



TOWN OF WEATHERSFIELD
ASCUTNEY VOLUNTEER FIRE ASSOCIATION

REQUEST FOR PROPOSAL

REQUEST FOR PROPOSAL PROJECT

Purchase of one (1) 2023, or newer, dealer/vendor tanker apparatus

INFORMATIONAL

REQUEST FOR PROPOSALS

Proposal packages must be received by Friday, April 8, 2022, at 11:00am EST.

Proposal packages must be received at 5259 US Route 5, Ascutney, VT 05030 (Attn: Brandon Gulnick) no later than the date/time listed above. Postmarks are not accepted. Late proposals will be returned unopened. Hand deliveries should be made to Brandon Gulnick at Martin Memorial Hall, 5259 US Route 5, Ascutney, VT 05030.

Submit a complete original proposal and one (1) hard copy in a sealed envelope. Mark the outside of the envelope RFP - AVFA Tanker. Submissions may not include photographs, pamphlets, brochures, or other extraneous promotional materials.

Questions and/or additional information concerning this RFP must be submitted in writing via email or fax, preferably via email, to:

Darrin Spaulding, Chief
Ascutney Volunteer Fire Association
dspaulding@weathersfield.org
Phone: (802) 296-1888
Fax: (802) 674-2117

Please do not contact any other personnel about this RFP unless authorized by the Town Manager prior to contact. Violating this rule is grounds for rejection of the proposal.

The Town of Weathersfield reserves the right to reject any or all Proposals, to waive any informalities in any Proposal, and to qualify the firms that best meet the Town's needs.



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SECTION I

INTRODUCTION

The Town of Weathersfield (“Town”) is soliciting proposals from qualified vendors (“Vendor”) for the purchase of one (1) dealer/vendor Tanker apparatus, meeting the minimum specifications OR similar specifications as outlined in Attachment A. All equipment shall be new and of current design and manufacture. Used or refurbished equipment is unacceptable.

The Town’s overall goal in soliciting these proposals is to identify the most responsible and capable Vendor that meets the requirements indicated in this proposal at a reasonable cost.

SECTION II

MINIMUM QUALIFICATIONS

It is the intention of the Town to award a contract to a Vendor who:

1. Is able to provide the vehicle within the time constraints identified in the Request for Proposals.
2. Represents the best overall value to the Town, including:
 - a. Warranties pertaining the vehicle
3. To determine the degree of responsibility to be credited to a Vendor, the Town will weigh any evidence that the Vendor has or has not performed satisfactorily on other contracts of like nature and magnitude or comparable difficulty.

SECTION III

PROPOSAL INFORMATION

Key Action Dates & Times

Event	Date
RFP Available to prospective vendors	March 9, 2022, at 10:00am
Final Date for RFP Submission	April 8, 2022, at 11:00am
RFP Opening	April 8, 2022, at 12:00pm
Review Period	April 8, 2022 - April 20, 2022
Recommendations to Selectboard	April 21, 2022, between 6:30pm-9:00pm

Submission of Proposal

All proposals must be submitted under sealed cover and sent to the Town of Weathersfield, Attention Brandon Gulnick, by dates and times shown.

Proposals may be hand delivered to Martin Memorial Hall, 5259 US Route 5, Ascotney, VT 05030 or Mailed to PO BOX 550, Ascotney, VT 05030. Please be aware that postmarks will not be accepted.



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1. A minimum of one (1) original and one (1) hard copy must be submitted.
2. A proposal may be rejected if it is conditional or incomplete, or if it contains any alterations of form or other irregularities of any kind. The Town may in its sole discretion reject any or all proposals and it may waive an immaterial deviation in a proposal. The Town's waiver of an immaterial deviation shall in no way modify the RFP document or excuse the Vendor from full compliance with all requirements if awarded the Vendor Agreement.
3. Costs incurred for developing proposals and in anticipation of award of the Vendor Agreement are entirely the responsibility and risk of the Vendor and shall not be charged to the Town.
4. A Vendor may modify a proposal after its submission by withdrawing its original proposal and resubmitting a new proposal, but only if this is accomplished prior to the proposal submission deadline. Vendor modifications offered in any other manner, oral or written, will not be considered.
5. The Town does reserve the right to negotiate the submitted prices with the submitting Vendors or to request clarifications and subsequent price alterations after the submission deadline, at the sole discretion of the Town.
6. A Vendor may withdraw its proposal by submitting a written withdrawal request to the Town, signed by the Vendor or an authorized agent. A Vendor may thereafter submit a new proposal prior to the proposal submission deadline. Proposals may not be withdrawn without cause subsequent to proposal submission deadline.
7. The Town may modify the RFP prior to the date fixed for submission of proposals by the issuance of an addendum to all parties who received a proposal package. All addenda will be sent via electronic mail.
8. Before submitting a response to this solicitation, Vendors should review, correct all errors, and confirm compliance with the RFP requirements.
9. The Town does not accept alternate contract language from a prospective Vendor. A proposal with such language will be considered a counter proposal and will be rejected.
10. No oral understanding or agreement shall be binding on either party.
11. Each proposal shall be accompanied by a set of contractor's specifications consisting of a detailed description of the apparatus and equipment proposed, including warranties and guarantees, a ½" – 1' scale drawing of the exact apparatus, and specifications indicating size, type, model, and make of all component parts and equipment.
12. Manufacturer's specifications shall be submitted in the same order as the published specifications, in order to facilitate effective proposal review by the fire department.



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13. Each proposal shall include a "Statement of Exceptions" as indicated in NFPA 1901 Section 4.21. The statement of exceptions shall specifically describe each aspect of the completed apparatus that will not be fully compliant with the requirements of the standard at the time of delivery.
14. Proposals will only be considered from companies which have established a favorable reputation in the field of fire apparatus construction. Therefore, each bidder shall furnish the following information:
 - a. A customer listing of like units in service and their location.
 - b. The location of the closest factory representative in proximity to department.
 - c. The manufacturer's closest factory staffed facility to Customer.
 - d. Documentation of the length of time manufacturing aluminum fire apparatus bodies.
15. Each proposal shall furnish satisfactory evidence of the ability to construct the apparatus as specified and show proof that the manufacturer is in a position to render prompt service and furnish replacement parts for said apparatus.
16. The proposal shall specify the location(s) of warranty work. If the warranty work is to be performed at a location other than the manufacturer, a statement must be made naming the party or parties responsible for delivery and pick-up of the apparatus to the location. Expenses that are covered by the manufacturer should be included along with a listing of acceptable firms for performing warranty work. A statement indicating whether warranty work performed by a vehicle maintenance shop would be compensated by the manufacturer shall also be included.
17. The Town reserves the right to reject all proposals in its sole discretion.

Evaluation & Selection

1. At the time of proposal opening, each proposal will be checked for the presence or absence of required information in conformance with the submission requirements of this RFP.
2. The Town will evaluate each proposal to determine its responsiveness to the published requirements.
3. Proposals that contain false or misleading statements, or which provide references which do not support an attribute or condition claimed by the Vendor, may be rejected.
4. Award, if made, will be to the lowest responsible Vendor, as determined by the Town through its evaluation of submitted Proposals and modifications, if any. Award is not dependent on total cost of the Proposal, although cost is a factor in the evaluation of the Proposals.



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Disposition of Proposals (Public Record)

Proposing Vendors understand that, as a general rule, all documents received by the Town are considered public records. Upon proposal opening, all documents submitted in response to this RFP will become the property of the Town of Weathersfield and will be regarded as public records and subject to production to and review by the public on request.

If a proposing Vendor considers any portion of its submittal proprietary and/or otherwise exempt from disclosure, it must clearly label such information or documentation and submit it, together with a written request for a determination of whether the documents can be withheld from public disclosure, no later than ten (10) business days prior to the due date of the submittal. The Town's attorney shall make a determination of confidentiality.

If a determination is not obtained prior to the submittal deadline, all document(s) shall be subject to public disclosure. In the event a request is made for a document deemed confidential, the Town will inform the applicable Vendor. Such Vendor will participate in the event proceedings are initiated to compel the disclosure of the same.

Unopened, sealed Proposal packages may be returned only at the Vendor's expense, unless such expense is waived by the Town.

