

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

CTT /300/11/01/TECH

18 Jan 23

The Commander-in-Chief  
{for CTO(Marine)/SSO(Refit)}  
Headquarters  
Andaman & Nicobar Command  
Port Blair - 744 102

**PRE REFIT TRIALS OF PORT DA - INS CHERIYAM (SR- 23)**

1. **Background.** Pre Refit Trials of Port DA onboard INS Cheriyam including Performance, Vibration and attenuation checks was undertaken on 11 Jan 23. Detailed report for the same is placed at **Enclosure**.
2. **Performance Parameters.**
  - (i) Max load sustained by DA was 94% (75 kW) of rated 80 kW for duration of two hours.
  - (ii) Exhaust temperature showing erratic readings and is **UNSAT**.
  - (iii) Lub oil pressure of DA at 94% load found to be 2.8 bar and is **SAT**.
  - (iv) Lub oil temperature of DA at various loads found in the range of 80°C - 98°C and is **SAT**.
  - (v) Fresh water temperature of DA found to be in the range of 70°C - 89 °C and is **SAT**.
3. **Observations.** The salient observations are as follows:-
  - (a) DA exploited up to 94% of rated load (75 kW against rated load of 80 kW). DA tripped on reaching 100% load.
  - (b) Minor lub oil leakage observed from dip stick point.
  - (c) Fuel leakage observed from return line of cylinder no 6.
  - (d) Exhaust temp gauge not working.
  - (e) kW meter in switchboard showing erratic readings.
  - (f) Two mounts at 94% load found **UNSAT**.

(g) SPM readings at alternator driven end at 60% and 94% load and non-driven end at 94% load are at **Yellow zone**.

(h) Vibration readings at EFE Axial and EDE Axial at 94% load are beyond the permissible limits of 16 mm/s.

4. **Recommendations.** Following recommended:-

(a) Torque tightening of UNSAT mounts to be undertaken as per OEM recommendations.

(b) All system leakages to be rectified.

(c) Defects/ observations mentioned at para 3 above to be liquidated.



(जगन्नाथ गुरुमूर्ति /Jagannath Gurumurthy)  
लेफ्टिनेंट कमांडर / Lieutenant Commander  
प्रभारी अधिकारी/ Officer-in-Charge (AOL)

**Copy to:-**

The Commodore Superintendent  
{for DGM(Refit)}  
Naval Ship Repair Yard  
C/o Navy Office  
Port Blair - 744 102

The Naval Component Commander  
{for SSO(Tech)}  
Headquarters Naval Component  
C/o Navy Office  
Port Blair – 744 102

The Commanding Officer  
INS Cheriya  
c/o Navy Office  
Port Blair-744102



**PERFORMANCE & VIBRATION TRIALS OF PORT DA - INS CHERIYAM (SR 23)**

1. Trial Inspector : (a) Sonu Yadav, ERA III  
(b) Amam Kumar, LME
2. Date and Time : (a) 11 Jan 23 (1330-1730 Hrs)
3. Equipment used for Performance trials : (a) SPM T-30  
(b) Temperature gun

**Port DA**

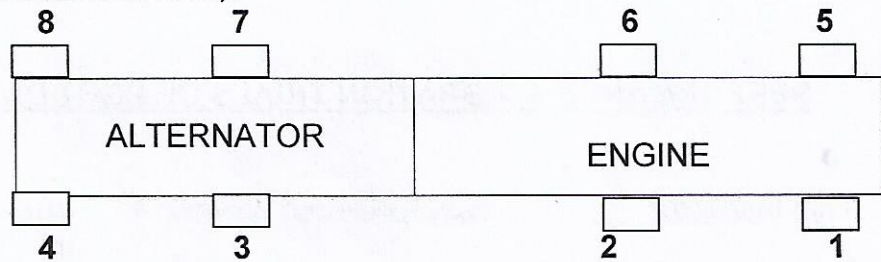
(a) **Performance Trials.**

Ser.	Parameter readings	Unit	Parameters recorded at 75 kW (94% rated load)
			Port DA
(i)	Max. sustained Load	KW	750
(ii)	RPM	RPM	1500
(iii)	L.O. Pressure	Kg/cm <sup>2</sup>	2.8
(iv)	S.W. Pressure	Kg/cm <sup>2</sup>	0.3
(v)	L.O. Temp.	°C	98
(vi)	F.W. Temp	°C	89
(vii)	Exhaust Temp	°C	<b>Non-ops</b>

- (b) **Vibration trials.** Vibration trials of Port DA were undertaken at load 48 kW (60% of rated load) and 75 kW (94% of rated load). The details of trials are as follows:-

Ser.	Measuring Points	At 60% (48 kW) load			At 94% (75 kW) load			Remarks (Limit 16 mm/sec)
		V	A	H	V	A	H	
(i)	Engine free end	8.8	11.4	6.9	10.8	<b>16.9</b>	7.6	<b>UNSAT</b>
(ii)	Engine drive end	7.0	12.3	11.3	11.0	<b>16.1</b>	15.7	
(iii)	Alternator drive end	5.0	7.2	6.9	7.1	8.7	9.1	<b>SAT</b>
(iv)	Alternator free end	3.4	6.7	2.4	4.0	8.5	3.7	

(c) **Attenuation Checks.** DA attenuation checks were carried out at 48 KW & 75KW (60 % & 94% of rated load).



Position	Vibration readings of SV mounts at 60 % Load							
	1	2	3	4	5	6	7	8
Top	9.8	5.6	4.4	5.2	11.3	9.3	4.69	4.2
Bottom	2.8	0.5	1.0	1.3	2.6	1.9	0.7	1.2
Attenuation % age (Limit 70 – 100%)	71	91	77	75	76	80	85	71
Remark	Sat							

Position	Vibration readings of SV mounts at 94 % Load							
	1	2	3	4	5	6	7	8
Top	13.5	8.1	5.7	6.6	15.2	13.1	6.6	6.2
Bottom	4.9	0.9	1.9	1.5	3.5	2.5	0.8	1.2
Attenuation % age (Limit 70 – 100%)	63	88	66	77	76	80	87	80
Remark	Unsat	Sat	Unsat	Sat				

(d) **SPM Reading.**

Ser.	Description	0 % Load dbm/dbc	60 % Load dbm/dbc	94 % Load dbm/dbc
(i)	Alternator driven end	18/6	24/7	27/7
(ii)	Alternator free end	14/7	19/7	23/8