

Gladiator

True North Emergency Equipment
, WA

Prepared By : JOSH LARSON

jlanson@truenorthernemergency.com

Prepared For :
TRUE NORTH

Wednesday, September 17, 2025, 3:57:26â€ PM Mountain Daylight Time

Table of Contents

Quotation.....	3
Specification	17

Quotation

		Description	Spec Page	
VEHICLE				
S	0100-012	MODEL	Gladiator	Error! Bookmark not defined.
O	8012-002	CUSTOMERS / OEMS	Smeal (02070)[1002812]	
O	8011-026	MODEL YEAR	Model Year - 2026	17
S	8001-001	COUNTRY OF SERVICE	Country of Service United States Of America	17
S	8017-009	CAB AND CHASSIS LABELING LANGUAGE	Cab and Chassis Labeling Language English w/Innovative Controls Labels	17
O	8006-011	APPARATUS TYPE	Apparatus Type Rear Mount Quint	17
O	8066-032	REAR MOUNT AERIAL DEVICE	Rear Mount Aerial Device S180-107/107' Ladder 143" O.A.H.	
S	8008-001	VEHICLE TYPE	Vehicle Type Straight Truck	18
S	8008A-000	VEHICLE ANGLE OF APPROACH PACKAGE	Vehicle Angle of Approach NFPA Minimum 8.00 Degrees	18
O	0104-003	AXLE CONFIGURATION	Axle Configuration 6x4 (Rear Tandem Axle Drive Only)	18
O	0101-011	GROSS AXLE WEIGHT RATINGS FRONT	GAWR Front 24000#	18
O	0102-010	GROSS AXLE WEIGHT RATINGS REAR	GAWR Rear 52000#	18
S	8010-201	PUMP PROVISION	Pump Provision Driveline Midship, Pump Mode Prog w/Auto Park Brake "N"	19
O	8009-004	WATER & FOAM TANK CAPACITY	Water & Foam Tank Capacity Up to 750 Gallons	19
S	8003-197	WARRANTY	Warranty Cab and Chassis (2) Year RFW0102	Error! Bookmark not defined.

CAB

O	1000-012	CAB STYLE	Cab Style EMFD Flat Roof	19
S	8101-200	OCCUPANT PROTECTION	Occupant Protection IMMI 4Front & RollTek w/SRA	20
S	1501-002	CAB FRONT FASCIA	Cab Frt Fascia Classic	21
S	1518-025	FRONT GRILLE	Cab Frt Grille Hinged Classic Styled	21
S	1551-002	CAB UNDERCOAT	Cab Undercoat	21
S	1552-002	CAB SIDE DRIP RAIL	Cab Side Drip Rail	22
O	1521-002	CAB PAINT EXTERIOR	Cab Paint Exterior Two Tone	22

S	1533-001	CAB PAINT PROCESS/MANUFACTURER	Cab Paint Process/Manufacturer PPG	22	
O	1522-800	CAB PAINT PRIMARY/LOWER COLOR	Cab Paint Primary/Lower Color PPG Red FBCH 926234	22	
O	1523-013	CAB PAINT SECONDARY/UPPER COLOR	Cab Paint Sec/Upper Color PPG Black FBCH 9000	22	
O	1524-002	CAB PAINT EXTERIOR BREAKLINE	Cab Paint Exterior Breakline Classic	23	
O	1515-005	CAB PAINT PINSTRIPE	Cab Paint Pinstripe 1/2" Black Temporary	23	
S	8013-156	CAB PAINT WARRANTY	Cab Paint Warranty PPG (10) Year RFW0710		Error! Bookmark not defined.
O	1334-031	CAB PAINT INTERIOR	Cab Paint Int Bedliner Medium Gray	23	
S	1005-001	CAB ENTRY DOORS	Cab Entry Doors (4)	23	
O	1101-102	CAB ENTRY DOOR TYPE	Cab Entry Door Type Barrier Free w/Pollak Switches	23	
S	1322-007	CAB INSULATION	Cab Insulation Nonwoven Polyester Fiber	24	
O	1556-004	LH MID EMS COMPARTMENT	LH Mid EMS Compartment 41"H	24	
O	1558-002	LH MID EMS COMPARTMENT EXTERIOR ACCESS	LH Mid EMS Cmpt Ext Access Hng Dr	24	
O	1560-003	LH MID EMS COMPARTMENT INTERIOR	LH Mid EMS Cmpt Interior Solid Wall Rear Access	24	
O	1562-003	LH MID EMS COMPARTMENT INTERIOR ACCESS	LH Mid EMS Cmpt Interior Access AL Dr	24	
O	1564-002	LH MID EMS COMPARTMENT SHELVING	LH Mid EMS Cmpt Shelving Adj w/Unistrut	24	
O	1566-004	LH MID EMS COMPARTMENT DOOR HARDWARE	LH Mid EMS Cmpt Door Hardware D-Ring Latch Lwr	24	
O	1557-004	RH MID EMS COMPARTMENT	RH Mid EMS Compartment 41"H	24	
O	1559-002	RH MID EMS COMPARTMENT EXTERIOR ACCESS	RH Mid EMS Cmpt Ext Access Hng Door	25	
O	1561-003	RH MID EMS COMPARTMENT INTERIOR	RH Mid EMS Cmpt Interior Solid Wall Rear Access	25	
O	1563-003	RH MID EMS COMPARTMENT INTERIOR ACCESS	RH Mid EMS Cmpt Interior Access AL Dr	25	
O	1565-002	RH MID EMS COMPARTMENT SHELVING	RH Mid EMS Cmpt Shelving Adj w/Unistrut	25	
O	1567-004	RH MID EMS COMPARTMENT DOOR HARDWARE	RH Mid EMS Cmpt Door Hardware D-Ring Latch Lwr	25	
O	5384-002	MID EMS COMPARTMENT LIGHTING	Mid EMS Compartment Lighting LED	25	
O	1535-014	MID EMS COMPARTMENT EXTERIOR FINISH	Mid EMS Cmpt Ext Finish Bedliner Medium Gray	25	
O	1536-002	MID EMS COMPARTMENT INTERIOR FINISH	Mid EMS Cmpt Interior Finish DA Sand	26	
S	8004-033	CAB STRUCTURAL WARRANTY	Cab Structural Warranty (10) Year RFW0602		Error! Bookmark not defined.

**rk
not
defi
ned.**

S	9001-006	CAB TEST INFORMATION	Cab Test Information Crash Test ECE-R29/SAE J2420/SAE J2422	26
---	----------	-----------------------------	---	----

ELECTRICAL POWER DISTRIBUTION

S	5000-018	ELECTRICAL SYSTEM	Elec System 12V DC Multiplex	26
O	5008-072	OEM WIRING	OEM Wir Smeal ECM Park Brake Input	26
S	5005-300	VEHICLE DISPLAY	Vehicle Display UltraView 780 Touchscreen w/Push Button Surround LH Sw Pnl	26
O	5046-078	MULTIPLEX DISPLAY SPECIAL LAYOUT	Multiplex Display Special Layout Wiper Sys Prk Brk Override Btn & Day/Night Dim	27
S	5004-002	LOAD MANAGEMENT SYSTEM	Load Management System Multiplex	27
S	5622-003	DATA RECORDING SYSTEM	Data Recording Sys Vehicle Data Weldon MUX	27
O	5031-013	ACCESSORY POWER	Accessory Pwr & Gnd Stud 40A Batt & 15A Ign w/350A Mstr Sw/300A Batt OEM Conn	28
O	5030-050	AUXILIARY ACCESSORY POWER	Aux Acc Pwr 6 Fuse Blue Sea Pnl Bhd Sw Pnl w/40A Fuse Batt Dir	28
O	5032-036	ADDITIONAL ACCESSORY POWER	Addl Acc Pwr 6 Fuse Blue Sea Pnl Eng Tnl Bhd Off Seat w/40A Brkr Batt Dir	28
O	5033-021	EXTRA ACCESSORY POWER	Extra Acc Pwr 6 Fuse Blue Sea Pnl Lwr Ctr Rr Wall 40A Batt Dir	28
S	5011-001	EXTERIOR ELECTRICAL TERMINAL COATING	Exterior Electrical Terminal Coating Spray On Plasti Dip	28
S	8014-002	ELECTRICAL SYSTEM WARRANTY	Electrical System Warranty (2) Year RFW0202	1

ENGINE

O	1701-171	ENGINE	Engine Diesel 565HP Cummins X15 - EPA 2021-26	29
S	1329-002	CAB ENGINE TUNNEL	Cab Engine Tunnel Large	29
O	1731-002	DIESEL PARTICULATE FILTER CONTROLS	DPF Ctrl Regeneration Sw & Inhibit Sw	29
S	1718-002	ENGINE PROGRAMMING HIGH IDLE SPEED	Engine Programming High Idle Speed 1250 RPM	29
S	1719-005	ENGINE HIGH IDLE CONTROL	Engine High Idle Ctrl Automatic and Manual w/Disp Actv	29
S	1710-001	ENGINE PROGRAMMING ROAD SPEED GOVERNOR	Engine Programming Road Speed Governor Enabled	30
S	1713-010	AUXILIARY ENGINE BRAKE	Aux Engine Brake Compression Brake w/VG Turbo	30
O	1708-007	AUXILIARY ENGINE BRAKE CONTROL	Aux Engine Brake Ctrl Off/Low/High Disp	30
S	1720-003	ELECTRONIC ENGINE OIL LEVEL INDICATOR	Elec Engine Oil Level Indicator	30
O	1715-004	FLUID FILLS	Fluid Fills Fwd For Large Displacement Cap	31
S	1735-001	ENGINE DRAIN PLUG	Engine Drain Plug	31
S	8002-001	ENGINE WARRANTY	Engine Warranty Cummins (5) Year/100,000 Miles	31
S	1707-116	REMOTE THROTTLE HARNESS	Rmt Throttle Harness Cab Harness Only Shift Interlock	31
S	1721-001	ENGINE PROGRAMMING REMOTE	Engine Program Rmt Throttle Off	31

THROTTLE

S	1727-001	ENGINE PROGRAMMING IDLE SPEED	Engine Programming Idle Speed 700 RPM	31
---	----------	--------------------------------------	---------------------------------------	----

AIR INTAKE

S	2801-010	ENGINE AIR INTAKE	Engine Air Intake Filtration and Restriction w/Replaceable Element Abv Radiator	32
---	----------	--------------------------	---	----

COOLING

S	2704-016	ENGINE FAN DRIVE	Engine Fan Drive Variable Speed	32
S	2701-021	ENGINE COOLING SYSTEM	Engine Cooling System Serial Flow w/Package Drop-Out Prov	32
S	2711-005	ENGINE COOLING SYSTEM PROTECTION	Engine Cooling System Protection Light Duty Skid Plate Paint Frame Color	33
S	2708-001	ENGINE COOLANT	Engine Coolant Extended Life	33
O	2707-002	ENGINE COOLANT FILTER	Engine Coolant Filter	33
S	2706-003	ELECTRONIC COOLANT LEVEL INDICATOR	Elec Low Coolant Level Indicator	33
S	2709-001	COOLANT HOSES	Coolant Hoses Silicone	34
O	2710-005	ENGINE COOLANT OVERFLOW BOTTLE	Engine Coolant Overflow Expansion Bottle	34
O	2705-002	ENGINE PUMP HEAT EXCHANGER	Engine Pump Heat Exchanger	34

EXHAUST

O	2901-074	ENGINE EXHAUST SYSTEM	Eng Exhaust Sys Under Frm RH Single Module Aftertreatment Inboard Inner Frm Mnt	34
O	2907-003	DIESEL EXHAUST FLUID TANK	Diesel Exhaust Fluid Tank LH 6 Gal Fill Thru Rr Step	34
S	2902-010	ENGINE EXHAUST ACCESSORIES	Engine Exhaust Acc Temp Mitigation	35
S	2906-002	ENGINE EXHAUST WRAP	Engine Exhaust Wrap	35
O	8018-002	EMISSIONS SYSTEM WARRANTY	Emissions System Warranty (5) Years/100,000 Miles RFW0140	35

TRANSMISSION

O	1801-017	TRANSMISSION	Transmission Allison 4000 EVS	35
S	1806-001	TRANSMISSION MODE PROGRAMMING	Transmission Mode Programming 4th Startup/5th Mode	36
S	1811-004	TRANSMISSION FEATURE PROGRAMMING	Transmission Feature Programming Allison Gen 5 & 6-E I/O Package 198/Pumper	36
S	1807-005	TRANSMISSION SHIFT SELECTOR	Transmission GEN 5 & 6-E Shift Sel Key Pad/Push Button	36
S	1815-002	ELECTRONIC TRANSMISSION OIL LEVEL INDICATOR	Elec Transmission Oil Level Indicator	37
S	1814-002	TRANSMISSION PRE-SELECT WITH AUXILIARY BRAKE	2nd Gear Pre-Select	37
S	1808-007	TRANSMISSION COOLING SYSTEM	Transmission Cooling System	37
S	1817-001	TRANSMISSION DRAIN PLUG	Transmission Drain Plug	37
S	8005-001	TRANSMISSION WARRANTY	Transmission Warranty Allison (5) Year	37

POWER TAKE OFF

O	2004-003	LH PTO	LH PTO Chassis Sply	37
O	2001-154	LH PTO MODEL	LH PTO Model Chelsea 281-GGFJP-E5XD	37
O	2005-008	PTO LOCATION	PTO Location 8:00/1:00	37
O	2015-030	LH PTO CONTROL	LH PTO Ctrl Rkr Enable "Aerial Master"/Rkr Actv "Aerial PTO"	37

DRIVELINE

O	3001-017	DRIVELINE	Driveline MSI 1810/1710 w/Meritor U-Joints w/Thrust Washers	38
O	3005-074	MIDSHIP PUMP / GEARBOX	Midship Pump Jackshaft w/Smeal Aerial Pump Mount Holes	38
S	3008-085	MIDSHIP PUMP / GEARBOX MODEL	Midship Pump/Gearbox Model Waterous CSUC20/C22 Fwd	38
O	3048-006	MIDSHIP PUMP GEARBOX DROP	Midship Driveline Pump Gearbox Drop Waterous "B"	38
O	3009-008	MIDSHIP PUMP RATIO	Midship Pump Ratio 2.46:1	38
O	3010-1130	MIDSHIP PUMP LOCATION C/L SUCTION TO C/L REAR AXLE	Midship Pump Location C/L Suction to C/L Rear Axle 113.0"	38
O	5013-032	PUMP SHIFT CONTROLS	Pump Shift Ctrl Air Ctrl Integrated Shifter Pod	38
O	3049-003	PUMP SHIFT CONTROL PLUMBING	Pump Shift Control Plumbing Pre-Plumb Elec/Air	39

FUEL SYSTEMS

O	3109-064	FUEL FILTER/WATER SEPARATOR	Fuel Filter/Wtr Separator Racor GreenMAX 6600R w/Lt & Alarm	39
O	3111-002	FUEL LINES	Fuel Lines Wire Braid	39
O	3104-012	FUEL SHUTOFF VALVE	Fuel Shutoff Valve at Tank and (2) at Primary Filter	39
S	3103-008	ELECTRIC FUEL PRIMER	Electric Fuel Primer Engine Sply Electric Lift Pump	40
O	3112-018	FUEL COOLER	Fuel Cooler w/Active Cooling Fan/Temp Ctrl Sw	40
O	3101-102	FUEL TANK	Fuel Tank 68 Gallon	40
S	3130-001	FUEL TANK MATERIAL AND FINISH	Fuel Tank Material Steel & Finish Painted Frame Components Color	40
S	3131-001	FUEL TANK STRAP MATERIAL AND FINISH	Fuel Tank Strap Material Steel & Finish Painted Frame Components Color	40
O	3132-011	FUEL TANK MISCELLANEOUS OPTIONS	Fuel Tank Miscellaneous Options - Temporarily Mounted	41
O	3102-016	FUEL TANK FILL PORT	Fuel Tank Fill Port LH Mid/RH Mid/LH Fwd	41
O	3114-006	FUEL TANK SERVICEABILITY PROVISIONS	Fuel Tank Serviceability Prov 12' Fuel Line Extension	41
S	3115-002	FUEL TANK DRAIN PLUG	Fuel Tank Drain Plug Magnetic	41

FRONT AXLE

O	2401-039	FRONT AXLE	Frt Axle Hendrickson STEERTEK NXT Fabricated Box Beam 24000#	41
O	8059-025	FRONT AXLE WARRANTY	Front Axle Warranty Hendrickson STEERTEK NXT Extended	
S	2405-001	FRONT WHEEL BEARING LUBRICATION	Frt Wheel Bearing Lube Oil	41

FRONT SUSPENSION

O	2502-006	FRONT SHOCK ABSORBERS	Frt Shock Absorbers Suspension Sply	41
---	----------	------------------------------	-------------------------------------	----

O	2501-019	FRONT SUSPENSION	Frnt Suspension Parabolic STEERTEK NXT Integrated 18000-24000# Spring Pack	42
---	----------	-------------------------	--	----

STEERING

S	2601-006	STEERING COLUMN/WHEEL	Steering Column/Wheel Tilt/Telescopic 18" 4 Spoke	42
S	2609-002	ELECTRONIC POWER STEERING FLUID LEVEL INDICATOR	Elec Power Steering Fluid Level Indicator	42
S	2603-011	POWER STEERING PUMP	Power Steering Pump TRW w/Passive Cooler	42
O	2606-016	FRONT AXLE CRAMP ANGLE	Front Axle Cramp Angle 45L/43R Degrees	42
S	2610-005	POWER STEERING GEAR	Power Steering Gear TRW TAS 85 w/Assist	42
S	2608-001	CHASSIS ALIGNMENT	Chassis Alignment	42

REAR AXLE

O	3401-012	REAR AXLE	Rear Axle 54000# Meritor RT-52-185	42
S	3403-001	REAR AXLE DIFFERENTIAL LUBRICATION	Rear Axle Differential Lubrication Oil	43
O	8061-021	REAR AXLE WARRANTY	Rear Axle Warranty Meritor 2026	43
S	3411-001	REAR WHEEL BEARING LUBRICATION	Rear Wheel Bearing Lubrication Oil	43
O	3407-033	REAR AXLE DIFFERENTIAL CONTROL	Rear Axle Differential Ctrl Interaxle Lock	43
O	3408-004	VEHICLE TOP SPEED	Vehicle Top Speed 65 MPH	43
S	3410-001	REAR AXLE EXTERNAL VENT	Rear Axle External Vent OEM Housing Breather	43

REAR SUSPENSION

O	3501-035	REAR SUSPENSION	Rear Susp Hendrickson FireMaax Air 48001-54000#	43
O	3503-003	REAR SHOCK ABSORBERS	Rear Shock Absorbers Suspension Sply	44

TIRES

S	3625-002	TIRE INTERMITTENT SERVICE RATING	Tire Intermittent Service Ratings Acceptable	44
O	3601-063	FRONT TIRE	Frnt Tire 425/65R 22.5 Michelin XZY3	44
O	3602-019	REAR TIRE	Rear Tire 315/80R 22.5 Michelin XDN2 Grip	44
O	3413-538	REAR AXLE RATIO	Rear Axle Ratio 5.38	45
S	3614-030	TIRE PRESSURE INDICATOR	Tire Pressure Ind Frt & Rr LED	45

WHEELS

O	3701-034	FRONT WHEEL	Frnt Wheel Alcoa Dura-Bright 22.5 x 12.25 Alum	45
O	3703-050	REAR WHEEL	Rr Whl Alcoa Dura-Bright 22.5 x 9.00 Alum	45
O	3719-002	BALANCE WHEELS AND TIRES	Balance Wheels & Tires	45
O	3702-002	WHEEL TRIM	Wheel Trim Hub & Nut Covers SS Shiploose	45

BRAKES

O	3205-015	BRAKE SYSTEM	Brake System ABS/ATC/ESC Tandem Axle Disp Actv	46
---	----------	---------------------	--	----

S	3206-003	FRONT BRAKES	Frt Brakes Meritor EX225 Disc 17"	46
O	3207-003	REAR BRAKES	Rr Brakes Meritor EX225 Disc 17"	47
S	3208-001	PARK BRAKE	Prk Brake Rr Wheels Only	47
O	3219-002	SUPPLEMENTAL BRAKE	Supplemental Brake Frt Service Brakes Prk Brk Actv	47
O	3204-025	PARK BRAKE CONTROL	Prk Brake Ctrl Ctr Sw Pnl Mnt w/Horiz Orientation Guard	47
O	3202-005	AIR DRYER	Air Dryer Wabco System Saver 1200 Bhd LH Batt Box	47
O	3215-009	FRONT BRAKE CHAMBERS	Frt Brake Chambers Hendrickson STEERTEK NXT Type 24	47
O	3210-025	REAR BRAKE CHAMBERS	Rr Brake Chambers MGM 24/30 Piston	47

AIR SUPPLY SYSTEMS

S	3320-001	AIR COMPRESSOR	Air Compressor Wabco SS318 18.7 CFM	48
S	3339-004	AIR GOVERNOR	Air Governor Mnt on Air Dryer Bracket	48
O	3303-005	MOISTURE EJECTORS	Moisture Ejectors Auto w/Cable	48
O	3307-001	AIR SUPPLY LINES	Air Sply Lines Nylon w/Compression Fittings	48
O	3309-033	AIR INLET CONNECTION	Air Inlet Connection	48
O	3349-002	AIR INLET LOCATION	Air Inlet Location LH Lwr Frt Step Fwd	48
O	3326-002	AIR INLET/OUTLET FITTING TYPE	Air Inlet/Outlet Manual Conn Tru-Flate Interchange 1/4"	48
O	3338-001	REAR AIR TANK MOUNTING	Rear Air Tank Mnt Any Bhd Rear Axle Parallel w/Frame	49

FRAME

O	2103-2330	WHEELBASE	Wheelbase 233.0"	49
O	2106-0640	REAR OVERHANG	Rear Overhang 64.0"	49
S	2101-002	FRAME	Frame Double Channel 35.00" Width	49
O	2111-136	MISC FRAME OPTIONS	Misc Frame Options Smeal Aerials 105RM, 100RM, 125RM, 100MM Layout 4	50
O	2117-004	FRAME CLEAR AREA	Frame Clear Area Inside/Outside Rail 30" Rwd Back of Cab	50
S	2110-201	FRAME PAINT	Frame Paint Hot Dipped Galvanized - Frame Only Addl Comp Blk Powder Coat	50
S	8007-036	FRAME ASSEMBLY STRUCTURAL WARRANTY	Frame Assembly Structural Warranty (50) Year RFW0305	51
S	8019-003	FRAME RAIL CORROSION WARRANTY	Frame Rail Corrosion Warranty (25) Year RFW0316	51
S	8022-004	FRAME COMPONENTS CORROSION WARRANTY	Frame Components Corrosion Warranty (3) Year RFW0315	51

BUMPER

O	2201-002	FRONT BUMPER	Frt Bumper Structural Steel Channel Severe Duty	51
S	2202-005	FRONT BUMPER EXTENSION LENGTH	Frt Bumper Extension Length 21"	51
O	2206-012	FRONT BUMPER PAINT	Frt Bumper Paint Primary/Lower Cab Color w/Bedliner Black Bumper Trim	51
O	2227-024	FRONT BUMPER TRIM	Frt Bumper Trim SS Ptd Wide Band Frt Top Edge/Corners Abv Apron w/Iso Washers	51
S	2208-006	FRONT BUMPER APRON	Frt Bumper Apron For 21" Extension	52
O	2237-005	FRONT BUMPER DISCHARGE	Front Bumper Discharge 2.5" LH Frame Mnt Plumbing	52

O	2211-075	FRONT BUMPER COMPARTMENT CENTER	Frnt Bumper Cmpt Ctr Full Size 38.00"Wx10.88"D w/LH Notched Cover	52
O	2210-002	FRONT BUMPER COMPARTMENT COVER HARDWARE	Frnt Bumper Cmpt Cover Hardware Gas Cylinder/D-Ring	52
O	5503-022	MECHANICAL SIREN	Mechanical Siren Federal Signal Q2B Pedestal Mnt	52
O	2218-005	MECHANICAL SIREN LOCATION	Mech Siren Location Frnt Bmpr Apron RH OB	53
S	5501-020	AIR HORN	Air Horn (2) 21" Round Hadley E-Tone	53
O	2216-011	AIR HORN LOCATION	Air Horn Location (2) Frnt Bmpr Face R/L OB	53
O	2232-003	AIR HORN RESERVOIR	Air Horn Reservoir (1) 2084 Cu In	53
O	5504-030	ELECTRONIC SIREN SPEAKER	Elect Siren Speaker (2) 100W Cast Products SA4301	53
O	2217-010	ELECTRONIC SIREN SPEAKER LOCATION	Elec Siren Speaker Location (2) Frnt Bmpr Face R/L IB	53
O	2203-002	FRONT BUMPER TOW HOOKS	Frnt Bumper Tow Hooks Painted Below Fwd	53

CAB TILT

O	2310-002	CAB HEIGHT ADJUSTMENT	Cab Height Adjustment 0.75"	54
O	2301-001	CAB TILT SYSTEM	Cab Tilt System	54
O	2302-005	CAB TILT AUXILIARY PUMP	Cab Tilt Aux Pump Manual Mnt w/Tilt Pump	54
O	2303-003	CAB TILT LIMIT SWITCH	Cab Tilt Limit Sw Preset Limit	54
O	2305-003	CAB TILT CONTROL RECEPTACLE	Cab Tilt Ctrl Receptacle For Customer Install In Body	55
S	2306-002	CAB TILT LOCK DOWN INDICATOR	Cab Tilt Lock Down Indicator	55

