# SPECIFICATION FOR FABRICATION AND SUPPLY OF WATER BOWSER

## 1. SCOPE

This standard lays down the requirement regarding design, material, construction, workmanship, finish, accessories and acceptance test of water tender. The specifications are drawn in line with technical specification for water bowser in RMSI. Pump shall be deliver 4000 LPM at the rate of normal pressure of 10 Kg/cm$^2$.

## 2. General:

The fabrication of water bouser shall be carried on a 28 Ton (6 x 2 wheel drive); minimum 180 BHP – BS VI emission norms chassis which shall be procured by the tenderer at their cost. The appliance shall have water Tank capable of carrying 12000 litres of water and shall be fitted with a pump at the rear of appliance and driven through the PTO.

## 3. Chassis:

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|---|---|
| Manufacturer | : Ashok Leyland / TATA / Eicher / Mahindra / Bharat benz |
| GVW | : Not less than 28 tons |
| Engine horse power | : Not less than 180 BHP |
| Wheel base | : Not less than 4800 mm |
| Emission norms | : BS-VI |
| Steering | : Power steering |
| Axle configuration | : 6 x 2 |

## 4. Pump:

The pump should be certified with EN- 1028, Pump of centrifugal type capable of delivering not less than 4000 LPM @ 10 Kg/cm$^2$ at normal pressure. The complete pump assembly and impeller shall be made of gun metal (Copper, zinc and tin alloy). The pump housing shall have

provision to connect cooling water line. The pump shall be provided with suction inlet of 140 mm dia. for connecting suction hoses with internal removable strainer and blank cap. The pump shall be provided with four delivery outlets of 63mm quick release coupling with blank caps. A suitable dia G.I pipe shall be provided at the manifold of the delivery to connect the monitor and the monitor pipe shall be equipped with foam induction manifold system with shut off valve and pick up tube. The pump shall be mounted at rear side of the appliance and shall be convenient to operate with the provision of all gauges & control panel as specified in the EN 1028 specification. Pump shall be of Godiva / firefly/ Allied/ Rosenbauer make or any equivalent make. All relevant documents / certificates shall be furnished to this department. The pump shall be connected with PTO by propeller shaft with proper rubber bed and bearing supports. The length of the propeller shaft should be minimum to overcome the problem of sagging in the event of throttling.

**4.1. PUMP CONSTRUCTION**

The impeller of the pump shall be dynamically balanced. The pump shall have self-adjusting mechanical carbon seal. The pump shall have an inbuilt filter of removable type. The filter made of stainless steel "V" wire mesh and shall have self draining facility while the pump operating. The pump shall have inbuilt pressure release valve (PRV) which operates automatically. The thermal relief valve (TRV) shall be fitted with the pump, which helps to control the temperature with 42 degree centigrade of pump water when both deliveries are shutoff for long time. The pump shall be modular in design and shall have no gaskets/ packing. The arrangement shall be such that while carrying out the pump maintenance work, none of the discharge piping has to be removed unless required and the pump impellers and the carbon seal can be attended/ removed

without removing the pump body. The pump shall be having one suction inlet of 150 mm having round threads confirming to BIS 902 and four no. of 63 mm delivery outlets having screw down type valves fitted with instantaneous couplings as per BIS 903. The delivery valve screw shall have no gland. The pump shall be supplied with one removable type 150mm to 100 mm reducer to fit the 100 mm suction hose.

**4.2. Primer:**

Water ring type with auto cut-off primer shall have capable of lifting water at least from 7 m depth with in 30 second shall be provided. The primer shall be engage and disengage automatically whenever necessary. Throttle control lever shall be fixed in the rear end of the appliance. It shall be connected to engine throttle with proper cable. The cable shall be a non-stuck type for smooth acceleration and deceleration of engine. 10 mtr length Suction hose and 2 no hose wrench shall be provided along with vehicle.

**5. WATER MONITOR:**

One water self aspirating monitor shall be provided on the top at suitable location with capacity of about 2500 LPM @7 Kg/$cm^2$. The monitor will be capable of traversing through 360$^o$in horizontal plane, +75$^o$& -15$^o$in vertical plane with discharge range of 70M.The detail specification of the monitor is as under..

Size : 75 mm

Body : Barrel of SS, GM swivel joint for horizontal & vertical motion manual operation.

