

Technical specification of fire fighter vehicle

S.N	CRITERIA	Required specification	Offered specification
1	General	The fire fighter vehicle of capacity minimum 4000 liters water with 500 liters foam tank capacity shall be designed and manufacture as per standard and sound engineering practice .All material used in fabrication / construction of the vehicle shall be new as per international standards.	Make:- Model:- Mfg Year :- Country of Origin:-
2	Engine	Water cooled diesel engine with inline fuel injection pump developing maximum rated power output not less than 110 hp and maximum torque output not less than 350 Nm at rates RPM system having precisely control air fuel ratio for high efficiency in response to all loads and operating conditions. The engine shall be fully equipped with all necessary items / accessories and controlling devices for safe smooth efficient economical operation and optimizing vehicle performance producing lesser amount of palliative emission	Make:- Model:- Mfg Year:- Country of Origin:-
3	Water tank	Water tank shall be minimum 4000 liters water and 500 liter foam tank capacity suitably mounted on the chassis after the cabin so as allow full contents to flow to the pump. The tank shall be fabricated out of MS plated with bottom sheet not less than 5mm thickness and other sheet of minimum 4mm thickness suitable epoxy coated from inside. The tank shall be so sound welded construction & shall be fitted with suitable baffle plates not less than 3mm thickness. An inspection hole of not less than 450mm size shall be provided on top and others necessary arrangement as per standard.	


 भारत सरकार
 मंत्रालय
 सड़क परिवहन
 हेमि इन्फ्रामेन्ट डिविजन
 बटवरी सुनहरी


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4	Pump	A single stage centrifugal type CE marked Pump capable of delivering water not less than 2250LPM at discharge pressure of 7kg/cm and suction lift of 5mts. The suction inlet shall minimum 1000mm round threaded type and minimum 2x63mm delivery outlets with GM valves having female instantaneous coupling. The pump shall be rear mounted for ensuring max hydraulic efficiency when working from open water	
4	Primer	The pump shall be fitted with reciprocating type .Prime shall be capable of lifting water from 7 meter at a rate not less than 30cm/sec	
6	Cooling system	Indirect cooling system of open circuit type consisting of special heat exchange shall be provided to the vehicle to enable full power outlet to be maintained during pumping duty without overheating and hot water is discharged to waste.	
7	Power take off	The power take off would be heavy duty indigenous origin of VAS make model V3N or equivalent mechanically control having suitable ratio and the lever for engaging the power take off shall be provided in the driver's cabin	
8	Monitor	One water cum foam monitor of minimum discharged of 1400LPM@7kg /cm water shall be provided on the top of the driver cabin/tender in such a manner that a member of fire crew can operate in mutually .The monitor will be capable of traversing through 3600 in a horizontal plane. Elevating from horizontal to 450 and depressing from horizontal to not less than 35 miters in still air when operate at the design pressure .	
9	Chassis	The tender shall be fabricated on truck BSIV chassis of appropriate size .Drag hook or eye of adequate strength shall be provided at the rear and front	
10	Hose Real	1 Nos. 60m x 19mm hose shall be provided near the control panel.	
11	Ladder Gallows	Gallows to carry 7.5 mtrs. Extension ladder would be provided on the appliance.	



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12	DCP	1 x 22 kg dcp	
113	Stability	Fully laden vehicle shall be tested for stability test at 27.5 degree and the vehicle shall not topple down. Gradient test shall be carried out at 1:4	
14	Control panel & instruments	Control panels & instruments as necessary for efficient operation and maintenance such as throttle control pressure gauge compound roof right hand drive laminated glass windscreen wipers glass windows on door and shall be provided with two independent foam cushioned seated for driver and officer. Driver's seat shall be adjustable. Rear compartment should be provided with fixed cushioned seat for at least 5 fire men.	
15	Essential accessories	The following accessories shall be supplied/fitted on the appliance. <ul style="list-style-type: none"> • Head light, tail and rear light and turn signals • Cabin lights • Spare wheel with tire and tube • Fog light at front • Fire bell • Additional equipments /accessories as per accessories/equipments list. 	
16	Clutch	Heavy duty disc type	
17	Transmission	At least five forward and one reverse all forward synchromesh.	
18	Emission Standard	The emission standard of the vehicle should comply with the vehicle mass emission standard of Nepal.	
19	Suspension	Heavy duty semi elliptical leaf springs and shock absorbers.	
20	Tires	Standard size single front Dual rear.	
21	Steering	Tilt and telescopic adjustable power steering	
22	Brakes	Servo assisted hydraulic or air operated internal expanding type and mechanical parking brake and engine exhaust brake.	



