0020 RESPONSIBILITIES

1. RESPONSIBILITY OF CHIEF ENGINEER

a) The Chief Engineer is in charge of the Engine Room Department and its staff. He is responsible to the Master and Company for the safe and efficient operation and maintenance of all propulsion, boilers, auxiliary and deck machinery, fittings and structures within and outside the machinery spaces and such other items which may be detailed by the instruction of the Master and Company from time to time.

He is to delegate and ensure that all the emergency gear and life boat engines are tested regularly by his Engineers and maintained in good working order.

b) He is required to keep in close liaison with the Master and keep him promptly and fully advised of any occurrence in the engine room which might affect the navigation or other essential services.

c) After joining the vessel, the Chief Engineer will take the first opportunity to make himself familiar with the details of the machinery and operating instructions and Company's 'Standing Orders'.

He must ensure proper handing over from the out-going Chief Engineer as to the condition of all the machinery in the engine room and on deck.

He must also satisfy himself as to the quantities of bunkers and lube oil remaining on-board.

d) The Chief Engineer is responsible for ensuring the repairs or overhauling to the auxiliary machinery, not immediately essential to the propulsion of the vessel or services required by the Deck Department, are carried out at sea as far as practicable. He will exercise the utmost control over repairs and maintenance in order to affect the maximum economy without compromising maximum efficiency.

e) He is responsible for ensuring that the 'Continuous Survey of Machinery' is being carried out progressively and regularly and that, opportunities are taken to ensure that it is always up to date, or that extensions are applied for where necessary and allowed.

f) In addition to the Company's Engine Room Watch-Keeping and Unmanned Operation Standing Orders, he is to issue detailed orders to his staff to cover operation at sea and in port, and for their guidance in an emergency.

He is to ensure that the Company's 'Standing Orders' and all relevant circulars, notifications and other instructions are read and understood by all the Engineers.

g) The Chief Engineer is to ensure that telegraph and other orders from the Bridge during manoeuvring periods are carried out promptly. For this reason, during such periods, he or the First Engineer must remain in the engine room at all times. He must be in immediate contact with the engine room at all times during the manoeuvring periods.

On leaving port, after 'FULL AWAY', he will ensure that both the main and auxiliary machinery are operating normally before leaving the engine room.

Whilst the vessel is at sea, he will carry out inspection of all running machinery and machinery spaces at least once a day.

h) He is to ensure that when the vessel is in port, a senior watch-keeping engineer remains onboard.

i) The Chief Engineer will supervise the bunkering of fuel and lube oil of the vessel and ensure that the ordered quantity and grade is received.

j) He is to ensure that no major transfer of fuel or water will be carried out at any time without the agreement of the Master or Chief Officer or in his absence, the Senior Watch Keeping Officer onboard. Tanks from which daily fuel consumption is to be drawn are to be agreed with the Master.

k) He is responsible to submit accurate noon report such as slip of vessel, fuel consumption and any other information required to the Master.

l) The Chief Engineer is responsible for the preparation and timely submission of the Engine Room Department's correspondence, records and reports. Similarly, he will be responsible to maintain the ship's files of such information as may be required for the efficient running of the department.

m) He is responsible for the ordering and maintenance of spares, lube oil, chemicals and stores for all machinery and equipment under his control.

n) The Chief Engineer is responsible to the Master for the discipline of all his staff.

o) He will keep a careful account of all labour under his jurisdiction so that the contractor's bills can be properly checked. It is essential that he shall not sign any voucher or delivery order until he has satisfied himself.

All accounts or delivery order should be signed with stamp indicating "For work carried out and goods supplied only. Cost subject to agreement with Owners/ Managers".

2. IMPLEMENTATION OF RESPONSIBILITIES

The Chief Engineer must supervise the implementation of all Engine Department responsibilities.

3. DISCIPLINE

The Chief Engineer is responsible for the supervision, discipline and strict observance of instructions by the engine room personnel.
He is personally to investigate any breach of discipline or complaint by his staff. If he is unable to resolve the matter, he should refer it to the Master for further action.

