

**Major Product Category : Marine Transport - UNSPSC Code 2511**

**Sub Category : Safety & rescue water craft- UNSPSC Code 251116**

**FRP Rigid Inflatable Boat With OBM 4.7 m (Rescue ships or boats ) : UNSPSC Code - 25111603 - 04**

S.No.	Parameters		Value 1	Value2	Value 3	Value 4	Validation	Whether Filter Required	Units	
<b>Generic</b>										
1	Nomenclature of Rigid Inflatable Boat	Ch	4.7 meter RIB with 40 HP OBM Normal Capacity 2 crew + 6 Men						G	
2	Functions performed	Ch	The Rigid inflatable boat shall perform the following tasks :- (a) Search & Rescue during floods (b) Transport men and material						G	
3	Conformity to Standards As per ISO 6185-3	Ch	Yes, for 4.7 M Rigid Inflated Boat (RIB)						M	
4	Conformity to Standards for Boat Hull Design Accordance with IRS Classification Society Rules and Norms issued	Ch	Yes						M	
<b>Constructional</b>										
1	Overall length of Rigid Inflated Boat		4.7 ± 0.05						M	meter
2	Beam(Extreme) including collar		2.1 ± 0.03						M	meter
3	Hull Beam Overall (excluding collar)		1.56 ± 0.02						M	metre
4	Maximum Draught including appendages		0.35 m for Hull and 0.45 m at OBM						M	meters
5	Weight of Boat suitable for 8 persons , Max	N					900 ≤ N ≤ 1500		M	kg
6	Total Inflatable Chambers	N					≥ 5		M	
7	Diameter of Collar tube , Min	N					≥ 480		M	mm
8	Hull Construction Material as per IRS Class Approved		Rigid fibre glass Hull with foam filled buoyancy compartments to give positive buoyancy even in the event of complete deflation material used as approved by IRS.						M	
9	Deck material		GRP coated marine plywood with non slip finish,Marine Plywood,Fastners made of Stainless or Brass						M	

10	Collar Type		Heavy duty Inflatable Collar made with Hypalone as per ISO 15372. The collar shall be attached to the hull using Primary and secondary securing arrangement. The primary arrangement should ensure rigid connection of the inflatable collar to the hull and ensure water tightness between the collar and hull. However the arrangement should be such that the collar can be disconnected when required for necessary repairs. Secondary arrangement of securing collar to the boat should be of suitable number of polyester webbing reinforced straps on to the hull.		M	
11	Textile Support in Collar		Made of 10 X 10 count High Density Polyester Decitex Yarn		M	
12	Coating in Collar		Inside with Polychloroprene, Outside with Hypalon		M	
13	Weight of Collar Tube Composite		1500		M	g/m <sup>2</sup>
14	Collar Chambers		5 separate chambers		M	
15	Collar Fittings				M	
16	Seat		One piece straddle seat with console made of GRP for Two persons with storage space for Battery.The Upholestered seatis hinged giving access to the Locker below,and hasp for locking		M	
17	Console		A watertight control console for the operation of coxswain shall be mounted on the centre line. All OBM controls, navigation and common instruments shall be mounted on the console. Equiped withSteering Wheel and Remote single lever controls,and to accommodate additional equipments as per buyers choice. A locker space shall be provided under the console with weatherproof inspection hatches. A navigational compass of reputed make shall be fitted on top of the console in a suitable position for the coxswain use. Additionally, a watertight 'Battery Compartment' shall be made, if batteries cannot be housed inside command console.		M	
18	Grab Handle made of Stainless Steel infront of console and behind the seat		yes		M	
19	Inflatable Mechanism of Collar	Ch	Foot Pump as well as Electric Pump (12 V DC)		M	

