1. SCOPE

This Procedure defines the activities to be carried out by the Fleet/Technical Dept. and Vessel’s staff in order to prepare the Company vessels for the repair works and drydock at a Shiprepair yard and the management of the relevant works while being carried out, in compliance with the Company SQEMS.

2. RESPONSIBILITY

Masters and Chief Eng.
- To keep the drydock repair works file properly updated.
- To maintain active all safety precautions, as required by Company SQEMS by Vessel Flag Administration and by Shipyard internal procedure on board during repairs;
- To provide the necessary instructions and to provide follow up and control to any subcontractor carrying out a work which is not included into Shipyard’s contract responsibilities on board of vessel, or by the ship staff, according to the instructions and orders received by the ship’s Superintendent.
- To prepare a plan for tank cleaning and submit it to Operation department for approval with copy to Technical department;
- To wait shore approval of tank cleaning plan prior to start tank cleaning;
- With vessel at berth not operative with reduced staff on board, to coordinate with yard to ensure that contingency plans (see dedicated WIN) are in place and effective.

Fleet Director
- To instruct and support the Technical Manager and Ship Superintendents for preparation, evaluation, selection and execution of repair works specification, reporting the works extent, schedule and budget updates to Company Management.
- To fix the budget approved/review by Management and communicate it to technical staff involved;
- To instruct the technical office assistants to issue a “D” (drydock) Amos order to Shipyard awarded the repair contract.
- To update the Company Management, when vessel is at Shipyard, about the works progress and significant works scope required changes affecting budget and vessel off hire time at Shipyard in order to get Management approval for the same;
- To submit to Company Management the proposal for the vessel to be laid-up or set inactive with reduced crew, based on safety, technical and economics considerations;
- To provide the final approval of Shipyard invoice.
- To provide for the Amos “D” drydock order to be updated with the final invoice amount.

Technical Manager
- To provide the necessary technical information and support to the Ship’s Superintendent for the repair works specification preparation, as deemed necessary, with particular reference to Class and/or repair works having a large impact on the budget/works duration;
- To assist the Fleet Director in the selection of Shipyards invited to bid and in the evaluation of the Shipyards’ bids received;
- To review the vessels repair work specification prepared by the Ship’s Superintendent;
- To evaluate and compare the repair offers received by the Shipyards to comment and submit the same to the Fleet Director for his evaluation;
- To attend the vessel during the repair works/drydock period for limited periods in order to check the works schedule and budget and to update the same according to the information received from the shipyard managers and providing his own evaluation;
- To report to the Fleet Director on a weekly basis.

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<tr>
<th>Prepared by:</th>
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<th>Approved by:</th>
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<tbody>
<tr>
<td>Tech. Mgr.</td>
<td>Fleet Director</td>
<td>General Manager</td>
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</table>

Distribution: to all managed vessels
Ship’s Superintendent (supported by ship Staff as necessary)

- To cooperate/discuss and agree with Master/Operation Department for the tank cleaning so to receive the vessel ready for the intended repair;
- To prepare the Ship repair/drydock works specification with the assistance of the vessel command;
- To monitor the day-to-day in the ship-yard, coordinating Class and Repair shipyard surveys and activities;
- To organize and coordinate all activities related to the repair works to be included in the repair works according to his instructions;
- To discuss with Shipyard Managers non-compliances versus the contractual commitments;
- To check at the repair shipyard the technical progress of the repair works, as deemed necessary by himself and to discuss the scope and extent of additional works, exceeding the scope of the original repair works specification;
- To provide a regular weekly update to the Technical Manager about the works progress, repair schedule and budget of the vessel at Shipyard;
- To analyze, discuss and review the final works list and relevant Shipyard invoice;
- To submit results of the above to the Tech Man and Fleet Dir for their evaluation and confirmation.

