

FOR OFFICIAL USE ONLY

Directorate General Defence Purchase  
Ministry of Defence  
New Airport Road  
Tejgaon, Dhaka-1215  
Tel: Mil-7172  
Civ: 9132225  
Fax 880-2-9122748  
E-mail: adp1army1@dgdg.gov.bd

Falgun 1426

06.06.0000.07.214.Re-eval.18/1


28  
12 March 2020

RE-EVALUATION OF AMBULANCE (BLS) FOR BANGLADESH ARMY

Reference:

A. Army Headquarters, Quarter Master General Branch, Supply and Transport Directorate Letter No.23.01.901.043.03.01.079.01.10.02.20 dated 10 February 2020 (Not to all).

1. Please be informed that, standardization of suitable models of Ambulance (BLS), for adoption in Bangladesh Army FY 2019-2020 is under process. In this regard, you are requested to provide Brouchure/Catalogue, parts catalogue, spare parts price list, operational manual and workshop/repair manual in original to support the information supplied in the General technical specification for the standardization model of Ambulance (BLS). Information on original brochure/catalogue to be highlighted and be marked as per serial number in attached general technical specification and submit directly to **Army Headquarters, Quarter Master General Branch, Supply and Transport Directorate, Dhaka Cantonment 31 March 2020** with an intimation to this office. Offered models should be compatible with specification attached as Annex A to this letter.
2. Forwarded for your information and necessary action please.

  
MD GOLAM RABBANI  
Lieutenant Colonel  
For Director General

Enclosure:

1. Annex – A -09 (Nine ) Pages only.

Distribution:

External:

Action:

(All Concerned Supplier/Firm)

Info:

Army Headquarters, General Staff Branch, Weapon Equipment and Statistic Directorate  
Army Headquarters, Quarter Master General Branch, Supply and Transport Directorate  
Army Headquarters, Master General of the Ordnance Branch, Ordnance Directorate  
Army Headquarters, Master General of the Ordnance Branch,  
Electrical and Mechanical Engineers Directorate  
Army Headquarters, Master General of the Ordnance Branch  
Inspection and Technical Development Directorate  
Inspectorate of Vehicle & Engineering Equipment, Dhaka Cantonment

Internal:

IT Section-(For sending to enlisted Supplier/Firm with DGDP through e-mail). Also publish in web site.

Notice Board

FOR OFFICIAL USE ONLY

**TECHNICAL SPECIFICATION - BASIC LIFE SUPPORT (BLS) AMB**

Ser	Description of New Tech Spec	Reqd Tech Specs	To be filled up by the manufacturer
1.	Name and address of firm	To be mentioned	
2.	Name and address of Manufacturer	To be mentioned	
3.	Name and address of principal	To be mentioned	
4.	a. Make & type	To be mentioned	
	b. Model	To be mentioned	
5.	Country of origin	Asia/South Asian countries like Indonesia, Thailand, Japan etc.	
6.	Country of Manufacturer		
7.	Country of Assembly and interior decoration		
8.	Drive	RHD	
9.	Configuration	4x4 WD	
10.	<b>Dimension</b>		
	a. Overall length	(4500-6000+2%) mm	
	b. Overall width	To be mentioned	
	c. Overall height	To be mentioned	
11.	Wheel base	To be mentioned	
12.	<b>Dimension Patient Cabin</b>		
	a. Overall length	2500 mm (min)	
	b. Overall width	1500 mm (min)	
	c. Overall height	1600 mm (min)	
13.	<b>Tread</b>		
	a. Front	To be mentioned	
	b. Rear	To be mentioned	
14.	Min ground clearance	225 mm (min)	
15.	Angle of approach	20° (min)	
16.	Angle of departure	20° (min)	
17.	Fording depth (mm)	450 mm (min)	
18.	Cruising range	500 km (min)	
19.	Gradeability (%)	To be mentioned	
20.	Min Turning radius	To be mentioned	
21.	<b>Seating Capacity</b>		
	a. Front	2 persons including driver (min)	
	b. Rear	2 person (min)	
22.	<b>Weight:</b>		
	a. Kerb weight	To be mentioned	
	b. Pay load	To be mentioned	
	c. GVW	To be mentioned	
23.	<b>Performance:</b>		
	a. Max speed	To be mentioned	
	b. Fuel consumption per liter.	To be mentioned	
24.	<b>Engine:</b>		
	a. Make & Model	To be mentioned	
	b. Type	Diesel Engine	
	c. Country of origin	Asia/South Asian countries like Indonesia, Thailand, Japan etc.	
	d. Manufacturing country (Made in)		
	e. Country of Assembly		



