

## **Shop Order**

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Job/Order No: 21226

**BODY:** 00-10-15 Metalfab Pumper - ULC 05/13

03/04/2021 Page 1 **PART NO** DESCRIPTION ID == Metalfab Pumper - ULC 05/13 - 0.000 == MTL S Change Order H 1 MTL 00-10-1500 Metalfab Pumper E 1 MTL 00-20-1000 Company Profile E MTL 00-20-1500 Standard Body Warranty MTL 1 Metalfab Limited Ten (10) Year Paint and Corrosion Warranty 00-20-1550 MTL 00-20-1600 Waterous Pump Warranty - 5 years 1 MTL 00-20-1800 Polypropylene Tank Lifetime Warranty MTL 00-20-2000 Plant Visits - unlimited at customer expense MTL 00-20-3000 No Bonding Requested 1 MTL 00-20-3500 Certification for Fusion Welding of Aluminum MTL 00-20-4000 Quality System registered to ISO 9001:2015 1 MTL 00-20-4500 Fire Apparatus Manufacturers' Association Membership MTL **GENERAL INFORMATION** MTL 10-11-0000 Intent E MTL 10-11-0110 Vehicle data recorder included with chassis 1 MTL 10-11-1101 S ULC S515-13 and NFPA 1901-2016 Compliance E 1 MTL 10-11-1500 > ULC Testing - Pumper - Imperial units of measure MTL **ENG. NOTE:** Note in the shop note if the Fire Department wishes to witness the test 10-11-2100 S MTL Maximum length - 34' (408") 1 MTL 10-11-2200 S Maximum height 12' (144") 1 10-11-2400 Overall length is 30' or more MTL 1 General Construction 10-11-2500 1 MTL S 10-11-2600 Preconstruction Meeting at Metalfab - Dec 4 - 5, 2019 1 MTL 10-11-3000 Manuals - two copies MTL Two (2) copies of complete operation and service manuals will be provided covering the completed apparatus (body and equipment) as delivered and accepted, including the pump, wiring diagrams, lubrication charts, and fire fighting equipment delivered with the apparatus. Chassis manuals are those supplied by the chassis manufacturer. \*\*\*Include one (1) pine air freshener\*\*\* 10-11-3600 MTL S > Delivery - FOB Fire Department - by Safetek **ENG. NOTE:** Note in the shop note if more than 4 hours of training is required 10-11-4200 S Payment Terms - Chassis and Body COD MTL 10-20-1000 Hose bed capacity - standard ULC Pumper MTL Capacity in main hose bed for 800' of 4" Storz supply line in 50' lengths and 800' of 2-1/2" fire hose. Additional weight allowance of 900 pounds. 10-20-2000 Equipment carrying capacity - standard ULC Pumper MTL **CHASSIS INFORMATION** 1 MTL 20-11-1000 S Chassis supplied by Metalfab - Spartan Metro Star EMFD with 20" raised 1 MTL roof

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PART NO	S	DESCRIPTION	QTY	ID
		Bustle back type cab		
		47,000 lb GVWR 20,000 lb front axle 27,000 lb rear axle		
		Cummins L9 450 HP @ 2100 rpm 2200 governed PRM 1250 ft-lb torque @ 1400 rpm		
		Engine compression brake included - will activate stop/brake lights when activated.		
		202" wheelbase 142" cab to axle		
		Allison 3000 EVS automatic transmission, 6 speed, 6th gear start up as discusse	d at	
		pre-construction meeting		
		65 MPH top road speed as discussed at pre-construction meeting		
		50 US fuel tank		
		Jackshaft for Waterous pump		
		Engineering to determine center line of suction to centerline of rear axle - 105"		
		Two (2) Vista touchscreens in cab - one at drivers location, one shipped loose to	be	
		installed at pump panel as discussed at pre-construction meeting	-4	
		Tilt/telescoping steering column - "Smart steering wheel" was deleted pre-construction	at	
		Cab will be painted white over red - Dupont L0225EB white elite and L2685EB r	he	
		elite	eu	
		White - PPG FBCH 911000 as advised by Spartan		
		Red - PPG FBCH 952692 as advised by Spartan		
		Spray outs required for Customer sign off		
		Manual cab tilt		
		***Changes and additions to be made to chassis before ordering are as follows;		
		1701-157 - upgrade to engine from 400 to 450 HP as above		
		Change wheelbase to 202" as above		
		8101-106 - Occupant Protection Front Occupant APS - rear air bags not available v	vith	
		three (3) rear seats in MetroStar		
		5317-217 - SPA100-Q28 brow light 5726-002 - LH camera - tear drop shaped - located drivers side of cab below t	he	
		windshield, ahead of front door at approximately the same level as the door handle		
		5727-002 - RH camera - tear drop shaped - located passengers side of cab belo		
		the windshield, ahead of front door at approximately the same level as the de	or	
		handles.		
		5728-009 - Rear camera - shipped loose, Metalfab will install on back of body a	ind	
		wire (ref 20-52-4003)		
		5731-005 - Cameras wired to Vista displays		
		3801-002 - On Spot chains		
		Change code 2901-067 to 2901-068 for the exhaust aftertreatment module to the sand	е	
		inboard.		
		Additional Changes from pre-construction meeting apart from items listed above: Interior changed to Easy Clean finish		
		Tracks and shelf in EMS compartment		
		Fuel filter with heater		
		Front tire changed to 425/65R 22.5 Michelin XZY3		
		A/C plenum changed to Short for additional head room		
		A/C controlled by VMUX		
		Deleted auxillary heater in rear of cab and added storage		
		Insulation under engine tunnel and chassis floor		
		Floor color to be black		
		Wide front mud flap Electrical inlet changed to 20-amps		
		Headlight activation changed to 5350-073		
		Deleted fog lamps		
		B/U alarm includes override option		
		Deleted auxillary antenna		
		Ground lights under front bumper		
		·		
20-11-1500		2013 Emission chassis modifications		MTL
	S	Chassis Motor Vehicle Inspection required - by Safetek		MTL
20-21-0500		Fluid capacity plate	-	MTL
20-21-0600 20-21-1030	9	Pumping test plate  Maximum ridges sign - 5 persons - with chassis	-	MTL MTL
	S S	Maximum riders sign - 5 persons - with chassis Seat belt warning labels - 4 door chassis - with chassis		MTL
20-21-1510	S	Helmet warning label - do not wear helmet - with chassis		MTL
	S	LED Tire Pressure Indicators - Single Axle - with chassis		MTL
		5		

