

A Good Workning Life at Sea

Survey on Well-being aboard Danish Merchant Vessels

Main results



Contents

Part I. Introduction	3
1.1 Foreword	3
1.2 Survey - Background and purpose	4
1.3 Steering and project groups	5
1.4 Report - structure	5
Part II. Questionnaire and data	6
2.1 Questions and questionnaire design	6
2.2 Conducting the survey	8
2.3 Representivity	8
2.4 Delimitation	11
2.5 Reservations and assumptions	11
2.6 Personal data	11
2.7 Interpreting the results	12
Part III. Results	13
3.1 Main results	13
3.1.1 Main conclusions	13
3.1.2 Summary of survey results	15
3.2 Personal data, distribution by vessel type	19
3.3 Mental well-being at work	22
3.3.1 Overall well-being	23
3.3.2 Overall well-being – who is the most satisfied and the most dissatisfied overall?	25
3.3.3 Influence on work	29
3.3.4 Meaningful work	33
3.3.5 Predictability	37
3.3.6 Social support	41
3.3.7 Reward	47
3.3.8 Demands	50

Part IV. Themes	66
4.1 – Theme: Fellowship and social isolation	66
4.2 – Theme: Management	78
4.3 – Theme: Off-duty time	94
4.4 – Themes. Bullying, sexual harassment, threats of violence and violence.....	101
Part V. What factors does well-being depend on?	105

PART I. INTRODUCTION

1.1 FOREWORD

We at Seahealth Denmark and the rest of the shipping sector have great expectations of this questionnaire survey.

The survey was planned in a time of expansion when the focus was on recruitment and retention. Trading conditions deteriorated during the process of planning the survey which was held at the beginning of an economic downturn. But that has not made it less valuable or useful. For a long time it has been important to get a broader, more realistic picture of the state of well-being at sea. What do seamen themselves say about life aboard? What is really good and where could things be better? This survey has given us valuable insights and a strong basis for the work constantly being done on creating the best possible conditions for well-being and growth in a safe, healthy environment.

For a long time now, the focus ashore has been on well-being and the mental working environment and the fact that it has been possible to undertake this questionnaire survey with broad backing from the industry demonstrates that well-being also has a place at the top of the maritime agenda. Our possibilities for having quality shipping operations are highly dependent on well-being. Well-being means that employees stay working in the sector and provide good, highly qualified services. This requires us to remember to prioritize well-being even in these times of economic crisis. I feel that the results of the survey show that the well-being of Danish and foreign seamen in the Danish merchant fleet is really good and that there is a good atmosphere and good fellowship aboard. However, there are also clear indicators for where there is room for improvement. This applies among other things to off-duty time and social isolation on home leave. At Seahealth Denmark, we shall be doing further work on these results. We also hope that shipowners and trade organisations in the sector will help by looking at conditions and we also hope that seamen will be interested in the results and also think how they themselves can contribute to boosting well-being. Because in our daily routines we all contribute to our own and others' well-being

We also have to acknowledge that the survey does not give all the answers and Seahealth Denmark will now take a look at precisely where we should undertake more detailed surveys and where we can contribute to improving conditions. There are very many opportunities for other people to work further on the survey and we also hope that training/education and research institutes and students will be able to use the data to provide inspiration for further analysis and studies.

I should like to take the opportunity to thank the many seamen who took the time to answer the extensive questionnaire. And I should also like to thank everybody who helped develop and process the survey and who have demonstrated such unique commitment in the process in investigating the questions in-depth to demonstrate just where we are with *A Good Working Life at Sea*. Despite the complexity of the project and the logistical challenges, this has been a most positive process.

We should also like to thank the Orient's Foundation on behalf of Dampskibsselskabet NORDEN A/S, who provided financial backing for the survey and who thus helped make it possible to conduct it.

Enjoy the read.