4. CO-OPERATION WITH THE MASTER

The Chief Engineer is to keep the Master fully informed on matters relating to staff, machinery and equipment under his control. Wholehearted co-operation between the Chief Engineer and the Master contributes largely to the efficient operation of a vessel.

5. MASTER'S ROUTINE INSPECTION

The Chief Engineer must accompany the Master on his routine inspection of the ship.

6. ALLOCATION OF WATCHKEEPING DUTIES

At the Chief Engineers discretion, engineers are to be employed on day work or as Watch-Keeping Engineers. He must ensure that a competent Engineer is in charge of the engine room, or within hearing distance of the accommodation alarms when operating under UMS conditions.

7. VESSEL AT ANCHOR

Sea watches are to be maintained while the vessel is lying at anchor.

8. SEA WATCHES SUSPENDED

When the vessel is in port and sea watches are suspended, the Chief Engineer must ensure that a competent, certified member of his staff is always onboard, and whenever the boilers or any machinery are in operation, a competent Engineer officer is on duty in the engine room, or within hearing distance of the accommodation alarms when operating under UMS conditions.

9. ENGINEERS ON STAND-BY DUTIES

It is the responsibility of the Chief Engineer to ensure that another Engineer is on duty when required during standby conditions and for berthing duties.

10. INSTRUCTION OF ENGINEERS

The Chief Engineer is to give their every assistance to Engineers in the advancement of their studies whilst at sea, and to encourage as much as possible the study of technical books and literature appertaining to the examination for the Certificates of Competency. He should endeavour to ensure that they obtain the necessary Watch-Keeping experience.

11. CONFIDENTIAL EFFICIENCY REPORTS

Confidential staff appraisal reports are to be made by the Chief Engineer on the appropriate forms issued by the Company, for the Engineers, and must be completed in accordance with the instructions. Serious breaches of discipline or bad performance must be reported in full to the Master and by letter to Head Office.

12. FIRE FIGHTING EQUIPMENT

The Chief Engineer is to familiarise himself with all relevant regulations; he is responsible for the care, maintenance and proper location of the fire fighting appliances assigned to the Engine Department, and he is to see that his staff are fully conversant with the methods of using all such equipment.

13. FAMILIARITY WITH PIPING SYSTEMS

The Chief Engineer is to ensure that his staffs are familiar with all piping systems and valves, so that in emergencies essential services can be re-started quickly and safely.

14. COMPANY / MARPOL RECORDS

The Chief Engineer is responsible for the completion of all Company records which require his signature. He is also to ensure that the Oil Record Book, Part 1, is completed and is fully up to date.

14.1. POLLUTION PREVENTION EQUIPMENT

Chief Engineers are to ensure that all pollution prevention equipments are operated according to the Maker's instructions and requirements. If any defect arises out of such operation which may impede the efficiency of this equipment, a Risk assessment is to be carried out and office is to be appraised at once for rectification of such defect.

15. ENGINEERING RECORDS

To ensure that Head Office records are reliable, particularly in compiling comparative performance by vessels, it is essential that all information required in the Engine Log Abstracts and other engineering records is fully and accurately reported.

With the increased use of UMS operation, it is important that on those occasions when the Engine Room is manned and a 'log' taken, that the details are correct, so as to provide the initial data for any investigation into declining machinery efficiency or failure.

The engine room log is a legal document, which may be called for in a formal inquiry.

16. COMMUNICATION WITH HEAD OFFICE

The Chief Engineer is to contact MTMSM when necessary on matters relating to his department, but the Master should see or receive a copy of all communications before despatch. Where it is necessary to telephone or radio MTMSM regarding urgent spare gear requirements or engine breakdowns, it is most important that the message contains all the necessary information to enable MTMSM to clearly appreciate the requirements or defects. All communications should be followed up in hard copy.

17. STORES INDENTS

The Chief Engineer is responsible for the indenting and economic expenditure of all Engine Department stores, and ensuring that accurate records of all spare gear are kept and updated.

