



Directorate General Defence Purchase
Ministry of Defence
New Airport Road, Tejgaon, Dhaka-1215
Web: navywing@dgdg.gov.bd
E-mail: info@dgdg.gov.bd

TENDER NOTICE

1. An Expression of Interest (EOI) is called from enlisted supplier of DGDG for submission of Specification, Brochure and Estimated price (In separate envelope) for available “**Fire Truck-Turn Table Ladder (TTL)**” latest model to ensure procurement of quality vehicle and to bring competition among the similar products of quality. In view of the above, it is requested to submit offer as per attached specification (If require with additional information) by **10 December 2025**.
2. Specifications (Free of cost) will be available in this Directorate General during office hours between 0900 to 1300 hours.

16.11.25
Commander BN
For Director General
Directorate General Defence Purchase

TENDER SPECIFICATION FOR FIRE TRUCK - TURN TABLE LADDER (TTL)
COMPLETE WITH STANDARD TOOLS & ACCESSORIES (FY: 2025-2026)

SL	NOMENCLATURE/ DESCRIPTION	SPECIFICATION SPECIFIED	BIDDERS OFFER.
1.	Name and address of Manufacturer, Contact no, Email and Phone no	To be Mentioned.	
2.	Name and address of Principal Contact no, Email and Phone no	To be Mentioned.	
3.	Name and address of Local firm, Contact no, Email and Phone no	To be Mentioned.	
4.	Nomenclature	To be Mentioned.	
5.	Country of Origin	To be Mentioned.	
6.	Country of Origin of Accessories	To be Mentioned.	
7.	Country of Assemble	From the country of manufacturer.	
8.	Port of Shipment	From the country of manufacturer.	
9.	Turn Table Ladder (TTL) (Minimum 68M) Brand name & Model with Current year of production.	To be Mentioned.	
	Chassis & Engine (Make, Model & Origin)	To be Mentioned.	
	Chassis & Engine (Year of Production)	Current year or last one (01) year of production.	
10.	Features	The vehicle shall be Hydraulic Turntable Ladder specially designed for Fire Fighting and Rescue Operations. The Turntable Ladder shall have Minimum 6 ladder sections suitable to total ladder length, rescue cage, as main operational functions and lift for fast rescue operations. The vehicle shall be equipped with an electric remote control water monitor which can be mounted at the working cage or at the ladder tip.	
11.	Engine	a) Model with Current year or last one (01) year of production. b) Diesel Engine. c) 400 HP – 500 HP at Rated RPM. d) Cylinder: 6 Cylinders (Minimum). e) 4 Stroke, Radiator Water cooled with turbo- charge and intercooler or after cooler, direct injection. f) Specific Fuel consumption (SFC) : To be mentioned.	
12.	Engine Performance	Manufacturer Test Bench Certificate (mentioning Engine number) to be provided for engine during inspection period.	
13.	Emission Standard	To be mentioned.	
14.	Vehicle Chassis	Standard chassis, Designed for Maximum 42 Ton vehicle weight.	
15.	Axle	Minimum 4 (Four) axles.	
16.	Out Rigger	Four (Minimum). Nos. diagonal type configuration	
17.	Drive	RHD. 6x4 (Minimum) with power steering.	
18.	Wheel Base (Front wheel Axle center to first Rear Axle center)	6700 mm (Maximum).	
19.	Turning Radius	14 m. (Maximum).	
20.	Ground Clearance	220 mm. (Minimum).	
21.	Gross Vehicle Weight	42 Ton (Maximum).	
22.	Vehicle Ascending Limit (Gradeability)	Not less than 30%.	
23.	Vehicle Descending Limit.	To be mentioned.	