RESTRICTED

Ser	Description of New Tech Spec	Reqd Tech Specs	To be filled up by the manufacturer
24	f. No of cylinder	4 cylinder (min)	
	g. Bore & stroke	To be mentioned	
	h. Piston displacement	(i) 2100cc (min)	
		(ii) Provision of running all the electro med eqpt at a time in static position /engine switch off position to be mentioned with time duration of function ability.	
		(iii) Provision of running the AC in driver cabin & patient cabin in static position /engine switch off position to be mentioned with time duration of function ability.	
	j. Compression ratio	To be mentioned	
	k. Horse power (HP)	HP 120 (min) at rated RPM	
	l. Max Torque (Min)	280 Nm (min) at rated rpm	
	m. Engine Test Bench Certificate & report	Engine Test Bench Report which was prepared by manufacturer during production engine at manufacturing factory must be produced and submitted to the PSI team for each model. Other engines (mentioning engine number) of the same model must be certified confirming the engine Test Bench Report by the manufacturer (duly signed and stamped).	
25.	<b>Transfer Care</b>		
	a. Make & Model	To be mentioned	
	b. Country of origin	<b>Asia/South Asian countries like Indonesia, Thailand, Japan etc.</b>	
	c. Country of Assembly		
	d. Country of Manufacturer		
26.	<b>Fuel System:</b>		
	a. Type of Fuel injection pump (Indirect/ Direct)	To be mentioned	
	b. Fuel Tank Capacity	70L (min)	
27.	Cooling System	Liquid cooled.	
28.	<b>Chassis Frame</b>		
	a. Type	To be mentioned	
	b. Dimension	To be mentioned	
	c. Country of origin	<b>Asia/South Asian countries like Indonesia, Thailand, Japan etc.</b>	
	d. Country of Assembly		
	e. Country of Manufacturer		
29.	<b>Lubrication System:</b>		
	a. Type	To be mentioned.	
	b. Oil pump type	To be mentioned.	
	c. Oil filter type	To be mentioned.	
	d. Oil capacity	To be mentioned	
30.	Type of Clutch	To be mentioned	
31.	<b>Transmission :</b>		
	a. Country of origin	<b>Asia/South Asian countries like Indonesia, Thailand, Japan etc.</b>	
	b. Country of Assembly		
	c. Country of Manufacturer		

RESTRICTED

	d. Model	To be mentioned	
	e. Type	To be mentioned	
	f. Operation	To be mentioned	
32.	<b>Type of Differential</b>	To be mentioned	
33.	<b>Front Axle:</b>		
	a. Type	To be mentioned	
	b. Capacity	To be mentioned	
	c. Country of origin	Asia/South Asian countries like Indonesia, Thailand, Japan etc.	
	d. Country of Assembly		
	e. Country of Manufacturer		
34.	<b>Rear Axle:</b>		
	a. Type	To be mentioned	
	b. Capacity	To be mentioned	
	c. Country of origin	Asia/South Asian countries like Indonesia, Thailand, Japan etc.	
	d. Country of Assembly		
	e. Country of Manufacturer		
35.	<b>Suspension :</b>		
	a. Front	To be mentioned	
	b. Rear	To be mentioned	
36.	Type of steering	Power Assisted	
37.	Service Brake	To be mentioned	
38.	Emergency Brake	To be mentioned	
39.	Parking brake	To be mentioned	
40.	<b>Wheels &amp; Tyres:</b>		
	a. Wheel size / type	To be mentioned	
	b. Tyre size (Front, rear & spare).	To be mentioned	
	c. Tyre type	Radial	
	d. Tyre Brand	Bridgestone/Dunlop/Goodyear/Yokohama/Mic helin/Uniroyal/Continental/Folda/ Armstrong / Firestone / Toyo/ AMTEL/Pirelli./original of manufacture country/South Korea/Kumhoo	
	e. Tyre Manufacturer country	Brazil /EU Counties/Indonesia/ Japan/Philippines/Russia/South Korea/Singapore/Thailand/USA/ Malaysia/ original of manufacture country	
	f. Tread Pattern	ND, GG, CC	
41.	<b>Electrical System:</b>	To be mentioned (Must be capable of operating military version Radio set as mentioned in paragraph 41h & all medical equipment incorporated in the ambulance)	
	a. Battery (Volt & AH)	To be mentioned	
	b. Alternator (Volt & Amp)	To be mentioned	
	c. Starter (Volt & kw)	To be mentioned	



