## INDIAN SEAFARING OFFICERS

Compensation and Benefits Survey - 2010





Conducted by

**ISF HR Services** 





Foreign Owners Representatives and Ship Managers Association (FOSMA) is the pioneer association of Foreign Ship-owners Representatives, Foreign Ship Managers, Ship Manning Agents in India. It was established in the year 1989. From small beginnings, FOSMA has today risen to its present eminent position comprising of over 30 member companies representing majority of Indian Seafarers working on foreign flag vessels.

FOSMA is actively involved in representing the views of the industry, and working along with the maritime administration of India in matters relating to Recruitment and Placement of Seafarers, Merchant Shipping, Maritime Education and Training, Assessment, Examination and Certification Matters, Maritime Labour Conventions, STCW matters, etc.

FOSMA has also been running its own maritime training institutes for the general benefit of all seafarers at Kolkata, Delhi, Haldia and Mumbai, with a spread of courses from pre-sea to Master / Chief Engineer.

Page 2 of 56

# j:F

**ISF HR Services**, established in 2003, is a company actively involved in Training and Consultancy in Human Resource and Management areas and is a part of the ISF Group (<a href="www.isfgroup.in">www.isfgroup.in</a>). Other activities of the Group include maritime training, distance learning programmes, maritime audits and surveys, software development and E-learning (<a href="www.ispelearning.com">www.ispelearning.com</a>). The group fulfills its social responsibilities through various activities under the banner of Inner Search Foundation, a public charitable trust established in 2000.

The following members of the ISF HR Services have been involved in the survey, statistical analysis and authoring the "ISF Seafaring Officers Wages Benchmarking Report - 2010".

**Pawan Kapoor** is the Chief Executive of ISF HR Services. He is a marine engineer, with career spanning 29 years, during which he has sailed for 10 years and has worked ashore in the maritime education sector for 19 years. With over 11 years experience in developing and managing training organizations, he has used his experience in writing several project/feasibility reports for institutes in India.

**Poonam Kapoor** has a Masters degree in Economics. She is involved in research activities and has a working paper titled "India's Trade in Services" published by University of Mumbai in July 2009. She has been instrumental in inception and growth of various entities within the ISF Group.

Page 3 of 56

## **Participating Companies**

The following FOSMA member and non member companies have participated in this benchmarking exercise:

- 1. Andromeda Shipping (India) Pvt. Ltd.
- 2. Bernard Schulte Ship Management India Pvt. Ltd.
- 3. Chellaram Shipping Pvt. Ltd.
- 4. Confidence Shipping Co. Pvt. Ltd.
- 5. Dockendale Shipping Company Ltd.
- 6. Dynacom Tankers Management Ltd.
- 7. ELITE Mariners Pvt. Ltd.
- 8. EMS Selandia Marine Services Pvt. Ltd.
- 9. Genoa Maritime (Cyprus) Ltd.
- 10. Herald Maritime Services Pvt. Ltd.
- 11. IMS Ship Management Pvt Ltd.
- 12. K Line Ship Management Co. Ltd. (KLSM)
- 13. K Steamship Agencies Pvt. Ltd
- 14. Mitsui O.S.K. Lines Maritime (India) Pvt. Ltd.
- 15. MMS Maritime (India) Pvt. Ltd.
- 16. Nortrans Maritime Services
- 17. NYK Shipmanagement PTE Ltd.
- 18. OMCI Shipmanagement.
- 19. Orient Ship Management & Manning Pvt. Ltd.
- 20. Pacific Shipping Pvt. Ltd.
- 21. Sea Team Management (India) Pvt. Ltd.
- 22. Torm Shipping India PVT. Ltd
- 23. V. Ships India Pvt. Ltd
- 24. Wallem Shipmanagement (India) Pvt. Ltd.
- 25. Wilhelmsen Ship Management (India) Pvt. Ltd.
- 26. World Tankers Management Pte. Ltd.

Page 4 of 56

#### **Abbreviations Used**

- ASF ASEAN Shipowners' Association
- BIMCO The Baltic and International Maritime Council
- CAGR Compound Annual Growth Rate
- FSO Floating Storage and Offloading unit
- INSA Indian National Shipowners' Association
- LNG Liquefied Natural Gas
- LPG Liquefied Petroleum Gas
- MASSA Maritime Association of Shipowners
   Shipmanagers and Agents
- Max Highest value in a set of data
- Min lowest value in a set of data
- P10 10th percentile in the set of data
- P25 25th percentile in the set of data
- P75 75th percentile in the set of data
- P90 90th percentile in the set of data
- PCC Pure Car Carrier
- RORO Roll-on/roll-off ship
- SD Standard Deviation
- USD United States Dollars

Page 5 of 56

## **Table of Contents**

| 1.           | Wages Benchmarking – 2010                               | <i>&amp;</i> |
|--------------|---|--------------|
| 1.1.         | Oil Tankers   | <i>9</i>     |
| <b>1.2</b> . | Chemical Tankers  | 10           |
| 1.3.         | LPG   | 11           |
| 1.4.         | LNG   | 12           |
| 1.5.         | Bulk Carriers / Self Unloaders                          | 13           |
| 1.6.         | Ro Ro / PCCs  | 14           |
| 1.7.         | Container Vessels                                       | 15           |
| 1.8.         | FSO / FPSO  | 16           |
| 1.9.         | Off Shore Vessels                                       | 18           |
| <b>2</b> .   | Additional Benefits for Seafarers - The Industry Trends | 17           |
| 2.1.         | Master/Chief Engineer                                   | 18           |
| 2.2.         | Chief Officer/Second Engineer                           | 19           |
| 2.3.         | Second Officer/Third Engineer                           | 20           |
| 2.4.         | Electrical Officer                                      | 21           |
| <i>2.5.</i>  | Third Officer/Fourth Engineer                           | 22           |
| <i>3.</i>    | Wage Trends over the Years (2005-2010)                  | 23           |
| 3.1.         | Oil Tankers   | 24           |
| <i>3.2.</i>  | Chemical Tankers  | 26           |
| <i>3.3.</i>  | LPG   | 28           |
| 3.4.         | LNG   | 30           |
| <i>3.5.</i>  | Bulk Carriers / Self Unloaders                          | 32           |
| 3.6.         | Ro Ro / PCCs  | 34           |
| <i>3.7.</i>  | Container Vessels                                       | 36           |
| 3.8.         | FSOs / FPSOs  | 38           |

| 4. Survey Outcomes, Conclusions and Recommendations       | 40 |
|---|----|
| 4.1. Introduction:  |    |
| 4.2. Target Population                                    |    |
| 4.3. Manning Scales                                       | 41 |
| 4.4. Seafarers Wage Trends                                | 42 |
| 4.5. Current Indian Seafaring Officers' Onboard Positions | 43 |
| 4.6. Requirements/Aspirations for the Future              | 45 |
| 4.7. Trends on Trainee Inductions:                        | 48 |
| 4.8. Institute Capacities                                 | 49 |
| 4.9. COC examination Trends                               | 49 |
| 4.10. Conclusions   | 50 |
| 4.11. Recommendations                                     | 51 |
| 5. Appendices   | 52 |
| 5.1. The Process of Benchmarking Survey                   | 53 |
| 5.2. Statistical Data Analysis Tools                      | 55 |

## 1. Wages Benchmarking - 2010

This section presents the analysis of 2010 wages for the seafarers derived from the data shared by the participating companies. The outcomes have been presented in form of tables for various ship types as well as each rank under different ship types. The tables display statistical analysis like Mean, Median, Percentiles and Standard Deviations, etc. for each rank for efficient decision making. A brief explanation of the various statistical tools used has been included in the appendices.

Page 8 of 56

## 1.1. Oil Tankers

Total respondents: 21 companies (80.77%). However the actual number of sea faring officers could not be determined from the data made available.

| ine data made avanable                                   | <u></u>     |             |             | Master         |              |       |             |             |           |  |
|--|-------------|-------------|-------------|----------------|--------------|-------|-------------|-------------|-----------|--|
| Figures in \$ per month                                  |             |             |             | Master         |              |       |             |             |           |  |
| •  |             |             |             | Mai            | rket         |       |             |             |           |  |
| Components   | Min         | P10         | P25         | Median         | Mean         | P75   | P90         | Max         | SD        |  |
| First Year Wages   | 9000        | 10230       | 10428       | 11000          | 11051        | 11600 | 12100       | 12536       | 861       |  |
| Final Year Wages   | 10500       | 11857       | 12000       | 12600          | 12510        | 13000 | 13400       | 13750       | 781       |  |
| Chief Engineer   |             |             |             |                |              |       |             |             |           |  |
| Figures in \$ per month                                  |             |             |             |                |              |       |             |             |           |  |
| Components   |             |             |             | Mai            |              |       | T           |             | ~         |  |
| _  | Min         | P10         | P25         | Median         | Mean         | P75   | P90         | Max         | SD        |  |
| First Year Wages Final Year Wages                        | 9000        | 10028       | 10276       | 10824          | 10866        | 11385 | 11975       | 12486       | 856       |  |
| rmai Tear wages  | 10500       | 11516       | 11925       | 12520          | 12353        | 12913 | 13213       | 13350       | 731       |  |
| Chief Officer / Second Engineer                          |             |             |             |                |              |       |             |             |           |  |
| Figures in \$ per month                                  |             |             |             | Mar            | rket         |       |             |             |           |  |
| Components   | Min         | P10         | P25         | Median         | Mean         | P75   | P90         | Max         | SD        |  |
| First Year Wages   | 6500        | 7806        | 8300        | 8520           | 8451         | 8762  | 9120        | 9400        | 607       |  |
| Final Year Wages   | 7700        | 8946        | 9130        | 9400           | 9332         | 9525  | 9960        | 10200       | 510       |  |
|  |             |             | Second Of   | ficer / Thir   | d Engineer   | r     |             |             |           |  |
| Second Officer / Third Engineer  Figures in \$ per month |             |             |             |                |              |       |             |             |           |  |
|  |             |             |             | Mai            | rket         |       |             |             |           |  |
| Components   | Min         | P10         | P25         | Median         | Mean         | P75   | P90         | Max         | SD        |  |
| First Year Wages   | 3600        | 4014        | 4232        | 4356           | 4377         | 4596  | 4785        | 5000        | 339       |  |
| Final Year Wages   | 4200        | 4379        | 4515        | 4700           | 4729         | 4888  | 5129        | 5500        | 331       |  |
|  |             |             | Ele         | ctrical Off    | icer         |       |             | -           |           |  |
| Figures in \$ per month                                  |             |             |             | 0111001 011    | 1001         |       |             |             |           |  |
|  |             |             |             | Mai            | rket         |       |             |             |           |  |
| Components   | Min         | P10         | P25         | Median         | Mean         | P75   | P90         | Max         | SD        |  |
| First Year Wages   | 3600        | 3816        | 4334        | 4500           | 4450         | 4721  | 4846        | 5000        | 376       |  |
| Final Year Wages   | 4455        | 4560        | 4780        | 5150           | 5056         | 5338  | 5490        | 5596        | 352       |  |
|  | _           | ,           | Third Offic | cer / Fourt    | h Engineer   | r     |             |             |           |  |
| Figures in \$ per month                                  |             |             |             |                |              |       |             |             |           |  |
| Components   | 2.5         | D10         | P25         |                | rket         | P75   | D00         |             | CD        |  |
| First Year Wages   | Min<br>3100 | P10<br>3222 | 3504        | Median<br>3650 | Mean<br>3639 | 3800  | P90<br>3911 | Max<br>4421 | SD<br>292 |  |
| Final Year Wages   | 3500        | 3622        | 3713        | 3855           | 3929         | 4099  | 4219        | 4620        | 302       |  |
|  |             |             |             | Deck Cade      |              |       |             |             | 2,52      |  |
| Figures in \$ per month                                  |             |             | -           | been cauc      |              |       |             |             |           |  |
| Components   |             |             |             | Mai            | rket         |       |             |             |           |  |
| -  | Min         | P10         | P25         | Median         | Mean         | P75   | P90         | Max         | SD        |  |
| First Year Wages   | 250         | 350         | 400         | 450            | 479          | 550   | 660         | 750         | 126       |  |
| Final Year Wages   | 321         | 428         | 468         | 550            | 545          | 613   | 678         | 800         | 123       |  |
|  |             |             | Train       | ee / Jr. En    | gineer       |       |             |             |           |  |
| Figures in \$ per month                                  |             |             |             |                |              |       |             |             |           |  |
| Components   |             |             |             |                | rket         |       |             |             |           |  |
|  | Min         | P10         | P25         | Median         | Mean         | P75   | P90         | Max         | SD        |  |
| First Year Wages   | 550         | 561         | 687         | 750            | 771          | 800   | 950         | 1200        | 169       |  |
| Final Year Wages   | 561         | 588         | 700         | 776            | 794          | 808   | 1031        | 1200        | 170       |  |

i-E

## 1.2. Chemical Tankers

Total respondents: 10 companies (38.46%). In case of Deck Cadets and trainee Jr. Engineers, the total respondents are 8 companies (30.78%). However the actual number of sea faring officers could not be determined from the data made available.

