

SHM SHIPCARE

16-A, Press building, Ground floor, 1st Magazine Cross street

Darukhana, Mazagaon, Mumbai 400010

TEST & TRIALS REPORT

YARD NO: 378

Boat Name: VYAS-4

6.2 MTRS FAST PATROL BOAT

OWNER : Cochin Shipyard Ltd.

MANUFACTURER : SHM SHIPCARE

CLASS : IRS

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PROTOTYPE / BASIN TRIALS

<u>WEIGHING TEST</u>					
6.2M FAST PATROL BOAT FOR BSF					
Builder	:	SHM SHIPCARE	Yard No.	:	378
Class	:	IRS	Revision No.	:	NIL
Owner	:	CSL	Document No.	:	6.2/FPB/378/04

1. Boat weighed at Yard premises on:10/12/2021
2. Boat was weighed using calibrated dynamometer. Same was verified and found satisfactory.
3. The Boat completed in all respects with compensating ballast weight added for crew, fuel and stores as per fully loaded conditions.
(Witnessed boat weight with Outfitting/Engine/Electricals = 1460 Kgs.)

a) Weight of fully completed Boat: **995 Kgs.**

b) Weight of compensating items required to be added onboard.

Items	Weights (Kgs.)
100% Fuel	156
Outfitting's/Engine/Elec./LSA, FFA/Stores & Spares etc.	565
Total	721

c) Crew 8 Person @ 75 Kgs = 600 Kgs

d) Weight of Fully Equipped Boat with 8 crew and 100% fuel =
(a+b+c) **: 2316 Kgs**

Date: 10/12/2021


SHM SHIPCARE



PROTOTYPE / BASIN TRIALS

LOWERING/HOISTING TRIALS					
6.2M FAST PATROL BOAT FOR BSF					
Builder	:	SHM SHIPCARE	Yard No.	:	378
Class	:	IRS	Revision No.	:	NIL
Owner	:	CSL	Document No.	:	6.2/FPB/378/05

Lowering / Hoisting Trials at the Yard carried out as per Lifting Arrangements of a completed Boat in all respects.

Performances of lifting arrangement are found satisfactory.

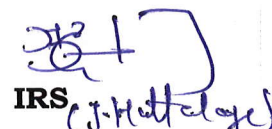
Location: SHM SHIPCARE Yard at Ghodbunder, Thane West.

Result: **Satisfactory**

Date: 10/12/2021


SHM SHIPCARE




IRS
10/12/2021



PROTOTYPE / BASIN TRIALS

<u>VISUAL INSPECTION</u>					
6.2M FAST PATROL BOAT FOR BSF					
Builder	:	SHM SHIPCARE	Yard No.	:	378
Class	:	IRS	Revision No.	:	NIL
Owner	:	CSL	Document No.	:	6.2/FPB/378/04A

REPORT OF INSPECTION OF PRINCIPAL DIMENSIONS OF YARD 378

A. The Dimensions of Yard 378 have been inspected and verified at SHM SHIPCARE Boat Yard as detail given below:

- | | | |
|-----------------------------------|---|-------------|
| 1. Length Overall (Including OBM) | = | 6.800 Mtrs. |
| 2. Length of Hull | = | 6.200 Mtrs. |
| 3. Breadth Hull | = | 2.400 Mtrs. |
| 4. Depth Hull | = | 1.050Mtrs. |

B. The dimensions of Boat as measured are within the limit of initial approval vide Dwg. No. SHM/343-378/001 dated 01-12-2020.

Note: The Dimensions of Yard 366 have been verified as per reference to the approved Dwg. No. SHM/343-378/001 dated 01-12-2020 during Minutes of Meetings between BSF, IRS, CSL and SHM Shipcare representatives at Cochin Shipyard Ltd. Kochi on 27 2020, Nov. 30 Nov 2020 & 01 Dec. 01 2020.

Date: 27/11/2021

AT: Ghodbunder, Thane West (Maharashtra)

SHM SHIPCARE



BASIN TRIALS

<u>MACHINERY/ ELECTRICAL ITEMS VERIFICATION</u>					
<u>6.2M FAST PATROL BOAT FOR BSF</u>					
Builder	:	SHM SHIPCARE	Yard No.	:	378
Class	:	IRS	Revision No.	:	NIL
Owner	:	CSL	Document No.	:	6.2/FPB/378/06

The Following Machineries Basin Trials to be completed prior to commencing of Sea Trials: -

	Machinery/ Equipment	Remarks
a	Main engines following to be verified. Main Switch Board/ Control Panel	Suzuki 115 HP TWIN OBM Model no. DF 115 AZX& ATX Sr. No. Port :11503Z-140066 Stbd:11503F-143050
b	Steering System: Hydraulic Steering	Satisfactory
c	Multi-Purpose Display of OBMs	Suzuki OEM Supply
d	Batteries	1. Sr. No.A4H1C004925 2. Sr. No.A1H1C004621
e	Fuel system: Analog gauges	Satisfactory
f	Bilge System	Satisfactory
	1. 60 LPM Hand Pump	Make: AAA
	2. 1000 GPH Electric Bilge Pump	Make: TMC 03304
	3.2000 GPH Electric Bilge Pump	Make: TMC 03607
g	Navigation Equipment 1. Side Light (P & S) 2. Anchor Light 3. Portable Search Light	Fitted & Verified found Satisfactory