Ser	Description of New Tech Spec	Reqd Tech Specs	To be filled up by the manufacturer
42.	<b>Following Accessories to be Provided with Each Veh</b>		
	a. All lights including head light, Tail, Stop, Hazard, Reverse, Parking brake, Indicator, Inside roof light, Fog light etc in veh, (Latest standard)	To be provided	
	b. All gauges/meters and indicators such as Dimmer warning light, Hazard, Battery condition indicator, Amp meter, Cooling, Fuel gauge, Lubrication, indicator etc in dashboard (Latest standard)	To be provided	
	c. 01 set spare wheel (complete with fitting attachment)	To be provided	
	d. 02 x Sunvisors with fitting brackets	To be provided	
	e. 01 x Inside rear view mirror	To be provided	
	f. 02 x Outside rear view mirror	To be provided	
	g. 01 x AM/FM Radio set with speaker CD/DVD (if aval)	To be provided	
	h. Mil Version VHF Radios (Veh & Base Version)-50 W or RF 1350 Mesit Defence, Czech Republic or RF 2350 Mesit , Defence, Czech Republic or TRC 9310, Thales, France or VRC 9612, Asselsan, Turkey	Make and Model, Country of Origin, Manufacturer, assembly, frequency range, no of channel, channel spacing, output power, communication range and after details to be mentioned.	
	j. 01 x Digital quartz clock at dashboard	To be provided	
	k. Side protecting moulding (if available).	To be provided	
	l. Cool box (for soft drink/water)	To be provided	
	m. Tachometer at dash board (if available)	To be provided	
	n. Quality fabric seat.	To be provided	
	p. 01 set x floor mat	To be provided	
	q. Tinted laminated windshield.	To be provided	
	r. Boost ventilator with central fresh & cool air circulation & hot air circulation	To be provided	
	s. 01 x Steering wheel cover	To be provided	
	t. All door lock must be provided.	To be provided	
	u. Driver seat: Front and rear adjustable with full tilting system with back rest.	To be provided	
	v. Attendant seat (folding type, 1 person).	To be provided	
	w. Seat belt for driver & 2nd seater (ELR 3 point).	To be provided	
	x. Globe box in dash board and large side pocket in the driver's door for	To be provided	
	y. Intermittent windshield wiper 2 x front.	To be provided	
	z. Rear Intermittent windshield Wiper With rear defogger.	To be provided	

RESTRICTED

Ser	Description of New Tech Spec	Reqr Tech Specs	To be filled up by the manufacturer
	aa. Fire extinguisher: 01 kg ABC & E type (which is capable of extinguishing ABC & E type fire) complete with chemical and fitted with brackets near driver seat.	To be provided	
	bb. Inspection lamp complete with 10 meter cable, plug & socket in the veh	To be provided	
	cc. Mudguard with mud flap for all wheel	To be provided	
	dd. Front and rear door foot step	To be provided	
	ee. 02x Towing hook/Towing eye at front.	To be provided	
	ff. 02 x Fog lamp at front.	To be provided	
	gg. CD/DVD (if aval)	To be provided	
	hh. Beacon lamp (Blue/Red).	To be provided	
	jj. Motor siren (5 inch)	To be provided	
	kk. Electric Exhaust ventilation	To be provided	
	ll. Room lamp.	To be provided	
	mm. Fixed type Intravenous feeding hook.	To be provided	
	nn. Rear view camera in built	To be provided	
43.	<b><u>Patient Compartment</u></b>		
	a. Cabin	(1) Cabin Conversion- Complete interior paneling of the sidewalls, both side of the partition wall between patient cabin and driver cabin, roof (of both patient and driver cabin) & back door panels should made from polymethy Methacrylate-Acrylonitrile Butadiene styrene (PMMA ABS) Sheets. (2) The complete interior should be edgeless and suitable for easy cleaning/scientific fumigation/ treatment of disinfectants. (3) Partition wall between patient & driver cabin with sliding glass window having lock.	
	b. Flooring	(1) The flooring should be made up of min 12mm thick marine grade ply, rigidly bolted the steel base plate of the base vehicle construction (2) The floor should be properly cured to ensure the right strength and finish. (3) The floor must withstand a distributed load of minimum 150kg/m <sup>2</sup>	
	c. Folding Seats for patient	(1) A folding/ detachable seat in the patient cabin which can also be used as a patient bed. (2) Belt for patient safety to be attached with it.	
	d. Attendant Seats	There should be two attendant seats for the attendants on the co-driver side in the patient cabin.	



