

## 2. Technical Specifications

The purpose of the Technical Specifications (TS), is to define the technical characteristics of the Goods and Related Services required by the Purchaser. Bidders failure to provide the information requested in the columns 4,5 and 6 may be a reason for the rejection of bid.

### Technical Specifications for Mini Excavator

Item	Description	Minimum specification required	Bidders Response		Remarks
			Mark(√) where necessary		
	Numbers of Units		Yes	No	
(1)	(2)	(3)	(4)	(5)	(6)
1	<b>General</b>				
2	Make / Brand	Please Specify			
3	Model	Please Specify			
4	Country of Origin	Please Specify			
5	Country of Manufacture	Please Specify			
6	Year of Manufacture	Please Specify			
7	The Machine	Manufacturer's current standard model and should brand new condition			
8	Relevant Tags	Fixed to the equipment at the factory prior to the shipment			
9	Operators Compartments	Operator Compartment should be cab type. Fully enclosed factory fitted A/C, All weather steel with lockable doors, Hammer for emergency exit, coat hook, cabin light, Audio system, Safety glasses; Operable windows, Wiper and Glass washer, instrument panel, etc. shall be provided. (ROPS if available)			
10	First aid kit	Required			
11	Fire extinguishers	Required			
12	The Machine	No Need to require machine to fixed on barge			
13	Material	Should be constructed of corrosion resisted materials or treated against corrosion (Machine will be deployed in saline water and marshy areas)			
14	Spare parts manual-Original copy (Printed hard copy)	Required-Free of charge			

**Section V. Schedule of Requirements**

Amended Pages

15	Operation and maintenance manual-Original copy (Printed hard copy)	Required-Free of charge			
16	Workshop manual-Original copy (Printed hard copy)	Required-Free of charge			
17	Other manuals/relevant documents-Original copy	Please specify			
18	All manuals -Language	English			
19	All standard tools, including grease gun, day to day maintenance tool kit with lockable tool box (Original)	Required-Free of charge			
20	Manufacturer's recommended price list of spare parts for the first 2000hrs operation after the warranty period.	Required			
21	Manufacturer's literature for the excavator	Required			
22	At least 10 units of Grab Excavator sold during the past 02 years	Attach proofs -Please Specify			
23	Warranty	Comprehensive one(01) year or Other-Please specify			
24	Other conditions for warranty	Please Specify			
25	Provide a guarantee for availability of spare parts for machine	For the next 15 years.			
26	Bidder shall have in selling/Repairing/Service the offered make / brand in Sri Lanka	More than 5 years of experience			
27	Operator training for the machines	Required-Free of charge			
28	Arranging local transportation, assembling, commissioning, Stability test on barge etc. & handing over the unit	Required-Free of charge			
29	<b>Excavator &amp; Grab</b>				
30	Excavator	Crawler mounted			
31	Excavator	Fully hydraulics			

**Section V. Schedule of Requirements**

Amended Pages

32	Backhoe Bucket	Should be able to use as a Backhoe Bucket Capacity around 0.10m <sup>3</sup> -Please specify			
33	Extra Grab Bucket	Should be able to grab Floating debris without collecting water			
34	Dozer blade size	Please Specify			
35	Dozer blade angle movements left/right/up/down	Please Specify			
36	Engine	water cooled, direct injection, diesel engine			
37	Piston displacement	Min. 1.5 liters or above -Please Specify			
38	Air filtration system/Type	Please Specify			
39	Starting battery voltage	12V or 24V			
40	Main pump type	Please Specify			
41	servo pump type	Please Specify			
42	Energy conservation modes	Please Specify	-	-	Removed
43	Rated output	Min. 17Kw or above at the rated rpm			
44	All controls	Positioned in the operators compartment-Others please specify			
45	Brakes/Parking brakes	Air or hydraulically operated-Please specify			
46	Weight of the Excavator	Please Specify			
47	Counter weight	Please Specify			
48	Maximum ground contact pressure	Max. 32 KPa or less -Please Specify			
51	Safety device	Should be available for in case of air or hydraulics failure			
52	Digging reach on ground level	Min. 4900 mm or above-Please Specify			
53	Digging depth	Min. 3000 mm or above- Please Specify			
54	Digging height	Min. 4500 mm or above-Please Specify			
55	Dumping height	Min. 3000 mm or above-Please Specify			
56	When use as a crane	Capable of lifting Min. 1.0 ton or above at 2 m radius at ground level			
57	Width of under carriage	Under carriage Width 1750mm or less			
58	Transport length	Please Specify			
59	Transport height	Please Specify			
60	Ground clearance	Please Specify			
61	Track height	Please Specify			
62	Sprocket idler center distance	Please Specify			

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Amended Pages

63	Tracks	Steel Type tracks are Required			
64	Undercarriage guards	Required			
65	Hydraulic system working pressure	Please Specify			
66	Swing radius-Front	Min. 2000 mm or above -Please Specify			
67	Full circle swing	360 degrees			
68	Swing speed	Around 8 rpm -Please Specify			
69	Swing bracket material	Please specify			
70	Gradeability	Min. 50% or above -Please specify			
71	Travel speed in high/low condition	High-Min. 4.0 Kmph or above and low-2.0Kmph or above -Please specify			
72	Bucket digging force	Min. 25 KN or above -Please specify			
73	Arm Crowding force	Min. 20 KN or above -Please specify			
74	Protective device	Operator Cabin and Engine compartment should be lockable			
75	The upper boom	Capable of being fitted with a grab bucket and backhoe without using special attachments			
76	Fuel tank capacity	Above 40 liters -Please specify			
77	Fuel consumption at rated condition	Please specify			
78	Hydraulic tank capacity	Please specify			
79	Overall length x width x height	Please specify			
80	Adequate lighting/work lights	Should be provided for operating the machine in the night.			
81	Gauge/Meters/Alarm Devices necessary for efficient and safety operation.	Required			
82	Gauge/Meter for coolant temperature	Required			
83	Gauge/Meter for battery charging	Required			
84	Gauge/Meter for Fuel level	Required			
85	Gauge/Meter for hydraulic pressure	Required	-	-	Removed
86	Hour meter	Required			

I hereby certify to comply with all the above Technical Specifications.

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 Authorized Signature  
 Name of the company  
 Date