Rotation : 360$^o$

Elevation : 90$^o$ (+75$^o$& -15$^o$)

Mode : Jet / spary

## 6. POWER TAKE OFF UNIT

The PTO shall be of heavy-duty capable of transmitting the full power of the engine to the pump. The performance and Ratio (shall not less than 1:1.40) of PTO unit and shall match the engine & pump torque characteristics. A separate lever in the main cabin shall engage PTO. Necessary support for PTO units, propeller shaft couplings, universal joints etc. shall be provided. PTO shall be of VAS Engineering /firefly / Webstar / Hale/ Bezares India make or equivalent make. PTO should get engaged and disengaged by a engaging lever which shall be provided in the driver's cabin. A locking arrangement shall be provided to prevent auto movement of the lever at the time of vehicle movement. The mechanical arrangement shall be through a push pull type of Lever which shall ensure smooth movements for PTO engage and disengage. A pump hour meter shall be fitted in the dashboard.

### 6.1. MOUNTING *OF POWER TAKE OFF*

Split shaft power take off shall be mounted at a suitable location on the chassis. The power take off shall be mounted on a three point type foundation using rubber / flexible mounts to isolate the PTO vibrations from the chassis and shall be designed to carry the unit weight and torque reactions, to constrain the PTO so as not to move significantly out of position, to allow chassis flexion. In no case welding/drilling shall be allowed on the chassis while mounting the PTO. Suitable sized U bolts may however be used for this purpose. The PTO alignment shall be in line with the existing drive line as far as possible. The new propeller shafts shall be free from welds and a spline and yoke arrangement shall be used. A general layout drawing of the PTO mounting shall be enclosed with the technical offer without which the tender shall not be considered.

All the propeller shafts on the throughput side as well as at the pump drive side must be balanced to suitable standards.

## *7. WATER TANK*

A Square shape water Tank shall be installed on the water bouser. The tank have the following parameters:

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|---|---|
| Capacity of water | 12000Ltrs |
| Material of construction | SS-304 |
| Bottom plate thickness | 5 mm |
| Side Plate Thickness( Die pressed stiffened on Two sides) | 5 mm |
| Top plate thickness | 5 mm |
| Baffles thickness | 5 mm |
| Numbers of man holes | 2 |
| Size of the man hole | 450 mm |

The water tank shall be designed to carry approximately 12000 litres of water. The water tanks shall be so installed as to allow the full flow of water to the pump. The tank shall have adequate baffle plates in order to avoid surging when the vehicle isbraking, accelerating and cornering. An inspection manhole shall be provided on top of the tank. The manhole shall have a hinged cover so that the manhole shall also act as a filling orifice. Manhole shall be facilitating to seal the water leakage due to surging. Water railings shall be fixed in the sides of the water tank to conduit the water spilling.

### 7.1. Water tank mounting

The water tank shall be mounted on the vehicle on a sub-frame using rubber metacones. This sub-frame shall be made from hard dip

galvanized treated MS channel section and shall be bolted with the chassis using the high tensile bolts. 'U' Bolts shall not be used for mounting of tanks on vehicle. The rubber metacones shall facilitate to absorb the jerks and bending torsions in expansion as well as compression mode without high deflection. The manufacturer shall provide complete design data of metacones and sub-frame including the load calculations and metacones quantity sufficiency.

Tank shall be mounted on the chassis in a manner keeping in view the proper load distribution on the axles. The baffles shall be arranged in a manner to facilitate easy cleaning of the tanks. The tank shall be mounted onthree cross bearers to counteract stresses caused by chassis flexing. The centre of gravity shall be maintained as low as possible. Inlet piping lines shall be fixed from tank to pump with proper flange connections. Flange connections shall be made in every bends for easy removal and refitting of pipes in case of any maintenance. There shall not be any welding joints in the pipe lines instead of making flange joints. A stainless steel ON/OFF ball valve shall be fixed in the bottom of the tank. So that no need of draining water from tank in the event of repairing on pipe lines & pump. A Quick action shut off valve shall be fixed in the suction inlet side of the pump. Flange joints shall be connected with SS Bolts.

Suitable eyes shall be provided on the shell of the tank to enable it to be lifted off thevehicle for repairs when required. A cleaning hole shall be provided at the bottom of the tank. It shall be fitted with a drain pipe & valve which shall be taken down to a point wellbelow the chassis without reducing the effective ground clearance. The tank shall be fittedwith an overflow pipe taken down to a point well below the chassis

that discharges thewater away from the wheels.2 no hydrant connection incorporating a strainer shall be providedfor filling the tank.