CAB GLASS

O	1401-009	CAB WINDSHIELD	Cab Windshield	55
O	1402-002	GLASS FRONT DOOR	Glass Frnt Dr Pwr	55
O	1407-002	GLASS TINT FRONT DOOR	Glass Tint Frnt Dr Automotive Dark Gray	55
O	1419-008	GLASS REAR DOOR RIGHT HAND	Glass Rr Dr RH Pwr	56
O	1430-002	GLASS TINT REAR DOOR RIGHT HAND	Glass Tint Rr Door RH Automotive Dark Gray	56
O	1412-008	GLASS REAR DOOR LEFT HAND	Glass Rr Dr LH Pwr	56
O	1431-002	GLASS TINT REAR DOOR LEFT HAND	Glass Tint Rr Door LH Automotive Dark Gray	56

CLIMATE CONTROL

O	1614-202	CLIMATE CONTROL	Climate Ctrl Htr Defroster A/C SGM Ovrhd Alum	56
S	1632-002	CLIMATE CONTROL DRAIN	Climate Control Drain Gravity	57
S	1617-201	CLIMATE CONTROL ACTIVATION	Climate Ctrl Actv Rotary Dash Mnt Ctr	57
O	1620-025	HVAC OVERHEAD COVER PAINT	HVAC Overhead Cover Paint Medium Gray	57
O	1603-002	A/C CONDENSER LOCATION	A/C Condenser Location Roof Mnt Mid LH	58
S	1601-013	A/C COMPRESSOR	A/C Compressor TM-31/QP-31	58
O	1530-105	UNDER CAB INSULATION	Under Cab Insulation Eng Tnl & Cab Floor w/Expanded Alum Floor & Tnl	58

CAB INTERIOR

O	1327-015	INTERIOR TRIM FLOOR	Interior Trim Floor w/TPlt Trim	58
---	----------	----------------------------	---------------------------------	----

S	1302-001	INTERIOR TRIM	Interior Trim Vinyl	59
S	1368-002	REAR WALL INTERIOR TRIM	Rear Wall Interior Trim Vinyl	59
S	1306-006	HEADER TRIM	Header Trim XDuty	59
S	1305-015	TRIM CENTER DASH	Trim Center Dash XDuty w/Gas Cylinder Stay	59
S	1339-102	TRIM LEFT HAND DASH	Trim LH Dash XDuty	59
S	1321-030	TRIM RIGHT HAND DASH	Trim RH Dash XDuty Glove Cmpt/MDT Prov/4.50"H Glovebox	59
O	1334B-002	CAB PAINT BEDLINER	Bedliner Only	
S	1307-002	ENGINE TUNNEL TRIM	Eng Tnl Trim Flr Mat	60
O	5040-200	POWER POINT DASH MOUNT	Pwr Pnt Dash Mnt Batt Dir (2) Powerwerx Comb USB/Type-C Sw Pnl No Ind Lt	60
S	1303-039	STEP TRIM	Step Trim Embossed & Diamond Cut SS Lwr, TPlt Mid	60
O	1336-002	STEP TRIM KICKPLATE	Step Trim Kickplate Treadplate	60
S	1379-003	UNDER CAB ACCESS DOOR	Under Cab Access Door Rear Step LH Painted	60
S	1102-013	INTERIOR DOOR TRIM	Interior Door Trim Painted	60
S	1323-050	DOOR TRIM CUSTOMER NAMEPLATE	Door Trim Customer Nameplate	60
O	1105-008	CAB DOOR TRIM REFLECTIVE	Remove Cab Door Trim Reflective	61
S	1308-001	INTERIOR GRAB HANDLE "A" PILLAR	Interior Grab Handle 'A' Pillar 11" Molded	61
O	1332-029	INTERIOR GRAB HANDLE FRONT DOOR	Interior Grab Handle Frt Door Horiz 9"/Vert 9" DA Sanded	61
O	1345-008	INTERIOR GRAB HANDLE REAR DOOR	Int Grab Handle Rr Dr Alum Window Span 30" DA Sanded	61
S	1301-003	INTERIOR SOFT TRIM COLOR	Interior Soft Trim Color Gray	61
S	1337-001	INTERIOR TRIM SUNVISOR	Interior Trim Sunvisor Vinyl	61
S	1304-001	INTERIOR FLOOR MAT COLOR	Interior Floor Mat Color Gray	61
O	1335-013	CAB PAINT INTERIOR DOOR TRIM	Cab Paint Int Dr Trim Bedliner Medium Gray	61
O	1371-013	HEADER TRIM INTERIOR PAINT	Header Trim Interior Paint Bedliner Medium Gray	62
O	1370-014	TRIM CENTER DASH INTERIOR PAINT	Trim Center Dash Interior Paint Bedliner Medium Gray	62
O	1378-014	TRIM LEFT HAND DASH INTERIOR PAINT	Trim LH Dash Interior Paint Bedliner Medium Gray	62
O	1373-014	TRIM RIGHT HAND DASH INTERIOR PAINT	Trim RH Dash Interior Paint Bedliner Medium Gray	62
O	1344-009	DASH PANEL GROUP	Dash Pnl Group 3-Pnl w/Black Textured Aluminum Panels	62
O	1312-001	SWITCHES CENTER PANEL	Switches Ctr Pnl 0	62
O	1313-023	SWITCHES LEFT PANEL	Switches Left Pnl 5 (3+2) Wiper Only	62
O	1314-012	SWITCHES RIGHT PANEL	Switches Right Pnl 6 (3+3)	62

CAB SEATS

S	1225-007	SEAT BELT WARNING	Seat Belt Warn Disp w/VDR	63
S	1237-005	SEAT MATERIAL	Seat Material Bostrom Durawear Plus	63
S	1243-001	SEAT COLOR	Seat Color Gray/Red Seat Belts	63
S	1249-001	SEAT BACK LOGO	Seat Back Logo Spartan	63
S	1201-033	SEAT DRIVER	Seat Driver Bostrom Firefighter 8-Way Elect 500 Series ABTS	63

S	1213-025	SEAT BACK DRIVER	Seat Back Driver Non-SCBA ABTS	64
S	1219-001	SEAT MOUNTING DRIVER	Seat Mounting Driver	64
S	8102-200	OCCUPANT PROTECTION DRIVER	Occupant Protection Driver 4Front & Mechanical/Elect Seat RollTek w/SRA	64
S	1202-037	SEAT OFFICER	Seat Officer Bostrom Firefighter Fixed 500 Series ABTS	65
O	1214-034	SEAT BACK OFFICER	Seat Back Officer SCBA IMMI SmartDock	65
O	1220-003	SEAT MOUNTING OFFICER	Seat Mounting Officer Rwd 2"	65
S	8103-200	OCCUPANT PROTECTION OFFICER	Occupant Protection Officer 4Front & Mechanical/Elect Seat RollTek w/SRA	66
S	1297-002	POWER SEAT WIRING	Power Seats Wiring Battery Direct	66
S	1273-001	SEAT BELT ORIENTATION CREW	Seat Belt Orientation Crew Outboard Shoulder To Inboard Hip	66
S	1266-001	SEAT FORWARD FACING CENTER LOCATION	Seat FFC Location Secondary Pos (2) Ctr	66
S	1206-031	SEAT CREW FORWARD FACING CENTER	Seat Crew FFC Bostrom Firefighter Fold & Hold Flip-Up 500 Series	66
O	1218-035	SEAT BACK FORWARD FACING CENTER	Seat Back FFC SCBA IMMI SmartDock	67
S	8107-101	OCCUPANT PROTECTION FFC	Occupant Protection FFC RollTek Belt Pretensioner	67
S	1269-101	SEAT FRAME FORWARD FACING	Seat Frm Fwd Fcg Dual Width	68
S	1281-101	SEAT FRAME FORWARD FACING STORAGE ACCESS	Seat Frm Fwd Fcg Strg Acc Dr (2) R/L Sd	68
S	1224-002	SEAT MOUNTING FORWARD FACING CENTER	Seat Mounting Forward Facing Center	68
S	1311-101	CAB FRONT UNDERSEAT STORAGE ACCESS DOOR	Cab Frt Undrst Strg Acc Dr	68
O	1355-016	SEAT COMPARTMENT DOOR FINISH	Seat Compartment Door Finish Bedliner Medium Gray	68

CAB EXTERIOR

O	1511-203	WINDSHIELD WIPER SYSTEM	Windshield Wiper System, Prk Brk Interlock w/Disp Override	68
S	1534-002	ELECTRONIC WINDSHIELD FLUID LEVEL INDICATOR	Electronic Windshield Fluid Level Indicator	69
O	1103-001	CAB DOOR HARDWARE	Cab Door Hardware Chrome	69
O	1111-004	DOOR LOCKS	Door Locks Power (4) Entry Doors	69
O	1113-003	DOOR LOCK LH EMS COMPARTMENT	Door Lock LH EMS Compartment Hng Power	69
O	1114-003	DOOR LOCK RH EMS COMPARTMENT	Door Lock RH EMS Compartment Hng Power	70
O	1112-004	POWER DOOR LOCK COMPARTMENT ACTIVATION	Power Door Lock Cmpt Actv Key Fob & Keypads	70
O	1503-209	GRAB HANDLES	Grab Handles 3-Pc Alum Knurled 18" w/Red Reflective	70
O	1503D-003	LIGHTED EXTERIOR GRAB HANDLES	Lighted Grab Handles Clear LED	70
S	1504-014	REARVIEW MIRRORS	Mirror Aerodynamic Retractable 613305 Rmt Htd	70
S	1529-003	REARVIEW MIRROR HEAT SWITCH	Rearview Mirror Heat Sw Disp	70
O	1525-008	EXTERIOR TRIM REAR CORNER	Exterior Trim Rear Corner Treadplate Wide	70
O	1513-029	CAB FENDER	Cab Fender SS Wide	71
S	1514-002	MUD FLAPS FRONT	Mud Flaps Frt	71

S	1526-026	CAB EXTERIOR FRONT & SIDE EMBLEMS	Cab Ext Frt & Side Emblems Spartan	71
S	1502-052	CAB EXTERIOR MODEL NAMEPLATE	Cab Exterior Model Nameplate Gladiator	71

START / CHARGING SYSTEMS

S	5109-015	IGNITION	Ign Mstr Rkr Sw w/Push-Button Start	71
O	5101-021	BATTERY	Batt (6) Group 31 Harris	71
S	5106-003	BATTERY TRAY	Batt Tray (2) R/L Steel	71
O	5107-007	BATTERY BOX COVER	Batt Box Cover (2) Steel w/Black Handles	72
S	5102-001	BATTERY CABLE	Batt Cables	72
S	5108-010	BATTERY JUMPER STUD	Batt Jumper Stud Frt LH Lwr Step 8" Apart	72
S	5104-002	ALTERNATOR	Alternator Leece-Neville 320A	72
S	5105-001	STARTER MOTOR	Starter Motor Delco	72

LINE VOLTAGE ELECTRICAL POWER DISTRIBUTION

O	5202-400	BATTERY CONDITIONER	Batt Cond Kussmaul Chief 4012 40A	72
O	5218-005	BATTERY CONDITIONER LOCATION	Batt Cond Loc Bhd Off Seat	72
O	5203-201	BATTERY CONDITIONER DISPLAY	Batt Cond Display Chief Remote Control Panel (RCP)	73
O	5220-010	BATTERY CONDITIONER DISPLAY LOCATION	Batt Cond Display Location LH Mid Frt Step Rwd	73
O	5209-021	ELECTRICAL INLET LOCATION	Elec Inlet Location LH Lwr Front Step Mid	73
S	5204-055	ELECTRICAL INLET	Elec Inlet 120V 20A Auto Eject	73
O	5210-004	ELECTRICAL INLET CONNECTION	Elec Inlet Conn to Batt Conditioner	73
S	5206-002	ELECTRICAL INLET COLOR	Elec Inlet Color Yellow	73

LIGHTING

O	5301-106	HEADLIGHTS	Headlights 4 Headlamps LED, Firetech FT-4X6-4KIT	73
S	5337-001	HEADLIGHT LOCATION	Headlights Below Frt Warn Lts	74
O	5303-036	FRONT TURN SIGNALS	Frnt Turn Signals Whelen M6 LED Above Frt Warn Rad Mnt w/Clr Lens	74
O	5336-018	SIDE TURN/MARKER LIGHTS	Side Turn/Marker Lts LED Tecniq S170 w/Clr Lens	74
O	5302-020	MARKER & ICC LIGHTS	Marker & ICC Lts Face Mnt LED Tecniq S170 w/Clr Lens	74
O	5350-104	HEADLIGHT AND MARKER LIGHT ACTIVATION	Hdlt & Mrkr Lt Actv Disp/Halo w/Mrkr Lts/Ign Sw	74
O	5305-353	INTERIOR OVERHEAD LIGHTS	Interior Overhead Lts Whelen 6" Red/Clear LED	74
S	5388-003	INTERIOR OVERHEAD LIGHTING ACTIVATION	Int Ovrhd Lt Actv Resp Dr & MUX	74
O	5403-051	LIGHTBAR PROVISION	Lightbar Prov Wire & Mnt (2) Chassis Supply	75
O	5450N-006	CAB FRONT LIGHTBAR MODEL	Cab Front Lightbar Model Whelen F4NMINI (2)	75
S	5450-999	CAB FRONT LIGHTBAR	Cab Front Lightbar - Configured in 5450M Subcategory	
S	5450M-002	FRONT LIGHTBAR LAYOUT	Cab Front Lightbar Layout	
O	5450X-003	FRONT LIGHTBAR ORIENTATION	Front Lightbar Orientation - Outboard/Aerial Mnt	

O	5450L2-002	FRONT LIGHTBAR LIGHT POSITION 2	Cab Front Lightbar Position 2 - Red LH Side	
O	5450L4-003	FRONT LIGHTBAR LIGHT POSITION 4	Cab Front Lightbar Position 4 - White	
O	5450L5-003	FRONT LIGHTBAR LIGHT POSITION 5	Cab Front Lightbar Position 5 - White	
O	5450L12-003	FRONT LIGHTBAR LIGHT POSITION 12	Cab Front Lightbar Position 12 - White	
O	5450L13-003	FRONT LIGHTBAR LIGHT POSITION 13	Cab Front Lightbar Position 13 - White	
O	5450L15-032	FRONT LIGHTBAR LIGHT POSITION 15	Cab Front Lightbar Position 15 - Red RH Side	
O	5426-003	LIGHTBAR SWITCH	Lightbar Sw Disp	75
O	5317-195	FRONT SCENE LIGHTS	Frnt Scene Lts Whelen Pioneer 12V LED PFH1 Black (2)	75
O	5329-006	FRONT SCENE LIGHT LOCATION	Frnt Scene Lt Loc (2) Outboard Brow Pos	75
O	5335-003	FRONT SCENE LIGHTS ACTIVATION	Frnt Scene Lts Actv Disp	75
O	5306-103	SIDE SCENE LIGHTS	Side Scene Lts Whelen Pioneer LED 12V PCPSM1C Surface Mnt	76
O	5318-003	SIDE SCENE LIGHT LOCATION	Side Scene Lt Loc Upper Mid Fwd Flat Roof Position	76
O	5316-008	SIDE SCENE ACTIVATION	Side Scene Actv Indv Disp Actv & Resp Side Doors	76
O	5330-035	REAR SCENE LIGHTS	Rear Scene Lts Body Mount Provision	76
O	5331-009	REAR SCENE LIGHT ACTIVATION	Rear Scene Lt Actv Sgl Sw MUX	76
S	5308-300	GROUND LIGHTS	Ground Lts Tecniq T44 LED	76
S	5386-004	GROUND LIGHTING ACTIVATION	Ground Lt Actv Prk Brk, Resp Sd Dr & Disp	76
O	5319-003	UNDER BUMPER LIGHTS	Under Bmpr Lts 4" LED Prk Brk & Marker Lts	76
S	5309-003	LOWER CAB STEP LIGHTS	Lwr Cab Step Lts Tecniq T44 LED	77
O	5382-007	INTERMEDIATE STEP LIGHTS	Intermediate Step Lts Tecniq D06 LED	77
S	5312-003	ENGINE COMPARTMENT LIGHT	Engine Cmpt Work Lt LED (1)	77

OPTICAL WARNING DEVICES

S	5406-119	DO NOT MOVE APPARATUS LIGHT	Do Not Move App Lt Flashing Red Tecniq K50 LED w/Alarm	77
O	5422-020	MASTER WARNING SWITCH	Mstr Warn Sw MUX w/Warning Lt Dimmer, Disp Dim & Prk Brk Interlock	77
S	5409-002	HEADLIGHT FLASHER	Headlight Flasher Alternating	78
S	5425-003	HEADLIGHT FLASHER SWITCH	Headlight Flasher Sw Disp	78
O	5401-079	INBOARD FRONT WARNING LIGHTS	Inboard Frt Warn Lts Whelen M6 LED TripleFlash 75 I/O Pattern Chrm Bezel	78
O	5413-003	INBOARD FRONT WARNING LIGHTS COLOR	Inboard Frt Warn Lts Color Red w/Clr Lens	78
O	5414-057	OUTBOARD FRONT WARNING LIGHTS	Outboard Frt Warn Lts Whelen M6 LED TripleFlash 75 I/O Pattern Chrm Bezel	78
O	5415-003	OUTBOARD FRONT WARNING LIGHTS COLOR	Outboard Frt Warn Lts Color Red w/Clr Lens	78
O	5432-220	BUMPER FACE WARNING LIGHT	Bmpr Face Warn Lt Whelen M6 LED TripleFlash 75 I/O Pattern	78
O	5433-004	BUMPER FACE WARNING LIGHT COLOR	Bmpr Face Warn Lt Color Red w/Clear Lens	79
O	5474-005	BUMPER FACE WARN LOCATION	Bmpr Face Warn Lt Location Ctr R/L OB	79

O	5423-003	FRONT WARNING SWITCH	Frt Warn Sw Disp	79
O	5404-080	INTERSECTION WARNING LIGHTS	Intersection Warn Lts Whelen M6 LED TripleFlash 75 I/O Pattern	79
O	5419-003	INTERSECTION WARNING LIGHTS COLOR	Int Warn Lts Color Red w/Clr Lens	79
O	5420-007	INTERSECTION WARNING LIGHTS LOCATION	Intersection Warn Lts Location Bumper Tail Ctr Position	79
O	5402-080	SIDE WARNING LIGHTS	Side Warn Lts Whelen M6 LED TripleFlash 75 I/O Pattern	79
O	5418-003	SIDE WARNING LIGHTS COLOR	Side Warn Lts Color Red w/Clr Lens	79
O	5412-009	SIDE WARNING LIGHTS LOCATION	Side Warn Lts Location Lwr Mid Fwd Position	80
O	5424-003	SIDE AND INTERSECTION WARNING SWITCH	Side & Intersection Warn Sw Disp	80
O	5469-002	TANK LEVEL LIGHTS	Tank Lvl Lts FRC Max Vision	80
O	5470-002	TANK LEVEL LIGHTS ACTIVATION	Tank Lvl Lights Actv Prewire Rear of Cab	80
O	5471-003	TANK LEVEL LIGHTS LOCATION	Tank Lvl Lights Loc Rear Cab Sides Centered	80
O	5449-034	REAR WARNING LIGHTS	Rr Warn Lts LH IB Overhead Whelen TACTL5 Cont & TAL65 Advsr Shplse	80
O	5407-019	INTERIOR DOOR OPEN WARNING LIGHTS	Int Dr Open Warn Lts Amber Weldon 15" LED Dir Flsh	80

AUDIBLE WARNING DEVICES

O	5510-079	SIREN CONTROL HEAD	Siren Ctrl Head Whelen 295HFSC9	81
O	5514-102	STEERING WHEEL HORN BUTTON SELECTOR SWITCH	Horn Btn Sel Sw Elec Horn/Air Horn MUX Def Air Horn On	81
O	5526-004	AUDIBLE WARNING LH FOOT SWITCH	Audible Warning LH Foot Switch Siren	81
O	5526D-001	MECHANICAL SIREN FOOT SWITCH LH	Mechanical Siren Foot Switch LH Linemaster 491-S	81
O	5526E-001	MECHANICAL SIREN FOOT SWITCH LH LOCATION	Mechanical Foot Switch LH Location A-Pillar	81
O	5526F-001	MECHANICAL SIREN FOOT SWITCH LH POSITION	Mechanical Siren Foot Switch Position Outboard of Other Foot Switches	81
O	5529-002	AUDIBLE WARNING LH FOOT SWITCH BRACKET	Audible Warn LH Ft Sw Double Brkt 30Deg TPlate	81
O	5512-217	AIR HORN AUXILIARY ACTIVATION	Air Horn Actv Rkr Sw	81
O	5513-506	MECHANICAL SIREN BRAKE/AUXILIARY ACTIVATION	Mech Siren Actv Rkr Sw/Brk Sw/Brk Sw Disp	82
O	5532-001	MECHANICAL SIREN INTERLOCK	Mechanical Siren Interlock Master Warn Only	82
S	5505-002	BACK-UP ALARM	Back-Up Alarm Ecco 575	82

INSTRUMENTATION

O	5601-041	INSTRUMENTATION	Instrumentation Standard	82
O	5624-003	BACKLIGHTING COLOR	Backlighting Color White	84

COMMUNICATIONS SYSTEMS

O	5701-300	RADIO	Radio Jensen WB/AM/FM/BT	84
O	5736-100	RADIO LOCATION	Radio Overhead LH	84

Prepared By JOSH LARSON
Quote Id : 97259,Revision Level: 11
Order Id: 10013978
Lead Unit Order Id: 10013978

Prepared For
TRUE NORTH
VIN : 4S9ACFXT0TS559450
Lead Sales Order Number: 97259

O	5707-002	AM/FM ANTENNA	AM/FM Antenna LH Fwd Cab Roof	84
O	5737-200	RADIO SPEAKERS	Radio Speakers (4) Front/Rear	85
O	5727-002	CAMERA RIGHT HAND	Camera RH Teardrop	85
O	5728-012	CAMERA REAR	Camera HD Rear Box w/o Speaker	85
O	5731-004	CAMERA DISPLAY	Camera Display on Disp	85
O	5703-010	COMMUNICATION ANTENNA	Comm Ant Base RH Fwd Cab Rf Chassis Sply	85
O	5708-003	COMMUNICATION ANTENNA CABLE ROUTING	Comm Ant Cable Routing Under Rkr Sw Pnl	85
S	5020-002	PANEL LAYOUT	Panel Layout	

ADDITIONAL EQUIPMENT

S	8806-001	FIRE EXTINGUISHER	Fire Extinguisher Shiploose	85
O	8807-002	ROAD SAFETY KIT	Road Safety Kit Shiploose	86
S	8810-001	DOOR KEYS	Door Keys for Manual Locks (4)	86

SALES ADMIN

O	8030-021	CHASSIS OPERATION MANUAL	Chassis Operation Manual w/On-Board USB Storage	86
S	8031-024	ENGINE & TRANSMISSION OPERATION MANUAL	Eng & Trans Operation Man Eng Hard Copy/Trans Digital/Eng Owner Digital	86
O	8032-018	ENGINE SERVICE MANUAL	Engine Service Manual Hard Copy Cummins Lg Displacement	86
O	8033-002	TRANSMISSION SERVICE MANUAL	Transmission Service Manual Hard Copy Allison 4000 EVS	86
O	8805-019	CAB/CHASSIS AS BUILT WIRING DIAGRAMS	Cab/Chassis As Built Wiring Diagrams w/On-Board USB Storage	86
O	8063-006	CAB PAINT CONFIRMATION	Cab Paint Confirmation - PPG - Confirmation #1	86
S	8039-001	SALES TERMS	Sales Terms	87

Specification

0100-012 Gladiator

MODEL

The chassis shall be a Gladiator model. The cab and chassis shall include design considerations for multiple emergency vehicle applications, rapid transit and maneuverability. The chassis shall be manufactured for heavy duty service with the strength and capacity to support a fully laden apparatus, one hundred (100) percent of the time.

8011-026 Model Year - 2026

MODEL YEAR

The chassis shall have a vehicle identification number that reflects a 2026 model year.

8001-001 Country of Service United States Of America

COUNTRY OF SERVICE

The chassis shall be put in service in the country of United States of America (USA).

The chassis will meet applicable U.S.A. federal motor vehicle safety standards per CFR Title 49 Chapter V Part 571 as clarified in the incomplete vehicle book per CFR Title 49 Chapter V Part 568 Section 4 which accompanies each chassis. The chassis manufacturer is not responsible for compliance to state, regional, or local regulations. Dealers should identify those regulations and order any necessary optional equipment from the chassis manufacturer or their OEM needed to be in compliance with those regulations.

8017-009 Cab and Chassis Labeling Language English w/Innovative Controls Labels

CAB AND CHASSIS LABELING LANGUAGE

The cab and chassis shall include the applicable caution, warning, and safety notice labels with text to be written in English. All applicable caution, warning, and safety notice labels shall be Innovative Controls brand. Where applicable to the location within the specific layout and label package of the cab and chassis, the labels shall include decorative chrome bezels. Designs shall include bezels that fit individual labels or packaged configurations of labels in certain common locations.

8006-011 Apparatus Type Rear Mount Quint

APPARATUS TYPE

The apparatus shall be a Quint vehicle designed for emergency service use. The apparatus shall include a permanently mounted fire pump which has a minimum rated capacity of 750 gallons per minute (3000 L/min), a water tank, a hose storage area, a compliment of ground ladders, and an aerial ladder or elevating platform with a permanently mounted waterway that shall be rear mounted thus providing the following vehicle benefits:

- Improved mobility vs. mid-ship mounted units, due to shorter overall travel length and wheelbase.

- Increased compartment space, hose load, and water capacity in the body, resulting from ladder being raised to clear the cab.

- Shorter vehicle wheelbase.

Shorter overall length of vehicle.

8008-001 Vehicle Type Straight Truck

VEHICLE TYPE

The chassis shall be manufactured for use as a straight truck type vehicle and designed for the installation of a permanently mounted apparatus behind the cab. The apparatus of the vehicle shall be supplied and installed by the apparatus manufacturer.

8008A-000 Vehicle Angle of Approach NFPA Minimum 8.00 Degrees

VEHICLE ANGLE OF APPROACH PACKAGE

The angle of approach of the apparatus shall be a minimum of 8.00 degrees.

