



Shop Order

Lake Ainslie Fire Department
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Sales Rep: Jacques Pelletier Metalfab Ltd.	Terms: Chassis Net 10 days Body and Equipment COD
Drawing #: TBD Est. Delivery Date: / / Customer PO #: Customer #: 499 QPF #:	Penalty: None

Quote No: JLANS-0012
Job/Order No: 20090
 04/13/2018

PART NO	QTY	DESCRIPTION
	1	== Metalfab Pumper - ULC 05/13 - 0.000 ==
	1	Change Order C
		Change Order A - Pre-construction meeting 03.26.2018
00-10-1500	1	Metalfab Pumper E
00-20-1000	1	Company Profile E
00-20-1500	1	Standard Body Warranty
00-20-1550	1	Metalfab Limited Ten (10) Year Paint and Corrosion Warranty
00-20-1700	1	Hale Pump Warranty - 5 years
00-20-1800	1	Polypropylene Tank Lifetime Warranty
00-20-2000	1	Plant Visits - unlimited at customer expense
00-20-3000	1	No Bonding Requested
00-20-3500	1	Certification for Fusion Welding of Aluminum
00-20-4000	1	Quality System registered to ISO 9001:2015
00-20-4500	1	Fire Apparatus Manufacturers' Association Membership
	1	GENERAL INFORMATION
10-11-0000	1	Intent E
10-11-0105	1	Vehicle Data Recorder not requested E
10-11-1100	1	ULC S515-13 compliance
10-11-1500	1	ULC Testing - Pumper
10-11-2100	1	Maximum length not specified E
10-11-2200	1	Maximum height - 114" max The maximum height of the unit will be 114" as measured at the pre-construction meeting.
10-11-2300	1	Overall length is less than 30'
10-11-2500	1	General Construction
10-11-3000	1	Manuals - two copies ***Two copies of chassis manuals are required.
10-11-3600	1	Delivery - FOB Fire Department
10-11-4000	1	Payment Terms - Chassis Net 10 days, Balance COD
10-20-1000	1	Hose bed capacity - standard ULC Pumper
10-20-2000	1	Equipment carrying capacity - standard ULC Pumper
	1	CHASSIS INFORMATION

PART NO	QTY	DESCRIPTION
20-11-1000	1	Chassis supplied by Metalfab - Freightliner M2 106 41,600 lb GVW 14,600 lb front axle, 27,000 lb rear axle 206" wheelbase 140.45" approximate cab to axle Cummins L9 350 HP @ 2000 rpm, 2200 governed rpm 1000 lb/ft of torque at 1400 rpm Allison 3000 EVS automatic transmission with top mount opening for PTO 275 amp alternator 189 liter fuel tank, LH ESC L3240 EB Red Elite BC - Spay outs required for Customer signoff Auxiliary air tank (Code 46A-002) to be included for the air primer The paint code L3240 EB was approved at the pre-construction meeting 03.26.2018
20-11-1500	1	2013 Emission chassis modifications
20-11-1600	1	Chassis Motor Vehicle Inspection as supplied by chassis dealership
20-21-0500	1	Fluid capacity plate
20-21-0600	1	Pumping test plate
20-21-1000	1	Maximum riders sign - 2 persons
20-21-1500	1	Seat belt warning labels - 2 door chassis
20-21-1560	1	LED tire pressure indicators - Real Wheels SOPT 19
20-21-1600	1	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"
20-21-2000	1	Non removable key
20-21-2500	1	Shifter lock not required E
20-21-3500	1	Rear step warning label
20-21-3810	1	Front mudflaps provided with chassis E
20-21-4000	1	Rear mudflaps - Metalfab Logo
20-31-0200	1	Fuel fill label -Ultra Low Sulfur Diesel only
20-31-0500	1	Alum tread fuel tank trim, Conv - 2 door Vertical trim only, OEM cab steps remain
20-31-1900	1	Chassis cab painted by chassis OEM
20-31-7500	1	Console in cab Install switch panel, siren, and pump shift in console. Storage area with hinged cover and lift and turn latch provided at rear of console. Gray Zolatone finish There will be a Bullard Thermal Imager model Eclipse LDX that measures 4 -1/2" wide x 11-1/2" long x 6" high mounted on the top rear of the console. The charger will be plugged to the 110-volt outlet. "Pump Engaged" indicator light next to Pump PTO switch; "OK to Pump" and "OK to Pump and Roll" indicator lights located in overhead panel per 30-51-0400. An approval drawing will be sent to the department prior to building it.
20-41-0600	1	Intake air shutoff for engine not requested
20-41-0900	1	Auxiliary braking system disabled when pumping
20-41-1100	1	Transmission programming - Allison WT ***Includes "Pump Engaged" light next to pump shift on chassis instrument panel.