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24.	Tyre & Tube	Manufacturer's standard size to meet the vehicle load requirement and made in should be of Country of Origin.	
25.	Cabin	Fully enclosed air condition single/double cabin is to be provided with a seating capacity for minimum 2/6 (2 at the front and 4 in rear) persons including driver. Driver's seat is readily adjustable. Arrangement for lifting the single/ double cabin by both power and manual system. Cabin light and Clamp for holding portable fire extinguisher should be there. Fenders and guards are braced and firmly secured. All steps should be of non-skid safety surface. Free space between the rear of driving seat and front edge of rear seat should have enough space for easy movement of crews. For supply double cabin rear cabin crews seat must have the arrangement including cylinders for the SCBA carrying harness with all fitting.	
26.	Vehicle Width	To be Mentioned.	
27.	Vehicle Height	Maximum 4m.	
28.	Working Height.	Working height Minimum 68 m.	
29.	Working area	To be mentioned with suitable drawing.	
30.	Leveling System	Automatic Leveling system shall be provided.	
31.	P.T.O.	Power take off shall be provided for hydraulic system.	
32.	Stabilizing & out rigger system	The Outrigger Jacking system shall consist of hydraulically operated four outriggers mounted under vehicle chassis. Each outrigger shall be fitted with adjustable guides to provide smooth and accurate movement of the outrigger beam. The outrigger piston rods shall be completely protected by closed steel profile. The outrigger shall be diagonal type configuration (no exceptions); each side shall have two separate stabilizers. The outrigger shall be provided with ground pressure sensors, which shall be correctly actuated before the ladder set is operated to ensure proper stabilization. Each outrigger shall be provided with self-aligning footplate to spread the load evenly and allow the operation on uneven ground. The system shall be able to level the vehicle up to 7° through the 360° rotation with automatic leveling system. The outrigger system shall be controlled by two separate control panels provided on left and right side of the vehicle at rear with following controls. Left side front and rear outrigger beam out. Right side front and rear outrigger beam out. Left side outrigger down Right side outrigger down. Automatic axle locking mechanism. Cage folding in isolation switch. Vehicle leveling gauge Emergency stop push button All the outrigger movements shall be infinitely variable within the full jacking width. The outrigger systems shall allow operating each outrigger individually and outrigger shall recognize by the controlling system and the maximum outreach automatically calculated as per the outrigger width. The outrigger shall be controlled individually or in pair with lever /joystick and the control panel shall be situated in such a position that, the operator will have clear look to the right and left while extending the outrigger. The control panel shall be located at the rear side of the vehicle.	



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33.	Electronic safety and outreach system:	Yellow Flashing warning lights shall be provided at the outer most point of the outrigger to identify the position of the jacks during night operation. Four non-metal material spreader plates shall be provided for the use, when the vehicle is to be operated on soft ground. The stabilizing system shall also preferably incorporate axle-locking mechanism. The locker containing outrigger controls shall be fitted with an automatically operating door switch and a light for night operation. The computer-controlled and stabilized system shall allow the outriggers to be positioned and the system shall be capable to select automatically the maximum allowed outreach to all direction. The system allows self-calculate and parameters save within the system to guarantee exactly the same outreach regardless of the external influences like wind speed and direction, temperature, friction of the cylinders, etc. The display units of the system shall show maximum possible outreach and position of the working cage in real-time along with other details. The electronic system shall be made in CAN-BUS technology and approved according to the valid standards and directives. The system shall be EMC tested (EU directive 89/336/EEC) and CE type tested by TUV or any other appropriate agency. The electronic active oscillation damping system equip with dead man switch at Turntable turret operator seating area and rescue cage floor to stop any oscillation movement at all time till dead man switch release by operators without resting dead man switch is needed.	
34.	Telescopic Ladder	a) Ladder shall be made of high tensile steel. The Ladder is assembled form Electrically welded truss type structures made form high tensile steel & is designed to be light weight as well as sufficiently string to withstand static torsion load. b) All necessary electric lines & Wire ropes up to the cage shall be well protected & should be out side the climbing area. c) All Ladder Sections shall have adjustable sliding pads to ensure smooth & precise Telescoping movements with any Controlled Speed. d) Extension and retraction of all Ladder Sets shall be by means of wire ropes only. e) The Cage /basket control station consist of following switches. f) Main switch (dead-man's pedal type) g) Joy stick for ladder elevation, depression/rotation h) Joy stick for ladder extension/retraction i) Emergency stop switch j) Touch panel color display k) Interphone speaker, microphone	
35.	Ladder Performance	Working Height: 68 m (Minimum). Elevation Angle: -10° up to 70° (Minimum). Rotation Angle: 360° continuous.	
36.	Ladder assembly	a) Material: High quality special steel section. b) Guide: Plastic sliders & rollers on stainless steel rails. c) Extensions & Return Cable: Double, Located at the side. d) Climbing Area: Width 470mm (Minimum), continuously accessible. e) Rungs: Sheathed with slip-resistant and thermally insulating coating. f) Safety: No tripping points in climbing area, no risk of slipping on the rungs. High level of safety due to high guard at the sides.	