Connie S. Gehrt
Seahealth Denmark

1.2 SURVEY - BACKGROUND AND PURPOSE

The questionnaire survey - *A Good Working Life at Sea* - was conducted to take the temperature at the sector level. This is the first time that there has been such a broad questionnaire survey of the mental working environment at sea. The survey has been intended to let us know more precisely about conditions at sea and the possibility of working strategically to promote attractive workplaces and a good atmosphere at work. The survey has had the backing of shipowners and seamen's unions, all of whom are interested in the snapshot picture of well-being at sea given by the survey.

The overall purpose of the survey was partly to tell us what makes for good, attractive workplaces at sea in which employees thrive and partly to check where things are going well and where the challenges of the future lie. The aim of the survey was to provide the basis for setting future strategies and activities in the area.

Well-being plays a core role in working on health and safety at sea in that:

- A good mental working environment has a good effect on the safety culture
- A good mental working environment has a good effect on employee retention and recruitment
- Contented crew often have fewer conflicts and are more efficient. In other words, employees who are thriving have an impact on the bottom line.

The focus in the survey was on generating added value for the sector in the following areas:

- Knowledge of the 'temperature' in various areas within the mental working environment.
- Identifying areas of involvement and strategies for:
 - Seahealth Denmark
 - Shipowners
 - Organisations
 - Research and training/educational institutions
- Identifying the strengths in the sector for improving our image and perceptions of the sector

- Possibly debunking myths /suppositions
- Better retention and recruitment on the basis of greater well-being and a better mental working environment.

The focus ashore is on mental occupational health and this is an area of key interest. In Danish Working Environment Authority inspections ashore, they now screen for the mental working environment. This survey is a signal from the sector that the challenges are being taken seriously at sea and we should like to prioritize efforts to ensure a good working life at sea.

The survey is intended to give the parties and organisations in the sector a better basis for identifying strengths and to take action where there is a need for improvement and to develop relevant, forward-facing strategies for promoting well-being, safety and efficiency. The survey is also intended to provide valuable knowledge that can help strengthen the process of retention and recruitment to the sector. The survey is intended to create a strategic basis for the work done by Seahealth Denmark in this area but also very much the work done by shipowners and sector organisations.

The survey looks at well-being from the perspective of individual seamen. All groups of personnel and nationalities in the Danish merchant fleet were invited to participate.

The survey is based among other things on experience from similar surveys and projects on well-being ashore, see sec. 2.1 for more details.

1.3 STEERING AND PROJECT GROUPS

A steering group was set up to oversee the project with representatives of shipowners and maritime trades unions. The work of the steering group was characterized by support and a high level of commitment.

Steering group members:

Hans Christian Orloff-Petersen, A.P. Moller-Maersk A/S

Peter Burkal, Scandlines Danmark A/S

Michael Wengel-Nielsen, Danish Shipowners' Association for Smaller Vessels

Fritz Ganzhorn, Danish Maritime Officers

Per Jørgensen, Chairman, Danish Engineers' Association

Henrik Hansen, United Federation of Danish Workers (3F) and HK Denmark

The project group had representatives from Seahealth Denmark. Green-Jakobsen also contributed together with technical assistance from interresearch a|s.

Gathering and collating the data was done by interresearch a|s, which has also been responsible for writing a major part of the report and for producing the results.

The survey was also supported by Orient's Foundation on behalf of Dampskibsselskabet NORDEN A/S.

1.4 REPORT - STRUCTURE

The report consists of five parts:

Part I: Introduction

The introduction describes the purpose and background for the survey and the structure of the report.

Part II: Data and the questionnaire

Part II consists first of a presentation of the background and structure of the questionnaire. Consideration is then given to the data, including response rates and representativity, including an illustration of the distribution of responses for the most significant background variables. Finally, there is guidance on interpreting the results of the report.

Part III: Results

The results of the survey are presented in Part III. The main results of the survey are reported first. The presentation is then split into six key areas (based on the "*six golden nuggets*" on which the questionnaire from NFA {National Research Centre for the Working Environment} was based). See the section on questionnaire design for more details. Finally there is an analysis of the parameters that affect the mental well-being of seamen.

The results are reviewed following a series of the themes considered, but broken down by type of vessel although some of these have been grouped. Where felt appropriate, this has also been broken down using other personal data.

