Tele: 248306

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/300/03/09/TECH

07 Jun 23

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

RUNNING HOUR EXTENSION TRIALS OF DA NO. 3 (350 KW) - IN LCU L51

- 1. Refer to HQANC Fax ANC/42002/EG/9/2 dated 05 Jun 23.
- 2. <u>Background</u>. Running hour extension trials of DA No 3 onboard *IN* LCU L-51 including Performance, SDC, Vibration and Attenuation checks were undertaken on 05 Jun 23. Detailed report of the same is placed at **Enclosure**.
- Performance Parameters.

The salient parameters are as follows: -

Ser	Parameter	Range	Value recorded	Remarks
(a)	Lub Oil Presssure	3.5 – 5.0 bar	4.0	
(b)	Lub Oil Temperature	45 - 95 °C	91°C	0.17
(c)	Fresh Water Temperature	55 – 90 °C	87°C	SAT
(d)	Exhaust Temperature	575 °C	540°C	

4. <u>Vibration Analysis</u>. Vibration trials were undertaken at 60% and 100% of rated load and found SAT.

5. Observations.

- (a) Minor lub oil leakage from gear mechanism of engine free end side.
- (b) Alternator foundation cover not secured.
- (c) Instrumetation cables not secured.

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

(a) Liquidation of defects/ observations mentioned at para 5 ibid.

(b) RH extension may be accorded for exploitation up to 100% of rated load with

close monitoring of all critical parameters.

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

Encl: - As above

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)} c/o Navy Office Port Blair – 744 102

The Commanding Officer IN LCU L51 c/o Navy Office Port Blair – 744 102

RUNNING HOUR EXTENSION OF DA NO. 3 (350 KW) - IN LCU L51

1. Trial Inspector :

(a) Jitendra, ERA-3

(b) Sanjay, LME

2. Date and Time

05 Jun 23 (1600-2015 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 3 (350 kW)
(i)	Low LO Pr Alarm	Kg/cm ²	1.2	1.2
(ii)	Low LO Pr Trip	Kg/cm ²	0.8	0.8
(iii)	High FW temp Alarm	°C	91	91
(iv)	High FW temp Trip	°C	96	96
(v)	High LO temp Trip	°C	130	130
(vi)	High LO temp Alarm	°C	120	119
(vii)	High Exhust temp. Alarm	°C	575	575
(viii)	Over speed Trip	RPM	1650	1650
(ix)	Crash stop Local	- %	Ops/ Non-ops	Ops
(x)	Crash stop Remote		Ops/ Non-ops	Ops

(b) Performance Parameters at 60% Load and 100% Load.

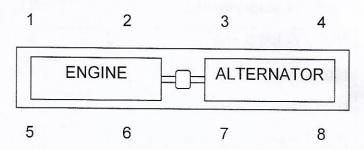
Ser.	Description	Unit	Parameters recorded at 210 kW (60% rated load) 350 KW DA	Parameters recorded at 350 kW (100% rated load) 350 KW DA
(i)	Max sustained Load	kW	210	350
(ii)	RPM	RPM	1499	1495
(iii)	Lub oil Pressure	Kg/cm²	4.2	4.0

Ser.	Description	Unit	Parameters recorded at 210 kW (60% rated load) 350 KW DA	Parameters recorded at 350 kW (100% rated load) 350 KW DA
(iv)	Sea water Pressure	Kg/cm²	0.7	0.7
(v)	Lub oil Temperature	°C	83	91
(vi)	Fresh water Temperature	°C	80	87
(vii)	Exhaust Temperature	°C	453	540

(c) <u>Vibration Trials</u>. Vibration trials of DA was undertaken at 60% (210kW) and 100% (350kW) of rated load. Overall vibration readings of DA at monitoring points found within permissible limit. The details of trials are as follows:-

Ser.	Description	60% Load			100 % Load			
	Description	Н	V	Α	Н	V	Α	Remarks
(i)	ENGINE FREE END	4.8	4.6	6.8	4.6	7.6	7.2	
(ii)	ENGINE DRIVE END	4.2	2.6	5.6	8.9	3.8	8.3	
(iii)	ALTERNATOR DRIVE END	6.2	2.6	3.4	6.2	3.9	7.8	SAT
(iv)	ALTERNATOR FREE END	3.6	3.5	5.2	7.5	4.0	5.7	110

(d) Attenuation checks.



	210 kW (60 % load)									
Positions	1	2	3	4	5	6	7	8		
Тор	9.2	5.6	6.3	4.8	5.1	4.9	4.2	10.7		
Bottom	2.2	0.2	1.3	1.4	0.3	0.6	0.5	3.1		
Atten.%	76.08	96.42	79.36	70.83	94.11	87.75	88.09	71.02		
Remarks		- X 158 9VI		S	AT		l	1		

Positions	350 kW (100 % load)										
	1	2	3	4	5	6	7	8			
Тор	15.2	9.3	9.0	8.4	9.1	5.7	67	15.2			
Bottom	4.0	0.4	1.7	2.2	0.6	1.0	0.4	4.3			
Atten.%	73.68	95.69	81.11	73.80	93.40	82.45	94.02	72.0			
Remarks				SA	AT						

(e) SPM Readings.

Ser.	Description	0 % Load dbm/ dbc	60 % Load dbm/ dbc	100 % Load dbm/ dbc	REMARKS	
(i)	Alternator Drive	11/2	14/2	17/4	SAT	
(ii)	Alternator Free End	17/7	20/9	19/8	SAT	