37.	Ladder control	a)	All control lever to be of self centering type.	
		b)	Both controls to include visual and audible overload warning and the ladder rotation movements shall be Electro-hydraulically controlled at variable speed from the control panel.	
		c)	All movements can be operated simultaneously or one at time with variable speed from zero to maximum.	
		d)	Apart from main control of ladder movements, both control panels shall be equipped with start-stop by means of "dead man pedal" for the vehicle engine, as well as an emergency stop switch for all the functions.	
		e)	The cage should have manual mechanism for cage leveling in case of a malfunction of the automatic system. Both control panels (for the ladder movements, one at the turntable and another at the working cage) shall have a LCD display monitor for showing, working area limits and actual position of the ladder set plus permitted load etc.	
		f)	The control system shall be computer stabilized type and shall include technical system failure information (diagnostic), and on the spot trouble-shooting shall be easily done with the display instructions.	
		g)	Both control panels shall be well illuminated, equipped with protection cover.	
38.	Working Load		250 kg. (Minimum) for lifter, 300 kg (Minimum) for cage.	
		a)	Lock valves integrated into the hydraulic cylinders. All hydraulic cylinders shall be equipped with in-built pilot operated lock valves to prevent the cage from lowering or the outriggers from retracting in case of a pipe or hose failure.	
		b)	Slow down at the end of each major aerial movement and all movements shall be automatically limited in their extreme position.	
		c)	Collision protection on cage shall be provided.	
		d)	The ladder lifting and telescopic speeds shall be automatically reduced before the maximum position.	
		e)	Retracting of the outriggers shall be automatically prohibited when the ladder is out of transport position.	
		f)	Lifting of the ladders from the transport position shall be automatically prohibited unless the outriggers are in safe support position.	
		g)	Emergency stop switch shall be provided at all control panels.	
		h)	Warning system for unstable situation during the operation of the aerial device.	
		i)	Cabin shall have an effective protection where the ladder cannot be lowered or rotated.	
		j)	Separated emergency housing operation shall be provided by means of electro-hydraulic pump driven by on board portable generator (minimum 5KVA capacity) to enable the housing of the ladder set into transport position in the event of a power failure.	
		k)	Light and audible warning shall be provided in case of overloading of the working cage.	
39.	Anti-swinging system		To be Mentioned.	
40.	Fire Pump (Make, Model, Origin & year of Production)		To be Mentioned.	
			2 Stage (Minimum) centrifugal Fire Pump, Mid ship/rear mounted operation from both side / rear side of the vehicle (Suction & Delivery must be Perpendicular to the axis of the vehicle) for both suction & delivery purpose & driven by the vehicle engine through power take off (PTO). Pump control panel shall be provided at both sides/Rear sides of the vehicle. Panel shall be made of non-corrosive metal. The pump control panels shall be equipped on both side/Rear sides of the vehicle with following equipment and accessories :	



			Facilities :	Both sides	Rear sides		
			a) Vacuum gauge	= 02 Nos.	01 No.		
			b) Pressure gauge	= 02 Nos.	01 No.		
			c) Suction inlet connection	= 02 Nos.	01 No.		
			d) Discharge outlet connection	= 04 Nos.	02 Nos.		
			e) Pump pressure control	= 02 Nos.	01 No.		
			f) PTO indication lamp	= 02 Nos.	01 No.		
			g) Control panel lamp	= 02 Nos.	01 No.		
			h) Water level gauge	= 02 Nos.	01 No.		
			i) Hour meter (for pump) fitted on drivers cabin	= 01 No.	01 No.		
			Foam proportioner controls :				
			The Foam Proportioner control by a device with a metering valve (percentage selector of the foam concentration of 0% to 6% maximum an ejector valve, a foam solution valve & a flushing device).				
41.	Monitor water discharge		Minimum 1800 L/min at 10 Bar.				
42.	Cage & Lifter		The working cage shall be attached to the tip of top section and it shall be foldable. There shall be sufficient space for three persons and safe working load shall not be less than 300kg excluding the equipment permanently mounted in the cage. The leveling of the cage shall be controlled automatically by an electro/hydraulically mechanism with manual override in case of emergency. The controls for folding over and in working position shall be integrated into the control panel for the jacking system. The entrance to the cage shall be provided from the front and rear. The cage shall be made of tubular steel/Aluminum profile, welded together and painted with special paint with high durability in case of steel cage. The dimensions of the working cage shall be such that it shall provide sufficient space for three men. The top railing shall be part of the cage door so that entering into the cage without bending is possible. The cage shall be designed for 300 Kgs working load and shall be tested for min. 50% overload capacity. The cage shall be quick removable type whenever needed. An emergency cage leveling operation shall be provided in case of failure of electricity by means of Hand/Foot pump. The cage control shall allow all ladder movement to be performed infinitely variable. During cage operation, the movement shall be automatically controlled by the safety system. When the ladder is operated from the cage, the speed of movements shall be the same as ladder control from main control console. The location of cage control shall be such that the operator shall have clear look on all side when operating the ladder from the cage. The Joy stick/Levers in the cage shall be identical that of the main console. The cage control panel shall always be visible and accessible, even when the additional equipment is used by the fireman. One xenon flood light shall be provided in front of the cage for illumination during night operations. The cage control shall have following controls on the control panel. Lever/joy stick for rotation and elevation and depression. Lever/Joy stick for extension and retraction. Foot pedal for oil pressure ON/OFF (Dead Man type switch) Button for engine Start/Stop.				