3. PROCEDURE

3.1 Ship-yard Repair Works Preparation

While the vessel is in normal operations, any defects, maintenance and overhal works corrective actions and works for which are beyond the possibilities and capabilities of the vessel crew, should be listed in the “Ship’s Defect List” and, when the case, recorded in the dedicated Company form “Specification of Repairs” and reported to Technical Dept. Superintendent. The reports should include full details of such defect/maintenance items, identifying the cause, when known and available.

Serious defects which affect the safety of personnel, the ship or the environment as well the commercial operations shall be reported immediately to the Company.

Where defects/maintenance/overhaul works have been dealt with by ship's staff own means, the Master and/or the Chief Engineer shall inform the Company Technical Dept, in order to decide whether the same could be considered satisfactorily with or whether further works/corrective action are to be taken at the Repair Shipyard/Drydock. The Ship Superintendent will decide on the matter and inform the Technical Manager Supt in due time while the repair works list is being prepared.

The list of works/repairs to be carried out at the next dry-dock will be available on board and in copy at the Technical Dept., in the dedicated file.

3.2 Preparation of the Technical Specification

The Vessel Superintendent will be responsible of the preparation of the repair works specification.

The Technical Manager will assist the Ship Superintendent in the repair works specification preparation for all Class and technical works beyond standard practice as deemed necessary.

The repair works specification shall also take into account those products and activities which might have impact to the environment and detailed actions to be taken to control or influence them.

The list of jobs to be carried out shall follow a logical order as follows:

- hull cleaning and painting;
- dry-dock related jobs (rudder, tail shaft, propeller, sea chests and valves, anchors and chains, cathodic protection, etc.);
- Structure and fitting, excluding the accommodation block (ballast tanks, cargo tanks/holds, hatches, cranes, piping, etc.);
- main machinery (main engine, auxiliary engines and boilers);
- Auxiliary machinery (deck machinery, pumps, compressors, etc.);
- Accommodation (structure, fittings, deck equipment etc.).

The Superintendent shall supplement the work specification description with drawings, sketches and pictures as appropriate.

3.3 Preparation for Ship-yard repair works and dry-docking

Before the vessel will enter the premises of the repair Shipyard/Drydock, the Ship command and the Shipyard Superintendent will make sure that:
a) All necessary materials are ordered and the delivery to the Ship-yard is scheduled in due advance of the vessel arrival; this work to be carried out in coordination with the Company Purchasing Dept.;
b) Where technical service of machinery/equipment is foreseen, the local service company is alerted and an order placed by the Purchasing Dept., Technical Dept. or by the Ship-yard (as agreed in the contract);
c) Master is fully informed about:
   • the selected Ship-yard;
   • the repair period;
   • the required arrival conditions;
   • the scope of work;
   • the environmental aspects and impacts management during dry-dock period;
d) The ship staff delegated to supervise any part of or specific work to be carried out at the Shipyard, has been properly instructed and is confident with the relevant scope of work;
e) The list of works to be carried out by the ship staff is understood and agreed and any assistance required from the Ship-yard or other specialized company is arranged;
f) The Ship-yard personnel in charge of the vessel is aware of and has signed the Environmental Company Policy and any additional environmental requirements;
g) The Ship-yard personnel in charge is aware of, agrees on and officially authorizes the scope of works to be carried out by the vessel's staff or other specialized company directly engaged by the Company.

During the time the vessel is in the Ship-yard premises, the Ship Superintendent(s) shall:
a) Ascertain that all vessel safety systems are operative and that power is supplied to maintain all required systems in working conditions.
   The Ship-yard shall provide customary safety standards in accordance to industrial practice.
   The Ship-yard shall implement all the contractual requirements related to safety.
b) Monitor safety and environmental standards are provided by the Shipyard in accordance with the applicable industrial standard and with the Ship repair industry best practice;
c) Monitor the correct implementation of all ship-yard contractual requirements related to safety and environmental protection;
d) Liaise between vessel staff and Ship-yard personnel.