## 8. BODY WORK/ STOWAGE/ CABIN

Enclosed accommodation with a single compartment for six persons with driver and officer in the front and a crew at the rear shall be provided. The driver seat shall be of adjustable type. The design of the cab shall be such that it affords maximum possible vision. Two hinged doors shall be provided on each side of the appliance for easy access to driver and crew. All doors shall open outward and hung forward.

The locking arrangement shall be with double catch striking plate. Non-slip step and grab rails shall be provided to assist the driver and crew to get in and out. All the seats shall be fitted with 100 mm thick foam cushion. All windows shall have safety glasses and all glasses be fitted with Sliding type.

Flooring of the driver cum crew cabin shall be fabricated out of hard dip galvanized treated MS angles of 40 x 40 x 4mm thick which shall be properly welded/ bolted to the cross members. The complete external paneling of driver-cum-crew cabin including doors shall be of 16 SWG Aluminium sheet with all the joints riveted and bided except the roof top paneling, which shall be of 2 mm thick aluminium sheet. The domes and the corners shall be as small as possible and shall be of 16 SWG Aluminium sheet with all joints riveted to the super structural members. The roof top plates shall be overlapped by 70 mm and riveted in a double row with solid rivets. The complete flooring of the driver-cum-crew cabin shall be fabricated from 3.15 mm aluminium chequered plates rigidly fixed to the under frame cross members by means of nuts and bolts or riveting. Trap doors for topping up wherever necessary shall be provided.

Water proofing treatment shall be given to driver's cabin to avoid water leakage inside the driver's cabin.

All the hard dip galvanized treated MS super structural members and under frame cross members shall be painted with three coats of rust preventive paint. All the under frame cross members shall be painted with two coats of chassis black paint. The construction of cab shall be such that the roof shall support the weight of two men without damage. A horizontal hand rail shall be fixed in front of the crew member's seat. The hand rails shall be connected with Vertical post of the cabin. Access way shall be provided in between the vertical post for driver. Inspection/ maintenance hatch of removable type shall be provided in the cabin for gaining access to gear box/ PTO. Each cross member shall be secured to the chassis framed by "U" clamps with aluminium packing block and self locking nut. Ballato packing of 12mm thickness shall be provided in between the chassis and cross members. Drag hooks/eyes shall be fitted on each chassis member at front and rear and one towing hitch shall be provided at the rear portion for towing one ton trailer.

The lockers shall be composite construction with sufficient rigidity reinforcement and to be kept as light as light as possible. The entire structure shall be made of 32x32x1.6 mm square tube of GI 16 gauge aluminum sheet shall be used for exterior paneling work all over. For inner wall of the lockers, 16 gauge GI sheets shall be used. 2.5 mm thickaluminum checker plate shall be used for locker.

There shall be one locker on either side of the appliance for stowage. In addition to this one through and through locker shall be fabricated at the front side of the appliance. The lockers shall be of composite construction. Non-stuck aluminium shutter doors shall be provided for lockers. The Inner walls of the lockers shall be of 16-gauge

GI and 3 mm thick aluminum checker plate for flooring. All lockers shall be weather proof and self-draining type. All lockers shall be provided with internal automatic lighting arrangement with the master switch in the cab.

The suction hose tunnel shall be provided at suitable location for carrying four numbers of 5 m long, 150 mm diameter suction hose. The MS channels, angles and tubes wherever used for construction shall be treated with hard dip galvanizing.

**9. Ladder gallows**:

Ladder gallows shall be provided for carrying 10.5 m aluminum extension ladder. The design shall be such that the ladder can be released without difficulty from reasonable access position and shall embody rollers/bearing to permit easy withdrawal by one man. Means shall also be provided for locking the ladders when stored.

**10. Control panel**:

The following control shall be provided at the rear pump operating panel.

a) Pressure Gauge: 0 to 40 kg/cm$^2$

b) Compound Gauge calibrated as

i) Pressure 0 to 10 kg/cm$^2$ (in black)

ii) Vacuum 0 to 75cm Hg (in red)

c) Engine throttle control

d) Pump hour meter in dash board.

e) Audio warning arrangements at pump panel for engine temperature exceeding 90º.

f) LED light on control panel

g) Tank water level gauge (LED and glass tube indicator with drain valve)

The gauges panel shall be covered properly to prevent the gauges getting damaged from sunlight and rain water.

**11. Workmanship and finish**

All parts of the appliance shall be of good workmanship and shall have streamline finish. All mechanical and other part shall be such that parts normally required to be replaced can be supplied and fit correctly.