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PART NO	S	DESCRIPTION	QTY	ID
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 pl	at e	
		by the Fire Department"	ale	
		by the file 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	
20-21-3810		Front mudflaps provided with chassis E	1	
20-21-4001	S	Rear mudflaps - Black with no logo		MTL
		The rear mud flaps will be black without logos as requested at the pre-construc-	ion	
		meeting.		
20-31-0100		Fuel tank or step covers not required	1	MTL
20-31-0200	_	Fuel fill label -Ultra Low Sulfur Diesel only	1	MTL
20-31-1900	S	Chassis cab painted two tone by Spartan	-	MTL
20-41-0900		Auxiliary braking system disabled when pumping	1	
20-41-1130 20-41-1500	U S	Transmission programming - Allison WT Extend exhaust pipe - RS front of rear wheels w/Nederman provision	1	MTL
20-41-1300	3	See chassis specs for aftertreatment module location	,	WIL
		Engineering to specify exhaust pipe material as required by the chas	eie	
		manufacturer.	313	
		Engineering to sign off on the exhaust configuration to make sure it meets	the	
		chassis manufacturer's emission specifications.		
		Customer provided necessary clearance dimensions to allow attachment	of	
		their Nederman extraction system - Center of exhust to magnet to be 24.5"	as	
		requested at pre-construction meeting.		
		Metalfab is not supplying any wiring or controls for the Nederman extrac	tion	
		system		
20-41-1900		Battery boost terminals with chassis E	1	MTL
20-41-1900		Chassis batteries remain in OEM location	1	MTL
20-41-2560	S	Fuel fill at LS rear fender well with SCBA style door	1	
20-41-2000		The fuel fill will have an SCBA door cover with a YELLOW tag to identify Ultra	_	"" · _
		Sulfure Diesel Only (yellow tag to match color of diesel nozzles at BC service static	ns).	
		As requested at pre-construction meeting.	,	
		· · · · · · · · · · · · · · · · · · ·		
20-41-2600		Chassis fuel tank remains in OEM location	1	MTL
20-41-5000		Rear Tow Hooks - under body	1	MTL
		*** Flat bar tow hooks under rear step (2)		
00 44 5000	•	B (		
20-41-5200	S	Rear trailer receiver and trailer wiring - Class III/IV, 7 pin connector		MTL
		No special trailer wiring required as discussed at the pre-construction meeti wired to industry standard.	ıg -	
		whea to madsity standard.		
20-41-5210	S	Front receiver	1	MTL
		There will be a front receiver installed under the front bumper as per the purcha		
		order. The spartan model 3905-009 may not allow the preferred tow hooks		
		requested at the pre-construction meeting.		
	_			
20-41-5215	S	Side receiver (ea),		MTL
		Discussed at Pre-con that these are to be located behind the rear wheels un		
		the rub rail to allow the exhaust to be as close to the fender as much as poss	PIDIE	
		for the Nederman puck.		
20-51-0700		Master Battery Disconnect included with chassis	1	MTL
20-51-2500		Back up alarm included with chassis	1	
20-51-3100	S	Air inlet not requested	1	MTL
20-51-3400	•	Protection valve installed for air operated accessories	1	MTL
20-51-3500	S	Air outlet	2	
		Removed air outlet from Spartan (3310-001) and Metalfab to supply and install an	air	
		outlet on each side pump panel, The air outlet is to be 1/4" FNPT ARO style - type		