Part IV: Themes

The focus in Part IV is on a series of themes that have attracted great attention in the sector. These are *Management, Fellowship and Social Isolation, Off-duty time and Bullying, Sexual harassment, Threats of violence and Violence*. For each theme, the results are broken down using selected personal data to identify any trends.

Part V: What factors are critical for well-being?

In Part V, there is an analysis of the factors that have most impact on overall well-being at sea and on choice of company.

PART II. QUESTIONNAIRE AND DATA

2.1 QUESTIONS AND QUESTIONNAIRE DESIGN

The mental working environment is a complex affair and there are many factors that affect individual perceptions of whether the working environment is good or bad. The mental working environment covers an extensive series of factors in the workplace, including the organisation and content of work and interpersonal relations between colleagues and between management and employees. The mental working environment is highly significant for the mental and physical health of individual employees, their self-esteem and social lives.

There is now a large body of knowledge from shore-based surveys and research on the mental working environment. One of the a major advances ashore is that it is now possible to take measurements on the basis of questions on what are popularly known as "*The Six Golden Nuggets*". These are six key areas which are

significant for employee well-being and which have different effects on the mental working environment and which must be taken into consideration.

- **Influence on your own work:** This is especially about employees' influence on their own working conditions, planning and undertaking their duties, workplace design, doing the work, collaboration, etc.
- **Meaningful work:** An employee's own work should be meaningful, also with respect to other production and the purpose of the company's efforts.
- **Predictability:** Information on relevant plans, events and activities to avoid uncertainty amongst employees.
- **Social support:** Support, help and feedback from colleagues and managers. Support could be practical and psychological. The important thing is that support is given in the right way and at the right time.
- **Reward:** Reward that matches input; for example pay, career path, general recognition and appreciation.
- **Demanding work:** The demands of work must not be too great or too small. Whether work has a good or negative effect on employees is decided by the balance between the demands made of employees and the resources they have available to them. We need to know the requirements for pace and volume of work, deadlines and social demands. People must know when work has been done well enough.

Seahealth Denmark included experiences from ashore when designing the survey. Some of these are universal in nature and can perfectly well be used. However, there are also various factors in the shipping sector which differ from those ashore and so various amendments and adjustments have been made in the questionnaire. A series of questions were also included to provide data on the person responding to the questionnaire, such as age, nationality, rank aboard, service at sea, vessel type, etc. although there were no specific questions about the shipowner or the like that could serve to identify the individual.

It is not assumed in the survey that there is the need to improve the mental working environment. Before the survey was completed, we had no way of knowing. We naturally knew about various more or less well-documented reports on well-being at the sector level or in specific companies but when no professional measurements have been taken, it is all too easy to base "knowledge" on something that could possibly be a rumour or something that is actually outdated. In other words, Seahealth Denmark wanted to get a larger, better, knowledge-based basis for operating in this field. This survey has given us better insight into what is just talk and what is possibly the reality.

The questionnaire thus utilizes the NFA's mid-length questionnaire on the mental working environment (see www.arbejdsmiljoforskning.dk for more details). The questionnaire has been modified to reflect seamen's language usage and other factors in the merchant fleet.

Additional themes that are more specifically addressed in the questionnaire relate to the master and line managers/officers, time off-duty, fellowship/isolation and bullying, sexual harassment, violence and threats of violence. The survey also includes questions to address parts of multicultural relations aboard. The themes were selected on the basis of experience and the steering group and also Seahealth Denmark's wish to address these.

The questionnaire was drawn up by the project group. During the design phase, the steering group provided input for the project group on the topics in the questionnaire.

The questionnaire was tested on a selection of seamen to identify any inconsistencies in the terminology and themes used.

The questionnaire was mainly based on questions to be considered using a five point scale on the degree of agreement or satisfaction with a given statement. The questionnaire is appended.

2.2 CONDUCTING THE SURVEY

The survey was conducted between October 2008 and 16 March 2009. The relatively long process was due to a wish to take into account the postal logistics out to ships worldwide and the possibility of hitting the broadest possible target group.

