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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/300/08/09/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

- Refer to HQANC fax ANC/42011/EL/8(i) 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.

G. (ogownosts 28/06

(जगन्नाथ गूरुमूर्ति /Jagannath Gurumurthy) लेफ़्टिनेंट कमांडर / Lieutenant Commander प्रभारी अधिकारी/ Officer-in-Charge(AOD)

Encl: - As above

Copy to: -

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

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The Commanding Officer INS Saryu c/o Navy Office Port Blair – 744 102

UNATTENDED PARALLELING TRIALS OF DA 1 & DA 2

Remar ks	(Sat/ Unsat)	SAT	SAT	SAT	-			ı	SAT	SAT	SAT
10% of Mean of	Amps Ratings of Machines A and B					1	67.5				
10% of Mean of	kW Ratings of Machine s A and B					C	ne				
	Difference Between Proportion ate Share and Actual Shares of Machines A or B	30	17.5	29.5	1	1	-	1	29.5	28	22.5
SC	Machin e B (Actual Share)	150	290	352	•	1	1	1	352	237	145
Amps	Prop Machine Machin ortio A e B e B e B Share Share) Share)	210	255	411	-	•		•	411	293	190
) - B	Prop ortio nate Shar e	180	272.5	381.5	-		,	ı	381.5	265	167.5
	Com bine d Valu	360	545	292	-	1	1	1	763	530	335
	Difference Between Proportiona te Share and Actual Shares of Machines A or B	16	2	7	B- 2-3	-	ila I	ı	7	22	2
>	Comb Propor Machine Machine ined tionate A B B Value Share (Actual Share) Share)	84	150	220	-	1	1	1	220	130	97
KW	Machine A (Actual Share)	116	154	234	-		1	ı	234	174	101
	Comb Proporlined tionate	100	152	227	-		1	ı	227	152	66
	Comb ined Value	200	304	454	-	1	1	1	454	304	198
ined	(% of ined sed tiesof trors) W & mps)	20	30	45	09	76	0	09	45	30	20
Combined	Load (% of Combined Rated Capacitiesof Alternators) (1000kW & 1750Amps)	Decreasing Increasing Loads Loads									

UNATTENDED PARALLELING TRIALS OF DA 1 & DA 4

Load (% of	Combined Rated Capacities of Alternators) (850kW & 1475Amps)	g		ea	ncr Lo	1	Decreasing Loads				
% of	ined ed ites of itors) W & mps)	20	30	45	60	75	70	60	45	30	20
	Com bined Value	174	260	381	1	1	1	ı	381	264	177
	Com Proport bined ionate Value Share	87	130	190.5	1	,	1	1	190.5	132	88.5
W	Machine A (Actual Share)	110	170	226	ı		1		226	161	110
>	Com ProportMachine Machine Dined ionate A B Value Share (Actual (Actual Share)	64	90	155	ı	1		1	155	103	67
	Difference Between Proportiona te Share and Actual Shares of Machines A or B	23	40	35.5	1	1	1	1	35.5	29	21.5
	Com bine d Valu e	285.1	397.1	632.1	1	1	1	1	632.1	454.7	289.5
,p	Prop ortio nate Shar e	142.5	198.5	316.0	ı	-	-	1	316.0	227.3	144.7
Am	Machine A (Actual Share)	180.3	268.4	382.6	•	1	1	1	382.6	280.1	180.7
nps	e Machin e B d (Actual) Share)	104.8	128.7	249.5	ı		1		249.5	174.6	108.8
	Difference Between Proportion ate Share and Actual Shares of Machines A or B	37.75	68.85	66.54	1	ı		1	66.54	52.75	35.95
10% of Mean of	Ratings of Machine s A and B		42.5								
10% of Mean of	Amps Ratings of Machine s A and B			Children Street		}	73.61				
Remar	(Sat/ Unsat)	SAT	SAT	SAT	•	•	1	1	SAT	SAT	SAT

UNATTENDED PARALLELING TRIALS OF DA 2 & DA 4

Decreasing Increasing Loads									ng	Combined Load (% of Combined Rated Capacities o Alternators) (850kW & 1475Amps)
20	30	45	60	-	75	60	45	30	20	Combined Load (% of Combined Rated Capacities of Alternators) (850kW & 1475Amps)
174	260	386	1	ļ	1	1	386	260	177	Comb ined Value
87	130	193	ı			1	193	130	88.5	CombPropor ined tionate Value Share
91	138	231	1	,	,		231	148	99	Machine N A (Actual (Share)
83	122	155	•	1	•	•	155	112	78	Machine B (Actual Share)
4	œ	38	1	-	1	-	38	18	10.5	Dif Bu Pro te anc Sh Mac
307.1	446.1	644.9		1	1	1	644.9	435.8	304.1	
153.5	223.0	322.4	.1		-	1	322.4	217.9	152.0	Prop ortio nate Shar e
168.3	232.4	374.3					374.3	251	171.5	Amps Machine M A (Actual (A) Share) S
138.8	213.7	270.6	-		1	•	270.6	184.8	132.6	e Machin e B (Actual) Share)
14.75	9.35	51.85	1	1	1	1	51.85	33.10	19.45	Difference Between Proportion ate Share and Actual Shares of Machines A or B
				42.5)					10% of Mean of kW Ratings of Machine s A and B
			•	73.61						10% of Mean of Amps Ratings of Machine s A and B
SAT	SAT	SAT	•		1	1	SAT	SAT	SAT	Remar ks (Sat/ Unsat)