

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/300/11/03/TECH

09 Jan 23

The Commander-in-Chief
{for CTO(Marine)/ CTO (ML)}
मुख्यालय/ Headquarter
अन्डमान एवं निकोबार कमान/
Andaman & Nicobar Command
पोर्ट ब्लेयर/ Port Blair - 744 102

LOAD TRIALS OF DA – INS CORA DIVH (SR-22)

1. **Background.** Load Trials of Port DA onboard INS Cora Divh including Performance, Vibration, Attenuation checks were undertaken on 07 Jan 23 and Electrical trial was conducted on 08 Jan 23. Vibration trials of Stbd DA was undertaken on 07 Jan 23. Detailed report for the same is placed at **Enclosure**.

2. **Performance Parameters (Port DA)**

- (a) DA sustained a Max load of 64 kW (80%) for a duration of 30 minutes.
- (b) Lub oil pressure at 80% load found to be 4.7 bar. Remarks - **SAT**.
- (c) Lub oil temperature at various loads found within range of 80°C - 95°C. Remarks - **SAT**.
- (d) Fresh water temperature observed in the range of 75°C - 83°C. Remarks - **SAT**.

3. **Observations.** Salient observations/ defects observed during the load trials are as follows:-

(a) **Engineering**

- (i) Attenuation checks across all mounts of Port DA at 60% load found SAT.
- (ii) Vibration at 50 % and 60 % of rated load of Port DA found **UNSAT**.
- (iii) Vibration at 50 % and 60 % of rated load of Stbd found **UNSAT**.

(b) **Electrical**

- (i) Over voltage and under voltage trip/ alarm found Unsat.
- (ii) Insulation meter showing erratic readings.
- (iii) Calibration certificate of all breakers and meters in SWBD not available.
- (iv) Reverse power relay calibration certificate not available.

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

- (a) Vibration of both Port and Stbd DA **UNSAT.** DAs may be re-offered for trials post liquidation.
- (b) Calibration of all erratic instrumentation.
- (c) Liquidation/ inclusion of issues mentioned at Para 3 above.

G. Jagannath

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

Encl: - As above

Copy to: -

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

The Commanding Officer
INS Cora Divh
C/o Navy Office
Port Blair - 744 102

SDCs, PERFORMANCE & VIBRATION TRIALS OF PORT DIESEL ALTERNATOR

1. Trial Inspector
 - (a) P L Mahapatra, ERA-3
 - (b) Ambesh, LME
2. Date and Time
 - (a) 07 Jan 23 (1100 - 1530Hrs)
3. Equipment used for Performance trials
 - (a) SPM T-30
 - (b) Temperature gun

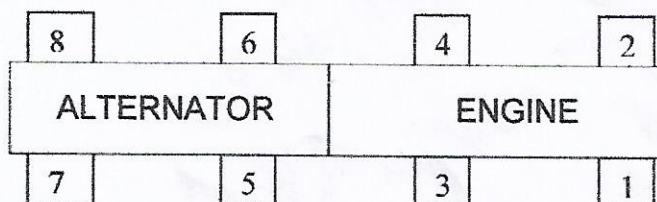
4. **Performance Trials.**

Ser.	Parameter readings	Unit	Port DA(80 %)	Remarks
(a)	Max. sustained Load	kW	64	SAT
(b)	RPM	RPM	1500	
(c)	L.O. Pressure	Kg/cm ²	4.7	
(d)	S.W. Pressure	Kg/cm ²	0.5	
(e)	L.O. Temp.	°C	95	
(f)	F.W. Temp	°C	83	
(g)	Exhaust Temp	°C	317	

5. **Vibration trials.**

Ser.	Measuring Points	At 50% (40KW) load			At 60% (48 KW) load			Remarks (Limit 16 mm/sec)
		V	A	H	V	A	H	
(a)	Engine free end	10.2	9.4	7.2	14.7	9.3	9.6	UNSAT
(b)	Engine drive end	4.0	3.8	17.0	5.4	4.0	22.1	
(c)	Alternator drive end	4.5	2.4	3.2	5.5	2.6	4.9	
(d)	Alternator free end	5.1	3.3	1.9	5.9	4.2	2.1	

6. **Attenuation Checks.** DA attenuation checks were carried out at 60% of rated load.



Position	Vibration readings of SV mounts at 60 % Load							
	1	2	3	4	5	6	7	8
Top	12.6	10.2	6.6	10.9	6.1	8.2	9.9	10.1
Bottom	3.3	2.5	0.5	0.4	0.3	1.3	0.7	1.4
Attenuation % (Above 70%)	73	75	92	96	95	84	92	81
Remarks	SAT							

7. **SPM Reading.**

Ser.	Description	0 % Load dbm/dbc	60 % Load dbm/dbc	
(i)	Alternator driven end	9/-6	10/-6	
(ii)	Alternator free end	6/-6	10/-2	
Remarks		SAT		