PART NO	QTY	DESCRIPTION
20-41-1500	1	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.
20-41-1900	1	Battery boost terminals with chassis E
20-41-2000	1	Chassis batteries remain in OEM location
20-41-2510	1	Fuel fill at step fuel tank under cab
20-41-2600	1	Chassis fuel tank remains in OEM location
20-41-5000	1	Rear Tow Hooks - under body *** Flat bar tow hooks under rear step (2)
20-51-0700	1	Master Battery Disconnect included with chassis
20-51-2500	1	Back up alarm included with chassis
20-51-3400	1	Protection valve installed for air operated accessories
20-51-4000	1	Auto eject for air inlet - LS Located on left pump panel
20-51-6200	2	120 volt 20 A shore line connection in chassis cab Standard 5-20R duplex receptacle in chassis cab, not fused One for battery conditioner 21-51-6500 to plug into. One located on front of console 20-51-7500. Note: Receptacles are minimum 12" from floor level to meet ULC.
20-51-6500	1	Kussmaul Autocharge 1000 battery conditioner w/battery saver Mounted on back of console 20-31-7500.
20-51-7101	1	Electric System Management - VMUX
20-51-7500	1	Super Auto eject for 120 v - 20 A with sealed enclosure Located on left pump panel
20-51-8500	1	Engine compartment light - LED to meet ULC Switched with the park brake
20-51-9001	1	Air horns as supplied with chassis Air horns on hood, with snow shields, controlled by dual lanyards in cab are included with the chassis
20-52-3500	1	Chassis steering wheel lined up by Metalfab E
20-60-0400	1	Chassis wheelbase does not change
	1	PUMP AND PLUMBING
30-11-3010	1	Hale RSD Pump/Plumbing combination
30-11-30AA	1	Hale RSD 1050 IGPM SOPT 1105 Required top mount PTO opening on chassis transmission. Note: Order MIV (30-31-7200) with the pump.
30-15-0301	1	Plumbing - non manifold pump TM
30-20-1000	1	Valves and controls - top mount panel
30-20-1003	1	Elkhart valves specified Elkhart brand valves are used for the suction and discharges.
30-20-1640	1	Piping galvanized steel - RSD pump
30-20-1700	1	1-1/2" thread specifications - NPSH Department to confirm at the Pre-construction meeting
30-20-1800	1	2-1/2" thread specifications - 3.23 x 5 NSZ1 Department to confirm at the Pre-construction meeting and provide male and female sample hose couplings