18. INSTRUCTION BOOKS AND DIAGRAMS

The Chief Engineer is responsible for instruction books and diagrams placed onboard for Guidance in the Operation and Maintenance of Machinery, and is to ensure that they are available for examination and study by his staff. It is essential that all instructional literature is preserved in good condition and replacement copies indented for as necessary.

19. BUNKER QUANTITIES

The Chief Engineer is responsible to the Master for the quantity, suitability and economy of bunker fuel and for ensuring that sufficient fuel is shipped for the intended passage in accordance with the bunkering instructions. The bunker tanks must be sounded daily during the voyage and the Master advised daily of the quantity remaining on board.

Bunker Safe Margin

Depending on the length of voyage, ECA or outside ECA area, weather likely to be encountered during the voyage and a Risk Assessment, bunker safe margin is to be calculated.

All bunkering operations are the responsibility of the Chief Engineer, who must ensure that full supervision is maintained at all times. The companies Bunkering Procedure is to be strictly followed.

20. MACHINERY INSPECTIONS

The Chief Engineer is to make frequent inspections of all machinery spaces, timing these inspections to ensure that he is thoroughly familiar with the conditions under which all machinery are operated.

21. MAIN ENGINE POWER

The normal service power of the Main Engine must be maintained as instructed in the vessels' commissioning letter unless directed otherwise by Head Office, except under emergency conditions involving safety of life or safety of the ship. Should the vessel's normal service power requires to be altered, the fact, together with the reason for the alteration, is to be reported to Head Office and noted in the Engine Log Book.

22. ELECTRICAL INSTALLATIONS

The Chief Engineer is responsible for the proper care and upkeep of the alternators, wiring and all electrical equipment. The installation of unauthorised electrical equipment and wiring is strictly prohibited. Main and Auxiliary switchboards are to be examined at regular intervals for loose connections and all dust and dirt removed. He is to ensure that regular insulation tests are carried out and that all alternator wiring is maintained in a clean condition.

23. GALLEY EQUIPMENT

The Chief Engineer must personally satisfy himself that the galley equipment is operating satisfactorily.

23.1. REFRIGERATOR FAILURE

Head Office is to be informed of any refrigerator failure which could lead to the deterioration of refrigerated stores.

23.2. INSTRUCTIONS TO CATERING STAFF

The Chief Engineer is to render such assistance and instruction to catering personnel as may be necessary to enable them to operate the galley equipment efficiently and economically. When repairs are made to galley equipment, the equipment must be tested and proved in safe working order before the catering personnel take over its operation.

24. TESTING OF TELEMOTOR AND STEERING GEAR

The Chief Engineer must ensure that before entering narrow channels or entering and leaving port, the tele-motor and steering gear are examined and tested by the Engineer of the Watch.

25. REPAIRS IN PORT

On arrival at a port, or in a roadstead, the Chief Engineer is to ascertain from the Master how long the vessel is expected to remain there and whether repairs can be carried out, before he allows any repairs to commence. Should unforeseen defects or circumstances likely to cause delay to the vessel become apparent, the Master is to be informed immediately. If shore assistance is required for repairs, the fullest possible details should be passed to Head Office. Full use should be made of the Communications Equipment either to Head Office or the Agents at the port if this is likely to clarify requirements more satisfactorily.

26. MARINE EMERGENCIES AND DAMAGE SURVEYS

A serious marine emergency is an incident affecting the M.T.M. Ship Management Pte Ltd. Fleet individually or collectively which has created or is likely to create a significant hazard to marine personnel, property or the environment and which requires, for its proper control, resources not directly or immediately available to the person initially in charge of the emergency. In the event of a serious marine emergency, the Chief Engineer is to assist the Master as required, especially in those areas which are under his jurisdiction, e.g. ER breakdown at sea. The Chief Engineer is to assist the Master in deciding if a Damage Survey is necessary. Such a survey should only be called when the ship has sustained structural or machinery damage from any cause which may affect the seaworthiness of the vessel. Should there be any doubts as to whether the damage affects the sea-worthiness of the vessel, details of the extent and location of the damage are to be reported to Head Office so that instructions can be issued.