PART NO	S	DESCRIPTION	QTY	,	Page 4
PARTINU	3	requested by fire department after the pre-construction meeting.	Q I		טו
		requested by the department after the pre-constituction meeting.			
20-51-6200	S	> 120 volt 20 A shore line connection in R4 compartment		1	MTL
20 07 0200		ENG. NOTE:			
		Requires 20-51-75 120 volt auto eject or 20-51-80 120 volt inlet			
		, , , , , , , , , , , , , , , , , , , ,			
		Standard 5-20R duplex receptacle in R4 compartment - Metalfab will run the Spar			
		5208-006 cable to the R4 compartment and terminate with a household plug	as		
		requested at the pre-construction meeting.			
00 54 5400					
20-51-7102	_	Electric System Manager included with chassis E			MTL
20-51-9001 20-52-0010	S U	Air horns as supplied with Spartan chassis Air horn control on pump panel		1	MTL
20-32-0010	U	The control will be labelled "AIR HORN", it wil be a momentary red toggle sw	itch	1	
		that will be active when the park brake is applied and the emergency lights	are		
		on - as discussed at the pre-construction meeting.	u. 0		
20-52-3500		> Chassis steering wheel lined up by Metalfab E		1	MTL
		ENG. NOTE:			
		Freightliner, Sterling, and Spartan only			
00 50 4000				_	
20-52-4003	U	Installation of rearview camera supplied by Spartan		1	
		Installed on the rear center upper portion of the apparatus below the transve	rse		
		step			
20-60-0400		Chassis wheelbase does not change		1	MTL
20-90-1810	U	Extend air tank drain/moisture ejector cables to rubrail and tag/label		1	
20-99-05AA	Ü	Electrical wiring inside cab for Customers Knox Box		1	
		Customer to specify preferred location of Knox Box wiring - location TBD w	hen		
		chassis arrives but prefered location will be the EMS cabinet in the chassis			
		Customer specified that 12 VDC is required			
		Customer specified approximate dimensions of their Knox Box Secure 5 mc	del		
		to ensure adequate space is provided			
		Width - 4"			
		Height - 6" Depth - 4"			
		Deptil - 4			
		PUMP AND PLUMBING		1	MTL
30-12-4000	S	Mechanical seals for Waterous pumps			MTL
30-12-6500	S	Waterous CSU single stage 1500 IGPM		1	MTL
		Plumbing to include provisions for flanges for flow minder digital readouts	(ref		
		70-99-05AA)			
		Order the MIV's and the anodes with the pump	-4		
		Advise Waterous that the pump will operate at 1500 m or 4300' as advised	at		
		pre-construction meeting			
30-15-0202		Plumbing - Waterous manifold pump TM SS E		1	MTL
30-20-1000		Valves and controls - top mount panel			MTL
30-20-1001		Valve brand not specified E			MTL
30-20-1600		Piping stainless steel - general		1	MTL
30-20-1700	S	1-1/2" thread specifications - NPSH			MTL
30-20-1800	S	2-1/2" thread specifications - BAT			MTL
30-20-2000		Piping hydrostatic test			MTL
30-20-2500		Anodes in suction and discharge piping			MTL
		Install one anode on discharge side of pump, one anode on suction side of particle - do not use teflon tape or thread sealant.	ump		
		Paint flange silver and mask brass anode before painting for visibility.			
		***Order with pump***			
		min pamp			
30-21-5590		Tank to Pump TM SS 3" w/ check valve manifold pump		1	MTL
30-22-0530		Tank Fill valve 2" TM SS		1	MTL
30-31-4010	S	Suction - 6" each side manifold pump			MTL
30-31-7210		> Waterous master intake suction valve - electric control		2	MTL
		ENG. NOTE:			
		Required for top mount panels			
		Show location in Shop Note			

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PART NO	S	DESCRIPTION	QTY	1	ID
		For the left and right 6" side suction inlets.			
		***Order with pump***			
30-32-8535	S	Suction - 2-1/2" left side SS, TM control, Waterous manifold pump, bleeder			MTL
30-32-9035	S	Suction - 2-1/2" right side SS, TM control, Waterous manifold pump, bleeder			MTL
30-40-2035	S	4" right discharge TM SS, plumbed 3", Waterous manifold pump		1	MTL
		There will be a hi-vol discharge on the right side panel that will include a 3" valve			
		Storz fitting with 30-degree droop and drain. As requested at the pre-construct	on		
		meeting.			
20 44 2025	.,	Duine Adimeturent		2	
30-41-2035	U	Price Adjustment		2	MTL
30-41-2035	S	2-1/2" RS discharge TM SS, bleeder, Waterous manifold pump  There will be 2 E' discharge an DS are discussed at the pre-construction meeting.		7	WIL
		There will be 2.5" discharge on RS as discussed at the pre-construction meeting			
30-41-2535	U	Price Adjustment		2	
30-41-2535	Š	2-1/2" LS discharge TM SS, bleeder, Waterous manifold pump		1	MTL
00 47 2000		There will be a 2.5" discharge on the LS as discussed at the pre-construction meet			
		There was a 2.0 Glosharge on the 20 de discussed at the pro-concadulation most	9		
30-43-1530	S	2-1/2" rear discharge TM SS, plumbed 2-1/2", bleeder		1	MTL
		The discharge shall be located at the officer's side of the main hosebed at			
		back of the body as discussed at the pre-construction meeting			
		,			
30-44-0730	S	1-1/2" speedlay (each) front of pumphouse TM SS, plumbed 2"		2	MTL
		Capacity for 200 feet of 1-3/4" DJ hose and nozzle for each lay.			
		The hose connections shall be located at each end above the tray - stand	ard		
		Metalfab location as approved at the pre-construction meeting			
		Removable trays with hand hold cut-outs shall be provided for each speed	lay.		
		LED lights shall illuminate each speedlay area to aid loading hose at night			
30-44-0799	U	Extra speedlay tray		2	
		There will be two (2) additional speedlay trays supplied and shipped loose with	the		
		completed unit as requested at the pre-construction meeting			
30-44-1030	S	> 2 4/2" front trook line TM CC hosewell for 100' of 1 2/4" hose		1	MTL
30-44-1030	3	> 2-1/2" front trash line TM SS, hosewell for 100' of 1-3/4" hose ENG. NOTE:		1	WIL
		Requires extended front bumper, gravelshield			
		rrequires extended from bumper, graveishield			
		One (1) 2 ½" front bumper discharge shall be provided with valve and control	ller		
		located at the pump operators panel. The discharge shall terminate wit			
		chrome plated brass 90 degree swivel elbow with BAT male threads above	the		
		gravel shield.			
		Capacity of hose well for 100 feet of 1 3/4" hose and nozzle shall be provide	d in		
		the front bumper. Portion of the piping to the front bumper is provided	by		
		Spartan. A hinged aluminum treadplate cover with notch for hose and gas s	trut		
		shall be provided (by Spartan) complete with LED lighting (by Metalfab).			
		The department will supply and install a 2.5" to 1.5" reducer on the connec	tion		
		after the delivery. As discussed at the pre-construction meeting			
00 44 0500	.,	Duise Adington and			
30-44-3530	U	Price Adjustment		7	ATI
30-44-6530	S	Piping for monitor TM SS, plumbed 3", bleeder		1	MTL
		Mounted at the rear left side of the body for the 80-99-30AA TFT Crossfire mor and riser. As discussed at the pre-construction meeting	illoi		
		and riser. As discussed at the pre-construction meeting			
30-51-0510	U	Pump shift-Midship air - Waterous		1	
30-31-0310	Ū	***Includes "Pump Engaged" and "OK to Pump" indicator lights in cab		•	
		***Includes "Throttle Ready" indicator light on Pump operating panel			
		Installed in cab by Metalfab.			
		Discussed at the Pre-construction meeting that the preferred location will be	on		
		the center dash panel above the transmission shift.			
		•			
30-51-0600	S	Manual over ride for pump shift on left pump panel by Metalfab		1	MTL
		Located on left side pump panel			
30-51-6800		FRC InControl Governor/Throttle engine display with throttle knob		1	MTL

