



Sold By:

Glick Fire Equipment Company
350 Mill Creek Road
Bird In Hand, PA 17505

(800) 723-1055

Date: January 1 – March 31, 2009

Built By:

Firematic Manufacturing
10 Ramsay Road
Shirley, NY 11967
631-924-3181

INTENT OF SPECIFICATIONS

It shall be the intent of these specifications to cover the furnishing and delivery of a completed apparatus equipped as hereinafter specified. These specifications cover only the general requirements as to the type of construction and test to which the apparatus shall conform, together with certain details as to finish, equipment and appliances with which the successful bidder shall conform. Minor details of construction and materials, which are not otherwise specified, are left to the discretion of the contractor who shall be solely responsible for the design and construction of all features. Loose equipment shall be provided only as stated in the following pages.

DRAWINGS

CAD designed drawings of the vehicle as proposed have been supplied. Views include both side front and rear and show full pump panel detail.

No Manufacturing or shearing shall take place until the drawings have been signed off at the pre construction conference. Any final design alterations shall be at the discretion off the Fire Company.

QUALITY AND WORKMANSHIP

The design of the apparatus shall embody the latest approved automotive engineering practices. The workmanship shall be of the highest quality in its respective field. Special consideration shall be given to the following points: Accessibility of the various units, which require periodic maintenance, ease of operation (including both pumping and driving) and symmetrical proportions. Construction shall be rugged and ample safety factors shall be provided to carry the loads specified and to meet both on and off road requirements and speed conditions as set forth under "Performance Tests and Requirements". Welding shall not be employed in the assembly of the apparatus in a manner that shall prevent the ready removal of any component part for service or repair.

INFORMATION REQUIRED

The manufacturer shall supply at time of delivery, complete operation and maintenance manuals covering the completed apparatus as delivered. A permanent plate shall be mounted in the driver's compartment which specifies the quantity and type of fluids required including engine oil, engine coolant, transmission, pump transmission lubrication, pump primer and drive axle.

PERFORMANCE TESTS AND REQUIREMENTS

A road test shall be conducted with the apparatus fully loaded and a continuous run of ten (10) miles or more shall be made under all driving conditions, during which time the apparatus shall show no loss of power or overheating. The transmission drive shaft or shafts, and rear axles shall run quietly and be free from abnormal vibration or noise throughout the operating

range of the apparatus.

FAILURE TO MEET TEST

In the event the apparatus fails to meet the test requirements of these specifications on the first trial, second trials may be made at the option of the bidder within 30 days of the date of the first trial. Such trials shall be final and conclusive and failure to comply with these requirements shall be cause for rejection. Failure to comply with changes to conform to any clause of the specifications, within 30 days after notice is given to the bidder of such changes, shall also be cause for rejection of the apparatus. Permission to keep or store the apparatus in any building owned or occupied by the purchaser or its use by the purchaser during the above-specified period with the permission of the bidder shall not constitute acceptance.

GENERAL CONSTRUCTION

The apparatus shall be designed with due consideration to distribution of load between the front and rear axles. Weight balance and distribution shall be in accordance with the recommendations of the National Fire Protection Association.

COMMERCIAL GENERAL LIABILITY INSURANCE

The manufacturer shall, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of commercial general liability insurance:

General Aggregate	\$2,000,000
Products/Completed Operations Aggregate	\$1,000,000
Personal and Advertising Injury	\$1,000,000
Each Occurrence	\$1,000,000

Coverage shall be written on a Commercial General Liability form. The policy shall be written on an occurrence form and shall include Contractual Liability coverage. The policy shall include owner as an additional insured as their interest may appear.

The required limits can be provided by one or more policies provided all other insurance requirements are met.

Coverage shall be provided by a carrier(s) rated "Excellent" by A.M. Bests.

