

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

CTT/300/03/10/TECH

12 Jan 23

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

**RUNNING HOUR EXTENTION OF DA NO. 1 (250 KW) - IN LCU L52**

1. Refer to HQANC letter ANC/42002/EG/10/3 dated 09 Nov 22.
2. **Background.** Running Hour Extention Trials including performance, vibration and attenuation checks of DA 1 onboard LCU L52 were undertaken on 11 Jan 23. DA was loaded upto **80%(200 KW)** load on load bank and sustained for a duration of 02 hours.
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 80% of rated load was found to be 2.7 bar and is **SAT.**
  - (b) **Lub Oil Temperature.** Lub oil temperature of DA at various loads was found to be in the range of 72°C to 100°C and is **SAT.**
  - (c) **Fresh Water Temperature.** Fresh water temperature of DA was found to be in the range of 75°C to 88°C and is **SAT.**
  - (d) **Exhaust Temperature.** Exhaust temperature was observed to be 452°C at 80% of rated load (250 KW) and is **SAT.**
4. **Vibration Analysis.** Vibration trials were undertaken at 60% and 80% of rated load. Maximum vibration recorded was 9.0 mm/sec at 60% and 10.3 mm/sec at 80%, against the limit of 16 mm/sec.
5. **Observations.**
  - (a) 80% load offered by SS.
  - (b) Parameters not available in MCR remote panel.
  - (c) Sea water pump safety guard not fitted.
  - (d) Overflow line not connected in expansion tank.
  - (e) Mounts are painted and not preserved.

6. **Recommendations.** In view of the above, the following are recommended:-

- (a) Liquidation of defects/ observations mentioned at para 5 ibid.
- (b) DA may be granted RH extension at 80% of rated load.

*G. Jagannath*

(जगन्नाथ गुरुमूर्ति /Jagannath Gurumurthy)  
लेफ्टिनेंट कमांडर / Lieutenant Commander  
उप-प्रभारी अधिकारी/ Dy. Officer-in-Charge  
क्रिते प्रभारी अधिकारी/ for Officer-in-Charge

**Copy to : -**

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

The Commanding Officer  
/N LCU L52  
c/o Navy Office  
Port Blair – 744 102



**RUNNING HOUR EXTENTION OF DA NO. 1 (250 KW) - IN LCU L52**

1. Trial Inspector : (a) Amit Kumar, ERA-3  
(b) Ambesh, LME
2. Date and Time : 11 Jan 22 (0930-1330 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	1.2
(ii)	Low LO Pr Trip	Kg/cm <sup>2</sup>	0.8	0.8
(iii)	High FW temp Alarm	°C	91	92
(iv)	High FW temp Trip	°C	97	96
(v)	High LO temp Alarm	°C	119	119
(vi)	Over speed Trip	RPM	1650	1650
(vii)	Crash stop Local	--	Ops/ Non-ops	Ops
(viii)	Crash stop Remote	--	Ops/ Non-ops	Ops

(b) **Performance Parameters at 80% Load.**

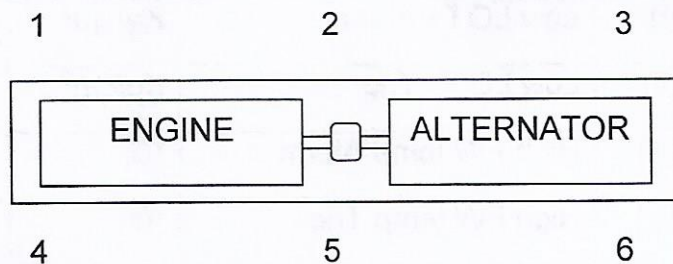
Ser.	Description	Unit	Parameters recorded at 200 KW (80% rated load)
			250 KW DA
(i)	Max sustained Load	kW	200
(ii)	RPM	RPM	1488
(iii)	Lub oil Pressure	Kg/cm <sup>2</sup>	2.7
(iv)	Sea water Pressure	Kg/cm <sup>2</sup>	1.1
(v)	Lub oil Temperature	°C	98
(vi)	Fresh water Temperature	°C	85
(vii)	Exhaust Temperature	°C	452



(c) **Vibration Trials.** Vibration trials of DA was undertaken at load 150 kW (60% of rated load) and 200 kW (80% 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	250 KW DA			250 KW DA			Remarks (Limit 16 mm/sec)
		At 60 % load (150 KW)			At 80 % load (200 KW)			
		H	V	A	H	V	A	
(i)	Engine FE	5.2	2.8	3.4	5.7	3.6	3.5	Sat
(ii)	Engine DE	4.4	4.5	3.2	4.5	5.7	3.3	Sat
(iii)	Alternator DE	9.0	5.9	7.1	10.3	7.1	7.5	Sat
(iv)	Alternator FE	5.2	3.4	4.2	6.2	4.3	4.8	Sat

(d) **Attenuation checks.**



Position	150 KW (60 % load)						200 KW (80 % load)					
	1	2	3	4	5	6	1	2	3	4	5	6
Top	5.8	5.0	6.4	9.4	4.5	5.9	7.9	5.1	7.7	10.2	5.2	6.8
Bottom	1.6	0.5	1.1	2.5	0.4	1.4	1.2	0.8	2.3	2.2	0.7	2.2
Atten.	72	90	82	73	91	76	84	84	70	78	86	70
Remarks	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	80 % Load dbm/ dbc	Remarks
(a)	Alternator Driven End	16/08	20/12	19/07	SAT
(b)	Alternator Free End	14/04	16/05	19/04	SAT