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PART NO	S	DESCRIPTION	QT'	Y	ID
30-51-7000		Suction side relief V/V, manifold pump	l	2	MTL
		One for the left side MIV	1		
		One for the right side MIV	ĺ	ļ	
		****SSRV's to be pre-set at 150 psi (in place of 125 psi factory preset)****			
00 54 5544					
30-51-7711	S	Trident Air Primer 3 barrel 1 location		1	MTL
		There will be a Trident Air primer supplied and installed at the unit as discussed a	t the		
		pre-construction meeting.			
00 54 5500					
30-51-7720	S	Additional air tank for air primer system		1	MTL
		An additional air tank is provided to improve air primer capacity			
00 54 0400		Harden all and the College of the Co			
30-51-8100		Heat exchanger included with chassis		1	MTL
30-51-8500		Pump cooler with control valve, check valve	1	1	MTL
30-52-1000		Master drain V/V, 12 port	1	1	MTL
30-52-2000	_	Drain valve for foam system header	1	1	MTL
30-52-4210	S	Foam System - Hypro FoamPro 2002 Single Tank	1	1	MTL
		***Stainless steel header***	1		
		***4" manifold unless otherwise specified***	l		
		Foam system is plumbed to both 1-1/2" speedlays, 2-1/2" rear preconnect, a	and		
		the 2-1/2" to front bumper.			
		Customer confirmed locations at the Pre-construction meeting			
00 50 0400					
30-52-9100		Foam concentrate label at foam tank fill		1	MTL
30-52-9200		Foam System Instruction Plates	1	1	MTL
30-52-9400		NFPA Foam System certification test	1	1	MTL
		WATER AND FOAM TANKS		1	MTL
40-11-2100		Polypropylene water tank (Imperial gallons)		1	MTL
40-11-2200		Water tank capacity certification (tank manufacturer)		1	MTL
40-11-5000	S	Tank capacity 835 Imperial Gallons		1	MTL
		The water fill tower will have a blue cover or writing based on what is available			
		from the tank supplier. As requested by the customer at the pre-construct	ion		
		meeting.			
	_				
40-12-4500	S	Foam cell - 20 Imperial gallon		1	MTL
		The foam fill tower will have a green cover or writing based on what is available	able		
		from the tank supplier. As requested by the customer at the pre-construct	ion		
		meeting.			
40-21-0500		2" tank to numn connection		1	MTI
		3" tank to pump connection			MTL
<b>40-22-0500</b> 40-23-0500		2" tank fill connection 1" water level gauge connection		<b>1</b>	<i>MTL</i> MTL
<b>40-23-1000</b>				•	
40-30-0400		1" foam level gauge connection 3" plug in sump box		<b>1</b>	<i>MTL</i> MTL
40-30-1000		Water Fill Box front left corner	1		
			1	1	MTL
40-31-0400 40-31-6050		Rear dump valve not requested E		1	MTL
40-31-0050		Rear fill not requested E		1	MTL MTL
E0 44 0400	_	ELECTRICAL  Page planting of existing and ex		1	
50-11-0400	S	Base electrical system - Spartan multiplex  The second V Mux corespondinged loose from Spartan will be installed at	4la -	1	MTL
		The second V-Mux screen shipped loose from Spartan will be installed at	tne		
		pump panel as requested by the department at the pre-construction meeting			
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
30-11-0000		As required by ULC and NFPA standards		1	WIL
		As required by OLO and Ni i A standards			
50-11-2500	S	Siren and speakers supplied with Spartan chassis		1	MTL
00-11-2000		PA 4000 siren with two 100 watt speakers		•	
50-11-5810	S	> Federal LED light bar included with Spartan chassis		1	MTL
		ENG. NOTE:			
		Adds 6.5" to overall height (measuring from roof of chassis)			
		73" Navigator - 8 Red, 4 white flashers.			