UMBRELLA/EXCESS LIABILITY INSURANCE

The manufacturer shall, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of umbrella liability insurance:

Aggregate:	\$4,000,000
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Each Occurrence: \$4,000,000

The policy shall be written on an occurrence basis and at a minimum provide the same coverage's as Manufacturer's General Liability, Automobile Liability and Employer's Liability policies. Owner shall be included as an additional insured on the General Liability and Automobile Liability policies as their interest may appear. The required limits can be provided by one or more policies provided all other insurance requirements are met.

Manufacturer agrees to furnish owner with a current Certificate of Insurance with the coverage listed above along with its bid. The certificate shall be made out to the purchaser and be an original, no photocopies shall be accepted. The Certificate of Insurance shall provide that owner be given 30 days advance notice of cancellation, nonrenewable or material change in coverage.

MAXIMUM OVERALL HEIGHT

The maximum overall height of the apparatus shall be 92.00”.

MAXIMUM OVERALL LENGTH

The maximum overall length of the apparatus shall be 300”

WARRANTY

The manufacturer shall warranty each piece of new fire or rescue apparatus to be free from defects in materials or workmanship under normal use and service. The manufacturer's obligation under this warranty is limited to repairing or replacing, as the company may elect, any parts thereof which are returned to them, with transportation costs prepaid and as to which examination is disclose to the company's satisfaction to have been defective. The part, or parts, shall be returned to the manufacturer not later than **one (1) year** from delivery of the apparatus. Such defective part, or parts, shall be repaired or replaced free of charge and without charge for installation to the original purchaser.

12-YEAR BODY WARRANTY

The body and subframe assembly shall be warranted against defects in material and workmanship for a period of twelve (12) years from the date of delivery.

This warranty shall not apply:

- 1) To normal maintenance and adjustments.
- 2) To any vehicle which has been repaired or altered outside of the factory in any way so that, in the manufacturer's judgment, it would affect the stability. Also it shall not apply to any vehicle, which has been subject to misuse, neglect, or accident, or to any vehicle, which shall operate at any speed, exceeding the factory rated speed, or loaded

beyond the factory rated load capacity.

3) To commercial chassis and associated equipment furnished with the chassis, signaling devices, generators, batteries, or other trade accessories in which they are usually warranted separately by their respective manufacturers.

This warranty is in lieu of all other warranties, expressed or implied, all others representations to the original purchaser and all other obligations or liabilities, including liability for incidental or consequential damages on the part of the company. The manufacturer neither assumes or authorizes any other person to give or assume any other warranty or liability on the company's behalf, unless made or assumed in writing by the company.

CHASSIS

2008 – Ford F-550 chassis 17,950 MGWW

2 Door cab and chassis

4 x 4 Drive Train

4-Speed Electric OD Transmission

Power Steering

Power Brakes

Heavy Duty Vinyl Bench Seat

Ford Red Paint

Wheel Base 141”

XL Trim Décor- Includes Dual beam, jewel effect headlights and chrome grill

Trailer Tow Mirrors with Manual Glass

4-Wheel ABS Brakes

Driver and Passenger Air Bags

Tow Hooks

Radio ETR AM/FM Stereo with Clock

Rubber Floor Mats

Engine 6.4L Diesel Power Stroke 350 H.P.

Dual 78 AH Batteries

Dual 115 AMP Alternators

Maximum Front GAWR Package

Limited Slip 4.88 1-Axel Ratio

Air Conditioning

Auxiliary Idle Kit

Daytime Running Lights

Fuel Tank Skid Plate

All modifications, equipment, maximum manpower, and carrying capacity of water must not exceed the manufacturers (Ford) maximum GVWR of 17,950 lbs.

OVERALL DESIGN

The body for the brush truck will be manufactured entirely of aluminum. The roll bars and aluminum diamondette will also be aluminum. No exceptions will be allowed in regards to the aluminum material. The body will be 112" overall length and the overall width shall not be less than or exceed the overall width of the factory Ford rear axle, including the hubs, which is approximately 90" with Firematic Super Single wheels and tires.