NFPA1901 Angle of Approach definition:

“To determine the angle of approach, place a thin steel strip against the front of the tires where they touch the ground or stretch a tight string from one front tire to the other at the front where they touch the ground. Determine the lowest point (component or equipment) on the vehicle forward of the front tire that would make the smallest angle of approach. Hang a plumb bob from the lowest point and mark the point on the ground where the point of the plumb bob touches. Measure the vertical distance from the ground to the point where the plumb bob was hung (distance V). Measure the horizontal distance from the plumb bob point to the steel strip or string running from front tire to front tire (distance H). Divide the vertical distance by the horizontal distance. The ratio of V/H is the tangent of the angle of approach. If the ratio is known, the angle of approach can be determined from a table of trigonometric functions of angles or from a math calculator. The standard requires a minimum angle of approach of 8.00 degrees: since the tangent of 8.00 degrees is 0.1405, if V divided by H is 0.1405 or larger, the angle of approach is 8.00 degrees or greater.”

0104-003 Axle Configuration 6x4 (Rear Tandem Axle Drive Only)

AXLE CONFIGURATION

The chassis shall feature a 6 x 4 axle configuration consisting of a tandem rear drive axle set with a single front steer axle.

0101-011 GAWR Front 24000#

GROSS AXLE WEIGHT RATINGS FRONT

The front gross axle weight rating (GAWR) of the chassis shall be 24,000 pounds.

This front gross axle weight rating shall be adequate to carry the weight of the completed apparatus including all equipment and personnel.

0102-010 GAWR Rear 52000#

GROSS AXLE WEIGHT RATINGS REAR

The rear gross axle weight rating (GAWR) of the chassis shall be 52,000 pounds.

This rear gross axle weight rating shall be adequate to carry the weight of the completed apparatus including all equipment and personnel.

8010-201 Pump Provision Driveline Midship, Pump Mode Prog w/Auto Park Brake "N"

PUMP PROVISION

The chassis shall include provisions to mount a drive line pump in the middle of the chassis, behind the cab, more commonly known as the midship location. Chassis driveline pump provisions shall include an interlock feature for automatic setting of the park brake when the vehicle is shifted into pump mode while the transmission is in neutral and the transmission output speed translates to less than 1 mph. When the conditions are met the driver side parking brake valve shall activate. Once shifted to road mode the condition for electric automatic brake engagement is no longer present and the driver's parking brake control valve shall function normally.

8009-004 Water & Foam Tank Capacity Up to 750 Gallons

WATER & FOAM TANK CAPACITY

The chassis shall include a carrying capacity of up to 750 gallons (2839 liters). The water and/or foam tank(s) shall be supplied and installed by the apparatus manufacturer.

8003-197 Warranty Cab and Chassis (2) Year RFW0102

WARRANTY

Purchaser shall receive a Custom Chassis Two (2) Years or 36,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0102. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

1000-012 Cab Style EMFD Flat Roof

CAB STYLE

The cab shall be a custom, fully enclosed, EMFD model with a flat roof over the driver, officer, and crew area, designed and built specifically for use as an emergency response vehicle by a company specializing in cab and chassis design for all emergency response applications. The cab shall be designed for heavy-duty service utilizing superior strength and capacity for the application of protecting the occupants of the vehicle. This style of cab shall offer up to eight (8) seating positions.

The cab shall incorporate a fully enclosed design with side wall roof supports, allowing for a spacious cab area with no partition between the front and rear sections of the cab. To provide a superior finish by reducing welds that fatigue cab metal; the roof, the rear wall and side wall panels shall be assembled using a combination of welds and proven industrial adhesives designed specifically for aluminum fabrication for construction.

The cab shall be constructed using multiple aluminum extrusions in conjunction with aluminum plate, which shall provide proven strength and the truest, flattest body surfaces ensuring less expensive paint repairs if needed. All aluminum welding shall be completed to the American Welding Society and ANSI D1.2-96 requirements for structural welding of aluminum.

All interior and exterior seams shall be sealed for optimum noise reduction and to provide the most favorable efficiency for heating and cooling retention.

The cab shall be constructed of 5052-H32 corrosion resistant aluminum plate. The cab shall incorporate tongue and groove fitted 6061-T6 0.13 & 0.19 inch thick aluminum extrusions for extreme duty situations. A single formed, one (1) piece extrusion shall be used for the "A" pillar, adding strength and rigidity to the cab as well as additional roll-over protection. The cab side walls and roof skin shall be 0.13 inch thick; the rear wall skin shall be 0.09 inch thick; the front cab structure shall be 0.19 inch thick.

The exterior width of the cab shall be 99.40 inches wide with a minimum interior width of 91.00 inches. The overall cab length shall be 137.10 inches with 60.00 inches from the centerline of the front of the axle to the back of the cab.

The cab interior shall be designed to afford the maximum usable interior space and attention to ergonomics with hip and legroom while seated which exceeds industry standards. The crew cab floor shall be flat across the entire walking area for ease of movement inside the cab.

The cab shall offer an interior height of 57.50 inches from the front floor to the headliner and a rear floor to headliner height of 55.00 inches at a minimum. The cab shall offer an interior measurement at the floor level from the rear of the engine tunnel to the rear wall of the cab of 55.88 inches. All interior measurements shall include the area within the interior trimmed surfaces and not to any unfinished surface.

The cab shall include a driver and officer area with two (2) cab doors large enough for personnel in full firefighting gear. The front doors shall offer a clear opening of 40.25 inches wide X 53.50 inches high, from the cab floor to the top of the door opening. The cab shall also include a crew area with up to two (2) cab doors, also large enough for personnel in full firefighting gear. The rear doors shall offer a clear opening of 32.25 inches wide X 51.00 inches high, from the cab floor to the top of the door opening.

The cab shall incorporate a progressive two (2) step configuration from the ground to the cab floor at each door opening. The progressive steps are vertically staggered and extend the full width of each step well allowing personnel in full firefighting gear to enter and exit the cab easily and safely.

The first step for the driver and officer area shall measure approximately 11.50 inches deep X 31.13 inches wide. The intermediate step shall measure approximately 8.50 inches deep X 32.50 inches wide. The height from the first step to the intermediate step and the intermediate step to the cab floor shall not exceed 11.00 inches.

The first step for the crew area shall measure approximately 11.50 inches deep X 20.44 inches wide. The intermediate step shall measure approximately 10.25 inches deep X 22.75 inches wide. The height from the first step to the intermediate step and the intermediate step to the cab floor shall not exceed 12.80 inches.

8101-200 Occupant Protection IMMI 4Front & RollTek w/SRA

OCCUPANT PROTECTION

An IMMI 4Front® occupant protection system shall be installed in the vehicle's cab. The system shall inflate three (3) air bags in the following locations:

- Steering wheel air bag to protect the head and neck of the driver
- Knee bolster air bag to protect the driver's legs
- Knee bolster air bag to protect the officer's legs

The air bags shall use a combination of high-pressure stored argon and oxygen with a pyrotechnic charge for initiation to inflate the bags remain inflated for several seconds.

The system shall be connected to the crash detection sensor that will also activate the driver and first officer integrated belt pretensioners if it detects a frontal crash.

A RollTek™ rollover occupant protection system shall be installed in the apparatus cab. The system shall include an integrated roll sensor (IRS) master module and a slave sensor in applicable configurations.

The IRS shall be a microprocessor-controlled solid-state sensing device that utilizes vehicle-specific calibrations to detect rollovers. The IRS shall be equipped with pyrotechnic loops for connection to the protective countermeasures which shall include seat integrated side roll airbags (SRA), integrated seat belt pretensioners, and air seat pull-downs (S4S), in applicable occupant seat positions.

The IRS shall continuously monitor the truck's acceleration and angle, and upon detection of an imminent roll-over, shall activate protective countermeasures in a pre-programmed sequence. In addition, the IRS shall also act as a data recorder to record crash events for post-crash evaluation.

1501-002 Cab Frt Fascia Classic

CAB FRONT FASCIA

The front cab fascia shall be constructed of 5052-H32 Marine Grade, 0.13 of an inch thick aluminum plate which shall be an integral part of the cab.

The cab fascia will encompass the entire front of the aluminum cab structure from the bottom of the windshield to the bottom of the cab and shall be the "Classic" design.

The front cab fascia shall include two (2) molded plastic modules on each side accommodating a total of up to four (4) Hi/Low beam headlights and two (2) turn signal lights or up to four (4) warning lights. A chrome plated molded plastic bezel shall be provided on each side around each set of four lamps.

1518-025 Cab Frt Grille Hinged Classic Styled

FRONT GRILLE

The front cab fascia shall include a classic box style, 304 stainless steel front grille. The grille shall measure 55.45 wide X 33.50 inches high X 1.50 inches deep. The upper portion of the grille shall be hinged to provide service access behind the grille. The grille shall include a minimum free air intake of 750.00 square inches.

1551-002 Cab Undercoat

CAB UNDERCOAT

There shall be undercoating applied to the underside of the cab which provides an abrasion resistant coating for protection against corrosion caused by moisture, salt, alkalis and galvanic reaction.

1552-002 Cab Side Drip Rail
CAB SIDE DRIP RAIL

There shall be a drip rail along the top radius of each cab side. The drip rails shall help prevent water from the cab roof running down the cab side.

1521-002 Cab Paint Exterior Two Tone
CAB PAINT EXTERIOR

The cab exterior shall be painted two tone per customers specified paint colors following the RFG-SR-001 paint standards.

1533-001 Cab Paint Process/Manufacturer PPG
CAB PAINT PROCESS/MANUFACTURER

The cab shall be painted with PPG Industries paint prior to the installation of glass accessories and all other cab trim to ensure complete paint coverage and the maximum in corrosion protection of all metal surfaces.

All metal surfaces on the cab shall be mechanically etched by sanding disc to remove any surface oxidation or surface debris which may hinder the paint adhesion. Once all imperfections on the exterior surfaces are removed and sanded smooth, body fillers shall be applied to the cab on all surfaces that require a critically aesthetic finish and sanded smooth.

The entire cab shall then be coated with a high quality base primer that is designed to fill any minor surface defects, provide an adhesive bond between the primer and the paint and improve the color and gloss retention of the color. The finish to this procedure shall be sanding the cab to a smooth finish followed by sealing the seams with an automotive seam sealer. The minimum thickness of the primer coat after sanding shall be 2.50 mils with a maximum thickness of 5.00 mils.

The cab shall then be painted the specific color(s) designated by the customer with an acrylic urethane type system designed to retain color and resist acid rain and most atmospheric chemicals found on an emergency scene. The paint shall have a minimum thickness of 1.00 mils with a maximum of 4 mils, followed by a clear top coat with a minimum of 2.5 mils and a maximum of 3.5 mils. The entire cab shall then be baked to speed the curing process of the coatings.

1522-800 Cab Paint Primary/Lower Color PPG Red FBCH 926234
CAB PAINT PRIMARY/LOWER COLOR

The primary/lower paint color shall be PPG FBCH 926234 red.

1523-013 Cab Paint Sec/Upper Color PPG Black FBCH 9000
CAB PAINT SECONDARY/UPPER COLOR

The secondary/upper paint color shall be PPG FBCH 9000 black.

1524-002 Cab Paint Exterior Breakline Classic

CAB PAINT EXTERIOR BREAKLINE

The upper and lower paint shall meet at a breakline on the cab which shall be located approximately 1.00 inch below the door windows on each side of the cab. The breakline shall curve down at the front cab corners to approximately 5.00 inches below the windshields on the front of the cab.

1515-005 Cab Paint Pinstripe 1/2" Black Temporary

CAB PAINT PINSTRIPE

Where the upper and lower paint colors meet a temporary 0.50 inch wide black pinstripe shall be applied over this break line to offer a more finished look prior to the final pinstripe being installed by the OEM.

8013-156 Cab Paint Warranty PPG (10) Year RFW0710

CAB PAINT WARRANTY

Purchaser shall receive a Paint and Finish (Exterior Clear coated) Ten (10) Years limited warranty in accordance with, and subject to, warranty certificate RFW0710. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

1334-031 Cab Paint Int Bedliner Medium Gray

CAB PAINT INTERIOR

The visible interior cab structure surfaces shall feature a medium gray spray on bedliner coating which shall mold to each surface of the cab interior. The bedliner shall be environmentally friendly and chemically resistant.

1005-001 Cab Entry Doors (4)

CAB ENTRY DOORS

The cab shall include four (4) entry doors, two (2) front doors and two (2) crew doors designed for ease of entering and egress when outfitted with an SCBA. The doors shall be constructed of extruded aluminum with a nominal thickness of 0.13 inch. The exterior skins shall be constructed of 0.13 inch aluminum plate.

The doors shall include a double rolled style automotive rubber seal around the perimeter of each door frame and door edge which ensures a weather tight fit.

All door hinges shall be hidden within flush mounted cab doors for a pleasing smooth appearance and perfect fit along each side of the cab. Each door hinge shall be piano style with a 0.38 inch pin and shall be constructed of stainless steel.

1101-102 Cab Entry Door Type Barrier Free w/Pollak Switches

CAB ENTRY DOOR TYPE

All cab entry doors shall be barrier clear design resulting in exposed lower cab steps. The doors shall provide approximately 32.00 inches of clearance from the ground to the bottom of the door so cab doors may be opened un-hindered by most obstacles encountered, such as guard rails along interstate highways.

Entry doors shall include Pollak mechanical plunger style switches for electrical component activation.

1322-007 Cab Insulation Nonwoven Polyester Fiber

CAB INSULATION

The cab ceiling and walls shall include a nonwoven polyester fiber insulation. The insulation shall act as a barrier absorbing noise as well as assisting in sustaining the desired climate within the cab interior.

1556-004 LH Mid EMS Compartment 41"H

LH MID EMS COMPARTMENT

The cab shall include a compartment located in the middle of the wall above the left side wheel well. This compartment shall measure 17.00 inches wide X 41.00 inches high X 23.00 inches deep.

1558-002 LH Mid EMS Cmpt Ext Access Hng Dr

LH MID EMS EXTERIOR ACCESS

The cab shall include a hinged box pan door featuring a full length stainless steel piano style hinge and a bright aluminum tread plate inner panel located in the middle of the wall above the left side wheel well. The compartment shall have a minimum clear door opening of 15.00 inches wide X 40.00 inches high.

1560-003 LH Mid EMS Cmpt Interior Solid Wall Rear Access

LH MID EMS COMPARTMENT INTERIOR

The cab compartment located in the middle of the wall above the left side wheel well shall include solid aluminum walls with an interior access point rear facing. This compartment shall be finished to customer specification.

1562-003 LH Mid EMS Cmpt Interior Access AL Dr

LH MID EMS COMPARTMENT INTERIOR ACCESS

The left hand EMS compartment shall include access from inside the cab. The compartment shall be accessible from the inside of the cab via an aluminum framed aluminum hinged door with one (1) non-locking latch. The interior access door shall feature a clear door opening of 14.50 inches wide and as tall as possible in the available customer specified left EMS compartment height and access point. The interior access door shall include a finish to match the EMS compartment exterior finish.

1564-002 LH Mid EMS Cmpt Shelving Adj w/Unistrut

LH MID EMS COMPARTMENT INTERIOR SHELVING

The left hand mid EMS compartment located in crew area of the cab shall include one (1) aluminum shelf which shall be secured using Unistrut channel on two (2) sides of the interior walls of the compartment. The shelf shall include a 1.00 inch lip around the edges. The shelf shall be finished the same as the interior of the compartment.

1566-004 LH Mid EMS Cmpt Door Hardware D-Ring Latch Lwr

LH MID EMS COMPARTMENT DOOR HARDWARE

The left side EMS compartment door shall include a locking bent D-ring slam latch installed in the lower latch side of the door. There shall be a switch to activate the open compartment warning light in the cab in the event the door is left ajar.

1557-004 RH Mid EMS Compartment 41"H

RH MID EMS COMPARTMENT

The cab shall include a compartment located in the middle of the wall above the right side wheel well. This compartment shall measure 17.00 inches wide X 41.00 inches high X 23.00 inches deep.

1559-002 RH Mid EMS Cmpt Ext Access Hng Door
RH MID EMS EXTERIOR ACCESS

The cab shall include a hinged box pan door featuring a full length stainless steel piano style hinge and a bright aluminum tread plate inner panel located in the middle of the wall above the right side wheel well. The compartment shall have a minimum clear door opening of 15.00 inches wide X 40.00 inches high.

1561-003 RH Mid EMS Cmpt Interior Solid Wall Rear Access
RH MID EMS COMPARTMENT INTERIOR

The cab compartment located in the middle of the wall above the right side wheel well shall include solid aluminum walls with an interior access point rear facing. This compartment shall be finished to customer specification.

1563-003 RH Mid EMS Cmpt Interior Access AL Dr
RH MID EMS COMPARTMENT INTERIOR ACCESS

The right hand EMS compartment shall include access from inside the cab. The compartment shall be accessible from the inside of the cab via an aluminum framed aluminum hinged door with one (1) non-locking latch. The interior access door shall feature a clear door opening of 14.50 inches wide and as tall as possible in the available customer specified right EMS compartment height and access point. The interior access door shall include a finish to match the EMS compartment exterior finish.

1565-002 RH Mid EMS Cmpt Shelving Adj w/Unistrut
RH MID EMS COMPARTMENT INTERIOR SHELVING

The right hand mid EMS compartment located in crew area of the cab shall include one (1) aluminum shelf which shall be secured using Unistrut channel on two (2) sides of the interior walls of the compartment. The shelf shall include a 1.00 inch lip around the edges. The shelf shall be finished the same as the interior of the compartment.

1567-004 RH Mid EMS Cmpt Door Hardware D-Ring Latch Lwr
RH MID EMS COMPARTMENT DOOR HARDWARE

The right side EMS compartment door shall include a locking bent D-ring slam latch installed in the lower latch side of the door. There shall be a switch to activate the open compartment warning light in the cab in the event the door is left ajar.

5384-002 Mid EMS Compartment Lighting LED
MID EMS COMPARTMENT LIGHTING

The interior portion of each of the mid EMS compartments shall include compartment door activated LED lighting to illuminate all usable surfaces within each compartment.

1535-014 Mid EMS Cmpt Ext Finish Bedliner Medium Gray
MID EMS COMPARTMENT EXTERIOR FINISH

The EMS compartment exterior shall feature a medium gray spray on bedliner coating.

1536-002 Mid EMS Cmpt Interior Finish DA Sand

MID EMS COMPARTMENT INTERIOR FINISH

The EMS compartment interior shall feature a DA sanded finish.

8004-033 Cab Structural Warranty (10) Year RFW0602

CAB STRUCTURAL WARRANTY

Purchaser shall receive a Cab Structure (Aluminum) Ten (10) Years or 100,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0602. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

9001-006 Cab Test Information Crash Test ECE-R29/SAE J2420/SAE J2422

CAB TEST INFORMATION

The cab shall have successfully completed the preload side impact, static roof load application and frontal impact without encroachment to the occupant survival space when tested in accordance with Section 4 of SAE J2420 COE Frontal Strength Evaluation Dynamic Loading Heavy Trucks, Section 5 of SAE J2422 Cab Roof Strength Evaluation Quasi –Static Loading Heavy Trucks and ECE R29 Uniform Provisions Concerning the Approval of Vehicles with regard to the Protection of the Occupants of the Cab of a Commercial Vehicles Annex 3 Paragraph 5.

The above tests have been witnessed by and attested to by an independent third party. The test results were recorded using cameras, high speed imagers, accelerometers and strain gauges. Documentation of the testing shall be provided upon request.

5000-018 Elec System 12V DC Multiplex

ELECTRICAL SYSTEM

The chassis shall include a single starting electrical system which shall include a 12 volt direct current multiplexing system, suppressed per SAE J551. The wiring shall be appropriate gauge cross link with 311 degree Fahrenheit insulation. All SAE wires in the chassis shall be color coded and shall include the circuit number and function where possible. The wiring shall be protected by 275 degree Fahrenheit minimum high temperature flame retardant loom. All nodes and sealed Deutsch connectors shall be waterproof.

5008-072 OEM Wir Smeal ECM Park Brake Input

OEM WIRING

The wiring system shall include a prewire for ECM park brake input and engine ground return circuits located behind the switch panel. The circuits shall include an extra 2.00 feet of wire and shall be labeled “ECM Park Brake Input”.

5005-300 Vehicle Display UltraView 780 Touchscreen w/Push Button Surround LH Sw Pnl

MULTIPLEX DISPLAY

The multiplex electrical system shall include an UltraView 780 display with an interactive touchscreen display and fourteen (14) tactile push buttons. The display shall be located on the left side of the dash in

the switch panel. The display shall feature a full color 7.00 inch LCD display screen which shall include a message bar displaying the time of day and important messages requiring acknowledgement by the user. The display screen shall be video ready for back-up cameras, thermal cameras, and 360 camera systems.

The display shall offer varying fonts and background colors. The display shall be fully programmable to the needs of the customer and shall offer virtually infinite flexibility for screen configuration options.

5046-078 Multiplex Display Special Layout Wiper Sys Prk Brk Override Btn & Day/Night Dim

MULTIPLEX DISPLAY SPECIAL LAYOUT

The Vista display and control screen shall be configured specifically for a virtual button on the control screen to override the park brake interlocked deactivation of the wiper system. This will reset when the park brake is cycled.

The Vista display and control screen shall also be configured specifically for the vista dimmer control screen to have two dimmer settings. The dimmer settings shall be labeled “DAY” (Normal) and “NIGHT”. This shall omit the additional default settings “MAX” and “DIM”.

5004-002 Load Management System Multiplex

LOAD MANAGEMENT SYSTEM

The apparatus load management shall be performed by the included multiplex system. The multiplex system shall also feature the priority of sequences and shall shed electrical loads based on the priority list specifically programmed.

5622-003 Data Recording Sys Vehicle Data Weldon MUX

DATA RECORDING SYSTEM

The chassis shall have a Weldon Vehicle Data Recorder (VDR) system installed. The system shall be designed to meet NFPA 1901 and shall be integrated with the Weldon Multiplex electrical system. The following information shall be recorded:

- Vehicle Speed
- Acceleration
- Deceleration
- Engine Speed
- Engine Throttle Position
- ABS Event
- Seat Occupied Status
- Seat Belt Status
- Master Optical Warning Device Switch Position
- Time
- Date

Each portion of the data shall be recorded at the specified intervals and stored for the specified length of time to meet NFPA 1901 guidelines and shall be retrievable by connecting a laptop computer to the VDR system. The laptop connection shall be a panel mounted female type B USB connection point, remotely mounted in the left side foot well.

5031-013 Accessory Pwr & Gnd Stud 40A Batt & 15A Ign w/350A Mstr Sw/300A Batt OEM Conn

ACCESSORY POWER

The electrical distribution panel shall include two (2) power studs. The studs shall be size #10 and each of the power studs shall be circuit protected with a fuse of the specified amperage. One (1) power stud shall be capable of carrying up to a 40 amp battery direct load. One (1) power stud shall be capable of carrying up to a 15 amp ignition switched load. The two (2) power studs shall share one (1) #10 ground stud.

An OEM body connections bracket shall be installed on the chassis near the left hand battery box. The bracket shall include one (1) set each of a 350 amp master power switched and 300 amp battery direct power and ground studs. The 300 amp & 350 amp studs will not have any fuse protection and will be the responsibility of anyone using these studs to have fuse protection for each load attached. The studs will be labeled with max available amperage.

5030-050 Aux Acc Pwr 6 Fuse Blue Sea Pnl Bhd Sw Pnl w/40A Fuse Batt Dir

AUXILIARY ACCESSORY POWER

An auxiliary six (6) position Blue Sea Systems 5025 blade type fuse panel shall be installed behind the switch panel. The fuse panel shall be protected by a 40 amp fuse. The panel shall be capable of carrying up to a maximum 40 amp battery direct load.

5032-036 Addl Acc Pwr 6 Fuse Blue Sea Pnl Eng Tnl Bhd Off Seat w/40A Brkr Batt Dir

ADDITIONAL ACCESSORY POWER

An additional six (6) position Blue Sea Systems 5025 blade type fuse panel shall be installed on the side wall of the engine tunnel behind the officer's seat. The fuse panel shall be protected by a 40 amp fuse. The panel shall be capable of carrying up to a maximum 40 amp battery direct load.

5033-021 Extra Acc Pwr 6 Fuse Blue Sea Pnl Lwr Ctr Rr Wall 40A Batt Dir

EXTRA ACCESSORY POWER

An extra six (6) position Blue Sea Systems 5025 blade type fuse panel shall be provided and installed on the lower center rear wall of the cab. The fuse panel shall be protected by a 40 amp fuse. The panel shall be capable of carrying up to a maximum 40 amp battery direct load.

5011-001 Exterior Electrical Terminal Coating Spray On Plasti Dip

EXTERIOR ELECTRICAL TERMINAL COATING

All terminals exposed to the elements will be sprayed with a high visibility protective rubberized coating to prevent corrosion.

8014-002 Electrical System Warranty (2) Year RFW0202

ELECTRICAL SYSTEM WARRANTY

Purchaser shall receive an Electrical System Two (2) Years or 36,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0202. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

1701-171 Engine Diesel 565HP Cummins X15 - EPA 2021-26

ENGINE

The chassis engine shall be a Cummins X15 engine. The X15 engine shall be an in-line six (6) cylinder, four-cycle diesel-powered engine. The engine shall offer a rating of 565 horsepower at 1800 RPM and shall be governed at 2100 RPM. The torque rating shall feature 1850-foot pounds of torque at 1000 RPM with 912 cubic inches (14.9 liter) of displacement.

The X15 engine shall feature a VGT™ Turbocharger, a high-pressure common rail fuel system, fully integrated electronic controls with an electronic governor, and shall be EPA certified to meet the 2021-26 emissions standards using cooled exhaust gas recirculation and selective catalytic reduction technology.

The engine shall include an engine mounted combination full flow/by-pass oil filter with replaceable spin on cartridge for use with the engine lubrication system. High quality lubricating oil that meets Cummins Engineering Standard CES 20086/CES20087 shall be used, see engine manual and vehicle data tag.