		Button for rungs in alignment. Button for One man/Two man/Three man selection. Button for lighting ON/OFF. Button for emergency stop. Button for automatic housing of ladder. Microphone-cum-speaker for intercom system. Operation display screen (LCD) Button for cage light ON/OFF. Wide angle fixed video camera shall be installed on the cage front with image transmission to the main control stand display. All ladder movements shall be stop automatically when the cage collusion system is activated. The rescue cage shall equip with shaft or manhole rescue function during lifting or lowering down the rescue cage without readjusting the rescue cage position while ladder section extension or retract movement. A rescue lift shall be mounted at the rear of ladder set to be used for fast emergency rescue operation. Lift shall be use at any ladder rotation angle and when cage is mounted at ladder tip. Rescue lift capacity shall be not less than 250 Kg and travel not less than 1.5 Meters per second in both ascending and descending condition. Lift shall be controlled either by main control stand or from the lift by means of wireless remote-control system. Access to the lift shall be possible also from the ground level at the rear or at left/right side.	
43.	Monitor & Water supply	a) The monitor shall be fitted with jet/fog nozzle for water applications. b) Fixed telescopic water pipe shall be provided on the Ladder sections extending from fire pump to cage to provide water supply to the monitor.	
44.	Coupling	All inlets and outlets to connect external equipment shall be equipped with B.S.S couplings and fitted with blank caps and chains.	
45.	Rated Discharge	Minimum 1800 liters/min./30 liters/Sec. at 150 PSI.	
46.	Pump Body	All parts including volute body, impeller etc. to be made of Gun metal/bronze/non corrosion materials (sea water resistant), pump shaft to be stainless steel & fitted with gland or mechanical seal.	
47.	Pump Suction	101.6 mm (4") dia suction inlet both side/rear side of the vehicle with round thread type (BSS) with blank cap made of gunmetal / Alloy materials.	
48.	Pump Delivery	63.5 mm (2½") dia 2(two) nos. of delivery outlet to be provided both side/rear side of the vehicle. All outlets ball type. Female lockable instantaneous coupling (BSS). With blank cap made of gun metal/Alloy materials.	
49.	Priming system	Automatic priming system with priming within 30sec.	
50.	Suction Hose	Suction hoses 40mm dia & minimum 2.5 meters length. Made of PVC/ Rubber with steel wire reinforced. Suction Hose with appropriate couplings for connecting the same with the vehicle coupling & strainers.	
51.	Painting	a) Ladder and cage painted white/ off white. Ladder shall be treated against corrosion before painting to provide high corrosion resistance in case of steel Ladder. b) Jacks and sub-frame underneath shall be black. c) Glossy Red Color.	



52.	Electrical & warning P.A. system	(a) Warning system shall be provided complete with P.A. system. (b) One electric siren is to be provided with continuous sound system with mobile amplifier with matching microphone having rated 100 watts (Minimum) frequency response 300 Hz-7Khz. (minimum) 11 ohms. Power supply 24 volt DC. Converter. (c) Portable Megaphone: Hand-grip type Megaphone with built in siren, whistle or both functions and press to talk switch type. Battery operated (Medium size). Body: Megaphone body will be made of aluminum/ Fiber glass reinforced material. Power: 25 w (minimum). (d) 2 Red warning Lights (Red Rotation lamps) on the drivers cabin. Both lights shall be strobe flashing lamps. (e) 2 Red warning Lights (Red Rotation lamps) on the rear of the vehicle on a suitable place. Both lights shall be strobe flashing lamps. (f) 4 emergency strobe lights, (2 at vehicle's front grill and 2 at vehicle's rear) shall be provided. The Structure for the body work shall be made up of Aluminum profiles covered with aluminum plates (used in Automobile construction) such as to secure high resistance to corrosion. : The complete external paneling of the rear body shall be made from aluminum sheet fitted	
53.	Body Structure / Lockers	To the structural member either by gluing, riveting/screwing. : The complete flooring of the body deck shall be made from non-skid aluminum cheered plate of minimum 3 mm thickness properly riveted or bolted to the super structure members. : A light alloy Ladder to be provided to the rear of the body for ascending & descending from the vehicle roof. : Minimum 4 Lockers shall be provided on both side of the vehicle for keeping various accessories and equipments. Lockers shall be provided on both side and Rear side (if necessary) of the vehicle for keeping various accessories and equipments. The locker shall be so made that load distribution on both sides is equal. All the lockers shall be provided with roller shutters properly sealed for water and dust ingress. All the doors of the lockers shall be fitted with automatic switches activating the light as soon as the door is opened. Proper Provision of securing all the equipment & accessories should be arranged.	
54.	Rescue Equipments & Other Accessories (Make, Model, Origin & year of Production)	a) Delivery Hose: Delivery hose (63.5 mm dia x 22.86 m.) with 63.5 mm BSS instantaneous type coupling -10 Nos. Hose Jacket in canvas (Outer Portion) is required to be made of high-strength Cotton/Polyester/Nylon yarn filament totally encapsulated in a three layered synthetic rubber blend heavy duty firefighting delivery hose. Oxford weaving, 100% Cotton/Polyester/Nylon yarns. Working pressure minimum 18.00 kg per sq. cm. & Bursting pressure minimum 40.00 kgs. per sq. cm. b) 101.6mm.x minimum 2.5m. Suction hose with coupling- 4 Nos. Hard suction hose made of PVC/ Rubber shall have steel reinforcement. Both ends of hose shall be connected with suction coupling bond to the hose by means of corrosion protected wire rope. c) Branch pipe (Water nozzle): Turex Type (Provision of Jet, Spray & Fog) - 2 Nos. i) 63.5mm ($2\frac{1}{2}$") Instantaneous inlet type. ii) Provision of switching on / off with the help of a "U" shaped lever or similar type. iii) Must be able to change water flow from minimum 115 Lpm-140 Lpm to 450 Lpm-500 Lpm) maximum without shutting down the nozzle. iv) Must have a grip (like that of a gun/pistol grip) for easy control. v) Constructed of Light alloy/ Gun metal. d) Suction strainer - 2 nos. (One ordinary & one low level suction strainer). Suction strainer shall be made of aluminum of non-corrosion material 4 © © BSS thread type. Provision of bracket for fastening the equipment.	