NOTE: as far as crew and vessel safety is concerned, the Master responsibility is limited to any aspect Company procedures could be fully implemented with vessel at repair Yard. Any procedure or aspect forcedly limited by the Shipyards' personnel activity and working conditions on board, condition extremely different by normal vessel in operation, should be raised during daily Safety Meeting with Yard in order to cover any eventual gap or missing. Anyhow the Master should liaise with the vessel Superintendent and the Ship-yard staff to ensure that safety standards and services are maintained on the vessel at all the time.

3.4 Issuing of Amos “D” type order.

For the purpose of Company management control, a type “D” drydock order should be issued by the technical office to the Shipyard that has been awarded the repair and drydock works contract. The order will indicate the expected amount of the final invoice as elaborated by the Technical manager/Superintendent on the basis of the Shipyard offer received for the scope of works submitted and technical additional evaluation. Upon discussion and settlement of the final shipyard's invoice the order should be updated by the technical dept assistants indicating the same final amount as officially agreed.

3.5 Settlement of final Repair/drydock works carried out and relevant invoice.

The final list of all repair, overhaul and drydock works carried out by the Shipyard personnel shall be verified by the Ship Superintendent with the help of the ship Master and Chief Engineer, as deemed necessary, in order to get confirmation the scope of works has been carried out according to the specification and/or additional orders issued after the vessel has entered the Shipyard. The Ship Superintendent will evaluate compliance of works scope, costs and actual repair works period with the vessel repair/drydock contract agreed with the Shipyard and will negotiate, as deemed necessary after agreement with the Fleet Director, the same taking into account any penalties, wherever applicable. The final negotiation result and proposals will be notified to the Fleet Director for his approval. Whenever deemed necessary by the Fleet Director, the Technical Manager will be required to take over shipyard negotiation duty with Shipyard representatives in order to come to an acceptable economic result.
3.6 Filing
The list of works carried out by the Shipyard/vessel crew, including all technical attachments, drydock works report etc, must be properly collected and stored in the dedicated vessel file, with copy in the Technical Dept.

4. PRECAUTIONS

4.1 Ship temporarily idle (in dry-dock for temporary repair works)

When the vessel is temporarily in idle condition, arrangements are to be provided to ensure adequate security, safeguards against fire, flooding and conditions of mooring.

The vessel's Master should decide the composition and duration of the watch.

If the water/foam fire fighting system will be not available, suitable substitute systems must always be available and maintained in working condition. Such systems may be a portable fire pump or the connection of the vessel's fire main line with the shore water fire system through the international shore connection.

If, for maintenance purposes, the fixed extinguishing system is not available, additional portable extinguishers are to be fitted and continuous patrol of the vessel (especially for high fire risk locations) is to be maintained so that a possible fire may be promptly detected and extinguished.

Furthermore, if required by the Port Authority and/or in case of open flame work, a suitable shore fire team must always be present on board.

All the above described precautions must always be in compliance with the Shipyard safety precautions, contingency plan and standards.

4.2 Preparing the ship for dry-docking

When a ship is scheduled for a dry-docking, the following precautions are to be taken:

✓ Fuel tank content is to be kept to minimum. Fuel tanks adjacent to tanks in which maintenance work is programmed are to be empty. Fuel tanks to be maintained or repaired are to be rendered gas free;
✓ main and auxiliary engines are to be fed by means of gas oil for the time necessary to replace possible heavy fuel in the feed piping;
✓ Gasoil service tanks for auxiliary and emergency generators are to be fully filled. In case of auxiliary generators running on HFO a dedicated tank must be kept filled anyway;
✓ distilled water tanks for boilers, if needed, are to be fully filled;
✓ All tanks (filled or empty) are to be sounded and the relevant content recorded on a form.

