
10-20-2000		Equipment carrying capacity - standard ULC Pumper	1	MTL
		CHASSIS INFORMATION	1	MTL
20-11-1000	S	Chassis supplied by Metalfab - Freightliner M2 112 45,000 lb GVW 18,000 lb front axle 27,000 lb rear axle 231" wheelbase 165.45" cab to axle Cummins L9 380hp @ 2000 rpm, 2200 governed rpm 1150 lb/ft torque @ 1400 rpm 3000 EVS automatic transmission, 275 amp alternator Rear suspension dump 189 liter fuel tank, LH LED headlights ESC Single color Candy Apple Red - L2225EB - Spray outs required to send to customer for color approval. *** Chassis has an exterior sunvisor - this is to be deleted from chassis order (due to Brow light installation) Add to chassis order the option to have the brake lights activated with the auxiliary engine brake. Add to the chassis order pull cables on all air tank drains. The vendor shall certify in writing that the chassis has not been used as a tow vehicle for delivery between the chassis factory and the chassis dealer, or between the chassis dealer and the chassis fabricator, or between the chassis factory and the chassis fabricator.	1	MTL
20-11-1500		2013 Emission chassis modifications	1	MTL
20-11-1700	S	Chassis Motor Vehicle Inspection required - by CCEV	1	MTL
20-21-0500		Fluid capacity plate	1	MTL
20-21-0600	S	Pumping test plate The pump test plate will be listed in Metric (L/min)	1	MTL
20-21-1000		Maximum riders sign - 2 persons	1	MTL
20-21-1500		Seat belt warning labels - 2 door chassis	1	MTL
20-21-1520		Helmet warning label - do not wear helmet	1	MTL
20-21-1530		Tire Pressure Indicators - Single Axle	1	MTL
20-21-1600		Apparatus Information Label 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
20-21-3800		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
20-31-0500		Alum tread fuel tank trim, Conv - 2 door Vertical trim only, OEM cab steps remain	1	MTL
20-31-1900	S	Chassis cab painted by chassis OEM	1	MTL
20-31-7500	S	Console in cab Install switch panel (50-11-0900), siren (50-11-1400), control for traffic advisor	1	MTL

PART NO	S	DESCRIPTION	QTY	ID
		(50-11-6616), map light (20-51-10AA), DIN mount that Carrier supplied for radio to be installed after delivery and pump shift (30-51-0500) in console. Storage area with hinged cover and lift and turn latch provided at rear of console. The console shall be designed and configured to support the installation of equipment such as radios, map books and thermal camera by the Customer. Layout to be discussed and finalized at the Pre-construction meeting. Gray Zolatone finish		
20-41-0600	S	Intake air shutoff for engine not requested	1	MTL
20-41-0900		Auxiliary braking system disabled when pumping	1	MTL
20-41-1100		Transmission programming - Allison WT ***Includes "Pump Engaged" light next to pump shift on chassis instrument panel.	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
20-41-5000		Rear Tow Hooks - under body *** Flat bar tow hooks under rear step (2)	1	MTL
20-51-0710		Master Battery Disconnect included with Freightliner chassis	1	MTL
20-51-2500		Back up alarm included with chassis	1	MTL
20-51-3100	S	Air inlet not requested	1	MTL
20-51-3400		Protection valve installed for air operated accessories	1	MTL
20-51-6200	S	> 120 volt 20 A shore line connection ENG. NOTE: Requires 20-51-75 120 volt auto eject or 20-51-80 120 volt inlet Standard 5-20R duplex receptacle, not fused Minimum 12" from cab floor One for battery conditioner 20-51-6600 to plug into behind the console 20-31-7500 One in the R3 compartment for the 20-51-62AA power bars - to be as high as possible (behind rollup door).	2	MTL