The logistics of conducting the survey were very complex since it was not possible in advance to select a representative group to which the questionnaire could be sent. The steering group decided that it should be possible for all seamen in the Danish merchant fleet to answer the questionnaire.

Many ships are still not online and since the target group could be on home leave or at sea while the survey was being conducted, it was decided to send the questionnaire out to all Danish ships and to put the questionnaire online.

Messrs I.C. Weilbach were responsible for sending the questionnaire to all ships with extensive information in Danish and English and a CD-ROM with the questionnaire translated into seven languages - Danish, English, Filipino, Hindi, Polish, Russian and Thai. Individual ships were themselves responsible for printing out the questionnaires for the crew in the appropriate language. When the questionnaires had been completed, they were placed in closed envelopes and sent direct to interresearch a|s, who were responsible for data entry and processing. The different language versions were selected following an assessment of the representativity of seamen of different nationalities.

Online responses to the questionnaire were made using interresearch's questionnaire tool at defgo.net from Seahealth Denmark's website www.seahealth.dk. Finally, it was possible to submit responses to Interresearch a|s by e-mail.

Letters were sent out during the process urging people to participate in the survey together with information material to shipowners, organizations and international support hubs such as seamen's churches. Information was also sent out via the Danish government Seamen's Services, via in-house magazine articles from the shipping companies and unions, and Seahealth Denmark's newsletters and magazine SøSikker.

In all, 1,672 seamen responded to the questionnaire. The responses distributed over the three response options are listed below.

Table 1: Schedule of responses, by option

Response type	Number of answers
Online (www.seahealth.dk)	918
Paper questionnaire	721
e-mail to Interresearch	33
Total	1672

The survey was conducted anonymously. Individual responses cannot be attributed to individual people or vessels, nor companies.

2.3 REPRESENTIVITY

All seamen (employed) in the Danish merchant fleet had the opportunity to participate in the survey. This corresponded to a population of approx. 15,000 people. 1,672 seamen participated in the survey, corresponding to approx. 11% of the total headcount in the Danish merchant fleet. Considering only those actively on tour, the total population was approx. 10,500, which in this respect means a response rate of about 16%. The questionnaire was sent out to all ships and thus in the first place to those on active duty. But since everybody had the opportunity to complete the questionnaire if they had become aware of the survey in some other way, and since the survey was held over a lengthy period, the actual response rate was probably somewhere between these two figures. Regardless, this is seen as a highly satisfactory result which corresponded to our initial expectations for the response rate, not least seeing as how the respondent group was very broadly based and included a range of other nationalities besides Danes. Another factor was the considerable challenge in reaching the response group. Compared to other surveys ashore or well-being polls in individual companies in which respondents are all known it was not possible to send out reminders directly to individual respondents. Another potential factor could be them not knowing about Seahealth Denmark and there may have been seamen who were unsure about the framework and anonymity of the survey, even though they were thoroughly informed about this.

Only completed responses from the online version were included in the final data. This was due to the fact that in the online version, the respondents could close their response if they were disconnected and could start on a new response at a later point. Accordingly, it would be misleading to analyze uncompleted responses since the respondents may have completed another response subsequently.

All paper version questionnaires were included. This was because using this method, individual respondents were able to return to the questionnaire if they were interrupted while completing it. Since it was naturally impossible to make respondents answer individual questions in the questionnaire before allowing them to proceed to the next question as was possible in the online version, the base count (total number of responses) may vary a little from question to question.

Overall, the survey is thought to have been representative but there were some small and some major disparities in the distribution of employment, vessel type and nationality compared to the statistics from the register held by the Danish Maritime Authority on those employed in the Danish merchant fleet. It is normal in such surveys to weight the data for minor disparities. Deciding to use the actual data or weighting it is down to a specific assessment that it would not be statistically correct to make major corrections to data. Considering the random sampling of the distribution of employment and nationality, it was deemed appropriate and acceptable to weight random samples for employment and nationality in accordance with the register data. The number of responses from the various vessel types did not however, correspond to the figures for vessel types registered in the Danish Maritime Authority's statistics. More responses were thus received for example from the container segment than would be indicated for this group overall. It was therefore decided not to weight the figures for vessel type. For groups that were already small, applying weighting for several parameters would mean unnatural weighting for small groups of respondents. The decision to apply weighting to employment and nationality was due to our feeling that the register statistics available for these are relatively the most reliable and that they would not exceed a proper level. The Danish Maritime Authority's register data used was the most recent release (30 March 2009) and was only applied to employment. Random sampling in the survey was primarily for those on active duty but since it was also possible to respond online, there was no way of knowing whether responses were made from home, from the ship or from elsewhere.