The water tank will be Poly-lifetime guaranteed.

The two (2) compartments will have ROM brushed aluminum roll up doors.

The pump will be a Deutz/Hale 60 hp diesel engine unit piped to the chassis for fuel and 12 volt.

The two (2) booster reels will be all aluminum construction by Hannay. Two (2) #SBEF 30-23-24RT and LT.

There will be an extended front bumper with 30° ends made of 12" channel. The grille system will be made of .200 x 1.900 5086 tubing. An aluminum tube grill protection system will be bolted to the deck of the bumper.

One (1) Class A hitch will be supplied for the winch at the rear body. The entire body assembly will be manufactured from aluminum. The sub-structure will be made of 6061 T6 (which measures 2" x 4") rectangular box tubing with a .125 and .250 wall. Four main front to rear rails will be provided along with side-to-side tubes. The body will have a 6" x 4" x 3/8" aluminum angle perimeter and the front corners will have tapered ends. The floor will be 1/4" brite dip polished aluminum the entire flat bed will be seam welded. The body will be 112" long and approximately 90" wide as stated in above paragraph and secured to the truck chassis with 6-5/8" U-bolts. There will be a 1/2" x 4" die cut #70 durometer rubber isolation plate installed on the truck chassis.

FLAT DECK BODY

The body will have a 6" x 4" x 3/8" aluminum angle perimeter and the front corners will have tapered ends. The taper should be angles of 55 and 35 degrees from front inboard to outboard respectively.

The sub-structure will be made of 2" x 4" x .250" aluminum 6061 T6 rectangular box tubing. Two main front to rear rails will be installed, made of 2" x 4" x .250" aluminum 6061 T6 rectangular box tubing.

The floor will be 1/4" brite dip polished aluminum and the entire flat bed will be stitch welded.

The body will be 112" long and approximately 90" wide as stated in above paragraph and secured to the truck chassis with 2-5/8" U-bolts, two 3/8" aluminum plates welded to the rails and bolted to the truck frame rails midway along the body and two steel 1/2" plates at the rear which will be bolted to both the body rails and frame rails. There will be a 1/2" x 3" die cut #70 durometer rubber isolation plate installed between the body and truck frame rails.

A rear apron made with 5086 aluminum tubing with a .145" wall and .250" diamondplate will be installed to house the brake and turn signal lighting. The tubing will be bent on a movable Mandrel hydraulic bender with a 6.5" bend radius to reduce stress and provide a wrinkle free and continuous wall thickness.

The tubing will have a total of 4 bends with the outboard area reducing down in size to that of the brake and turn lights for lighting emphasis. The diamondplate will cut to the shape of the apron and stitch welded to the front side of the tubing. The entire apron will bolt on to the underside rear corners of the bed with stainless 3/8" button head cap screws.

EXTENDED FRONT BUMPER

A custom built 12" deep bumper will be provided and installed with a 6 x 4 x 3/8" angle reinforcement. The bumper will be bolted to the front frame extensions with 3/8" plates.

The ends of the bumper will be returned with 30° angles and the overall width of the bumper will be two inches wider than the cab. The deck will be covered with four-way 3003 aluminum diamondette.

On top of the extended bumper additional grille and body protection tubing and mesh assembly will be installed with grade (8) bolts. The tubing will have (8) bolt on flanges and will be made of 5086 – 1.900 OD x .200 wall tubing. All the bends will be wrinkle free and all the welds will be by TIG welding process.

The front will be closed with heavy-duty 3/16" aluminum mesh. There will be two oval cutouts on the front where 10,000 lbs chrome hooks will be bolted. At

the center of the bumper a reinforced mount will be provided for the winch. At the attachment mount, a night lite will be installed. The entire bumper assembly will be made of aluminum and powder coated black.