20-51-62AA	U	Power bars There will be two (2) power bars installed in the R3 compartment and plugged into shoreline outlet 20-51-6200. They will be mounted as high as possible (behind the rollup door).	2	
20-51-6600		Kussmaul Pump Plus conditioner/compressor Battery conditioner will be mounted on the back of console 20-31-7500. The compressor will be mounted inside pump compartment easily accessible through the Right side pump access door.	1	MTL
20-51-7101	S	Electric System Management - VMUX	1	MTL
20-51-7500		Super Auto eject for 120 v - 20 A with sealed enclosure Located in left cab step area Minimum 24" from ground	1	MTL
20-51-8500	S	Engine compartment lighting LED Switched when parking brake is engaged	1	MTL
20-51-9001	S	Air horns on hood as supplied with chassis Controlled by horn button on steering wheel and foot switch at Officer's side. Dash switch included to select air horns or electric horns.	1	MTL
20-52-10AA	U	Gooseneck LED Map light - Federal LittleLite (ea) by Officer's seating position Mounted on side of console close to Officer unless otherwise specified	1	

PART NO	S	DESCRIPTION	QTY	ID
		SOPT #291		
20-52-3500		> <i>Chassis steering wheel lined up by Metalfab E</i> ENG. NOTE: Freightliner, Sterling, and Spartan only	1	MTL
20-52-4000	S	<i>Rear View Camera system</i> Two Rearview Systems STM5600 with 5.6" colour monitor - one monitor in cab (on the ceiling console pointed towards the driver) and one monitor on pump panel with switch. These are two separate systems (2 cameras will be installed on rear under the traffic bar) The system in the cab shall be activated whenever the apparatus transmission is placed into reverse gear. The display monitor mounted on the pump operator's panel shall be turned on and off by a switch on the pump panel.	2	MTL
20-60-0400		Chassis wheelbase does not change	1	MTL
20-90-1810	U	<i>Extend air tank moisture ejectors to rubrail and label</i> The air brake tanks shall be labeled as to their function in the air brake system and the drains shall be equipped with labeled pull cords on the side of the apparatus. SOPT #507	1	
20-99-05AA	U	<i>10 terminal DC Power center in cab</i> A DC power center shall be supplied in the cab (Console 20-31-7500 unless otherwise specified) of the apparatus to support operation of equipment such as radios and flashlights. The DC power center shall have a 50 amp rating and be terminated at a distribution panel with a minimum of 10 terminals protected by self resetting circuit breakers. The DC power center shall be configured such that source power is provided from the apparatus batteries when the apparatus master switch is in the "ON" position. The bussbar will be fused @ 50 Amps with a manual reset breaker. The individual circuits will have 10 amp and 15 amp breakers (five of each) SOPT #1030 - Truck specific	1	
20-99-10AA	U	<i>Whelen PSL2 Brow light for Commercial cab (ea)</i> Whelen model PSL2 with white housing mounted on the top of the apparatus cab as shown on the proposal drawing Rocker switch control for the brow lights shall be from the cab console. SOPT 569b	2	
		PUMP AND PLUMBING	1	MTL
30-11-8100	S	<i>Hale QMAX 5000 Liter single stage pump</i>	1	MTL
30-12-3500		<i>Mechanical seal for Hale QMID/QMAX/QTWO pumps</i>	1	MTL