A wiring harness shall be supplied ending at the back of the cab. The harness shall include a connector which shall allow an optional harness for the pump panel. The included circuits shall be provided for a tachometer, oil pressure, engine temperature, hand throttle, high idle and a PSG system. A circuit for J1939 data link shall also be provided at the back of the cab.

If a pre-2027 emission engine is NOT available at the time of build (starting production on January 1, 2026) your order will automatically be upgraded and charged for either the 2027 engine compliant Cummins X-10 or X-15, with all associated costs being passed on to the end user. No exceptions.

1329-002 Cab Engine Tunnel Large

CAB ENGINE TUNNEL

The cab interior shall include an integrated engine tunnel constructed of 5052-H32 Marine Grade 0.19 of an inch thick aluminum alloy plate. The tunnel shall be a maximum of 46.50 inches wide X 29.00 inches high.

1731-002 DPF Ctrl Regeneration Sw & Inhibit Sw

DIESEL PARTICULATE FILTER CONTROLS

There shall be two (2) controls for the diesel particulate filter. One (1) control shall be for regeneration and one (1) control shall be for regeneration inhibit.

1718-002 Engine Programming High Idle Speed 1250 RPM

ENGINE PROGRAMMING HIGH IDLE SPEED

The engine high idle control shall maintain the engine idle at approximately 1250 RPM when engaged.

1719-005 Engine High Idle Ctrl Automatic and Manual w/Disp Actv

ENGINE HIGH IDLE CONTROL

The vehicle shall be equipped with an automatic high-idle speed control which shall be pre-set to operate the engine at a specified RPM to increase alternator output if the system voltage drops to 12.5 volts. This device shall automatically operate only when the engine is running, the transmission is in neutral, and with the parking brake set. The automatic high idle will stay engaged for a minimum of ten (10) minutes and until the system, voltage has reached 13.0 volts. Application of the service brake will override the automatic high idle and reset timer. The vehicle shall be equipped with a high-idle speed virtual button on the vehicle display and control screen to activate/deactivate manual control only. It shall be pre-set so when activated, it will operate the engine at the specified RPM to increase alternator output. This device shall operate only when the engine is running, the transmission is in neutral, and with the parking brake set. When automatically engaged the high idle shall disengage when the operator depresses the brake pedal, or the transmission is placed in gear, and shall be available to manually or automatically re-engage when the brake pedal is released, or when the transmission is placed in neutral. Virtual control screen shall not override automatic high idle between voltage parameters during timed cycle. Display shall indicate when high idle is disabled, enabled, or active.

1710-001 Engine Programming Road Speed Governor Enabled

ENGINE PROGRAMMING ROAD SPEED GOVERNOR

The engine shall include programming which will govern the top speed of the vehicle.

1713-010 Aux Engine Brake Compression Brake w/VG Turbo

AUXILIARY ENGINE BRAKE

A compression brake, for the six (6) cylinder engine shall be provided. A cutout relay shall be installed to disable the compression brake when in pump mode or when an ABS event occurs. The engine compression brake shall activate upon 0% accelerator when in operation mode and actuate the vehicle's brake lights.

The engine shall utilize a variable geometry turbo (VGT) as an integrated auxiliary engine brake to offer a variable rate of exhaust flow, which when activated in conjunction with the compression brake shall enhance the engine's compression braking capabilities.

1708-007 Aux Engine Brake Ctrl Off/Low/High Disp

AUXILIARY ENGINE BRAKE CONTROL

An engine compression brake control device shall be included. The electronic control device shall monitor various conditions and shall activate the engine brake only if all of the following conditions are simultaneously detected:

- A valid gear ratio is detected.
- The driver has requested or enabled engine compression brake operation.
- The throttle is at a minimum engine speed position.
- The electronic controller is not presently attempting to execute an electronically controlled final drive gear shift.

The compression brake shall be controlled via an off/low/high virtual button through the vehicle display and control screen. The system shall remember and default to the last engine brake control setting when the vehicle is shut off and re-started.

1720-003 Elec Engine Oil Level Indicator

ELECTRONIC ENGINE OIL LEVEL INDICATOR

The engine oil shall be monitored electronically and shall send a signal to activate a warning in the instrument panel when levels fall below normal. The warning shall activate in a low oil situation upon turning on the master battery and ignition switches without the engine running.

1715-004 Fluid Fills Fwd For Large Displacement Cap

FLUID FILLS

The front of the chassis shall accommodate fluid fill for the engine oil through the grille. This area shall also accommodate a check for the engine oil. The transmission, power steering, and coolant fluid fills and checks shall be under the cab. The windshield washer fill shall be accessible through the front left side mid step.

1735-001 Engine Drain Plug

ENGINE DRAIN PLUG

The engine shall include an original equipment manufacturer installed oil drain plug.

8002-001 Engine Warranty Cummins (5) Year/100,000 Miles

ENGINE WARRANTY

The Cummins engine shall be warranted for a period of five (5) years or 100,000 miles, whichever occurs first.

1707-116 Rmt Throttle Harness Cab Harness Only Shift Interlock

REMOTE THROTTLE HARNESS

An apparatus interface wiring harness for the engine and transmission pump interlocks shall be supplied with the chassis. The harness shall include a connector for connection to a chassis pump panel harness supplied by the body builder and shall terminate in the left frame rail behind the cab for connection by the body builder. The harness shall include circuits deemed for a pump panel and shall contain circuits for a hand throttle, and a multiplexed gauge. Separate circuits shall also be included for a pump control switch, "Pump Engaged" and "OK to Pump" indicator lights, open compartment ground, start signal, park brake ground, ignition signal, master power, clean power, customer ignition, air horn solenoid switch, high idle switch and high idle indicator light. The harness shall contain interlocks that will prevent shifting to road or pump mode unless the transmission output speed translates to less than 1 mph and the transmission is in neutral. The shift to pump mode shall also require the park brake be set.

1721-001 Engine Program Rmt Throttle Off

ENGINE PROGRAMMING REMOTE THROTTLE

The engine ECM (Electronic Control Module) discreet wire remote throttle circuit shall be turned off for use with a J1939 based pump controller or when the discreet wire remote throttle controls are not required.

1727-001 Engine Programming Idle Speed 700 RPM

ENGINE PROGRAMMING IDLE SPEED

The engine low idle speed will be programmed at 700 rpm.

2801-010 Engine Air Intake Filtration and Restriction w/Replaceable Element Abv Radiator

ENGINE AIR INTAKE

The engine air intake system shall include an ember separator. This ember separator shall be designed to protect the downstream air filter from embers using a combination of unique flat and crimped metal screens packaged in a heavy duty galvanized steel frame. This multilayered screen shall trap embers and allow them to burn out before passing through the pack.

The engine air intake system shall also include an air cleaner mounted above the radiator. This air cleaner shall utilize a replaceable dry type filter element designed to prevent dust and debris from being ingested into the engine. A service cover shall be provided on the housing, reducing the chance of contaminating the air intake system during air filter service.

The air intake system shall include a restriction indicator light in the warning light cluster on the instrument panel, which shall activate when the air cleaner element requires replacement.

2704-016 Engine Fan Drive Variable Speed

ENGINE FAN DRIVE

The engine cooling system fan shall incorporate a thermostatically controlled, Horton fully variable type fan drive with SmartClutch J-1939 CAN controller.

The variable speed fan clutch only engages at the amount needed for proper cooling to facilitate improved vehicle performance, cab heating in cold climates, and fuel economy. The fan clutch design shall be fail-safe so that if the clutch drive fails the fan shall engage to prevent engine overheating due to the fan clutch failure. The fan speed shall include a J-1939 CAN clutch controller to receive signal from the engine control module to activate at variable rates of speed. Variable speeds shall be set through thermostatic and engine speed signals to run as efficiently and quietly as required to maintain temperature.

2701-021 Engine Cooling System Serial Flow w/Package Drop-Out Prov

ENGINE COOLING SYSTEM

There shall be a heavy-duty aluminum cooling system designed to meet the demands of the emergency response industry. The cooling system shall have the capacity to keep the engine properly cooled under all conditions of road and pumping operations. The cooling system shall be designed and tested to meet or exceed the requirements specified by the engine and transmission manufacturer and all EPA requirements. The complete cooling system shall be mounted to isolate the entire system from vibration or stress. The individual cores of the cooling system shall be mounted in a manner to allow expansion and contraction at various rates without inducing stress into the adjoining cores.

The cooling system shall be comprised of a charge air cooler to radiator serial flow package that provides the maximum cooling capacity for the specified engine as well as serviceability. The main components shall include a surge tank, a charge air cooler bolted to the front of the radiator, recirculation shields, a shroud, a fan, and required tubing.

The radiator shall be a down-flow design constructed with aluminum cores, plastic end tanks, and a steel frame. The radiator shall be equipped with a drain cock to drain the coolant for serviceability.

The cooling system shall include a one piece injected molded polymer fan with a three (3) piece fiberglass fan shroud.

The cooling system shall be equipped with a surge tank that is capable of removing entrained air from the system. The surge tank shall be equipped with a low coolant probe and rearward oriented sight glass to observe coolant in the system. A cold fill and observation line shall be included within the frame mounted translucent recovery bottle to monitor the level of the coolant. The surge tank shall have a dual seal cap that meets the engine manufacturer's pressure requirements and allows for expansion and recovery of coolant into a separate integral expansion chamber.

All radiator tubes shall be formed from aluminized steel tubing. Recirculation shields shall be installed where required to prevent heated air from reentering the cooling package and affecting performance.

The charge air cooler shall be a cross-flow design constructed completely of aluminum with cast tanks. All charge air cooler tubes shall be formed from aluminized steel tubing and installed with silicone hump hoses and stainless steel "constant torque" style clamps meeting the engine manufacturer's requirements.

The radiator and charge air cooler shall be removable through the bottom of the chassis.

2711-005 Engine Cooling System Protection Light Duty Skid Plate Paint Frame Color

ENGINE COOLING SYSTEM PROTECTION

The engine cooling system shall include a recirculation shield designed to act as a light duty skid plate below the radiator to provide additional protection for the engine cooling system from light impacts, stones, and road debris. The skid plate shall be painted to match the frame components.

2708-001 Engine Coolant Extended Life

ENGINE COOLANT

The cooling package shall include Extended Life Coolant (ELC). The use of ELC provides longer intervals between coolant changes over standard coolants providing improved performance. The coolant shall contain a 50/50 mix of ethylene glycol and de-ionized water to keep the coolant from freezing to a temperature of -34 degrees Fahrenheit.

Proposals offering supplemental coolant additives (SCA) shall not be considered, as this is part of the extended life coolant makeup.

2707-002 Engine Coolant Filter

ENGINE COOLANT FILTER

An engine coolant filter with a shut-off valve for the inlet and outlet shall be installed on the chassis. The location of the filter shall allow for easy maintenance.

Proposals offering engines equipped with coolant filters shall be supplied with standard non-chemical type particulate filters.

2706-003 Elec Low Coolant Level Indicator

ELECTRONIC COOLANT LEVEL INDICATOR

The instrument panel shall feature a low engine coolant indicator light which shall be located in the center of the instrument panel. An audible tone alarm shall also be provided to warn of a low coolant incident.

2709-001 Coolant Hoses Silicone

COOLANT HOSES

The cooling systems hose shall be formed silicone hose and formed aluminized steel tubing and include stainless steel constant torque band clamps.

2710-005 Engine Coolant Overflow Expansion Bottle

ENGINE COOLANT OVERFLOW BOTTLE

A remote engine coolant overflow expansion bottle shall be provided in the case of over filling the coolant system. The overflow bottle shall capture the expansion fluid or overfill rather than allow the fluid to drain on the ground.

2705-002 Engine Pump Heat Exchanger

ENGINE PUMP HEAT EXCHANGER

A single bundle type coolant to water heat exchanger shall be installed between the engine and the radiator. The heat exchanger shall be designed to prohibit water from the pump from coming in contact with the engine coolant. This shall allow the use of water from the discharge side of the pump to assist in cooling the engine.

2901-074 Eng Exhaust Sys Under Frm RH Single Module Aftertreatment Inboard Inner Frm Mnt

ENGINE EXHAUST SYSTEM

The exhaust system shall include an end-in end-out horizontally mounted single module after treatment device, and downpipe from the charge air cooled turbo. The single module shall include four temperature sensors, diesel particulate filter (DPF), urea dosing module (UL2), and a selective catalytic reduction (SCR) catalyst to meet current EPA standards. The selective catalytic reduction catalyst utilizes a diesel exhaust fluid solution consisting of urea and purified water to convert NOx into nitrogen, water, and trace amounts of carbon dioxide. The solution shall be mixed and injected into the system through the DPF and SCR.

The system shall utilize 0.07 inch thick stainless steel exhaust tubing between the engine turbo and the DPF. Zero leak clamps seal all system joints between the turbo and DPF.

The single module after treatment through the end of the tailpipe shall be connected with zero leak clamps. The discharge shall terminate horizontally on the right side of the vehicle ahead of the rear tires.

The exhaust system after treatment module shall be mounted below the frame in the inboard position. The mounting brackets shall be mounted on the inside of the frame.

2907-003 Diesel Exhaust Fluid Tank LH 6 Gal Fill Thru Rr Step

DIESEL EXHAUST FLUID TANK

The exhaust system shall include a molded cross linked polyethylene tank for Diesel Exhaust Fluid (DEF). The tank shall have a capacity of six (6) usable gallons and shall be mounted on the left hand side of the chassis frame behind the batteries below the frame.

The DEF tank shall be designed with capacity for expansion in case of fluid freezing. Engine coolant, which shall be thermostatically controlled, shall be run through lines in the tank to help prevent the DEF from freezing and to provide a means of thawing the fluid if it should become frozen.

The tank fill tube shall be routed under the rear of the cab with the fill neck and splash guard accessible in the top rear step.

2902-010 Engine Exhaust Acc Temp Mitigation

ENGINE EXHAUST ACCESSORIES

An exhaust temperature mitigation device shall be shipped loose for installation by the body manufacturer on the vehicle. The temperature mitigation device shall lower the temperature of the exhaust by combining ambient air with the exhaust gasses at the exhaust outlet.

2906-002 Engine Exhaust Wrap

ENGINE EXHAUST WRAP

The exhaust tubing between the engine turbo and the diesel particulate filter (DPF) shall be wrapped with a thermal cover in order to retain the necessary heat for DPF regeneration. The exhaust wrap shall also help protect surrounding components from radiant heat which can be transferred from the exhaust.

The exhaust flex joint shall not include the thermal exhaust wrap.

8018-002 Emissions System Warranty (5) Years/100,000 Miles RFW0140

EMISSIONS SYSTEMS WARRANTY

Purchaser shall receive a Regulated Emissions Systems Five (5) Years or 100,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0140. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

1801-017 Transmission Allison 4000 EVS

TRANSMISSION

The drive train shall include an Allison model EVS 4000 torque converting, automatic transmission which shall include electronic controls. The transmission shall feature two (2) 10-bolt PTO pads located on the converter housing.

The transmission shall include two (2) internal oil filters which shall offer Allison formulated Castrol TranSynd™ synthetic transmission fluid which shall be utilized in the lubrication of the EVS transmission. An electronic oil level sensor shall be included with the readout located in the shift selector.

The transmission gear ratios shall be:

1st 3.51:1
2nd 1.91:1
3rd 1.43:1

4th 1.00:1
5th 0.74:1
6th 0.64:1 (if applicable)
Rev 4.80:1

1806-001 Transmission Mode Programming 4th Startup/5th Mode

TRANSMISSION MODE PROGRAMMING

The transmission, upon start-up, will automatically select a four (4) speed operation. The fifth speed over drive shall be available with the activation of the mode button on the shifting pad.

1811-004 Transmission Feature Programming Allison Gen 5 & 6-E I/O Package 198/Pumper

TRANSMISSION FEATURE PROGRAMMING

The Allison Gen V/VI-E transmission EVS group package number 127 shall contain the 198 vocational package in consideration of the duty of this apparatus as a pumper. This package shall incorporate an automatic neutral with selector override. This feature commands the transmission to neutral when the park brake is applied, regardless of drive range requested on the shift selector. This requires re-selecting drive range to shift out of neutral for the override.

This package shall be coupled with the use of a split shaft PTO and incorporate pumping circuits. These circuits shall be used allowing the vehicle to operate in the fourth range lockup while operating the pump mode due to the 1 to 1 ratio through the transmission, therefore the output speed of the engine is the input speed to the pump. The pump output can be easily calculated by using this input speed and the drive ratio of the pump itself to rate the gallons of water the pump can provide.

A transmission interface connector shall be provided in the cab. This package shall contain the following input/output circuits to the transmission control module. The Gen V/VI-E transmission shall include prognostic diagnostic capabilities. These capabilities shall include the monitoring of the fluid life, filter change indication, and transmission clutch maintenance.

<u>Function ID</u>	<u>Description</u>	<u>Wire assignment</u>
Inputs		
C	PTO Request	142
J	Fire Truck Pump Mode (4th Lockup)	122 / 123
Outputs		
C	Range Indicator	145 (4th)
G	PTO Enable Output	130
	Signal Return	103

1807-005 Transmission GEN 5 & 6-E Shift Sel Key Pad/Push Button

TRANSMISSION SHIFT SELECTOR

An Allison pressure sensitive range selector touch pad shall be provided and located to the right of the driver within clear view and easy reach. The shift selector shall have a graphical Vacuum Florescent Display (VFD) capable of displaying two lines of text. The shift selector shall provide mode indication and a prognostic indicator (wrench symbol) on the digital display. The prognostics monitor various operating parameters and shall alert you when a specific maintenance function is required.

1815-002 Elec Transmission Oil Level Indicator

ELECTRONIC TRANSMISSION OIL LEVEL INDICATOR

The transmission fluid shall be monitored electronically.

1814-002 2nd Gear Pre-Select

TRANSMISSION PRE-SELECT WITH AUXILIARY BRAKE

When the auxiliary brake is engaged, the transmission shall automatically shift to second gear to decrease the rate of speed assisting the secondary braking system and slowing the vehicle.

1808-007 Transmission Cooling System

TRANSMISSION COOLING SYSTEM

The transmission shall include a water to oil cooler system located in the cooling loop between the radiator and the engine. The transmission cooling system shall meet all transmission manufacturer requirements. The transmission cooling system shall feature continuous flow of engine bypass water to maintain uninterrupted transmission cooling.

1817-001 Transmission Drain Plug

TRANSMISSION DRAIN PLUG

The transmission shall include an original equipment manufacturer installed magnetic transmission fluid drain plug.

8005-001 Transmission Warranty Allison (5) Year

TRANSMISSION WARRANTY

The Allison EVS series transmission shall be warranted for a period of five (5) years with unlimited mileage. Parts and labor shall be included in the warranty.

2004-003 LH PTO Chassis Sply

LH PTO

A ten (10) bolt standard duty clutched drive PTO shall be provided by the chassis manufacturer and installed on the transmission. Installation shall include mounting of the PTO and wiring the unit with a control switch.

2001-154 LH PTO Model Chelsea 281-GGFJP-E5XD

LH PTO MODEL

A ten (10) bolt Chelsea model 281-GGFJP-E5XD heavy duty transmission driven PTO shall be installed. The clutched shifted PTO is designed specifically for the Allison world transmission and provides an intermittent and continuous torque rating of 360 lb. ft.

2005-008 PTO Location 8:00/1:00

PTO LOCATION

The transmission shall have two (2) power take off (PTO) mounting locations, one (1) in the 8:00 o'clock position and one (1) in the 1:00 o'clock position.

2015-030 LH PTO Ctrl Rkr Enable "Aerial Master"/Rkr Actv "Aerial PTO"

LH PTO CONTROL

Switches for the power take off shall be wired to the V-mux node to be used by the OEM. There shall be an on/off rocker switch labeled “Aerial Master” wired to a V-mux input and output with integral light wired to the v-mux input terminal of the switch that shall illuminate when the switch in on and the v-mux output is active.

There shall be an on/off rocker switch labeled “Aerial PTO” activated by the “Aerial Master” rocker switch with an input to the V-mux node when the switch is on and an integral light activated by an independent V-mux output. The switches shall be located on dash.

3001-017 Driveline MSI 1810/1710 w/Meritor U-Joints w/Thrust Washers

DRIVELINE

All drivelines shall be heavy duty metal tube and equipped with MSI 1810 series universal joints for the main drivelines, and 1710 series for the inter-axle shaft. The shafts shall be dynamically balanced prior to installation to alleviate future vibration. In areas of the driveline where a slip shaft is required, the splined slip joint shall be coated with Glide Coat[®]. The drivelines shall include Meritor brand u-joints with thrust washers.

3005-074 Midship Pump Jackshaft w/Smeal Aerial Pump Mount Holes

MIDSHIP PUMP / GEARBOX

A temporary jackshaft driveline shall be installed by the chassis manufacturer to accommodate the midship split shaft pump as specified by the apparatus manufacturer. Holes shall be provided in the frame as specified by the OEM for mounting a Smeal aerial pump module.

See PDF for specific hole pattern.

3008-085 Midship Pump/Gearbox Model Waterous CSUC20/C22 Fwd

MIDSHIP PUMP / GEARBOX MODEL

The midship pump/gearbox provisions shall be for a Waterous CSUC20 or C22 pump.

3048-006 Midship Driveline Pump Gearbox Drop Waterous "B"

MIDSHIP PUMP GEARBOX DROP

The Waterous pump gearbox shall have a “B” (short) drop length.

3009-008 Midship Pump Ratio 2.46:1

MIDSHIP PUMP RATIO

The ratio for the midship pump shall be 2.46:1.

3010-1130 Midship Pump Location C/L Suction to C/L Rear Axle 113.0"

MIDSHIP PUMP LOCATION C/L SUCTION TO C/L REAR AXLE

The midship pump shall be located so the dimension from the centerline of the suction to the centerline of the rear axle is 113.00 inches.

5013-032 Pump Shift Ctrl Air Ctrl Integrated Shifter Pod

PUMP SHIFT CONTROLS

One (1) air pump shift control panel shall be located on the left hand side of the engine tunnel, integrated with the shifter pod. The following shall be provided on the panel: a three (3) position control lever; an engraved PUMP ENGAGED identification light; and an engraved OK TO PUMP identification light. The pump shift control panel shall be black with a yellow border outline and shall include pump instructions. An instruction plate describing the transmission shift selector position used for pumping shall be provided and located so it can be read from the driver's position per NFPA 16.10.1.3. The road mode shall be selected when the control lever is in the forward position and pump mode shall be selected when the control lever is in the rearward position.

The control lever center position shall exhaust air from both pump and road sides of the pump gear box shift cylinder.

3049-003 Pump Shift Control Plumbing Pre-Plumb Elec/Air

PUMP SHIFT CONTROL PLUMBING

Air connections shall be provided from the air supply tank to the pump shift control valve and from the pump shift control valve to the frame mounted bracket. The frame mounted bracket shall include labeling identifying the pump and road connection points with threaded 0.25 inch NPT fittings on the solenoid for attaching the customer installed pump. The air supply shall be pressure protected from service brake system.

3109-064 Fuel Filter/Wtr Separator Racor GreenMAX 6600R w/Lt & Alarm

FUEL FILTER/WATER SEPARATOR

The fuel system shall have a Racor GreenMAX 6600R fuel filter/water separator as a primary filter. The fuel filter shall have a drain valve and a see-through cover to allow visual inspection of fuel and filter condition. The Racor 6600R shall meet engine requirements for particulate size, collection capacity, removal efficiency, and water removal efficiency. The filter shall be capable of handling a maximum flow rate of 150 gallons per hour.

A secondary fuel filter shall be included as approved by the engine manufacturer.

An instrument panel lamp and audible alarm which indicates when water is present in the fuel-water separator shall also be included.

3111-002 Fuel Lines Wire Braid

FUEL LINES

The fuel system supply and return lines installed from the fuel tank to the engine shall be black textile braided lines which are reinforced with braided high tensile steel wire. The fuel lines shall be connected with reusable steel fittings.

3104-012 Fuel Shutoff Valve at Tank and (2) at Primary Filter

FUEL SHUTOFF VALVE

There shall be two (2) fuel shutoff valves which shall be installed, one (1) in the fuel draw line at the primary fuel filter and one (1) in the fuel outlet line at the primary fuel filter to allow the fuel filters to be changed without loss of fuel to the fuel pump.

A third fuel shutoff valve shall be installed in the fuel draw line, near the fuel tank to allow maintenance to be performed with minimal loss of fuel.

3103-008 Electric Fuel Primer Engine Sply Electric Lift Pump

ELECTRIC FUEL PRIMER

Integral to the engine assembly is an electric lift pump that serves the purpose of pre-filter fuel priming.

3112-018 Fuel Cooler w/Active Cooling Fan/Temp Ctrl Sw

FUEL COOLER

A fuel cooler shall be provided to lower fuel temperature allowing the vehicle to operate at higher ambient temperatures. The fuel cooler shall include an electrical fan and temperature-controlled relay switch.

3101-102 Fuel Tank 68 Gallon

FUEL TANK

The fuel tank shall have a capacity of sixty-eight (68) gallons and shall measure 35.00 inches in width X 17.00 inches in height X 29.00 inches in length.

The baffled tank shall have a vent port to facilitate venting to the top of the fill neck for rapid filling without "blow-back" and a roll over ball check vent for temperature related fuel expansion and draw.

The tank is designed with dual draw tubes and sender flanges. The tank shall have 2.00 inch NPT fill ports for right or left hand fill. A 0.50 inch NPT drain plug shall be centered in the bottom of the tank.

The fuel tank shall be mounted below the frame, behind the rear axle. Two (2) three-piece strap hanger assemblies with "U" straps bolted midway on the fuel tank front and rear shall be utilized to allow the tank to be easily lowered and removed for service purposes. Rubber isolating pads shall be provided between the tank and the upper tank mounting brackets. Strap mounting studs through the rail, hidden behind the body shall not be acceptable.