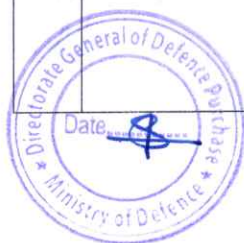


	e) Suction wrench - 2 nos. Provision of bracket for fastening the equipment.	
	f) Foam Making Branch Pipe: = 01 no. Type:-Foam making branch pipe. Dia :- 63.5 mm (Instantaneous Male Cupling). Discharge capacity:- 200 Ltrs/min (minimum) at 7 Bar (Optimum pressure). Throw distance :- 20m. (minimum). Construction:- Aluminium.	
	g) Dividing Breaching :- 1 no. Inlet: One Inlet (male) 63.5mm (2.5 inch) dia BSS type. Outlet:- Two outlet (Female) 63.5mm (2.5 inch) dia BSS instantaneous type. Control:- Hand control gate valve system provided to operate (On & Off) one or two outlet individually. Construction:-Aluminium Alloy/Gun Metal.	
	h) Collecting Breaching :- 1 no. 2 Inlet (male), 63.5mm.dia BSS type, One outlet (female) 63.5mm. dia BSS instantaneous type, Constructed of aluminum alloy/ Gun metal.	
	i) Portable fire extinguisher (ABC type, 3 kg.) for cabin - 1 no. Provision of bracket for fastening the equipment in the cabin.	
	j) Portable fire extinguisher (ABC type, minimum 5kg.)- :- 1 no. Provision of bracket for fastening the equipment.	
	k) Portable fire extinguisher (CO₂ type, minimum 5kg.) :- 1 no. Provision of bracket for fastening the equipment.	
	l) Rechargeable Torch light – 01 nos. Electronic hand torch, explosion-proof, capacity. 7 A/h, with 5.5 watt halogen head lamp and 1.5 watt secondary lamp, working time of headlamp 6 hour (Minimum), provided with emergency flashing device, charging system for 220V, single phase current and 12-24 volt DC complete with cable, complete with a set of filters (clear diffuser, red and orange).	
	m) Gas Detector = 1 No. The Gas detector must be available in 6(Six) or more gas configuration, it must continuously and simultaneously monitor for Oxygen (O₂), Methane (CH₄), Carbon Monoxide (CO), Carbon dioxide (CO₂), Hydrogen Sulfide (H₂S) and Ammonia (NH₃) and other hazardous gases. The unit will be with external pump/internal pump for 30 m length operation mode. Method: Catalytic and Electrochemical or Infrared and Electrochemical, Response time : Maximum 30 seconds, Alarm Response : Audible Visual Alarm for each sensor less than 15 seconds, Alarms level: TWA alarms, as well as a multiple gas alarm, Sensor life : 3 Years (minimum), Display Information : Simultaneous Visual display and audible alarm for all gas sensors, gas alarm conditions, battery condition, Low flow condition and instrument status digital signal output. Battery: Rechargeable Lithium battery supply with battery display status when power is low. Battery life will be -10 hours for operation after full charging. Calibration accessories must be included with the detector, Operation option : On/Off. Yes/No. Weight : Lower than 1 kg. Accessories : Rechargeable Lithium Battery = 01 no, Battery charger- 220v =01 no, Leather carrying case = 01 no, 30 meter vision hose = 01 no, Telescopic probe = 01 no & Float probe = 01 no.	
	n) Breathing Apparatus with Communications-02 Sets Compressed Air Breathing Apparatus complete set comprising the following components:- i) Single Cylinder (Carbon composite Air Cylinder). ii) Main Valve. iii) Reducing Valve.	
	iv) Full vision face mask with open voice communication system ability to combined hands free Team Talk, integrated voice amplifier and wireless or wire Radio interface. Visor should be made of scratch-proof and distortion-free, polycarbonate antifog with wide field and high quality of vision, covers perceptive areas. v) Valve grouping- Two stage. vi) Demand Valve (Lung Governed).	