30-15-0102		<i>Plumbing - Hale manifold pump TM SS E</i>	1	MTL
30-20-1000		<i>Valves and controls - top mount panel</i>	1	MTL
30-20-1002		<i>Akron valves specified</i>	1	MTL
30-20-1600		<i>Piping stainless steel - general</i>	1	MTL
30-20-1700	S	<i>1-1/2" thread specifications - NPSH</i>	1	MTL
30-20-1800	S	<i>2-1/2" thread specifications - CSA</i>	1	MTL
30-20-2000		<i>Piping hydrostatic test</i>	1	MTL
30-20-2500		<i>Anodes in suction and discharge piping</i> 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
30-21-5590		<i>Tank to Pump TM SS 3" w/ check valve manifold pump</i>	1	MTL
30-22-0530		<i>Tank Fill valve 2" TM SS</i>	1	MTL
30-31-4010	S	<i>Suction - 6" each side manifold pump</i>	1	MTL
30-31-6026	U	<i>6" Rear Suction, 6" Stainless piping, Electric valve, bleeder</i> ***Through the tank to clear the SCBA bottle tubes in the rear fender wells. The piping will come out on the right side of the rear under the ladder storage tube. This will create a blister in the B1 compartment and R3 compartment. SOPT #35	1	

PART NO	S	DESCRIPTION	QTY	ID
30-31-7200		> <i>Hale master intake suction valve - electric control</i> ENG. NOTE: Required for top mount panels Show location in Shop Note 6" left side inlet 6" right side inlet 6" rear inlet All controls will be on the transverse pump operators panel All valves will be equipped with manual overrides accessible from side panels	3	MTL
30-32-7530		<i>Suction - 2-1/2" left side SS, bleeder, Hale manifold pump</i> Valves are controlled by the valve at the side panel.	2	MTL
30-40-3010	S	<i>4" right discharge SS, plumbed 4", handwheel, Hale manifold pump, bleeder</i> The discharge will have a 4" Storz fitting and 4" end cap that will be attached to the pump panel with a retaining cable.	1	MTL
30-41-2030		<i>2-1/2" RS discharge TM SS, bleeder, Hale manifold pump</i>	2	MTL
30-41-2530		<i>2-1/2" LS discharge TM SS, bleeder, Hale manifold pump</i>	2	MTL
30-43-1530	S	<i>2-1/2" rear discharge TM SS, plumbed 2-1/2", bleeder</i> The rear 2-1/2" discharge will be in the hose bed towards the left side (approximately 6" from side wall) as shown on the proposal drawing.	1	MTL
30-44-0530	S	<i>1-1/2" crosslay (each) TM SS, 2" valve, bleeder</i> Each lay shall have adequate capacity to store 150' of 1.5" double jacket nylon hose with attached nozzle. The swivel will be towards the back of the lay as much as possible and centered left to right as much as possible (they will be offset from each other to allow for the plumbing fittings to fit).	2	MTL
30-51-0500		<i>Pump shift-Midship air</i> ***Includes "Pump Engaged" and "OK to Pump" indicator lights on chassis console 20-31-7500 ***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
30-51-6700	S	<i>FRC Pump Boss Governor/Throttle engine display</i> The display shall be Metric	1	MTL
30-51-7000		<i>Suction side relief V/V, manifold pump</i> For the left side, right side, and rear 6" MIV's SSRV included with the 30-31-7200 MIV-E's Plumb to step level and install a 2-1/2" CSA fitting for the discharge(s)	3	MTL
30-51-7700		<i>Primer Hale oil less ESP with oil tank Hale</i> Indicator light on panel to show when primer is operating	1	MTL
30-51-7800		<i>Pre Primer for gated suction Hale primer</i> Pre-primer for the following 6" left side inlet 6" right side inlet 6" rear inlet	3	MTL
30-51-8100		<i>Heat exchanger included with chassis</i>	1	MTL
30-51-9100		<i>Thermal Relief Valve with warning light</i>	1	MTL