Date: 03-12-2021

SHM SHIPCARE



IRS (J. Kuttalaye)
03/12/2021

SEA TRIALS

SPEED & PERFORMANCE TRIALS					
6.2M FAST PATROL BOAT FOR BSF					
Builder	:	SHM SHIPCARE	Yard No.	:	378
Class	:	IRS	Revision No.	:	NIL
Owner	:	CSL	Document No.	:	6.2/FPB/378/07

a. Speed Trials at 35 knots with TWO Persons onboard:

1.1 Date and time of commencement of Trials: 03/12/2021,

1.2 Persons attending the Trials.

Yard: Mr. Badri

IRS: Mr. Jagdish Hattalage (Surveyor)

1.3 Boat Condition: Light Load

Fuel: 100 Ltrs (Port tank), 100 Ltrs (Stbd tank)

Person on board: 2

1.4 Weather conditions: Calm

1.5 Location of Trial: Vasai Creek, Ghodbunder, Thane.

1.6 Draught: FWD: 0.25 Mtrs. AFT: 0.45 Mtrs.

Direction	Engine RPM		L.O. Press (Bar)		Water Temp. (Deg.C)		Speed (Knots)	Fuel Consumption	
	Port	Stbd	Port	Stbd	Port	Stbd		Port	Stbd
W	6000	6000	NA	NA	NA	NA	36	36	36
A	6000	6000	NA	NA	NA	NA	34	37	37
W	6000	6000	NA	NA	NA	NA	36	37	37
A	6000	6000	NA	NA	NA	NA	34	37	37

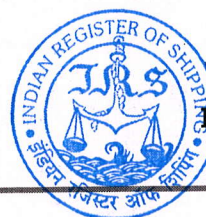
AVERAGE SPEED RECORDED BY GPS: 35 Knots

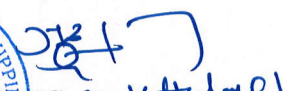
AVERAGE FUEL CONSUMPTION FOR BOTH OBM: 36.75 Liters/Hour
(Reading observed on console at the time of trial)

Performance of both outboard motors checked during Sea Trials and all parameters recorded during trials found satisfactory.

Date: 03/12/2021


SHM SHIPCARE




IRS (J. Hattalage)
03/12/2021

SEA TRIALS

SPEED & PERFORMANCE TRIALS					
6.2M FAST PATROL BOAT FOR BSF					
Builder	:	SHM SHIPCARE	Yard No.	:	378
Class	:	IRS	Revision No.	:	NIL
Owner	:	CSL	Document No.	:	6.2/FPB/378/07

b. Speed Trials at 29 knots with EIGHT Persons onboard:

- 1.1 Date and time of commencement of Trials: 03/12/2021
- 1.2 Persons attending the Trials.
Yard: Mr. Badri
IRS: Mr. Jagdish Hattalage (Surveyor)
- 1.3 Boat Condition: Full Load
Fuel: 100Ltrs. (Port tank), 100Ltrs. (Stbd tank).
Person on board: 8
- 1.4 Weather conditions: Calm
- 1.5 Location of Trial: Vasai Creek, Ghodbunder, Thane.
- 1.6 Draught: FWD: 0.25Mtrs. AFT: 0.50Mtrs.

Direction	Engine RPM		L.O. Press (Bar)		Water Temp. (Deg.C)		Speed (Knots)	Fuel Consumption	Fuel Consumption
	Port	Stbd	Port	Stbd	Port	Stbd		Port	Stbd
W	5000	5000	NA	NA	NA	NA	29.9	22	27
A	5600	5600	NA	NA	NA	NA	29.4	32	34
W	5000	5000	NA	NA	NA	NA	29.9	22	27
A	5600	5600	NA	NA	NA	NA	29.4	26	30

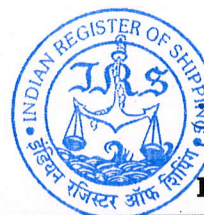
AVERAGE SPEED RECORDED BY GPS: 29.65 Knots

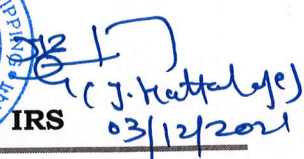
AVERAGE FUEL CONSUMPTION FOR BOTH OBM: 27.50 Liters/Hour

Performance of both outboard motors checked during Sea Trials and all parameters recorded during trials found satisfactory.

Date: 03/12/2021


SHM SHIPCARE




IRS
03/12/2021

SEA TRIALS

MANEUVERING TRIALS **6.2M FAST PATROL BOAT FOR BSF**

Builder	:	SHM SHIPCARE	Yard No.	:	378
Class	:	IRS	Revision No.	:	NIL
Owner	:	CSL	Document No.	:	6.2/FPB/378/09

Turning Circle Trials:

In a continuation of sea trials, the following trials to be carried out.

The boat shall be put over in a turning circle to Port and to Stbd to determine the turning circles trials under stable condition. The time require to complete the circle and the diameter of the turns (in boat length) to be recorded.

	Circle Time	Circle Diameter (Boat Length)	Speed
Hard Starboard	15 sec.	3 boat length	20.0 knots
Hard Port	14 sec.	3 boat length	20.0 knots

Crash Stop:

At normal cruising, the Boat is moved forward at a constant speed. During an emergency, the Boat must be stopped at the shortest possible time and distance so as to avoid a collision.

Following parameter recorded:

Boat Speed	20.0 knots
Wind Speed	5knots
Time from control movement until Boat start astern to stop	9 sec.
Distance Travelled	3 Boat length

Astern Trials:

Astern trial carried out at 1000 RPM running for 3minutes and found satisfactory

Result: Satisfactory

Date:03/12/2021


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