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PART NO	S	DESCRIPTION	QTY	ID
50-11-7600	U	Rear LED Federal Signal Master warning light - SL8	1	
		Control will be located in chassis cab in center panel where room permits un	ess	
		otherwise specified.		
50-12-5021	_	Front flashers, intersection lights included with chassis - Federal QL64XF-R		
50-12-5120	S	Rear LED flashers (pr)-red Federal QL97XF-R - upper level	1	MTL
50-12-5310	S	Body side inter Its (pr)-red LED Federal QL64XF-R - lower level in rear	1	MTL
50 40 5000	_	fenders	_	
50-12-5320	S	Body side warning lights (pr)-red LED Federal QL97XF-R - upper level	2	MTL
50-12-8000		Additional body side intersection light not required	1	MTL
		Distance between front and rear side intersection light does not exceed 25'		
50-21-5100		> Compartment lighting - LED tube lights in each compartment (rollup doors)	1	MTL
30-21-3100		ENG. NOTE:	'	IVIIL
		Rollup doors only		
		Noliup doors only		
50-21-5500	S	Door Ajar warning light - with chassis	1	MTL
00-27-0000		Bilingual warning label in cab to read:		
		"Do Not Move Apparatus when Light is on"		
		20 Not more / ppuratus mish 2.gm to on		
50-21-5560	U	Equipment rack not stowed warning light - with chassis	1	
		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
		Switched when park brake is set.		
50-21-8201	S	Step lights for chassis steps - LED	1	MTL
		With chassis		
50 04 00 A				
50-21-83AA	U	LED lighting for rear step/platform, rear access ladder as required	1	
		Switched when park brake is set.		
50-21-8600		LED clearance Its and reflectors	1	MTL
<i>50-21-8800</i>		LED intermediate turn signal/clearance/reflector length >30'	1	MTL
50-22-0800	S	Federal 4 QuadraFlare LED tail/brake-turn-backup-warning module (pr)	1	MTL
30-22-0000	3	Includes Tecniq T10 tail/stop/turn lights in rub rail (when 60-31-5000 acc		WIL
		ladder is chosen)	533	
		The orientation of the lights will be The break light at the top, turn signal be	alow	
		back up light below and the flasher at the bottom as requested by		
		department at the pre-construction meeting.		
		<b>3</b>		
50-31-6042	U	FRC Spectra SPA900-Q70 LED Scene lights (pr) - Rear facing	1	
		Located on upper corners at rear, below the flashing lights.		
		Switched in cab on Vista display and when transmission is placed in reverse		
		These lights cannot be managed to shed as they are required for rear a	'ea	
		lighting to meet ULC.		
<b>50.01.0</b> 00.0				
50-31-60AA	U	FRC SPA260-Q15 LED surface mount 12-volt (pr)	2	
		There will be a pair of FRC SPA260-Q15 LED scene lights mounted on each s	ide	
		corner. They will be controlled by a switch for the right side and a switch for the	ieit	
		side. As requested by the customer at the pre-construction meeting.		
50-31-6505	S	Ground lighting included with chassis	1	MTL
30-37-0303	3	Switched with park brake and when vehicle is placed in reverse. There will		WIL
		lights added under the front bumper as discussed at the pre-construct		
		meeting.		
		g.		
50-31-6580		Ground lighting (LED Lumabar) - top mount body	1	MTL
		Switched when park brake is set and when vehicle is placed in reverse.		
50-31-6595	U	LED lumabar ground lights under compartments	4	
		Switched when park brake is set and when vehicle is placed in reverse.		
<b>50.04.054.</b>				
50-31-65AA	U	Hose bed lighting - LED under hose bed cover	1	
		Switched when park brake is set.		

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PART NO	S	DESCRIPTION	QT	Y	ID
		Additional lighting will be installed in storage area over pump house 70-11-	100		
		as required. The lights should have been updated to under the hose bed cover when Cha	nao		
		Order A was prepared.	inge		
		Order A was propared.			
50-35-0500	S	Installation of customer supplied mobile radio		1	MTL
		Radio information list required			
		A customer supplied Kenwood TK7360H will be installed in the chassis da	sh.		
		Radio arrived at Metalfab 12.01.2020			
50.05.0540					
50-35-0510	U	Power and ground provision for customer supplied and installed mobile		1	
		<i>radio</i> Power source provided in the center dash area ( included with chassis - Spa	tan		
		code 5006-002)	tan		
		0000 0000			
50-41-5260	U	Main 12-volt power to 1 receiver		1	
		There will be 12-volt power to one (1) receiver which will include a rubber cover	as		
		requested at the pre-construction meeting			
<b>70 44 7007</b>		40 14			
50-41-5265	U	12-volt power to remaining receivers  There will be 12 yet power to three (2) receiver which will include a rubber cover		3	
		There will be 12-volt power to three (3) receiver which will include a rubber cover requested at the pre-construction meeting	as		
		requested at the pre-constituction meeting			
50-99-11AA	U	Command Light SL-442D-FS, 80,000 Lumens		1	
	_	There will be a Command Light KL442D-FS 80,000 Lumens with four (4) fixed li	ght	-	
		heads (no back light option) supplied and installed on the chassis cab. The rem	ote		
		control will be installed on the pump panel unless otherwise specified. As requeste	d by		
		the customer on 02.14.2020.			
		SOPT # 1002			
		BODY		1	MTL
60-10-1400		Single axle extruded aluminum body		1	MTL
60-10-3088	U	5" drawer in R1 compartment		1	
		There will be a 5" high drawer in the R1 compartment to hold jaws hose as reques	ted		
		by the customer at the pre-construction meeting			
00 40 4400		N1 111 (2111)		_	1 AT
60-10-4100		No "beavertail" rear step supports Painted fender surround E		1	MTL
60-10-4600 60-10-4700		Integral aluminum fender trim		1	MTL MTL
60-10-5400		> Diamondback pumphouse steps		1	MTL
00 10 0 100		ENG. NOTE:		•	
		Maximum height of step is 24" from ground			
		·			
60-10-5440		> Diamondback 14" rear step		1	MTL
		ENG. NOTE:			
		Maximum height of rear step is 24" from ground			
60-10-6500	S	Bolt on extruded aluminum rub rail		1	MTL
00-70-0300	3	There will be reflective stripping in rub rail as discussed at the pre-construct	tion	•	WIL
		meeting.			
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
00-11-0700		ENG. NOTE:		•	III I L
		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		> Poor right side compartments full height E		1	MTL
00-11-1400		> Rear right side compartments full height E ENG. NOTE:		1	IVI I L
		Specify critical dimensions in shop note			
		Specify officer difficients in office			