3130-001 Fuel Tank Material Steel & Finish Painted Frame Components Color

FUEL TANK MATERIAL AND FINISH

The fuel tank shall be constructed of 12 gauge aluminized steel. The exterior of the tank shall be powder coated black and then painted to match the frame components.

All powder coatings, primers and paint shall be compatible with all metals, pretreatments and primers used. The cross hatch adhesion test per ASTM D3359 Method B, results to be 5B minimum. The pencil hardness test per ASTM D3363 shall have a final post-curved pencil hardness of H-2H. The direct impact resistance test per ASTM D2794, results to be 5B minimum.

Any proposals offering painted fuel tanks with variations from the above process shall not be accepted. The film thickness of vendor supplied parts shall also be sufficient to meet the performance standards as stated above.

3131-001 Fuel Tank Strap Material Steel & Finish Painted Frame Components Color

FUEL TANK STRAP MATERIAL

The fuel tank straps shall be constructed of ASTM A-36 steel. The fuel tank straps shall be powder coated black and then painted to match the frame components if possible.

3132-011 Fuel Tank Miscellaneous Options - Temporarily Mounted

FUEL TANK MISCELLANEOUS OPTIONS

The fuel tank shall be temporarily mounted, to be permanently relocated by the OEM. The tank and mounting straps as specified shall be included with the chassis along with components for permanent standard installation.

3102-016 Fuel Tank Fill Port LH Mid/RH Mid/LH Fwd

FUEL TANK FILL PORT

The fuel tank fill ports shall be provided with two (2) left fill ports located one (1) in the forward position and one (1) in the middle position and the right fill port located in the middle position of the fuel tank.

3114-006 Fuel Tank Serviceability Prov 12' Fuel Line Extension

FUEL TANK SERVICEABILITY PROVISIONS

The chassis fuel lines and sender wiring shall have additional length provided so the tank can be easily lowered and removed for service purposes. The additional 12.00 feet of length shall be located above the fuel tank and shall be coiled and secured. The fuel line fittings shall be pointed towards the right side (curbside) of the chassis.

3115-002 Fuel Tank Drain Plug Magnetic

FUEL TANK DRAIN PLUG

A 0.5 inch NPT magnetic drain plug shall be centered in the bottom of the fuel tank.

2401-039 Frt Axle Hendrickson STEERTEK NXT Fabricated Box Beam 24000#

FRONT AXLE

The front axle shall be a Hendrickson STEERTEK Non-drive front axle, NXT Fire/Rescue model. The axle shall include 3.74 inches of drop and a 70.87 inches wide king pin intersection (KPI). The axle shall be a box-shaped fabricated beam with integrated suspension. The axle shall include a conventional style hub with a standard knuckle. The weight capacity for the axle shall be rated up to 24,000 pounds.

2405-001 Frt Wheel Bearing Lube Oil

FRONT WHEEL BEARING LUBRICATION

The front axle wheel bearings shall be lubricated with oil. The oil level can be visually checked via clear inspection windows in the front axle hubs.

2502-006 Frt Shock Absorbers Suspension Sply

FRONT SHOCK ABSORBERS

Shock absorbers shall be supplied by the suspension manufacturer and installed on the front axle suspension.

2501-019 Frt Suspension Parabolic STEERTEK NXT Integrated 18000-24000# Spring Pack

FRONT SUSPENSION

The front suspension shall include a parabolic leaf spring pack integrated into the Hendrickson STEERTEK NXT axle consisting of 58.40 inches long and 4.00 inches wide tapered leaf springs and shall feature a military double wrapped front eye. Spring eyes shall have Hendrickson's proprietary threaded pin bushings to increase roll stiffness. The spring capacity shall be rated specifically to the axle configuration from 18,000 and up to 24,000 pounds.

2601-006 Steering Column/Wheel Tilt/Telescopic 18" 4 Spoke

STEERING COLUMN/ WHEEL

The cab shall include a Douglas Autotech steering column which shall include a seven (7) position tilt, a 2.25 inch telescopic adjustment, and an 18.00 inch, four (4) spoke steering wheel located at the driver's position. The steering wheel shall be covered with black polyurethane foam padding.

The steering column shall contain a horn button, self-canceling turn signal switch, four-way hazard switch and headlamp dimmer switch.

2609-002 Elec Power Steering Fluid Level Indicator

ELECTRONIC POWER STEERING FLUID LEVEL INDICATOR

The power steering fluid shall be monitored electronically and shall send a signal to activate an audible alarm and visual warning in the instrument panel when fluid level falls below normal.

2603-011 Power Steering Pump TRW w/Passive Cooler

POWER STEERING PUMP

The hydraulic power steering pump shall be a TRW PS and shall be gear driven from the engine. The pump shall be a balanced, positive displacement, sliding vane type. The power steering system shall include an oil to air passive cooler.

2606-016 Front Axle Cramp Angle 45L/43R Degrees

FRONT AXLE CRAMP ANGLE

The chassis shall have a front axle cramp angle of 45-degrees to the left and 43-degrees to the right.

2610-005 Power Steering Gear TRW TAS 85 w/Assist

POWER STEERING GEAR

The power steering gear shall be a TRW model TAS 85 with an assist cylinder.

2608-001 Chassis Alignment

CHASSIS ALIGNMENT

The chassis frame rails shall be measured to insure the length is correct and cross checked to make sure they run parallel and are square to each other. The front and rear axles shall be laser aligned. The front tires and wheels shall be aligned and toe-in set on the front tires by the chassis manufacturer.

3401-012 Rear Axle 54000# Meritor RT-52-185

REAR AXLE

The rear axle shall be a Meritor model RT-52-185 tandem drive axle. The axle shall include precision forged, single reduction differential gearing, and shall have a fire service rated capacity of 54,000 pounds.

The axle shall be built of superior construction and quality components to provide the rugged dependability needed to stand up to the fire industry's demands. The axle shall include rectangular shaped, hot-formed housing with a standard wall thickness of 0.56 of an inch for extra strength and rigidity and a rigid differential case for high axle strength and reduced maintenance.

The axle shall have heavy-duty Hypoid gearing for longer life, greater strength and quieter operation. Industry-standard wheel ends for compatibility with both disc and drum brakes, and unitized oil seal technology to keep lubricant in and help prevent contaminant damage will be used.

3403-001 Rear Axle Differential Lubrication Oil

REAR AXLE DIFFERENTIAL LUBRICATION

The rear axle differential shall be lubricated with oil.

8061-021 Rear Axle Warranty Meritor 2026

REAR AXLE WARRANTY

The rear axle shall be warranted by Meritor for five (5) years with unlimited miles under the general service application. Details of the Meritor warranty are provided on the PDF document attached to this option.

3411-001 Rear Wheel Bearing Lubrication Oil

REAR WHEEL BEARING LUBRICATION

The rear axle wheel bearings shall be lubricated with oil.

3407-033 Rear Axle Differential Ctrl Interaxle Lock

REAR AXLE DIFFERENTIAL CONTROL

The tandem axle chassis shall include an inter-axle differential lock, which shall allow both axles to be engaged as drive axles. The inter-axle differential lock shall be controlled by a locking rocker switch on the switch panel. The light on the switch shall illuminate with positive engagement of the inter-axle differential lock.

3408-004 Vehicle Top Speed 65 MPH

VEHICLE TOP SPEED

The top speed of the vehicle shall be approximately 65 MPH +/-2 MPH at governed engine RPM.

3501-035 Rear Susp Hendrickson FireMaax Air 48001-54000#

REAR SUSPENSION

The tandem rear axle shall feature a Hendrickson Firemaax™ air suspension. Each axle will be independently suspended for optimum performance. The suspension shall include four optimized air springs mounted to cast structural trailing arms, transverse cross beams for increased roll stability and four heavy duty shock absorbers. Dual air height control valves shall be installed on each axle to ensure equal frame height on both sides of the vehicle regardless of the load. Axle alignment is maintained

using four eccentric bushings at each frame bracket. The rear tandem suspension shall have 54.00 inch axle centers.

The rear suspension capacity shall be rated at 48,001 to 54,000 pounds

3503-003 Rear Shock Absorbers Suspension Sply

REAR SHOCK ABSORBERS

Shock absorbers shall be supplied by the suspension manufacturer and installed on the rear axle suspension.

3625-002 Tire Intermittent Service Ratings Acceptable

TIRE INTERMITTENT SERVICE RATING

The chassis shall be rated using Intermittent Service ratings provided to the emergency vehicle market by the tire manufacturers as the basis for determining the maximum vehicle load and speed.

3601-063 Frt Tire 425/65R 22.5 Michelin XZY3

FRONT TIRE

The front tires shall be Michelin 425/65R-22.5 20PR "L" tubeless radial XZY3 mixed service tread.

The front tire stamped load capacity shall be 22,800 pounds per axle with a nominal speed rating of 65 miles per hour when properly inflated to 120 pounds per square inch.

The Michelin Intermittent Service Rating maximum load capacity shall be 24,396 pounds per axle with a maximum speed of 65 miles per hour when properly inflated to 120 pounds per square inch.

The Michelin Intermittent Service Rating maximum speed capacity shall be 22,800 pounds per axle with a speed rating of 75 miles per hour when properly inflated to 120 pounds per square inch.

The Michelin Intermittent Service Rating limits the operation of the emergency vehicle to no more than fifty (50) miles of continuous operation under maximum recommended payload, or without stopping for at least twenty (20) minutes. The emergency vehicle must reduce its speed to no more than 50 MPH after the first fifty (50) miles of travel.

3602-019 Rear Tire 315/80R 22.5 Michelin XDN2 Grip

REAR TIRE

The rear tires shall be Michelin 315/80R-22.5 20PR "L" tubeless radial XDN2 Grip all weather tread.

The rear tire stamped load capacity shall be 33,080 pounds per axle with a nominal speed rating of 75 miles per hour when properly inflated to 130 pounds per square inch.

The Michelin Intermittent Service Rating maximum load capacity shall be 35,396 pounds per axle with a maximum speed of 75 miles per hour when properly inflated to 130 pounds per square inch.

The Michelin Intermittent Service Rating maximum speed capacity shall match the nominal speed rating.

The Michelin Intermittent Service Rating limits the operation of the emergency vehicle to no more than fifty (50) miles of continuous operation under maximum recommended payload, or without stopping for at least twenty (20) minutes. The emergency vehicle must reduce its speed to no more than 50 MPH after the first fifty (50) miles of travel.

3413-538 Rear Axle Ratio 5.38

REAR AXLE RATIO

The rear axle ratio shall be 5.38:1.

3614-030 Tire Pressure Ind Frt & Rr LED

TIRE PRESSURE INDICATOR

There shall be electronic chrome LED valve caps shipped loose for installation by the OEM which shall illuminate with a red LED when tire pressure drops 8psi provided. The valve caps are self-calibrating and set to the pressure of the tire upon installation.

3701-034 Frt Wheel Alcoa Dura-Bright 22.5 x 12.25 Alum

FRONT WHEEL

The front wheels shall be Alcoa hub piloted, 22.50 inch X 12.25 inch aluminum wheels. The outer face of the wheels shall feature Alcoa's Dura-Bright® finish as an integral part of the wheel surface. Alcoa Dura-Bright® wheels keep their shine without polishing. Brake dust, grime and road debris are easily removed by simply cleaning the wheels with soap and water. The hub piloted mounting system shall provide easy installation and shall include two-piece flange nuts.

3703-050 Rr Whl Alcoa Dura-Bright 22.5 x 9.00 Alum

REAR WHEEL

The rear wheels shall be Alcoa hub piloted, 22.50 inch X 9.00 inch aluminum wheels with a polished outer surface and Alcoa Dura-Bright® wheel treatment as an integral part of the wheel surface. The inner rear wheels shall be Alcoa hub piloted, 22.50 inch X 9.00 inch aluminum wheels with a polished inner and outer surface and Alcoa Dura-Bright® wheel treatment as an integral part of the wheel surface. The hub piloted mounting system shall provide easy installation and shall include two-piece flange nuts.

3719-002 Balance Wheels & Tires

BALANCE WHEELS AND TIRES

All of the wheels and tires, including any spare wheels and tire assemblies, shall be dynamically balanced.

3702-002 Wheel Trim Hub & Nut Covers SS Shiploose

WHEEL TRIM

The front wheels shall include stainless steel lug nut covers and stainless steel baby moons shipped loose with the chassis for installation by the apparatus builder. The baby moons shall have cutouts for oil seal viewing when applicable.

The rear wheels shall include stainless steel lug nut covers and band mounted spring clip stainless steel high hats shipped loose with the chassis for installation by the apparatus builder.

The lug nut covers, baby moons, and high hats shall be RealWheels® brand constructed of 304L grade, non-corrosive stainless steel with a mirror finish. Each wheel trim component shall meet D.O.T. certification.

3205-015 Brake System ABS/ATC/ESC Tandem Axle Disp Actv

BRAKE SYSTEM

A rapid build-up air brake system shall be provided. The air brakes shall include, at a minimum, a three (3) air tank, four (4) reservoir system with a total of 6236 cubic inch of air capacity. A floor mounted treadle valve shall be mounted inside the cab for graduated control of applying and releasing the brakes. An inversion valve shall be installed to provide a service brake application in the unlikely event of primary air supply loss. All air reservoirs provided on the chassis shall be labeled for identification.

The tandem rear axle spring brakes shall automatically apply in any situation when the air pressure falls below 25 PSI and shall include a mechanical means for releasing the spring brakes when necessary. An audible alarm shall designate when the system air pressure is below 60 PSI.

A six (6) sensor, six (6) modulator Anti-lock Braking System (ABS) shall be installed on the front and tandem rear axles in order to prevent the brakes from locking or skidding while braking during hard stops or on icy or wet surfaces. This in turn shall allow the driver to maintain steering control under heavy braking and in most instances, shorten the braking distance. The electronic monitoring system shall incorporate diagonal circuitry which shall monitor wheel speed during braking through a sensor and tone ring on each wheel. A dash mounted ABS lamp shall be provided to notify the driver of a system malfunction. The ABS system shall automatically disengage the auxiliary braking system device when required. The speedometer screen shall be capable of reporting all active defaults using PID/SID and FMI standards.

Additional safety shall be accommodated through Automatic Traction Control (ATC) which shall be installed on the tandem rear axle. The ATC system shall apply the ABS when the drive wheels lose traction. The system shall scale the electronic engine throttle back to prevent wheel spin while accelerating on ice or wet surfaces.

A virtual button on the vehicle display and control screen shall be provided and properly labeled "mud/snow". When the switch is pressed once, the system shall allow a momentary wheel slip to obtain traction under extreme mud and snow conditions. During this condition the ATC light shall blink continuously notifying the driver of activation. Pressing the switch again shall deactivate the mud/snow feature.

The Electronic Stability Control (ESC) unit is a functional extension of the electronic braking system. It is able to detect any skidding of the vehicle about its vertical axis as well as any rollover tendency. The control unit comprises an angular-speed sensor that measures the vehicle's motion about the vertical axis, caused, for instance, by cornering or by skidding on a slippery road surface. An acceleration sensor measures the vehicle's lateral acceleration. The Controller Area Network (CAN) bus provides information on the steering angle. On the basis of lateral acceleration and steering angle, an integrated microcontroller calculates a theoretical angular speed for the stable vehicle condition.

3206-003 Frt Brakes Meritor EX225 Disc 17"

FRONT BRAKES

The front brakes shall be Meritor EX225 Disc Plus disc brakes with 17.00 inch vented rotors.

3207-003 Rr Brakes Meritor EX225 Disc 17"

REAR BRAKES

The rear brakes shall be Meritor EX225 Disc Plus disc brakes with 17.00 inch vented rotors.

3208-001 Prk Brake Rr Wheels Only

PARK BRAKE

Upon application of the push-pull valve in the cab, the rear brakes will engage via mechanical spring force. This is accomplished by dual chamber rear brakes, satisfying the FMVSS parking brake requirements.

3219-002 Supplemental Brake Frt Service Brakes Prk Brk Actv

SUPPLEMENTAL BRAKE

A supplemental brake engagement shall be supplied that can only be engaged while the rear spring brakes are engaged. In addition to the mechanical rear brake engagement, the front service brakes shall also be engaged via air pressure, providing additional braking capability. Front service brake activation shall be accomplished with activation of the rear mechanical park brake valve.

3204-025 Prk Brake Ctrl Ctr Sw Pnl Mnt w/Horiz Orientation Guard

PARK BRAKE CONTROL

A Meritor-Wabco manual hand control push-pull style valve shall operate the parking brake system. The control shall be yellow in color.

The parking brake actuation valve shall be mounted in the switch panel. A horizontal orientation guard shall be installed over the parking brake control to prevent accidental application or release.

3202-005 Air Dryer Wabco System Saver 1200 Bhd LH Batt Box

AIR DRYER

The brake system shall include a Wabco System Saver 1200 air dryer with an integral heater with a Metri-Pack sealed connector. The air dryer incorporates an internal turbo cutoff valve that closes the path between the air compressor and air dryer purge valve during the compressor "unload" cycle. The turbo cutoff valve allows purging of moisture and contaminants without the loss of turbo boost pressure. The air dryer shall be mounted behind the battery box on the left hand side.

3215-009 Frt Brake Chambers Hendrickson STEERTEK NXT Type 24

FRONT BRAKE CHAMBERS

The front brakes shall be provided with type 24 brake chambers as supplied with the Hendrickson STEERTEK NXT axle.

3210-025 Rr Brake Chambers MGM 24/30 Piston

REAR BRAKE CHAMBERS

The rear axle shall include MGM 24/30 brake chambers shall convert the energy of compressed air into mechanical force and motion. This shall actuate the brake camshaft, which in turn shall operate the foundational brake mechanism forcing the brake pads against the brake rotor.

3320-001 Air Compressor Wabco SS318 18.7 CFM

AIR COMPRESSOR

The air compressor provided for the engine shall be a Wabco® SS318 single cylinder pass-through drive type compressor which shall be capable of producing 18.7 CFM at 1200 engine RPMs. The air compressor shall feature a higher delivery efficiency translating to more air delivery per horsepower absorbed. The compressor shall include an aluminum cylinder head which shall improve cooling, reduce weight and decrease carbon formation. Superior piston and bore finishing technology shall reduce oil consumption and significantly increasing the system component life.

3339-004 Air Governor Mnt on Air Dryer Bracket

AIR GOVERNOR

An air governor shall be provided to control the cut-in and cut-out pressures of the engine mounted air compressor. The governor shall be calibrated to meet FMVSS requirements. The air governor shall be located on the air dryer bracket.

3303-005 Moisture Ejectors Auto w/Cable

MOISTURE EJECTORS

Automatic moisture ejectors with a manual drain provision shall be installed on all reservoirs of the air supply system. The manual drain provision shall include an actuation pull cable coiled and tied at each drain valve. The supplied cables when extended shall be sufficient in length to allow each drain to be activated from the side of the apparatus.

3307-001 Air Sply Lines Nylon w/Compression Fittings

AIR SUPPLY LINES

The air system on the chassis shall be plumbed with color coded reinforced nylon tubing air lines. The primary (rear) brake line shall be green, the secondary (front) brake line red, the parking brake line orange and the auxiliary (outlet) will be blue.

Brass compression type fittings shall be used on the nylon tubing. All drop hoses shall include fiber reinforced neoprene covered hoses.

3309-033 Air Inlet Connection

AIR INLET CONNECTION

An air connection for the shoreline air inlet shall be supplied.

3349-002 Air Inlet Location LH Lwr Frt Step Fwd

AIR INLET LOCATION

The air inlet shall be installed in the left hand side lower front step in the forward position.

3326-002 Air Inlet/Outlet Manual Conn Tru-Flate Interchange 1/4"

AIR INLET/ OUTLET FITTING TYPE

The air connector supplied shall be a 0.25 inch size Tru-Flate Interchange style manual connection which is compatible with Milton 'T' style, Myers 0.25 inch Automotive style and Parker 0.25 inch 10 Series connectors.

3338-001 Rear Air Tank Mnt Any Bhd Rear Axle Parallel w/Frame

REAR AIR TANK MOUNTING

If a combination of wheel base, air tank quantity, or other requirements necessitate the location of one or more air tanks to be mounted rear of the fuel tank, these tank(s) will be mounted parallel to frame.

2103-2330 Wheelbase 233.0"

WHEELBASE

The chassis wheelbase shall be 233.00 inches.

2106-0640 Rear Overhang 64.0"

REAR OVERHANG

The chassis rear overhang shall be 64.00 inches.

2101-002 Frame Double Channel 35.00" Width

FRAME

The frame shall consist of double rails running parallel to each other with cross members forming a ladder style frame. The frame rails shall be formed in the shape of a "C" channel, with the outer rail measuring 10.25 inches high X 3.50 inches deep upper and lower flanges X 0.38 inches thick with an inner channel of 9.44 inches high X 3.13 inches deep and 0.38 inches thick. Each rail shall be constructed of 110,000 psi minimum yield high strength low alloy steel. Each double rail section shall be rated by a Resistance Bending Moment (RBM) minimum of 3,213,100 inch pounds and have a minimum section modulus of 29.21 cubic inches. The frame shall measure 35.00 inches in width.

Proposals calculating the frame strength using the "box method" shall not be considered.

Proposals including heat treated rails shall not be considered. Heat treating frame rails produces rails that are not uniform in their mechanical properties throughout the length of the rail. Rails made of high strength, low alloy steel are already at the required yield strength prior to forming the rail.

A minimum of seven (7) fully gusseted 0.25 inch thick cross members shall be installed. The inclusion of the body mounting, or bumper mounting shall not be considered as a cross member. The cross members shall be attached using zinc coated grade 8 fasteners. The bolt heads shall be flanged type, held in place by distorted thread flanged lock nuts. Each cross member shall be mounted to the frame rails utilizing a minimum of 0.25 inch thick gusset reinforcement plates at all corners balancing the area of force throughout the entire frame.

Any proposals not including additional reinforcement for each cross member shall not be considered.

All relief areas shall be cut in with a minimum 2.00 inch radius at intersection points with the edges ground to a smooth finish to prevent a stress concentration point.

2111-136 Misc Frame Options Smeal Aerials 105RM, 100RM, 125RM, 100MM Layout 4

MISCELLANEOUS FRAME OPTIONS

The frame shall include drillings which shall be specific to mounting a Smeal 105RM, 100RM, 125RM, or 100MM substructure.

See PDF for OEM Specified pattern.

2117-004 Frame Clear Area Inside/Outside Rail 30" Rwd Back of Cab

FRAME CLEAR AREA

The chassis frame shall be left clear of chassis mounted components inside or outside the frame rails within the first 30.00 inches behind the cab to allow space for OEM installed components. Cross members may be installed in the clear area if required for proper frame or driveline configuration.

2110-201 Frame Paint Hot Dipped Galvanized - Frame Only Addl Comp Blk Powder Coat

FRAME PAINT

The frame rails shall be hot dip galvanized prior to assembly and attachment of any components. The components that shall be galvanized shall include:

- Main frame "C" channel or channels

The frame parts which are not galvanized shall be powder coated prior to any attachment of components. Parts which shall be powder coated shall include but are not limited to:

- Steering gear bracket
- Front splayed rails and fish plates
- Bumper extensions
- Cross members
- Cross member gussets
- Fuel tank mounting brackets
- Fuel tank straps (unless material/finish is specified in 3130 subcat)
- Air tanks (unless color coded tanks are specified in 3205 subcat)
- Air tank mounting brackets
- Exhaust mounting brackets
- Air cleaner skid plate
- Radiator skid plate
- Battery supports, battery trays and battery covers

Other non-galvanized under carriage components which are received from the suppliers with coatings already applied shall include but are not limited to:

- Suspension components
- Front and rear axles

All powder coatings, primers and paint used on the non-galvanized components shall be compatible with all metals, pretreatments and primers used. The cross hatch adhesion test per ASTM D3359 shall not

have a fail of more than ten (10) squares. The pencil hardness test per ASTM D3363 shall have a final post-curved pencil hardness of H-2H. The direct impact resistance test per ASTM D2794 shall have an impact resistance of 120.00 inches per pound at 2 mils.

8007-036 Frame Assembly Structural Warranty (50) Year RFW0305

FRAME ASSEMBLY STRUCTURAL

Purchaser shall receive a Frame Assembly Structural Fifty (50) Years or 250,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0305. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

8019-003 Frame Rail Corrosion Warranty (25) Year RFW0316

FRAME RAIL CORROSION

Purchaser shall receive a Frame Rail Corrosion (Zinc Plate and Powder Coat) Twenty Five (25) Years or 150,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0316. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

8022-004 Frame Components Corrosion Warranty (3) Year RFW0315

FRAME COMPONENTS CORROSION

Purchaser shall receive a Frame Components Corrosion (Powder Coat) Three (3) Years or 48,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0313. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

2201-002 Frt Bumper Structural Steel Channel Severe Duty

FRONT BUMPER

The chassis shall be equipped with a severe duty front bumper constructed from structural steel channel. The bumper material shall be 0.38 thick ASTM A36 steel which shall measure 12.00 inches high with a 3.05 inch flange and shall be 104.50 inches wide with angled front corners.

The bumper shall be primed and painted as specified.

2202-005 Frt Bumper Extension Length 21"

FRONT BUMPER EXTENSION LENGTH

The front bumper shall be extended approximately 21.00 inches ahead of the cab.

2206-012 Frt Bumper Paint Primary/Lower Cab Color w/Bedliner Black Bumper Trim

FRONT BUMPER PAINT

The front bumper shall be painted the same as the lower cab color. The front bumper trim shall feature a black spray on bedliner coating.

2227-024 Frt Bumper Trim SS Ptd Wide Band Frt Top Edge/Corners Abv Apron w/Iso Washers

FRONT BUMPER TRIM

A stainless steel trim angle, painted to the customer's specifications, shall be installed on the top corner of the bumper across the front and on the top corner of the bumper tails, terminating at the rearmost portion of the apron. The trim angle shall measure approximately 3.00 inches wide on the horizontal flange and 1.60 inches tall on the vertical flange. The trim shall be affixed to the bumper and bolted down to the apron with isolating washers.