SECTION IV

INTENT OF SPECIFICATIONS

It is the intent of these specifications to cover the furnishings and delivery to the Town a complete and soundly engineered fire apparatus equipped as hereinafter specified. These specifications address only general requirements regarding the type of construction and tests to which the apparatus must conform.

Also, only general requirements of certain details concerning finish, equipment, and appliances with which the successful bidder must comply are included in these specifications. Where not otherwise specified, minor details of construction and materials are left to the discretion of the contractor, who shall be solely responsible for the design and construction of all features.

The apparatus shall conform to the requirements of the current National Fire Protection Association Standard 1901 for Tanker Fire Apparatus, as if they were written out in full detail, insofar as they apply, unless otherwise indicated in these specifications

SECTION V

QUALITY & WORKMANSHIP

The apparatus and equipment herein specified shall be the manufacturer's latest model of production embodying, the latest improved automotive engineering practices. All materials, workmanship, and finish must be of superior quality and conform to the nature of service and the character to which the apparatus is intended, in order to insure long life, dependability, and low costs of maintenance and repair.

Design Criteria

The apparatus shall be designed, constructed, and equipment mounted with due consideration to the distribution of the load to be sustained and to the general type and character of service to which the apparatus will be subjected. All parts of the apparatus shall be sufficiently strong, with ample safety factors provided to withstand the general service under load, meeting both on and off-road requirements.

The design of the apparatus must allow for ease of operation, symmetrical proportions, and ready access to the various parts requiring lubrication, inspection, adjustment, and repair.

Welding that would prevent the removal of any component part for service or repair shall not be employed in the assembly of the apparatus.

The electrical system shall be designed to meet and exceed the anticipated electrical load requirements of the devices indicated in the specifications. The manufacturer shall provide an amp load performance chart for the apparatus as specified.

The chassis must be designed for fire apparatus use.

Warranty

A copy of each applicable manufacturer warranty shall be supplied with the proposal for review.

Delivery

A qualified and responsible manufacturer's representative shall deliver the apparatus and equipment, remaining at the department for a period of three (3) consecutive days or a sufficient period of time to instruct personnel in the operation, care, and maintenance of the apparatus and equipment.

Responsibility for the apparatus and equipment shall remain with the manufacturer until satisfactory completion of the acceptance tests and formal acceptance by the department occurs.

To ensure proper break-in of all apparatus components while still under warranty, the apparatus shall be delivered under its own power by the manufacturer. The apparatus and equipment shall be ready for immediate use at the time of delivery.

The apparatus will be inspected upon delivery for compliance with the specifications. Deviations will not be tolerated and will be cause for rejection of apparatus unless listed in the bidder's original proposal.

The apparatus shall be covered by comprehensive and liability insurance during the delivery period. The department will assume the insurance obligation on acceptance and at that time, shall present to the manufacturer a certificate of verification, showing liability, comprehensive and collision insurance coverage.

Required Information

The manufacturer must supply at the time of delivery at least two (2) copies of the complete operation and maintenance manuals covering the completed apparatus and equipment as delivered, two (2) destination effective wiring diagrams, copies of electrical and mechanical component manuals for equipment purchased on or with the apparatus, and a sketch of the booster tank indicating all dimensions and baffle locations.

ATTACHMENT A
[TANKER SPEC]

CHASSIS:

Chassis shall be a Freightliner M2 106 or equivalent.

Please see included chassis specification for the minimum chassis requirements.

BODY:

Body shall be polypropylene wet side style. The compartments shall be fabricated separately from the water tank, then joined together to make one unit.

Left Side Compartments:

Three (3) compartments shall be installed on the left side – one (1) ahead of the rear wheel, one (1) high side compartment, and one (1) behind the rear wheel

Right Side Compartments:

Two (2) compartments shall be installed on the right side – one (1) ahead and one (1) behind the rear wheel.

Note: Each bidder shall supply scale drawings to include compartment sizes as well as cubic footage for their proposed body design.

BOTTLE BOXES:

Four (4) SCBA bottle boxes installed in the fender area. These bottle boxes shall be installed two (2) each side.

FENDERS:

There will be a one (1) piece rolled inner fender going with full width of both rear tires. It will be 3/16" thick high density polyethylene. Attached to this, and protruding approximately 2" from the outside of the truck, is a polished stainless steel fenderette with a 2" radius. The mud flap is secured to the inner fender to minimize road splash.

REAR TOW EYES:

Two (2) rear tow eyes shall be connected directly to the frame rails and protrude through the back of the body wall. They will be sufficiently rated to be able to pull or lift the unloaded vehicle.

SUBFRAME:

The sub-frame is constructed of stainless steel tubing, channels, and angles. It will be constructed in such a manner as to support all compartmentry and water tank, all necessary mounting for water tank to be compliant with tank manufacturer's specification. The subframe will be separated from the truck frame by using polypropylene isolation strips, and be secured through the use of U bolts with a sufficient rating for the anticipated load.

WATER & FOAM TANK:

The tank shall have a water capacity of 2,000 U.S. gallons and a foam capacity of 20 U.S. gallons. They shall be constructed of PT3™ polypropylene material. This material shall be a non-corrosive stress relieved thermoplastic and UV stabilized for maximum protection. Tank shell thickness may vary depending on the application and may range from ½ to 1" as required. Internal baffles are generally 3/8" in thickness.

ISO Certification:

The tank must be designed and fabricated by a tank manufacturer that is ISO 9001:2008 certified in each of its locations. The ISO certification must be to the current standard in effect at the time of the design and fabrication of the tank.

Design:

Each tank is designed to the customer's specification and/or drawing submittal. An approval drawing is sent to the customer prior to commencing manufacturing. Upon receipt of the signed approval drawing, the tank is scheduled for production.

Construction:

The booster and/or foam tank shall be of a specific configuration and is so designed to be completely independent of the body and compartments. Joints and seams shall be fused using nitrogen gas as required and tested for maximum strength and integrity. The tank construction shall include PolyProSeal™ technology wherein a sealant shall be installed between the plastic components prior to being fusion welded. This sealing method will provide a liquid barrier offering leak protection in the event of a weld compromise. The top of the booster tank is fitted with removable lifting assembly designed to facilitate tank removal. The transverse and longitudinal swash partitions shall be manufactured of a minimum of 3/8" PT3™ polypropylene. All partitions shall be equipped with vent and air holes to permit movement of air and water between compartments. The partitions shall be designed to provide maximum water flow. All swash partitions interlock with one another and are completely fused to each other as well as to the walls of the tank. All partitions and spacing shall comply with NFPA 1901. The walls shall be welded to the floor of the tank providing maximum strength as part of the tank's unique Full Floor Design™. Tolerances in design allow for a maximum variation of 1/8" on all dimensions.

Water Fill Tank and Cover:

The tank shall have a combination vent and manual fill tower. The fill tower shall be constructed of 1/2" PT3™ polypropylene and shall be a minimum dimension of 8" x 8" outer perimeter. The fill tower shall be blue in color indicating that it is a water-only fill tower. The tower shall be located in the left front corner of the tank unless otherwise specified by the tank manufacturer to the purchaser. The tower shall have a 1/4" thick removable polypropylene screen and a PT3™ polypropylene hinged cover. The capacity of the tank shall be engraved on the top of the fill tower lid. Inside the fill tower there shall be a combination vent/overflow pipe. The vent overflow shall be a minimum of schedule 40 polypropylene pipe with a minimum

I.D. of 4" that is designed to run through the tank, and shall be piped to discharge water behind the rear wheels as required in NFPA 1901 so as to not interfere with rear tire traction. The tank cover shall be constructed of 1/2" thick PT3™ polypropylene and UV stabilized, to incorporate a multi-piece locking design, which allows for individual removal and inspection if necessary. The tank cover(s) shall be flush or recessed 3/8" from the top of the tank and shall be fused to the tank walls and longitudinal partitions for maximum integrity. Each one of the covers shall have hold downs consisting of 2" minimum polypropylene dowels spaced a maximum of 40" apart. These dowels shall extend through the covers and will assist in keeping the covers rigid under fast filling conditions. A minimum of two lifting dowels shall accommodate the necessary lifting hardware.