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PART NO	S	DESCRIPTION	QTY		ID
60-11-2000		> High side compartment (over 18") each	,	3	MTL
		ENG. NOTE:			
		Specify critical dimensions in shop note			
		Specify type of door			
		Specify flip up or drop down Specify which side of body			
		Specify which side of body			
60-11-3200		> Full Height Rear compartment		1	MTL
00 11 0200		ENG. NOTE:			
		Specify critical dimensions in shop note			
		- F · · · · · · · · · · · · · · ·			
60-11-5500		Rollup door - standard height		3	MTL
		Natural aluminum finish			
		Includes magnetic door switch, LED tube lights, rubber bumpers to prevent pir	ch		
		point			
00 44 5500		5 W 1 5 W 1 1 1		_	
60-11-5520		Rollup door - full height		5	MTL
		Natural aluminum finish Includes magnetic door switch, LED tube lights, rubber bumpers to prevent pir	, ob		
		point	GII		
		politi			
60-11-5655	U	Amdor pull straps - Flex - HD for L2, R2, and R3 doors		3	
00 11 0000		Ordered with doors			
60-11-5660	U	Amdor pull straps - Flex - HD for L1, L3, R1, R4 and B1 doors		5	
		Ordered with doors			
60-31-4100		Extruded aluminum handrails		1	MTL
		Minimum 2" clearance from handrail to any surface			
60 24 5000		7ing annual adday of year of weit			N/TI
60-31-5000		Zico access Ladder at rear of unit Minimum 7" clearance between rung and any obstruction.		1	MTL
		Switch required wired to indicator in cab when ladder is not stowed and	ark		
		brake is released.	Jaik		
		brane is released.			
60-31-5500	S	Steps at rear of body (folding) with LED lights - RS only		1	MTL
		Maximum height between steps is 18".			
		Switched when park brake is set.			
60-31-5600		Steps and grab handles at front of body next to pump panel		1	MTL
		Maximum height between steps is 18"			
60-31-5800		Intermediate step over back compartment to access hose bed			MTL
60-31-6500	S S	Compartment matting - black plastic interlocking tile			MTL
60-31-7900	Ŭ	Vertical unistrut tracking in all compartments		1	WIL
60-31-8003	Ŭ	Double SCBA bottle holder (ea) rear fender mounted		3	
	•	Door ajar switch required.			
		Retaining loops included.			
		Customer to specify make and model of Cylinder to be stored and type of val	ve.		
		Make - Scott			
		Model - AP75			
		Overall length - 22" x 5.5" wide			
		Dimensions provided by customer after pre-construction and see picture	ın		
		F:Data/Jacques/Current Project/Elkford/Pictures			
60-31-8210	S	> Sliding vertical tool board - open / close latch		4	MTL
30-01-0210	J	ENG. NOTE:		7	.,,, _
		Specify location			
		,			
		The tool boards will be adjustable from side to side and will all be installed in the	R4		
		compartment as requested by the fire department at the pre-construction meeting.			
00.01.0===	_				
60-31-8700	S	> Sliding tray (ea) - 400 pound capacity lock in/out - adjustable on height		4	MTL
		ENG. NOTE:			
		Specify location			