|                                   |               |                |                | Master         |                |                |               |                |            |  |
|-----------------------------------|---------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|------------|--|
| Figures in \$ per month           |               |                |                | 1.145001       |                |                |               |                |            |  |
|                                   |               |                |                | Mar            | ket            |                |               |                |            |  |
| Components                        | Min           | P10            | P25            | Median         | Mean           | P75            | P90           | Max            | SD         |  |
| First Year Wages                  | 9000          | 10057          | 11049          | 11385          | 11225          | 11844          | 12130         | 12400          | 1000       |  |
| Final Year Wages                  | 10500         | 11721          | 12545          | 12773          | 12644          | 13088          | 13612         | 13723          | 924        |  |
| Chief Engineer                    |               |                |                |                |                |                |               |                |            |  |
| Figures in \$ per month           |               |                |                |                |                |                |               |                |            |  |
| Components                        |               | T              |                | Mar            |                |                | 1             |                |            |  |
| -                                 | Min           | P10            | P25            | Median         | Mean           | P75            | P90           | Max            | SD         |  |
| First Year Wages Final Year Wages | 9000<br>10500 | 10026<br>11493 | 10638<br>12210 | 11150<br>12600 | 11047<br>12452 | 11624<br>12920 | 12000         | 12350<br>13550 | 954<br>880 |  |
| rinai Year wages                  | 10500         |                |                |                |                |                | 13495         | 13550          | 880        |  |
| Chief Officer / Second Engineer   |               |                |                |                |                |                |               |                |            |  |
| Figures in \$ per month           |               |                |                |                |                |                |               |                |            |  |
| Components                        | 245           | D10            | P2.5           | Mar            |                | D75            | Doo           | 2.6            | CD         |  |
|                                   | Min           | P10            | P25<br>8477    | Median<br>8640 | Mean<br>8690   | P75<br>9125    | P90<br>9400   | Max            | SD<br>849  |  |
| First Year Wages Final Year Wages | 6500<br>7700  | 8442<br>9129   | 9343           | 9660           | 8690<br>9583   | 9125           | 9400<br>10000 | 9796<br>11125  | 849<br>821 |  |
| rinai Year wages                  | 7700          |                |                |                |                |                | 10000         | 11125          | 821        |  |
| Second Officer / Third Engineer   |               |                |                |                |                |                |               |                |            |  |
| Figures in \$ per month           |               |                |                |                |                |                |               |                |            |  |
| Components                        | 3.6           | D10            | D2.5           | Mar            |                | D5.5           | Doo           |                | GD.        |  |
|                                   | Min           | P10            | P25            | Median         | Mean           | P75            | P90           | Max            | SD         |  |
| First Year Wages                  | 3600<br>4200  | 4267<br>4500   | 4300<br>4503   | 4392<br>4582   | 4385<br>4711   | 4554<br>4877   | 4650<br>5112  | 4800<br>5400   | 311        |  |
| rmai Tear wages                   |               |                |                |                |                |                |               |                |            |  |
|                                   |               |                | Elect          | rical Offi     | icer           |                |               |                |            |  |
| Figures in \$ per month           | 1             |                |                |                |                |                |               |                |            |  |
| Components                        | Min           | Market         |                |                |                | Max            | SD            |                |            |  |
| First Year Wages                  | 3600          | P10<br>3696    | P25<br>4320    | Median<br>4446 | Mean<br>4433   | P75<br>4763    | P90<br>4919   | 5100           | 482        |  |
| Final Year Wages                  | 4616          | 4692           | 4844           | 5096           | 5193           | 5354           | 5606          | 6560           | 562        |  |
| Timur Teur yyuges                 | 1010          |                |                | r / Fourt      |                |                | 2000          | 0200           | 202        |  |
| Figures in \$ per month           |               | 1 111          | ra Office      | er / Fourt     | n Engme        | er             |               |                |            |  |
|                                   | I             |                |                | Mar            | ket            |                |               |                |            |  |
| Components                        | Min           | P10            | P25            | Median         | Mean           | P75            | P90           | Max            | SD         |  |
| First Year Wages                  | 3200          | 3490           | 3559           | 3650           | 3650           | 3800           | 3820          | 3823           | 194        |  |
| Final Year Wages                  | 3500          | 3631           | 3725           | 4022           | 3906           | 4097           | 4100          | 4200           | 233        |  |
|                                   |               |                | De             | ck Cadet       | S              |                |               |                |            |  |
| Figures in \$ per month           |               |                |                |                |                |                |               |                |            |  |
| Components                        |               |                |                | Mar            |                |                | 1             |                |            |  |
| -                                 | Min           | P10            | P25            | Median         | Mean           | P75            | P90           | Max            | SD         |  |
| First Year Wages                  | 250           | 340            | 413<br>500     | 500            | 511<br>594     | 633            | 705           | 750            | 161        |  |
| Final Year Wages                  | 340           | 428            |                | 650            |                | 660            | 760           | 800            | 147        |  |
|                                   |               |                | Traine         | e / Jr. En     | gineer         |                |               |                |            |  |
| Figures in \$ per month           |               |                |                |                |                |                |               |                |            |  |
| Components                        |               |                |                | Maı            | ket            |                |               |                |            |  |
| Components                        | Min           | P10            | P25            | Median         | Mean           | P75            | P90           | Max            | SD         |  |
| First Year Wages                  | 561           | 605            | 678            | 700            | 781            | 778            | 800           | 1650           | 283        |  |
| Final Year Wages                  | 561           | 700            | 700            | 747            | 816            | 785            | 800           | 1750           | 317        |  |

## 1.3. LPG

Total respondents: 8 companies (30.77%). However the actual number of sea faring officers could not be determined from the data made available.

|   |             |             | N            | Aaster        |               |             |             |              |            |  |
|---|-------------|-------------|--------------|---------------|---------------|-------------|-------------|--------------|------------|--|
| Figures in \$ per month                 | •           |             |              |               | _             |             |             |              |            |  |
| Components                              | Min         | P10         | P25          | Mar<br>Median | ket<br>Mean   | P75         | P90         | N/           | SD         |  |
| First Year Wages                        | 10174       | 10333       | 10840        | 11250         | 11178         | 11573       | 11937       | Max<br>12000 | 678        |  |
| Final Year Wages                        | 11857       | 11965       | 12344        | 12900         | 12853         | 13417       | 13658       | 13695        | 723        |  |
|   |             |             | _            |               |               |             |             |              |            |  |
| Chief Engineer  Figures in \$ per month |             |             |              |               |               |             |             |              |            |  |
| •                                       |             |             |              | Mar           | ket           |             |             |              |            |  |
| Components                              | Min         | P10         | P25          | Median        | Mean          | P75         | P90         | Max          | SD         |  |
| First Year Wages                        | 10026       | 10211       | 10655        | 11040         | 11012         | 11449       | 11772       | 11810        | 662        |  |
| Final Year Wages                        | 11493       | 11714       | 12151        | 12800         | 12645         | 13189       | 13439       | 13547        | 761        |  |
| Chief Officer / Second Engineer         |             |             |              |               |               |             |             |              |            |  |
| Figures in \$ per month                 |             |             |              |               |               |             |             |              |            |  |
| Components                              |             | 1           | T            | Mar           |               | 1           | T           |              |            |  |
|   | Min         | P10         | P25          | Median        | Mean          | P75         | P90         | Max          | SD         |  |
| First Year Wages                        | 8300        | 8329        | 8396         | 8597          | 8687          | 8850        | 9206        | 9424         | 412        |  |
| Final Year Wages                        | 9127        | 9128        | 9165         | 9440          | 9506          | 9735        | 9956        | 10174        | 397        |  |
|   |             | Secon       | nd Office    | er / Third    | l Engine      | er          |             |              |            |  |
| Figures in \$ per month                 |             |             |              |               |               |             |             |              |            |  |
| Components                              |             |             |              | Mar           |               |             |             |              | ~-         |  |
| E                                       | Min<br>4140 | P10<br>4195 | P25          | Median        | Mean<br>4420  | P75<br>4474 | P90<br>4732 | Max<br>4997  | SD         |  |
| First Year Wages Final Year Wages       | 4140        | 4195        | 4266<br>4525 | 4320<br>4579  | 4728          | 4836        | 5078        | 5297         | 286<br>295 |  |
| Electrical Officer                      |             |             |              |               |               |             |             |              |            |  |
| Figures in \$ per month                 |             |             | Liecu        | icai Oili     | cer           |             |             |              |            |  |
|   | 1           |             |              | Mar           | ket           |             |             |              |            |  |
| Components                              | Min         | P10         | P25          | Median        | Mean          | P75         | P90         | Max          | SD         |  |
| First Year Wages                        | 4329        | 4342        | 4371         | 4500          | 4528          | 4539        | 4754        | 5050         | 246        |  |
| Final Year Wages                        | 4575        | 4600        | 4743         | 4930          | 5047          | 5325        | 5605        | 5687         | 432        |  |
|   |             | Thire       | l Officer    | / Fourth      | <b>Engine</b> | er          |             |              |            |  |
| Figures in \$ per month                 |             |             |              |               |               |             |             |              |            |  |
| Components                              |             |             |              | Mar           |               |             |             |              |            |  |
|   | Min         | P10         | P25          | Median        | Mean          | P75         | P90         | Max          | SD         |  |
| First Year Wages                        | 3153        | 3355        | 3504         | 3610          | 3580          | 3735        | 3820        | 3821         | 229        |  |
| Final Year Wages                        | 3631        | 3672        | 3725         | 3795          | 3818          | 3916        | 3961        | 4022         | 138        |  |
|   |             |             | Dec          | k Cadets      | S             |             |             |              |            |  |
| Figures in \$ per month                 |             |             |              |               |               |             |             |              |            |  |
| Components                              | Min         | P10         | P25          | Mar<br>Median | ket<br>Mean   | P75         | P90         | Max          | SD         |  |
| First Year Wages                        | 400         | 425         | 455          | 484           | 505           | 538         | 605         | 660          | 91         |  |
| Final Year Wages                        | 468         | 478         | 492          | 575           | 570           | 653         | 657         | 660          | 100        |  |
|   |             |             | Trainee      | / Jr. Eng     |               |             |             |              |            |  |
| Figures in \$ per month                 |             |             |              | . J., Liig    | ,             |             |             |              |            |  |
| Components                              |             |             |              | Mar           | ket           |             |             |              | _          |  |
| Components                              | Min         | P10         | P25          | Median        | Mean          | P75         | P90         | Max          | SD         |  |
| First Year Wages                        | 600         | 625         | 663          | 700           | 700           | 753         | 776         | 782          | 69         |  |
| Final Year Wages                        | 700         | 700         | 700          | 735           | 738           | 773         | 778         | 782          | 44         |  |
|   |             |             |              |               |               |             |             |              |            |  |

## 1.4. LNG

Total respondents: 4 companies (15.38%). However the actual number of sea faring officers could not be determined from the data made available.

|   | Master      |              |              |                 |                 |  |              |              |            |
|---|-------------|--------------|--------------|-----------------|-----------------|--|--------------|--------------|------------|
| Figures in \$ per month                                       | 1           |              |              |                 |                 |  |              |              |            |
| Components  | N.C.        | D10          | D25          |                 | ket             | D7.5   | DOO          | N/           | CD         |
| First Year Wages  | Min<br>9560 | P10<br>10172 | P25<br>11089 | Median<br>12618 | Mean<br>11859   | P75<br>13009                                   | P90<br>13244 | Max<br>13400 | SD<br>2029 |
| Final Year Wages  | 10570       | 10172        | 11594        | 12618           | 13863           | 15509  | 17244        | 18400        | 4061       |
| Timur Teur Wuges  | 10270       | 10200        |              | Engineer        |                 | 1000)  | 1/211        | 10100        | 1001       |
| Figures in \$ per month                                       |             |              | Cilici       | Liigiicci       |                 |  |              |              |            |
| Components  | Market      |              |              |                 |                 |  |              |              |            |
|   | Min         | P10          | P25          | Median          | Mean            | P75  | P90          | Max          | SD         |
| First Year Wages  | 9560        | 10055        | 10797        | 12033           | 11564           | 12567  | 12887        | 13100        | 1816       |
| Final Year Wages  | 10170       | 10543        | 11102        | 12033           | 13434           | 15067  | 16887        | 18100        | 4147       |
|   |             | Chief        | Officer /    | Second          | Engineer        | <u>r                                      </u> |              |              |            |
| Figures in \$ per month                                       | I           |              |              | Mar             | ·ket            |  |              |              |            |
| Components  | Min         | P10          | P25          | Median          | Mean            | P75  | P90          | Max          | SD         |
| First Year Wages  | 8918        | 8986         | 9089         | 9260            | 9509            | 9805   | 10132        | 10350        | 748        |
| Final Year Wages  | 8918        | 9094         | 9359         | 9800            | 10689           | 11575  | 12640        | 13350        | 2346       |
|   |             | Secon        | nd Office    | er / Third      | Enginee         | r  |              |              |            |
| Figures in \$ per month                                       |             |              |              |                 |                 |  |              |              |            |
| Components  |             |              |              | Mar             |                 |  | T            |              |            |
| •   | Min         | P10          | P25          | Median          | Mean            | P75  | P90          | Max          | SD         |
| First Year Wages  | 4500        | 4509         | 4523         | 4545            | 5475            | 5963   | 6813         | 7380         | 1650       |
| Final Year Wages 4545 4716 4973 5400 5935 6630 7368 7860 1721 |             |              |              |                 |                 |  |              |              |            |
| Electrical Officer  |             |              |              |                 |                 |  |              |              |            |
| Figures in \$ per month                                       | ı           |              |              | 3.6             | 1 4             |  |              | 1            |            |
| Components  |             | <b>D</b> 10  | D0.5         | Mar             |                 | D##  | <b>D</b> 00  | 3.5          | G.D.       |
|   | Min         | P10          | P25          | Median          | Mean            | P75  | P90          | Max          | SD         |
| First Year Wages  | 4000        | 4180         | 4450         | 4900            | 4637            | 4956   | 4989         | 5011         | 554        |
| Final Year Wages  | 4250        | 4402         | 4631         | 5011            | 5054            | 5456   | 5722         | 5900         | 826        |
|   |             | Third        | Officer      | / Fourth        | <u>Engineer</u> |  |              |              |            |
| Figures in \$ per month                                       | I           |              |              |                 |                 |  |              |              |            |
| Components  |             | 710          |              | Mar             |                 |  |              |              | a T        |
|   | Min         | P10          | P25          | Median          | Mean            | P75  | P90          | Max          | SD         |
| First Year Wages  | 2660        | 2788         | 2980         | 3300            | 3249            | 3543   | 3689         | 3786         | 565        |
| Final Year Wages  | 2915        | 3072         | 3308         | 3700            | 3467            | 3743   | 3769         | 3786         | 480        |
|   |             |              | Deck         | <u>Cadets</u>   |                 |  |              |              |            |
| Figures in \$ per month                                       | 1           |              |              | 3.4             | • 4             |  |              |              |            |
| Components  | Min         | P10          | P25          | Mar<br>Median   | -Ket<br>Mean    | P75  | P90          | Max          | SD         |
| First Year Wages  | 410         | 439          | 483          | 555             | 555             | 628  | 671          | 700          | 205        |
| Final Year Wages  | 530         | 547          | 573          | 615             | 615             | 658  | 683          | 700          | 120        |
| Tim Tem Truges  | 220         |              |              | Jr. Engi        |                 | 020  | 1 000        | ,,,,         | 120        |
| Figures in \$ per month                                       |             | 1            | rainee /     | Jr. Engl        | neer            |  |              |              |            |
|   |             |              |              | Mar             | ·ket            |  |              |              |            |
| Components  | Min         | P10          | P25          | Median          | Mean            | P75  | P90          | Max          | SD         |
| First Year Wages  | 660         | 688          | 730          | 800             | 787             | 850  | 880          | 900          | 121        |
| Final Year Wages  | 800         | 810          | 825          | 850             | 850             | 875  | 890          | 900          | 71         |