2208-006 Frt Bumper Apron For 21" Extension

FRONT BUMPER APRON

The 21.00 inch extended front bumper shall include an apron constructed of 0.19 inch thick embossed aluminum tread plate.

The apron shall be installed between the bumper and the front face of the cab affixed using stainless steel bolts attaching the apron to the top bumper flange.

2237-005 Front Bumper Discharge 2.5" LH Frame Mnt Plumbing

FRONT BUMPER DISCHARGE

The chassis shall include frame mounted 2.50 inch diameter plumbed pipe intended for use as a discharge trash line. The discharge pipe shall be routed from the left hand front splay rail area behind the bumper to the area rear of the front axle, ahead of the battery box.

The discharge shall pipe shall be a, 2.50 inch stainless steel schedule 10 tube. The discharge shall include a Victaulic groove for connecting to the pump and discharge hose plumbing on each end of the tube.

The apparatus manufacturer shall plumb the discharge pipe to the pump and shall provide all valves as required.

2211-075 Frt Bumper Cmpt Ctr Full Size 38.00"Wx10.88"D w/LH Notched Cover

FRONT BUMPER COMPARTMENT CENTER

The front bumper shall include a compartment in the bumper apron located in the center between the frame rails which may be used as a hose well. The compartment shall be constructed of 0.13 inch 5052-H32 grade aluminum and shall include drain holes in the bottom corners to allow excess moisture to escape. The compartment shall be the full size of available space in the apron from the cab fascia to the bumper and 38.00 inches wide X 10.88 inches deep. The clear opening shall be 37.75 inches wide. The compartment shall include a notched cover constructed of 0.19 inch thick bright embossed aluminum tread plate. The notch shall be located in the left front portion of the cover and shall be 4.00 inches in length with a 2.00 inches wide radius.

2210-002 Frt Bumper Cmpt Cover Hardware Gas Cylinder/D-Ring

FRONT BUMPER COMPARTMENT COVER HARDWARE

The front bumper compartment cover(s) shall include gas cylinder stays which shall hold the cover open. Each cover shall be held in the closed position via a D-ring style latch.

5503-022 Mechanical Siren Federal Signal Q2B Pedestal Mnt

MECHANICAL SIREN

The front bumper shall include an electro mechanical Federal Q2B™ siren, which shall be streamlined, chrome-plated and shall produce 123 decibels of sound at 10.00 feet. The Q2B™ siren produces a distinctive warning sound that is recognizable at long distances. A unique clutch design provides a longer coast down sound while reducing the amp draw to 100 amps. The siren shall measure 10.50 inches wide X 10.00 inches high X 14.00 inches deep. The siren shall include a pedestal mount to surface mount on a horizontal surface.

2218-005 Mech Siren Location Frt Bmpr Apron RH OB

MECHANICAL SIREN LOCATION

The siren shall be pedestal mounted on the bumper apron on the furthest outboard section of the bumper on the officer side.

5501-020 Air Horn (2) 21" Round Hadley E-Tone

AIR HORN

The front bumper shall include two (2) Hadley brand E-Tone air horns which shall measure 21.00 inches long with a 6.00 inch round flare. The air horns shall be trumpet style with a chrome finish on the exterior and a painted finish deep inside the trumpet.

2216-011 Air Horn Location (2) Frt Bmpr Face R/L OB

AIR HORN LOCATION

The air horns shall be recess mounted in the front bumper face, one (1) on the right side of the bumper in the outboard position relative to the right hand frame rail and one (1) on the left side of the bumper in the outboard position relative to the left hand frame rail.

2232-003 Air Horn Reservoir (1) 2084 Cu In

AIR HORN RESERVOIR

One (1) air reservoir, with a 2084 cubic inch capacity, shall be installed on the chassis to act as a supply tank for operating air horns. The reservoir shall be isolated with a 90 PSI pressure protection valve on the reservoir supply side to prevent depletion of the air to the air brake system.

5504-030 Elect Siren Speaker (2) 100W Cast Products SA4301

ELECTRONIC SIREN SPEAKER

There shall be two (2) Cast Products Inc. model SA4301, 100 watt speakers provided. Each speaker shall measure 6.20 inches tall X 7.36 inches wide X 3.06 inches deep. Each speaker shall include a flat mounting flange which shall be polished aluminum.

2217-010 Elec Siren Speaker Location (2) Frt Bmpr Face R/L IB

ELECTRONIC SIREN SPEAKER LOCATION

The two (2) electronic siren speakers shall be located on the front bumper face outboard of the frame rails with one (1) on the right side and one (1) on the left side in the inboard positions.

2203-002 Frt Bumper Tow Hooks Painted Below Fwd

FRONT BUMPER TOW HOOKS

Two (2) heavy duty tow hooks, painted to match the frame components, shall be installed below the front bumper in the forward position, bolted directly to the underside of each chassis frame rail with grade 8 bolts.

2310-002 Cab Height Adjustment 0.75"

CAB HEIGHT ADJUSTMENT

The cab shall include 0.75 inch thick shims raising the cab to provide additional clearance under the cab.

2301-001 Cab Tilt System

CAB TILT SYSTEM

The entire cab shall be capable of tilting approximately 45-degrees to allow for easy maintenance of the engine and transmission. The cab tilt pump assembly shall be located on the right side of the chassis above the battery box.

The electric-over-hydraulic lift system shall include an ignition interlock and red cab lock down indicator lamp on the tilt control which shall illuminate when holding the "Down" button to indicate safe road operation.

It shall be necessary to activate the master battery switch and set the parking brake in order to tilt the cab. As a third precaution the ignition switch must be turned off to complete the cab tilt interlock safety circuit.

Two (2) spring-loaded hydraulic hold down hooks located outboard of the frame shall be installed to hold the cab securely to the frame. Once the hold-down hooks are set in place, it shall take the application of pressure from the hydraulic cab tilt lift pump to release the hooks.

Two (2) cab tilt cylinders shall be provided with velocity fuses in each cylinder port. The cab tilt pivots shall be 1.90 inch ball and be anchored to frame brackets with 1.25 inch diameter studs.

A steel safety channel assembly, painted safety yellow shall be installed on the right side cab lift cylinder to prevent accidental cab lowering. The safety channel assembly shall fall over the lift cylinder when the cab is in the fully tilted position. A cable release system shall also be provided to retract the safety channel assembly from the lift cylinder to allow the lowering of the cab.

2302-005 Cab Tilt Aux Pump Manual Mnt w/Tilt Pump

CAB TILT AUXILIARY PUMP

A manual cab tilt pump module shall be attached to the cab tilt pump housing/power distribution box.

2303-003 Cab Tilt Limit Sw Preset Limit

CAB TILT LIMIT SWITCH

A cab tilt limit switch shall be installed. The switch will effectively limit the travel of the cab when being tilted. The limit adjustment of the switch shall be preset by the chassis manufacturer to prevent damage to the cab or any bumper mounted option mounted in the cab tilt arc. Further adjustment to the limit by the apparatus manufacturer shall be available to accommodate additional equipment.

2305-003 Cab Tilt Ctrl Receptacle For Customer Install In Body

CAB TILT CONTROL RECEPTACLE

A 25.00 foot cab tilt control harness shall be provided on the right side of frame just behind the cab. This harness shall consist of an 8.00 foot harness connected to the tilt pump and a 17.00 foot extension harness with a six (6) pin Deutsch connector with cap for mounting in a compartment in the body.

The remote control pendant shall include 20.00 feet of cable with a mating Deutsch connector. The remote control pendant shall be shipped loose with the chassis.

2306-002 Cab Tilt Lock Down Indicator

CAB TILT LOCK DOWN INDICATOR

The cab dash shall include a message located within the dual air pressure gauge which shall alert the driver when the cab is unlocked and ajar. The alert message shall cease to be displayed when the cab is in the fully lowered position and the hold down hooks are secured and locked to the cab mounts.

In addition to the alert message an audible alarm shall sound when the cab is unlocked and ajar and the parking brake is released.

1401-009 Cab Windshield

CAB WINDSHIELD

The cab windshield shall have a surface area of 2969.88 square inches and be of a two (2) piece wraparound design for maximum visibility.

The glass utilized for the windshield shall include standard automotive tint. The left and right windshield shall be fully interchangeable thereby minimizing stocking and replacement costs.

Each windshield shall be installed using black self locking window rubber.

1402-002 Glass Frt Dr Pwr

GLASS FRONT DOOR

The front cab doors shall include a window which is 27.00 inches in width X 26.00 inches in height. These windows shall have the capability to roll down completely into the door housing. This shall be accomplished using electric actuation. The left and right front door windows shall be controlled using a switch on each respective side inner door panel. The driver's door shall include a switch for each powered door window in the cab.

There shall be an irregular shaped fixed window which shall measure 2.50 inches wide at the top, 8.00 inches wide at the bottom X 26.00 inches in height, more commonly known as "cozy glass" ahead of the front door roll down windows.

The windows shall be mounted within the frame of the front doors trimmed with a black ring on the exterior.

1407-002 Glass Tint Frt Dr Automotive Dark Gray

GLASS TINT FRONT DOOR

The windows located in the left and right front doors shall include a dark gray automotive tint which shall allow forty-five percent (45%) light transmittance. The dark tint shall aid in cab cooling and help protect passengers from radiant solar energy.

1419-008 Glass Rr Dr RH Pwr

GLASS REAR DOOR RH

The rear right hand side crew door shall include a window which is 27.00 inches in width X 26.00 inches in height. The window shall be a powered type and shall be controlled by a switch on the door panel ledge and on the driver's control panel.

1430-002 Glass Tint Rr Door RH Automotive Dark Gray

GLASS TINT REAR DOOR RIGHT HAND

The window located in the right hand side rear window shall include a dark gray automotive tint which shall allow forty-five percent (45%) light transmittance. The dark tint shall aid in cab cooling and help protect passengers from radiant solar energy.

1412-008 Glass Rr Dr LH Pwr

GLASS REAR DOOR LH

The rear left hand side crew door shall include a window which is 27.00 inches in width X 26.00 inches in height. The window shall be a powered type and shall be controlled by a switch on the door panel ledge and on the driver's control panel.

1431-002 Glass Tint Rr Door LH Automotive Dark Gray

GLASS TINT REAR DOOR LEFT HAND

The window located in the left hand side rear door shall include a dark gray automotive tint which shall allow forty-five percent (45%) light transmittance. The dark tint shall aid in cab cooling and help protect passengers from radiant solar energy.

1614-202 Climate Ctrl Htr Defroster A/C SGM Ovrhd Alum

CLIMATE CONTROL

A ceiling mounted combination defroster and cabin heating and air conditioning system shall be located above the engine tunnel area. The system covers and plenums shall be of severe duty design made of aluminum which shall be coated with a customer specified interior paint. The design of the system's covers shall provide quick access to washable air intake filters as well as easy access to other serviceable items.

The air delivery plenums provide targeted airflow directly to the vehicle occupants. Six (6) adjustable louvers will provide comfort for the front seat occupants and ten (10) adjustable louvers will provide comfort for the rear crew occupants.

The system shall be capable of producing up to 12 FPM of air velocity at all occupant seating positions. Separate front and rear blower motors shall be of brushless design and shall be controlled independently. It shall be capable of reducing the interior cabin air temperature from 122° F (+/- 3° F) to 80° F in thirty minutes with 50% relative humidity and full solar load as described in SAE J2646.

The system shall also provide heater pull up performance which meets or exceeds the performance requirements of SAE J1612 as well as defrost performance that meets or exceeds the performance requirements of SAE J381.

A gravity drain system shall be provided that is capable of evacuating condensate from the vehicle while on a slope of up to a 13% grade in any direction.

The air conditioning system plumbing shall be a mixture of custom bent zinc coated steel fittings and Aeroquip flexible hose with Aeroquip EZ-Clip fittings.

The overhead heater/defroster plumbing shall include an electronic flow control valve that re-directs hot coolant away from the evaporator, via a bypass loop, as the temperature control is moved toward the cold position.

Any component which needs to be accessed to perform system troubleshooting shall be accessible by one person using basic hand tools. Regularly serviced items shall be replaceable by one person using basic hand tools.

*****The chassis manufacturer recommends that the overall climate system performance be based off third-party testing in accordance with the Society of Automotive Engineering standards as a complete system.***

Individual component level BTU ratings is not an accurate indicator of the performance capability of the completed system. System individual component BTU ratings:

- Air conditioning evaporator total BTU/HR: 82,000
- Air conditioning condenser total BTU/HR: 59,000
- Heater coil total BTU/HR: 98,000

Performance data specified is based on testing performed by an independent third-party test facility using a medium four-door 10" raised roof cab equipped with an ISL engine.

1632-002 Climate Control Drain Gravity

CLIMATE CONTROL DRAIN

The climate control system shall include a gravity drain for water management. The gravity drain shall remove condensation from the air conditioning system without additional mechanical assistance.

1617-201 Climate Ctrl Actv Rotary Dash Mnt Ctr

CLIMATE CONTROL ACTIVATION

The heating, defrosting and air conditioning controls shall be in the center dash center switch panel, in a position which is easily accessible to the driver. The climate control shall be activated by a rotary switch.

1620-025 HVAC Overhead Cover Paint Medium Gray

HVAC OVERHEAD COVER PAINT

The overhead HVAC cover shall be painted with a single stage flat paint to closely match the color of our medium gray spray on bedliner.

1603-002 A/C Condenser Location Roof Mnt Mid LH

A/C CONDENSER LOCATION

A roof mounted A/C condenser shall be installed on the left side of the cab, mid-roof.

1601-013 A/C Compressor TM-31/QP-31

A/C COMPRESSOR

The air-conditioning compressor shall be a belt driven, engine mounted compressor. The compressor shall be compatible with R134-a refrigerant.

*****The chassis manufacturer recommends that the overall climate system performance be based off third-party testing in accordance with the Society of Automotive Engineering standards as a complete system.***

Individual component level ratings are not an accurate indicator of the performance capability of the completed system.

Refrigerant Compressor displacement: 19.1 cubic inches per revolution.

1530-105 Under Cab Insulation Eng Tnl & Cab Floor w/Expanded Alum Floor & Tnl

UNDER CAB INSULATION

The underside of the cab tunnel surrounding the engine shall be lined with multi-layer insulation, engineered for application inside diesel engine compartments.

The insulation shall act as a noise barrier, absorbing noise thus keeping the decibel level in the cab well within NFPA recommendations. As an additional benefit, the insulation shall assist in sustaining the desired temperature within the cab interior.

The engine tunnel insulation shall measure approximately 0.30 inch thick including a multi-layer foil faced glass cloth and polyester fiber layer. The foil surface acts as protection against heat, moisture and other contaminants. The insulation shall meet or exceed FMVSS 302 flammability test.

The cab floor insulation shall measure 0.56 inch thick including a 1.0#/sf PVC barrier and a moisture and heat reflective foil facing, reinforced with fiberglass strands. The foil surface acts as protection against moisture and other contaminants. The insulation shall meet or exceed MVSS 302 flammability test.

The insulation shall be cut precisely to fit each section and sealed for additional heat and sound deflection. The insulation shall be held in place by acrylic pressure sensitive adhesive. In addition, the insulation shall have an expanded aluminum overlay installed to assist in retaining the insulation tight against the engine tunnel surfaces and the underside of the cab floor. The cab floor overlay shall use aluminum pins with hard hat, hold in place fastening heads.

1327-015 Interior Trim Floor w/TPlt Trim

INTERIOR TRIM FLOOR

The floor of the cab shall be covered with a multi-layer mat consisting of 0.25 inch thick sound absorbing closed cell foam with a 0.06 inch thick non-slip vinyl surface with a pebble grain finish. The covering shall be held in place by a pressure sensitive adhesive and embossed treadplate trim that shall wrap 2" horizontally and vertically. All exposed seams shall be sealed with silicone caulk matching the color of the floor mat to reduce the chance of moisture and debris retention.

1302-001 Interior Trim Vinyl

INTERIOR TRIM

The cab interior shall include trim on the front ceiling, rear crew ceiling, and the cab walls. It shall be easily removable to assist in maintenance. The trim shall be constructed of insulated vinyl over a hard board backing.

1368-002 Rear Wall Interior Trim Vinyl

REAR WALL INTERIOR TRIM

The rear wall of the cab shall be trimmed with vinyl.

1306-006 Header Trim XDuty

HEADER TRIM

The cab interior shall feature header trim over the driver and officer dash constructed of 5052-H32 Marine Grade, 0.13 inch thick aluminum.

1305-015 Trim Center Dash XDuty w/Gas Cylinder Stay

TRIM CENTER DASH

The main center dash area shall be constructed of 5052-H32 Marine Grade, 0.13 inch thick aluminum plate. There shall be four (4) holes located on the top of the dash near each outer edge of the electrical access cover for ventilation. The center dash electrical access cover shall include a gas cylinder stay which shall hold the cover open during maintenance.

1339-102 Trim LH Dash XDuty

TRIM LH DASH

The left hand dash shall be constructed of 5052-H32 Marine Grade, 0.13 inch thick aluminum plate for a perfect fit around the instrument panel. For increased occupant protection the extreme duty left hand dash utilizes patent pending break away technology to reduce rigidity in the event of a frontal crash. The left hand dash shall offer lower vertical surface area to the left and right of the steering column to accommodate control panels.

1321-030 Trim RH Dash XDuty Glove Cmpt/MDT Prov/4.50"H Glovebox

TRIM RH DASH

The right hand dash shall be constructed of 5052-H32 Marine Grade, 0.13 of an inch thick aluminum plate and shall include a glove compartment with a hinged door and a Mobile Data Terminal (MDT) provision. The glove compartment size will measure 14.00 inches wide X 4.50 inches high X 5.88 inches deep. The MDT provision shall be provided above the glove compartment.

1307-002 Eng Tnl Trim Flr Mat

ENGINE TUNNEL TRIM

The cab engine tunnel shall be covered with a multi-layer mat consisting of 0.25 inch closed cell foam with a 0.06 inch thick non-slip vinyl surface with a pebble grain finish. The mat shall be held in place by pressure sensitive adhesive. The engine tunnel mat shall be trimmed with anodized aluminum stair nosing trim for an aesthetically pleasing appearance.

5040-200 Pwr Pnt Dash Mnt Batt Dir (2) Powerwerx Comb USB/Type-C Sw Pnl No Ind Lt

POWER POINT DASH MOUNT

The cab shall include two (2) Powerwerx combination fast charging (USB) and (USB) type-C power delivery receptacles in the cab dash switch panel to provide a power source for USB chargeable electrical equipment. The USB receptacle shall be capable of 1.5 amp output and the USB type C receptacle shall be capable of a 3.0 amp output. The receptacles shall be wired battery direct.

1303-039 Step Trim Embossed & Diamond Cut SS Lwr, TPlt Mid

STEP TRIM

Each cab entry door shall include a three step entry. The first step closest to the ground shall be constructed of SAE 304 stainless steel with embossed perforations and diamond shaped cutout. The perforations and cutouts shall allow water and other debris to flow through rather than becoming trapped within the stepping surface. The stainless steel material shall have a number 8 mirror finish. The lower step shall be mounted to a frame which is integral with the construction of the cab for rigidity and strength. The middle step shall be integral with the cab construction and shall be trimmed in 0.08 inch thick 3003-H22 embossed aluminum tread plate.

1336-002 Step Trim Kickplate Treadplate

STEP TRIM KICKPLATE

The cab steps shall include a kick plate in the rise of each step. The risers shall be trimmed in 3003-H22 bright aluminum tread-plate which is 0.07 inch thick.

1379-003 Under Cab Access Door Rear Step LH Painted

UNDER CAB ACCESS DOOR

The cab shall include an aluminum access door in the left crew step riser painted to match the cab interior paint with a push and turn latch. The under cab access door shall provide access to the diesel exhaust fluid fill.

1102-013 Interior Door Trim Painted

INTERIOR DOOR TRIM

The interior trim on the doors of the cab shall consist of an aluminum panel constructed of Marine Grade 5052-H32 0.13 of an inch thick aluminum plate. The door panels shall include a painted finish.

1323-050 Door Trim Customer Nameplate

DOOR TRIM CUSTOMER NAMEPLATE

The interior door trim on the front doors shall include a customer nameplate which states the vehicle was custom built for their department, city, township, or county.

1105-008 Remove Cab Door Trim Reflective

CAB DOOR TRIM REFLECTIVE

In accordance with the current standards of NFPA, the body builder shall provide 96.00 square inches of reflective material on the interior of each cab door.

1308-001 Interior Grab Handle 'A' Pillar 11" Molded

INTERIOR GRAB HANDLE "A" PILLAR

There shall be two (2) rubber covered 11.00 inch grab handles installed inside the cab, one on each "A" post at the left and right door openings. The left handle shall be located 7.88 inches above the bottom of the door window opening and the right handle shall be located 2.88 inches above the bottom of the door window opening. The handles shall assist personnel in entering and exiting the cab.

1332-029 Interior Grab Handle Frt Door Horiz 9"/Vert 9" DA Sanded

INTERIOR GRAB HANDLE FRONT DOOR

Each front door shall include one (1) ergonomically contoured 9.00 inch cast aluminum horizontal grab handle which shall be located at the upper-most center of the door panel, and one (1) 9.00 inch vertical grab handle which shall be located outboard of the paddle latch at the center of the door panel. Each handle shall feature a DA sand finish and assist personnel entering and exiting the cab.

1345-008 Int Grab Handle Rr Dr Alum Window Span 30" DA Sanded

INTERIOR GRAB HANDLE REAR DOOR

A DA sanded cast aluminum assist handle shall be provided on the inside of each rear crew door. A 30.00 inch long handle shall extend horizontally the width of the window just above the window sill. The handle shall assist personnel in exiting and entering the cab.

1301-003 Interior Soft Trim Color Gray

INTERIOR SOFT TRIM COLOR

The cab interior soft trim surfaces shall be gray in color.

1337-001 Interior Trim Sunvisor Vinyl

INTERIOR TRIM SUNVISOR

The header shall include two (2) sun visors, one each side forward of the driver and officer seating positions above the windshield. Each sun visor shall be constructed of Masonite and covered with padded vinyl trim.

1304-001 Interior Floor Mat Color Gray

INTERIOR FLOOR MAT COLOR

The cab interior floor mat shall be gray in color.

1335-013 Cab Paint Int Dr Trim Bedliner Medium Gray

CAB PAINT INTERIOR

The inner door panel surfaces shall feature a medium gray spray on bedliner coating.

1371-013 Header Trim Interior Paint Bedliner Medium Gray

HEADER TRIM INTERIOR PAINT

The metal surfaces in the header area shall feature a medium gray spray on bedliner coating.

1370-014 Trim Center Dash Interior Paint Bedliner Medium Gray

TRIM CENTER DASH INTERIOR PAINT

The entire center dash and any accessory pods attached to the dash shall feature a medium gray spray on bedliner coating.

1378-014 Trim LH Dash Interior Paint Bedliner Medium Gray

TRIM LEFT HAND DASH INTERIOR PAINT

The left hand dash shall feature a medium gray spray on bedliner coating.

1373-014 Trim RH Dash Interior Paint Bedliner Medium Gray

TRIM RIGHT HAND DASH INTERIOR PAINT

The right hand dash shall feature a medium gray spray on bedliner coating.

1344-009 Dash Pnl Group 3-Pnl w/Black Textured Aluminum Panels

DASH PANEL GROUP

The main center dash area shall include three (3) aluminum removable panels located one (1) to the right of the driver position, one (1) in the center of the dash and one (1) to the left of the officer position. The panels shall be coated with a black texture finish. The center panel shall be within comfortable reach of both the driver and officer.

1312-001 Switches Ctr Pnl 0

SWITCHES CENTER PANEL

The center dash panel shall include no rocker switches or legends.

1313-023 Switches Left Pnl 5 (3+2) Wiper Only

SWITCHES LEFT PANEL

The left dash panel shall include five (5) switches. There shall be three (3) across the top of the panel with two (2) below. Two (2) of the top row of switches shall be rocker type and the left one (1) shall be the windshield wiper/washer control switch. The lower switches shall be a rocker type switch.

A rocker switch with a blank legend installed directly above shall be provided for any position not designated by a specific option. The non-designated switches shall be two-position, black switches with a green indicator light. Each blank switch legend can be custom engraved by the body manufacturer. All switch legends shall have backlighting provided.

1314-012 Switches Right Pnl 6 (3+3)

SWITCHES RIGHT PANEL

The right dash panel shall include six (6) rocker switch positions in a three (3) over three (3) switch configuration.

A rocker switch with a blank legend installed directly above shall be provided for any position without a switch and legend designated by a specific option. The non-specified switches shall be two-position, black switches with a green indicator light. Each blank switch legend can be custom engraved by the body manufacturer. All switch legends shall have backlighting provided.

1225-007 Seat Belt Warn Disp w/VDR

SEAT BELT WARNING

A seat belt warning system, integrated with the Vehicle Data Recorder system, shall be installed for each seat within the cab. The system shall provide a visual warning indicator in the vehicle display and control screen(s).

The warning system shall activate when any seat is occupied with a minimum of 60 pounds, the corresponding seat belt remains unfastened, and the park brake is released. The warning system shall also activate when any seat is occupied, the corresponding seat belt was fastened in an incorrect sequence, and the park brake is released. Once activated, the visual indicators and applicable audible alarm shall remain active until all occupied seats have the seat belts fastened.

1237-005 Seat Material Bostrom Durawear Plus

SEAT MATERIAL

The Bostrom Firefighter seats shall include a covering of extra high strength, wear resistant fabric made of durable low seam Durawear Plus™ ballistic polyester. A PVC coating shall be bonded to the back side of the material to help protect the seats from UV rays and from being saturated or contaminated by fluids. Durawear Plus™ meets or exceeds specification of the common trade name Imperial 1800. The material meets FMVSS 302 flammability requirements.

If applicable, Theatre style seats located in the cab shall be high strength, wear resistant fabric made of durable ballistic polyester. A PVC coating shall be bonded to the back side of the material to help protect the seats from UV rays and from being saturated or contaminated by fluids. Common trade names for this material are Imperial 1200 and Durawear.