		vii) Pressure Gauge. viii) Warning signal. ix) Back plate with harness. x) Cylinder Capacity : 9 L (Minimum). xi) Air reserve Capacity of Compressed Air Cylinder : 2500 liters (Minimum). xii) Weight of unit ready for use : 15 Kgs (Maximum). xiii) Working Hour : 60 minutes (Minimum). xiv) Operating pressure : 300 bar (Minimum). o) Leather hand gloves – 6 Pairs. p) Fireman Axe (small) with pause – 2 Nos. q) Safety rope (12mm dia x 50m) - 2 Nos. r) Safety Helmet-10 Nos.	
55.	Portable Pocket Pump (Make, Model, Origin & year of Production)	To be Mentioned. a) Engine : 2 Cylinder (Minimum), 2 stroke (Minimum), water cooled, gasoline engine, 40-65 HP (min) at Rated RPM. b) Specific Fuel consumption (SFC) :- To be mentioned. c) Fuel tank capacity:- 10 liters (Minimum). d) Duration of operational performance:-To be mentioned. e) Pump : i) Single stage centrifugal pump. ii) Twin delivery. f) Suction Inlet : 101.6 mm (4") dia (without adopter) round thread type (BSS) with blank cap. g) Delivery Outlet: 63.5 mm (2.5 inch) dia without adopter quick release type. h) Out put Capacity: Minimum 300 IGPM (1300 litres) at 7 bar (100PSI). i) Manufacturer's performance curve/chart: To be submitted. j) Duration of operation (1300 ltrs/min. at 7 bar): A Certificate regarding optimum performance in hour by manufacturer to be submitted along with the offer. k) Priming system: Vacuum exhaust gas ejector system/Automatic priming system. l) Starting system: Starter motor and pulley rope system/ Electric starting system. m) Operating system: Magneto/Alternator (12 volt) and battery system. n) Suction head: 7 meters (minimum). o) Carrying system: Fitted with 4 fold arms carrying handle. p) Frame : Stainless steel/High Strength Metal (Rust Free) frame. q) Weight : Dry weight : 100 kgs (maximum) Operational Weight:130 kgs (maximum) (including fuel, lubricant & coolant etc).	