The data was accordingly weighted to make a representative distribution of those on active duty and nationality in line with Danish Maritime Authority figures.

Table 2: Schedule of distribution of employment from the Danish Maritime Authority's register and the results of the survey with weighting variables

Position aboard	Danish Maritime Authority, count	Danish Maritime Authority, percentage	Questionnaire, count	Questionnaire, percentage	Weight	After weighting
Master (Senior officer)	1,239	9.7%	221	13.4%	0.72	9.3%
Senior officer	2,199	17.3%	427	25.9%	0.67	17.6%
Junior officer	2,373	18.6%	333	20.2%	0.92	19.8%
Ordinary seaman	4,711	37.0%	322	19.5%	1.89	35.8%
Other/apprentice	573	4.5%	162	9.8%	0.46	4.7%
Senior officer (Catering and service)	154	1.2%	68	4.1%	0.29	1.1%
Catering and service	1,495	11.7%	115	7.0%	1.68	11.6%
Total	12,744	100.0%	1,648	100.0%		100.0%

Table 3: Schedule of nationality distribution from the Danish Maritime Authority register and the results of the survey with weighting variables

Nationality	Danish Maritime Authority, count	Danish Maritime Authority, percentage	Questionnaire, count	Questionnaire, percentage	Weight	After Weighting
Danish	5,518	52.6%	1,005	62.5%	0.90	52.7%
Filipino	2,488	23.7%	349	21.7%	0.90	24.6%
Other	2,486	23.7%	253	15.7%	1.30	22.7%
Total	10,492	100.0%	1,607	100.0%		100.0%

Job categories and nationalities have been grouped above. In the actual questionnaire, categories were specified to make it possible to have more detailed data and to give a clearer impression of the respondents and in a review of the main results, *Other nationalities* were specified as East Europeans, West Europeans and Asians respectively where relevant.

As noted above, it was decided not to weight by vessel type. So it is not possible to make direct comparisons with the distribution of vessel types in line with Danish Maritime Authority figures, and this should be borne in mind when considering the results of the survey. For RORO and bulkers, the base figures were relatively low and it should therefore be noted that interpreting the results for these should take this into account. In the report there may be sub-groups with small base figures on which general conclusions should not be drawn for the entire merchant fleet.

Table 4: The distribution of vessel types from the Danish Maritime Authority register and results of the survey

Vessel type	Danish Maritime Authority, count	Danish Maritime Authority, percentage	Questionnaire, count	Questionnaire, percentage
Tanker and chemical tanker	3,502	27.5%	288	17.4%
Bulk carrier	81	0.6%	34	2.1%
Container	2,276	17.9%	611	36.9%
RORO	144	1.1%	47	2.8%
Passenger ship	2,142	16.8%	273	16.5%
Supply ship	886	7.0%	118	7.1%
Coaster, special/dry cargo and other vessel type	3,713	29.1%	286	17.3%
Total	12,744	100.0%	1,657	100.0%

Certain vessel types have been grouped above. In the actual questionnaire, vessel types were specified to make it possible to acquire more detailed data. The groupings were also done as part of the process of assessing representivity figures in line with Danish Maritime Authority statistics.

Tankers and chemical tankers and the group of coasters, special ships, dry cargo and other vessel types were under-represented and container vessels were over-represented compared to Danish Maritime Authority figures. One possible explanation for the difference in the proportion of responses from various vessel types

might be that postal services to vessels that are not on regular routes are more difficult even though attempts were made to take this into account by way of the extended time for responding.