Ser	Description of New Tech Spec	Reqr Tech Specs	To be filled up by the manufacturer
	e. Internal Storage Compartment	(1) All the internal storage compartments, surfaces and space provisions should be made to accommodate / fix the various medical lifesaving medical devices, trauma equipment for transportation and immobilization, medical glassware, medical disposables and consumables, fresh and dirty linens, infusion bottles, drugs, accessories, wastes, documents, records, files etc (2) All storage compartments should be aesthetically and ergonomically well designed. (3) Storage compartments should be divided into various sections according to the different varieties of the medical items to be stored in it.	
	f. AC System	(1) The patient compartment must be provide with an engine drive air conditioning system of adequate capacity matching to the total load of the patient compartment when fully occupied and the patient loaded. (2) The compressor should be engine mounted and engine run. (3) Both the patient compartment as well as the driver cabin should be air conditioned. (4) Country of origin. (5) Country of Assembly. (6) Country of Manufacturer.	
	g. Electrical	(1) There must be adequate internal and external light matching to the requirements of an ambulance for the various purposes. (2) There must be standard AC electrical sockets inside the patient compartment for connecting AC operated electrical gadgets. (3) There must be emergency light bar cum siren and speaker system on the top at the front.	
44.	<b>Following electro medical equipment to be provided with each vehicle:</b>		
	a. Mechanical respirator	(1) Stationary and portable usage with O2 cylinder. (2) Adult, child and infant usage facilities. (3) CMV, SIMV, PSV, CPAP operational mode. (4) Pressure and battery alarm. (5) 6-8 hours capacity rechargeable (6) Country of origin. (7) Country of Assembly. (8) Country of Manufacturer.	
	b. Automatic external defibrillator	(1) External, biphasic current controlled pulse. (2) 5-360 Joules energy selection in manual mode. (3) Adjustable alarm limit. (4) 6 leads derivation/6 channel ECG. (5) Usage with memory card and ECG Paper. (6) Ni-Cd battery-6-12 hours monitoring facility. (7) Analysis time-6-12 seconds. (8) Monitor shows operational period, ECG curves, heart rate, identified VT/VF and performed defibrillation. (9) Country of origin. (10) Country of Assembly (11) Country of Manufacturer.	

## RESTRICTED

Ser	Description of New Tech Spec	Reqd Tech Specs	To be filled up by the manufacturer
c.	Min transport monitor	(1) NIBP, HR, SPO2, RR, ECG (2) High and low reading alarm. (3) 6-8 hour capacity rechargeable battery. (4) ECG printing capacity.	
		(5) Country of origin. (6) Country of Assembly. (7) Country of Manufacturer.	
d.	Oxygen Resuscitator /Supply System (Automatic valve type)	The facility to be provided for one nos of 6.8M3 gas capacity (44 L water capacity), high pressure oxygen cylinders manufactured as per BIS / CIS/JIS certified to be approved by the explosive department of Bangladesh Government. Test pressure 250 bar and filling pressure 150 bar.	
		(1) Country of origin. (2) Country of Assembly. (3) Country of Manufacturer.	
e.	Oxygen Flow-meter	(1) The oxygen flow-meter should be fully compatible to the oxygen terminal outlets. These must be direct mounted and operated by oxygen supply inside the ambulance. (2) The flow tube should be calibrated in the range of 0 to 15 liters per minute.	
f.	"Oxygen resuscitator Box " to be portable detachable and to be fixed with right wall of Ambulance car	(1) To be portable detachable and can be fixed with wall of Amb car. (2). Portable oxygen resuscitator set to be given in box that can be stored in the storage box of the Ambulance. (3) Other accessories to make the oxygen resuscitator functional operating set to be provided.	
g.	Airways Nasopharyngeal, Oropharyngeal (adult, child and infant sizes)	(1) Country of origin. (2) Country of Assembly. (3) Country of Manufacturer.	
h.	Blood pressure manometer, cuff and stethoscope (Pediatric and adult type).	To be provided	
j.	Sucker machine to be vehicle battery operated	Sucker machine to be vehicle battery operated	
k.	Pulse Oxymeter (Portable battery operator)	To be provided	
l.	Scoop stretcher	To be provided as per fol: (1) The stretcher should be designed allowing coupling and uncoupling of any of the ends and gently scoop up the patient using the two scoops of the stretcher. (2) The stretcher should be telescopic to accommodate the tallest patient and should be folded for compact storage. (3) The frame should be made of high quality anodized aluminum and blades should be made up of extruded aluminum (4) The scooping blades should be fixed with aluminum frame by interposition of alloy fusions.	