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23	color	Painted in fire red with proper under coating.	
24	Grade ability	Not less than 15%	
25	Axles	Front: steel I section Rare: heavy duty fully floating	
26	Ground clearance	Minimum 200 mm	
27	Instructions	All signs and instructions in the equipment shall be in English.	
28	Manual	One copy of the Operator's and owner's instructions and maintenance manual in English shall be supplied with each equipments/vehicle	
29	Proven performance	1. The tender offered shall be current model under standard production by the manufacturer. 2. The bidder shall provided the manufacturer 's data of the performance of the unit to include the fuel consumption performance curve of the engine and production capacity of the unit	
30	Warranty	Manufacturer shall provide a minimum of one year warranty after acceptance.	
31	Related service	The suppliers shall arrange and conduct training at own cost for two operators for a period if one week in Nepal in operation maintenance and /or repair of the equipment	
32	Delivery	The fire fighting vehicle shall be delivered to:Belbari Municipality Office Belbari,Morang	
33	MRP	60Lakhs (Vat Free)	



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Accessories/Equipments List

1	Extension ladder 10.5M (Trussed type double extension)	No.	1	
2	Armored rubber suction hose 100mm dia 25 meters length fitted with round threaded male and female coupling heavy duty made of copper alloy of 100mm size.	Nos.	4	
3	Non percolating 63mm x 15meters flexible firefighting delivery hose of three layered synthetic jacketed with elastomeric acid alkalis solvents abrasions & hear having 42kg/cm burst pressure and bonded with gun metal ISI marked & MMD approved instantaneous male and female coupling.	Nos.	10	
4	Suction Metal strainer 100mm size	Nos.	1	
5	Basket stainer-100mm size cylindrical	Nos.	1	
6	Dividing breaching with control valve made of light alloy	Nos.	1	
7	Collecting breaching -63mm size made of light alloy	No.	1	
8	Suction wrenches for 100 mm suction couplings	Pair	1	
9	Universal type	Length	1	
10	Long line 50mm circumferences 30 meter long each	Length	1	
11	Short line 50mm circumference 15m long	Nos.	1	
12	Hose bandages rubberized	Nos.	15	
13	Hose clamps	Nos.	15	
14	Hydrant valve key and bar	Set	1	
15	Fog nozzle made of gunmetal with extension applicator with fog head	No.	1	
16	Hand controlled branch pipe-63mm made of gunmetal	No.	1	
17	Gunmetal branch pipe universal 63mm size	No.	1	
18	Gunmetal branch pipe with revolving head	Nos.	1	
19	Gunmetal short branch pipe complete with 63 mm size male instantaneous connection	No.	2	



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	with gunmetal detachable nozzle			
20	Gunmetal nozzle of size 12mm 16mm 20mm 25mm and 32mm(two each)	No.	10	
	a) Adaptor for 100mm suction female screw coupling and 63mm male instantaneous	No.	2	
	b) Adaptor double female instantaneous pater 63mm	No.	2	
	c) Adaptor double male instantaneous pater 63mm	Nos	2	
21	Nozzle spanner	Nos.	2	
22	Portable eclectic box lamp with rechargeable accumulator	Nos.	2	
23	Hydrant stand pipe two ways	No.	1	
24	Flameproof lamp	Nos.	2	
25	Self contained breathing apparatus set with 45 min duration of 300 bar pressure	Nos.	1	
26	First aid box of 8 person.	No.	1	
27	Rubber gloves (in case)	Pair	1	
28	Asbestos gauntlets (in case)	No.	1	
29	Axe-Large	No.	1	
30	Spade	No.	1	
31	Pick axe	No.	1	
32	Crow bar	No.	1	
33	Sledge hammer	No.	1	
34	Carpenter's saw	No.	1	
35	20ton capacity hydraulic jack	No.	1	
36	Fire hook	No.	1	
37	Tool kit	No.	1	
38	ABC Multipurpose type fire extinguisher 2kg capacity(IS/EN or CE standard	No.	1	
39	Lowering line 50mm lamps 40m long having two ends spliced in and bend with a running nose	No.	1	
40	Fire fighter suit(complete set) (EN/CE/BS or equipment :	Set	2	



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