FRONT BUMPER TESTING

All aluminum construction will also require a full FEA analysis.

ROLL CAGE

There shall be a quantity of (6) 1.900" diameter roll bars to be bolted to the flat bed. Additional tubing will be added to the 4 main cross bars to reinforce the cage assembly and to allow support for the reels, etc. An X bar will tie the first two cross tubes together.

The bars will be 5086 – 1.900 OD x .200 thick wall tubing and will be bent on a movable Mandrel hydraulic bender to reduce stress and provide a wrinkle free and continuous wall thickness. The base of each roll bar will have 4 x 4 x ¼" plates 6061 – T6 aluminum welded to each tube via TIG welded process.

Each tube will have four 3/8" stainless steel bolts threaded into the perimeter angle. The tubes will be spaced evenly between front to rear and will have four front to rear bars added at the top, two on each side. Mounts will be welded to the bars for mounting two reels.

Two openings shall be provided for the two (2) horizontal reels. The opening will be 12" x 26" one (1) on each side.

All welds will be TIG welded and all joints will be machined for fit prior to welding. 1.900" x .145 aluminum tubes will be installed front to rear and side-to-side.

The passenger side compartment will have a removable rear door to gain access to the pump engine for checking oil and oil changes.

ROLL CAGE CONSTRUCTION

The roll cage will be built with four separate jig built sections.

All the parts must be jig built and welded. The jig must be a moveable design and allow the assembly to be rotated to allow all welding to be performed in straight up position.

All the tubing used on the roll cage assembly will be 5086-1. The front push bars, steps, will be 1.900 OD x .200 thick. The rear cage will be 1.900 x .187 thick.

The cage will be constructed of four main sections with additional bracing. The sections will be as follows:

- A) Front roll bar with x bracing will be of 1 piece hoop and 3 piece x – center. It will be of a stand alone design. All mounting plates will be ¼” 4 x 4 min and will allow the tube to pass through the mount and the 4” side of the perimeter to the deck. These will be 4 – tie steps bolting the main hoop to the cage.
- B) Left and right side will be independent of one another to allow for ease of replacement if damaged. There will be three hoops per side.
- C) The center section will be designed and manufactured to bolt the left and right sides together with grade 8 hardware. The center will also be engineered to allow suspending the two booster rails and the front to rear long tool compartment.

All bracing will be 1.900 OD x .187. Additional support legs and bracing will be as follows:

9 front to rear main supports to cage

6 uprights at rear for intermediate shelf support

3 main tie bars full width of cage

The rear upper 4 way door panel to be secured with self locking latches.

The door will allow mounting all lights and traffic director lights as needed.
The door will allow access to the full length of the compartment.

ROLL CAGE TESTING

A full FEA. Finite element analysis produced by the manufacturer’s in-house engineering department print out in color will be required of the cage and body assembly.

The FEA analysis will show complete construction and will show any additions made by the customers to the cage.

All stress analysis
Deflection
Safety Factor
Will be displayed

Failure to supply the FEA tests will be grounds for rejection.

WATER TANK

The water tank will be of Poly material and will have a lifetime guarantee. The tank will be of rectangular design 46” wide x 54” length x 33” high and holds 400 gallons of water. The tank will have a bucket fill hinged door located at

the forward portion of the tank. (*Fill towers shall be accessible by way of a tube ladder built into the roll cage design*). The water tank will have a 4" overflow thru the floor of the tank and will be part of the top fill box assembly.

A tank to pump line will be provided via a 3" NPT bushing. The bushing will be installed at the rear of the tank on the driver's side one inch from the floor and two inches in from the left side. A tank refill line will be provided in the center of the rear wall 34" from the floor, the bushing will be 1 ½" NPT.

A Fire Research water level indicator (5) lite will be installed on the pump console and a mini indicator shall be supplied in the custom console in the cab. External mounts front and rear will be installed integral with the tank and bolted to the deck sandwiching ½" #70 durometer rubber.

