

Distribution and Conditioning Systems and Equipment and Components: UNSPC Code: 40**Major Category - Industrial Pumps and Compressors; UNSPC Code: 4015****Product Category: PUMPS UNSPSC : 401515****Trailer Pump for Fire Brigade use UNSPSC : 40151533-1**

S. No.	Parameter	Ch/N	Value 1	Value 2	Value 3	Value 4	Unit	Type of Field G/M/F
GENRIC								
1	Conformity to Indian Standard for Trailer Pump for Fire Brigade use	CH	Compliance to IS 944 latest					M
2	General Requirements	CH	The trailer pump shall consist of a pump of requisite capacity driven by an internal combustion engine. The combined unit being permanently mounted on a trailer with the pump at the rear, and shall be capable of being towed to safety by a standard vehicle					M
3	Minimum discharge output at a pressure of 7kgf/cm ²	N	1800	2400	3000	4000	Ltr/min	G
CONSTRUCTIONAL								
1	Engine Model	CH						M
2	Engine type	CH	Four stroke, Turbo charged Diesel engine Bharat Stage IV emission standard as per Indian emission standards in compliance to IS10004 latest					G
3	Four stroke Engine type in compliance to IS10004 latest	CH	yes					M
4	Nos of cylinders	N	4	6			NOS	G
5	Declared engine power	N					Hp	G
6	Fuel Tank Capacity for continuous run of minimum 2 hour	N					ltr	M

7	Primer Type	CH	Exhaust Gas Ejector suitable to lift water from depth of 7.0 m in the 24 seconds when connected by the 4 length of suction house of 2.5 m each (100 mm dia), Maximum lifting capacity 9 meter	Rotary vane suitable to lift water from depth of 7.0 m in the 24 seconds when connected by the 4 length of suction house of 2.5 m each (100 mm dia),Maximum lifting capacity 9 meter	Reciprocating Primer		G
8	Starting mechanism	CH	Fitted with 12 Volt / 92 AH Lead Acid SMF Battery operated self start with a provision of hand starting back up device, preferably of the recoil rope type.Recoil Type starting				M
9	Fuel gauge	CH	Yes				M
10	Pump Type	CH	Centrifugal Fire Pump directly coupled with Diesel engine through a flexible coupling complete as per clause 4.3 of IS 944 latest				
11	Pump Casing, Delivery Outlets and Impeller	CH	Aluminium alloy Grade 4600, 4450, 4223 or 4923 of IS 617	Leaded tin bronze Grade II of IS 318	stainless steel Grade 04 Cr Ni 10 of IS 6603		G
12	Pump Shaft, Delivery Valve, Spindle and Wear Rings	CH	Stainless steel Grade VII Cr 13 Ni 9 of IS 6603				M
13	Pump Seal	CH	Fitted with maintenance free Mechanical Carbon Seal				
14	Suction Hose Diameter	N	100	125	150	mm	MF
15	Suction hose in 4.5 meter lengths and coupling	N	2 nos each			NOS	M
16	Suction wrenches for hose couplings	N	2 nos			NOS	M
17	Suction strainer of Brass 100mm / 125 mm/ 150 mm dia	N	1 no			NOS	M

18	63-mm delivery hose in 30 m length with instantaneous couplings	N	4 nos			NOS	M
19	Rope, manila - 15 m	N	1 no			NOS	M
20	One number Suction adopters female to instantaneous male	N	100 mm female to 63 mm instataneous male	125 mm female to 63 mm instataneous male	150 mm female to 63 mm instataneous male	NOS	F
21	Branch pipes 63 mm	N	2 nos			NOS	M
22	Low Level Suction strainer of Brass of suitable dia	N	1 no			NOS	M
23	Basket Strainer	N	1 no			NOS	M
24	Corrosion Resistance Parts	CH	All the parts which form water-ways or come in contact with water , shall be of corrosion-resisting material or be treated for corrosion resistance. All metal parts exposed to atmosphere shall either be of corrosion-resisting material or treated in an approved manner to prevent corrosion.				M
25	Transmission	CH	The assembly of the pump and engine shall be as compact as possible and preferably a clutch shall be incorporated between the pump and the engine. The engine and pump should be mounted on antivibration mountings so as to reduce vibration to minimum.				M
26	controls	CH	a) Ignition switch; b) Throttle control; c) Ammeter				M
27	Gauges	CH	1) Compound gauge calibrated as follows: Vacuum - 0 to 75 cmHg Pressure - 0 to 0.5 MN/m ² (0 to 5 kgf/cm ²) 2) Pressure gauge				M
28	Trailer	CH	suitable mild steel sections incorporated with semi elliptical springs and Axle and complete as per clause 4.7 of IS 944				M
29	Heavy duty tyre	CH	600 X 16 size 8 ply rating shall be used for the unit. The tyres shall be of reputed make.				M
30	Overall Dimeonsions(L X H x wheel Track)	CH	3.3 x1.6x1.4			meter	M