1243-001 Seat Color Gray/Red Seat Belts

SEAT COLOR

All seats supplied with the chassis shall be gray in color. All seats shall include red seat belts.

1249-001 Seat Back Logo Spartan

SEAT BACK LOGO

The seat back shall include the “Spartan” logo. The logo shall be centered on the standard headrest of the seat back and on the left side of a split headrest.

1201-033 Seat Driver Bostrom Firefighter 8-Way Elect 500 Series ABTS

SEAT DRIVER

The driver's seat shall be an H.O. Bostrom 500 Series Firefighter Sierra model seat. The seat shall feature eight-way electric positioning. The eight positions shall include up and down, fore and aft with 8.00 inches of travel, back angle adjustment and seat rake adjustment. The seat shall feature integral springs to isolate shock.

The seat shall feature an all belts to seat (ABTS) style of safety restraint. The ABTS feature shall include a three-point shoulder harness with the lap belt, automatic retractor and buckle as an integral part of the seat assembly. The ABTS feature shall also include the RiteHite™ shoulder adjustment feature to provide enhanced comfort and safety by allowing customized seat belt fit.

The minimum vertical dimension from the seat H-point to the ceiling for this belted seating position shall be 35.00 inches measured with the seat height adjusted to the lowest position of travel.

This model of seat shall have successfully completed the static load tests set forth by FMVSS 207, 209, and 210 in effect at the time of manufacture. This testing shall include a simultaneous forward load of 3000 pounds each on the lap and shoulder belts and twenty (20) times the weight through the center of gravity.

The materials used in construction of the seat shall also have successfully completed testing with regard to the flammability of materials used in the occupant compartments of motor vehicles as outlined in FMVSS 302, of which dictates the allowable burning rate of materials in the occupant compartments of motor vehicles.

1213-025 Seat Back Driver Non-SCBA ABTS

SEAT BACK DRIVER

The driver's seat shall include a standard seat back incorporating the all belts to seat feature (ABTS). The seat back shall feature a contoured head rest.

1219-001 Seat Mounting Driver

SEAT MOUNTING DRIVER

The driver's seat shall be installed in an ergonomic position in relation to the cab dash.

8102-200 Occupant Protection Driver 4Front & Mechanical/Elect Seat RollTek w/SRA

OCCUPANT PROTECTION DRIVER

The driver's position shall be equipped with the IMMI 4Front and RollTek™ Systems which shall secure belted occupants and increase the survivable space within the cab. The 4Front and RollTek™ Systems shall selectively deploy integrated systems to protect against injuries in qualifying frontal impact, and rollover events.

The Driver's seating area protection shall include:

- Drivers airbag **DAB** - inflates a steering wheel airbag to protect the head and neck of the driver.
- Driver's knee airbag **DKAB** - inflating knee bolster airbags to protect the knees.
- Integrated roll sensor **IRS** - detects an imminent rollover, activates protective devices and records crash events.
- Integrated belt pretension **IBP** - device for mechanical and/or electrical seats tightens the seat belt, securing driver in seat and positions driver for contact with seat integrated head cushion side roll airbag.

Inflatable head cushion seat integrated side roll airbag **SRA** - protects driver's head/neck and shields driver from dangerous surfaces.

1202-037 Seat Officer Bostrom Firefighter Fixed 500 Series ABTS

SEAT OFFICER

The officer's seat shall be a H.O. Bostrom 500 Series Sierra seat model. The seat shall feature a tapered and padded seat, and cushion. The seat shall be mounted in a fixed position.

The seat shall feature an all belts to seat (ABTS) style of safety restraint. The ABTS feature shall include a three-point shoulder harness with the lap belt and automatic retractor as an integral part of the seat assembly. The buckle portion of the seat belt shall extend from the seat base towards the driver position within easy reach of the occupant. The ABTS feature shall also include the RiteHite™ shoulder adjustment feature to provide enhanced comfort and safety by allowing customized seat belt fit.

The minimum vertical dimension from the seat H-point to the ceiling for this belted seating position shall be 35.00 inches.

This model of seat shall have successfully completed the static load tests by FMVSS 207/210. This testing shall include a simultaneous forward load of 3000 pounds each on the lap and shoulder belts and twenty (20) times the weight through the center of gravity. This model of seat installed in the cab model, as specified, shall have successfully completed the dynamic sled testing using FMVSS 208 as a guide with the following accommodations. In order to reflect the larger size outfitted firefighters, the test dummy used shall be a 95th percentile hybrid III male weighing 225 pounds rather than the 50th percentile male dummy weighing 165 pounds as referenced in FMVSS 208. The model of seats shall also have successfully completed the flammability of materials used in the occupant compartments of motor vehicles as outlined in FMVSS 302, of which decides the burning rate of materials in the occupant compartments of motor vehicles.

1214-034 Seat Back Officer SCBA IMMI SmartDock

SEAT BACK OFFICER

The officer's seat back shall include an IMMI brand SmartDock® Gen 2 hands-free self contained breathing apparatus (SCBA) holder. The hands-free holder shall meet NFPA 1901-03 9G dynamic requirements for cylinder restraint systems for use in crew compartments of emergency response vehicles. The bracket shall accommodate and secure most types of self-contained breathing apparatus cylinders.

The hands-free holder shall consist of a back plate, bottom cradle, non-marring top claws, and claw height adjustment knob. The height adjustment knob shall allow for easy adjustment of the claws to the SCBA. The hands-free holder's claws shall lock from inertial forces to prevent the SCBA from becoming a projectile in the event of a crash to meet the NFPA 1901-03 standard for SCBA retention. The SCBA holder shall offer single-motion insertion into the claws and hands-free release when the SCBA fitted seat occupant rises.

1220-003 Seat Mounting Officer Rwd 2"

SEAT MOUNTING OFFICER

The officer's seat shall offer a special mounting position which is 2.00 inches rearward of the standard location offering increased leg room for the occupant.

8103-200 Occupant Protection Officer 4Front & Mechanical/Elect Seat RollTek w/SRA

OCCUPANT PROTECTION OFFICER

The officer's position shall be equipped with the IMMI 4Front and RollTek™ Systems which shall secure belted occupants and increase the survivable space within the cab. The 4Front and RollTek™ Systems shall selectively deploy integrated systems to protect against injuries in qualifying frontal impact, and rollover events.

The Officer's seating area protection shall include:

- Officer's knee airbag **OKAB** - inflating knee bolster airbags to protect the knees.
- Integrated roll sensor **IRS** - detects an imminent rollover, activates protective devices and records crash events.
- Integrated belt pretension **IBP** - device for mechanical and/or electrical seats tightens the seat belt, securing officer in seat and positioning officer for contact with seat integrated head cushion side roll airbag.
- Inflatable head cushion seat integrated side roll airbag **SRA** - protects officer's head/neck and shields officer from dangerous surfaces.

1297-002 Power Seats Wiring Battery Direct

POWER SEAT WIRING

The power seat or seats installed in the cab shall be wired directly to battery power.

1273-001 Seat Belt Orientation Crew Outboard Shoulder To Inboard Hip

SEAT BELT ORIENTATION CREW

The crew position seat belts shall follow the standard orientation which extends from the outboard shoulder extending to the inboard hip.

1266-001 Seat FFC Location Secondary Pos (2) Ctr

SEAT FORWARD FACING CENTER LOCATION

The crew area shall include two (2) forward facing center crew seats with both located at the center of the rear wall.

1206-031 Seat Crew FFC Bostrom Firefighter Fold & Hold Flip-Up 500 Series

SEAT CREW FORWARD FACING CENTER

The forward facing center seat shall be a H.O. Bostrom 500 Series Firefighter model seat. The seat shall feature a tapered and padded seat, and cushion. The seat shall be mounted in a fixed position. The seat and cushion shall be hinged and compact in design for additional room. The seat shall include a "Fold and Hold" feature so that the cushion shall remain in the seated position and simply touched to flip up.

The seat shall feature an all belts to seat (ABTS) style of safety restraint. The ABTS feature shall include a three-point shoulder harness with the lap belt and automatic retractor as an integral part of the seat assembly. The buckle portion of the seat belt shall extend from the seat base towards the driver position within easy reach of the occupant. The ABTS feature shall also include the RiteHite™ shoulder adjustment feature to provide enhanced comfort and safety by allowing customized seat belt fit.

The minimum vertical dimension from the seat H-point to the ceiling for each belted seating position shall be 35.00 inches.

This model of seat shall have successfully completed the static load tests by FMVSS 207/210. This testing shall include a simultaneous forward load of 3000 pounds each on the lap and shoulder belts and twenty (20) times the weight through the center of gravity. This model of seat installed in the cab model, as specified, shall have successfully completed the dynamic sled testing using FMVSS 208 as a guide with the following accommodations. In order to reflect the larger size outfitted firefighters, the test dummy used shall be a 95th percentile hybrid III male weighing 225 pounds rather than the 50th percentile male dummy weighing 165 pounds as referenced in FMVSS 208. The model of seats shall also have successfully completed the flammability of materials used in the occupant compartments of motor vehicles as outlined in FMVSS 302, of which decides the burning rate of materials in the occupant compartments of motor vehicles.

1218-035 Seat Back FFC SCBA IMMI SmartDock

SEAT BACK FORWARD FACING CENTER

The crew area seat backs shall include an IMMI brand SmartDock® Gen 2 hands-free self contained breathing apparatus (SCBA) holder. The hands-free holder shall meet NFPA 1901-03 9G dynamic requirements for cylinder restraint systems for use in crew compartments of emergency response vehicles. The bracket shall accommodate and secure most types of self-contained breathing apparatus cylinders.

The hands-free holder shall consist of a back plate, bottom cradle, non-marring top claws, and claw height adjustment knob. The height adjustment knob shall allow for easy adjustment of the claws to the SCBA. The hands-free holder's claws shall lock from inertial forces to prevent the SCBA from becoming a projectile in the event of a crash to meet the NFPA 1901-03 standard for SCBA retention. The SCBA holder shall offer single-motion insertion into the claws and hands-free release when the SCBA fitted seat occupant rises.

8107-101 Occupant Protection FFC RollTek Belt Pretensioner

OCCUPANT PROTECTION FFC

The forward facing center seat positions shall be equipped with the RollTek™ rollover occupant protection system which shall secure occupants, increase the survivable space within the cab and protect against head/neck injuries in the event of a rollover accident.

The system shall function using a microprocessor-controlled, solid-state sensing device which, when the system detects a side roll shall provide instantaneous occupant protection (less than 0.3 seconds from trigger to total deployment) by automatically initiating the following sequence:

1. The seat belt shall tighten around the occupant.

System Components Shall Include:

Integrated Roll Sensor **IRS** - detects an imminent rollover, activates protective devices and records crash events.

Integrated Belt Pretension **IBP** with flip-up (non theatre) and fixed mechanical seats - tightens the seat belt around occupant, securing occupant in seat.

Integrated Gas Pretension **IGP** with flip-up theatre style seats - tightens the seat belt around occupant, securing occupant in seat.

1269-101 Seat Frm Fwd Fcg Dual Width

SEAT FRAME FORWARD FACING

The forward facing center seating positions shall include an enclosed seat frame located and installed on the rear wall. The seat frame shall measure 42.38 inches wide X 12.38 inches high X 22.00 inches deep. The seat frame shall be constructed of Marine Grade 5052-H32 0.19 inch thick aluminum plate. The seat box shall be painted with the same color as the remaining interior.

1281-101 Seat Frm Fwd Fcg Strg Acc Dr (2) R/L Sd

SEAT FRAME FORWARD FACING STORAGE ACCESS

There shall be two (2) access points to the seat frame storage area, one (1) on each side of the seat frame. Each access point shall be covered by a hinged door which measures 15.00 inches in width X 10.63 inches in height with an opening that measures 13.75 inches wide X 10.00 inches high.

1224-002 Seat Mounting Forward Facing Center

SEAT MOUNTING FORWARD FACING CENTER

The forward facing center seats shall be installed facing the front of the cab.

1311-101 Cab Frt Undrst Strg Acc Dr

CAB FRONT UNDERSEAT STORAGE ACCESS

The left and right under seat storage areas shall have a solid aluminum hinged door with non-locking latch.

1355-016 Seat Compartment Door Finish Bedliner Medium Gray

SEAT COMPARTMENT DOOR FINISH

All underseat storage compartment access doors shall feature a medium gray spray on bedliner coating.

1511-203 Windshield Wiper System, Prk Brk Interlock w/Disp Override

WINDSHIELD WIPER SYSTEM

The cab shall include a triple arm linkage wiper system which shall clear the windshield of water, ice and debris. There shall be two (2) windshield wipers; each shall be affixed to a radial arm. The wiper motor shall be activated by an intermittent wiper control located within easy reach of the driver's

position. The windshield wipers shall be interlocked with the park brake allowing activation only when the park brake is released.

There shall be virtual button on the vehicle display and control screen to override the park brake deactivation. This will reset when the park brake is cycled.

1534-002 Electronic Windshield Fluid Level Indicator

ELECTRONIC WINDSHIELD FLUID LEVEL INDICATOR

The windshield washer fluid level shall be monitored electronically. When the washer fluid level becomes low the yellow “Check Message Center” indicator light on the instrument panel shall illuminate and the message center in the dual air pressure gauge shall display a “Check Washer Fluid Level” message.

1103-001 Cab Door Hardware Chrome

CAB DOOR HARDWARE

The cab entry doors shall be equipped with exterior pull handles, suitable for use while wearing firefighter gloves. The handles shall be made of aluminum with a chrome plated finish.

The interior exit door handles shall be flush paddle type with a black finish, which are incorporated into the upper door panel.

All cab entry doors shall include locks which are keyed alike. The door locks shall be designed to prevent accidental lockout.

1111-004 Door Locks Power (4) Entry Doors

DOOR LOCKS

The cab entry doors shall include a Controller Area Network (CAN) based electronic door lock system which shall include two (2) external keypads, one (1) located on the left side next to the front grab handle and one (1) on the right side next to the front grab handle. There shall be one (1) red rocker switch provided on the inside of each front cab entry door to actuate the cab door locks. Each door lock may also be manually actuated from the inside of the cab by means of a red knob located on the paddle handle of the respective door. The electronic door lock system shall include four (4) key fobs for actuation with buttons for cab entry door locks and for compartment door locks.

When the doors are unlocked using the external keypad or the key fobs the interior dome lights shall illuminate and remain on for a period of twenty (20) seconds. The interior dome safety feature shall require the interior lighting power to be battery direct.

Wiring shall also be provided for up to four (4) exterior cab compartments and up to four (4) body compartments.

1113-003 Door Lock LH EMS Compartment Hng Power

DOOR LOCK LH EMS COMPARTMENT

The left hand side EMS compartment shall feature a power door lock actuator.

1114-003 Door Lock RH EMS Compartment Hng Power

DOOR LOCK RH EMS COMPARTMENT

The right hand side EMS compartment shall feature a power door lock actuator.

1112-004 Power Door Lock Cmpt Actv Key Fob & Keypads

POWER DOOR LOCK COMPARTMENT ACTIVATION

The power door lock feature shall include activation for exterior compartment door locks through the key fob and keypads.

1503-209 Grab Handles 3-Pc Alum Knurled 18" w/Red Reflective

GRAB HANDLES

The cab shall include one (1) 18.00 inch three-piece knurled aluminum anti-slip exterior grab handle behind each cab door. The Hansen Anti-Slip Rails shall be mounted in bright anodized aluminum 4000 Series II stanchions, complete with weep holes to prevent the buildup of moisture.

The grab rails shall include red reflective tape.

1503D-003 Lighted Grab Handles Clear LED

LIGHTED GRAB HANDLES

The grab rails shall include a 12 volt, 17.00 inch long clear LED light to provide an increased margin of safety for night time cab entry and egress.

1504-014 Mirror Aerodynamic Retrac 613305 Rmt Htd

REARVIEW MIRRORS

Retrac Aerodynamic West Coast style dual vision mirror heads model 613305 shall be provided and installed on each of the front cab doors.

The mirrors shall be mounted via 1.00 inch diameter tubular stainless steel arms to provide a rigid mounting to reduce mirror vibration.

The mirrors shall measure 8.00 inches wide X 19.00 inches high and shall include an integral convex mirrors installed in the mirror head below the flat glass to provide a wider field of vision. The flat and convex mirrors shall be motorized with remote horizontal and vertical adjustment. The control switches shall be mounted within easy reach of the driver. The flat and convex mirrors shall be heated for defrosting in severe cold weather conditions.

The mirrors shall be constructed of a vacuum formed chrome plated ABS plastic housing that is corrosion resistant and shall include the finest quality non-glare glass.

1529-003 Rearview Mirror Heat Sw Disp

REARVIEW MIRROR HEAT SWITCH

The heat for the rearview mirrors shall be controlled through a virtual button on the vehicle display and control screen.

1525-008 Exterior Trim Rear Corner Treadplate Wide

EXTERIOR TRIM REAR CORNER

There shall be an overlay of 3003-H22 aluminum tread plate which shall be 0.07 inches thick on the outside corners at the back of the cab. The overlay shall wrap 1.00 inches forward on the sides of the cab and 12.00 inches inboard on the rear wall.

1513-029 Cab Fender SS Wide

CAB FENDER

Wheel well liners shall be integrated into cab design and include a bed liner undercoat to limit road splash and enable easier cleaning. Each outer fenderette shall be 5.00 inches wide made of SAE 304 polished stainless steel.

1514-002 Mud Flaps Frt

MUD FLAPS FRONT

The front wheel wells shall have mud flaps installed on them.

1526-026 Cab Ext Frt & Side Emblems Spartan

CAB EXTERIOR FRONT & SIDE EMBLEMS

The cab shall include three (3) Spartan emblems. There shall be one (1) installed on the front air intake grille and one (1) emblem on each of the cab sides.

1502-052 Cab Exterior Model Nameplate Gladiator

CAB EXTERIOR MODEL NAMEPLATE

The cab shall include “Gladiator” nameplates on the front driver and officer side doors.

5109-015 Ign Mstr Rkr Sw w/Push-Button Start

IGNITION

A master battery system with a keyless start ignition system shall be provided. There shall be a three-position rocker switch with off, battery, and ignition positions as well as a stainless-steel etched engine start push-button. The engine start button shall include an illuminated LED halo ring. Both switches shall be mounted to the left of the steering wheel on the dash.

The engine start switch shall only operate when the master battery and ignition switch is in the “ignition” position.

5101-021 Batt (6) Group 31 Harris

BATTERY

The single start electrical system shall include six (6) Harris BCI 31 925 CCA batteries with a 210 minute reserve capacity and 4/0 welding type dual path starter cables per SAE J541.

The batteries shall be held in place by non-conducting phenolic resin hold down boards.

5106-003 Batt Tray (2) R/L Steel

BATTERY TRAY

The batteries shall be installed within two (2) steel battery trays located on the left side and right side of the chassis, securely bolted to the frame rails. The battery trays shall be coated with the same material as the frame.

The battery trays shall include drain holes in the bottom for sufficient drainage of water. A durable, non-conducting, interlocking mat made by Dri-Dek shall be installed in the bottom of the trays to allow for air flow and help prevent moisture build up.

5107-007 Batt Box Cover (2) Steel w/Black Handles

BATTERY BOX COVER

Each battery box shall include a steel cover which protects the top of the batteries. Each cover shall include flush latches which shall keep the cover secure as well as a black powder coated handle for convenience when opening.

5102-001 Batt Cables

BATTERY CABLE

The starting system shall include cables which shall be protected by 275 degree F. minimum high temperature flame retardant loom, sealed at the ends with heat shrink and sealant.

5108-010 Batt Jumper Stud Frt LH Lwr Step 8" Apart

BATTERY JUMPER STUD

The starting system shall include battery jumper studs. These studs shall be located in the forward most portion of the driver's side lower step, 8.00 inches apart. The studs shall allow the vehicle to be jump started, charged, or the cab to be raised in an emergency in the event of battery failure.

5104-002 Alternator Leece-Neville 320A

ALTERNATOR

The charging system shall include a 320 amp Leece-Neville 12 volt alternator. The alternator shall include a self-exciting integral regulator.

5105-001 Starter Motor Delco

STARTER MOTOR

The single start electrical system shall include a Delco brand starter motor.

5202-400 Batt Cond Kussmaul Chief 4012 40A

BATTERY CONDITIONER

A Kussmaul Auto Charge Chief 4012 battery conditioner shall be supplied. The battery conditioner shall provide a circuit protected 40-amp output for the chassis batteries and a 20-amp output circuit for accessory loads. The conditioner shall also include a battery temperature sensor.

5218-005 Batt Cond Loc Bhd Off Seat

BATTERY CONDITIONER LOCATION

The battery conditioner shall be mounted in the cab behind the officer's seat.

5203-201 Batt Cond Display Chief Remote Control Panel (RCP)

BATTERY CONDITIONER DISPLAY

A Kussmaul Chief Remote Control Panel (RCP) battery conditioner display shall be supplied.

5220-010 Batt Cond Display Location LH Mid Frt Step Rwd

BATTERY CONDITIONER DISPLAY LOCATION

The battery conditioner display shall be mounted in the left side front step on the vertical area above the intermediate step towards the rear of the step well.

5209-021 Elec Inlet Location LH Lwr Front Step Mid

ELECTRICAL INLET LOCATION

An electrical inlet shall be installed in the left hand side lower front step in the mid position.

5204-055 Elec Inlet 120V 20A Auto Eject

ELECTRICAL INLET

A Kussmaul 20 amp super auto-eject electrical receptacle shall be supplied. It shall automatically eject the plug when the starter button is depressed.

A single item or an addition of multiple items must not exceed the rating of the electric inlet that it's connected to.

Amp Draw Reference List:

- Kussmaul 40 LPC Charger - 5 Amps*
- Kussmaul Chief 4012 Charger - 5.7 Amps*
- Kussmaul 80 LPC Charger - 13 Amps*
- Kussmaul Chief 6012 Charger - 9 Amps*
- Blue Sea P12 7532 - 7.5 Amps*
- Iota DLS-45/IQ4 - 11 Amps*
- 1000W Engine Heater - 8.33 Amps*
- 1500W Engine Heater - 12.5 Amps*
- 120V Air Compressor - 4.2 Amps*
- 120V Dometic HVAC - 15 Amps*

5210-004 Elec Inlet Conn to Batt Conditioner

ELECTRICAL INLET CONNECTION

The electrical inlet shall be connected to the battery conditioner.

5206-002 Elec Inlet Color Yellow

ELECTRICAL INLET COLOR

The electrical inlet connection shall include a yellow cover.

5301-106 Headlights 4 Headlamps LED, Firetech FT-4X6-4KIT

HEADLIGHTS

The cab front shall include two (2) FireTech rectangular LED headlamps with high/low beam in the same housing and two (2) separate FireTech LED high beam only headlamps mounted in bright chrome bezels.

5337-001 Headlights Below Frt Warn Lts

HEADLIGHT LOCATION

The headlights shall be located on the front fascia of the cab directly below the front warning lights.

5303-036 Frt Turn Signals Whelen M6 LED Above Frt Warn Rad Mnt w/Clr Lens

FRONT TURN SIGNALS

The front fascia shall include two (2) Whelen model M6 4.00 inch X 6.00 inch amber LED with clear lens turn signals which shall be installed in a chrome radius mount housing above and outboard of the front warning and head lamps.

5336-018 Side Turn/Marker Lts LED Tecniq S170 w/Clr Lens

SIDE TURN/MARKER LIGHTS

The sides of the cab shall include two (2) Tecniq S170 LED side marker lights which shall be provided just behind the front cab radius corners. The lights shall be amber with clear lenses and chrome bezels.

5302-020 Marker & ICC Lts Face Mnt LED Tecniq S170 w/Clr Lens

MARKER AND ICC LIGHTS

In accordance with FMVSS, there shall be five (5) Tecniq S170 LED cab marker lamps designating identification, center and clearance provided. These lights shall be installed on the face of the cab within full view of other vehicles from ground level. The lights shall be amber with clear lenses and chrome bezels.

5350-104 Hdlr & Mrkr Lt Actv Disp/Halo w/Mrkr Lts/Ign Sw

HEADLIGHT AND MARKER LIGHT ACTIVATION

The headlights and marker lights shall be controlled via a virtual button on the vehicle display and control screen. There shall be a virtual dimmer control on the vehicle display and control screen to adjust the brightness of the dash lights. The headlamps and markers lamps shall illuminate to 100% brilliance when the ignition switch is in the "On" position. The headlamps shall be equipped with an LED halo parking light around the perimeter of each lamp that shall activate with marker lights "on".

5305-353 Interior Overhead Lts Whelen 6" Red/Clear LED

INTERIOR OVERHEAD LIGHTS

The cab shall include a Whelen 60CREGCS LED dome lamp located over each door. The dome lamps shall be circular in shape and shall measure approximately 6.00 inches in diameter. The lights shall include push buttons on each lamp to activate both the clear and red portions of the light individually.

5388-003 Int Ovrhd Lt Actv Resp Dr & MUX

INTERIOR OVERHEAD LIGHTS ACTIVATION

The clear portion of each lamp shall be activated by opening the respective door and via the multiplex display.

5403-051 Lightbar Prov Wire & Mnt (2) Chassis Supply

LIGHTBAR PROVISION

There shall be two (2) light bars installed on the cab roof. The light bars shall be provided and installed by the chassis manufacturer. The light bar installation shall include mounting and wiring to a control switch on the cab dash.

5450N-006 Cab Front Lightbar Model Whelen F4NMINI (2)

CAB FRONT LIGHTBAR MODEL

The cab shall be provided with two (2) Whelen model F4NMINI light bars. Each light bar shall be 21.50 inches in length and feature eight (8) customizable pods.

See the light bar layout for specific details.

If applicable, clear lights shall be disabled with park brake engaged.

5426-003 Lightbar Sw Disp

LIGHTBAR SWITCH

The light bar shall be controlled by a virtual button on the vehicle display and control screen. This button shall be clearly labeled for identification.