30-52-1000		Master drain V/V, 12 port	1	MTL
30-52-2000		<i>Drain valve for foam system header</i>	1	MTL
30-52-5510		<i>Foam system-Hypro FoamPro 2001 Single Tank</i> Foam system is plumbed to both the 1-1/2" Crosslays and the 2-1/2" rear discharge.	1	MTL
30-52-9100		<i>Foam concentrate label at foam tank fill</i>	1	MTL
30-52-9200		<i>Foam System Instruction Plates</i>	1	MTL
30-52-9400		<i>NFPA Foam System certification test</i>	1	MTL

PART NO	S	DESCRIPTION	QTY	ID
WATER AND FOAM TANKS				
40-11-2100	S	Polypropylene water tank (Imperial gallons)	1	MTL
40-11-2200		Water tank capacity certification (tank manufacturer)	1	MTL
40-11-5000	S	Tank capacity 4000 Litre (880 Imperial Gallon)	1	MTL
40-12-4500	S	Foam cell - 80 Litre (17.6 Imperial Gallon)	1	MTL
40-21-0500		3" tank to pump connection	1	MTL
40-22-0500		2" tank fill connection	1	MTL
40-23-0500		1" water level gauge connection	1	MTL
40-23-1000		1" foam level gauge connection	1	MTL
40-23-11AA	U	Tube through tank for 6" rear suction piping	1	
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
ELECTRICAL				
50-11-0300		Base electrical system - multiplex E	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	Rocker switch panel with master warning switch ***Rocker switch assignments: MASTER -LIGHT BAR RED -LIGHT BAR CLEAR -FLASHING WARNING -BROW LIGHTS -LEFT SCENE -RIGHT SCENE -REAR SCENE -Front RS Tele light -Front LS Tele light	1	MTL
50-11-1400	S	Federal PA300 100 watt siren The siren control will be installed in the console 20-31-7500 without the TAP feature wired.	1	MTL
50-11-1620	S	Siren speaker, 100 watt, in front bumper left side	1	MTL
50-11-2600		Siren to be accessible to driver and officer	1	MTL
50-11-6100	S	Whelen lighting package	1	MTL
50-11-6131	U	Whelen JE2NFPA 56" Justice Super LED lightbar Any rear facing lights of the cab light bar shall be off with park brake set (so they do not affect the vision of the pump operator while standing on the catwalk). SOPT #8	1	
50-11-6616	U	Rear Directional Light - Whelen TAM83 - flush mount SOPT #823	1	
50-11-8001		> Rear beacons not required E ENG. NOTE: Confirm that necessary lighting for ULC/NFPA is present	1	MTL
50-12-8520	S	Front LED flashers (pr)-Whelen red LED C6 with integral flasher	1	MTL
50-12-8610	S	Rear LED flashers (pr)-Whelen red LED C6 with integral flasher	1	MTL
50-12-8620	S	Rear LED flashers (pr)-Whelen red LED C9 with integral flasher - upper	1	MTL
50-12-8710	S	Front side inter lts (pr) - Whelen red LED C6 with integral flasher	1	MTL
50-12-8810	S	Body side inter lts (pr)-Whelen red LED C6 with integral flasher	1	MTL
50-12-8905	S	> Add'l body side inter lts (pr)-Whelen red LED C9 with integral flasher - upper ENG. NOTE: Required if distance between front and rear side intersection lights exceeds 25'	1	MTL
50-21-25BB	U	Whelen PFS2P1B Telescoping spot/flood w/86930UB4 pole (ea) Push up telescoping lights mounted on forward edge of each side of the fire body. They shall be Whelen 12-volt LED. To be switched in the cab with switches in the 50-11-0900 rocker switches	2	

PART NO	S	DESCRIPTION	QTY	ID
		arrangement. Hazard switch required, wire to door ajar warning light in cab to warn that light is not stowed properly *** Engineering to confirm part numbers before ordering***		
50-21-5100		> Compartment lighting - LED tube lights in each compartment (rollup doors) ENG. NOTE: Rollup doors only	1	MTL