03/04/2021	0	DESCRIPTION	OT)	,	Page 10
PART NO	S	<b>DESCRIPTION</b> Reflective stripe is applied on the exposed edge for visibility when the compartn	QT)	Y	ID
		door is open	ICIIL		
		1. L1 - adjustable on height			
		2. L3 - adjustable on height			
		R1 - adjustable on height     B1 - adjustable on height			
		As discussed at the pre-construction meeting			
60-31-8800	S	> Sliding tray (ea) - 600 pound capacity		4	MTL
00 07 0000		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	ent		
		door is open			
		1. L1 - on floor 2. L3 - on floor			
		3. R1 - on floor			
		4. B1 - on floor			
		As discussed at the pre-construction meeting			
60-31-9000	S	> Tip down tray - 30 degree, 250 pound capacity		4	MTL
		ENG. NOTE:			
		Specify location			
		Reflective stripe is applied on the exposed edge for visibility when the compartm	ent		
		door is open			
		1. L1 - top of compartment 2. L2			
		3. L3 - top of compartment			
		4. R1 - top of compartment			
		As discussed at the pre-construction meeting			
60-32-3560		Three adjustable hose divider (each)		1	MTL
		Hand hold required in end			
60-32-7500	S	Hose bed - aluminum		1	MTL
00 02 7000		There will be storage for Stokes basket in front right side corner of the hose			
		Details listed in 60-99-05AA as provided by customer after the pre-construct	ion		
		meeting.			
60-33-0000		Paint exterior - Imron Elite		1	MTL
		*** Paint code and colour - single color red to match red on cab			
60-33-0200		Undercoat vehicle with KROWN rust protection		1	MTL
60-33-0600		Chassis wheels not painted			MTL
60-33-1000 <b>60-33-1600</b>	S	Paint pump and plumbing job colour  Special paint compartment interior - gray zolatone		1 1	MTL MTL
00-33-1000	3	The chassis compartments will be Zolatone as per pre-construction meet	ina	'	IVI I L
		discussion and the trays, shelves and pull out tool boards will remain natural	_		
		The trim around the pump panel inside the chassis cab will be Zolatoned same color as the compartment. As confirmed by Chief Corey Kortmeyer			
		e-mail on 12.17.2020	IJ		
60-33-2300	S	Lettering - special graphics  *** Vinyl letters, Fire Department to provide details on location and text.		1	MTL
		The lettering will include:			
		- #1341 on roof in big red reflective letters sized to fill the area			
		<ul> <li>Door decal to be "Elkford" in arc with "Fire Dept" and "Engine 1" in straight rebelow. See pictures in F:/Data/Jacques/Current Project/Elkford/Pictures</li> </ul>	ows		
		Canadian Flags			
		As requested by customer at the pre-construction meeting			
60-33-3000		Reflective stripe - 4" white		1	MTL
30-33-3000		50% of perimeter each side.			L
		3M Scotchlite material			

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PART NO	S	DESCRIPTION	QTY	ID
60-33-31AA	U	Upper 4" white reflective stripe	1	
		There will be an upper 4" white reflective stripe that will run above and parallel to		
		standard reflective stripe 60-33-3000. As requested by the department and shown	On	
		the approval print.		
60-33-3320	U	Reflective stripe - red and fluo lime chevron at rear	1	
00-33-3320	U	The rear of the body shall be covered with chevron material; Securit		
		Reflexite 18704 V-92 Daybright Red and 18835 V-97 Daybright Fluo Lime gr		
		reflective.	aue	
		Minimum 50% of rear vertical surface shall be covered		
		Metalfab to send sample so department can approve. They want to match t	neir	
		last Fort Gary unit - see picture in F:/Data/Jacques/Curre	nt	
		Project/Elkford/Picture		
		7		
60-33-33AA	U	Reflective strip - red and fluo lime chevron on front bumper -	1	
		The front bumper (the entire flat portion of the bumper including the sides)	shall	
		be covered with chevron material; Securitrim Reflexite 18704 V-92 Daybri		
		Red and 18835 V-97 Daybright Fluo Lime grade reflective.		
		As discussed at the pre-construction meeting		
60-33-4600	S	End tarps for speedlays (black)	1	MTL
		Small tarps with Velcro straps to enclose each end are provided, black in c		
		The top connection will be a sturdy clip - 1/4 turn snaps will not be acceptable	le as	
		discussed at the pre-construction meeting		
	_			
60-33-5000	S	Aluminum cover over hose bed with end tarps - black	1	MTL
		There will be deck plate hose bed covers with gas strut supplied and installed		
60 40 5500	_	Custing have tube (seeb) with door	,	AATI
60-40-5500	S	Suction hose tube (each) with door	2	MTL
		***Enclosed type*** Upper outer corners at rear of body.		
		Smooth plate doors with lift and turn latch, painted, then covered with Che	ron	
		material.	VIOII	
		Door ajar switch required.		
		To house Customers 4" x 10' suction hoses.		
		Customer to provide;		
		OA length of hoses - end of coupling to end of coupling - 122"		
		Dimension of widest part of coupling (i.e. distance across long handles on s	vivel	
		end of coupling) - 6"-1/8"		
		Dimensions supplied by customer after the pre-construction meeting		
60-41-1015		Pike Pole tube in suction hose tube	2	MTL
		For storage of Customer 10' and 6' pike poles.		
		Tubes are 2" inside diameter.		
		Customer to advise if their pike poles will not fit in this size tube.		
00 44 0555			_	
60-41-9500	S	> Zico Horizontal Ladder Access system	1	MTL
		ENG. NOTE:		
		Specify mounting location desired.		
		If ladder(s) are customer supplied, specify overall length and width, width between a relative to the state of the state o	en	
		side rails, rung spacing; also specify ladder brand and model		
		Right side		
		Include HLAS-OS optional stop		
		To be wired so only operable when park brake is engaged.		
		Flashing lights and reflective tape required at front and rear to indicate	anv	
		areas that protrude beyond the body.	~! · · y	
		For Metalfab supplied 35' 3-section ladder (80-14-2500), 14' roof ladder	ler	
		(80-14-5500) and 10' Attic ladder (80-14-8500). As requested by the customer	at	
		the pre-construction meeting.		
		,		
60-41-9510		ZICO HLAS switched at rear above tail light	1	MTL
		Switch is located on same side as electric rack - right side		
		•		
60-99-05AA	U	Storage for basket stretcher and spine board	1	
		Preferred location to be the front right side of the hose bed as discussed at	the	