**12. Painting**

The complete super structural members shall be painted with two coats of Red Oxide primer and two coats of chassis Grey paint.The complete external and internal aluminium panelling of lockers etc. shall be painted with two coats of aluminium primer. To provide very high corrosive resistance in metal structures, it shall be treated with anti-corrosive treatment.

The complete exterior of the vehicle shall be painted with two finish coats of RAL-3000 colour shade (flame red) reputed brand paint for long lasting glossiness. The names and logos of the department shall be painted on both sides of vehicle at suitable place in consultation with the department officers.

**13. Pump test:**

PRIMING TEST: The primer shall be tested with a vertical lift of 7.0 m. The rate at which the priming is done shall not be less than 30 cm/sec.

Pump test when tested in accordance with pump specification, the efficiency shall not deviate from the value specified by the pump manufacturer by more than ± 5 percent. However in no case the efficiency of the pump shall be less than 60 percent. The pump shall run for a period of 4 h non-stop delivering the rated output at 10 bar with a lift of 3 m. During the test, the water shall not be replenished for the cooling system and the temperature of the engine oil shall not exceed

115°C or of the engine manufacturer rated temperature for continuous working, whichever is less.

The engine shall show no sign of stress during the test. The temperature of the cooling water (radiator water) tank shall not exceed 85°C. The PTO sump oil temperature shall not exceed 100 percent of the manufacturers recommended temperature for the grade of oil used. The pump casing and impeller shall be subjected to hydraulic pressure of 2.1 MPa to detect leakage, perforation, etc.

**14. Warning beacon lights:**

1 No of Flickering LED Beacon bar light head of Red, Blue and White colour with Hooter & P. A. System shall be mounted on top of the driver cabin. The size of the beacon bar light shall not be less than L-1200 x W-300 x H-120 MM. 2no Dual Red-White and 2no Dual Blue-White Scene-Lighting LED blinkers with inbuilt flasher shall be installed on each sides of the body. 2no of blue-red combination flickering lights shall be fitted in the radiator grill. Two big square size (blue-1 No& Red-1 No) flickering light shall be fitted in rear side of the appliance.

The blinkers shall have an option of minimum 12 watt spot lighting along with blinking for low light visibility. Blinkers and Beacons shall have minimum 6 no of flash patterns. Blinkers and Beacon shall have Aluminium Base with Polycarbonate Cover. The lights shall be SAE Certified from NABL approved authorities.

**15. Accessories:**

The following accessories shall be provided in addition to those normally fitted on modern commercial vehicles:

a) Fire bells — 250 mm diameter brass fire bell shall be mounted externally and shall be capable of being operated from within the driving compartment. The bell shall be of the hand operated type.

b) Head lamps — Two.

c) Fog lamps — Four (Not less than 55W).

d) Reversing light with buzzer— Lamp suitably situated to assist reversing.

e) Stone guards — Situated on the windshield glass and side window glasses

f) Wind screen wipers.

g) Siren — Battery operated. BIS 950: 2012

h) Search light — Adjustable to give flood or beam light, mounted in a convenient position but capable of being readily disconnected and mounted on a tripod away from the appliance, complete with tripod and with not less than 30 m of TRS cable on a reel mounted on the appliance.

i) Spot light — Adjustable, mounted in a convenient position on the near side of the driving compartment.

j) Inspection lamp — protected type on wander lead with plug. A socket shall be provided in the control panel in the driver's cab for plugging in the lamp.

k) Tail lamps — Two of combined stop and tail.

l) Rear reflectors.

m) 3M Reflector tapes (Red colour for rear side, Amber colour for both sides and white colour for front side)

n) Reverse camera with screen in dash board

**16. MARKING**

Each appliance shall be clearly and permanently marked with the following information:

a) Manufacturer's name, or trade-mark, if any;

b) Serial number of the pump body and year of construction;

c) Capacity of pump, in l/min;

d) Capacity of water tank, in litre;

e) Nominal speed, in rev/min;

f) Transmission ratio of the pump gear;

g) Working pressure, in kg/cm$^2$;

h) Direction of rotation of the pump shall be indicated by an arrow and this shall be permanently marked on the pump body.

i) Weight of the appliance in both laden and unladen condition

**17. Test of Acceptance of Fire Fighting System**

Physical dimensions, performance and weight check of equipment as given under different items above shall form part of test of acceptance. The appliance shall be inspected in different stages before mounting of the complete unit to the chassis and after mounting of the complete unit on to the chassis. Stage inspections will be carried out from the department during each stage of fabrication. All necessary arrangements shall be arranged by the supplier at the fabrication yard for the proper conduct of such inspections as and when required by the department.

