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द्वारा नेवी कार्यालय/ c/o Navy Office  
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अन्डमान एवं निकोबार कमान/  
Andaman & Nicobar Command  
पोर्ट ब्लेयर/ Port Blair - 744 102

CTT/300/08/09/TECH

28 Jun 23

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

**PARALLELING TRIALS OF DIESEL ALTERNATORS – INS SARYU**

1. Refer to HQANC fax ANC/42011/EL/8(i) CTT dated 04 May 23.
2. Paralleling trials of DA no 1,2 & 4 were undertaken onboard INS Saryu on 26 Jun 23. DA no. 3 not offered by ship staff for trials.
3. **Observations.**
  - (a) Attended paralleling trials of DA no 1,2 & 4 carried out and found SAT.
  - (b) Unattended paralleling trials with combination of DA 1-2, 1-4 & 2-4 were carried out respectively and found SAT. DAs were loaded up to max 45% of Combined Rated Load (against max 75% combined rated load recommended by ETMA). The load combinations were initially increased from 20% to 45% and then decreased back to 20%. The loading of alternators were undertaken using Ship's load to achieve the requisite combined loading values. Report along with detailed parameters is placed at **Enclosure**.
4. **Recommendations.**
  - (a) Unattended paralleling with load bank connected up and combined rated load up to 75% be offered for trials.
  - (b) DA no. 3 be offered for both attended and un-attended paralleling trials.

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28/06

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लेफ्टिनेंट कमांडर / Lieutenant Commander  
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**Encl** : - As above

al Component Commander  
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# UNATTENDED PARALLELING TRIALS OF DA 1 & DA 4

Combined Load (% of Combined Rated Capacities of Alternators) (850kW & 1475Amps)	kW					Amps					10% of Mean of kW Ratings of Machine s A and B	10% of Mean of Amps Ratings of Machine s A and B	Remarks (Sat/ Unsat)
	Combined Value	Proportionate Share	Machine A (Actual Share)	Machine B (Actual Share)	Difference Between Proportionate Share and Actual Shares of Machines A or B	Combined Value	Proportionate Share	Machine A (Actual Share)	Machine B (Actual Share)	Difference Between Proportionate Share and Actual Shares of Machines A or B			
Increasing Loads	20	174	87	110	64	23	285.1	142.5	180.3	104.8	37.75		SAT
	30	260	130	170	90	40	397.1	198.5	268.4	128.7	68.85		SAT
	45	381	190.5	226	155	35.5	632.1	316.0	382.6	249.5	66.54		SAT
	60	-	-	-	-	-	-	-	-	-	-		-
	75	-	-	-	-	-	-	-	-	-	-		-
Decreasing Loads	60	-	-	-	-	-	-	-	-	-	-		-
	45	381	190.5	226	155	35.5	632.1	316.0	382.6	249.5	66.54		SAT
	30	264	132	161	103	29	454.7	227.3	280.1	174.6	52.75		SAT
	20	177	88.5	110	67	21.5	289.5	144.7	180.7	108.8	35.95		SAT
											42.5	73.61	



# UNATTENDED PARALLELING TRIALS OF DA 2 & DA 4

Combined Load (% of Combined Rated Capacities of Alternators) (850kW & 1475Amps)	kW					Amps					10% of Mean of kW Ratings of Machines A and B	10% of Mean of Amps Ratings of Machines A and B	Remarks (Sat/Unsat)	
	Combined Value	Proportionate Share	Machine A (Actual Share)	Machine B (Actual Share)	Difference Between Proportionate Share and Actual Shares of Machines A or B	Combined Value	Proportionate Share	Machine A (Actual Share)	Machine B (Actual Share)	Difference Between Proportionate Share and Actual Shares of Machines A or B				
Increasing Loads	20	177	88.5	99	78	10.5	304.1	152.0	171.5	132.6	19.45	42.5	73.61	SAT
	30	260	130	148	112	18	435.8	217.9	251	184.8	33.10			SAT
	45	386	193	231	155	38	644.9	322.4	374.3	270.6	51.85			SAT
	60	-	-	-	-	-	-	-	-	-	-			-
Decreasing Loads	75	-	-	-	-	-	-	-	-	-	-	42.5	73.61	-
	-	-	-	-	-	-	-	-	-	-	-			-
	60	-	-	-	-	-	-	-	-	-	-			-
	45	386	193	231	155	38	644.9	322.4	374.3	270.6	51.85			SAT
	30	260	130	138	122	8	446.1	223.0	232.4	213.7	9.35			SAT
	20	174	87	91	83	4	307.1	153.5	168.3	138.8	14.75		SAT	