27. CHANGE OF APPOINTMENT OF CHIEF ENGINEER

In addition to completing the Chief Engineers Hand-Over Procedure, the following general guide lines must be observed.

On joining a ship and before taking over, the relieving Chief Engineer, in company with the Chief Engineer who is being relieved, is to make a thorough inspection of the Engine Department, its machinery and equipment.

During the course of his inspection he is to acquaint himself with the repairs necessary, and those recently completed. In consultation with the Chief Engineer being relieved he is to make himself familiar with the operating parameters of the equipment, and the daily consumption of fuel, water and stores, in port and at sea. This particularly applies when the relieving Chief Engineer is new to the vessel.

The relieving Chief Engineer is also responsible for the receipt of all calibration tables, instruction books, technical books, machinery drawings and diagrams, together with all records appertaining to the Engine Department. He is to read the workbook and repair sheets in which the Chief Engineer being relieved has recorded all repairs and adjustments, and which must always be kept up to date.

The relieving Chief Engineer is to sign the log book after ensuring that the quantities of bunkers and lubricating oils shown in the log book are correct.

28. RESPONSIBILITIES DURING REPAIRS AND OVERHAULS

Notwithstanding the overriding responsibility of Superintendents during repairs and overhauls, it is the responsibility of the Chief Engineer to ensure that all work carried out on the vessel by the ship's staff or shore personnel is executed and completed in a satisfactory manner.

Although in certain circumstances it may be possible to substantiate a claim against Shore Repairers consequent upon defective workmanship, it must be remembered that their liability is always conditional upon the matter being brought to their attention in writing within a period of three months following re-delivery. Furthermore, a Repairers liability is normally limited to replacing any defective work or material at their own works, and does not extend to any consequential repairs occasioned thereby.

It is therefore most important that all repairs are closely supervised so that the necessity for damage claims does not arise. The number of maintenance staff and the time on board and off the vessel should be noted in the log book together with details of all work carried out. Work carried out elsewhere than in dry-dock should be entered on 'External Contractor' - record of maintenance forms.

29. VERIFICATION OF REPAIR LISTS

It is the responsibility of the Chief Engineer to verify on commencement of work that his Repair List is in agreement with that being used by the Repairers and the Superintendents.

30. WITNESSING THE OPENING UP OF MACHINERY

When machinery is opened up for overhaul, the Chief Engineer is to arrange for inspections to be carried out. All defects which may have affected performance are to be noted and rectified before the machinery is re-assembled.

31. WITNESSING OF WORK BY NIGHT SHIFT WORKERS

When shore labour is engaged on shift work, the Chief Engineer is to ensure that a responsible Engineer is available outside normal working hours to provide continuity of the work by witnessing opening up, re-assembly and testing of machinery and equipment.

32. ABSENCE OF TECHNICAL SUPERINTENDENT

If no Technical Superintendent is present during the dry-docking period, or at times when repairs are being carried out by Maintenance Staff, it is the responsibility of the Chief Engineer to ensure that all work is economically and efficiently performed and,

on completion, to forward a detailed report to Head Office signed by himself and the Master.

33. BOILER WATER GAUGES

When a boiler is shut down for repairs it is the responsibility of the Chief Engineer or the Engineer in Charge, to inspect personally the water gauge passages and all apertures, to prove that they are clear.

33.1. SETTING OF BOILER WATER GAUGES

Before commencing to raise steam the Chief Engineer must personally ensure that the boiler water gauge cocks are correctly set.

33.2. BOILER WATER LOW LEVEL APPLIANCES

When steam rising is commenced the Chief Engineer must personally ensure that the low water level fuel shut off valves operate to extinguish the burners, that the audible alarm operates and that the drum steam and water valves to the float control are secured in the open position.

34. CONTINUOUS SURVEY OF MACHINERY

The Chief Engineer is to ensure that all surveys are up to date within acceptable allowances and to bring to the attention of MTMSM any that may be due or those extensions may be required for.