The tank will have a front and rear two bolt "L" bracket mount that is an integral part of the tank. The tank will be mounted with these brackets through the front perimeter beam and a ¼" aluminum bracket that is part of the flat bed. A strip of ¼" #70 durometer rubber will be installed in between the tank and flat bed.

FIRE PUMP

Provide a Hale 30FS pump driven by a Deutz BF3L2011 60 hp @ 2800 rpm diesel engine. The pump will provide approximately 300 GPM at 150 PSI and 100 gpm at 300 psi. The pump will be wired and piped to the Ford electric and fuel system. A control console will be installed at the rear of the truck to the left side of the engine. The console will hold master 12-volt switch, start, stop, throttle, oil pressure, water temperature, main water inlet and outlet pressure and water level indicator, nightlight.

The pump will be mounted front to back to save space and punched 3/16" aluminum mesh one per side will be installed with removable screws to allow ease of service. A separate 12-volt alternator will be part of the pump and will provide 65 amps of output.

The engine will be equipped with a 12-volt starter. The main inlet will be 3" NPT and the main discharge will be 2" NPT.

PIPING

A 3" tank to pump line will be installed with a ¼ turn valve located at the tank. A check valve will be installed between the valve and the pump with the check towards the tank.

A 2½ " inlet valve with NST female 2 ½" threads will be installed at the rear of the body and piped to a 2-1/2" x 3" tee at the inlet to the pump. This line will allow positive water to the pump from another apparatus. An 1.5" direct tank fill line will be installed off the 3" inlet opened and closed with an 1.5" Elkhart ¼ turn valve that will be controlled by a tee handle at the pump panel.

An all stainless steel 304 L 3" square manifold will be supplied. The manifold will have mounting legs made of ¼" 304 L – stainless steel as well as the two ends which will be ¼" 304 – L – also. The manifold will be TIG welded and tested to 400 PSI. All of the discharge flanges will be stainless steel and welded to the top surface. The flanges will be installed to allow sufficient room for the discharge valves.

The manifold will supply one 1 ½" discharge for a crosslay, two 1" lines for the reels, one 2.5" direct discharge out the rear of the truck.

A 3/8" recirculating line will be piped from the manifold and returned to the tank.

A drain valve will be installed in the bottom and piped via hose to below the frame rails.

PUMP PANEL

The pump panel will be constructed of .125" aluminum and shall be the full width of the pump compartment. The panel will be mounted above the pump and the center portion recessed for installation of the Class 1 remote locking linkage "T" control handles. Each control will have a lettered and colored bezel for each valve function. The entire panel will be powder coated black wrinkle finish.

The panel will hold the water level indication and main pressure gage, inlet pressure and 2.5" gages for each. Three night-lights will be installed in a stainless cover mounted above pump panel.

Below the pump control panel a gage panel will be installed. The panel will include:

- Tachometer
- Oil gage and volt meter
- Water gage
- Start / Stop
- Throttle
- Night Lite

The panel will be finished in a powder coated black wrinkle finish.

BOOSTER REELS

Provide (2) Hannay reels # SBEF3023-24RT and LT with heavy-duty 12 volt rewind motors. Both reels can hold 200' of 800 psi 1" red booster hose.

The (2) reels will be suspended from the roll cage and will be mounted front to rear. Each reel will be supplied with 90° swivel joints and will allow right and left rotation for side by side use. At the rear of the cage, two openings of approximately 12" x 26" will be incorporated into the cage and the 1.900 cage tubing will act as a guide at the front of the opening.

For the rear of the opening a 1.25" roller assembly will be installed at the crosslay front wall. Each reel will be supplied with its own H.P. hose and ¼" turn 1" full flow valve. The motors will be 12 volt DC and completely sealed explosion proof motors. Rewind switches will be installed, one on each side at rear and also 90° hand cranks.