Foam Fill Tower:

The foam tank shall have a manual fill tower. The fill tower shall be constructed of 1/2" PT3™ polypropylene and shall be a minimum dimension of 8" x 8" outer perimeter. Each foam fill tower shall be constructed of a colored material (green for Class A foam, yellow for Class B foam and black for other foams) indicating which tower is to receive each type of foam utilized. The capacity of the tank shall be engraved on the top of the fill tower lid. The tower shall be located in the right front corner of the tank unless otherwise specified. The tower shall have a 1/4" thick removable polypropylene screen and a stainless steel hinged-type cover. Inside the fill tower, approximately 1.5" down from the top, there shall be an anti-foam fill tube that extends down to the bottom of the tank. A pressure vacuum vent shall be provided in the lid of the fill tower.

Sump:

There shall be one (1) sump standard per tank. The sump shall be constructed of a minimum of 1/2" PT3™ polypropylene and be located in the left front quarter of the tank, unless specified otherwise. On all tanks that require a front suction, a 3" schedule 40 polypropylene pipe shall be installed that will incorporate a dip tube from the front of the tank to the sump location. The sump shall have a minimum 3" N.P.T. threaded outlet on the bottom for a drain plug per NFPA. This shall be used as a combination clean-out and drain. All tanks shall have an anti-swirl plate located approximately 3" above the inside floor.

Outlets:

There will be two (2) standard tank outlets: one for the tank-to-pump suction line, which shall be sized to provide adequate water flow to the pump; and, one for tank fill line, which shall be sized according to the NFPA minimum size chart for booster tanks. All tank fill couplings shall be backed with flow deflectors to break up the stream of water entering the tank, and be capable of withstanding sustained fill rates of up to 1000 G.P.M. The addition of rear suction fittings, nurse valve fittings, dump valve fittings, and through-the-tank sleeves to accommodate rear discharge piping must be specified. All auxiliary outlets and inlets must meet all NFPA guidelines in effect at the time of manufacture.

Mounting:

The UPF Poly-Tank® III shall rest on the body cross members in conjunction with such additional cross members, spaced at a distance that would not allow for more than 530 square inches of unsupported area under the tank floor. In cases where overall height of the tank exceeds 40 inches, cross member spacing must be decreased to allow for not more than 400 square inches of unsupported area. The tank must be isolated from the cross members through the use of hard rubber strips with a minimum thickness and width dimension of 1/4" x 1" and a Shore A Hardness of approximately 60 durometer. The rubber must be installed so it will not become dislodged during normal operation of the vehicle. Additionally, the tank must be supported around the entire bottom outside perimeter and captured both in the front and rear as well as side to side to prevent tank from shifting during vehicle operation. A picture frame type cradle mount with a minimum of 2" x 2" x 1/4" mild steel, stainless steel, or aluminum angle shall be provided or the use of corner angles having a minimum dimension of 4" x 4" x 1/4" by 6" high are permitted for the purpose of capturing the tank. Although the tank is designed on a free floating suspension principle, it is required that the tank have adequate vertical hold down restraints to minimize movement during vehicle operation. If proper retention has not been incorporated into the apparatus hose floor structure, an optional mounting restraint system shall be located on top of the tank, half way between the front and the rear on each side of the tank. These stops can be constructed of steel, stainless steel or aluminum angle having minimum dimensions of 3" x 3" x 1/4" and shall be approximately 6" to 12" long. These brackets must incorporate rubber isolating pads with a minimum thickness of 1/4" inch and a hardness of 60 durometer affixed on the underside of the angle. The angle should then be bolted to the body side walls of the vehicle while extending down to rest on the top outside edge of the upper side wall of the tank. Hose beds floors must be so designed that the floor slat supports extend full width from side wall to side wall and are not permitted to drop off the edge of the tank or in any way come in contact with the individual covers where a puncture could occur. Tank top must be capable of supporting loads up to 200 lbs per sq. foot when evenly distributed. Other equipment such as generators, portable pumps, etc. must not be mounted directly to the tank top unless provisions have been designed into the Poly-Tank® III for that purpose. The tank shall be completely removable without disturbing or dismantling the apparatus structure.

Capacity Certification:

All water and foam tanks shall be tested and certified as to capacity on a calibrated and certified tilting scale. Each tank shall be weighed empty and full to provide precise fluid capacity. Each Poly-Tank® III is delivered with a Certificate of Capacity delineating the weight empty and full and the resultant capacity based on weight. Engineering estimates for capacity calculations shall not be permitted for capacity certification.

Center of Gravity:

A center of gravity calculation shall be determined for each tank and provided as requested in order to provide the apparatus manufacturer with the necessary data to design and certify the apparatus with respect to the NFPA requirements regarding rollover stability. This information may be used by the apparatus manufacturer to assist in the calculation of the apparatus's ability to meet the tilt table static rollover threshold or calculated Center of Gravity

requirements per NFPA. A center of gravity and weight calculation for both empty and full conditions shall be required with each tank.

TANKNOLOGY™ Tag:

A tag shall be installed on the apparatus in a convenient location and contain pertinent information including a QR code readable by commercially available smart phones. The information contained on the tag shall include the capacity of the water and foam (s), the maximum fill and pressure rates, the serial number of the tank, the date of manufacture, the tank manufacturer, and contact information. The QR code will allow the user to connect with the tank manufacturer for additional information and assistance.

Warranty:

For normal fire department applications, the tank shall have a limited Lifetime warranty that provides warranty service for the life of the fire apparatus in which the tank is installed. Warranties are transferable if the apparatus ownership changes by requesting the transfer from UPF. In applications where the tank will be subject to severe conditions, the tank may have a warranty unique to the application that is clearly defined for each such application.

HOSEBED DIVIDERS:

There shall be two (2) hosebed dividers supplied and installed in hosebed. These dividers shall be 3/16" 5052 sheet with an angle bent along the bottom edge for mounting purposes. They shall have a hand hold hole punched at the rear upper corner to assist a firefighter when trying to access the hose bed.

HOSEBED COVER:

There shall be a Hypalon cover that is secured by twist-lock connectors along the top and Velcro closures on each end provided with the apparatus. The cover shall completely protect the hose in the hosebed and prevent the hose from inadvertently deploying during normal operation. The cover shall meet NFPA compliant.

Hosebed cover color shall be determined by the Ascutney Volunteer Fire Department during a Preconstruction Conference.

ROLL-UP DOORS:

All compartment doors shall have Amdor brand anodized aluminum non-painted roll-up doors. The doors shall have the following features:

- Double wall slat with continuous ball & socket hinge joint
- Stainless steel left bar latching system
- Bottom panels with cutouts large enough for a gloved hand
- Narrow door slat and compact balancer design to minimize door coil size. This maximizes usable compartment space.
- Amdor Luma Bar compartment lights.

A “Door Ajar” warning light shall be supplied in the cab to notify the occupants that a compartment door has been left open.

PORTABLE TANK RACK:

A Ziamatic portable tank rack shall be supplied and installed above the compartments on the right side.

- This portable tank rack shall include the following features:
- Stores portable tank over the side compartments of an apparatus and, at the flip of a switch, lowers to a convenient height for safe and easy retrieval.
- Tank boxes are adjustable and secure virtually all popular makes and models of portable tank. Identify your tank when placing your order and we will configure the boxes for you before shipping.
- Self-contained 12V hydraulic actuators provide a more even, parallel operating motion.
- NFPA compliant—flashing light kit provides a visual alert when system is out of the stored position.
- Tank box will accommodate portable tanks up to 36” H x 9” W when collapsed.
- Requires 12V, 80A electrical source
- Designed for use on shelves with a minimum depth of 8-1/2”.
- Requires mounting surface equal to length of collapsed tank plus 21” (10-1/2” per casting).
- Sustains maximum load of 500 lb.

PORTABLE TANK:

One (1) 2,100 gallon portable tank with an aluminum frame shall be supplied.

SUCTION HOSE:

Two (2) lengths of 6” x 10’ suction hose shall be supplied. These shall be stored under the water tank- one (1) each side.

SCBA BRACKETS:

Four (4) Ziamatic Walkaway SCBA brackets shall be installed in the high side compartment.

PUMP:

Pump shall be Hale DSD or equivalent rated at 1250 GPM.