50-21-5500		Door Ajar warning light Located in overhead console area over drivers seat. Bilingual warning label in cab to read: "Do Not Move Apparatus when Light is on"	1	MTL
50-21-8001		Step lights for body steps - 4" LED Switched with park brake.	1	MTL
50-21-8110		Step lights for walkway - 4" LED Switched with park brake.	1	MTL
50-21-8200	S	Step lights for chassis steps - LED Switched with park brake. SOPT #194a	1	MTL
50-21-8600		LED clearance lts and reflectors	1	MTL
50-21-8800		LED intermediate turn signal/clearance/reflector length >30'	1	MTL
50-22-0700	S	Whelen 64 LED tail/brake-turn-backup module (pr) Whelen C6 LED lights and compatible housing.	1	MTL
50-31-6022	U	Whelen C9SL scene light - rear There will be a pair of Whelen C9SL scene light installed on the rear of the body under the red flashers. They will be switched in the cab and when the transmission is placed in reverse gear. The light cannot be managed to shed as they are required for ULC.	1	
50-31-60BB	U	Whelen PSL2R5 LED scene lights (pr) One (1) pair left side upper corners as shown on the proposal drawing - switched in cab and managed to shed. One (1) pair right side upper corners as shown on the proposal drawing - switched in cab and managed to shed.	2	
50-31-6550		Ground lighting (LED Lumabar) - 2 door chassis Ground lights shall be activated when the parking brake is engaged and by the respective turning signal.	1	MTL
50-31-6580		Ground lighting (LED Lumabar) - top mount body Ground lights shall be activated when the parking brake is engaged and by the respective turning signal.	1	MTL
50-31-65BB	U	Hose bed lighting - LED Ribbon lights down each side LED ribbon lighting (Tecniq E41-W010-1) installed along the length of both sides of the hose bed and shall be installed such that it is protected from damage due to hose loading and unloading. Lighting shall be activated when the park brake is engaged.	1	
50-35-0500	S	Installation of customer supplied mobile radio components Install Carrier supplied, DIN mount in the console 20-31-7500, pump panel kit, speaker and mic. The cable will be run to the center console 20-31-7500.	1	MTL
50-35-0560	S	VHF antenna with base - commercial chassis There will be antennas mounted ahead of the light bar - one each side	2	MTL
50-99-10AA	U	Hose bed cover lights - LED strip lighting SOPT #209 4 x 40" LED Lumabars Switched when covers are raised.	1	

PART NO	S	DESCRIPTION	QTY	ID
		BODY		
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
		ENG. NOTE: Maximum height of step is 24" from ground		
60-10-5430		> Diamondback 19" rear step	1	MTL
		ENG. NOTE: Maximum height of rear step is 24" from ground		
60-10-6000		Extruded rub rail	1	MTL
60-11-0300		> Front left side compartments full height E	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		
60-11-1000		> Rear left side compartments full height E	1	MTL
		ENG. NOTE: Specify critical dimensions in shop note		
60-11-1400		> Rear right side compartments full height E	1	MTL
		ENG. NOTE: Specify critical dimensions in shop note		
60-11-2000		> High side compartment (over 18") each	2	MTL
		ENG. NOTE: Specify critical dimensions in shop note Specify type of door Specify flip up or drop down Specify which side of body		
60-11-3200	S	> Full Height Rear compartment	1	MTL
		ENG. NOTE: Specify critical dimensions in shop note		
		There will be a Honda EG5000CL that measures 22"x27"x27"high installed on the Slidemaster tray 60-31-8800.		