STORAGE TRAY

There shall be an integral storage trough built into the upper center of the cage front to back behind the rear light panel over the tank and made of .125" brushed aluminum. Overall dimensions shall be 8' L by 13" W by 8" high.

REAR CROSSLAY

A 10" by 86" diamond aluminum hose trough will be mounted above the pump panel behind the two hose reels. It will have an 1 ½" swivel and accommodate 150" of 1 ¾" hose. There will be an 1 ¼" roller at the front corner on each side to guide the 1" hose from the hose reels.

The crosslay will be controlled from the pump panel by an Akron control valve.

COMPARTMENTS

Provide two compartments 40" long by 18" deep x 36" high, one on each side. The walls and roof will be made of 1/8" brite dip aluminum diamondette. The door will be roll up with a brush finish. The compartments will have lights mounted on the ceiling in the center of each door will have magnetic door switches to control the lights. A door open; red light will be mounted on the dashboard console.

One adjustable shelf will be provided in the driver's and passenger side compartment.

REAR STEP

Provide a rear step approximately 12" deep, with a 24" step height. There shall be a complete steel substructure designed to provide a departure angle of more than 20 degrees. The structure shall also be designed to accommodate the weight ratings associated with a class four hitch. The hitch shall be centered under the rear step bumper and will be reinforced structurally to support a 1500 lbs. tongue weight from a trailer.

The entire rear step assembly shall be covered in NFPA compliant slip resistant aluminum diamond plate.

The rear step assembly shall also have tube style struts, which stretch from chassis to rear outer edge of bed. There shall be two rear step weldments provided, to allow the use of the winch snatch block.

SIDE STEP

At the front of each cab door provide a 10" deep step of .200 5086 tubing that will be attached directly to the chassis with 1.900" aluminum tubing, which will be removable. The top of the step will be removable aluminum diamondette. The step will not extend wider than the truck body. The step will also be utilized for the first step to the fill tower access ladder integral to the cage.

WHEELS AND TIRES

The apparatus will be delivered with special steel wheels to allow single rear wheels and new front wheels. The wheel offsets will be adjusted for aligning the front and rear truck width to within 1/8".

The wheels will be custom made of steel.

The centers will be .500 thick. They will be machined on both sides to be parallel and will be of the Hub piloted design.

The outside rims will be 1 piece steel with the centers machine welded to the rim.

The original Ford wheel studs will be used with the stock flange nuts securing the wheel to the apparatus at 120 Ft/Lbs of torque.

The offset to the front and rear rims will be adjusted to allow tracking front to rear within 1/8".

The wheels will be powder coated to match the cab color.

All tires installed will be Michelin H 285 70R/19.5 XDE-2.
All tires and rims to be balanced.

WHEEL TESTING

A certified 3rd party test certificate will be required. The test company must be recognized as current in testing automotive products, especially rims.

The test will show the following requirements to SAE-J-267.

Corner fatigue testing on a moveable jib that while rotating full left and right turns will be performed while a load of 6684 lbs is applied at 500 RPM.

100,000 Left and 100,000 Right turns

Required Flatness test at beginning .000 x 3

Required Flatness test at end .000 x 3

A dye test on the welds will be required.

Min. hours to run test – 3.3

Radial fatigue (rear wheels)

Test weight of 8925 LBS imposed

1,000,000 cycles

20 MPH

Required Flatness before test .000 at 3 places

Required Flatness after test .000 at 3 places

Checked at 1 million cycles

Minimum hours to run check – 105 hours

FEA – FINITE ELEMENT ANALYSIS

Additional testing of the four wheels will be provided.

A full analysis will be provided.

The analysis will show:

Complete stress analysis, fatigue, center deflection safety factors

The test will be produced by the bidders in house engineering computer department, utilizing the latest FEA programming and backed by the bidders Liability Insurance.

The wheels will be tested and certified to third party testing and will be tested to SAEJ267 specs.