## 1.5. Bulk Carriers / Self Unloaders

Total respondents: 19 companies (73.78%). In case of Deck Cadets and trainee Jr. Engineers, the total respondents are 15 companies (53.85%). However the actual number of sea faring officers could not be determined from the data made available.

|   |      |       |         | Master       |            |      |      |       |      |
|---|------|-------|---------|--------------|------------|------|------|-------|------|
| Figures in \$ per month                                 |      |       |         |              |            |      |      |       |      |
| Components  |      |       |         |              | ket        |      |      |       |      |
|   | Min  | P10   | P25     | Median       | Mean       | P75  | P90  | Max   | SD   |
| First Year Wages  | 7025 | 7143  | 7450    | 7700         | 7671       | 8000 | 8100 | 8200  | 375  |
| Final Year Wages  | 7654 | 8280  | 8415    | 8500         | 8688       | 9100 | 9200 | 10040 | 523  |
| F:  |      |       | Chie    | ef Engine    | e <b>r</b> |      |      |       |      |
| Figures in \$ per month                                 | 1    |       |         | Maı          | alv a 4    |      |      |       |      |
| Components  | Min  | P10   | P25     | Median       | Mean       | P75  | P90  | Max   | SD   |
| First Year Wages  | 6809 | 7028  | 7363    | 7476         | 7510       | 7838 | 7986 | 8000  | 369  |
| Final Year Wages  | 7600 | 8128  | 8229    | 8420         | 8503       | 8615 | 9101 | 9840  | 495  |
| Timur Teur (Yuges                                       | 7000 |       |         |              |            |      | 7101 | 2040  | 493  |
| Chief Officer / Second Engineer Figures in \$ per month |      |       |         |              |            |      |      |       |      |
|   |      |       |         | Mai          | :ket       |      |      |       |      |
| Components  | Min  | P10   | P25     | Median       | Mean       | P75  | P90  | Max   | SD   |
| First Year Wages  | 5694 | 5830  | 6000    | 6200         | 6261       | 6531 | 6765 | 7000  | 376  |
| Final Year Wages  | 6254 | 6284  | 6467    | 6750         | 6774       | 6988 | 7330 | 7760  | 430  |
| Second Officer / Third Engineer                         |      |       |         |              |            |      |      |       |      |
| Figures in \$ per month                                 |      |       |         |              |            |      |      |       |      |
| Components  |      |       |         |              | ket        |      |      |       |      |
|   | Min  | P10   | P25     | Median       | Mean       | P75  | P90  | Max   | SD   |
| First Year Wages  | 3560 | 3675  | 3700    | 3800         | 3866       | 4000 | 4160 | 4300  | 213  |
| Final Year Wages  | 3785 | 3890  | 4000    | 4175         | 4158       | 4250 | 4440 | 4630  | 225  |
| Electrical Officer                                      |      |       |         |              |            |      |      |       |      |
| Figures in \$ per month                                 |      |       |         | Mar          | ket        |      |      |       |      |
| Components  | Min  | P10   | P25     | Median       | Mean       | P75  | P90  | Max   | SD   |
| First Year Wages  | 2647 | 3373  | 3670    | 3900         | 3905       | 4175 | 4316 | 5000  | 508  |
| Final Year Wages  | 3642 | 4030  | 4200    | 4400         | 4463       | 4500 | 5040 | 5580  | 477  |
| 5   | 2012 |       |         | r / Fourtl   |            |      | 2010 | 2200  | 1,,, |
| Figures in \$ per month                                 |      | 1 111 | ru Omee | 1 / 1 Our tr | Bugmee     |      |      |       |      |
| Components  |      |       |         |              | ket        |      |      |       |      |
|   | Min  | P10   | P25     | Median       | Mean       | P75  | P90  | Max   | SD   |
| First Year Wages  | 2700 | 3007  | 3140    | 3200         | 3251       | 3339 | 3540 | 4000  | 282  |
| Final Year Wages  | 3200 | 3264  | 3374    | 3450         | 3449       | 3525 | 3608 | 3800  | 155  |
| Figures in \$ per month                                 |      |       | De      | ck Cadet     | 8          |      |      |       |      |
|   | 1    |       |         | Maı          | ket        |      |      |       |      |
| Components  | Min  | P10   | P25     | Median       | Mean       | P75  | P90  | Max   | SD   |
| First Year Wages  | 350  | 370   | 443     | 468          | 479        | 513  | 580  | 650   | 83   |
| Final Year Wages  | 435  | 450   | 468     | 550          | 538        | 600  | 640  | 650   | 76   |
|   |      |       | Trainee | / Jr. Eng    | ineer      |      |      |       |      |
| Figures in \$ per month                                 |      |       |         |              |            |      |      |       |      |
| Components  |      |       |         |              | ket        |      |      |       |      |
|   | Min  | P10   | P25     | Median       | Mean       | P75  | P90  | Max   | SD   |
| First Year Wages  | 500  | 524   | 625     | 750          | 720        | 776  | 902  | 1000  | 145  |
| Final Year Wages  | 500  | 589   | 700     | 750          | 783        | 810  | 930  | 1325  | 201  |

i.e

## 1.6. Ro Ro / PCCs

Total respondents: 8 companies (30.78%). However the actual number of sea faring officers could not be determined from the data made available.

|                                 | Master   |         |   |              |         |            |      |      |     |  |
|---------------------------------|--|---------|---|--------------|---------|------------|------|------|-----|--|
| Figures in \$ per month         | •  |         |   |              |         |            |      |      |     |  |
| Components                      |  |         |   | Maı          |         |            |      |      |     |  |
|                                 | Min  | P10     | P25   | Median       | Mean    | P75        | P90  | Max  | SD  |  |
| First Year Wages                | 7100   | 7100    | 7155  | 7409         | 7394    | 7520       | 7680 | 8000 | 300 |  |
| Final Year Wages                | 8057   | 8171    | 8435  | 8500         | 8561    | 8620       | 9040 | 9200 | 356 |  |
| Chief Engineer                  |  |         |   |              |         |            |      |      |     |  |
| Figures in \$ per month         | T  |         |   | Mai          | dr. o.t |            |      |      |     |  |
| Components                      | Min  | P10     | P25   | Median       | Mean    | P75        | P90  | Max  | SD  |  |
| First Year Wages                | 7000   | 7000    | 7068  | 7310         | 7296    | 7400       | 7590 | 7950 | 308 |  |
| Final Year Wages                | 7866   | 8093    | 8226  | 8400         | 8438    | 8440       | 8950 | 9150 | 384 |  |
| Chief Officer / Second Engineer |  |         |   |              |         |            |      |      |     |  |
| Figures in \$ per month         |  | Cinei   | micei /   | Second       | Engmee  | : <b>1</b> |      |      |     |  |
| - Market                        |  |         |   |              |         |            |      |      |     |  |
| Components                      | Components Min P10 P25 Median Mean P75 P90 Max |         |   |              |         | SD         |      |      |     |  |
| First Year Wages                | 5714   | 5901    | 6000  | 6010         | 6132    | 6200       | 6504 | 6750 | 304 |  |
| Final Year Wages                | 6104   | 6278    | 6535  | 6700         | 6751    | 7100       | 7120 | 7200 | 381 |  |
| rinai Teai Wages                | 0104   | ·       |   |              |         |            | 7120 | 7200 | 361 |  |
| T:                              |  | Second  | Officer   | / Third      | Enginee | <u>er</u>  |      |      |     |  |
| Figures in \$ per month  Market |  |         |   |              |         |            |      |      |     |  |
| Components                      | Min  | P10     | P25   | Median       | Mean    | P75        | P90  | Max  | SD  |  |
| First Year Wages                | 3650   | 3690    | 3766  | 3840         | 3874    | 4000       | 4028 | 4100 | 158 |  |
| U                               | 3841   | 3995    | 4065  | 3840<br>4150 | 4232    | 4300       | 4028 | 4700 | 293 |  |
|                                 |  |         |   |              |         |            |      | 293  |     |  |
| Electrical Officer              |  |         |   |              |         |            |      |      |     |  |
| Figures in \$ per month         | •  |         |   |              |         |            |      |      | ı   |  |
| Components                      | Market   |         |   |              |         |            |      |      |     |  |
|                                 | Min  | P10     | P25   | Median       | Mean    | P75        | P90  | Max  | SD  |  |
| First Year Wages                | 2647   | 3379    | 3837  | 4000         | 3820    | 4010       | 4144 | 4322 | 485 |  |
| Final Year Wages                | 3854   | 4064    | 4360  | 4450         | 4451    | 4700       | 4715 | 4775 | 310 |  |
|                                 |  | Third ( | Officer /   | Fourth       | Enginee | r          |      |      |     |  |
| Figures in \$ per month         |  |         | <del>, , , , , , , , , , , , , , , , , , , </del> | 1 041 41     |         | -          |      |      |     |  |
|                                 |  |         |   | Mai          | ket     |            |      |      |     |  |
| Components                      | Min  | P10     | P25   | Median       | Mean    | P75        | P90  | Max  | SD  |  |
| First Year Wages                | 3067   | 3093    | 3140  | 3200         | 3340    | 3500       | 3640 | 3800 | 264 |  |
| Final Year Wages                | 3300   | 3345    | 3399  | 3500         | 3673    | 3900       | 4200 | 4200 | 361 |  |
| 3                               |  |         | Deck  | Cadets       |         |            |      |      |     |  |
| Figures in \$ per month         |  |         | Dech  | Juacus       |         |            |      |      |     |  |
| Components                      |  |         |   | Maı          | ket     |            |      |      |     |  |
|                                 | Min  | P10     | P25   | Median       | Mean    | P75        | P90  | Max  | SD  |  |
| First Year Wages                | 281  | 336     | 400   | 450          | 428     | 450        | 494  | 600  | 88  |  |
| Final Year Wages                | 321  | 411     | 464   | 500          | 486     | 513        | 565  | 600  | 82  |  |
|                                 |  | Tı      | rainee / .  | Jr. Engi     | neer    |            |      |      |     |  |
| Figures in \$ per month         |  |         |   |              |         |            |      |      |     |  |
| Components                      |  |         |   | Maı          |         |            | -    | -    |     |  |
|                                 | Min  | P10     | P25   | Median       | Mean    | P75        | P90  | Max  | SD  |  |
| First Year Wages                | 550  | 550     | 561   | 600          | 636     | 700        | 772  | 782  | 94  |  |
| Final Year Wages                | 561  | 561     | 590   | 650          | 659     | 718        | 774  | 782  | 90  |  |

## 1.7. Container Vessels

Total respondents: 10 companies (38.46%) in case of the top four ranks. However the actual number of sea faring officers could not be determined from the data made available.

|   |   |       | M         | aster    |              |      |      |             |     |  |  |
|---|---|-------|-----------|----------|--------------|------|------|-------------|-----|--|--|
| Figures in \$ per month                                 |   |       |           |          |              |      |      |             |     |  |  |
| Components  |   |       |           | Mar      |              |      |      |             |     |  |  |
|   | Min                                     | P10   | P25       | Median   | Mean         | P75  | P90  | Max         | SD  |  |  |
| First Year Wages  | 7166                                    | 7433  | 7500      | 7600     | 7720         | 8000 | 8090 | 8452        | 379 |  |  |
| Final Year Wages  | 8435                                    | 8487  | 8540      | 8663     | 8928         | 9200 | 9634 | 9800        | 503 |  |  |
|   | Chief Engineer  Figures in \$ per month |       |           |          |              |      |      |             |     |  |  |
| Figures in \$ per month                                 | T                                       |       |           | Mar      | ·ls of       |      |      |             |     |  |  |
| Components  | Min                                     | P10   | P25       | Median   | Mean         | P75  | P90  | Max         | SD  |  |  |
| First Year Wages  | 7068                                    | 7262  | 7400      | 7500     | 7596         | 7820 | 7992 | 8158        | 338 |  |  |
| Final Year Wages  | 8226                                    | 8373  | 8440      | 8900     | 8824         | 9150 | 9363 | 9620        | 472 |  |  |
|   |   |       |           | Second   |              |      |      |             |     |  |  |
| Chief Officer / Second Engineer Figures in \$ per month |   |       |           |          |              |      |      |             |     |  |  |
| Components  |   |       |           | Maı      | ket          |      |      |             |     |  |  |
|   | Min                                     | P10   | P25       | Median   | Mean         | P75  | P90  | Max         | SD  |  |  |
| First Year Wages  | 5640                                    | 5886  | 6010      | 6120     | 6247         | 6400 | 6818 | 7090        | 441 |  |  |
| Final Year Wages  | 6154                                    | 6288  | 6535      | 7000     | 6890         | 7200 | 7518 | 7600        | 503 |  |  |
| Second Officer / Third Engineer                         |   |       |           |          |              |      |      |             |     |  |  |
| Figures in \$ per month  Market                         |   |       |           |          |              |      |      |             |     |  |  |
| Components  | Min                                     | P10   | P25       | Median   | -ket<br>Mean | P75  | P90  | Max         | SD  |  |  |
| First Voor Wood   | 3700                                    | 3730  | 3760      | 3820     | 3887         | 4033 | 4112 | Max<br>4140 | 171 |  |  |
| First Year Wages Final Year Wages                       | 3939                                    | 4006  | 4057      | 4125     | 4191         | 4033 | 4432 | 4740        | 247 |  |  |
|   |   |       |           |          |              |      |      |             |     |  |  |
| Electrical Officer                                      |   |       |           |          |              |      |      |             |     |  |  |
| Figures in \$ per month                                 | 1                                       |       |           | Mar      | ·kot         |      |      |             |     |  |  |
| Components  | Min                                     | P10   | P25       | Median   | Mean         | P75  | P90  | Max         | SD  |  |  |
| First Year Wages  | 2647                                    | 3089  | 3834      | 3900     | 3817         | 4100 | 4344 | 4521        | 570 |  |  |
| Final Year Wages  | 3700                                    | 4034  | 4132      | 4400     | 4459         | 4775 | 5040 | 5200        | 468 |  |  |
| Timur Teur Wuges  | 2700                                    |       |           | Fourth   |              |      | 2010 | 2200        | 100 |  |  |
| Figures in \$ per month                                 |   | Third | Officer / | Fourth   | Engme        | 9 🗠  |      |             |     |  |  |
| rigures in \$ per monin                                 |   |       |           | Mar      | ·kot         |      |      |             |     |  |  |
| Components  | Min                                     | P10   | P25       | Median   | Mean         | P75  | P90  | Max         | SD  |  |  |
| First Year Wages  | 2700                                    | 3020  | 3129      | 3150     | 3267         | 3585 | 3640 | 3800        | 335 |  |  |
| Final Year Wages  | 3200                                    | 3280  | 3399      | 3424     | 3534         | 3800 | 3888 | 3900        | 261 |  |  |
| rmai Teal wages   | 3200                                    | 3200  |           |          |              | 3000 | 3000 | 3300        | 201 |  |  |
| Figures in \$ per month                                 |   |       | Deck      | Cadets   |              |      |      |             |     |  |  |
| rigures in 4 per monin                                  |   |       |           | Mar      | ·ket         |      |      |             |     |  |  |
| Components  | Min                                     | P10   | P25       | Median   | Mean         | P75  | P90  | Max         | SD  |  |  |
| First Year Wages  | 281                                     | 329   | 388       | 450      | 434          | 470  | 513  | 600         | 95  |  |  |
| Final Year Wages  | 321                                     | 398   | 459       | 475      | 481          | 525  | 570  | 600         | 88  |  |  |
|   |   |       |           | Jr. Engi |              |      |      |             |     |  |  |
| Figures in \$ per month                                 |   | 1     | anice /   | gr. Engl |              |      |      |             |     |  |  |
|   |   |       |           | Mar      | ·ket         |      |      |             |     |  |  |
| Components  | Min                                     | P10   | P25       | Median   | Mean         | P75  | P90  | Max         | SD  |  |  |
| First Year Wages  | 561                                     | 561   | 581       | 650      | 661          | 735  | 775  | 782         | 93  |  |  |
| Final Year Wages  | 561                                     | 631   | 700       | 735      | 819          | 779  | 1091 | 1400        | 295 |  |  |
| Timar Tear Wages  | 201                                     | 051   | , 00      | , 55     | 017          | ,,,, | 1071 | 1700        | 273 |  |  |

#### 1.8. FSO / FPSO

There were only two sets of data available for this category. Hence the figures cannot be given out in view of maintaining confidentiality of participants. The tables of statistical figures could not be created as it is not possible to generate valid conclusions with minimal data.