PUMP TEST:

The pump and all its associated piping and accessories will be tested and certified by Underwriters Laboratories or equivalent testing company prior to delivery. This test will be done in accordance with NFPA requirements in all aspects. Upon delivery, the required

certificates will be turned over to the Fire Department and all necessary placards installed on the truck.

The pump shall deliver the percentage of rate discharge at the pressure listed below:

- 100 percent of rated capacity at 150 pounds net pressure
- 70 percent of rated capacity at 200 pounds net pressure
- 50 percent of rated capacity at 250 pounds net pressure
- 100 percent of rated capacity at 165 pounds net pressure

PLUMBING:

All piping shall be stainless steel schedule 10 or greater with full flow flexible sections as needed, utilizing Victaulic groove type couplings. All piping that is continuously wetted with foam concentrate or foam concentrate/water solution shall be constructed of materials that will not be damaged or corroded by continuous exposure to the foam concentrate.

All stainless steel piping shall come with a non-pro-rated warranty of fifteen (15) years.

PUMP PANEL:

Pump panels shall be side mount fabricated from stainless steel. All controls and gauges will be laid out in a way that will allow functionality and ease to the operator. A pump panel layout shall be supplied and approved by the Ascutney Volunteer Fire Department prior to construction.

TEST PLATE:

A permanently affixed plate shall be installed at the pump operator's panel. This plate shall provide the rated discharge and pressure together with the speed of the engine, as determined by the certification test for each unit.

PUMP PANEL IDENTIFICATION TAGS:

NFPA compliant engraved panel tags will be supplied and attached by using double sided tape. The color coding sequence shall be determined by the Ascutney Volunteer Fire Department.

GAUGES:

All gauges will be of a liquid filled type to protect against freezing, with adequate line drains. The master suction and discharge gauges will be 3 ½" diameter, with the individual discharge line gauges being 2 ½" diameter. All gauges will be Class1 brand or equivalent.

SIX INCH INLETS:

Two (2) 6" diameter inlets shall be provided- one each side of the truck. Both inlets shall extend through the pump panel. Both inlets shall come with a long-handled chrome plated caps.

AUXILIARY SUCTION:

There shall be one (1) full flow 2½" gated side (pony) suction mounted on the pump panel. This auxiliary suction shall include a plug.

REAR FILL:

One (1) 2 ½" rear direct tank fill shall be provided. This valve shall be screwed to the back of the tank and protrude through the rear body wall beside the dump valve and will terminate with a 2 ½" swivel female NST fitting and be equipped with a lever style handle.

CROSSLAYS:

There shall be two (2) 2" valves with plumbing for crosslays to include swivel elbows. These shall terminate with 1 ½" NPSH swivel elbows.

CROSSLAY COVER:

A NFPA compliant crosslay cover shall be installed.

The color of this crosslay cover shall be determined by the Ascutney Volunteer Fire Department during a Preconstruction Conference.

LEFT SIDE DISCHARGE:

One (1) 2 ½" discharges shall be installed on the left side. This discharge shall come with a 30-degree elbow with 2 ½" x 1 ½" reducer and 1 ½" chrome cap. The valve shall be equipped with ¾" line drain at the lower portion.

RIGHT SIDE DISCHARGES:

One (2) 2 ½" discharge shall be installed on the right side. This discharge shall come with 30-degree elbow with 2 ½" x 1 ½" reducer and 1 ½" chrome cap. The valve shall be equipped with ¾" line drain at the lower portion.

One (1) 3½" discharge on right side with manual rotary control and valve position indicator directly connected to pump discharge manifold with integral drain and 3½" x 4" 30° chrome or polished aluminum alloy elbow with 4" Storz fitting with blind Storz cap.

REAR DISCHARGE:

One (1) 2 ½" rear discharge shall be plumbed through the water tank to the left rear of the truck. The pipe for this discharge shall terminate with a 2 ½" chrome plated cap. This discharge will have a push/pull "T" handle type actuator and have a ¾" line drain at the lower portion of the left side pump panel.

DUMP VALVE:

A Newton 10" stainless steel dump valve with extension chute and swivel shall be installed. The extension chute and swivel will allow this to dump to the left, right and rear of the truck.

AIR PRIMER:

The pump priming will be accomplished by use of a Trident vacuum type primer. This primer is operated using air pressure from the truck chassis reservoir with a valve mounted at the pump panel. The use of this style primer does not require electrical power while still being capable of producing NFPA compliant vacuum conditions.

RELIEF VALVE:

An Elkhart 40 or equivalent suction relief valve shall be mounted direct to the pump housing and plumbed for the water to exit to ground per NFPA requirements.

PRESSURE GOVERNOR:

Fire Research PumpBoss series PBA400-A00 pressure governor and monitoring display kit shall be installed. The kit shall include a control module, intake pressure sensor, discharge pressure sensor, and cables. The control module case shall be waterproof and have dimensions not to exceed 6 3/4" high by 4 5/8". The control knob shall be 2" in diameter with no mechanical stops, have a serrated grip, and a red idle push button in the center. It shall not extend more than 1 3/4" from the front of the control module. Inputs for monitored engine information shall be from a J1939 databus or independent sensors. Outputs for engine control shall be on the J1939 databus or engine specific wiring. Inputs from the pump discharge and intake pressure sensors shall be electrical.

The following continuous displays shall be provided:

- Engine RPM; shown with four daylight bright LED digits more than 1/2" high
- Check engine and stop engine warning LEDs
- Engine oil pressure; shown on a dual color (green/red) LED bar graph display
- Engine coolant temperature; shown on a dual color (green/red) LED bar graph display
- Transmission Temperature: shown on a dual color (green/red) LED bar graph display
- Battery voltage; shown on a dual color (green/red) LED bar graph display
- Pressure and RPM operating mode LEDs
- Pressure / RPM setting; shown on a dot matrix message display
- Throttle ready LED.

A dot-matrix message display shall show diagnostic and warning messages as they occur. It shall show monitored apparatus information, stored data, and program options when selected by the operator. All LED intensity shall be automatically adjusted for day and night time operation. The program shall store the accumulated operating hours for the pump and engine to be displayed with the push of a button. It shall monitor inputs and support audible and visual warning alarms for the following conditions:

- High Battery Voltage
- Low Battery Voltage (Engine Off)
- Low Battery Voltage (Engine Running)
- High Transmission Temperature
- Low Engine Oil Pressure
- High Engine Coolant Temperature
- Out of Water (visual alarm only)
- No Engine Response (visual alarm only).

The program features shall be accessed via push buttons located on the front of the control module. There shall be a USB port located at the rear of the control module to upload future firmware enhancements.

The governor shall operate in two control modes, pressure and RPM. No discharge pressure or engine RPM variation shall occur when switching between modes. A throttle ready LED shall light when the interlock signal is recognized. The governor shall start in pressure mode and set the engine RPM to idle. In pressure mode the governor shall automatically regulate the discharge pressure at the level set by the operator. In RPM mode the governor shall maintain the engine RPM at the level set by the operator except in the event of a discharge pressure increase. The governor shall limit a discharge pressure increase in RPM mode to a maximum of 30 psi. Other safety features shall include recognition of no water conditions with an automatic programmed response and a push button to return the engine to idle.

The pressure governor and monitoring pressure display shall be programmed at installation for a specific engine.

WATER LEVEL GAUGE:

Fire Research TankVision Pro model WLA300-A00 tank indicator kit shall be installed. The kit shall include an electronic indicator module, a pressure sensor, and a 10' sensor cable. The indicator shall show the volume of water in the tank on nine (9) easy to see super bright RGB LEDs. A wide view lens over the LEDs shall provide for a viewing angle of 180 degrees. The indicator case shall be waterproof, manufactured of Polycarbonate/Nylon material, and have a distinctive blue label.

The program features shall be accessed from the front of the indicator module. The program shall support self-diagnostics capabilities, self-calibration, six (6) programmable colored light patterns to display tank volume, adjustable brightness control levels and a datalink to connect remote indicators. Low water warnings shall include flashing LEDs at 1/4 tank, down chasing LEDs when the tank is almost empty, and an output for an audio alarm.