4.3 Before flooding the dry dock

The following precautions are to be taken:

✓ check that all sea valves are shut and that all piping system (repaired, maintained or connected to machinery/systems submitted to maintenance or repair) are connected and tight;
✓ check that bottom plating drain plugs are fitted and that tailshaft oil glands do not show any oil leakage;
✓ check that plugs on sea valves and outboard discharges are removed;
✓ Arrange with the Shipyard Repair Manager to have the drydock filled only up to sea chest valve height in order to check integrity and tightness of the same, before proceeding with the complete filling up.

4.4 After flooding the dry dock

The following precautions are to be taken:

✓ check that sea and overboard discharge valves and relevant piping do not leak;
✓ sound all compartments to verify that no water has entered;
✓ check the water surface around the ship to verify that no pollution due to leakage of any the after tailshaft gland or any ship’s compartment has occurred;
✓ Check a few times the Main Engine start forward and aft before the maneuvering to exit the Dry-dock/yard should start.
5. **VESSEL AT YARD OR BERTH FOR A LONG STAY**

In case any particular technical or operational reason is obliging the vessel to a long stay to a Shipyard or berth premises, for instance for a vessel conversion or for any major repair. Company has the option to decide which of the following criteria will apply:

- Vessel in full layup condition;
- Vessel NOT operative with reduced manning at yard pier.

The decision of applying one of described condition will be taken by the board of director and ratified by General Manager.

### 5.1 Vessel in Full Lay-up condition

In this case the vessel is delivered to the Yard Management or to other company/subcontractors able to provide a full layup management service to the vessel and Company which will be regulated by a specific service agreement. According to the same, the yard and/or subcontractors will take over in full responsibility of the vessel safety, security and pollution prevention services for the duration of the contract itself. During lay-up period the Company HSEMS of the vessel is suspended.

The vessel at completion of the conversion/repair will be redelivered to the Company in accordance to the terms of contract agreed the Company, thus at the same time will resume the full control and management of the vessel HSE system.

The vessel in layup conditions is not operative, than any management activity is suspended and vessels certifications will be managed as per national, international and class rules.

### 5.2 Vessel Not Operative with reduced manning at yard

For any specific reason but mainly in order to maintain control of the vessel during the long stay for repair/conversion or operational stop time, the Company may decide to reduce the vessel manning to the minimum number required by the Flag administration and/or local authorities (at the place of layup) for a non-operative condition where the vessel is a shipyard berth or anchorage and where the yard will provide part of the services and assistance required for the Safety, Security and antipollution protection of the vessel.

The Company defines the minimum number of crew and ranks to be employed on board as per below table:

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<thead>
<tr>
<th>N°</th>
<th>Rank</th>
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<tbody>
<tr>
<td>1</td>
<td>Master</td>
</tr>
<tr>
<td>1</td>
<td>Engine Officer</td>
</tr>
<tr>
<td>1</td>
<td>Cook</td>
</tr>
<tr>
<td>1</td>
<td>Deck Rating</td>
</tr>
<tr>
<td>1</td>
<td>Engine Rating</td>
</tr>
<tr>
<td>1</td>
<td>Additional Rating or Cadet</td>
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</tbody>
</table>

The minimum manning of the vessel must in any case be agreed with following parties:

- Vessel’s flag authority
- Local Port Authority
- Yard Management

Due to the reduced crew on board several safety activities are delegated to shipyard and will be subject to its contingency plan. Detailed instruction for the adoption and implementation of the plan are available into dedicated **WIN**. At the end of Not Operative period, prior to put back the vessel in operations it will be necessary to restore the whole management system and to verify that all requirements are satisfied. Operation and checks required are specified by dedicated **WIN**.

### 5.3 Work organization
In both above conditions the vessel cannot be fully managed according to and in compliance with the Company HSE System. Therefore the dedicated WIN must be complied with when the condition in caption occurs.

Reference to be made strictly to dedicated WIN in which every specific aspect of the Company HSE system is evaluated and instructions as to how to deal with those still applicable are provided.

References

- WIN-TEC-22 Company Ship’s Defect List Management
- WIN-ORG-20 HSEMS for Vessel’s Long Stay at Pier with Reduced