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Andaman & Nicobar Command  
पोर्ट ब्लेयर/ Port Blair - 744 102

CTT/300/03/16/TECH

11 May 23

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


**RUNNING EXTENTION TRIAL OF DA NO. 2 (250 KW) - /IN LCU L-58**

1. Refer to HQANC letter ANC/42002/EG/16/2 dated 17 Apr 23.
2. **Background.** Running Hour Extention Trials including performance, vibration, attenuation and SDC of DA 2 onboard LCU L-58 was undertaken on 10 May 23. DA was loaded upto 75% (187.5 kW) on load bank and sustained for a duration of two hours. DA could not be loaded further view limit on exhaust temperature.
3. **Performance Parameters.** A detailed report w.r.t engineering and performance trial is placed at **Enclosure**. The salient parameters are as follows: -
  - (a) **Lub Oil Pressure.** Lub oil pressure of DA at 75% of rated load was found to be 2.8 bar and is **SAT.**
  - (b) **Lub Oil Temperature.** Lub oil temperature of DA at various loads was found to be in the range of 89°C to 104°C and is **SAT.**
  - (c) **Fresh Water Temperature.** Fresh water temperature of DA was found to be in the range of 79°C to 87°C and is **SAT.**
  - (d) **Exhaust Temperature.** At 75% of rated load (250 KW) exhaust temperature was observed to be 564°C and is **SAT.**
4. **Vibration Analysis.** Vibration trials were undertaken at 60% and 75% of rated load. Maximum vibration recorded was 15.5 mm/sec at engine drive end in vertical direction, against the limit of 16 mm/sec. **SAT**
5. **Observations.**
  - (a) Fuel leakage from PT fuel pump and IN-OUT adjusting screw of fuel stop solenoid. Cold repair applied on stop fuel solenoid.
  - (b) SPM found in **yellow zone** at 60% and 75% load.

- (c) Fresh water transmitter cover not fitted.
- (d) Sea water leakage from sea water transmitter line.
- (e) Safety guards of auxiliary pump and alternator coupling not fitted.
- (f) Instrumentation cable not secured.
- (g) Attenuation across one mount at 60% found **UNSAT**.

6. **Recommendations.** Following recommended:-

- (a) Liquidation of defects/ observations mentioned at para 5 ibid with special attention to 5(a).
- (b) Torque tightening of unsat mount as per OEM recommendations.
- (c) RH extension may be accorded for exploitation upto 75% of rated load for independent operation with close monitoring of all critical parameters.

  
11/05  
(जगन्नाथ गुरुमूर्ति / Jagannath Gurumurthy)  
लेफ्टिनेंट कमांडर / Lieutenant Commander  
प्रभारी अधिकारी / Officer-in-Charge (AOL)

**Encl** : - As above

**Copy to** : -

The Naval Component Commander  
{for SSO (TECH)}  
c/o Navy Office  
Port Blair – 744 102

The Commanding Officer  
/N LCU L-58  
c/o Navy Office  
Port Blair – 744 102



**RUNNING HOUR EXTENTION OF DA NO. 2 (250 KW) - IN LCU L58**

1. Trial Inspector : (a) Paras Kumar, MECH III  
(b) Sanjay Yadav, LME
2. Date and Time : 10 May 23 (1330-1700 Hrs)
3. Equipment used for trials : (a) SPM T-30  
(b) Temperature Gun
4. Details of trials are as follows:-

(a) **Safety Device Checks.**

Ser.	Description	Unit	Design Value	DA 1 (250 KW)
(i)	Low LO Pr Alarm	Kg/cm <sup>2</sup>	1.2	1.3
(ii)	Low LO Pr Trip	Kg/cm <sup>2</sup>	0.8	0.6
(iii)	High Coolong water Temp.Alarm	°C	91	92
(iv)	High Coolong water temp.Trip	°C	97	97
(v)	High LO temp Alarm	°C	119	119
(vi)	Over speed Trip	RPM	1650	1648
(vii)	Crash stop Local	--	Ops/ Non-ops	Non-ops
(viii)	Crash stop Remote	--	Ops/ Non-ops	Non-ops

(b) **Performance Parameters at 75% Load.**

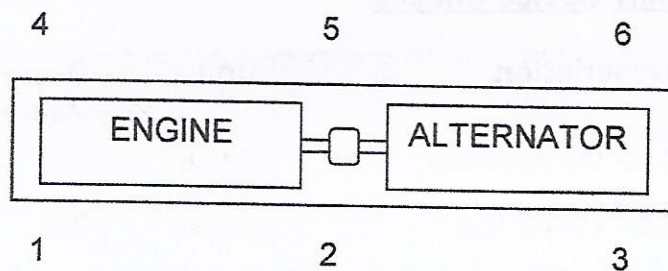
Ser.	Description	Unit	Parameters recorded at 250 KW (187% rated load)
			250 KW DA
(i)	Max sustained Load	KW	187
(ii)	RPM	RPM	1497
(iii)	Lub oil Pressure	Kg/cm <sup>2</sup>	2.7
(iv)	Sea water Pressure	Kg/cm <sup>2</sup>	1.3
(v)	Lub oil Temperature	°C	104
(vi)	Fresh water Temperature	°C	87
(vii)	Exhaust Temperature	°C	564



(c) **Vibration Trials.** Vibration trials of DA was undertaken at load 150 KW (60% of rated load) and 187.5 KW (75% of rated load). Overall vibration readings of DA at monitoring points found within permissible limit and is Sat. The details of trials are as follows:-

Ser	Description	DA No. 2 (250 kW)						Remarks (Limit 16 mm/sec)
		At 60 % load (150 KW)			At 75% load (187KW)			
		V	A	H	V	A	H	
(i)	Engine FE	12.4	8.7	4.7	15.5	9.4	15.3	SAT
(ii)	Engine DE	2.5	12.6	13.2	10.8	10.2	10.8	
(iii)	Alternator DE	5.7	6.2	5.0	5.6	7.1	5.9	
(iv)	Alternator FE	6.3	2.5	4.7	10.7	11.6	7.3	

(d) **Attenuation checks.**



Positions	150 kW (60 % load)						187kW (75 % load)					
	1	2	3	4	5	6	1	2	3	4	5	6
Top	12.6	7.3	14.0	20	10.6	7.6	22.5	8.3	18.9	9.0	12.5	18.3
Bottom	2.9	0.9	0.4	2.8	3.8	0.5	3.7	1.1	0.5	1.0	3.0	3.7
Atten.	76	87	93	86	64	93	83	86	97	88	76	79
Remarks	SAT			UNSAT		SAT	SAT					

**Note:** Attenuation lesser than 70% indicates overloaded/over tightened mounts. All SV mounts to be loosened and torque tightened as per OEM specified values.

(e) **SPM Readings.**

Ser.	Description	0% Load dbm/ dbc	60 % Load dbm/ dbc	100 % Load dbm/ dbc
(a)	Alternator Driven End	Yellow(26/19)	Yellpow(25/180)	Yellow(26/18)
(b)	Alternator Free End	Green(16/9)	Yellow(30/-9)	Yellow(25/12)