20	The Air Tuber ( Chambers) , must made from Hyplon with 1670 Denier	Ch	Yes					M	
21	The Fabric must be as per ISO-15732	Ch	Yes					M	
22	Plastic Coated Transom to form waterproof Cocoon as per ISO 6185-3	Ch	Yes					M	
23	Overlapping of seam of Boat	Ch	Quadruple					M	
24	5/8" Grab line for safety	Ch	Yes					M	
25	Weight of Boat	N	Not more than 550 Kgs					M	kg
26	Type of Air Valve		One way Type Confirming to International Standards like C7 or equivalent					M	
27	Make of OutBoard Motor Engine (OBM), OBM manufacturer should have established product support throughout India	Ch	Mercury	Honda	Yamaha	Suzuki		G F	
			Mariner	Tohatsu	Evinrude				
28	OBM Fuel Tank Capacity(As per endurance + 25 % reserve)							TBD	Liters
29	OBM Fuel Type		Petrol					M	
30	No of Strokes	N	2	4				F	
31	No of Cylinders		2	3	4			G	
32	Power HP	Ch	40					M	HP
33	Engine Starting	Ch	Remote & manual Starting		Electric Start with dual Redundancy starting system with cross connection			F	
34	Engine Stopping		Deadman switch		Fuel Supply Shut Off Valve			M	
35	Fuel System	Ch	MPFI	Carburator		EFI		G	
36	Engine Cooling System	Ch	Watercooled with Thermostat					M	
37	Engine Lubrication	Ch	Wet Sump with Pressure		Premix			M	
38	Through Prop Hub Exhaust		yes					M	

39	Trim System	Ch	Power trim Type from coxwain position		F	
40	Engine OBS	Ch	<p>1 Engine oil filter - 03 nos.  2 Fuel Filter - 06 nos.  3 Air Filter - 02 nos.  4 Fuel line with priming valve and connectors – 01 no.  5 Propeller - 01 No.  6 Spark plug - 03 nos.  7 Spark plug wrench -01 no.  8 Water pump repair kit – 01 set  9 Water pump impeller – 01 no.  10 Gear oil drawn screw washer – 06 nos.  11 Lubrication oil drain plug washer – 02 nos. 13  Throttle &amp; Gear shift cable – 01 set  12 Fuses of all system complete - 02 set 1.13 Throttle &amp; Gear shift cable – 01 set  14 Steering Cable – 01 set  15 Automatic Voltage Regulator (AVR)- 01 no.  16 Fuel water separator – 01 no.</p>		Must declare	
41	Fuel System		<p>The engine shall draw fuel from fixed fuel tank of sufficient capacity to meet the endurance requirements specified in this specification.</p> <p>The fuel tank shall be constructed of Stainless Steel (AISI 316) and of the size to meet the specified endurance. The tank shall be fitted beneath the deck. The tank shall be provided with cover plate for cleaning. A calibrated dipstick shall also be provided which shall be stowed on top of this tank. Fuel water separator to be provided between fuel tank &amp; OBM.</p>		Must declare	
42	Type of Steering System	Ch	The steering shall be from the helmsman position actuated by rim type wheel mounted at 45 degree to the vertical and transmitted by OEM supplied system to OBM Unit at the transom. Arrangement for direct tiller control should also be provided.		M	
43	Type of Bilge System	Ch	A semi-rotary hand pump of 1000 litres per hour capacity shall be provided in the aft end. The pump shall be of reputed make capable of taking suction from the bilge sump aft.		M	
44	Length of Engine Shaft (To suit transom height)	N		$38 \leq N \leq 51$	M	cm
45	The Engine and drive line shall be fitted in enclosed housing to protect from water ingress	Ch	Yes		M	