PART NO	QTY	DESCRIPTION
30-20-2000	1	Piping hydrostatic test
30-20-2505	1	Anodes in suction and discharge piping not requested
30-21-5540	1	Tank to Pump TM 3" w/ check valve non manifold pump 4" piping and check valve
30-22-0510	1	Tank Fill valve 2" TM
30-31-4000	1	Suction - 6" each side non manifold pump 6" header
30-31-7200	1	Hale master intake suction valve - electric control The left side 6" intake shall be gated. Order with the pump.
30-32-8520	1	Suction - 2-1/2" left side, TM control, bleeder, non manifold pump
30-40-2006	1	4" right discharge, plumbed 3", bleeder, non manifold pump
30-41-2006	1	2-1/2" RS discharge, bleeder, non manifold pump
30-41-2506	1	2-1/2" LS discharge, bleeder, non manifold pump
30-43-1510	2	2-1/2" rear discharge TM, plumbed 2-1/2", bleeder One each side as shown on the proposal drawing
30-44-0510	2	1-1/2" crosslay (each) TM, 2" valve, bleeder Minimum capacity for 200' x 1-3/4" hose and nozzle in each lay. Stainless steel rollers are installed on each end for easier hose removal.
30-51-0400	1	Pump shift - PTO Pump and Roll ***Includes "Pump Engaged" indicator lights on chassis instrument panel and on the pump panel ***Includes "Throttle Ready" indicator light on Pump operating panel Includes indicator light showing "OK TO PUMP" when transmission is in neutral, park brake is set, and PTO control energized. The remote electronic throttle will be energized in this mode. Includes indicator light showing "OK TO PUMP AND ROLL" when the transmission is not in neutral, the park brake is not set, and the PTO control is energized. The remote electronic throttle will not be energized in this mode. The lights "OK to Pump" and "Pump and Roll" will be installed on the ceiling console above the driver seat position.
30-51-1500	1	Power shift PTO - Automatic transmission Mounted on top of the transmission
30-51-1501	1	PTO driveshaft E
30-51-6800	1	FRC InControl Governor/Throttle engine display with throttle knob
30-51-7002	2	Suction side relief V/V, non manifold pump
30-51-77AA	1	Automatic Trident air primer with gauge - 2 location SOPT 586b Trident p/n 31.011.21 Location 1 - Main pump Location 2 - Left side MIV - outboard
30-51-8100	1	Heat exchanger included with chassis
30-52-1000	1	Master drain V/V, 12 port
30-52-2000	1	Drain valve for foam system header
30-52-5510	1	Foam system-Hypro FoamPro 2001 Single Tank Foam system is plumbed to both 1-1/2" Crosslays and the left rear 2-1/2" discharge unless otherwise specified
30-52-9100	1	Foam concentrate label at foam tank fill
30-52-9200	1	Foam System Instruction Plates
30-52-9400	1	NFPA Foam System certification test
		WATER AND FOAM TANKS
40-11-2100	1	Polypropylene water tank (Imperial gallons)

PART NO	QTY	DESCRIPTION
40-11-2200	1	Water tank capacity certification (tank manufacturer)
40-11-5000	1	Tank capacity 1000 Imperial Gallons
40-12-4500	1	Foam cell - 20 Imperial gallon
40-21-1000	1	4" tank to pump connection
40-22-0500	1	2" tank fill connection
40-23-0500	1	1" water level gauge connection
40-23-1040	1	4" direct fill connection
		The tank will be ordered with a 4" direct fill connection.
40-23-1060	1	10" Newton dump connection
40-30-0500	1	Sump drain valve (3" gate valve) with linkage E
40-30-1000	1	Water Fill Box front left corner
40-31-4500	1	10" rear Newton dump, painted steel
40-31-4600	1	Newton dump, side mount manual operation
		Lock open device is required
40-31-5000	1	Newton dump - 36" telechute painted steel
40-31-6050	1	Rear fill not requested E
40-31-8000	1	4" Storz rear gtd fill
		There will be a 4" direct tank fill with hand wheel installed in the rear compartment beside the dump valve.
	1	ELECTRICAL
50-11-0300	1	Base electrical system - multiplex E
50-11-0600	1	Warning Light Certification
50-11-0700	1	Low Voltage Electrical system test
50-11-0800	1	Low Voltage Electrical System Documents
		As required by ULC and NFPA standards
50-11-0900	1	Rocker switch panel with master warning switch
		***Rocker switch assignments:
		MASTER
		-LIGHT BAR RED
		-REAR BEACONS
		-FLASHING WARNING
		-REAR FLOODS
		-FRONT SCENE (Take down lights)
		Confirmed at the Pre-construction meeting that there will be a switch "Front Scene" wired to the white lights in the lightbar.
50-11-1400	1	Federal PA300 100 watt siren
50-11-1620	1	Siren speaker, 100 watt, in front bumper
50-11-2600	1	Siren to be accessible to driver and officer
50-11-5810	1	Federal Emergency Light package
50-11-5812	1	Federal LPX53DS-NFPA
		SOPT 798
		Confirmed at the Pre-construction meeting that the white lights in the lightbar will be wired as front scene lights.
50-11-6501	1	Rear Directional Light not requested
50-11-8900	1	Rear beacons-Federal Sentry (pr) 1 red, 1 amber
		The right side beacon is red, the left side beacon is amber.
50-12-5040	1	Front flashers - LED (pr) - Red Federal IMPAXX IPX300-4
		SOPT #1118