The indicator shall receive an input signal from an electronic pressure sensor. The sensor shall be mounted from the outside of the water tank near the bottom. No probe shall be placed on

the interior of the tank. Wiring shall be weather resistant and have automotive type plug-in connectors.

FOAM SYSTEM:

A Fire Research FoamPro 1600 shall be supplied and installed.

The foam proportioning operation shall be based on direct measurement of water flows, and remain consistent within the specified flows and pressures. System must be capable of delivering accuracy to within 5% of calibrated settings over the advertised operation range when installed according to factory standards. The system shall be equipped with a control module suitable for installation on the pump panel. Incorporated within the motor driver shall be a microprocessor that receives input from the system flowmeter, while also monitoring foam concentrate pump output. This compares values to ensure that the operator's preset is proportional to the amount of foam concentrate injected into the discharge side of the fire pump.

A paddlewheel-type flowmeter shall be installed in the discharge system specified to be "foam capable." A simulated flow feature shall be incorporated into the motor driver to simulate an approximate flow value of 100 gpm. This feature is to be engaged or disengaged with a momentary switch and will automatically disengage when the main system switch is turned off.

The control module shall enable the pump operator to:

Activate the foam proportioning system

Select proportioning rates from 0.1% to 1.0%

See a "low concentrate" warning light flash when the foam tank runs low. In two minutes, if foam concentrate is not added to the tank, shut the foam concentrate pump down.

A 12 or 24-volt electric motor driven positive displacement plunger pump shall be provided. The pump capacity shall be from 0.1 gpm (0.38 L/min) to 1.7 gpm (6.4 L/min) at 200 psi (13.8 BAR) with a maximum operating pressure up to 400 psi (27.6 BAR). The pump shall have the capability to draw 3 foot of lift. The system will draw a maximum of 30 amps @ 12 VDC or 15 amps @ 24 VDC. The motor shall be controlled by the microprocessor (mounted to the base of the pump). It shall receive signals from the control module and power the 1/3 hp (.25 Kw) electric motor in a variable speed duty cycle to ensure that the correct proportion of concentrate is injected into the water stream. A full flow check valve shall be provided in the discharge piping to prevent foam contamination of fire pump and water tank. A 12 psi (.83 BAR) opening pressure check valve shall be provided in concentrate line.

FOAM LEVEL GAUGE:

Fire Research TankVision Pro model WLA360-A00 tank indicator kit shall be installed. The kit shall include an electronic indicator module, a pressure sensor, a 10' sensor cable and a tank vent. The indicator shall show the volume of Class A foam concentrate in the tank on nine (9) easy to see super bright RGB LEDs. A wide view lens over the LEDs shall provide for a viewing

angle of 180 degrees. The indicator case shall be waterproof, manufactured of Polycarbonate/Nylon material, and have a distinctive green label.

The program features shall be accessed from the front of the indicator module. The program shall support self-diagnostics capabilities, self-calibration, six (6) programmable colored light patterns to display tank volume, adjustable brightness control levels and a datalink to connect remote indicators. Low water warnings shall include flashing LEDs at 1/4 tank, down chasing LEDs when the tank is almost empty, and an output for an audio alarm.

The indicator shall receive an input signal from an electronic pressure sensor. The sensor shall be mounted from the outside of the foam tank near the bottom. No probe shall be placed on the interior of the tank. Wiring shall be weather resistant and have automotive type plug-in connectors.

WIRING:

All wiring on the body will run from the cab in a thermo plastic convoluted loom. This cable will run into the beavertail on each rear corner of the truck where there shall be a terminal strip mounted. All wiring shall radiate from these terminal strips. Each beavertail shall be covered up with a waterproof cover of aluminum diamond plate deck for ease of maintenance and repairs.

All I.C.C. required lighting will run from the same circuit supplied by the chassis manufacturer and will be controlled by the fuses or circuit breakers supplied with the chassis. All additional circuits installed by us will be run through a circuit breaker. All wiring will be individually color coded for ease of maintenance and consist of all NFPA complaint materials.

Any and all necessary provisions shall be included to allow the Ascutney Volunteer Fire Department to purchase and install a Superior Signals LED Arrow Board mounted on a power lift at a later date.

LIGHT BAR:

The light bar that is currently installed on Ascutney Volunteer Fire Department's Engine 1 shall be removed and reinstalled on the new chassis.

Q2B:

The Federal Q2B mechanical siren that is currently installed on Ascutney Volunteer Fire Department's Engine 1 shall be removed and reinstalled on new chassis.

BROW LIGHT:

One (1) Whelen Single Panel Pioneer brow mounted LED scene light shall be provided and installed.

GROUND LIGHTS:

Six (6) round LED sealed waterproof lights mounted in grommets shall be provided and installed around the underside of the body and rear step to provide ground lighting.

LIGHT PACKAGE:

Two (2) Whelen Model 600 Series red LED lights mounted in the front grille

Two (2) Whelen Model 700 Series red LED lights mounted in the rear of the body- lower portion of the body

Four (4) Whelen Model 700 Series red LED lights mounted two (2) each side of the truck

TAILLIGHT PACKAGE:

Two (2) Whelen 600 Series LED Brake/Tail/Turn – one (1) each side

Two (2) Whelen 600 LED Series Amber Arrow – one (1) each side

Two (2) Whelen 600 Series LED White/Min Back-Up – one (1) each side

Two (2) Whelen 600 Series Red Lights – one (1) each side.

These lights shall be installed in a four light vertical flange

SCENE LIGHTS:

Three (3) pairs of Whelen 900 LED scene lights shall be installed as specified. The lights shall have 24 Super LEDs.

These lights will be installed in the following locations:

- Two (2) each side of body
- Two (2) at rear of truck

PAINT:

Cab and chassis shall be painted black over red to match existing apparatus. The exact shade of red shall be determined at a Preconstruction Conference.

The rear body, excluding compartment doors, shall be painted red to match cab color.

LETTERING:

The truck's lettering shall match current apparatus.

REFLECTIVE STRIPE AND CHEVRON:

There will be a reflective Scotchlite stripe installed per NFPA 1901.

The rear of the truck will be chevron striped using 3M diamond grade with alternating red and yellow colors per NFPA 1901.

ATTACHMENT B
[CHASSIS SPEC]

SPECIFICATION PROPOSAL

Description

Price Level

M2 PRL-26M (EFF:7/26/21)

Data Version

SPECPRO21 DATA RELEASE VER 030

Vehicle Configuration

M2 106 CONVENTIONAL CHASSIS
2023 MODEL YEAR SPECIFIED
SET BACK AXLE - TRUCK
STRAIGHT TRUCK PROVISION
LH PRIMARY STEERING LOCATION

General Service

TRUCK CONFIGURATION
DOMICILED, USA (EXCLUDING CALIFORNIA AND
CARB OPT-IN STATES)
FIRE SERVICE
EMERGENCY VEHICLES BUSINESS SEGMENT
LIQUID BULK COMMODITY
TERRAIN/DUTY: 100% (ALL) OF THE TIME, IN
TRANSIT, IS SPENT ON PAVED ROADS
MAXIMUM 8% EXPECTED GRADE
SMOOTH CONCRETE OR ASPHALT PAVEMENT -
MOST SEVERE IN-TRANSIT (BETWEEN SITES)
ROAD SURFACE
MEDIUM TRUCK WARRANTY
EXPECTED FRONT AXLE(S) LOAD : 16000.0 lbs
EXPECTED REAR DRIVE AXLE(S) LOAD :
31000.0 lbs
EXPECTED GROSS VEHICLE WEIGHT CAPACITY
: 47000.0 lbs

Description

Truck Service

FIRE TANK/PUMPER - MAIN DRIVELINE DRIVEN
SPLIT-SHAFT PTO/PUMP
CUSTOM MFR'S/BODY TYPE IDENTIFICATION
EXPECTED BODY/PAYLOAD CG HEIGHT ABOVE
FRAME "XX" INCHES : 32.0 in