60-11-5500		Rollup door - standard height	2	MTL
		Natural aluminum finish Includes magnetic door switch, LED tube lights, rubber bumpers to prevent pinch point		
60-11-5520		Rollup door - full height	5	MTL
		Natural aluminum finish Includes magnetic door switch, LED tube lights, rubber bumpers to prevent pinch point		
60-11-5655	U	Amdor Pull straps - Flex - HD for L2 and R2	1	
		Include with door order Metalfab part number 1003066 Amdor part number AY-9355-18 For door opening height of 20" to 37" Installed on the following doors Left side over rear wheels Right side over rear wheels		
60-11-5660	U	Amdor Pull straps - Flex - HD for L1, L3, R1, R3	1	
		Include with door order Metalfab part number 1003068		

PART NO	S	DESCRIPTION	QTY	ID
		Amdor part number AY-9355-36 For door opening height of 49" to 70" Installed on the following doors Left side front compartment door Left side rear compartment door Right side front compartment door Right side rear compartment door		
60-31-4100		Extruded aluminum handrails Minimum 2" clearance from handrail to any surface	1	MTL
60-31-5000	S	Zico access Ladder at rear of unit Minimum 7" clearance between rung and any obstruction There will be a Zico Access ladder installed on the rear of the body.	1	MTL
60-31-5600	S	Steps and grab handles at front of body next to pump panel - as required Maximum height between steps is 18"	1	MTL
60-31-6500	S	Compartment matting - plastic interlocking tile	1	MTL
60-31-79AA	U	Vertical and Horizontal unistruts tracking There will be vertical unistruts installed in every compartment. The R2 and R1 compartments will have horizontal tracking for SCBA brackets.	1	R1
60-31-8003	U	Cast Product double SCBA tubes in rear fenders (ea) There will be four (4) double SCBA bottle storage installed in the rear fender wells to carry a total eight (8) spare bottles. There will be a door ajar switch installed on each door tied to the door ajar indicator light in the cab 50-21-5500.	4	
60-31-8210	S	> Sliding vertical tool board - open / closed latch ENG. NOTE: Specify location There will be a tool board with open / close latch installed in the L3 compartment between the left side wall and the vertical partition 60-31-8400. The tool board will be installed in the middle of that space.	1	MTL
60-31-8400	S	Fixed vertical partition The fixed vertical partition will be installed in the L3 compartment 30" from the right side wall.	1	MTL
60-31-8650	U	Price Adjustment	1	
60-31-8700	S	> Sliding tray (ea) - 400 pound capacity with lock in lock out slides ENG. NOTE: Specify location Reflective stripe is applied on the exposed edge for visibility when the compartment door is open 1. Install in the B1 compartment 28" off the floor and adjustable 2. L3 compartment. between the vertical partition 60-31-8400 and the right side wall.	2	MTL
60-31-8800	S	> Sliding tray (ea) - 600 pound capacity ENG. NOTE: 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 Location - Mount on floor of B1 compartment There will be a Honda EG5000CL that measures 22"x27"x27"high installed on the Slidemaster tray.	1	MTL
60-31-9600	U	Price Adjustment	3	
60-31-9600	S	> Adjustable shelf (ea) ENG. NOTE: Specify location	9	MTL

PART NO	S	DESCRIPTION	QTY	ID
		Reflective stripe is applied on the exposed edge for visibility when the compartment door is open Mounting locations to be: 1. L1 compartment - fill depth 2. L1 compartment - full depth 3. L2 compartment - full depth 4. L3 compartment - full depth - right of vertical partition 60-31-8400 5. L3 compartment - full depth - right of vertical partition 60-31-8400 6. R1 compartment - shallow - fixed at depth change 7. R3 compartment - shallow 8. R3 compartment - shallow 9. R3 compartment - full depth		
60-32-3560	S	Adjustable hose divider - Two fixed, 1 adj Hand hold required in end There will be a fixed divider in the center to support the hose bed cover, one fixed divider beside the suction hoses on the right side and one adjustable divider on the left side of the fixed center divider.	1	MTL