46	Colour of the Boat	Ch	Orange	others			M	
47	2 paddle for Emergency Rowing	Ch	Yes				M	
48	Two Stainless Steel "D " Rings for Towing	Ch	Yes				M	
49	Standard tools (One set each) shall be provided in addition to special tools recommended by OEMs for OBM in a suitable portable aluminum tool box	Ch	(a) Open Spanner : 10X12, 13X17, 14X15, 19X22 (b) Socket : 13X12.5, 15X12.5, 17X12.5, 19 X12.5, 22 X12.5, 24 X12.5, 27 X12.5, (c) T Handle : (One in no.) (d) Extension for socket : 12.5 X12.5 (e) Screw Driver : A.0 8X5.5X1.25 (f) Feeder gauge : 0.2X0.45 (g) Box spanner : One set. (h) Torque spanners : One set.				M	
50	Power supply and charging system	Ch	Through 12V Sealed SMF batteries of Min. 100 AH to be provided to cater for total electrical load for three hours on board with battery charger				M	
51	Nos of batteries						TBD	nos
52	Battery charging socket of IP66 rating mounted on console for charging the batteries		yes					
53	Search Light fitted on boat as per LSA code compatible with the standard electrical supply available in the boat	Ch	yes				M	
54	IP Rating for all Electrical Fitting / Switches	Ch	IP66	IP67	IP68		G	
55	Electric Horn Fitted on Console	N	Yes				M	
56	The anchor shall be connected to 27 m long 16/20 mm dia nylon rope, stowed on special hinged horns	ch	Yes				M	
57	Four removable Rescue Patch of 20 x 40 cm made of retro reflecting tape	Ch	Yes				M	

58	Mast and Navigation Lights	Ch	Yes- A mast-head light and a combined sidelights for Port and starboard of relevant IP standards shall be mounted on a Goal Post Mast (SS 316) fitted at an appropriate location. A stern light shall be fitted as far aft as possible.		M	
59	Mandatory Fittment on Collar including Rubbing Stake of Vinyl/urethane/EPDM/Neoprene of 8 inch wide (203mm) with raised ribs. , D rings for life line ,Anti SKid Coating etc.as per standards	Ch	Yes		M	
60	Additional Fittment on Collar	Ch	2 paddle blade Pocket, 1 drought type Fair Lead SS 316, 2 rope Stowage pocket,4 securing Rings,1 bow Rings SS 316; 2 Fairleads/cleats near transom (stbd& port) SS 316; Twelve molded handholds shall be bonded to the upper surfaces of the collar. Etc.		M	
61	Additional Fittment OBS		(i) Inflation/ Deflation Valves - 5 Nos (ii) Pressure guage - 01 No (iii) Electric Inflation pump - 01 No (iv) Inflation Foot Pump (Reputed make) - 02 Nos (v) Patching material with adhesive to repair leak/damage in Patching material with adhesive- to repair damage/leak in buoyancy tube. - 01 no.		M	
62	Life saving Equipments in a wooden Box Carrying First Aid Kits , One Aldi's Lamp One Throwing Quoits with Buyont Line , Distress Signal Box	Ch	Yes		M	
63	Lifting Arrangement	Ch	The boat shall be fitted with suitable four point lifting arrangement. A four leg polyester webbing sling to be supplied along with the boat. The sling is to be shackled to these slinging points by bow screw shackles. The bolts of these shackles shall be moused to prevent them working loose. The sling shall have a safe working load of 1.5 tonnes. The sling is designed to place the RIB horizontally in the water. The builder should provide load test certificate for the sling set to twice the Safe Working Load.		M	
64	Strong Points for towing , Anchoring, mooring as per ISO15084	Ch	Yes		M	