03/04/2021 PART NO	S	DESCRIPTION	QTY	Page 1
PARTINO	3	Pre-construction meeting:	QII	שו
		Customer to specify dimensions;		
		Basket stretcher;		
		Length - 86"		
		Width - 24"		
		Height - 8"		
		Spine board to be stored in stokes basket. As approved by the fire department the pre-construction meeting.	nt at	
		INSTRUMENTATION	•	MTL
70-11-0000		Warning Label on Pump Operator's Panel		1 MTL
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 standi position	ng	
70-11-2000		Top 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	ng	
70 44 00-0	,.			
70-11-2050	U	Enclosed top mount design  The trim around the pump panel inside the chassis cab will be Zolatoned same color as the compartment. As confirmed by Chief Corey Kortmeyer e-mail on 12.17.2020	the	1
70-11-3200	S	Colour coded tags - imperial units		1 MTL
70-11-3500	S	> Compartments in ends of walkway	2	2 MTL
		ENG. NOTE:		
		Flush mount doors with quarter turn "D" handle latches and tread plate overlays		
		Final dimensions will depend on space available when chassis is received and desis complete. Department would like to store wheel chocks 80-19-0500 in this area	ign	
70-11-4500		Diamondback grip type panel hood step right side		1 MTL
70-11-4600		Diamondback grip type panel hood step left side		MTL
70-11-5100	S	Open storage at rear top of pump house		MTL
		As room permits and to be as large as possible as requested by the custome		
		the pre-construction meeting		
		LED lighting required - switched with park brake		
70 44 5500	_	Dight side treed plate name seems door		1 MTL
70-11-5500	S	Right side tread plate pump access door  No opening dimension less than 18"		IWIL
		No opening dimension less than 10		
70-11-5600		Left side tread plate pump access door		1 MTL
		No opening dimension less than 18"		
70-11-5700		Transverse tread plate pump access door  ***On front of front end - accessible when cab is tilted forward	,	1 MTL
70-11-7500		Heat pan-aluminum		1 MTL
70-11-8000		Heater in pump compartment	,	1 MTL
		Switch located on transverse pump operators panel		
70-20-1120	U	4-1/2" compound gauge - dual face 0-400		2
		To be within 8" of each other - edge to edge		
70-20-2171	U	2-1/2" pressure gauge - dual face 0-400	1	1
70-20-2171		See also 70-99-05AA		
70-20-2171		000 4100 10 00 00/11		
70-20-2171	s	Primer control		MTL
	S			MTL

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PART NO	S	DESCRIPTION	QTY	ID
70-20-3300		FRC InControl Governor Control  Throttle can be no lower than 42" and no higher than 72" from operator's stand position.		MTL
		position.		
70-20-3500 70-20-6500		Electric water level gauge on pump panel, Class One Test gauge panel	1	MTL MTL
70-20-0000		Mount below the compound gauges for proper draining		IVIIL
70-20-7500		Heat exchanger control valve	1	MTL
70-20-7600		Pump cooler control valve	1	MTL
70-21-1500		Electric Foam Level gauge Include access to and room for sender in front of body and back of pump house	1	MTL
70-99-05AA	U	Digital flowminders for all discharges	1	
		Total of 11 flow-minders required.	 	
		SOPT in file - reference only - Engineering to determine quantity and size paddle wheel saddles, harnesses, bezel and tag colors, etc.	s of	
		4.00F00.0DIF0	_	
00 44 2500	c	ACCESSORIES	1	
80-14-2500	S	35' 3 section extension ladder PEL3-35 Ladder to be stored on rack 60-41-9500	7	WIL
00 44 5500				
80-14-5500	S	14' aluminum roof ladder PRL-14	1	MTL
		Ladder to be stored on rack 60-41-9500		
80-14-8500	S	10' aluminum folding attic ladder FL-10	1	MTL
		Ladder to be stored on rack 60-41-9500 with other ladders	-	
80-14-9000		Attic ladder bracket (Zico)	1	MTL
		Mounted on the HLAS for Customers folding attic ladder		
80-19-0500	S	Large folding wheel chock - aluminum (ea)	2	MTL
		Mounted in 80-19-0600 brackets under L1 compartment		
80-99-05AA	U	30 degree drop elbow to 4" Storz for the 6" side inlets (ea)	2	
00 00 00/1/1		Kochek number SKE4T6L (Metalfab part number 1501827)		
		4" Storz blind cap - p/n 1500650 Install adapters and caps on the left and right 6" side suction intakes.		
		motan adaptoro and supe on the fortuna right of olds such on manas.		
80-99-15AA	U	Construction allowance for trays, shelves, toolboard, mounting brackets, etc	1	
		Details to be discussed at the Pre-construction meeting		
00 00 0544		Ties we del OVDM 9499 70 44 Ovie street enlinder helders (es) shirtered	_	
80-99-25AA	U	Zico model CYBM-2123-70-11 Quic-strap cylinder holders (ea) shipped loose	4	
80-99-26AA	U	4" Storz to 2.5" male reducer and end cap	1	
		There will be a 4" Storz to 2.5" male reducer with end cap supplied with the uni	as	
		discussed at the pre-construction meeting		
80-99-31AA	U	TFT XFC-62 Crossfire Monitor, ground base	1	
		Package includes;		
		Item #1 - XFT-NJ Crossfire monitor		
		Item #2 - MST-4NJ stacked tips		
		Item #3 - XF-B - Crossfire Storage bracket Item #4 - Manual extend-a-gun removed as approved by customer 05.07.2020		
		Item #5 - XF-SS5 - 5" long stream straightener		
		Item #6 - XGB-13 - Bracket set		
		Item #7 - Customer's choice of Nozzle		
		M-R1250SNJ - Automatic pressure nozzle (150-1250 gpm) as advised by departm on 05.07.2020	ent	
		Item #8 - Customers choice of Safe-Tak 1250 base - Customer provided in	let	
		preference to be Dual 2-1/2" on 05.07.2020		