It should be noted that there was a discrepancy (disparity) in the Danish Maritime Authority's figures since the basic number of those serving on the types of vessel and those who were employed distributed by job category did not agree with the basic figure for those employed distributed by nationality. This was due according to the Danish Maritime Authority that some CPR (civil registration numbers) had been included several times due to failure to notify discharges. Irrespective of this, it has to be assumed however that the distribution by vessel type, nationality and job descriptions was correct.

2.4 DELIMITATION

It was necessary to impose a series of restrictions to limit the scope of the questionnaire. The focus of this survey was on the mental working environment of seamen in the Danish merchant fleet, as described above in 2.1. The physical working environment was deselected as an area of focus in the survey even though we were aware that many factors in the physical working environment, and conditions aboard such as diet and smoking also play a part in well-being. However, it was felt that strict prioritisation was required to avoid an even more extensive questionnaire that could cut the response rate.

The report is based on the overall results and the results deriving from themes and distributed by vessel types.

2.5 RESERVATIONS AND ASSUMPTIONS

Since this was an open survey and since it was based on full anonymity, it is possible that there may be people who have responded several times to the survey. This is regarded however as a minor source of error. Since the questionnaire was relatively extensive and since the total number of respondents was relatively high, there would need to be a significant number of extra responses for this to have any impact on the total picture. This was partially taken into account by removing uncompleted responses from the online part as noted above.

The distribution of the questionnaire data for vessel type was not completely in agreement with that held in the Danish Maritime Authority's register. As noted above, account needs to be taken of this in interpreting the data. Data has been weighted with respect to employment and nationality.

2.6 PERSONAL DATA

Respondents were asked to provide a range of personal data about themselves and their jobs for use in in-depth analysis. These were:

1. Vessel type
2. Employment/duty
3. Nationality
4. Typical number of dockings of the employee's vessel
5. Gender
6. Age
7. Length of service in the sector
8. Length of services in the same company
9. Number of nationalities in the crew on the seaman's current vessel

10. How often they meet new crew whom they do not already know
11. Type of contract
12. Watch system

This personal data makes it possible to analyze many different interrelationships between the personal data and the results. Clearly, this report could not contain all the possibilities. It has been limited so as to focus on a range of core themes primarily compared with vessel type. However, some questions were based on other personal data so as to further address a particular problem.

2.7 INTERPRETING THE RESULTS

The majority of the questions were statements which respondents were asked to answer on a scale of five. It was also possible to answer *Don't know*. The results for each statement were stated as a percentage distribution and an average. The average was calculated on the basis of the five point scale, with 1 being the lowest possible average and 5 the highest possible average. "Don't knows" not included in the averages. The median point for the scale was thus 3. 4 indicated satisfaction /agreement, with 5 indicating strong agreement/very satisfied.

Whether the average is good or not is down to an assessment and this always depends on the sector and whether the averages should also take into account each individual question and the spread of responses. However, the average should be just over the median point of the scale at 3 for it to be acceptable. Agreement/ satisfaction with a statement require the average to be 4 which would indicate that a good average should be 4 or more.

Reference is made in some places in the report to surveys or the level ashore, all of which refer to Denmark. These mainly refer to the survey that the then Arbejdsmiljøinstitut, now NFA, conducted in 2004-2005 on the mental working environment in the Danish labour market. The survey was conducted on 3517 Danish employees aged between 20-60. The results of the survey for the various groups are on the NFA website. From these the status of mental working environments can be seen for various job groups and sectors and it is also possible to see average responses to each individual question. Since some of the questions and themes used in the questionnaire were based on questions from the survey ashore, this does give some indication as to whether the level at sea is better or worse. However, it is not possible to make comparisons uncritically since the parameters are not identical. Another factor is that in the present survey, a much higher proportion of responses were from foreign employees. Where comparisons have been made, these were typically based on comparing identical questions and that these address whether Danes aboard respond at the same level as other employees on the Danish labour market. Great caution needs to be exercised with respect to other nationalities and to the averages to which these give rise. There are some references to international research and other surveys. The footnotes specify the reference surveys.