The average wages in this category are as below:

- Master USD 10970.
- Chief Engineer USD 10970.
- Chief Officer and Second Engineer USD 8356.
- Second Officer and Third Engineer USD 7200.
- Electrical Officer USD 4620.

#### 1.9. Off Shore Vessels

There was only one set of data available for this category. Hence the figures cannot be given out in view of maintaining confidentiality. The tables of statistical figures could not be created as it is not possible to generate valid conclusions with minimal data.

The average wages in this category for various ranks lies as under:

- Master USD 14000 14500.
- Chief Engineer USD 11700 12300.
- Chief Officer and Second Engineer USD 10000 11000.
- Second Officer and Third Engineer USD 5400 5700.
- Electrical Officer USD 6700 7100.

Page 16 of 56

## 2. Additional Benefits for Seafarers - The Industry Trends

This section presents the benchmarking for additional benefits offered to seafarers for 2010. The data analysis has been presented in tables for each rank. The tables display the percentage of companies offering the particular benefit. It also shows the amount of benefits offered. Additional remarks have been made for better understanding and utility.

Page 17 of 56

## 2.1. Master/Chief Engineer

| <u>S.N.</u> | Benefit Head  | Percentage<br>Respondents | Quantum/Range<br>in USD  | <u>Remarks</u>   |
|-------------|---|---------------------------|--|--|
| 1           | Superior Certificate<br>Allowance   | NA                        | NA   | Only one respondent pays USD 50 per month as ISPS allowance  |
| 2           | Standby Wages   | 61                        | 0-3500   | Most companies offer 15 days of standby wages at 50% of basic. In some cases the standby amount is paid irrespective of person being on standby or not.  |
|             | Ctanaby magos   |                           | 0 0000   | ·  |
| 3           | Hardship Allowance  | 20                        | 200-250  | Paid per month for ships more than 13/15 years of age respectively   |
| 4           | Family Carriage, Air<br>Travel, Travel<br>Insurance on company<br>account | 81                        | On actual  | The limit on the travel expenditure varies from company to company. Some have a cap on the maximum expenditure towards travel while some have no limit but may restrict the travel to once in a year.                                    |
| 5           | Victualing  | 100                       | 6-9  | Per day for spouse and children. Most companies are in the range of USD 7.5 per day.   |
| 6           | Wages during Training<br>Days   | 54                        | Basic Wages/fixed<br>allowances<br>(ranging between<br>20-45 USD) during<br>training days. | Some companies also offer standby wages during training days. One ship owner also offers full wages during training days as the staff in on round the year wages. Additionally Travel and Boarding and lodging is paid by all companies. |
| 7           | Family Medical<br>Coverage  | 54                        |  | Medicare or similar coverage is offered in general. Most companies go for floater coverage.  |
| 8           | Gratuity  | 8                         | 900-1000   | Per month of service accumulated and paid after completion of certain period which could be around 5 years.  |
| 9           | Pension Scheme  | 8                         | Variable   | In one case 3% of annual income is accumulated to be paid after 5 years.   |
| 10          | Loyalty   | 31                        | 20- 650 per month.   | Paid basis number of years of service with company or a lumpsum amount per year.   |

\_\_\_\_\_<u>\_</u>\_\_\_\_

## 2.2. Chief Officer/Second Engineer

| <u>S.N.</u> | Benefit Head  | Percentage<br>Respondents | Quantum/Range in USD  | <u>Remarks</u>  |
|-------------|---|---------------------------|---|---|
| 1           | Superior Certificate<br>Allowance   | 88                        | 100-300   | Offered per month to those with Class I (Masters or Chief Engineers) license.   |
| <u>2</u>    | Standby Wages   | 62                        | 0-2500  | Most companies offer 15 days of standby wages at 50% of basic.  |
| 3           | Hardship Allowance  | 23                        | 200-250   | Paid for ships more than 13/15 years of age respectively  |
| <u>4</u>    | Family Carriage, Air<br>Travel, Travel<br>Insurance on company<br>account | 70                        | On actual   | The limit on the travel expenditure varies from company to company. Some have no limit but may restrict the travel to once in a year.   |
| <u>5</u>    | Victualing  | 100                       | 6-9   | Per day for spouse and children. Most companies are in the range of USD 7.5 per day.  |
| <u>6</u>    | Wages during Training<br>Days   | 54                        | Basic Wages/fixed<br>allowances (ranging<br>between 20-45 USD)<br>during training days. | Some companies also offer standby wages during training days. One ship owner also offers full wages during training days as the staff in on round the year wages.  Additionally Travel and Boarding and lodging is paid by all companies. |
| <u>7</u>    | Family Medical<br>Coverage  | 54                        |   | Medicare or similar coverage is offered in general. Most companies go for floater coverage.   |
| <u>8</u>    | Gratuity  | 8                         | 730 - 750   | Per month of service accumulated and paid after completion of certain period which could be areound 5 years.  |
| 9           | Pension Scheme  | 8                         | Variable  | In one case 3% of annual income is accumulated to be paid after 5 years.  |
| <u>10</u>   | Loyalty   | 27                        | 20- 650 per month.  | Paid basis number of years of service with company or a lumpsum amount per year.  |

## 2.3. Second Officer/Third Engineer

| 0.11        | Description I  | Percentage         | Quantum/Range in  | 2   |
|-------------|--|--------------------|---|---|
| <u>S.N.</u> | Benefit Head   | <u>Respondents</u> | <u>USD</u>  | <u>Remarks</u>  |
| 1           | Superior Certificate<br>Allowance                                | 81                 | 50-250  |   |
| <u>2</u>    | Standby Wages  | 58                 | 0-1800  | Most companies offer 15 days of standby wages at 50% of basic.  |
| <u>3</u>    | Family Carriage, Air Travel, Travel Insurance on company account | 62                 | On actual   |   |
| <u>3</u>    | company account  | 02                 | On actual   |   |
| <u>4</u>    | Victualing   | 80                 | 6 - 7.5   | Per day for spouse and children. Most companies are in the range of USD 7.5 per day.                        |
| <u>5</u>    | Wages during<br>Training Days                                    | 54                 | Basic Wages/fixed<br>allowances (ranging<br>between 20-45 USD)<br>during training days. | Additionally Travel and Boarding and lodging is paid by all companies.                                      |
| <u>6</u>    | Paid Study Leave   | 8                  | Two months basic to 6 months total wages  |   |
| 7           | Welfare Allowance  | 16                 | 25-70   | Anniversary, Gift Coupons, Calling Cards.   |
| 8           | Family Medical<br>Coverage                                       | 46                 |   | Medicare or similar coverage is offered in general. Most companies go for floater coverage.                 |
| 9           | Scholarship  | 4                  |   |   |
| <u>10</u>   | Loans  | 8                  |   | Up to USD 5000 in one case and on case to case basis for another company                                    |
| <u>11</u>   | Examination<br>Subsidy   | 4                  | One month basic after 3 months of service.  |   |
| <u>12</u>   | Gratuity   | 8                  | 475-500   | Per month of service accumulated and paid after completion of certain period which could be around 5 years. |
| <u>13</u>   | Pension Scheme   | 8                  | Variable  | In one case 3% of annual income is accumulated to be paid after 5 years.                                    |
| <u>14</u>   | Loyalty  | 23                 | 20-300  | Paid basis number of years of service with company or a lumpsum amount per year.                            |

\_\_\_\_\_<u>\_</u>\_\_\_

## 2.4. Electrical Officer

| <u>S.N.</u> | Benefit Head  | Percentage<br>Respondents | Quantum/Range in USD | <u>Remarks</u>  |
|-------------|---|---------------------------|----------------------|---|
| 1           | Superior Certificate<br>Allowance   | 4                         | 600 per month        | If holding an ETO certificate   |
| <u>2</u>    | Standby Wages   | 58                        | 0-1800               | Most companies offer 15 days of standby wages at 50% of basic.  |
| <u>3</u>    |   |                           |                      |   |
| <u>4</u>    | Family Carriage, Air<br>Travel, Travel<br>Insurance on company<br>account | 65                        | On actuals           | The limit on the travel expenditure varies from company to company. Some have a cap on the maximum expenditure towards travel while some have no limit but may restrict the travel to once in a year. |
| <u>5</u>    | Victualing  | 80                        | 6 - 7.5              | Per day for spouse and children.<br>Most companies are in the range of<br>USD 7.5 per day.  |
| <u>6</u>    | Wages during Training<br>Days   | 50                        | 20-80                | Additionally Travel and Boarding and lodging is paid by all companies.  |
| <u>7</u>    | Welfare Allowance   | 20                        | 25-70                | Anniversary, Gift Coupons, Calling Cards.   |
| <u>8</u>    | Family Medical<br>Coverage  | 46                        |                      | Medicare or similar coverage is offered in general. Most companies go for floater coverage.   |
| <u>9</u>    | Loans   | 8                         |                      | Up to USD 5000 in one case and on case to case basis for another company  |
| <u>10</u>   | Gratuity  | 8                         | 440-510              | Per month of service accumulated and paid after completion of certain period which could be around 5 years.   |
| 11          | Pension Scheme  | 8                         | Variable             | In one case 3% of annual income is accumulated to be paid after 5 years.  |
| <u>12</u>   | Loyalty   | 23                        | 20-300               | Paid basis number of years of service with company or a lumpsum amount per year.  |

\_\_\_\_\_

## 2.5. Third Officer/Fourth Engineer

| <u>S.N.</u> | Benefit Head  | Percentage<br>Respondents | Quantum/Range in<br>USD | <u>Remarks</u>  |
|-------------|---|---------------------------|-------------------------|---|
| 1           | Superior Certificate<br>Allowance   | 23                        | 100-175                 | For Holding Class II COC.   |
| <u>2</u>    | Standby Wages   | 54                        | 0-1400                  | Most companies offer 15 days of standby wages at 50% of basic.  |
| <u>3</u>    | Family Carriage, Air<br>Travel, Travel<br>Insurance on company<br>account | 58                        | On actual               | The limit on the travel expenditure varies from company to company. Some have a cap on the maximum expenditure towards travel while some have no limit but may restrict the travel to once in a year. |
| <u>4</u>    | Victualing  | 80                        | 6 - 7.5                 | Per day for spouse and children.<br>Most companies are in the range of<br>USD 7.5 per day.  |
| <u>5</u>    | Wages during Training<br>Days   | 50                        | 20-80                   | Additionally Travel and Boarding and lodging is paid by all companies.  |
| <u>6</u>    | Welfare Allowance   | 20                        | 25-70                   | Anniversary, Gift Coupons, Calling Cards.   |
| 7           | Family Medical<br>Coverage  | 46                        |                         | Medicare or similar coverage is offered in general. Most companies go for floater coverage.   |
| <u>8</u>    | Loans   | 8                         |                         | Up to USD 5000 in one case and on case to case basis for another company  |
| 9           | Gratuity  | 8                         | 360-425                 | Per month of service accumulated and paid after completion of certain period which could be around 5 years.   |
| <u>10</u>   | Pension Scheme  | 8                         | Variable                | In one case 3% of annual income is accumulated to be paid after 5 years.  |
| <u>11</u>   | Loyalty   | 23                        | 20-300                  | Paid basis number of years of service with company or a lumpsum amount per year.  |

\_\_\_\_\_<u>\_</u>\_\_\_\_

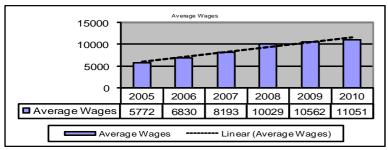
## 3. Wage Trends over the Years (2005-2010)

This section represents the trends of the rate of increase in average wages for the seafaring officers from 2005 – 2010. The data has been presented in the form of graphs for various ship types as well as each rank under different ship types. Trend lines have been displayed for better understanding. In addition, tables of Year - On - Year increase in wages have been included to display the increase in average wages as compared to the previous years. The CAGR (Compounded Annual Growth Rate) as a percentage has also been mentioned.