Engine

CUM L9 360EV HP @ 2200 RPM, 2200 GOV RPM,
1150 LB-FT @ 1200 RPM, R/F/E

Electronic Parameters

65 MPH ROAD SPEED LIMIT
CRUISE CONTROL SPEED LIMIT SAME AS ROAD
SPEED LIMIT
PTO MODE ENGINE RPM LIMIT - 1200 RPM
PTO MODE BRAKE OVERRIDE - SERVICE
BRAKE APPLIED
PTO RPM WITH CRUISE SET SWITCH - 700 RPM
PTO RPM WITH CRUISE RESUME SWITCH - 900
RPM
PTO MODE CANCEL VEHICLE SPEED - 5 MPH
PTO GOVERNOR RAMP RATE - 250 RPM PER
SECOND
ONE REMOTE PTO SPEED
PTO SPEED 1 SETTING - 1200 RPM
PTO MINIMUM RPM - 700
REGEN INHIBIT SPEED THRESHOLD - 5 MPH

Engine Equipment

2010 EPA/CARB/GHG21 CONFIGURATION
NO 2008 CARB EMISSION CERTIFICATION
STANDARD OIL PAN
ENGINE MOUNTED OIL CHECK AND FILL
SIDE OF HOOD AIR INTAKE WITH NFPA
COMPLIANT EMBER SCREEN AND FIRE
RETARDANT DONALDSON AIR CLEANER
DR 12V 275 AMP 40-SI BRUSHLESS PAD
ALTERNATOR WITH REMOTE BATTERY
VOLTAGE SENSE
(2) DTNA GENUINE, FLOODED STARTING, MIN
2000CCA, 370RC, THREADED STUD BATTERIES
BATTERY BOX FRAME MOUNTED
STANDARD BATTERY JUMPERS

Description

SINGLE BATTERY BOX FRAME MOUNTED LH
SIDE UNDER CAB

WIRE GROUND RETURN FOR BATTERY CABLES
WITH ADDITIONAL FRAME GROUND RETURN

NON-POLISHED BATTERY BOX COVER

CAB AUXILIARY POWER CABLE

POSITIVE LOAD DISCONNECT WITH CAB
MOUNTED CONTROL SWITCH MOUNTED
OUTBOARD DRIVER SEAT

POSITIVE AND NEGATIVE POSTS FOR
JUMPSTART LOCATED ON FRAME NEXT TO
STARTER

CUMMINS TURBOCHARGED 18.7 CFM AIR
COMPRESSOR WITH INTERNAL SAFETY VALVE

STANDARD MECHANICAL AIR COMPRESSOR
GOVERNOR

AIR COMPRESSOR DISCHARGE LINE

GVG, FIRE AND EMERGENCY SERVICE
VEHICLES ENGINE WARNING

C-BRAKE BY JACOBS WITH LOW/OFF/HIGH
BRAKING DASH SWITCH

RH OUTBOARD UNDER STEP MOUNTED
HORIZONTAL AFTERTREATMENT SYSTEM
ASSEMBLY WITH RH HORIZONTAL TAILPIPE
EXITING FORWARD OF REAR TIRES

ENGINE AFTERTREATMENT DEVICE,
AUTOMATIC OVER THE ROAD ACTIVE
REGENERATION AND DASH MOUNTED SINGLE
REGENERATION REQUEST/INHIBIT SWITCH

STANDARD EXHAUST SYSTEM LENGTH

RH HORIZONTAL TAILPIPE, EXIT FORWARD OF
REAR TIRES

6 GALLON DIESEL EXHAUST FLUID TANK

100 PERCENT DIESEL EXHAUST FLUID FILL

LH MEDIUM DUTY STANDARD DIESEL EXHAUST
FLUID TANK LOCATION

STANDARD DIESEL EXHAUST FLUID PUMP
MOUNTING

STANDARD DIESEL EXHAUST FLUID TANK CAP

HORTON DRIVEMASTER ADVANTAGE ON/OFF
FAN DRIVE

AUTOMATIC FAN CONTROL WITH DASH
SWITCH AND INDICATOR LIGHT, NON ENGINE
MOUNTED

CUMMINS SPIN ON FUEL FILTER

COMBINATION FULL FLOW/BYPASS OIL FILTER

Description

1100 SQUARE INCH ALUMINUM RADIATOR
ANTIFREEZE TO -34F, OAT (NITRITE AND SILICATE FREE) EXTENDED LIFE COOLANT
GATES BLUE STRIPE COOLANT HOSES OR EQUIVALENT
CONSTANT TENSION HOSE CLAMPS FOR COOLANT HOSES
RADIATOR DRAIN VALVE
LOWER RADIATOR GUARD
ALUMINUM FLYWHEEL HOUSING
ELECTRIC GRID AIR INTAKE WARMER
DELCO 12V 38MT HD STARTER WITH INTEGRATED MAGNETIC SWITCH

Transmission

ALLISON 3000 EVS AUTOMATIC TRANSMISSION WITH PTO PROVISION

Transmission Equipment

ALLISON VOCATIONAL PACKAGE 198 - AVAILABLE ON 3000/4000 PRODUCT FAMILIES WITH VOCATIONAL MODEL EVS
ALLISON VOCATIONAL RATING FOR FIRE TRUCK/EMERGENCY VEHICLE APPLICATIONS AVAILABLE WITH ALL PRODUCT FAMILIES
PRIMARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 5, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY
SECONDARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY
S5 PERFORMANCE LIMITING PRIMARY SHIFT SCHEDULE, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY
S5 PERFORMANCE LIMITING SECONDARY SHIFT SCHEDULE, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY
2200 RPM PRIMARY MODE SHIFT SPEED
2200 RPM SECONDARY MODE SHIFT SPEED
4TH GEAR ENGINE BRAKE PRESELECT RANGE WITH LESS AGGRESSIVE DOWNSHIFT STRATEGY
2ND GEAR ENGINE BRAKE ALTERNATE PRESELECT WITH MODERATE DOWNSHIFT STRATEGY
FUEL SENSE 2.0 DISABLED - PERFORMANCE - TABLE BASED

Description

DRIVER SWITCH INPUT - DEFAULT - NO SWITCHES

PUMP MODE INPUT ENABLED 3RD/4TH LOCKUP WIRED ON TCM INPUT AJ/BQ - ALLISON 5TH GEN TRANSMISSIONS

4TH RANGE INDICATION ON TCM OUTPUT C - ALLISON 5TH GEN TRANSMISSIONS

VEHICLE INTERFACE WIRING CONNECTOR WITHOUT BLUNT CUTS, AT BACK OF CAB

ELECTRONIC TRANSMISSION CUSTOMER ACCESS CONNECTOR FIREWALL MOUNTED

MAGNETIC PLUGS, ENGINE DRAIN, TRANSMISSION DRAIN, AXLE(S) FILL AND DRAIN

PUSH BUTTON ELECTRONIC SHIFT CONTROL, DASH MOUNTED

TRANSMISSION PROGNOSTICS - ENABLED 2013

WATER TO OIL TRANSMISSION COOLER, IN RADIATOR END TANK

TRANSMISSION OIL CHECK AND FILL WITH ELECTRONIC OIL LEVEL CHECK

SYNTHETIC TRANSMISSION FLUID (TES-295 COMPLIANT)