60-32-7500		Hose bed - aluminum	1	MTL
60-33-0000		Paint exterior - Imron Elite *** Paint code and colour red to match cab	1	MTL
60-33-0200		Undercoat vehicle with KROWN rust protection	1	MTL
60-33-0600		Chassis wheels not painted	1	MTL
60-33-1000		Paint pump and plumbing job colour	1	MTL
60-33-1500		Buffed finish compartment interior	1	MTL
60-33-2300	S	Lettering - as directed by the Customer *** Vinyl letters, Fire Department to provide details on location and text.	1	MTL
60-33-23AA	U	Installing customer supplied door decals Metalfab will install customer supplied door decals.	1	
60-33-3000	S	Reflective stripe - 4" white 50% of perimeter each side and 25% of perimeter front. The front compartments will have the "hockey stick" design, the stripe will be white on the painted surfaces and reflective red on the rollup doors.	1	MTL
60-33-3310		Reflective stripe - red and yellow chevron at rear Minimum 50% of rear vertical surface	1	MTL
60-33-3600		Reflective stripe - inside entry doors 96 square inches minimum inside each cab entry door	1	MTL
60-33-4600		Aluminum cover over crosslays - with end tarps (black) Small tarps with Velcro straps and footman's loops to enclose each end are provided.	1	MTL
60-33-5000	S	Aluminum cover over hose bed with end tarps - black Rear flaps with Velcro straps will be provided on the rear of the cover to tie around footman's loops. Doors to be wired to the door ajar warning light in cab to indicate when they are not stowed.	1	MTL
60-40-5500	S	Suction hose tube (each) in hose bed For the storage of the two 6" x 12' suction hoses 80-11-50AA. Rear access on back of hose bed - they will be stored stacked above each other in the right side of the hose bed - as shown on the drawing. There will be a slot beside the hoses for one (1) 14' roof ladder 80-14-851A.	2	MTL
60-40-9000	S	> Tube mount for ladders, with rear door ENG. NOTE: Specify location, ladders to be installed in this tube, complete dimensions of ladders if user supplied For the storage of the 24' two section ladder 80-14-0505 and one (1)14' roof	1	MTL

PART NO	S	DESCRIPTION	QTY	ID
		ladder 80-14-851A. Rear access on back of body - right side as shown on the proposal drawing. The 2nd roof ladder will be stored in the hose bed beside the suction hoses. Door to be wired to the door ajar warning light in cab to indicate when the door is not in the closed position when the park brake is released.		
60-41-1015	S	Pike Pole tube in ladder tube Located below the ladder storage tube for storage of Customer's 12' long pike poles. Note - tubes are 2" inside diameter.	2	MTL
60-41-1500	S	Attic ladder tube Located below the ladder storage tube for storage of the 10' folding ladder 80-14-8510.	1	MTL
60-91-0500	S	> Compartment SCBA Storage rack ENG. NOTE: Specify location and number of cylinders to be stored There will be seven (7) SCBA bottle storage tubes located on the bottom of the L1 compartment and there will be a fixed floor above the storage (60-91-05AA). The tubes will be 7" wide with foam at the bottom to protect the SCBA bottles which are MSA 45SL 4500 PSI. The tubes may be built in aluminum to minimize the space required and allow the seven bottles to sit flat in one line.	1	MTL
60-91-05AA	U	Fixed floor above SCBA tubes Install a fixed floor above the SCBA bottle storage (60-91-0500) in the L1 compartment	1	
60-99-15AA	U	Tray with flip up cover There will be a pull out tray with flip up cover to be used as an accountability station. The tray will be installed below the depth change in the R3 compartment.	1	
60-99-45AA	U	Front body corner - stainless steel There will be stainless steel corners installed on the front corners of the body to protect the edges from the rubbing of crosslay hoses when they are deployed.	1	
		INSTRUMENTATION	1	MTL
70-11-0000		Warning Label on Pump Operator's Panel	1	MTL
70-11-1500		Stainless steel instrument panels 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