The groupings of vessel type, nationality and active duty employment addressed in the previous section were retained throughout the report since some groups would otherwise be too small for conclusions to be drawn from them.

Tests were made on differences in the group using either variance analysis or t-tests on averages. If a difference is described as significant, this is thus based on the results of the statistical test being at least at the 95% level. It should be noted that when a difference is regarded as significant, this only means that there is a statistical difference between these groups. For example, a significant difference between two types of vessel at the 95% level would indicate that one can say that there is a difference with 95% certainty. The fact that there is a significant difference does not necessarily mean that there is a great difference.

The results were primarily split by vessel type as noted above. This was done to enable shipowners to be able to identify with the figures. Splitting the results by vessel type makes it easier for individual companies to do further work on the figures.

It should also be noted that caution should be exercised when comparing the figures given for each vessel type. This is due, as noted in section 3.2, to the fact that there may be some differences in the composition of crews on the various vessel types which could give a 'natural' explanation to some other differences observed between them. For example, for some different employee groups and departments on the various vessel types such as catering personnel on passenger vessels, there may be differences in the composition of nationalities aboard which could affect the results, cf. Sec. 3.2, and the type of service/route may also have an impact.

Since the survey data does not include all seamen, there is actually some uncertainty about the results which vary depending on the number of responses in individual tables. The table below is a schedule of uncertainty, so-called confidence intervals for various response rates depending on the numbers of responses. Confidence intervals are based on a total population of 15,000 which is the total number of seamen in the Danish merchant fleet.

Table 5: Confidence intervals

		Number of responses							
		50	100	200	300	500	1000	1500	2000
Percentage in a given question	1%	2.8	1.9	1.4	1.1	0.9	0.6	0.5	0.4
	10%	8.3	5.9	4.1	3.4	2.6	1.8	1.4	1.2
	20%	11.1	7.8	5.5	4.5	3.5	2.4	1.9	1.6
	30%	12.7	9.0	6.3	5.1	4.0	2.7	2.2	1.9
	40%	13.6	9.6	6.7	5.5	4.2	2.9	2.4	2.0
	50%	13.8	9.8	6.9	5.6	4.3	3.0	2.4	2.0
	60%	13.6	9.6	6.7	5.5	4.2	2.9	2.4	2.0
	70%	12.7	9.0	6.3	5.1	4.0	2.7	2.2	1.9
	80%	11.1	7.8	5.5	4.5	3.5	2.4	1.9	1.6
	90%	8.3	5.9	4.1	3.4	2.6	1.8	1.4	1.2
	99%	2.8	1.9	1.4	1.1	0.9	0.6	0.5	0.4

Confidence intervals calculated from a confidence level of 95%.

The table should be read thus, that for a given number of responses and a given response rate, the table gives the uncertainty for these two factors. For example, if 20% of 1,000 corresponds to strong agreement for a given question, it can be said with 95% certainty that between 17.6% and 22.4% would be in total agreement (20% +/- 2.4) if all 15,000 seamen had been asked. As is apparent from the table, the greater number of responses on which the response rate is based, the lower the uncertainty.

When reading and interpreting the tables and the report, the statistical uncertainty should naturally be taken into account.

PART III. RESULTS

3.1 MAIN RESULTS

3.1.1 MAIN CONCLUSIONS

The well-being survey covers Danish and foreign seaman on Danish vessels and with its many results, it gives an incredibly detailed picture of life at sea in 2009. Our hope is that the many results will be used widely to continue the marked improvement in the working environment on Danish vessels that we have witnessed over the past 25 years.

The survey does not provide all the answers and Seahealth Denmark will now be taking a closer look at the results to see where we can help improve conditions. There is a wealth of additional information to be had from the survey. Organizations and shipowners now need to have the opportunity to take a closer look at the

results and we hope that they will investigate their own areas and make use of the opportunities for finding more answers. This could help focus and improve efforts in the areas where there are challenges.