56.	Communication System (Make, Model, Origin & year of Production)	Support to upgrade to DMR Trunking mode to (Tier-3) use and compatible with DMR (Tier-3) Trunking system and dispatching system. The system must support communication, data communication, private call, group call, all call, super group call and GPS tracking. Support Radio enables & disable. Support AES256 Encryption. Minimum IP 54 standard. Accessories: Minimum 45 Watts VHF Digital Mobile Radio (DMR-Tier-3) Vehicle Wireless comprise of following: Standard Microphone with keypad = 01 Pc per Set. Built in Speaker 5.5dBi magnetic Antenna with RF cable, connector. GPS Antenna-1pcs Accessories: Minimum 45 Watts VHF Digital Mobile Radio (DMR-Tier-3) Vehicle Wireless comprise of following: Standard Microphone with keypad = 01 Pc per Set. Built in Speaker 5.5dBi magnetic Antenna with RF cable, connector. GPS Antenna-1pcs Microphone hanger & screws- 1 pcs per set. Vehicle power cord with fuse- 1 pcs per set. DC Supply lead & Installation Hardware = 01 Lot. (Details Specification & Accessories is mentioned in Annexure- 'C')																																														
57.	Public address system	a) Mobile Amplifier matching Microphone having rated 100 watts. Frequency response 300 Hz-7KHZ. 11 Ohms. Power supply -12/24 volt. DC converter. b) Portable Megaphone: Hand-grip type Megaphone with built in siren, whistle or both functions and press to talk switch type. Battery operated (Medium size). Body: Megaphone body will be made of aluminum/Fiber Glass reinforce material. Power: 25w (minimum), Impedance: Speaker – 8 ohms (minimum) Battery: Rechargeable Battery (C type) 1.5v X 8 = 12v. DC Battery Charger: Universal Ni-cd Battery Charger. Power-4.8w, input-AC-220v- 50 HZ, output-9v-12v.																																														
58.	Accessories	<table><tr><td>a)</td><td>Wooden ground plates for jack of out rigger.</td><td></td></tr><tr><td>b)</td><td>1 sets warning labels and instruction plates.</td><td></td></tr><tr><td>c)</td><td>First Aid Medical Box : First Aid Medical Box with complete accessories- 1 no.</td><td></td></tr><tr><td>d)</td><td>Safety Belt with 'D' Ring - 4 nos.</td><td></td></tr></table>	a)	Wooden ground plates for jack of out rigger.		b)	1 sets warning labels and instruction plates.		c)	First Aid Medical Box : First Aid Medical Box with complete accessories- 1 no.		d)	Safety Belt with 'D' Ring - 4 nos.																																			
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59.	Special Tools	1(one) set, complete, comprising of the following:- <table><tr><td>a)</td><td>Wrench Aligner (sizes 2.5-10mm - 8 pcs)</td><td>= 01 Set.</td></tr><tr><td>b)</td><td>Wrench Socket (8-32mm - 16 pcs)</td><td>= 01 Set.</td></tr><tr><td>c)</td><td>DE Spanner (8-32mm - 8 pcs)</td><td>= 01 Set.</td></tr><tr><td>d)</td><td>Ring Wrench (8-32mm -8 pcs)</td><td>= 01 Set.</td></tr><tr><td>e)</td><td>Screw Driver Flat (8")</td><td>= 01 No.</td></tr><tr><td>f)</td><td>Screw Driver Star (8")</td><td>= 01 No.</td></tr><tr><td>g)</td><td>Hammer small (1 lb)</td><td>= 01 No.</td></tr><tr><td>h)</td><td>Hammer medium (2 lbs)</td><td>= 01 No.</td></tr><tr><td>i)</td><td>Slide Wrench 12"</td><td>= 01 No.</td></tr><tr><td>j)</td><td>Plier HT 8" (Insulated handle)</td><td>= 01 No.</td></tr><tr><td>k)</td><td>Wheel Wrench</td><td>= 01 No.</td></tr><tr><td>l)</td><td>Spare Wheel (complete)</td><td>= 01 No.</td></tr><tr><td>m)</td><td>Grease Gun (standard)</td><td>= 01 No.</td></tr><tr><td>n)</td><td>Inspection Lamp (35 watts minimum) with 30m flexible cord on cable reel with light connectors.</td><td>= 01 No.</td></tr><tr><td>o)</td><td>Oil Can with long nozzle 2 liters capacity</td><td>= 01 No.</td></tr></table>	a)	Wrench Aligner (sizes 2.5-10mm - 8 pcs)	= 01 Set.	b)	Wrench Socket (8-32mm - 16 pcs)	= 01 Set.	c)	DE Spanner (8-32mm - 8 pcs)	= 01 Set.	d)	Ring Wrench (8-32mm -8 pcs)	= 01 Set.	e)	Screw Driver Flat (8")	= 01 No.	f)	Screw Driver Star (8")	= 01 No.	g)	Hammer small (1 lb)	= 01 No.	h)	Hammer medium (2 lbs)	= 01 No.	i)	Slide Wrench 12"	= 01 No.	j)	Plier HT 8" (Insulated handle)	= 01 No.	k)	Wheel Wrench	= 01 No.	l)	Spare Wheel (complete)	= 01 No.	m)	Grease Gun (standard)	= 01 No.	n)	Inspection Lamp (35 watts minimum) with 30m flexible cord on cable reel with light connectors.	= 01 No.	o)	Oil Can with long nozzle 2 liters capacity	= 01 No.	
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		p)	Jack with handle (hydraulic) Capacity 50 ton (Minimum). All size country of origin.	= 01 No.		
60.	Fast Moving Essential Spare Parts (Optional)	The Spare parts items rate per unit of spare parts mentioning the parts nos. must be quoted separately along with the Technical offer and price schedule. The item & quantity of fast moving spare parts in the list may be increased/ decreased/dropped for adjustment of allotted fund.				
		Element Kit (oil filter)	= 10 Nos.			
		Diesel Filter	= 10 Nos.			
		Master Cylinder Repair Kit	= 04 Kits			
		Wheel Cylinder Repair Kit (F)	= 08 Kits			
		Wheel Cylinder Repair Kit (R)	= 08 Kits			
		Wind Shield Glass	= 01 No.			
		Front Indicator Light Assy (L/R)	= 01 Set.			
		Back Light Assy (L/R)	= 01 Set.			
		Air Cleaner Element	= 02 Nos.			
		Clutch Plate	= 02 Nos.			
		<u>Spare parts for Hydraulic System</u>				
		Return filter -(do)	= 02 Nos.			
		Low pressure Hose -(do)	= 02 Nos.			
		High pressure Hose -(do)	= 02 Nos.			
		Oil seal (swivel joint for Rotation)	= 02 Nos.			
		Oil seal (outrigger & jack, front)	= 08 Nos.			
		Oil seal (outrigger & jack, front)	= 08 Nos.			
61.	Guarantee for Spare parts	a) A list of essential & fast moving spare parts for whole vehicle along with price & pat.cat. No. must be submitted. After warranty and guarantee spare parts price (BDT) escalation maximum per year 5% may be allowed and maximum 20% may be allowed in 15 years. Provide guarantee certificate that next 15 years, spare parts will be available. b) After Guarantee & Warranty period, supplier have to provide uninterrupted servicing & supply of spare parts for next 15 (Fifteen) years on payment terms.				
62.	Software	a) Supplier has to provide the user (BN) all required operating and trouble shooting software (When Applicable). b) After Guarantee & Warranty period, supplier have to provide uninterrupted servicing & supply of software for next 15 (Fifteen) years on payment terms.				
63.	Servicing Center in Bangladesh	With Physical inspection from Bangladesh Navy before tender awarding for assigning the capacity and authorization from manufacturer.				
64.	Manuals	Manual (soft / hard copy) supplied free of cost a) Operation & Service Manual = 01 Set. b) Workshop / Repair Manual = 01 Set. c) Parts Catalogue = 01 Set.				
65.	Warranty, Guarantee & After Sales Service	Warranty, Guarantee & After Sales Service of trouble free operation has to be given on the supplied item for a period of at least 24 months from date of acceptance.				
66.	Manufacturer Standard	The manufacturer must certify that the machine maintain the quality standards; ISO and BS/ASTM/CE/JIS/EN/NFPA/DIN. The certificate must have signature with specific designation of the personel from the quality standard providing authority.				
67.	Training	At least 2 weeks training per each vehicle for minimum 10 personnel (operator/technician) of Bangladesh Navy will be provided by the principal's/supplier's cost at the manufacturer/Bangladesh Navy premises as decided by the supplier.				
68.	Pre Shipment Inspection (PSI):	a. Pre Shipment Inspection (PSI)/Factory Acceptance Test (FAT) will be carried out by team of two (02) BN Officers for a duration of total seven (07) days excluding journey period, mainly at the buyer's expense. All types of movement/ transportation (air, sea, road, rail) of the BN team within the manufacturer/ supplier's country, reception and arrangement for entry in to the country/ concerned area for the PSI/FAT team are to be arranged by the supplier without any extra cost.				