70-11-2000		Top mount instrument panel 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
70-11-2500		Transverse walkway	1	MTL
70-11-25AA	U	Full width step on walkway (pr) The access step to the walkway will be a full width fixed step - one each side.	1	
70-11-2600		Tread plate overlay on back of chassis cab	1	MTL
70-11-3000	S	Mansaver bars Length TBD	1	MTL
70-11-3200	S	Colour coded tags All discharge sizes to be listed in Metric (38mm, 65mm, etc...)	1	MTL
70-11-3210	U	Class 1 chrome tag bezels SOPT #216	1	

PART NO	S	DESCRIPTION	QTY	ID
70-11-3501		Compartments in ends of walkway not required	1	MTL
70-11-4500		Diamondback grip type panel hood step right side Access from transverse walkway.	1	MTL
70-11-4600		Diamondback grip type panel hood step left side Access from transverse walkway.	1	MTL
70-11-5500		Right side tread plate pump access door No opening dimension less than 18" Slot required for Primer level viewing	1	MTL
70-11-5600		Left side tread plate pump access door No opening dimension less than 18"	1	MTL
70-11-5700		Transverse tread plate pump access door No opening dimension less than 18"	1	MTL
70-11-75AA	U	Heat pan - Extreme weather type SOPT #575	1	
70-11-8000		Heater in pump compartment	1	MTL
70-11-8200	U	Rubber seal around suction and discharge openings on panels SOPT #483	1	
70-20-0500	S	4-1/2" compound gauge - dual face 0-400 To be within 8" of each other - edge to edge	2	MTL
70-20-1500	S	2-1/2" pressure gauge - dual face 0-400 Gauge to be no more than 6" from edge of the gauge to the center of the control.	8	MTL
70-20-2500	S	Primer control	4	MTL
70-20-3200	S	FRC Pump Boss Governor Control Throttle can be no lower than 42" and no higher than 72" from operator's standing position. The display shall be Metric	1	MTL
70-20-35AA	U	FRC WLA300-A00 Tank Vision Pro water level gauge on pump panel SOPT #59	1	
70-20-6500		Test gauge panel Mount below the compound gauges for proper draining	1	MTL
70-20-7500		Heat exchanger control valve	1	MTL
70-21-1650	U	FRC WLA360-A00 Tank Vision Pro foam level gauge on pump panel SOPT #58	1	
70-21-5500		Panel readout for Battery Conditioner	1	MTL
71-21-4000		Microphone compartment This compartment is 7" x 6" x 4" deep. Customer to specify if microphone and cable will not fit in this space	1	MTL
ACCESSORIES			1	MTL
80-11-50AA	U	6" x 12' lightweight suction hose (ea) NH threads, long handled female swivel coupling one end, male rocker lug on the other end. Tube mounted. SOPT #149 - truck specific	2	
80-12-2500		6" barrel strainer Not mounted. Shipped loose. Customer will mount.	1	MTL
80-12-4500		> 6" low level strainer with 1-1/2" venturi connection ENG. NOTE: Gordon, Kocheck says to start at 50 psi but max would be 100 PSI on Jet Siphon	2	MTL

PART NO	S	DESCRIPTION	QTY	ID
		Not mounted. Shipped loose. Customer will mount.		
80-13-0500		<i>Rubber mallet</i> Not mounted. Shipped loose. Customer will mount.	1	MTL
80-14-0505	U	<i>Duo Safety 24' two section extension ladder</i> Tube mounted. SOPT #28 - truck specific	1	
80-14-8510	U	<i>Duo Safety 10' folding attic ladder</i> Tube mounted SOPT #28 - truck specific	1	
80-14-851A	U	<i>Duo Safety 14' Roof Ladder</i> There will be two (2) Duo Safety 14' roof ladder tube mounted (60-40-9000). SOPT # 28 - truck specific.	2	
80-18-0500	S	<i>SCBA bracket with strap - compt mount</i> Four (4) in upper portion of the right side front compartment and four (4) in the upper right side compartment over the rear wheels. Brackets to be compatible with MSA Fire Hawk 4500 SCBA's model MSA 45SL 4500 Customer to specify overall length and diameter of the cylinders. OA length (including valve) - 24" Diameter - 7"	8	MTL
80-19-0500	S	<i>Large folding wheel chock - aluminum (ea)</i> Stored in 80-19-0600 brackets	2	MTL
80-19-0600		> <i>Horizontal bracket for folding wheel chock (ea)</i> ENG. NOTE: Specify location, otherwise ship loose Located under body, LS ahead of rear wheels as shown on the proposal drawing.	2	MTL