Ser	Description of New Tech Spec	Reqd Tech Specs	To be filled up by the manufacturer
	m. Roll-in Patient Stretcher cum Trolley. They should be rail on floor for fitting sub-stretcher.	To be provided	
	n. Wheel Chair.	To be provided	
	p. Medicine box	To be provided	
	q. Universal Head Immobilizer.	The universal head immobilizer must ensure optimum head immobilization to trauma patients.	
	r. Splint various size with Splint multipurpose		
	(1) Pneumatic Splints	To be provided	
	(2) Spine Board	The immobilizer must have integrated universal belts for fixation thereby allowing transportation of patients in critical conditions during long and uncomfortable journeys as well.	
	s. First aid kit bag	To be provided	
	t. Emergency Kit box	To be provided	
45.	<b>Following Ambulance Rescue Equipment to be Provided</b>		
	a. Hammer, one four pound with 15 inch handle.	To be provided	
	b. One axe	To be provided	
	c. Wrecking Bar	To be provided	
	d. Crowbar with pinch point.	To be provided	
46.	<b>Following Tools to be Provided with Each Vehicle :</b>		
	a. 01 x Hydraulic Jack Manufacturer standard assembly with handle mentioning capacity.	To be provided	
	b. 01 x Wheel wrench with handle.	To be provided	
	c. 01 x Adjustable wrench 200 mm	To be provided	
	d. 01 x Plier	To be provided	
	e. 01 x Screw driver (+ -) with handle	To be provided	
	f. 02 x Double ended spanner	To be provided	
	g. 02 x Stopper wheel	To be provided	
	h. Grease gun with replaceable tip	To be provided	
	j. 01 x Tool bag for above tools.	To be provided	
47.	<b>Colour</b>	As per inventor's requirement.	
48.	<b>POL Information:</b> The following information must be submitted with the offer. The vehicle should be suitable for use with the POL available in Bangladesh.		
	a. Detail maintenance schedule of vehicle & engine.	To be provided	
	b. Grade of diesel used in vehicle.	To be provided	

Ser	Description of New Tech Spec	Reqr Tech Specs	To be filled up by the manufacturer
	c. Grade of diesel to be used in Bangladesh (BD).	To be provided	
	d. Grade of engine oil used in vehicle.	To be provided	
	e. Grade of engine oil to be used in Bangladesh (BD).	To be provided	
	f. Grade of gear oil used in vehicle.	To be provided	
	g. Grade of gear oil to be used in Bangladesh (BD).	To be provided	
49.	<b>Production Date :</b> To be manufactured not before the year of contract. Production date must be mentioned on the vehicle identification (ID) plate by the manufacturer/ assembler or certificate of production from the manufacturer must be provided.	To be mentioned	
50.	Design, Drawing with dimensions of vehicle and details specs of vehicle in manufacturers brochures.	To be provided	
51.	Special Service Tools (SST)	List to be provided	
52.	Special Service Material (SSM)	List to be provided	
53.	List of fast and slow moving spares	List to be provided	
54.	<b>Publications :</b> a. Driver's /Owner's manual in English complete book type b. Updated workshop/ repair manual in English complete book type c. Complete & updated master spare parts catalogue in English complete book type d. Latest & complete & updated master spare parts price list in English complete book type	To be provided as per reqr of EME Dte	
55.	All Electro Medical Eqpt should maintain CE US-FDA / Equivalent standard	Supplier cert to be provided in this regard	
56.	Ambulance should maintain EN - 1789 / Equivalent standard	Supplier cert to be provided in this regard	
57.	Trg Reqr	User. Repair & maintenance spare parts mgt.	