Page 23 of 56

#### 3.1. Oil Tankers

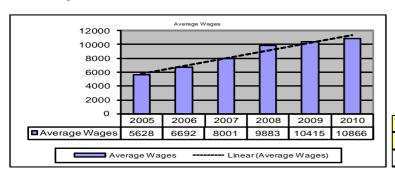
#### Master



CAGR: 14.45%

| Year On Year Increase in Wages for the industry           |       |       |      |      |  |
|---|-------|-------|------|------|--|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009 - 10 |       |       |      |      |  |
| 18.33   | 19.96 | 22.41 | 5.31 | 4.63 |  |

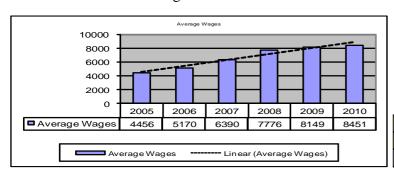
#### Chief Engineer



CAGR: 14.79%

| Year On Year Increase in Wages for the Industry         |       |       |      |      |  |
|---|-------|-------|------|------|--|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009-10 |       |       |      |      |  |
| 18.91   | 19.56 | 23.51 | 5.38 | 4.33 |  |

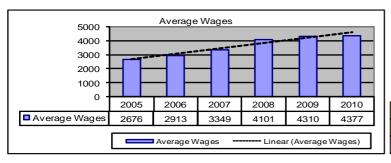
#### Chief Officer / Second Engineer



CAGR: 14.57%

| Year On Year Increase in Wages for the industry |           |           |           |         |  |
|---|-----------|-----------|-----------|---------|--|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009-10 |  |
| 16.03   | 23.59     | 21.70     | 4.80      | 3.70    |  |

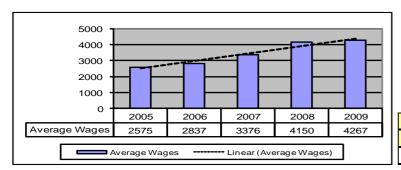
#### Second Officer / Third engineer



CAGR: 11.68%

| Year On Year Increase in Wages for the industry |           |           |           |         |  |
|---|-----------|-----------|-----------|---------|--|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009-10 |  |
| 8.88  | 14.94     | 22.48     | 5.08      | 1.55    |  |

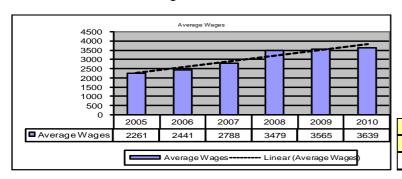
#### **Electrical Officer**



CAGR: 12.64%

| Year On Year Increase in Wages for the industry |           |           |           |         |  |  |
|---|-----------|-----------|-----------|---------|--|--|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009-10 |  |  |
| 10.19   | 18.99     | 22.93     | 2.82      | 4.30    |  |  |

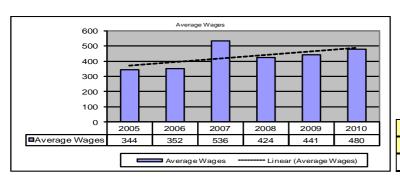
#### Third Officer / Fourth Engineer



CAGR: 11.32%

| Year On Year Increase in Wages for the industry |           |           |           |         |  |
|---|-----------|-----------|-----------|---------|--|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009-10 |  |
| 7.98  | 14.22     | 24.78     | 2.45      | 2.08    |  |

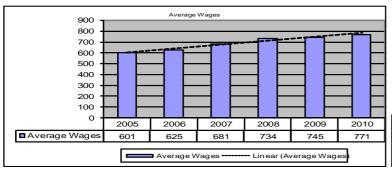
#### Deck Cadet



CAGR: 6.18%

| Year On Year Increase in Wages for the industry |           |           |           |         |  |
|---|-----------|-----------|-----------|---------|--|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009-10 |  |
| 2.29  | 52.17     | -20.92    | 4.12      | 8.69    |  |

Trainee / Jr. Engineer



CAGR: 5.42%

| Year On Year Increase in Wages for the industry         |      |      |      |      |
|---|------|------|------|------|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009-10 |      |      |      |      |
| 3.99  | 8.98 | 7.85 | 1.39 | 3.51 |

#### 3.2. Chemical Tankers

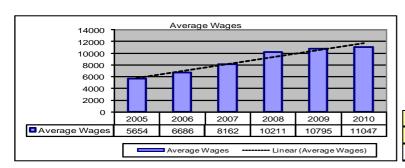
#### Master



CAGR: 15.84%

| Year On Year Increase in Wages for the Industry |           |           |           |         |  |
|---|-----------|-----------|-----------|---------|--|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009-10 |  |
| 17.66   | 23.07     | 23.62     | 5.94      | 6.21    |  |

#### Chief Engineer



CAGR: 15.12%

| Year On Year Increase in Wages for the Industry          |       |       |      |      |  |
|--|-------|-------|------|------|--|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009 - 1 |       |       |      |      |  |
| 18.26  | 22.06 | 25.11 | 5.72 | 2.34 |  |

#### Chief Officer / Second Engineer



CAGR: 15.38%

| Year On Year Increase in Wages for the Industry |           |           |           |         |
|---|-----------|-----------|-----------|---------|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009-10 |
| 17.76   | 25.42     | 21.74     | 5.32      | 3.96    |

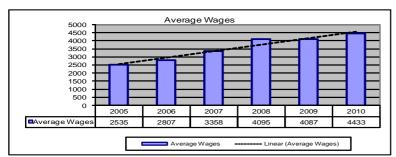
#### Second Officer / Third Engineer



CAGR: 11.70%

| Year On Yeat Increase in Wages for the industry |           |           |           |           |
|---|-----------|-----------|-----------|-----------|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |
| 10.14   | 14.71     | 23.86     | 2.91      | 1.62      |

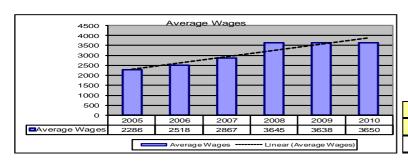
#### **Electrical Officer**



CAGR: 11.13%

| Year On Year Increase in Wages for the Industry           |       |       |       |      |  |
|---|-------|-------|-------|------|--|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009 - 10 |       |       |       |      |  |
| 10.74   | 19.62 | 21.96 | -0.20 | 8.46 |  |

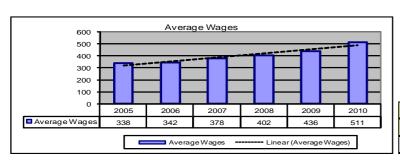
## Third Officer / Fourth Engineer



CAGR: 11.10%

| Year On Year Increase in Wages for the Industry        |       |       |      |      |
|--|-------|-------|------|------|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009 - |       |       |      |      |
| 6.89   | 11.43 | 16.92 | 6.63 | 7.89 |

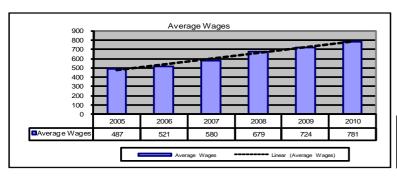
#### Deck Cadet



CAGR: 8.69%

| Year On Year Increase in Wages for the Industry |           |           |           |           |
|---|-----------|-----------|-----------|-----------|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |
| 1.10  | 10.41     | 6.33      | 8.62      | 17.12     |

Trainee / Jr. Engineer



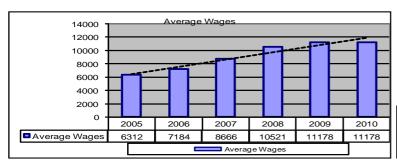
CAGR: 10.43%

| Year On Year Increase in Wages for the Industry |           |           |           |           |
|---|-----------|-----------|-----------|-----------|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |
| 6.89  | 11.43     | 16.92     | 6.63      | 7.89      |

\_\_\_\_

#### 3.3. LPG

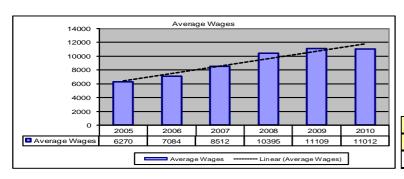
#### Master



CAGR: 13.09%

| Year On Year Increase in Wages for the Industry |           |           |           |         |
|---|-----------|-----------|-----------|---------|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009-10 |
| 13.81   | 20.63     | 21.41     | 6.24      | 0.01    |

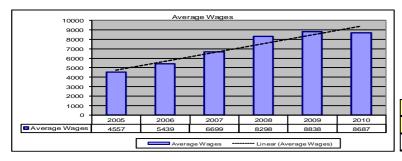
## Chief Engineer



CAGR: 13.10%

| Year On Year Increase in Wages for the Industry |           |           |           |           |
|---|-----------|-----------|-----------|-----------|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |
| 12.98   | 20.16     | 22.12     | 6.87      | -0.88     |

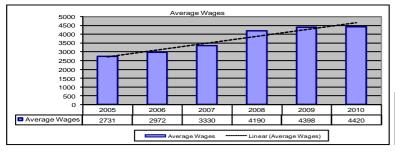
#### Chief Officer / Second Engineer



CAGR: 14.78%

| Year On Year Increase in Wages for the Industry        |       |       |      |       |
|--|-------|-------|------|-------|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009 - |       |       |      |       |
| 19.35  | 23.16 | 23.88 | 6.50 | -1.70 |

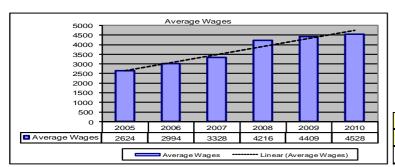
## Second Officer / Third Engineer



CAGR: 11.16%

| Year On Year Increase in Wages for the Industry |           |           |           |           |
|---|-----------|-----------|-----------|-----------|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |
| 8.80  | 12.06     | 25.83     | 4.97      | 0.48      |

#### **Electrical Officer**



CAGR: 12.20%

| Year On Year Increase in Wages for the Industry      |       |       |      |           |
|--|-------|-------|------|-----------|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009 |       |       |      | 2009 - 10 |
| 14.11  | 11.13 | 26.70 | 4.57 | 2.71      |

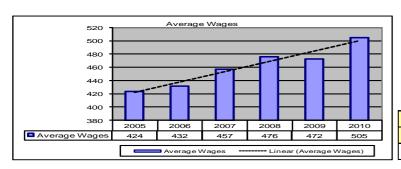
#### Third Officer / Fourth Engineer



CAGR: 12.09%

| Year On Year Increase in Wages for the Industry      |       |       |      |       |
|--|-------|-------|------|-------|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009 |       |       |      |       |
| 13.51  | 14.83 | 24.86 | 4.53 | -0.86 |

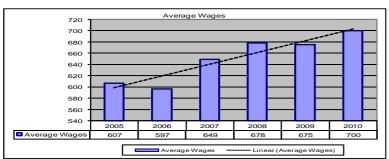
#### Deck Cadet



CAGR: 3.76%

| Year On Year Increase in Wages for the Industry |           |           |           |           |
|---|-----------|-----------|-----------|-----------|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |
| 1.95  | 5.88      | 4.05      | -0.73     | 6.86      |

Trainee / Jr. Engineer

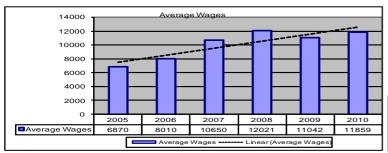


CAGR: 3.49%

| Year On Year Increase in Wages for the Industry |           |           |           |           |
|---|-----------|-----------|-----------|-----------|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |
| -1.71   | 8.82      | 4.45      | -0.40     | 3.70      |

#### 3.4. LNG

#### Master



CAGR: 11.51%

| Year On Year Increase in Wages for the Industry           |       |       |       |      |
|---|-------|-------|-------|------|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009 - 10 |       |       |       |      |
| 16.60   | 32.97 | 12.87 | -8.14 | 7.40 |

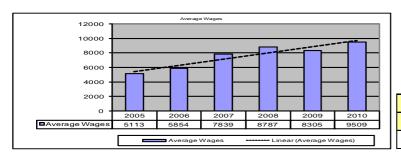
## Chief Engineer



CAGR: 11.93%

| Year On Year Increase in Wages for the Industry          |       |       |       |      |
|--|-------|-------|-------|------|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009 - 1 |       |       |       |      |
| 16.24  | 32.79 | 13.14 | -8.53 | 7.68 |

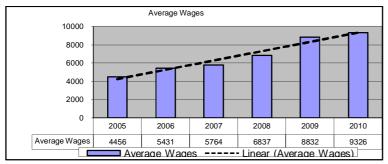
## Chief Officer / Second Engineer



CAGR: 12.39%

| Year On Year Increase in Wages for the Industry        |       |       |       |       |
|--|-------|-------|-------|-------|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009 - |       |       |       |       |
| 14.49  | 33.91 | 12.10 | -5.49 | 14.51 |

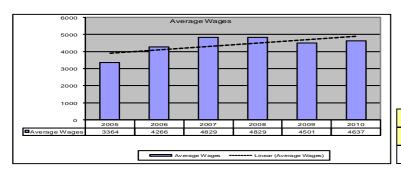
## Second Officer / Third Engineer



CAGR: 6.03%

| Year On Year Increase in Wages for the Industry |           |           |           |           |
|---|-----------|-----------|-----------|-----------|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |
| -2.12   | 27.95     | 1.77      | -2.41     | 29.60     |

#### **Electrical Officer**



CAGR: 7.00%

| Year On Year Increase in Wages for the Industry |       |      |                  |          |
|---|-------|------|------------------|----------|
| 2005 - 06   2006 - 07   2007 - 08               |       |      | 2008 - 09 2009 - | 2009 -10 |
| 26.80   | 13.19 | 0.00 | -6.79            | 3.03     |

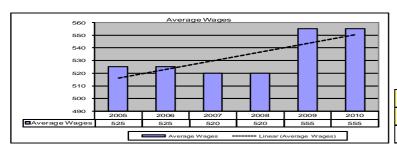
#### Third Officer / Fourth Engineer



CAGR: 5.99%

| Year On Year Increase in Wages for the Industry        |       |      |      |       |
|--|-------|------|------|-------|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009 - |       |      |      |       |
| 9.43   | 11.89 | 5.16 | 5.71 | -4.13 |

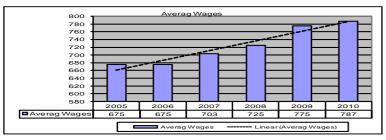
#### Deck Cadet



CAGR: 1.28%

| Year On Year Increase in Wages for the Industry |           |           |           |           |
|---|-----------|-----------|-----------|-----------|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |
| 0.00  | -0.95     | 0.00      | 6.73      | 0.00      |

