

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/300/11/02/TECH

22 Nov 22

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

**DEHMI OF MAIN ENGINES – INS CHETLAT**

1. Refer to following:-
  - (a) INS Chetlat letter 300/02 dated 15 Nov 22.
  - (b) HQANC fax message ANC/42002/EG/17/1 dated 19 Nov 22.
2. DEHMI (Harbour Inspection) of all three main engines of INS Chetlat were carried out and a detailed report of the same is placed at **Enclosure**.
3. **Observations**. Following observed during checks: -
  - (a) Common points in all three engines
    - (i) Air intake filter not clean.
    - (ii) Exhaust drain hose not fitted up to bilge.
  - (b) MCS-5 master display non-ops.
  - (c) B-bank vacuum indicator of port main engine non-ops.
  - (d) Sea water pump inlet/outlet thermometer of Stbd main engine not fitted.
  - (e) Sea water pump inlet thermometer of center main engine not fitted.
4. **Recommendations**. Following recommended: -
  - (a) Liquidate all observations mentioned at Para 3 above prior conducting full power trials of main engines as part of DEHMI.
  - (b) Forward details of all parameters recorded during the full power trials for analysis and recommendations thereof.

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

**Encl:** - As above

**Copy to:-**

The Naval Component Commander  
{for SO (E)}  
Headquarters Naval Component  
C/o Navy Office  
Port Blair – 744 102

The Commanding Officer  
INS Chetlat  
C/o Navy Office  
Port Blair – 744 102



**DIESEL ENGINE HEALTH MONITORING INSPECTION (DEHMI) – MAIN ENGINES**

**1. Status of Documents and Engine Data.**

<b><u>S. No</u></b>	<b><u>CHECK</u></b>	<b><u>STBD</u></b>	<b><u>PORT</u></b>	<b><u>CENTRE</u></b>	<b><u>REMARKS</u></b>
(a)	Diesel Service Log Book	√	√	√	
(b)	EMAPS/ Kalamazoo	√	√	√	
(c)	Running Log Book	√	√	√	
(d)	Engine Serial No.	527103597	527103598	527103936	
(e)	Running Hours since installation	9727.37	9346.01	3309.53	

**2. External State of Engine.**

<b><u>S. No</u></b>	<b><u>CHECK</u></b>	<b><u>STBD</u></b>	<b><u>PORT</u></b>	<b><u>CENTRE</u></b>	<b><u>REMARKS</u></b>
(a)	Condition of durites/ compensators	Sat	Sat	Sat	
(b)	Condition of SV mounts & application of Necol Lacquer	Sat	Sat	Sat	
(c)	System Pipelines well supported and free of leaks	Sat	Sat	Sat	
(d)	Filter Drains clear	Sat	Sat	Sat	
(e)	Status of bilge platform in the immediate of vicinity of engine	Sat	Sat	Sat	

**3. Status of Air Intake.**

<b><u>S. No</u></b>	<b><u>CHECK</u></b>	<b><u>STBD</u></b>	<b><u>PORT</u></b>	<b><u>CENTRE</u></b>	<b><u>REMARKS</u></b>
(a)	Cleanliness of air intake filter	Unsat	Unsat	Unsat	Air intake filter not clean.
(b)	Perforated sheet for corrosion and intactness of securing (where applicable)	NA	NA	NA	
(c)	Cleanliness of air intake trunking	NA	NA	NA	
(d)	Intake drain clear	NA	NA	NA	
(e)	Air Intake restriction measuring instrument	NA	NA	NA	
(f)	Status of Vacuum Indicators	Sat	Unsat	Sat	B-bank vacuum indicator of PME non-ops.
(g)	Status of durites/ compensators	Sat	Sat	Sat	



4. **Status of Exhaust System.**

<b><u>S. No</u></b>	<b><u>CHECK</u></b>	<b><u>STBD</u></b>	<b><u>PORT</u></b>	<b><u>CENTRE</u></b>	<b><u>REMARKS</u></b>
(a)	Securing of exhaust trunking supports and load hangers	Sat	Sat	Sat	
(b)	Intactness of hot tagging	Sat	Sat	Sat	
(c)	Status of corrosion on exhaust funnel/flap/ball valve	Sat	Sat	Sat	
(d)	Condition of Exhaust drain pipeline	Unsat	Unsat	Unsat	Exhaust drain hose not fitted up to bilge.
(e)	Intactness of exhaust trunking	Sat	Sat	Sat	
(f)	Exhaust back pressure measuring point accessible	NA	NA	NA	

5. **Starting Air System.**

<b><u>S. No</u></b>	<b><u>CHECK</u></b>	<b><u>STBD</u></b>	<b><u>PORT</u></b>	<b><u>CENTRE</u></b>	<b><u>REMARKS</u></b>
(a)	Condition of durites/ braided hoses	Sat	Sat	Sat	
(b)	Status of air starting valve	Sat	Sat	Sat	
(c)	Working of auto/ manual drain valve of air compressor	Sat	Sat	Sat	