35. CARGO PUMPS, CARGO LINES AND CARGO VALVES

The Chief Engineer is to ensure that the Deck Officers are familiar with the cargo pumping equipment, are at all times operating it correctly, and that they bring any defects to his attention.

35.1. CARGO PUMPS

Diligent attention to procedures and maintenance will prevent any safety and or operational hazards occurring. Lubrication and planned pump maintenance must be carried out by a responsible person.

It is emphasised that as the Chief Engineer is responsible for the maintenance and repair of the cargo pumps, he is to make it his personal duty to ensure that this equipment is properly maintained and is in a fit state for handling cargo.

35.2. CARGO LINES

In co-operation with the Chief Officer, the Chief Engineer is to pressure test the cargo lines at intervals not exceeding 6 months and report any defects to Head Office. At the same time as the pressure test, a thorough examination of all pipeline brackets, saddles and bolts is to be carried out.

35.3. CARGO VALVES

In co-operation with the Chief Officer, the Chief Engineer is to pressure test every cargo valve at intervals not exceeding 6 months, in the closed position, for leakage across the seat.

MAIN SEGREGATION VALVES in the Pump Room should be subject to **2 pressure tests**, one from each side.
Any defects should be immediately reported to Head Office. Where repairs are beyond the resources of ship's staff, Head Office will provide support.

35.4. WORK BOOK

All work carried out on the cargo pumps, cargo lines and cargo valves shall be recorded in the log book, TM-MASTER/ OTHER PMS or Form G114.

36. WATER-TIGHT INTEGRITY

No repairs of any description likely to affect the water-tight integrity of the ship are to be put in hand until approval in writing has been obtained from the Master showing the time at which such repairs may be made and the conditions under which this may be carried out. Under no circumstances, except in grave emergency, shall such repairs be carried out whilst the ship is in the loaded condition.

37. CHIEF ENGINEER'S ORDER BOOK

The Chief Engineer is to use his Order Book to give those extra orders or instructions which are required from day to day, and any temporary orders and instructions for which a written record is desirable, to Engineer Officers on watch or on duty in UMS operations.

The book is generally to be kept in the Engine Room. The Company's Standing Orders are displayed in the Engine Room Control Room. Any additional orders the Chief Engineer may require to be observed are to be written on the pages provided for this purpose at the beginning of the book. These additional orders are to be dated and signed.

The book is to be filled in every day, irrespective of whether or not there are any specific operational instructions to make. It may be necessary to write only that the standing orders are to be observed, but this must be done. When a Chief Engineer is relieved by the Second Engineer as Acting Chief Engineer, the relieving officer is to continue to operate his predecessors' standing orders and is to acknowledge this by counter signing and dating the additional standing orders.

38. AUTHORITY WHEN A SUPERINTENDENT IS ON BOARD

Irrespective of the presence on board of a Manager or Technical Superintendent, the responsibility and authority of ships' officers to manage and supervise shipboard operations remains unaffected.

39. EMERGENCY EQUIPMENT

The Chief Engineer is to ensure that the Emergency Equipment is tested as per TM-MASTER/ OTHER by the First Assistant Engineer. If any fault arises with the Emergency Equipment which cannot be immediately rectified by ships' staff, then the Chief Engineer is to advise the Master and contact Head Office directly.

40. MACHINERY FAILURES

It is essential that all incidents which cause a delay to the operation of the ship and which are caused by any type of mechanical or electrical failure are to be recorded in the Engine Log Book. The entry should be made against the watch during which the incident occurred.

The record is to state briefly the nature of the failure, the time the failure occurred and the time it was rectified. It may be necessary to submit NCR/ CAR and Total Loss Control Reports, depending on the nature of the incident.

41. RELATED DOCUMENTS

Form E118: Chief Engineer’s Night Orders

Form E119: Chief Engineer’s Hand-Over Form & Vessel's Condition Report

VIQ - 11.5: Has the Chief engineer written his own standing orders and are night orders being completed?