PART NO	QTY	DESCRIPTION
50-12-5150	1	Rear flashers - LED (pr) - Red Federal IMPAXX IPX300-4 SOPT #1126
50-12-5230	1	Front side intersection lights - LED (pr) - Red Federal IMPAXX IPX300-4 SOPT #1119
50-12-5340	1	Body side intersection lights - LED (pr) - Red Federal IMPAXX IPX300-4 Mounted in rear fenders SOPT #1115
50-21-1505	1	Unity LED rear floods Switched in cab and wires to activate when transmission is placed in reverse gear. These lights cannot be managed as they are required for ULC. SOPT 255a
50-21-2540	2	FRC telescoping SPECTRA LED 12V flood (ea) SPA530-Q15-ON-SW-SR with hazard warning and steady rest Mounted on rear corners of the chassis cab, switched on the light head and managed to shed to meet ULC.
50-21-29AA	1	Additional lighting in cab to illuminate floor area (ULC reqmt) - 2dr chassis SOPT 998
50-21-5100	1	Compartment lighting - LED tube lights in each compartment (rollup doors)
50-21-5500	1	Door Ajar warning light Located in overhead console above drivers seating position Bilingual Warning label in cab to read: "Do Not Move Apparatus when Light is on"
50-21-8001	1	Step lights for body steps - 4" LED Activated when park brake is applied.
50-21-8110	1	Step lights for walkway - 4" LED Activated when park brake is applied.
50-21-8200	1	12" Lumabar LED step lights for 2 door chassis Activated when park brake is applied. SOPT 194a
50-21-8600	1	LED clearance lts and reflectors
50-22-0700	1	Whelen 64 LED tail/brake-turn-backup module (pr)
50-31-6550	1	Ground lighting (LED Lumabar) - 2 door chassis Activated when park brake is applied.
50-31-6580	1	Ground lighting (LED Lumabar) - top mount body Activated when park brake is applied.
50-31-65AA	1	Hose bed lighting - LED front partition (ULC requirement) Activated when park brake is applied. SOPT 958
50-35-0500	2	Installation of customer supplied mobile radio Radio information list required and obtained at the Pre-construction meeting. Required radios to be available when chassis arrives at Metalfab
50-35-0560	2	VHF antenna with base - commercial chassis Specify any special mounting locations or spacing requirements, otherwise will be mounted behind lightbar, one left side and one right side.
	1	BODY

PART NO	QTY	DESCRIPTION
60-10-1400	1	Single axle extruded aluminum body
60-10-4100	1	No "beavertail" rear step supports
60-10-4600	1	Painted fender surround E
60-10-4700	1	Integral aluminum fender trim
60-10-5400	1	Diamondback pumphouse steps
60-10-5430	1	Diamondback 19" rear step
60-10-6000	1	Extruded rub rail
60-11-0300	1	Front left side compartments full height E
60-11-0500	1	Front right side compartment to top of wheel well
60-11-1000	1	Rear left side compartments full height E
60-11-1100	1	Rear right side compartment to top of wheel well
60-11-2000	1	High side compartment (over 18") each Left side over rear wheels
60-11-3200	1	Full Height Rear compartment
60-11-5500	3	Rollup door - standard height Natural aluminum finish Includes magnetic door switch, LED tube lights, rubber bumpers to prevent pinch point
60-11-5520	3	Rollup door - full height Natural aluminum finish Includes magnetic door switch, LED tube lights, rubber bumpers to prevent pinch point
60-31-4100	1	Extruded aluminum handrails Minimum 2" clearance from handrail to any surface
60-31-5500	1	Lighted steps at rear of body (folding) Maximum height between steps is 18"
60-31-5600	1	Steps and grab handles at front of body next to pump panel Maximum height between steps is 18"
60-31-6500	1	Compartment matting-Turtle tile
60-31-8700	2	Sliding tray (ea) - 400 pound capacity with gas strut Reflective stripe is applied on the exposed edge for visibility when the compartment door is open. Determine location of trays at the Pre-construction meeting: Tray #1 - ___compartment L3_____ Tray #2 - ___compartment R2_____ 60-31-9600
60-31-9600	4	Adjustable shelf (ea) Reflective stripe is applied on the exposed edge for visibility when the compartment door is open Determine location of shelves at the Pre-construction meeting: Shelf #1 - ___compartment L1 - Shallow ___ Shelf #2 - ___compartment L1 - Shallow ___ Shelf #3 - ___compartment L3 - Shallow ___ Shelf #4 - ___compartment L3 - Shallow ___
60-32-3500	1	One adjustable hose divider Hand hold required in end
60-32-7500	1	Hose bed - aluminum
60-33-0000	1	Paint exterior - Imron Elite *** Paint code and colour red to match cab
60-33-0200	1	Undercoat vehicle with KROWN rust protection
60-33-0600	1	Chassis wheels not painted
60-33-1000	1	Paint pump and plumbing job colour
60-33-1500	1	Buffed finish compartment interior

