

EQUIPMENT AND FEATURES PROVIDED ON THE FIRE ENGINES

1. Monitor Unit and control unit
2. Extension Ladder- 1
3. Hard suction- 4
4. Roof locker and inside the locker
5. Aerial Flood light mast with 8 lamps
6. Pump bay control panel - 1
7. Pump - with all systems
8. Suction wrenches – 2

Off side Locker

9. Fire hose reel and branch plus electrical retraction unit
10. Fire Hoses 45mm x 2no and 65mm x 4no.
11. Collecting head- 1
12. Dividing breeching - 1
13. Collecting head - 1
14. Rosenbauer Diffuser branches- 4
15. A.W.G Diffuser Branches- 4
16. Water curtain 8 Bar- 1
17. Aluminium strainer
18. Spare Breathing cylinders 300 Bars- 4
19. Stand pipe- 1
20. The following was provided in Roof locker and inside the locker (for transportation purposes)
 - a. Hose rumps - 4
 - b. Electricity Insulation gloves - 6
 - c. First Aid bags - 1
 - d. Winch control cable- 1
 - e. Fine Blanket - 1
 - f. Mega phone - 1
 - g. Rescue line- 1
 - h. Pick/ Axe- 4
 - i. Large axe- 4
 - j. Shovels- 4
 - k. Sledge hammer- 1

I. Personal protective equipment

- i. Fire entry gear- 6
- ii. Fire boots- 6
- iii. Safety helmets- 6
- iv. Fire glove - 6

Near Side Locker

- Fire hose reel with branch- 1
- Fire hoses 45mm x 2no and 65mm x 4no.
- Medium size Bolt cutter- 1
- Chisel- 1
- Mallet- 1
- Hack- 1
- Tools box with tools- 1
- Firemen rescue axes- 4
- Foam Branch pipe- 2
- Key and Bar- 1
- Stand pipe- 1
- Pick up tube- 1
- Inline inductor- 1
- Breathing apparatus sets- 4
- Monitor blank cap
- Electrical winch 6.5 tons
- Short Chassis 4 x 4 (all terrain)
- Fully automatic with diesel engine
- Tank mounting with shack observers with water capacity 7000 and foam capacity 1000
- Type of tank- steel
- Note: The vehicle is provided with all small items e.g jack, spare wheel etc

TECHNICAL SPECIFICATIONS

1. Chassis Engine and Transmission

The chassis shall be of the four- door cab type, a crew capacity of driver, crew commander plus at least four crew members. The chassis shall be designed and manufactured for heavy- duty services with adequate strength and capacity for all components for the intended load to be sustained and the type of service required. The vehicles shall be equipped with at least between 13000 kg and 14000 kg rear suspension. It shall use a variable rate main lead spring assembly with bronze bushing, in conjunction with an ancillary leaf spring.

1.1 Engine

The engine shall be diesel turbo aspirated of between 17 Kw and 19 Kw per ton at 1400m above sea level. Six-Cylinder inline, 4 stroke, liquid cooled, direct injection diesel engine with exhaust driven turbocharger and intercooler of "air to air" type.

Engine power required is 410 HP

1.2 Transmission

Fully automatic transmission with 8 and above gears is accepted.

1.3 Transmission Lock Out

The automatic transmission shall be equipped with a power lockout device. The transmission lockout shall prevent down shifting of the transmission when engine speed is decreased during operation of the pump.

1.4 Capacity - Front Axle weight, max between 6000 kg and 7000 kg

- Rear Axle weight, max between 12000 kg and 14000 kg

Gross Vehicle weight between 18000 kg and 19000 kg

2.0 Wheel and Tyres

Type Tubeless: size 315/80/R22.5 Tyres

3.0 Steering

Integral hydraulic power steering right hand drive shall be fitted.

4.0 Brakes

Full Pneumatic with spring energy park brakes

4.1 Anti-Skid Brake System

All wheels shall be fitted with an antiskid brake system for control and safety during emergency brake system applications.

5.0 Suspension

Front: Heavy- duty leaf spring with shock absorbers and stabilizers

Rear: Heavy- duty main ancillary leaf springs with shock absorbers and stabilizers.

6.0 Cab Construction

Safety glass to be used in the windshield and all side and rear windows and shall be tinted, doors shall have to roll down windows.

The Cab under roof shall be upholstered in a sound absorbing head lining. The cab shall be of conventional type, four (4) side hung doors and seating for a driver plus at least adjustable, mechanical suspension type. All seating position shall be fitted with three point safety belts and sit and stop BA brackets.

The Cab shall be independently mounted from the body and chassis on rubber load bearing cushions and two (2) combination rubber shock mounts for flexibility.

Driver and officer-in charge in front.

4 crew members rear. Total number to sit in cabin is: 6 crew members including Driver.

7.0 Cab Instrumentation

The Cab dash should contain the following instruments and control dusters in front of the driver for good visibility and ease of operation:

- Speedometer with mileage odometer
- Tachometer
- Voltmeter
- Fuel level gauge
- Parking brake control light
- Engine shut down
- Engine temperature gauge
- Dual wind shield wiper controls
- Windshield washer control
- Turn signal indicators
- Headlight switch with dash dinner
- Lump meter
- Control switches for warning lights with master switch
- Transmission swift control
- Ignition switch
- Starter buttons
- Header defroster and fan control
- In addition the cab shall be furnished with the following:
 - Electric horn
 - Public address system with microphone fitted in Cab

8.0 Cab Lights

Details of all the cab lighting including any map or courtesy step lights provided/ supplied by tenders.

9.0 Chrome or Stainless Steel Package '

Chronic package shall include heavily chromed or stainless steel front bumper, chassis grill, two (20 headlight rings). 2 air intake vents, windshield trim and mirrors.