Trainee / Jr. Engineer



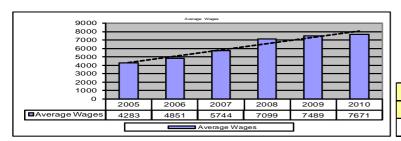
CAGR: 4.67%

|   | Year On Year Increase in Wages for the Industry |           |           |         |          |  |
|---|---|-----------|-----------|---------|----------|--|
|   | 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008-09 | 2009 -10 |  |
| Γ | 0.00  | 4.20      | 3.08      | 6.90    | 1.51     |  |

Page 31 of 56

#### 3.5. Bulk Carriers / Self Unloaders

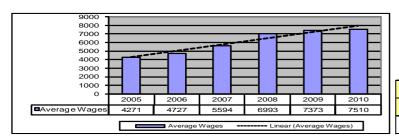
#### Master



CAGR: 13.49%

| Year On Year Increase in Wages for the Industry           |       |       |      |      |
|---|-------|-------|------|------|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009 - 10 |       |       |      |      |
| 13.24   | 18.41 | 23.61 | 5.49 | 2.44 |

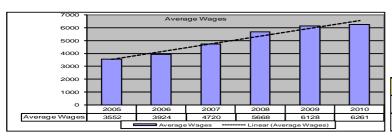
#### Chief Engineer



CAGR: 13.38%

| Year On Year Increase in Wages for the Industry           |       |       |      |      |  |
|---|-------|-------|------|------|--|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009 - 10 |       |       |      |      |  |
| 10.66   | 18.33 | 25.01 | 5.44 | 1.86 |  |

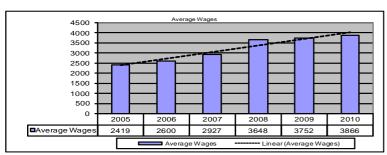
#### Chief Officer / Second Engineer



CAGR: 13.61%

| Year On Year Increase in Wages for the Industry |           |           |           |           |  |
|---|-----------|-----------|-----------|-----------|--|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |  |
| 10.48   | 20.28     | 20.08     | 8.12      | 2.18      |  |

#### Second Officer / Third Engineer

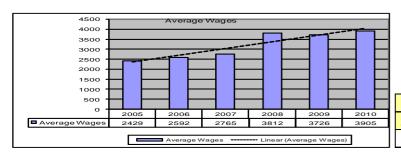


CAGR: 11.04%

| Year On Year Increase in Wages for the Industry |           |           |           |           |  |
|---|-----------|-----------|-----------|-----------|--|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |  |
| 7.50  | 12.56     | 24.64     | 2.86      | 3.02      |  |

Page 32 of 56

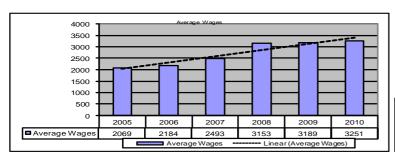
#### **Electrical Officer**



CAGR: 12.87%

| Year On Year Increase in Wages for the Industry |      |       |       |           |
|---|------|-------|-------|-----------|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   |      |       |       | 2009 - 10 |
| 6.72  | 6.68 | 37.87 | -2.25 | 4.80      |

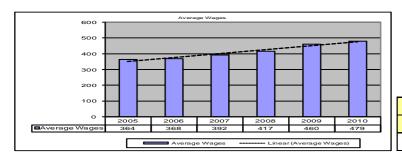
#### Third Officer / Fourth Engineer



CAGR: 10.93%

| Year On Year Increase in Wages for the Industry |           |           |           |           |
|---|-----------|-----------|-----------|-----------|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |
| 5.56  | 14.14     | 26.45     | 1.15      | 1.96      |

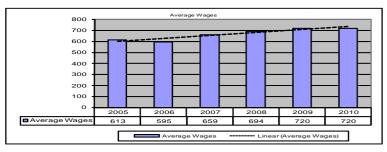
#### Deck Cadet



CAGR: 6.28%

| Year On Year Increase in Wages for the Industry          |      |      |       |      |
|--|------|------|-------|------|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009 - 1 |      |      |       |      |
| 1.30   | 6.43 | 6.27 | 10.30 | 4.14 |

Trainee / Jr. Engineer



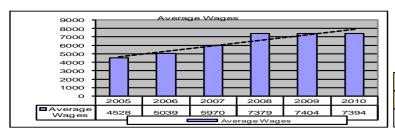
CAGR: 4.23%

| Year On Year Increase in Wages for the Industry |           |           |           |           |
|---|-----------|-----------|-----------|-----------|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |
| -2.97   | 10.74     | 5.24      | 3.84      | -0.03     |

Page 33 of 56

#### 3.6. Ro Ro / PCCs

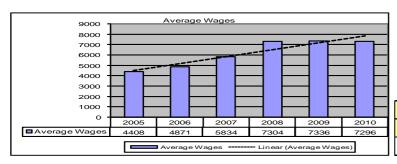
#### Master



CAGR: 11.84%

| Year On Year Increase in Wages for the Industry |           |           |           |           |  |
|---|-----------|-----------|-----------|-----------|--|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |  |
| 11.30   | 18.47     | 23.60     | 0.34      | -0.13     |  |

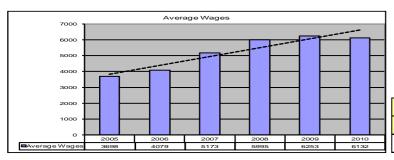
#### Chief Engineer



CAGR: 12.34%

| Year On Year Increase in Wages for the Industry     |       |       |      |       |
|---|-------|-------|------|-------|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   200 |       |       |      |       |
| 10.51   | 19.77 | 25.19 | 0.45 | -0.54 |

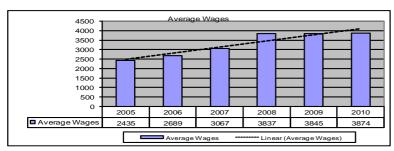
## Chief Officer / Second Engineer



CAGR: 12.26%

| Year On Year Increase in Wages for the Industry |           |           |           |           |
|---|-----------|-----------|-----------|-----------|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |
| 10.30   | 26.82     | 15.88     | 4.30      | -1.94     |

### Second Officer / Third Engineer

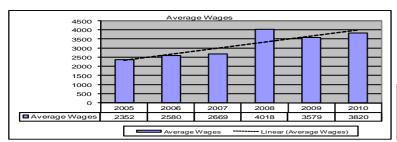


CAGR: 10.87%

| Year On Year Increase in Wages for the Industry |           |           |           |           |
|---|-----------|-----------|-----------|-----------|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |
| 10.45   | 14.07     | 25.08     | 0.21      | 0.77      |

Page 34 of 56

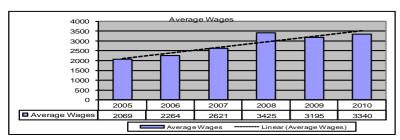
#### **Electrical Officer**



CAGR: 11.33%

| Year On Year Increase in Wages for the Industry |           |           |           |           |
|---|-----------|-----------|-----------|-----------|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |
| 9.68  | 3.47      | 50.53     | -10.93    | 6.74      |

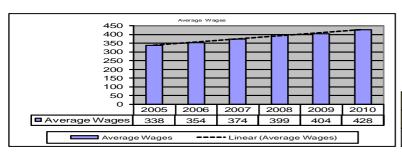
## Third Officer / Fourth Engineer



CAGR: 11.18%

| Year On Year Increase in Wages for the Industry |           |           |           |           |  |
|---|-----------|-----------|-----------|-----------|--|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |  |
| 9.45  | 15.76     | 30.66     | -6.71     | 4.53      |  |

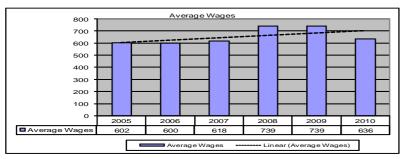
#### Deck Cadet



CAGR: 4.82%

| Year On Year Increase in Wages for the Industry |           |           |           |           |
|---|-----------|-----------|-----------|-----------|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |
| 4.67  | 5.83      | 6.62      | 1.25      | 5.81      |

## Trainee / Jr. Engineer



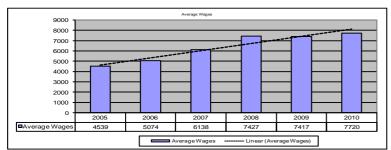
CAGR: 6.26%

| Year On Year Increase in Wages for the Industry |           |           |           |           |
|---|-----------|-----------|-----------|-----------|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |
| -0.44   | 3.16      | 19.43     | 0.00      | -13.89    |

Page 35 of 56

#### 3.7. Container Vessels

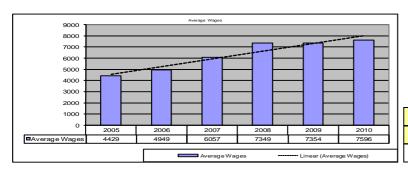
#### Master



CAGR: 12.06%

| Year On Year Increase in Wages for the Industry |           |           |           |           |
|---|-----------|-----------|-----------|-----------|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |
| 11.78   | 20.96     | 21.00     | -0.13     | 4.08      |

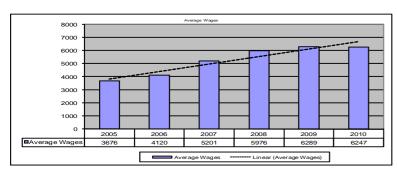
## Chief Engineer



CAGR: 12.39%

| Year On Year Increase in Wages for the Industry |           |           |           |           |
|---|-----------|-----------|-----------|-----------|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |
| 11.74   | 22.38     | 21.34     | 0.08      | 3.29      |

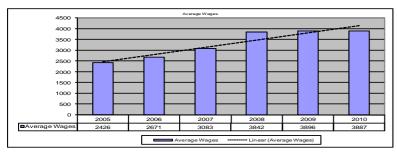
## Chief Officer / Second Engineer



CAGR: 12.30%

| Year On Year Increase in Wages for the Industry |           |           |           |           |
|---|-----------|-----------|-----------|-----------|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |
| 12.08   | 26.25     | 14.89     | 5.24      | -0.67     |

## Second Officer / Third Engineer

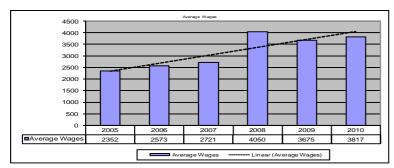


CAGR: 11.18%

| Year On Yeat Increase in Wages for the industry |           |           |           |           |
|---|-----------|-----------|-----------|-----------|
| 2005 - 06                                       | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |
| 10.09   | 15.42     | 24.62     | 1.40      | -0.21     |

*|:+* 

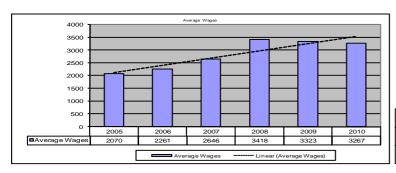
## **Electrical Officer**



CAGR: 11.65%

| Year On Year Increase in Wages for the Industry           |      |       |       |      |  |  |
|---|------|-------|-------|------|--|--|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009 - 10 |      |       |       |      |  |  |
| 9.42  | 5.76 | 48.84 | -9.25 | 3.85 |  |  |

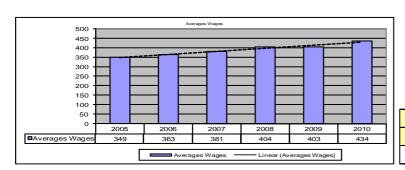
# Third Officer / Fourth Engineer



CAGR: 11.13%

| Year On Year Increase in Wages for the Industry           |       |       |       |       |  |
|---|-------|-------|-------|-------|--|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009 - 10 |       |       |       |       |  |
| 9.21  | 17.04 | 29.17 | -2.78 | -1.67 |  |

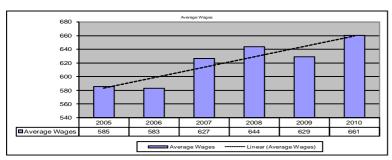
## Deck Cadet



CAGR: 4.26%

| Year On Year Increase in Wages for the Industry           |      |      |       |      |  |
|---|------|------|-------|------|--|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009 - 10 |      |      |       |      |  |
| 4.07  | 4.92 | 5.91 | -0.10 | 7.65 |  |

# Trainee / Jr. Engineer



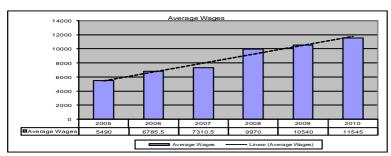
CAGR: 2.49%

| Year On Year Increase in Wages for the Industry           |      |      |       |      |  |  |
|---|------|------|-------|------|--|--|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009 - 10 |      |      |       |      |  |  |
| -0.40   | 7.50 | 2.71 | -2.22 | 4.96 |  |  |

j:F

# 3.8. FSOs / FPSOs

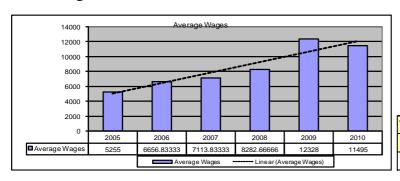
#### Master



CAGR: 16.51%

| Year On Year Increase in Wages for the Industry           |      |       |      |      |  |
|---|------|-------|------|------|--|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009 - 10 |      |       |      |      |  |
| 23.60   | 7.74 | 36.38 | 5.72 | 9.54 |  |

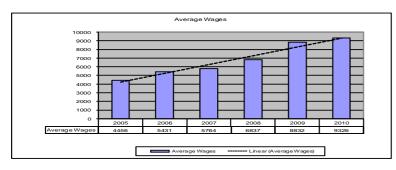
# Chief Engineer



CAGR: 18.41%

| Year On Year Increase in Wages for the Industry           |      |       |       |       |  |
|---|------|-------|-------|-------|--|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009 - 10 |      |       |       |       |  |
| 26.68   | 6.87 | 16.43 | 48.84 | -6.76 |  |

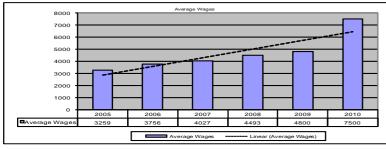
# Chief Officer / Second Engineer



CAGR: 16.42%

| Year On Year Increase in Wages for the Industry           |      |       |       |      |  |
|---|------|-------|-------|------|--|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009 - 10 |      |       |       |      |  |
| 21.88   | 6.13 | 18.61 | 29.19 | 5.59 |  |

# Second Officer / Third Engineer

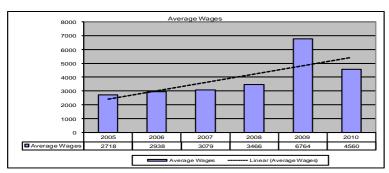


CAGR: 15.40%

| l  | Year On Year Increase in Wages for the Industry |      |       |      |           |  |
|--|---|------|-------|------|-----------|--|
| <b>2005 - 06 2006 - 07 2007 - 08 2008 - 09 2</b> 009 - |   |      |       |      | 2009 - 10 |  |
|  | 15.24   | 7.22 | 11.57 | 6.83 | 56.25     |  |

**j:F** 

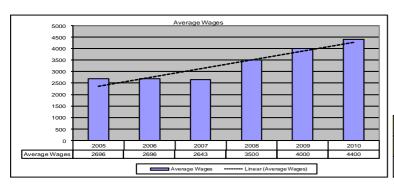
# Electrical Officer



CAGR: 16.04%

| Year On Year Increase in Wages for the Industry           |      |       |       |        |  |
|---|------|-------|-------|--------|--|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009 - 10 |      |       |       |        |  |
| 8.11  | 4.79 | 12.55 | 95.18 | -32.58 |  |

# Third Officer / Fourth Engineer



CAGR: 11.83%

| Year On Year Increase in Wages for the Industry          |       |       |       |       |  |
|--|-------|-------|-------|-------|--|
| 2005 - 06   2006 - 07   2007 - 08   2008 - 09   2009 - 1 |       |       |       |       |  |
| 0.00   | -1.97 | 32.43 | 14.29 | 10.00 |  |

Page 39 of 56

| 4. Survey Outcomes | , Conclusions and | Recommendations |
|--------------------|-------------------|-----------------|
|--------------------|-------------------|-----------------|

Page 40 of 56

#### 4.1. Introduction:

Wages benchmarking is the prime objective of this survey with details in the preceding sections of the report. However a study of wages alone does not give a holistic view of the human resources situation prevailing in the industry which is required for inclusive decision making.