PART NO	QTY	DESCRIPTION
60-33-2200	1	Lettering - 80 letters up to 3" tall - 3 colour *** Vinyl letters, Fire Department to provide details on location and text.
60-33-3000	1	Reflective stripe - 4" white 50% of perimeter each side and 25% of perimeter front
60-33-3310	1	Reflective stripe - red and yellow chevron at rear Minimum 50% of rear Printed on Scotchlite material
60-33-3500	1	Tarp over hose bed - black
60-33-4600	1	Aluminum cover over crosslays - with end tarps (black)
60-40-5500	2	Suction hose tube (each) with door Rear access - for the 6" x 10' Suction hoses 80-11-5000.
60-40-9500	1	Tube for portable tank storage - in the hose bed For the 1500 Imp gallon portable tank 80-15-0500.
60-41-1000	2	Pike Pole tube with door Rear access right side over compartments for Customer's pike poles. Tubes are 2" ID and approximately 11.5' long.
60-41-1500	1	Attic ladder tube with rear door Rear access right side over compartments for the 10' attic ladder 80-14-8500
60-41-8500	1	Ladder rack side - 2 sect and roof Right side of body for the 24' 2 section extension ladder 80-14-0500 and the 14' roof ladder 80-14-5500.
	1	INSTRUMENTATION
70-11-0000	1	Warning Label on Pump Operator's Panel
70-11-1500	1	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
70-11-2000	1	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
70-11-2500	1	Transverse walkway
70-11-2600	1	Tread plate overlay on back of chassis cab
70-11-3000	1	Mansaver bars - 22"
70-11-3200	1	Colour coded tags
70-11-3210	1	Class 1 Bezels for tags SOPT 219
70-11-3501	1	Compartments in ends of walkway not required
70-11-4500	1	Diamondback grip type panel hood step right side
70-11-4600	1	Diamondback grip type panel hood step left side
70-11-5500	1	Right side tread plate pump access door No opening dimension less than 18"
70-11-5600	1	Left side tread plate pump access door No opening dimension less than 18"
70-11-5700	1	Transverse tread plate pump access door No opening dimension less than 18"
70-11-7500	1	Heat pan-aluminum

PART NO	QTY	DESCRIPTION
70-11-8000	1	Heater in pump compartment
70-20-1500	7	2-1/2" pressure gauge - dual face 0-600 Gauge to be no more than 6" from edge of the gauge to the center of the control.
70-20-3300	1	FRC InControl Governor Control Throttle can be no lower than 42" and no higher than 72" from operator's standing position.
70-20-3500	1	Electric water level gauge on pump panel, Class One
70-20-6500	1	Test gauge panel
70-20-7500	1	Heat exchanger control valve
70-21-1600	1	Electric Foam Level gauge not requested
70-21-2100	1	PTO Hourmeter Mounted on the pump operator panel and tagged "PTO hours"
70-21-5500	1	Panel readout for Battery Conditioner Located on left pump panel
	1	ACCESSORIES
80-11-5000	2	6" x 10' lightweight suction hose (ea) Tube mounted
80-12-2500	1	6" barrel strainer Not mounted, shipped loose - Customer will mount.
80-13-0500	1	Rubber mallet Not mounted, shipped loose - Customer will mount.
80-14-0500	1	24' 2 section extension ladder PEL 24 Mounted right on ladder rack
80-14-5500	1	14' aluminum roof ladder PRL-14 Mounted right on ladder rack
80-14-8500	1	10' aluminum folding attic ladder FL-10 Tube mounted
80-15-0500	1	1500 l gallon portable tank - Husky Stored in hosebed
80-18-0500	4	SCBA bracket with strap - compt mount Evenly spaced on back wall of left side compartment over rear wheels.