

दूरभाष: २३०६/ Tele: 2306

सम्मिश्र जांच दल/ Composite Trials Team
द्वारा नौसेना कार्यालय/ c/o Navy Office
मुख्यालय/ Headquarter
अन्डमान एवं निकोबार कमान/
Andaman & Nicobar Command
पोर्ट ब्लेयर ७४४१०२/ Port Blair 744 102

CTT/300/04/04/TECH

14 नवम्बर २३/ Nov 23

प्रधान सेनापति/ The Commander-in-Chief
{कृते कमान तकनीकी अधिकारी (समुद्री विद्युत)/ for CTO (ML)}
मुख्यालय/ Headquarters
अन्डमान एवं निकोबार कमान/ Andaman and Nicobar Command
द्वारा नौसेना कार्यालय/ c/o Navy Office
पोर्ट ब्लेयर ७४४ १०२/ Port Blair 744 102

END OF REFIT TRIALS OF FWD & AFT FUEL CENTRIFUGE
INS KARMUK (NR-23)

1. Refer to INS Karmuk Fax 343/3/3 dated 30 Oct 23.
2. **Background.** Performance checks, Capacity trials, Vibration and attenuation checks were undertaken on 02 Nov 23 as part of End of Refit trials. Detailed report placed at **Enclosure**.
3. **Performance Parameters.** The salient parameters are as follows: -

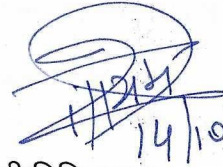
<u>Ser</u>	<u>Description</u>	<u>Unit</u>	<u>Design Value</u>	<u>Observed Value</u>	
				<u>Fwd</u>	<u>Aft</u>
(a)	Suction Pressure	Bar	-	0.5	0.5
(b)	Discharge Pressure	Bar	-	-	-
(c)	Starting Current	Amps	Up to 154	39	38
(d)	Running Current	Amps	22	17	18
(e)	Capacity	TPH	-	3	3

4. **Observations.**
 - (a) Following design parameters not available with SS/ Technical document:-
 - (i) Capacity
 - (ii) Suction pressure
 - (iii) Discharge pressure
 - (iv) Flow rate

- (b) Torque tightening values of mounts not presented.
- (c) SPM of both centrifuge motor drive end in yellow zone.
- (d) Fresh water pressure gauge of filling line not fitted in both FOCs.
- (e) Fwd Fuel Centrifuge suction valve spindle moving freely & not closing completely.
- (f) Aft Centrifuge suction valve wheel not fitted.
- (j) Fuel leakage from purging assembly of AFT Centrifuge.
- (k) Bilge plates not fitted.

5. **Recommendations.**

- (a) Liquidation of defects/ observations mentioned at para 4 ibid.
- (b) Design parameters of FOC be obtained from OEM and trials re-offered if values found UNSAT.



एस सी विलियम/ S C William)
कमांडर/ Commander
प्रभारी अधिकारी/ Officer-in-Charge

Encl: - As Above

Copy to: -

कोमोडोर अधीक्षक/ The Commodore Superintendent
{कृते उप महाप्रबंधक (मरम्मत)/ for DGM (Refit)}
नौसेना पोत मरम्मत यार्ड/ Naval Ship Repair Yard
द्वारा नौसेना कार्यालय/ c/o Navy Office
पोर्ट ब्लेयर ७४४ १०२/ Port Blair 744 102

कमान अधिकारी/ The Commanding Officer
भा. नौ. पो. कार्मुक/ INS Karmuk
द्वारा नौसेना कार्यालय/ c/o Navy Office
पोर्ट ब्लेयर ७४४ १०२/ Port Blair 744 102

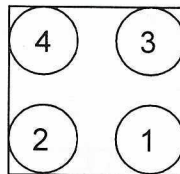
END OF REFIT TRIALS OF FWD AND AFT FUEL CENTRIFUGE
INS KARMUK (NR-23)

1. Trial Inspectors : Pankaj Rawat, ERA III
2. Date and Time : 02 Nov 23 (1100-1930 Hrs)
3. Equipment used for trials :
 - (a) SPM T-30
 - (b) Camera
4. Details of trials are as follows: -

(a) **Vibration trials.**

<u>Position</u>	<u>Fwd Fuel Centrifuge</u>			<u>Aft Fuel Centrifuge</u>		
	<u>V</u>	<u>H</u>	<u>A</u>	<u>V</u>	<u>H</u>	<u>A</u>
Motor Non Drive End	2.0	1.0	1.1	3.0	1.6	4.6
Motor Drive End	0.6	1.0	1.3	0.4	1.3	2.3
Centrifuge Drive End	0.5	1.5	1.6	0.5	1.5	1.6
Centrifuge Non Drive End	2.0	6.7	3.5	3.7	6.2	2.4

(b) Attenuation checks.



	<u>Fwd Fuel Centrifuge</u>				<u>Aft Fuel Centrifuge</u>			
Mount No.	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Top	2.0	0.8	1.2	1.7	0.8	0.9	1.0	0.8
Bottom	0.3	0.1	0.2	0.3	0.2	0.2	0.2	0.2
% Attenuation	85	87	83	82	75	77	80	75
Remarks	Sat							

(c) **Capacity trials.**

Capacity = $\frac{\text{Amount of oil transfer (purified) in Tons}}{\text{Time taken in hours}}$

<u>Ser</u>	<u>Description</u>	<u>Unit</u>	<u>Fwd Centrifuge</u>		<u>Aft Centrifuge</u>	
			<u>Initial</u>	<u>Final</u>	<u>Initial</u>	<u>Final</u>
(i)	Sounding of storage tank	Ltrs	10050	7050	7050	4050
(ii)	Sounding of RU tank	Ltrs	2900	5900	3000	6000
(iii)	Quantity transferred	Ltrs	3000		3000	
(iv)	Time taken to transfer	Hrs	01		01	
(v)	Capacity	TPH	03		03	

Note: -

Capacity observed by SS during in-house trial

Fwd Fuel Centrifuge : 3.85 TPH

Aft Fuel Centrifuge : 3.8 TPH

(a) **SPM Reading.**

<u>Ser</u>	<u>Description</u>	<u>Fwd FOC</u>	<u>Aft FOC</u>
		<u>dbm/ dbc</u>	<u>dbm/ dbc</u>
(i)	Motor Drive End	27/10	25/17
(ii)	Motor Non Drive End	11/04	10/03
Remarks		Yellow	Yellow