Inspection will be as under:-

a) Finishing inspection.

b) Compliance of specification

c) Pump Endurance Testing

d) Complete functions-operations of all systems

The stability of the appliance shall be such that when under fully equipped and loaded condition ( but excluding crew),if the surface on which the appliance stand is tilted to either side, the point at which over-turning occurs is not passed at an angle of 27 degrees from the horizontal. Vehicles shall be tested for articulation (200mm alternate

gradients & will not show any signs of stress during this test. Also the clearances in the wheel wells shall be checked for tolerances. Water proofing shower test shall be confirm to IS 11865 and gradient test.

**18. RTO REGISTRATION**

Final RTO registration of the vehicle shall be arranged by the supplier after the vehicle is delivered at the headquarters. The vendor shall bear all registration related fees and expenses of completed vehicle and submit all relevant documents to department after registration.

**19. WARRANTY**

The Superstructure, pump, PTO, tank and other construction shall be under warranty for a period of minimum five years from the date of supply of the vehicle against any manufacturing defects. The supplier shall give the guarantee for the supply of spare parts for the super structure, fire pump, PTO etc. for the period of 15 years from the date of supply of vehicle

**20. COMMISIONING AND TRAINING**

The manufacturer's representative shall impart successful commissioning and the training to the fire brigade personnel regarding operation, handling, use and maintenance of the appliance. Operating manual shall be given along with each vehicle in both Tamil and English language.

**List of equipments and tools to be supplied along with each vehicle**

| S. No | Items | Qty |
|---|---|---|
| 1 | Suction hose 150 mm dia 5 mtrs | 02 |
| 2 | Metal strainer | 01 |
| 3 | Basket strainer | 02 |
| 4 | Universal suction hose wrench | 02 |
| 5 | Dividing breaching(Gun metal) | 01 |
| 6 | collecting breaching(Gun metal) | 01 |
| 7 | Snake catcher – 6ft length | 01 |
| 8 | Petrol Driven Power Saw<br>Bar length: 24inch, Power: Not less than 85 cc, two stroke. Maximum power speed: 9600 RPM, Weight; not more than 8 kg, spare chain:1, tool kit-1 | 01 |
| 9 | 100 ft long 16 mm diameter BOB rope | 01 |
| 10 | 40 ft length 12 mm diameter BOB lashing lines | 02 |
| 11 | Spades with wooden handle<br>basket size 200 x 290 mm | 02 |
| 12 | D handle Shovel<br>Total length : 25 inch<br>Basket length: 8.3 inch<br>Basket width : 6.1 inch | 01 |
| 13 | Lock cutter (Weight - 4 kg, Dimensions LxWxH - 79x24.8x 4.4 cm) | 01 |
| 14 | Firemen axe 2.25 kg | 01 |
| 15 | Pick axe standard size | 01 |
| 16 | Picks, with handle standard size | 01 |
| 17 | Axes, felling standard size | 01 |
| 18 | Crow bars, 1 m long | 01 |
| 19 | Sledge hammer 10 kg | 01 |

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|---|---|---|
| 20 | Electrical shock proof hand gloves in pairs. A) Made as per confirming to IS 4770/ EN 60903 / ASTM 120 D type 4 B) Approved from ERDA – Electrical Research & Development Association C) Accredited by the NABL, Govt. of India & INTERTEK (ASTA), UK. D) Working Voltage: 17000 volts (RMS). Test certificate of gloves shall be supplied during delivery. | 01 |
| 21 | Shears, bolt cropper, large with handle, 900 mm | 02 |
| 22 | Extension truss type aluminum Ladder 10.5 m as per IS: 4571 &CE standard, the ladder OEM serial number & manufacturing year shall be mentioned in the supplied ladder. [King / AJAX / simplex]. Tipping Type Ladder gallows shall be provided on the roof suitable for fixing a 10.5 m heavy duty trussed aluminium extension ladder. The design shall be such that the ladder can be released by one person only without difficulty from a reasonably accessible position and the person is not required to climb on the roof top to remove the ladder. The ladder gallows shall be CE certified. The bidder shall mention the name of OEM of offered ladder and its gallows with the offer | 01 |
| 23 | Rope Ladder (10 M) | 01 |
| 24 | Portable Hand-Held LED Search Light<br>Lumens not less than 10000 | 01 |
| 25 | First Aid Box for 10 Persons to be suitably kept at cabin. | 02 |
| 26 | Long line rope [Manila rope], 25 mm circumference, and minimum breaking strength: 23 KN, 50 m long, attached with quick release karabiner at one side. | 01 |
| 27 | Long line rope [Manila rope], 40 mm circumference, and minimum breaking strength: 23 KN, 30 m long, attached with quick release karabiner at one side. | 02 |
| 28 | Fire hook with non-metallic hand grip | 02 |
| 29 | Fire beater with non-metallic hand grip | 02 |
| 30 | Fire rack with non metallic hand grip | 02 |
| 31 | Fire resistant blanket - Aluminized fire blanket made of aluminized fiberglass, stitched on all four side with Kevlar thread, Leather loops & eyelets, temperature resistant up to >500 degrees, With Metallic eyelets in all side corner and in middle and Size – 2 x 2 M. | 02 |

