|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **TECHNICAL PASSAGE PLAN …….TO PLAN A PERFECT VOYAGE:**  **Risk Profile of Critical SYSTEMS**  **To be completed “BEFORE” commencement of EACH & EVERY Passage** | | | | | | | | |
| Vessel: | Date: | | | From (Port) | To (Port) | | Estimated Duration | Voyage # |
|  | | |  |  | | Days |  |
| **A. CRITICAL SYSTEMS**  **Defined:** | **A-1**  **Propulsion**  **(Main Engine)** | | | **A-2**  **Power Generation** | **A-3**  **Steering &**  **Auto Pilot** | | **A-4**  **Navigation Bridge:**  **Instruments & Equipment** | **A-5**  **Systems, Alarms & Trips** |
| **B. Name the Critical Systems on which**  **repairs or preventive maintenance was**  **performed in preparation for THIS**  **PASSAGE.** | | | |  | | | | |
| **C. “DID THE Engine Team” Examine and Discuss Past Records and Recent Malfunctions of CRITICAL SYSTEMS to prevent**  **occurrence ON THIS PASSAGE:**  **Name Machinery and Brief Pertinent Details:** | | | | | | | | |
| **D. Identify the MOVING PARTS or STATIC COMPONENTS examined to DISTINGUISH** & **QUALIFY** the damage as**:**   * **Go Defect (GD) Continue Passage / No Go Defect (NGD) Discontinue Passage** (**in Consultation with Management**) * **Risk evaluated: High Risk (HR); Medium Risk (MR); Low Risk (LR)** | | | | | | | | |
| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **System** | **Moving Parts or Static Component Examined** | **Normal**  **(√)** | **Defect/ Damage**  **(D)** | **Risk**  **(HR)(MR)(LR)** | **Management Notified**  **(Y) (N) / Action** | | | **A-1**  **Propulsion** | **Piston/ Liners/ Cy Hd** |  |  |  |  |  | |  | **Crankcase: Con Rod:**  **Bearings: Main + Top/Bottom End + X Hd** |  |  |  |  |  | | **A-2**  **Power Generation** |  |  |  |  |  |  | | **A-3**  **Steering &**  **Auto Pilot** |  |  |  |  |  |  | | **A-4**  **Navigation Bridge:**  **Instruments & Equipment** | **Gyro + Radar + Magnetic Compass + ECDIS (Including ENS) + GNSS + GPS + AIS** |  |  |  |  |  | | **A-5**  **Systems, Alarms & Trips** |  |  |  |  |  |  | | **Other** |  |  |  |  |  |  | | | | | | | | | |
| **E. Examine the following “KEY PERFORMANCE INDICATORS” (KPI) to Evaluate Risk Profile of ”A”**  **(Record your assessment on the basis of following factors in your judgment & experience)** | | | | | | | | |
| **(E-1)** Total running hours:  **(E-2)**Hours since overhaul | |  | | | | | | |
| **(E-3)** Condition: (wear & tear)  **(E-4)** Symptoms observed on  Last voyage  **(E-5)** Lub Oil, Fuel Oil Analysis | |  | | | | | | |
| **(E-6)** TCC Experience  influencing Maker’s  recommended interval  of overhauling etc. | |  | | | | | | |
| **(E-7)** Other Factors:  (a) Diagnostic results  of Performance  (b) Ship Specific | |  | | | | | | |
| **F. Action to Prevent**  **Malfunction In the**  **context of (E)** | |  | | | | | | |
| **G. Do you have critical**  **spares on board for**  **maintenance of critical**  **machinery listed in PMS**  **(Bassnet)** | |  | | | | | | |
| **H. Expanded Comments**  **if any:** | |  | | | | | | |
| **Second Engineer:** | | | **Chief Engineer:** | | | **Master:** | | |

**PLANNING A PERFECT YOYAGE**:

EVALUATING THE “RISK PROFILE OF CRITICAL SYSTEMS”

for a Technical Passage Plan from berth to berth.

* List of “**Critical Systems**”.
* **Failure** of Critical Systems can stop the ship at sea or if in port can prevent her from sailing.
* Its soundness shall be examined BEFORE starting a passage to ensure an uninterrupted safe voyage
* The Management encourages you to use the concept of “**Engine Team Management (ETM)”** under the leadership and guidance of Chief Engineer.
* Optimize efficient & effective “**Engine Resource Management” (ERM)** by jointly discussing the PLAN.
* *Everybody on the team matters and is important!*

**The partial list of items below is a part of Critical Systems on Board and shall be expanded to include individual specifications of the vessel**

**CRITICAL SYSTEMS**

Main Propulsion

Bridge /Steering

Systems/Alarms & Trips

Power Generation

Peripheral Equipment

Main Engine

Peripherals

Diesel /Electric

Fuel/Lubs/Controls

Pneumatic

Electric

Electric/Hydraulic

Diesel Engine:

Running Hours

\* Fuel Valves

\* Air Start V/v

\* Exhaust v/v

\* Piston Rings

\* Relief Valves

\* Fuel Pumps

\* Liner

\* Cylinder Head

\* Connecting rods

\* Bearings

\*Alternator

Insulation

\* MSB

Grounding

\*Cooling water

\* Economiser

\* Reversing

Gear

\* Pneumatic

Control

\*Shaft

Bearings

Stern Tube Seals

Main Engine:

\* Fuel Valves

\* Air Start V/v

\* Exhaust v/v

\* Piston Rings

\* Stuffing Box

\* Relief Valves

\* Fuel Pumps

\* Liner

\* Cylinder Head

\* Filters

Turbo charger:

\* Bearings,

\* Lub p/p

\* Rotor

\* Scavenge Space

\* Air Cooler

\* Jacket Cooler

CrankCase Components:

\* Main Bearing

\* Top End

\* Bottom End

\* Cross Head

\* Chain

\*System Oil

Contamination

\* Turbo

charger:

\* Bearings,

\* Lub. p/p

\* Rotor

\* Air Cooler

\* Jacket Cooler

\* Filters

\* Alarms & monitoring

Systems

\* Automation & Controls

\* Equipment Part of

Critical Systems

\* LO Systems

\* FO Systems

\* Pneumatic Systems

\* Radar

\* GMDSS

\* Gyro

\* Auto Pilot

\* ECDIS

\* Navtex

\* Steering

\* Motors

\* Rams

\* Seals

\* Instruments

\* Steering Linkage

\* This is not a complete list.



|  |  |
| --- | --- |
| **Expanded Comments** | |
| **Identify:**   * + Critical Systems (see page #2) or   + Technical Passage Plan Section   (“A thru H” as appropriate.) | Comments: |
|  |  |