To develop this report as an effective guide, this section of the report includes a further study of various industry data and takes an integrated approach for drawing conclusions and making recommendations.

## 4.2. Target Population

This study was carried out on Indian deck and engineering officers on board ships of FOSMA represented companies, and two other major ship management companies. The total number of Indian officer onboard positions covered in this survey is 7230 from 26 companies for the period 2010. This includes 6004 certified officers (including electrical officers) and 1226 Trainees (Deck Cadets, Trainee Engineers and Junior Engineers).

The breakup of the 26 participating companies in various categories is given in Table 1 below. Category 1 companies are those which have less than 200 officer positions onboard, Category 2 are between 200-500 officer positions on board and Category 3 are those with more than 500 officer positions onboard.

Table 1: Breakup of Participating Companies

| COMPANY TYPE        | CATEGORY 1 | CATEGORY 2 | CATEGORY 3 | TOTAL |
|---------------------|------------|------------|------------|-------|
| Ship Owning         | 4          | 2          | 2          | 8     |
| Ship Management     | 6          | 2          | 3          | 11    |
| Recruiting Agencies | 4          | 0          | 2          | 6     |
|                     |            |            | Total*     | 25*   |

#### 4.3. Manning Scales

The following table shows the current average manning scales in the industry. Variations were observed in some cases in terms of higher number of trainees,

Page 41 of 56

\_

<sup>\*</sup>While the total number of companies participating in this survey is 26, one of the ship owning respondent company is provided manning by two recruiting agencies who are also participants in this benchmarking survey. For this reason the total number of respondents above is worked out as 25.

\_\_\_\_

presence of a Radio Officer or Administrative Clerk/Officer onboard in some companies.

Table 2: Manning Scales in the Industry

| CATEGORIES                 | RANKS  | NO. |
|----------------------------|--|-----|
| Management Level Officers  | Master, Chief Officer, Chief Engineer and Second Engineer.                         | 4   |
| Operational Level Officers | Second Officer, Third Officer, Third engineer, Fourth engineer, Electrical Officer | 5   |
| Officer Trainee            | Deck Cadet, Trainee / Junior Engineer  | 2   |
| Petty Officers             | Fitter, Pump man, Bosun  | 3   |
| Saloon Staff               | Chief Cook, Second Cook, Mess Man  | 3   |
| Ratings                    | Able Seaman, Ordinary Seaman, Motorman, Wiper, Trainee                             | 8   |
| Total 2                    |  |     |

## 4.4. Seafarers Wage Trends

Wages of seafarers are affected by several factors. The major influencing factor is supply and demand of seafarers. In an economic slowdown coupled with officer shortage scenario, wages have to be sustained or increased by companies to attract the right people to run the ships. However this increase is not as sharp as observed when there is shortage of seafarers during economic boom scenario.

The years 2004 to 2009 witnessed a sharp rise in overall wages of the seafarers with a CAGR 16.54 % for senior category (management level officers) and 13.97% CAGR for junior category (operational level officers excluding the cadets and trainee/junior engineers).

The 2009 and 2010 recession period did stall the upward trend which is evident from the figures obtained during this year's survey - 13.83% (CAGR) for the senior category while 11.22 % CAGR for the junior officers.

i.e

The average increase in wages in the year 2010 across different types of ships in the 26 companies covered in the survey is 3.59 %, while in 2009 with 24 companies participating in the survey was 2.70 %.

## 4.5. Current Indian Seafaring Officers' Onboard Positions

Besides FOSMA, the other major shipping associations like INSA and MASSA are also involved in Indian seafaring officers' supply. Based on various industry inputs, our assumption is that the 6004 officer positions covered through this survey represent approximately  $1/3^{rd}$  of the total Indian officers' onboard positions worldwide.

This indicates that there are around **18000** total onboard positions currently occupied by Indian officers. Assuming 1.5 to 2 times of this being the total active officers (including those on leave), gives us a figure of around **27000** to **36000** active Indian officers with foreign going licenses.

The number of officers enrolled in the national database of Indian seafarers - INDOS is given the Table 3 below:

Table 3: Details of Seafarers in Database as On 16/11/2010

| RANK  | TOTAL |  |
|---|-------|--|
| CERTIFIED NAUTICAL OFFICERS                                     |       |  |
| EXTRA MASTER  |       |  |
| MASTER (FOREIGN GOING SHIP)                                     |       |  |
| MASTER ( HOME TRADE SHIP / MASTER (NCV))                        |       |  |
| MATE (FOREIGN GOING SHIP)                                       |       |  |
| MATE ( HOME TRADE SHIP / CHIEF MATE (NCV))                      |       |  |
| NWKO (NCV)  |       |  |
| NWKO(F.G)   | 4     |  |
| SECOND MATE (FOREIGN GOING SHIP)                                | 7333  |  |
| TOTAL   | 18317 |  |
| CERTIFIED ENGINEERING OFFICERS                                  |       |  |
| EXTRA FIRST CLASS ENGINEER                                      | 2     |  |
| MARINE ENGINEER OFFICER CLASS I                                 | 5874  |  |
| MARINE ENGINEER OFFICER CLASS II                                | 3870  |  |
| MARINE ENGINEER OFFICER CLASS III (CHIEF ENGINEER OFFICER NCV)  | 76    |  |
| MARINE ENGINEER OFFICER CLASS III (SECOND ENGINEER OFFICER NCV) |       |  |
| MARINE ENGINEER OFFICER CLASS IV                                |       |  |
| MARINE ENGINEER OFFICER CLASS IV (NCV)                          |       |  |

\_\_\_\_\_

| SEA GOING ENGINE DRIVER  | 105   |  |
|--|---|--|
| TOTAL  | 17877   |  |
| TRAINEES AND RATING CATEGORY   |   |  |
| CADETS DECK (PRE SEA)  | 10348   |  |
| CADETS ENGINEERING (PRE SEA)   | 10120   |  |
| GENERAL PURPOSE CREW (PRE SEA)   | 22844   |  |
| RATING CATERINGS (PRE SEA)   | 11700   |  |
| POLYVALENT CADETS (PRE SEA)  | 84  |  |
| RATINGS DECK   | 17710   |  |
| RATING ENG   | 6581  |  |
| TOTAL  | 79387   |  |
| ANY OTHER CATEGORY   |   |  |
| ELECTRICAL OFFICERS  | 4157  |  |
| MEDICAL OFFICERS   | 12  |  |
| XL (FITTER/ PURSER/ERPO/POM)   | 9289  |  |
| RADIO OFFICERS ( COC HOLDER (AS SND))  | 899   |  |
| ANY NATIONAL CDC & EXPERIENCE SEA-SERVICE  | 3744  |  |
| UNDERGONE 4 BASIC MODULAR COURES & NO SEA-SERVICE  | 66793   |  |
| TOTAL  | 0.400.4   |  |
| TOTAL  | 84894   |  |
| TOTAL (MANUAL  |   |  |
|  |   |  |
| TOTAL (MANUAL  |   |  |
| TOTAL (MANUAL<br>DETAILS OF SEAFARERS (ON-LINE) AS ON 16/11/2010   | 200475  |  |
| TOTAL (MANUAL DETAILS OF SEAFARERS (ON-LINE) AS ON 16/11/2010  NAUTICAL OFFICERS   | 5968  |  |
| TOTAL (MANUAL  DETAILS OF SEAFARERS (ON-LINE) AS ON 16/11/2010  NAUTICAL OFFICERS  ENGINE OFFICERS   | 5968<br>5558  |  |
| TOTAL (MANUAL  DETAILS OF SEAFARERS (ON-LINE) AS ON 16/11/2010  NAUTICAL OFFICERS  ENGINE OFFICERS  POLEVALENT OFFICERS  | 5968<br>5558<br>74  |  |
| TOTAL (MANUAL  DETAILS OF SEAFARERS (ON-LINE) AS ON 16/11/2010  NAUTICAL OFFICERS  ENGINE OFFICERS  POLEVALENT OFFICERS  MEDICAL OFFICERS  | 5968<br>5558<br>74  |  |
| TOTAL (MANUAL  DETAILS OF SEAFARERS (ON-LINE) AS ON 16/11/2010  NAUTICAL OFFICERS  ENGINE OFFICERS  POLEVALENT OFFICERS  MEDICAL OFFICERS  RADIO OFFICERS  | 5968<br>5558<br>74<br>7<br>489  |  |
| TOTAL (MANUAL  DETAILS OF SEAFARERS (ON-LINE) AS ON 16/11/2010  NAUTICAL OFFICERS  ENGINE OFFICERS  POLEVALENT OFFICERS  MEDICAL OFFICERS  RADIO OFFICERS  DECK RATING   | 5968<br>5558<br>74<br>7<br>489  |  |
| TOTAL (MANUAL  DETAILS OF SEAFARERS (ON-LINE) AS ON 16/11/2010  NAUTICAL OFFICERS  ENGINE OFFICERS  POLEVALENT OFFICERS  MEDICAL OFFICERS  RADIO OFFICERS  DECK RATING  ENGINE RATING  | 5968<br>5558<br>74<br>7<br>489<br>762   |  |
| TOTAL (MANUAL DETAILS OF SEAFARERS (ON-LINE) AS ON 16/11/2010  NAUTICAL OFFICERS  ENGINE OFFICERS  POLEVALENT OFFICERS  MEDICAL OFFICERS  RADIO OFFICERS  DECK RATING  ENGINE RATING  SALOON RATING  | 5968<br>5558<br>74<br>7<br>489<br>762<br>124  |  |
| TOTAL (MANUAL  DETAILS OF SEAFARERS (ON-LINE) AS ON 16/11/2010  NAUTICAL OFFICERS  ENGINE OFFICERS  POLEVALENT OFFICERS  MEDICAL OFFICERS  RADIO OFFICERS  DECK RATING  ENGINE RATING  SALOON RATING  SEA SERVICE  | 5968<br>5558<br>74<br>762<br>124<br>1947<br>2380                                      |  |
| TOTAL (MANUAL  DETAILS OF SEAFARERS (ON-LINE) AS ON 16/11/2010  NAUTICAL OFFICERS  ENGINE OFFICERS  POLEVALENT OFFICERS  MEDICAL OFFICERS  RADIO OFFICERS  DECK RATING  ENGINE RATING  SALOON RATING  SEA SERVICE  FRESH CADETS  | 5968<br>5558<br>74<br>76<br>489<br>762<br>124<br>1947<br>2380<br>46188                |  |
| TOTAL (MANUAL  DETAILS OF SEAFARERS (ON-LINE) AS ON 16/11/2010  NAUTICAL OFFICERS  ENGINE OFFICERS  POLEVALENT OFFICERS  MEDICAL OFFICERS  RADIO OFFICERS  DECK RATING  ENGINE RATING  SALOON RATING  SEA SERVICE  FRESH CADETS  ELECTRICAL OFFICERS                                     | 5968<br>5558<br>74<br>76<br>489<br>762<br>124<br>1947<br>2380<br>46188<br>291<br>8698 |  |
| TOTAL (MANUAL  DETAILS OF SEAFARERS (ON-LINE) AS ON 16/11/2010  NAUTICAL OFFICERS  ENGINE OFFICERS  POLEVALENT OFFICERS  MEDICAL OFFICERS  RADIO OFFICERS  CONTROL OFFICERS  DECK RATING  ENGINE RATING  SALOON RATING  SEA SERVICE  FRESH CADETS  ELECTRICAL OFFICERS  G.P RATING       | 5968<br>5558<br>74<br>76<br>489<br>762<br>124<br>1947<br>2380<br>46188<br>291<br>8698 |  |
| TOTAL (MANUAL DETAILS OF SEAFARERS (ON-LINE) AS ON 16/11/2010  NAUTICAL OFFICERS  ENGINE OFFICERS  POLEVALENT OFFICERS  MEDICAL OFFICERS  RADIO OFFICERS  CONTROL OFFICERS  DECK RATING  ENGINE RATING  SALOON RATING  SEA SERVICE  FRESH CADETS  ELECTRICAL OFFICERS  G.P RATING  TOTAL | 5968<br>5558<br>74<br>77<br>489<br>762<br>124<br>1947<br>2380<br>46188<br>291<br>8698 |  |

The total number of registrations in the INDOS database including even those seafarers who may have got registered but have never sailed onboard ship is 272961.

\_\_\_\_\_

The total registered officers with foreign going licenses (Given in Table 4. Online numbers are not broken down into to various sub categories because of the database software limitations) are around 49996. However this number does not give the actual figure of active seafaring officers.