		b. The supplier should inform the buyer/ DGDP about the date and schedule of PSI/FAT at least 08 (Eight) weeks prior to the date of commencement of the PSI/ FAT including the test procedure that will be carried out during PSI/FAT. After PSI/FAT a joint inspection report will be prepared and signed by both the seller and buyer's representatives at PSI/ FAT premises.	
		c. The PSI/FAT will be carried out the manufacturer's/ principal's/ factory premises. During PSI/FAT the supplier will provide all required materials/ test equipment to carry out PSI/FAT without any extra cost.	
		d. If the PSI is not carried out by Bangladesh Navy officer due to any unavoidable circumstances like war/ pandemic etc then the PSI can be done by Defense Attaché in concerned country (if available) or else a Quality Assurance Certificate (QAC) is to be provided by the supplier's principal/ manufacturer for equipment and spares along with guarantee certificate for bearing any damage during transportation.	
69.	Reference of Technical Specification.	A details drawing showing all compartment, Pump control panel, Set of all accessories & roller shutter etc. must be submitted along with the tender. All technical specification mentioned above should be referred in the catalogue/ brochure/reference documents with the SL. no. of Technical Specification as mentioned against each specification.	
70.	Production Date:	Should be mentioned on the identification plate (ID plate) by the manufacturer or certificate of production date from the manufacturer should be submitted. Vehicle should be manufactured after the signing of contract.	
71.	Design, Drawing with dimension of vehicle and details specs of vehicle and all equipment in manufacturer's brochure should be submitted with the offer.		
72.	Validity of offer	Up to 30 June 2027	
73.	Payment Terms	As per DGDP rule.	
74.	Price	To be mentioned in USD. FOB value, Freight and Agency commission should be mentioned separately	
75.	Time and terms of Delivery	Maximum 09 (Nine) months from the date of signing contract	