31	Chassis	CH	Made from suitable M.S. rolled steel channel of height not less than 70mm. Extension of the Draw Bar shall be minimum 1000 mm from the trailer for smooth negotiation of sharp turning during transportation.			M
32	Towing hook	CH	internal diameter of 75mm , made from high quality forged steel of not less than 63 MN/m ² ultimate tensile stress	Spring loaded Hook		F
33	Parking jacks	CH	3 Parking jacks for rigid parking while in operation	4 Parking jacks for rigid parking while in operation		F
34	Well louvered canopy for operation in any weather conditions	CH	yes			M
35	Acoustic engine cover can also be provided to control noise level.	CH	yes			M
36	Stands provided to carry suction hoses along with equipment	CH	yes			M
37	The whole Unit shall be compact and Pump shall be so mounted as to bring Centre of gravity as low as possible	CH	yes			M
38	Locking Device	CH	Provisions of heavy duty locking device both front and rear to be embedded with the Trailer to hold the Pump rigidly.			M
39	Efficient brakes	CH	To be provided on the two wheels operated through compensating gear by over-run			M
40	Operating the brake when the Trailers disconnected from the Towing vehicle	CH	A hand lever situated in an accessible position at the front of the Trailer Frame			M
41	Suspension System	CH	Through Heavy duty shock absorber to avoid the jerk.			M
42	Man Handling Bar	CH	The handles (Man handling bars) of mild steel each not less than 60 cms long which can be folded and secured along the frame when not in use shall be provided at the front of the Trailer frame.			M
43	Trailer Legs	CH	Two rear legs and one front leg (jacks) of 200 mm dia round M.S. plates dished upwards welded to the base of the legs. Provision for locking the legs positively at desired position shall be made.			M

44	Mud Guard	CH	Mudguards on both Trailer Wheels shall be provided to prevent over throw of mud and water while running. Provision for keeping 02 nos. of 4.5 meters suction hoses shall also be made on the Trailer		M
45	Mounting	CH	Complete unit mounted on a heavy duty trailer with 2 tyres for surface transport.		M
46	Maximum Weight of complete unit including full fuel, battery, and engine oil	N		Kg	M
47	Controls and Gauges on control panel shall be grouped and panel shall be mounted adjacent to pump suction / delivery	CH	Yes		M
48	Throttle control	CH	Yes		M
49	Heater for cold starting	CH	Yes	NA	F
50	Cooling system for Fire Trailer Pump		Yes	No	F
51	Primer control (lever) if primer is not fully automatic	CH	yes		F
52	Flood lamp provided for night operations	CH	yes		M
53	Lifting handles provided to manoeuvre the equipment	CH	yes		M
54	Tool Kit and Instruction Book	CH	A tool kit comprising all essential tools required for normal maintenance, shall be provided with each pump along with a fully illustrated booklet and itemwise spare parts list.		M
55	List of equipment recommended for use with the appliance	CH	As per appendix A of IS 944 latest		M
56	Equipment to be provided in trailer pump	CH			M
57	Accessories	CH	a) Tail light with number plate. b) Plug point at the front of the trailer c) Spot light on the trailer		M
58	Painting	CH	Fire Red paint after two coats of red oxide primer		M

59	Marking	CH	a) Manufacturer's name b) The output capacity of the pump in LPM with pump Sr. No. c) Year of manufacture. d) Engine make, Model & Sr. No. e) Instructions for operation of pump					M
PERFORMANCE								
1	Performance duties of trailer fire fighting large pump as per IS 944 latest	CH	The pump shall run continuously for a period of 4 hours (with engine cover closed) delivering rated output at 3 m lift and at 0-7 MN/ml (7 kgf/ml) pressure. During this test the water in the engine cooling system shall not be replaced and the temperature of engine lubricating oil shall not exceed the specified value. as per IS 944 latest					M
2	Primer	CH	Primer should be lifting of water from depth of 7.0 m in the 24 seconds when connected by the 4 length of suction house of 2.5 m each of suitable diameter					M
CERTIFICATION								
1	BIS marked for whole product	CH	Yes	No				F
2	BIS Number (Write NA for not applicable)	CH						M
3	Availability of Type Test Report to prove conformity of declared parameters to the specification from any ILAC/NABL accredited/Central Govt Lab	CH	Yes					M
4	Test certificate No	CH						M
5	Test Report Date	CH						M
6	Name of the Lab where test Conducted	CH						M
7	Product Warranty	N					(Years)	G
8	Service Warranty for Parts from date installation	N					(Years)	G