Table 4: Total number of foreign going officers for 2010

| FOREIGN GOING OFFICERS              | TOTAL       |
|-------------------------------------|-------------|
| MASTER OF A FOREIGN GOING SHIP      | 7483        |
| MATE OF A FOREIGN GOING SHIP        | 2409        |
| SECOND MATE OF A FOREIGN GOING SHIP | 7333        |
| MARINE ENGINEER OFFICER CLASS I     | 5874        |
| MARINE ENGINEER OFFICER CLASS II    | 3870        |
| MARINE ENGINEER OFFICER CLASS IV    | 7053        |
| ELECTRICAL OFFICERS                 | 4157        |
| NAUTICAL OFFICERS                   | 5968        |
| ENGINE OFFICERS                     | 5558        |
| ELECTRICAL OFFICERS                 | 291         |
|                                     | Total 49996 |

# 4.6. Requirements/Aspirations for the Future

ASF (2003) acknowledged severe shortage of seafarers in the region (Asia), particularly in the engineer officer category.

BIMCO manpower update (2005) states that for the year 2005 demand for officers was 4,76,000 while the supply lagged behind by 10,000 people i.e. 4,66,000. However the scenario for ratings was different. Supply for ratings which stood at 7,21,000 far exceeded the demand at 5,86,000.

Drewry annual report Manning (2009) concluded that the current shortfall for officers is 33,000 and is projected to rise to 43,000 by 2013 even allowing for a 10%

cancellation of planned new builds and a 10% increase in planned scrapping. The total Indian officers as per this report were 31200 and the percentage of India's share amongst the seafarer supplying countries for officers supply was 9.8%.

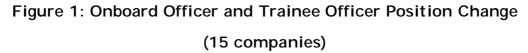
BIMCO manpower update (2010) which has just been published states that the worldwide supply of seafarers in 2010 is estimated to be 624,000 officers and 747,000 ratings, while the current worldwide demand for seafarers is 637,000 officers and 747,000 ratings. Their results suggest a situation of approximate balance between demand and supply for ratings, with a modest overall shortage of officers of about 2%. It states that this does not mean that individual shipping companies are not experiencing serious recruitment problems, but simply that overall supply and demand are currently more or less in balance. This is perhaps not surprising given the sharp contraction in the demand for sea transport in 2009 combined with significant growth in total seafarer numbers.

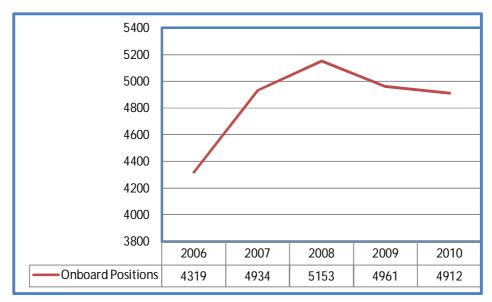
The conclusions of BIMCO 2010 report do clearly indicate one fact – the competition is getting tougher.

The above studies do not provide supply situation or the shortages experienced by individual countries. An attempt has been made in the present study to predict the expected growth of Indian positions onboard. For this the participant companies were required to provide data for future growth of Indian positions for the period of 2011 to 2013.

We also studied the available data for 15 of the participating companies whose data was consistently available for the period 2006-2010 to find how the positions onboard (including trainees) were changing. Our finding is that after an increase from 2006-2008, there has been a decline of available slots. Whether this is because of loss to other nationalities or an effect of overall number of ships reducing, could not be determined.

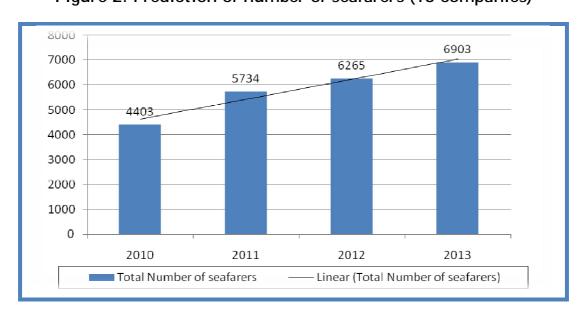
Page 46 of 56





Thirteen companies, out of the twenty six participating companies contributed to the requirement of predicting the growth in the coming three years. These 13 companies comprise of 60.89 percent of the population sample taken. On analyzing the results, the CAGR was found to be 15.46 percent. Figure 2 displays the Year on Year predictions.

Figure 2: Prediction of number of seafarers (13 companies)



Page 47 of 56

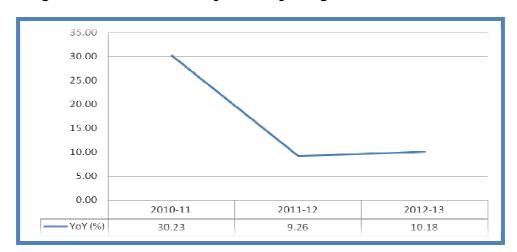


Figure 3: Prediction of year on year growth for 2010-2013

There is a sharp increase in expected growth rate for 2010- 2011 period because of impact of recession declining and new builds being delivered, the companies expect to grow while maintaining a balanced growth in 2012-2013 (Ref Figure 3).

#### 4.7. Trends on Trainee Inductions:

The increase in number of trainees in companies throughout the period 2005 to 2008 was affected as the recession set in. This is shown in the data obtained from the 14 companies out of the total of 26 companies, who could provide the data during the current survey. The effect of recession on decisions pertaining to trainee intake is evident from the data.



Figure 4: Deck Cadet, Trainee & Jr. Engineers for 14 companies (2005-10)

Page 48 of 56

## 4.8. Institute Capacities

According to DG shipping (2009) the capacities were 3076 and 2999 for deck and engineering capacities respectively, taking the total number of trainees to 6075. However with one of the leading ship management company setting its own institute near Mumbai and several others getting approval, there has been increase in to the total numbers and capacities during the years 2009 and 2010 too, and this could be estimated to be at around 8-10% increase overall.

#### 4.9. COC examination Trends

The number of candidates passing on yearly basis at the COC examinations has been on the rise. This is evident from the data on deck COC displayed in Figure 5. However the increased numbers have largely come from the 2nd Mate's examination while there has been a status quo at the Mates and Masters passing numbers. Overall, the increase in number of candidates passing various COC examinations from 2005-2010 has seen a CAGR of 10.93%.

The number of candidates passing examination on yearly basis depends on several factors including the capacities at MMDs, number of candidates appearing for the examinations, and perhaps their competence standard. It is a well known fact that many candidates go to other countries for obtaining their COC. The number of such candidates is not available from any common database.

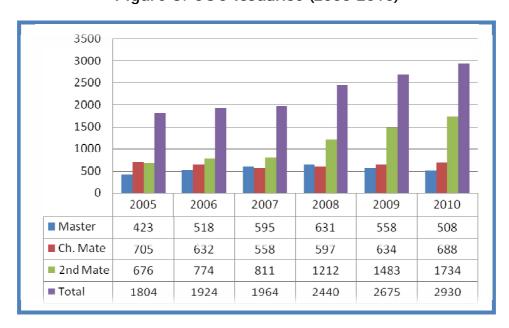


Figure 5: COC Issuance (2005-2010)

Note: Extrapolated figures for 2010 as the available data was only up to October 2010.

Page 49 of 56

#### 4.10. Conclusions

The focus of the present report is the analysis of existing wages of seafaring officers. The collection, compilation, sorting and analyzing of data is done on the basis of the frame work established in the previous report submitted in 2009. Many findings and trends are quite similar to those of the previous report.

The years 2004-2008 saw a steep rise in the wages, while in the years 2009 and 2010 the wages have remained by and large the same or seen only a marginal increase. The global recession of late 2008 hit the shipping industry and the industry is still not completely out of its grip.

In thriving economy situation higher costs of managing a ship and higher cost of human resource seems justified, at least with a short term perspective. But the same costs cannot be justified in times of recession. However, in the economic slowdown situation, the shortage of officers especially at the management level has not left the players with many choices. Higher wages in diminishing business situation has put a lot of pressure on the entire industry. It even has adverse effect on the commitment and motivation of the seafarers. Higher demand and a lower supply situation, has put seafarers in a seemingly better negotiating position, but when probed deeper it is clear that the higher wages are making Indian seafarers less competitive in the global market.

If this trend continuously grows the member companies as well as Indian seafarer will suffer in the long run. The short term measure for solving the shortage of seafarers by offering higher wages is actually damaging the industry and all the parties involved in it.

No industry can function in isolation. It is important for companies to align their short term goal of keeping the ships running to the long term goal of remaining profitable and having a fair rationale for wages, their own health and the right motivation and attitude of seafarers. Higher wages with lesser onboard experience and mediocre competence will render Indians seafarers less preferred.

Analysis of the current situation must help companies and individuals to make better choices and take informed decisions. However the impact of the problems imposed by economic pressures cannot to be ignored as they may compel companies to take certain appropriate decisions. Let us look into various decision areas.

> Is it feasible to reduce the wages of seafarers to bring the costs down?

Page 50 of 56

- > Is it possible to further reduce the number of people onboard to keep the costs low? How does MLC 2006 impact this decision?
- > Is the motivation to train larger numbers already getting diluted? Is this a correct approach?
- > Are there any other innovative means which could be adopted to continue competence building of seafarers so that the industry may see the next economic boom with better numbers, better competence and better attitudes?
- > What are the short term and long term goals which may affect our decisions?

#### Recommendations 4.11.

Page 51 of 56

An issue of wages of seafarers is multidimensional. The involvement of various players, competitors and commercial motives make it further complicated. However an effort to address this concern by FOSMA by initiating a survey of this kind is a concrete step towards an environment of better understanding, which should help all the involved parties optimize their resources with better economic gains and safer and cleaner environment.

Decision on appreciation of human resources involvement, by way of wages and other benefits entails a lot of general and market related awareness . Well informed decisions come from comprehensive information. Following steps can help achieve the desired objectives:

- 1. Improvement in data base maintained with various institutional bodies and their regular updates are essential. Even companies need to streamline their own data upkeep. While this recommendation was made last year too, a lot still needs to be done in this area.
- 2. Regular studies of the Indian manpower market involving all the interested parties and coverage of a larger representative population would be most desirable.
- 3. Training of young seafarers should continue and companies should have more berths created for accommodating the trainees.
- 4. Training Institutes need to be monitored more closely for their product. Substandard institutes should be watched closely and their improvement support.
- 5. Improvement in COC studies and examination administrative processes to ensure timely production of better quality officers. Innovative and modern methods may be adopted for examination system, COC issuance.

# **5.Appendices**

Page 52 of 56

## 5.1. The Process of Benchmarking Survey

## > How was the study conducted

The entire survey exercise was split into the following distinct activities:

- Interview/Survey Form was designed by ISF in close conjunction with the FOSMA appointed technical committee for collecting the primary data through manual interviews with each company.
- Interview/Data Collection Process, this entire exercise of personal interviews
  with the representatives of the various companies and collection of data was
  carried out solely by Mr. Pawan Kapoor Chief Executive of ISF HR Services to
  maintain complete confidentiality at all times.
- Verification of the data entered/provided by them was also carried out by checking a few employment contracts at random. No names of the companies appeared in any formal document. Each company on completion of the data collection was assigned a code which was passed on to the team involved in data entry.
- Data sorting out, construction of tables in spread sheets, developing graphs, applying statistical tools for arriving at key results.
- Report writing and presentation.

## Assumptions kept in mind for the study

- It is assumed that the top four officers sail for 7.5 months a year while the junior officers sail for 8 months a year.
- The study assumes the continuation of the demand and supply situation of personnel in the maritime labour market.

#### Data and its Limitations

For any study of manpower to truly reflect a complete picture, the need of well collated data and records maintained over certain periods is essential. In the Indian maritime context, there are several sources in the industry where data is available but this stage it is rather fragmented.

Having said that, even though the limitation of available data, especially with regards to the actual number of seafarers in the system has restricted a truly comprehensive

Page 53 of 56

\_\_\_\_\_

empirical study from being conducted for this part of the report, all endeavors have been made to arrive at reasonably meaningful conclusions from the available data. The following have been the sources from where data has been obtained for the study of this section:

- Raw data besides the seafarers' wages, i.e. the number of inductions at trainee levels, distribution of seafarers, etc was sourced from the participating companies.
- DG Shipping website and their office were generous in providing data on number of institutes, their capacities and actual intakes, number of certificate of competencies issued on yearly basis, etc.
- INDOS database contributed the total number of seafarers who hold an INDOS number.
- Predictions on number of seafarers, shortage and surplus, was obtained from websites of various industry bodies.

Page 54 of 56

## 5.2. Statistical Data Analysis Tools

#### > Arithmetic Mean

The arithmetic mean is the **Average** of a set of values. It is the sum of all the values in a set divided by the number of data in the set. The mean is not necessarily the middle value in a set of data. It is also not the most appearing value which is called **Mode**. The middle value in a set of data is called as **Median**. Half of the population lies above it while the other half of the population lies below it.

#### Percentile

Percentile is the value of a variable below which a certain percent of observations fall. So the 10th percentile is the value (or score) below which 10 percent of the observations may be found.

The 25th percentile is also known as the **First Quartile** (Q1); the 50th percentile as the **M Median** or **Second Quartile** (Q2); the 75th percentile as the **Third Quartile** (Q3).

#### > Standard Deviation

The standard deviation of a set of data is a computational representation of the variability of the population with regard to the variable. It shows the nature of the deviation of the data from the mean of all the data in the set. In probability theory and statistics, standard deviation is a measure of the variability, a data set, or a probability distribution. A low standard deviation indicates that the data points tend to be very close to the **Mean**, whereas high standard deviation indicates that the data are spread out over a large range of values.

#### > Trend line

In statistics, linear regression refers to any approach to modeling the relationship between variables denoted y and variables denoted X, such that the model depends linearly on the unknown parameters to be estimated from the data.

#### > YOY Growth

The calculation is based on the straight-line growth rates method. The formula used for Straight line growth rate calculation is:

Page 55 of 56

X = (1/N) \* (E - B)/B

Where,

B = wages in previous year.

E = wages in following year.

N = number of years between beginning and ending year, which in the present study is 1.

#### > CAGR

The compound annual growth rate (CAGR) is calculated by taking the nth root of the total percentage growth rate, where n is the number of years in the period being considered. The year-over-year growth rate of various sectors over a time series is calculated. The formula used is as follows:

CAGR = {Ending Value/Beginning Value} {1 / #of years} -1

The compound annual growth rate (CAGR) is calculated by Semi log method.

The CAGR calculator is a useful tool when determining an annual growth rate of data whose value has fluctuated widely from one period to the next. CAGR is often used to describe the growth over a period of time.

Page 56 of 56