| | | |
|---|---|---|
| 32 | Fire resistant blanket non-asbestos high temperature resistant fabric with metallic eyelets, non-asbestos clothing, stitched on all four sides with flame proof threads, temperature resistant up to >600 degrees, With metallic eyelets in all side corner and in middle, 1.2 mm thick,Size – 2 x 2 M. | 02 |
| 33 | Temperature resistant tight fight hand gloves, made of Kevlar material | 02 |
| 34 | Tool Kit box with the following tools:<br>Fixed end "D/E" spanner set (size from 6mm to 30mm): 02 Sets<br>Ring spanner set (size from 6mm to 32mm) :<br>02 Sets Box spanner (Tubular spanner) Size: 8-10mm,10-12mm,12-14mm,14-16 mm: 02 No each.<br>Combination cutting pliers (Size: >150 mm): 2 no<br>pliers: 2 no<br>Screw driver set insulated (long screw driver, short screw driver, star screw driver – 3 no each)<br>Tool box (Suitable to carry all above tools)- 2 no<br>Oil can medium size: 2 no | 01 |
| 35 | Demolition hammer 1900W with min 60 joules impact energy( Reputed make like Bosch or equivalent) | 01 |
| 36 | Safety goggles | 01 |
| 37 | Safety Harness (IS 3521 :1999)<br>DESIGN - One dorsal attachment D-ring for fall arrest, Adjustable leg straps. Adjustable chest straps, Sit Strap, Made up of elastic webbing for more comfort & impact resistant.<br>WEBBING –Material: Polyester, Width: 44±1mm, Breaking strength: 23 KN<br>STITCHING THREAD - High-tenacity polyester.<br>METAL COMPONENTS – Material: Aluminium, Plating: Black anodized, Finish: Matt.<br>VITAL TEST COMPLIANCE - Static Strength: 15 kN or 1,530 kgf for 3 Minutes at each attachment element, WEIGHT - 1006 gm ±10 gm | 02 |
| 38 | Spine board stretcher<br>Length in 1840 mm with tolerance ± 5 mm, Width in 450mm with tolerance ± 5 mm, Weight should not more than 6.5 kg , Loading capacity should be 200 kgs, Number of Pins 14 -16 | 01 |

<table>
<tr><td>39</td><td>Mattocks standard size</td><td>02</td></tr>
<tr><td>40</td><td>Mega phone battery operated(Reputed make like Ahuja or equivalent)</td><td>01</td></tr>
<tr><td>41</td><td>Fire Extinguisher (Stored Pressure DCP - 9Kg, 4.5Kg – Co2, 9Liters Stored Pressure Foam)</td><td>03</td></tr>
<tr><td></td><td>Life Buoy IS:5326<table><tr><td>Material</td><td>PVC</td></tr><tr><td>Color</td><td>Orange</td></tr><tr><td>Inner Diameter</td><td>40 cm</td></tr><tr><td>Outer Diameter</td><td>85 cm</td></tr><tr><td>Shape</td><td>Round</td></tr><tr><td>Usage</td><td>Swimming</td></tr><tr><td>Pattern</td><td>Plain</td></tr></table></td><td>06</td></tr>
<tr><td>42</td><td>Life Jacket 2mm Neoprene life vest (Reputed make like Aropec or any equivalent)</td><td>06</td></tr>
<tr><td>43</td><td>Traffic Cone</td><td>10</td></tr>
<tr><td>44</td><td>Cordon tape</td><td>100 mtr</td></tr>
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