6. **Fuel System.**

<b><u>S. No</u></b>	<b><u>CHECK</u></b>	<b><u>STBD</u></b>	<b><u>PORT</u></b>	<b><u>CENTRE</u></b>	<b><u>REMARKS</u></b>
(a)	Condition of fuel filters	Sat	Sat	Sat	
(b)	Status of fuel centrifuge	Ops	Ops	Ops	
(c)	Fuel leakages	Sat	Sat	Sat	
(d)	Condition of wire-braided hoses	Sat	Sat	Sat	

7. **Lub Oil System.**

<b><u>S. No</u></b>	<b><u>CHECK</u></b>	<b><u>STBD</u></b>	<b><u>PORT</u></b>	<b><u>CENTRE</u></b>	<b><u>REMARKS</u></b>
(a)	Outcome of last lub oil analysis				
	Basic	Sat	Sat	Sat	
	Advanced	-	-	-	Report NA
(b)	Status of lub oil Centrifuge	NA	NA	NA	
(c)	Oil leakages	Sat	Sat	Sat	
(d)	Date of last cooler cleaning	Jan 17	Jan 17	NA	CME replaced in May 17. Next routine due - 6k
(e)	Status of durites/ compensators	Sat	Sat	Sat	
(f)	Lub Oil Test Kit status	Sat	Sat	Sat	



8. Coolant/ Fresh Water System.

<u>S. No</u>	<u>CHECK</u>	<u>STBD</u>	<u>PORT</u>	<u>CENTRE</u>	<u>REMARKS</u>
(a)	Outcome of last coolant analysis	Sat	Sat	Sat	
(b)	Condition of Gauge glass of expansion tank	NA	NA	NA	
(c)	Status of Coolant system	Sat	Sat	Sat	
(d)	Date of last cooler cleaning	Jan 17	Jan 17	NA	CME replaced in May 17. Next routine due - 6k
(e)	Coolant Test Kit status	Sat	Sat	Sat	

9. Sea Water System

<u>S. No</u>	<u>CHECK</u>	<u>STBD</u>	<u>PORT</u>	<u>CENTRE</u>	<u>REMARKS</u>
(a)	Status of sea water system	Sat	Sat	Sat	
(b)	Condition of durites/ compensator	Sat	Sat	Sat	
(c)	Status of suction Strainer	Sat	Sat	Sat	
(d)	Status of Zinc plugs	Sat	Sat	Sat	

10. Tappet Clearance Check.

<u>S. No</u>	<u>CHECK</u>	<u>STBD</u>	<u>PORT</u>	<u>CENTRE</u>	<u>REMARKS</u>
(a)	Intake Valve (limit :0.2)	0.2	0.2	0.2	
(b)	Exhaust Valve (limit :0.5)	0.5	0.5	0.5	

11. Instrumentation & Control Check

<u>S. No</u>	<u>CHECK</u>	<u>STBD</u>	<u>PORT</u>	<u>CENTRE</u>	<u>REMARKS</u>
(a)	Insulation of control system panels	Sat	Sat	Sat	
(b)	Status of calibration of all instrumentation	Sat	Sat	Sat	
(c)	Status of thermometer/ thermocouples/ pressure sensors	Unsat	Sat	Unsat	Thermometer not fitted in sea water system of Stbd & Centre main engine.
(d)	Thermometer- Total Non-Ops	02	-	01	
(e)	Thermocouples - Total Non-ops	-	-	-	
(f)	Pressure gauge - Total Non-ops	-	-	-	
(g)	Number of faulty Alarms/ Relays	-	-	-	
(h)	Blowby measurement tool/ provision	NA	NA	NA	



## 12. Ventilation System

<u>S. No</u>	<u>CHECK</u>	<u>STBD</u>	<u>PORT</u>	<u>CENTRE</u>	<u>REMARKS</u>
(a)	Status of compartment Ventilation	Sat	Sat	Sat	
(b)	Average compartment Temperature at four corners/ Ambient air temperature	36°C	35°C	34°C	
(c)	Status of compartment/ bilge coolers	NA	NA	NA	
(d)	Date of last cooler cleaning				
	(i) Compartment cooler	NA	NA	NA	
	(ii) Bilge cooler	NA	NA	NA	

## 13. Fire Fighting System

<u>CHECK</u>	<u>STBD</u>	<u>PORT</u>	<u>CENTRE</u>	<u>REMARKS</u>
Status of machinery compartment firefighting system	Ops	Ops	Ops	CO2 system SAT

## 14. Performance Trials Details

<u>S. No</u>	<u>CHECK</u>	<u>STBD</u>	<u>PORT</u>	<u>CENTRE</u>	<u>REMARKS</u>
(a)	Max ERPM achieved during CST	2100	2100	2100	
(b)	Max ship's speed achieved during CST	31Kn	31Kn	31Kn	
(c)	Max ERPM achieved during last	2100	2100	2100	
(d)	Max ships speed achieved during last FPT	27Kn	27Kn	27Kn	
(e)	Max torsion meter readings	NA	NA	NA	
(f)	Present status of Torsion meter	NA	NA	NA	
(g)	Date of last SDC	01-19 July 22	01-19 Jul 22	01-19 Jul 22	