5317-195 Frt Scene Lts Whelen Pioneer 12V LED PFH1 Black (2)

FRONT SCENE LIGHTS

The front of the cab shall include two (2) Whelen Pioneer model PFH1 contour roof mount scene lights installed on the brow of the cab.

Each 75 watt lamp head shall incorporate a 12 volt DC Super-LED flood light installed in a die-cast aluminum housing. Each lamp head shall use a collimator/metalized redux flood reflector assembly with Proclera™ silicone optics and a clear non-optic polycarbonate lens. The lens/reflector assembly shall utilize a liquid injected molded silicone gasket to be resistant to water, moisture, dust, and other environmental conditions. The PFH1 shall be vibration resistant. The Pioneer PC boards shall be conformal coated for additional protection. Each combination flood light lamp head shall draw 13.0 amps in spotlight mode and generate 8,875 lumens total. Each lamp head shall measure 4.25 inches in height X 8.35 inches in width. The lamp heads and brackets shall be powder coated black.

5329-006 Frt Scene Lt Loc (2) Outboard Brow Pos

FRONT SCENE LIGHT LOCATION

There shall be two (2) scene lights mounted to the front brow of the cab in the outboard position.

5335-003 Frt Scene Lts Actv Disp

FRONT SCENE LIGHTS ACTIVATION

The front scene lighting shall be activated by a virtual button on the vehicle display and control screen.

5306-103 Side Scene Lts Whelen Pioneer LED 12V PCPSM1C Surface Mnt

SIDE SCENE LIGHTS

The cab shall include two (2) Whelen Pioneer model PCPSM1C LED surface mount lights installed one (1) on each side of the cab.

The PCPSM1C configuration shall consist of twelve (12) white Super-LEDs for the spot light with a specialized spot reflector on the bottom, twenty-four (24) white Super-LEDs in the flood light with a clear optic collimator/metalized reflector assembly on the top, and a clear non-optic polycarbonate lens. Each lamp head shall draw 6.0 amps and generate 7,800 lumens. Each lamp head shall measure 6.37 inches in height X 8.97 inches in width. Each lamp head housing shall be chrome plated.

5318-003 Side Scene Lt Loc Upper Mid Fwd Flat Roof Position

SIDE SCENE LIGHT LOCATION

The scene lighting located on the left and right sides of the cab shall be mounted in the upper forward portion of the cab between the front and rear crew doors.

5316-008 Side Scene Actv Indv Disp Actv & Resp Side Doors

SIDE SCENE ACTIVATION

The scene lights shall be activated by two (2) virtual buttons on the vehicle display and control screen(s), one (1) for each light, and by opening the respective side cab doors.

5330-035 Rear Scene Lts Body Mount Provision

REAR SCENE LIGHTS

The vehicle shall include multiplex activated rear scene lighting for body builder installed scene lights and body builder installed multiplex output.

5331-009 Rear Scene Lt Actv Sgl Sw MUX

REAR SCENE LIGHT ACTIVATION

The rear scene lighting shall be activated via a virtual button on the Vista display and control screen.

5308-300 Ground Lts Tecniq T44 LED

GROUND LIGHTS

Each door shall include a Tecniq T44 LED ground light mounted to the underside of the cab step below each door. The lights shall include a polycarbonate lens, a housing which is vibration welded and LEDs which shall be shock mounted for extended life.

5386-004 Ground Lt Actv Prk Brk, Resp Sd Dr & Disp

GROUND LIGHTS

The ground lighting shall be activated when the parking brake is set, by the opening of the door on the respective cab side, and through a virtual button on the vehicle display and control screen.

5319-003 Under Bmpr Lts 4" LED Prk Brk & Marker Lts

UNDER BUMPER LIGHTS

There shall be two (2) 4.00 inch round LED NFPA compliant ground lights mounted under the bumper. The lights shall include a polycarbonate lens, a housing which is vibration welded, and LEDs which shall be shock mounted for extended life. The under bumper ground lighting shall be interlocked with the park brake and the marker light activation.

5309-003 Lwr Cab Step Lts Tecniq T44 LED

LOWER CAB STEP LIGHTS

The middle step located at each door shall include a Tecniq T44 LED light which shall activate with the opening of the respective door. The lights shall include a polycarbonate lens, a housing which is vibration welded and LEDs which shall be shock mounted for extended life.

5382-007 Intermediate Step Lts Tecniq D06 LED

INTERMEDIATE STEP LIGHTS

The intermediate step well area at each door shall include a TecNiq D06 LED light within a chrome housing. The egress step lights shall provide visibility to the step well area for the first step exiting the vehicle. The egress step lights shall activate with entry step lighting.

5312-003 Engine Cmpt Work Lt LED (1)

ENGINE COMPARTMENT LIGHT

There shall be a LED NFPA compliant light mounted under the engine tunnel for area work lighting on the engine. The light shall activate automatically when the cab is tilted.

5406-119 Do Not Move App Lt Flashing Red Tecniq K50 LED w/Alarm

DO NOT MOVE APPARATUS LIGHT

The front headliner of the cab shall include a flashing red TecNiq K50 LED light clearly labeled "Do Not Move Apparatus". In addition to the flashing red light, an audible alarm shall be included which shall sound while the light is activated.

The flashing red light shall be located centered left to right for greatest visibility.

The light and alarm shall be interlocked for activation when either a cab door is not firmly closed, or an apparatus compartment door is not closed, and the parking brake is released.

5422-020 Mstr Warn Sw MUX w/Warning Lt Dimmer, Disp Dim & Prk Brk Interlock

MASTER WARNING SWITCH

A master switch shall be included, as a virtual button on the vehicle display and control screen which shall be labeled "E Master" for identification. The button shall feature control over all devices wired through it. Any warning device switches left in the "ON" position when the master switch is activated shall automatically power up.

There shall be an additional virtual button on the vehicle display and control screen to manually override an automatic warning light dimmer clearly labeled "WARNING LIGHT DIMMER". The warning light dimmer will automatically reduce the brightness of the warning lights with the display screen "Night" dimmer setting and with the park brake set. The operator can override the warning light dimmer feature

and manually select the warning lights to be at normal brightness using the warning light dimmer virtual button, or "Day" display screen brightness. The lights shall also default to normal brightness when the "E Master" button is activated, and the park brake is released.

5409-002 Headlight Flasher Alternating

HEADLIGHT FLASHER

An alternating high beam headlight flashing system shall be installed into the high beam headlight circuit which shall allow the high beams to flash alternately from left to right.

Deliberate operator selection of high beams will override the flashing function until low beams are again selected. Per NFPA, these clear flashing lights will also be disabled "On Scene" when the park brake is applied.

5425-003 Headlight Flasher Sw Disp

HEADLIGHT FLASHER SWITCH

The flashing headlights shall be activated through a virtual button on the Vista display and control screen.

5401-079 Inboard Frt Warn Lts Whelen M6 LED TripleFlash 75 I/O Pattern Chrm Bezel

INBOARD FRONT WARNING LIGHTS

The cab front fascia shall include two (2) Whelen M6 Super LED front warning lights in the left and right inboard positions. The lights shall feature multiple flash patterns including steady burn. The lights shall be mounted to the front fascia of the cab within a chrome bezel. The warning lights shall be set to emit the "TripleFlash 75" in/out flash pattern.

5413-003 Inboard Frt Warn Lts Color Red w/Clr Lens

INBOARD FRONT WARNING LIGHTS COLOR

The warning lights mounted on the cab front fascia in the inboard positions shall be red with a clear lens.

5414-057 Outboard Frt Warn Lts Whelen M6 LED TripleFlash 75 I/O Pattern Chrm Bezel

OUTBOARD FRONT WARNING LIGHTS

The cab front fascia shall include two (2) Whelen M6 Super LED front warning lights in the left and right outboard positions. The lights shall feature multiple flash patterns including steady burn. The lights shall be mounted to the front fascia of the cab within a chrome bezel. The warning lights shall be set to emit the "TripleFlash 75" in/out flash pattern.

5415-003 Outboard Frt Warn Lts Color Red w/Clr Lens

OUTBOARD FRONT WARNING LIGHTS COLOR

The warning lights mounted on the cab front fascia in the outboard position shall be red with a clear lens.

5432-220 Bmpr Face Warn Lt Whelen M6 LED TripleFlash 75 I/O Pattern

BUMPER FACE WARNING LIGHT

The front bumper face shall include two (2) Whelen M6 series 4.31 inches tall X 6.75 inches wide Super LED® warning lights. The warning lights shall feature multiple flash patterns including steady burn. The lights shall be surface mounted within a chrome bezel. The warning lights shall be set to flash “TripleFlash 75” in/out flash pattern.

5433-004 Bmpr Face Warn Lt Color Red w/Clear Lens

BUMPER FACE WARNING LIGHT COLOR

The warning lights in the bumper shall be red with clear lenses.

5474-005 Bmpr Face Warn Lt Location Ctr R/L OB

BUMPER FACE WARNING LIGHT LOCATION

The front bumper face warning lights shall be located between the frame rails in the right and left side outboard positions.

5423-003 Frt Warn Sw Disp

FRONT WARNING SWITCH

The front warning lights shall be controlled through a virtual control on the vehicle display and control screen. This switch shall be clearly labeled for identification.

5404-080 Intersection Warn Lts Whelen M6 LED TripleFlash 75 I/O Pattern

INTERSECTION WARNING LIGHTS

The chassis shall include two (2) Whelen M6 series Super LED intersection warning lights, one (1) each side. The lights shall feature multiple flash patterns including steady burn. The lights shall be set to flash “TripleFlash 75” I/O flash pattern.

5419-003 Int Warn Lts Color Red w/Clr Lens

INTERSECTION WARNING LIGHTS COLOR

The intersection lights shall be red with a clear lens.

5420-007 Intersection Warn Lts Location Bumper Tail Ctr Position

INTERSECTION WARNING LIGHTS LOCATION

The intersection lights shall be mounted centered front to rear on the flat portion of the side of the bumper tail.

5402-080 Side Warn Lts Whelen M6 LED TripleFlash 75 I/O Pattern

SIDE WARNING LIGHTS

The cab sides shall include two (2) Whelen M6 Super LED warning lights, one (1) on each side. The lights shall feature multiple flash patterns including steady burn for solid colors and multiple flash patterns for split colors. The lights shall be mounted to the sides of the cab within a chrome bezel. The light shall be programmed to emit the "TripleFlash 75" in/out flash pattern.

5418-003 Side Warn Lts Color Red w/Clr Lens

SIDE WARNING LIGHTS COLOR

The warning lights located on the side of the cab shall be red with clear lens.

5412-009 Side Warn Lts Location Lwr Mid Fwd Position
SIDE WARNING LIGHTS LOCATION

The warning lights on the side of the cab shall be mounted over the front wheel well forward from the center of the front axle.

5424-003 Side & Intersection Warn Sw Disp
SIDE AND INTERSECTION WARNING SWITCH

The side warning lights shall be controlled through a virtual button on the vehicle display and control screen. This button shall be clearly labeled for identification.

5469-002 Tank Lvl Lts FRC Max Vision
TANK LEVEL LIGHTS

There shall be two (2) FRC MaxVision surface mount water level light strips.

The light strips shall feature four (4) colors of LED lights to indicate the fluid level of a tank. The colors from top to bottom shall be green, blue, amber, and red.

5470-002 Tank Lvl Lights Actv Prewire Rear of Cab
TANK LEVEL LIGHTS ACTIVATION

The tank level lights shall be pre-wired and coiled at rear of the cab for connection to the apparatus by the body builder.

5471-003 Tank Lvl Lights Loc Rear Cab Sides Centered
TANK LEVEL LIGHTS LOCATION

There shall be water level lights mounted on each side of the cab, centered between the rear cab doors and the rear corners of the cab.

5449-034 Rr Warn Lts LH IB Overhead Whelen TACTL5 Cont & TAL65 Advsr Shplse
REAR WARNING LIGHTS

The cab shall include a Whelen TAL65 Traffic Advisor Kit provided by Spartan. The kit shall include the Traffic Advisor with the standard fifteen (15) feet of cable and a Whelen TACTL5 Traffic Advisor control head.

The Whelen TACTL5 Traffic Advisor control head shall be installed and wired in the header above the driver. The control head shall be mounted in the driver's side header inboard of the radio position.

The power to the control head shall be ignition switched and activation dependent upon the state of the controllers switched position upon ignition.

Wiring provisions shall be provided and routed to the rear of the frame for the Whelen traffic advisor which shall be shipped loose for OEM installation.

5407-019 Int Dr Open Warn Lts Amber Weldon 15" LED Dir Flsh
INTERIOR DOOR OPEN WARNING LIGHTS

The interior of each door shall include one (1) 15.87 inch long X 0.73 inch tall amber Weldon LED warning light. The light shall be located on the upper portion of the door frame to be visible when a person is standing in front of the door while entering or exiting the cab. Each light shall activate with a scrolling directional flash pattern which moves from inside to outside when the door is in the open position. This shall serve as a warning to oncoming traffic.

5510-079 Siren Ctrl Head Whelen 295HFSC9

SIREN CONTROL HEAD

A Whelen 295HFSC9 electronic siren control head shall be provided. The siren head shall feature a 200-watt output, wail, yelp, manual siren, and hands free operation which shall allow the operator to turn the siren on and off from the horn ring if a horn/siren selector switch option is also selected. The siren shall be installed in the switch panel with a location specific to the customer's needs.

5514-102 Horn Btn Sel Sw Elec Horn/Air Horn MUX Def Air Horn On

STEERING WHEEL HORN BUTTON SELECTOR SWITCH

A virtual button on the Vista display and control screen shall be provided to allow control of the electric horn or the air horn from the steering wheel horn button. The horn button selection shall default to the air horn each time the Vista screen power is cycled off and on.

5526-004 Audible Warning LH Foot Switch Siren

AUDIBLE WARNING LH FOOT SWITCH

A foot switch wired to actuate the mechanical siren(s) shall be supplied for installation in the front section of the cab for driver actuation.

5526D-001 Mechanical Siren Foot Switch LH Linemaster 491-S

MECHANICAL SIREN FOOT SWITCH LH

The mechanical siren foot switch shall be a Linemaster model 491-S.

5526E-001 Mechanical Foot Switch LH Location A-Pillar

MECHANICAL SIREN FOOT SWITCH LH LOCATION

The mechanical siren foot switch shall be located on the left hand side accessible to the driver between the steering column and the door.

5526F-001 Mechanical Siren Foot Switch Position Outboard of Other Foot Switches

MECHANICAL SIREN FOOT SWITCH LH POSITION

The mechanical siren foot switch shall be positioned outboard of any other foot switch, if applicable.

5529-002 Audible Warn LH Ft Sw Double Brkt 30Deg TPlate

AUDIBLE WARNING LH FOOT SWITCH BRACKET

A 30.00 degree angled foot switch bracket, wide enough to accommodate (2) foot switches, shall be installed outboard of the steering column for specified driver accessible foot switch activations.

5512-217 Air Horn Actv Rkr Sw

AIR HORN AUXILIARY ACTIVATION

The air horn activation shall be accomplished by a momentary rocker switch on the switch panel.

5513-506 Mech Siren Actv Rkr Sw/Brk Sw/Brk Sw Disp

MECHANICAL SIREN BRAKE/AUXILIARY ACTIVATION

The mechanical siren shall be actuated by a momentary rocker switch in the switch panel on the dash. A red momentary siren brake rocker switch shall be provided in the switch panel on the dash. A virtual button for the siren brake shall be provided on the vehicle display and control screen.

5532-001 Mechanical Siren Interlock Master Warn Only

MECHANICAL SIREN INTERLOCK

The siren shall only be active when master warning switch is on to prevent accidental engagement.

5505-002 Back-Up Alarm Ecco 575

BACK-UP ALARM

An ECCO model 575 backup alarm shall be installed at the rear of the chassis with an output level of 107 dB. The alarm shall automatically activate when the transmission is placed in reverse.

5601-041 Instrumentation Standard

INSTRUMENTATION

An ergonomically designed instrument panel shall be provided. Each gauge shall be backlit with LED lamps. Stepper motor movements shall drive all gauges. The instrumentation system shall be multiplexed and shall receive ABS, engine, and transmission information over the J1939 data bus to reduce redundant sensors and wiring.

A twenty eight (28) icon lightbar message center with integral LCD odometer/trip odometer shall be included. The odometer shall display up to 999,999.9 miles. The trip odometer shall display 9,999.9 miles. The LCD message center screen shall be capable of custom configuration by the users for displaying certain vehicle status and diagnostic functions.

The instrument panel shall contain the following gauges:

One (1) three-movement gauge displaying vehicle speed, fuel level, and Diesel Exhaust Fluid (DEF) level. The primary scale on the speedometer shall read from 0 to 100 MPH, and the secondary scale on the speedometer shall read from 0 to 160 KM/H. The scale on the fuel and DEF level gauges shall read from empty to full as a fraction of full tank capacity. Red indicator lights in the gauge and an audible alarm shall indicate low fuel or low DEF at 1/8th tank level.

One (1) three-movement gauge displaying engine RPM, and primary and secondary air system pressures shall be included. The scale on the tachometer shall read from 0 to 3000 RPM. The scale on the air pressure gauges shall read from 0 to 150 pounds per square inch (PSI) with a red line zone indicating critical levels of air pressure. Red indicator lights in the gauge and an audible alarm shall indicate low air pressure.

One (1) four-movement gauge displaying engine oil pressure, coolant temperature, voltmeter, and transmission temperature shall be included. The scale on the engine oil pressure gauge shall read from 0

to 100 pounds PSI with a red line zone indicating critical levels of oil pressure. A red indicator light in the gauge and audible alarm shall indicate low engine oil pressure. The scale on the coolant temperature gauge shall read from 100 to 250 degrees Fahrenheit (°F) with a red line zone indicating critical coolant temperatures. A red indicator light in the gauge and audible alarm shall indicate high coolant temperature. The scale on the voltmeter shall read from 9 to 18 volts with a red line zone indicating critical levels of battery voltage. A red indicator light in the gauge and an audible alarm shall indicate high or low system voltage. The low voltage alarm shall indicate when the system voltage has dropped below 11.8 volts for more than 120 seconds in accordance with the requirements of NFPA 1901. The scale on the transmission temperature gauge shall read from 100 to 300 degrees °F with a red line zone indicating critical temperatures. A red indicator light in the gauge and an audible alarm shall indicate a high transmission temperature.

The light bar portion of the message center shall include twenty-eight (28) LED backlit indicators. The lightbar shall be split with fourteen (14) indicators on each side of the LCD message screen. The lightbar shall contain the following indicators and produce the following audible alarms when supplied in conjunction with applicable configurations:

RED INDICATORS

Stop Engine - indicates critical engine fault
Air Filter Restricted - indicates excessive engine air intake restriction
Park Brake - indicates parking brake is set
Seat Belt - indicates a seat is occupied and corresponding seat belt remains unfastened
Low Coolant - indicates critically low engine coolant
Cab Tilt Lock - indicates the cab tilt system locks are not engaged.

AMBER INDICATORS

Malfunction Indicator Lamp (MIL) - indicates an engine emission control system fault
Check Engine - indicates engine fault
Check Transmission - indicates transmission fault
Anti-Lock Brake System (ABS) - indicates anti-lock brake system fault
High exhaust system temperature – indicates elevated exhaust temperatures
Water in Fuel - indicates presence of water in fuel filter
Wait to Start - indicates active engine air preheat cycle
Windshield Washer Fluid – indicates washer fluid is low
DPF restriction - indicates a restriction of the diesel particulate filter
Regen Inhibit-indicates regeneration of the DPF has been inhibited by the operator
Range Inhibit - indicates a transmission operation is prevented and requested shift request may not occur.
SRS - indicates a problem in the supplemental restraint system
Check Message - indicates a vehicle status or diagnostic message on the LCD display requiring attention.

GREEN INDICATORS

Left and Right turn signal indicators
ATC - indicates low wheel traction for automatic traction control equipped vehicles, also indicates mud/snow mode is active for ATC system

High Idle - indicates engine high idle is active.
Cruise Control - indicates cruise control is enabled
OK to Pump - indicates the pump is engaged and conditions have been met for pump operations
Pump Engaged - indicates the pump transmission is currently in pump gear
Auxiliary Brake - indicates secondary braking device is active

BLUE INDICATORS

High Beam indicator

AUDIBLE ALARMS

Air Filter Restriction
Cab Tilt Lock
Check Engine
Check Transmission
Open Door/Compartment
High Coolant Temperature
High or Low System Voltage
High Transmission Temperature
Low Air Pressure
Low Coolant Level
Low DEF Level
Low Engine Oil Pressure
Low Fuel
Seatbelt Indicator
Stop Engine
Water in Fuel
Extended Left/Right Turn Signal On
ABS System Fault

5624-003 Backlighting Color White

BACKLIGHTING COLOR

The instrumentation gauges and the switch panel legends shall be backlit using white LED backlighting.

5701-300 Radio Jensen WB/AM/FM/BT

RADIO

A Jensen brand heavy-duty radio with weather band, AM/FM stereo receiver and Bluetooth capabilities shall be installed in a customer specified location. Radio shall be the current, commercially available heavy-duty single-DIN automotive model at time of vehicle manufacturing date.

5736-100 Radio Overhead LH

RADIO LOCATION

The radio shall be installed in the left hand overhead position above the driver.

5707-002 AM/FM Antenna LH Fwd Cab Roof

AM/FM ANTENNA

A small antenna shall be located on the left hand side of the cab roof for AM/FM and weather band reception.

5737-200 Radio Speakers (4) Front/Rear

RADIO SPEAKERS

There shall be two (2) speakers installed in the front portion of the cab recessed overhead and two (2) speakers installed in the rear portion of the cab overhead. The speakers shall be provided for connection to the sound system.

5727-002 Camera RH Teardrop

CAMERA RIGHT HAND

One (1) Audiovox Voyager heavy duty rearview teardrop shaped chrome plated housing camera shall be mounted on the officer side of the cab below the windshield ahead of the front door at approximately the same level as the cab door handles. The camera display shall activate when the right side turn signal is activated.

5728-012 Camera HD Rear Box w/o Speaker

CAMERA REAR

One (1) Audiovox Voyager heavy duty box shaped HD camera shall be shipped loose for OEM installation in the body to afford the driver a clear view to the rear of the vehicle.

The rear camera display shall activate when the vehicle's transmission is placed in reverse.

5731-004 Camera Display on Disp

CAMERA DISPLAY

The camera system shall be wired to a single vehicle display and control screen located on the driver's side dash. The camera system display can be activated through the vehicle display and control screen.

5703-010 Comm Ant Base RH Fwd Cab Rf Chassis Sply

COMMUNICATION ANTENNA

An antenna base, for use with an NMO type antenna, shall be mounted on the right hand front corner of the cab roof so not to interfere with light bars or other roof mounted equipment installed by chassis builder. The antenna base shall be an Antenex model MABVT8 made for either a 0.38 inch or 0.75 inch receiving hole in the antenna and shall include 17.00 foot of RG58 A/U cable with no connector at the radio end of the cable. The antenna base design provides the most corrosion resistance and best power transfer available from a high temper all brass construction and gold plated contact design. The antenna base shall be chassis builder supplied.

5708-003 Comm Ant Cable Routing Under Rkr Sw Pnl

COMMUNICATION ANTENNA CABLE ROUTING

The antenna cable shall be routed from the antenna base mounted on the roof to the area inside the center rocker switch console.

8806-001 Fire Extinguisher Shiploose

FIRE EXTINGUISHER

A 2.50 pound D.O.T approved fire extinguisher with BC rating shall be shipped loose with the cab.

8807-002 Road Safety Kit Shiploose

ROAD SAFETY KIT

The cab and chassis shall include one (1) emergency road safety triangle kit.

8810-001 Door Keys for Manual Locks (4)

DOOR KEYS

The cab and chassis shall include a total of four (4) door keys for the manual door locks.

8030-021 Chassis Operation Manual w/On-Board USB Storage

CHASSIS OPERATION MANUAL

The chassis operation manual shall be contained in an on board USB digital storage device. The chassis operation manual shall be accessible through a USB port provided in the OBD diagnostic panel.

8031-024 Eng & Trans Operation Man Eng Hard Copy/Trans Digital/Eng Owner Digital

ENGINE AND TRANSMISSION OPERATION MANUALS

The following manuals specific to the engine and transmission models ordered will be included with the chassis in the ship loose items:

(1) Hard copy of the Engine Operation and Maintenance manual with digital copy

(1) Digital copy of the Transmission Operator's manual

(1) Digital copy of the Engine Owner's manual

8032-018 Engine Service Manual Hard Copy Cummins Lg Displacement

ENGINE SERVICE MANUALS

There shall be one (1) printed hard copy set of Cummins engine service reference manuals which shall be provided with the chassis.

8033-002 Transmission Service Manual Hard Copy Allison 4000 EVS

TRANSMISSION SERVICE MANUALS

There shall be one (1) printed hard copy set of Allison 4000 transmission service manuals included with the chassis.

8805-019 Cab/Chassis As Built Wiring Diagrams w/On-Board USB Storage

CAB/CHASSIS AS BUILT WIRING DIAGRAMS

The cab and chassis wiring schematics and option wiring diagrams shall be contained in an on board USB digital storage device. The cab and chassis wiring schematics and option wiring diagrams shall be accessible through a USB port provided in the OBD diagnostic panel.

8063-006 Cab Paint Confirmation - PPG - Confirmation #1

PAINT CONFIRMATION

Prepared By JOSH LARSON
Quote Id : 97259,Revision Level: 11
Order Id: 10013978
Lead Unit Order Id: 10013978

Prepared For
TRUE NORTH
VIN : 4S9ACFXT0TS559450
Lead Sales Order Number: 97259

There shall be a paint confirmation letter sent to the body manufacturer with paint spray outs to confirm the cab primary paint color or primary and secondary paint color as specified by the paint options.

8039-001 Sales Terms

SALES TERMS

The sale of the chassis shall be governed by the terms contained on the Sales Terms – Acceptance of Purchase Order document, a copy of which is attached to this option.