10.0 Chrome Tow Hooks

Two (2) heavily - chromed or stainless steel hooks shall be mounted directly to frame extension, using stainless steel bolts.

11.0 Front Bumper

6 ton electric winch and stain less bull bar to protect the front bumper, headlamps & Grills. The cabin should be tiltable and forward control.

12. Rear Tow Eyes

Two (2) rear H.D Steel two eyes, solid type, directly attached to chassis frame shall be provided.

3.0 Electrical Equipment and Warning Light

An approved battery system shall be provided, dual system with selector switches that require engine switch off for transfer will not be accepted.

All electric equipment shall be installed to conform to modern, automatic fire practices wiring installed by the body builder shall be run in heat resistant plastic convoluted loom light along the entire length and 2protected by automatic reset circuit breakers. All wires shall he colour and umber coded and heat resistant. Grommets shall be used were wires and loom pass through holes in metal. All wiring exposed to the elements shall be protected in heat shrink tubing.

All electrical equipment switches shall be mounted on a separate switch panel mounted conveniently in the cab with a master switch and individual switches to allow presentation of lights and accessories. All switches shall be heavy- duty rocker type with pilot lights. The switches shall be mounted in a removable panel for case of service, functionally laid out and properly identified.

The following lights and equipment shall be provided and fitted:

- One electronic siren PIA system complete with 1100 watt speakers
- One emergency warning flashing light bar system with red lens and clear bulbs to be mounted on the cab roof.
- Two emergency warning flashing lights mounted at the rear. one on each side
- Cab spot light mounted one on each side of the front wind shield posts
- Individual compartment lights that come on automatically when the door is opened.
- 7- Red stop tail lights, two amber directional, and two white back up lights shall be flush mounted at the rear of the body.
- Clearance and marker lights, reflector and license plate brackets, shall meet local standards

14.0 Body Work and Storage

The entire super structure shall be constructed of corrosion resistant materials

The superstructure body shall be provided with exterior compartment locker with a minimum of storage capacity of 7 cubic meters. There shall be at least three (3)/four (4) on each side of the vehicle.

The superstructure shall be designed as low as the chassis allows easing access to and removal of equipment from the lockers.
15.0 Identification Marks All gauges and controls shall be properly marked and identified with permanent colour coded tags.
16.0 Aluminium body.
17.0 Fully Painted Red
18.0 Sign Writing Sign writing shall be gold leaf
19.0 Hose Reels Hose reel fitted on each side: both manual and electric operated rewind of 30m length of hose reel x25mm internal diameter, and each fitted with a jet/spray nozzle.
20.0 Ancillary/conventional equipment inclusive.
21.0 Water Tank Tank of 7,000 litres of water and 1 000 litres of foam tank is required. The tank must have the following features: inspection man hole, the baffles to prevent water surge, the tank must have a provision for hydrant fed line, tank must have a level gauge. The foam tank must have an inlet line, the delivery and inlet points must be fitted with blank caps and chains.
22.0 Water Pump Water pump specified at 4000 litres per minute: nominal 5 bars and maximum 15 bars. The water pump should be powered by a gear box mounted Power Take Off (PTO) and the pump mounted at the rear of water tank. The water tank must have a central suction inlet of 150mm, 4 delivery valves of 65mm each with female instantaneous couplings
23. Ground clearance The 40 cm ground clearance must be at the axles.
24.0 Conventional equipment as per attached copy The Fire Tender should include the following conventional equipment:- <ul style="list-style-type: none"> • 8 x 25m x 70mm Lengths Fire Delivery Hose, BSS with light alloy couplings: • 4 x 25m x 45mm Lengths Fire Delivery Hose. BSS with light alloy couplings: • 1 x Single 1lead Standpipe, key and Bar: • 1 x Dividing Breeching: • 1 x Collecting Breeching: • 2 x Hand Controlled Branch pipes • 2 x Diffuser Branch pipes; • 2 x Foam Branch pipes: • 1 x Collecting 1 lead: • 2 x Heavy Duty Hard Suction Hoses and Racks: • 1 x Chrome Strainer; • 1 x 6" Adaptor A HTF x 4" RT Male:

- 1 x 6" Adaptor ANHTF x 51/T RT Male:
- 1 x First Aid Kit:
- 2 x Universal Wrenches:
- 1 x Fire Blanket;
- 1 x 9kg Dry Powder Extinguisher;
- 1 x 5kg CO2 Extinguisher:
- 2 x Hose Ramps:
- 4 x Fire Axes;
- 4 x Pick Axes;
- 4 x Shovels:
- 4 x Large Axes:
- 1 x Megaphones PA;
- 1 x Water Curtain;
- 1 x Rescue Rope and Bag:
- 4 x Draeger BA Sets:
- 4 x Spare Cylinders;
- 6 x Sets Tunic Jackets, Trousers, Helmets with Visors, boots and Gloves;
- 6 x High Voltage Gloves (3000v):
- 1 x 4lb Hammer;
- 1 x 10lb Hammer;
- 1 x 4lb Rubber Hammer:
- 1 x 1 Chisel;
- 1 x 3/8 Metal Snips;
- 1 x 24" Bolt Cutter:
- 1 x Hacksaw and 12 Blades;
- 1 x Keyhole Metal Saw and Blades;
- 4 x Elkhart Nozzles SMI OFG w/2.5" MBSS Couplings:
- 1 x Craftsman's Tool Box Complete;
- 1 x Wheel Lug Wrench;
- 1 x 20 Ton Hydraulic Jack:
- 1 x Inline Inductor;
- 2 x Hose Ramps; and
- 7.3m Extension Ladder