Front Axle and Equipment

DETROIT DA-F-16.0-5 16,000# FL1 71.0 KPI/3.74 DROP SINGLE FRONT AXLE

MERITOR 16.5X6 Q+ CAST SPIDER CAM FRONT BRAKES, DOUBLE ANCHOR, FABRICATED SHOES

FIRE AND EMERGENCY SEVERE SERVICE, NON-ASBESTOS FRONT LINING

CAST IRON OUTBOARD FRONT BRAKE DRUMS

FRONT BRAKE DUST SHIELDS

FRONT OIL SEALS

VENTED FRONT HUB CAPS WITH WINDOW, CENTER AND SIDE PLUGS - OIL

STANDARD SPINDLE NUTS FOR ALL AXLES

MERITOR AUTOMATIC FRONT SLACK ADJUSTERS

TRW TAS-85 POWER STEERING

POWER STEERING PUMP

2 QUART SEE THROUGH POWER STEERING RESERVOIR

CURRENT AVAILABLE SYNTHETIC 75W-90 FRONT AXLE LUBE

Description

Front Suspension

16,000# FLAT LEAF FRONT SUSPENSION
GRAPHITE BRONZE BUSHINGS WITH SEALS -
FRONT SUSPENSION
NO FRONT SHOCK ABSORBERS

Rear Axle and Equipment

RS-30-185 31,000# U-SERIES FIRE/EMERGENCY
SERVICE SINGLE REAR AXLE
5.63 REAR AXLE RATIO
IRON REAR AXLE CARRIER WITH STANDARD
AXLE HOUSING
MXL 17T MERITOR EXTENDED LUBE MAIN
DRIVELINE WITH HALF ROUND YOKES
DRIVER CONTROLLED TRACTION
DIFFERENTIAL - SINGLE REAR AXLE
(1) DRIVER CONTROLLED DIFFERENTIAL LOCK
REAR VALVE FOR SINGLE DRIVE AXLE
BLINKING LAMP WITH EACH MODE SWITCH,
DIFFERENTIAL UNLOCK WITH IGNITION OFF,
ACTIVE <5 MPH
MERITOR 16.5X7 P CAST SPIDER CAM REAR
BRAKES, DOUBLE ANCHOR, CAST SHOES
FIRE AND EMERGENCY SEVERE SERVICE NON-
ASBESTOS REAR BRAKE LINING
BRAKE CAMS AND CHAMBERS ON FORWARD
SIDE OF DRIVE AXLE(S)
WEBB CAST IRON REAR BRAKE DRUMS
REAR BRAKE DUST SHIELDS
REAR OIL SEALS
WABCO TRISTOP D LONGSTROKE 1-DRIVE
AXLE SPRING PARKING CHAMBERS
HALDEX AUTOMATIC REAR SLACK ADJUSTERS
CURRENT AVAILABLE SYNTHETIC 75W-90 REAR
AXLE LUBE

Rear Suspension

31,000# FLAT LEAF SPRING REAR SUSPENSION
WITH HELPER AND RADIUS ROD FOR
FIRE/EMERGENCY SERVICE
SPRING SUSPENSION - NO AXLE SPACERS
STANDARD AXLE SEATS IN AXLE CLAMP
GROUP
FORE/AFT CONTROL RODS

Brake System

Description

AIR BRAKE PACKAGE
WABCO 4S/4M ABS
REINFORCED NYLON, FABRIC BRAID AND WIRE
BRAID CHASSIS AIR LINES
FIBER BRAID PARKING BRAKE HOSE
STANDARD BRAKE SYSTEM VALVES
STANDARD AIR SYSTEM PRESSURE
PROTECTION SYSTEM
STD U.S. FRONT BRAKE VALVE
RELAY VALVE WITH 5-8 PSI CRACK PRESSURE,
NO REAR PROPORTIONING VALVE
WABCO SYSTEM SAVER HP WITH INTEGRAL
AIR GOVERNOR AND HEATER
AIR DRYER MOUNTED INBOARD ON LH RAIL
STEEL AIR BRAKE RESERVOIRS
CLEAR FRAME RAILS FROM BACK OF CAB TO
FRONT REAR SUSPENSION BRACKET, BOTH
RAILS OUTBOARD
BW DV-2 AUTO DRAIN VALVE WITHOUT HEATER
- WET TANK

Trailer Connections

UPGRADED CHASSIS MULTIPLEXING UNIT
UPGRADED BULKHEAD MULTIPLEXING UNIT

Wheelbase & Frame

4975MM (196 INCH) WHEELBASE
7/16X3-9/16X11-1/8 INCH STEEL FRAME
(11.11MMX282.6MM/0.437X11.13 INCH) 120KSI
2550MM (100 INCH) REAR FRAME OVERHANG
FRAME OVERHANG RANGE: 91 INCH TO 100
INCH
CALC'D BACK OF CAB TO REAR SUSP C/L (CA) :
130.32 in
CALCULATED EFFECTIVE BACK OF CAB TO
REAR SUSPENSION C/L (CA) : 127.32 in
CALC'D FRAME LENGTH - OVERALL : 325.66 in
CALCULATED FRAME SPACE LH SIDE : 95.6 in
CALCULATED FRAME SPACE RH SIDE : 158.27
in
SQUARE END OF FRAME
FRONT CLOSING CROSSMEMBER
LIGHTWEIGHT HEAVY DUTY ALUMINUM ENGINE
CROSSMEMBER

Description

STANDARD CROSSMEMBER BACK OF TRANSMISSION
STANDARD MIDSHIP #1 CROSSMEMBER(S)
STANDARD REARMOST CROSSMEMBER
STANDARD SUSPENSION CROSSMEMBER

Chassis Equipment

THREE-PIECE 14 INCH CHROMED STEEL BUMPER WITH COLLAPSIBLE ENDS
FRONT TOW HOOKS - FRAME MOUNTED
BUMPER MOUNTING FOR SINGLE LICENSE PLATE
FENDER AND FRONT OF HOOD MOUNTED FRONT MUDFLAPS
GRADE 8 THREADED HEX HEADED FRAME FASTENERS
D15-16004-000 CENTER PUNCH TO MARK CENTERLINE OF REAR SUSPENSION ON FRAME WEB
TANK BODY 0 TO 1500 GALLONS

Fuel Tanks

50 GALLON/189 LITER SHORT RECTANGULAR ALUMINUM FUEL TANK - LH
RECTANGULAR FUEL TANK(S)
POLISHING OF FUEL/HYDRAULIC TANK(S) WITH PAINTED BANDS
FUEL TANK(S) FORWARD
POLISHED STAINLESS STEEL STEP FINISH
FUEL TANK CAP(S)
DETROIT FUEL/WATER SEPARATOR WITH WATER IN FUEL SENSOR, HAND PRIMER AND 12 VOLT PREHEATER"
EQUIFLO INBOARD FUEL SYSTEM
HIGH TEMPERATURE REINFORCED NYLON FUEL LINE

Tires

MICHELIN X WORKS Z 315/80R22.5 20 PLY RADIAL FRONT TIRES
MICHELIN XDN2 GRIP 315/80R22.5 20 PLY RADIAL REAR TIRES

Hubs

CONMET PRESET PLUS PREMIUM IRON FRONT HUBS
WEBB IRON REAR HUBS

Description

Wheels

ALCOA ULTRA ONE 89U64X 22.5X9.00 10-HUB
PILOT 5.99 INSET ALUMINUM FRONT WHEELS
ALCOA ULTRA ONE 89U64X 22.5X9.00 10-HUB
PILOT 5.99 INSET ALUMINUM REAR WHEELS
POLISHED BOTH SIDES FRONT WHEELS WITH
DURA-BRIGHT FINISH
POLISHED OUTER AND INNER (DISHED SIDES)
REAR WHEELS WITH ALL DURA-BRIGHT FINISH
FRONT WHEEL MOUNTING NUTS
REAR WHEEL MOUNTING NUTS
NO PUSHER/TAG WHEEL MOUNTING NUTS
NYLON WHEEL GUARDS FRONT AND REAR ALL
INTERFACES

Cab Exterior

106 INCH BBC FLAT ROOF ALUMINUM
CONVENTIONAL CAB
AIR CAB MOUNTING
LH AND RH EXTERIOR GRAB HANDLES WITH
SINGLE RUBBER INSERT
HOOD MOUNTED CHROMED PLASTIC GRILLE
CHROME HOOD MOUNTED AIR INTAKE GRILLE
FIBERGLASS HOOD
TUNNEL/FIREWALL LINER
DUAL 25 INCH ROUND STUTTER TONE HOOD
MOUNTED AIR HORNS
SINGLE ELECTRIC HORN
DUAL HORN SHIELDS
DOOR LOCKS AND IGNITION SWITCH KEYED
THE SAME
KEY QUANTITY OF 2
REAR LICENSE PLATE MOUNT END OF FRAME
INTEGRAL HEADLIGHT/MARKER ASSEMBLY
WITH CHROME BEZEL
LED AERODYNAMIC MARKER LIGHTS
DAYTIME RUNNING LIGHTS
OMIT STOP/TAIL/BACKUP LIGHTS AND PROVIDE
WIRING WITH SEPARATE STOP/TURN WIRES
TO 4 FEET BEYOND END OF FRAME
STANDARD FRONT TURN SIGNAL LAMPS
DUAL WEST COAST BRIGHT FINISH HEATED
MIRRORS WITH LH AND RH REMOTE
DOOR MOUNTED MIRRORS