The test will consist of a cornering fatigue test as well as a radial fatigue test. Certification will be provided.

TIRES

Michelin radial load range H 285 70R/19.5" XDE 2 tires will be installed on the special rims. Brass valve stems will be required. The entire rim and tire will be balanced. The rims will be painted to match the Ford paint. Inflation pressure will be 110 psi and will support 6250 lbs each wheel and tire.

CONSOLE

An all Aluminum #3003 alloy console will be manufactured and powder coated black. The console will hold all radios, siren controls, and lighting controls on the face. The console will be permanently installed below the factory radio on the dash and a pedestal will be attached on the passenger side if the optional Sidewinder deck gun joystick is installed. A Whelen CCSRN Centcom control head will be installed to all lights and sirens. A 100 watt siren speaker will be mounted under the deck of the front bumper.

WIRING CENTER

An all Aluminum #3003 alloy wiring center cover will be manufactured and powder coated black. The front section of the cover will have a removable door for access and entire unit will be located behind the seat.

LIGHTING

Roof light – A Whelen Ultra Freedom Super Led light bar will be installed on the front roof of the cab with clear lenses with two take down lights in the front and two alley lights one on each side. All lights will be red except for two white front lights. All bulbs will be LED.

Grill lights – Whelen grill lights will be provided. Two 500 Red lense Super LED's will be mounted on the truck grill area.

Side bumper lights - Two 500 Red Super LED's will be mounted in the side of the front bumper in two cutout areas behind the bumper.

Side body lights – Four Whelen 500 Red Super Led lights will be installed in cutouts on each side in the front and rear corners of the body.

Rear warning lights and Compartment - A full width 4-way aluminum diamondette panel will be mounted above the pump panel. The panel will be approximately 24" High x 72" Wide. The panel will hold 4 600 series Whelen led surface mounted-warning lights 2-red and 2-amber.

The light combination will be wired to the brake and directional lights and will have a relay system to convert them to warning/flashing only lights. The panel will be mounted to the top roll cage bar on a hinge and be assisted to open with two gas pistons.

In the center of the panel between the two sets warning lights will be installed a Whelen 12 volt 810 series scene light, wired to go on with a separate switch and also the back up lights.

Rear lights – A triple cluster rectangular brake –tail – directional lights will be mounted horizontally below the body. The lights will be mounted in their own al box for protection.

A back up alarm will be provided and installed.

SIREN/SPEAKER

Two Whelen SA314P Speaker /Siren will be installed.

SHORE LINE

One (1) 110 volt Kussmaul on board charger with auto eject receptacle shall be installed on the left underbody box on the front angled corner.

WINCH

A Warn 9.5ti portable winch will be mounted in a custom mount on the driver's side in front of the rear wheel. An aluminum mud fender will be mounted between the winch and wheel for protection.

Two Class 5 hitches will be installed in the front and rear bumpers for winch use with direct battery plug hook ups. Two 12-volt night-lights will be installed next to the winch hook ups. 90 ft. of cable, 7/16" diameter aircraft cable with remote control will be supplied.

UNDERBODY SKID PLATES

Removable skid plates will be installed under the chassis. The plates will be minimum of ¼" and will be easily removed for chassis service via grade (8) bolts and welded on mounts.

The plates will be installed:

- A) Below the oil pan
- B) Automatic Transmission
- C) Beneath the front extended bumper on an angle down to in front of the tie rod for the front steering
- D) Fuel Tank

LETTERING

The doors of the cab will have lettering as per the Fire Districts designation. A white scotchlite stripe will be installed down the truck on each side and along the rear.

There will be "Keep back 200 ft." on the rear deck of the truck. All letters will be vinyl in color of departments choice.

A Maltese cross matching the departments existing shall be provided and installed on the cab doors

45 vinyl letters shall be supplied and install as per the direction of the board of fire commissioners.