65	Cradle	Ch	Yes- one PERSONNEL RETRIEVAL SYSTEM & One Cradle of suitable size for the stowage of boat to be supplied		M	
66	Availability of Drawing as per Indian Register Shipping(IRS)	Ch	Yes		M	
67	Instruction Manual cum boat hand book & OBM service manual alongwith part catalogue	Ch	Yes		M	
68	Product support	Ch	All the major equipment and machinery fitted onboard should have indigenous product support ability by the OEM or its authorized reps for a minimum period of 12 years from the date of supply of the boat. The certificate of the same from the OEM shall be attached.		M	
69	No. of Life jackets	N		>=8	M	
70	No. of Life Buoys	N		>=2	M	
<b>Equipments and accessories</b>						
1	ANCHOR, CQR,9 KG Positioned at foredeck chock with 27 m of Anchor Rope & Shackle with stowage			1	M	
2	Paddles Positioned on the tube sides			2	M	
3	Boat Hook positioned under side deck			1	M	
4	Mooring Warps positioned at pockets on tube			2	M	
5	Hand Bilge Pump 1000 lts/hr capacity			1	M	
6	Foot Pump			1	M	
7	OBM protective plate positioned on transom			1	M	
8	Tool Kit For Engine			1	M	
9	Fitments of Towing Eye at Through stem			1	M	
10	Fitment of Mooring Post / cleat at Fordeck			1	M	
11	Fitment of Mooring / Towing/Slinge Cleats at Transom			2	M	
12	Fitment of Fairleads/Cleats at Transom			2	M	
13	Fitment of Drainage ports at Transom			2	M	

14	Fitment of anchor Chocks at Foredeck		1		M	
15	Fitment of Identification Plates at Consol		1		M	
16	Fitment of sheet grab rail on console sheet		1		M	
17	Fitment of grab handle at front of the console		1		M	
18	Fitment of Bollard at Bow Section		1		M	
19	Calibrated fuel tank dipstick		1		M	
20	Fuel filler cap with key		1		M	
21	Lifting eye plates		1set		M	
22	Four point lifting slings		1set		M	
23	Battery Charger		1		M	
24	Instrument panel spray cover – PVC/Celluloid		1		M	
25	Tallies		1 set		M	
26	Watertight plug and socket (NUC) and special Ops light		2		M	
27	Collar repair kit		1		M	
28	Portable search light		1		M	
29	Electric horn		1		M	
30	Maintenance free sealed batteries, 12V, 100AH		1		M	
31	Canvas cover for the boat		1		M	
32	FRP repair kit		1		M	
33	Life saving/ Rescue kits as mentioned		Yes		M	
34	Tools and Tool Box as mentioned		Yes		M	
35	Fittements of Wind screen Frame on console		1		M	



36	All Metal fittings shall be of SS 316 Grade		Yes					M	Must declare
<b>Performance</b>									
1	Normal Capacity		2 crew + 6 Men					G	
2	Minimum Speed lightship with 2 crew		15					G	Knots
3	Top Speed with 6 men & 2 Crew		Min. 6					G	Knots
4	Operating Sea State		2	3				G	
5	Boat must provide Suffucient Buoyncy that it does not sink and satisfactorly clear swamp test	Ch	Yes					M	
6	Economical Speed under Full Load Condiotion	N						M	Knot
7	Endurance at Top Speed and at full load condition	N					>=8	M	Hours
8	Operating Conditions	Ch	Suitable for Continuous Operation up to 50 deg cel, relative humidity of 95 % at 35 deg cel and roll of 25 deg cel and pitch of 8 degree					M	
9	Test & trials	Ch	Yes- A programme of tests and trials as per IRS Class requirements shall be prepared by the Builder. On satisfactory completion of the trials, detailed reports in bound copy shall be forwarded by the Builder to customer for every boat separately.					M	
<b>CERTIFICATION</b>									
1	Availability of approved Drwaing from IRS/ any other Govt of India (DG Shipping) approved agency	Ch	Yes					M	
2	Availability of Test Report including Environmental test as per ISO 6185-3 latest amndmt from IRS/ any other Govt of India (DG Shipping) approved agency to prove confirmity to specification	Ch	Yes					M	
3	Test Report No	Ch						M	
4	Test Report Date	Ch						M	
5	Name of the Lab	Ch						M	
6	Address of the Lab	Ch						M	
7	Warranty in Years	N	1	2	3	5		G	Years