Description

102 INCH EQUIPMENT WIDTH
LH AND RH 8 INCH BRIGHT FINISH CONVEX
MIRRORS MOUNTED UNDER PRIMARY
MIRRORS
STANDARD SIDE/REAR REFLECTORS
RH AFTERTREATMENT SYSTEM CAB ACCESS
WITH POLISHED DIAMOND PLATE COVER
PARK BRAKE REMINDER WARNING SYSTEM
COMPOSITE EXTERIOR SUN VISOR
63X14 INCH TINTED REAR WINDOW
TINTED DOOR GLASS LH AND RH WITH TINTED
NON-OPERATING WING WINDOWS
RH AND LH ELECTRIC POWERED WINDOWS
1-PIECE SOLAR GREEN GLASS WINDSHIELD
2 GALLON WINDSHIELD WASHER RESERVOIR
WITHOUT FLUID LEVEL INDICATOR, FRAME
MOUNTED

Cab Interior

OPAL GRAY VINYL INTERIOR
MOLDED PLASTIC DOOR PANEL WITHOUT
VINYL INSERT WITH ALUMINUM KICKPLATE
LOWER DOOR
MOLDED PLASTIC DOOR PANEL WITHOUT
VINYL INSERT WITH ALUMINUM KICKPLATE
LOWER DOOR
BLACK MATS WITH SINGLE INSULATION
IN DASH STORAGE BIN
(2) CUP HOLDERS LH AND RH DASH
GRAY/CHARCOAL FLAT DASH
SMART SWITCH EXPANSION MODULE
HEATER, DEFROSTER AND AIR CONDITIONER
STANDARD HVAC DUCTING WITH SNOW
SHIELD FOR FRESH AIR INTAKE
MAIN HVAC CONTROLS WITH RECIRCULATION
SWITCH
STANDARD HEATER PLUMBING
VALEO HEAVY DUTY A/C REFRIGERANT
COMPRESSOR
BINARY CONTROL, R-134A
PREMIUM INSULATION
SOLID-STATE CIRCUIT PROTECTION AND
FUSES
12V NEGATIVE GROUND ELECTRICAL SYSTEM

Description

DOME DOOR ACTIVATED LH AND RH, DUAL
READING LIGHTS, FORWARD CAB ROOF
LH AND RH ELECTRIC DOOR LOCKS
(1) 12V POWER SUPPLY (1) DUAL 2.1 AMP USB
CHARGER IN DASH
SEATS INC 911 UNIVERSAL SERIES HIGH BACK
AIR SUSPENSION DRIVER SEAT WITH NFPA
1901-2009/2016 COMPLIANT SEAT SENSOR
SEATS INC 911 2 MAN MID BACK NON
SUSPENSION PASSENGER SEAT WITH NFPA
2009 COMPLIANT SEAT SENSORS
LH AND RH INTEGRAL DOOR PANEL ARMRESTS
GRAY VINYL DRIVER SEAT COVER WITH GRAY
CORDURA CLOTH BOLSTER AND HEADREST
GRAY CORDURA PLUS CLOTH PASSENGER
SEAT COVER
NFPA 1901-2009 HIGH VISIBILITY ORANGE SEAT
BELTS
ADJUSTABLE TILT AND TELESCOPING
STEERING COLUMN
4-SPOKE 18 INCH (450MM) STEERING WHEEL
DRIVER AND PASSENGER INTERIOR SUN
VISORS

Instruments & Controls

GRAY DRIVER INSTRUMENT PANEL
GRAY CENTER INSTRUMENT PANEL
BLACK GAUGE BEZELS
LOW AIR PRESSURE INDICATOR LIGHT AND
AUDIBLE ALARM
2 INCH PRIMARY AND SECONDARY AIR
PRESSURE GAUGES
ENGINE COMPARTMENT MOUNTED AIR
RESTRICTION INDICATOR WITH GRADUATIONS,
WITH WARNING LIGHT IN DASH
ELECTRONIC CRUISE CONTROL WITH
SWITCHES IN LH SWITCH PANEL
IGNITION SWITCH WITH NON REMOVABLE KEY
ICU3S, 132X48 DISPLAY WITH DIAGNOSTICS, 28
LED WARNING LAMPS AND DATA LINKED
HEAVY DUTY ONBOARD DIAGNOSTICS
INTERFACE CONNECTOR LOCATED BELOW LH
DASH
2 INCH ELECTRIC FUEL GAUGE
PROGRAMMABLE RPM CONTROL -
ELECTRONIC ENGINE

Description

ELECTRICAL ENGINE COOLANT TEMPERATURE GAUGE

2 INCH TRANSMISSION OIL TEMPERATURE GAUGE

ENGINE AND TRIP HOUR METERS INTEGRAL WITHIN DRIVER DISPLAY

ELECTRIC ENGINE OIL PRESSURE GAUGE

OVERHEAD INSTRUMENT PANEL

SMARTPLEX HUB MODULE WITH OVERHEAD SWITCH MOUNTING, DRIVER SIDE AND CENTER CONSOLE (12 SWITCH SLOTS)

NFPA VEHICLE DATA RECORDER AND SEATBELT DISPLAY

AM/FM/WB WORLD TUNER RADIO WITH BLUETOOTH, USB AND AUXILIARY INPUTS, J1939

DASH MOUNTED RADIO

(2) RADIO SPEAKERS IN CAB

AM/FM ANTENNA MOUNTED ON FORWARD LH ROOF

ROOF/OVERHEAD CONSOLE CB RADIO PROVISION

ELECTRONIC MPH SPEEDOMETER WITH SECONDARY KPH SCALE, WITHOUT ODOMETER

STANDARD VEHICLE SPEED SENSOR

ELECTRONIC 3000 RPM TACHOMETER

IGNITION SWITCH CONTROLLED ENGINE STOP

9 ON/OFF LATCHING SMARTPLEX SWITCHES

3-RED, 0-AMBER, 0-GREEN SMARTPLEX INDICATOR LAMPS

(2) FOOT SWITCHES: (1) OFFICER AIR HORN AND (1) DRIVER AIR HORN

DIGITAL VOLTAGE DISPLAY INTEGRAL WITH DRIVER DISPLAY

SINGLE ELECTRIC WINDSHIELD WIPER MOTOR WITH DELAY AND ARCTIC TYPE BLADES

MARKER LIGHT SWITCH INTEGRAL WITH HEADLIGHT SWITCH

ONE VALVE PARKING BRAKE SYSTEM WITH DASH VALVE CONTROL AUTONEUTRAL AND WARNING INDICATOR

SELF CANCELING TURN SIGNAL SWITCH WITH DIMMER, WASHER/WIPER AND HAZARD IN HANDLE

Description

INTEGRAL ELECTRONIC TURN SIGNAL
FLASHER WITH HAZARD LAMPS OVERRIDING
STOP LAMPS

Design

TWO COLOR CUSTOM PAINT

Color

CAB COLOR A: L3190EY RED ELITE EY
CAB COLOR B: L0006EY WHITE ELITE EY
BLACK, HIGH SOLIDS POLYURETHANE CHASSIS
PAINT
SUNVISOR PAINTED SAME AS CAB COLOR A
STANDARD E COAT/UNDERCOATING

Certification / Compliance

U.S. FMVSS CERTIFICATION, EXCEPT SALES
CABS AND GLIDER KITS

Secondary Factory Options

DEALER HAS BEEN ADVISED OF AND
ACCEPTED RESPONSIBILITY FOR
MODIFICATIONS DUE TO POSSIBLE
PTO/CHASSIS INTERFERENCE

Raw Performance Data

CALCULATED EFFECTIVE BACK OF CAB TO
REAR SUSPENSION C/L (CA) : 127.32 in

Dealer Installed Options

	Weight Front	Weight Rear
MODEL YEAR 2023 PRICING SURCHARGE	0	0
Total Dealer Installed Options	0 lbs	0 lbs

(***) All cost increases for major components (Engines, Transmissions, Axles, Front and Rear Tires) and government mandated requirements, tariffs, and raw material surcharges will be passed through and added to factory invoices.