There is much that can be done and it is worth noting that much of what is dealt with in the survey does not need to cost a lot. There is actually money to be saved by doing things better. It makes for greater satisfaction and efficiency and better crew retention.

From Seahealth Denmark's point of view, there are five significant conclusions to be had from the survey.

- Generally speaking, seamen enjoy their work and there is a really good atmosphere with a good sense of fellowship aboard. 80% stated that all in all, they were satisfied with their work. More than 86% agreed that there was a good atmosphere and good fellowship aboard. A great result which in many ways closely matches the level seen in many sectors ashore.

Making overall comparison with life ashore does however indicate slightly lower satisfaction at sea which could be explained perhaps by differences in working conditions; for example many seamen work long days aboard, with lengthy absences from family and friends and without the many opportunities and offerings that people ashore enjoy. On the other hand, when comparing various of the more specific questions, there is a higher level of satisfaction amongst seamen than is seen for comparable responses ashore. This applies for example to recognition and fairness.

- Danish and West European seamen were generally less satisfied than their foreign colleagues and co-workers aboard. This applied especially with respect to demands on management where the Danes especially were far more critical. It was also mainly Danes that felt that work accumulated and also felt that they had to work fast. Danes also stated that they had less confidence in their company and markedly less belief that the company had confidence in the crew. Filipinos were generally absolutely the most satisfied and they took a more optimistic view of their future prospects at work than did the Danes.

In general, in their responses the Danes and other West Europeans were lowest followed by East Europeans, with Filipinos and other Asians being the highest.

Some of the explanation for these variations may be due to cultural differences but the variations are not so large for all questions so cultural differences may therefore probably not explain all the fluctuations. These might be interpreted as an indication that the various groups of questions address different priorities for the Filipinos or other Asians, East Europeans and Danes and other West Europeans. These may therefore be areas that would merit closer examination.

- If we look at the seamen's view of fellowship/community when on home leave, there was not the same positive picture compared to fellowship aboard. As many as 20% felt socially isolated when at home. Danes, East Europeans and other West Europeans were at the same level, whilst Filipinos felt less isolated at home. This is one significant area for further study but also a very difficult one.
- Even though 2/3 stated that the framework for leisure/off-duty time was in place and that many did comply with off-duty times, the survey showed that the sector still faces significant challenges with respect to off-duty time. 20% work more than they reported and they did not feel to any great extent that they themselves could influence compliance with off-duty hours. And almost 6% felt much of the time that they were too tired to do their work properly from a health and safety point of view.

With respect to off-duty time, the survey thus confirms the view in the sector, and is in accordance with other foreign surveys that there are problems in off-duty time compliance, and this is something

that requires closer consideration. However, it is clear that just having the framework for compliance basically in place is very important. With the survey, Seahealth Denmark would like to play the ball and take a closer look at how the sector could ensure compliance with off-duty times.

- The young were among the most satisfied and especially received support in their duties, but satisfaction rates declined with age. The feeling of having influence also declined with age. This was strange. Perhaps it might be possible by taking a closer look at the figures in the survey to see whether some of the things to which the young give greatest priority are also some of the points that the shipping business finds it difficult to live up to today. This might be something of an explanation. But with the data that has been analyzed so far in the survey, there is no clear answer right now. This is one of the most interesting points in the survey considering that in recent years, shipowners have invested heavily in recruitment and training of the young for a career in the business. It is one of the areas where a little closer look should be taken at the reasons, also to find indications as to what can be done to make older people more satisfied.
- Multicultural crews have been debated in the sector for many years. What does it mean and how much? The survey does not immediately confirm the assumption that there is a higher level of well-being when there is only a single nationality aboard and declines the more nationalities there are aboard but it does appear that having around four or more nationalities aboard does have an impact on well-being. There was however a tendency for Danes to do best with few nationalities. Regardless of this, it appears that there were generally good relations between the cultures and a really good atmosphere, also in leisure time aboard.

3.1.2 SUMMARY OF SURVEY RESULTS

Overall considerations

Working conditions for seamen differ in many ways from those of personnel in shore-based companies. For most seamen, their work means they are away from their family and friends for lengthy periods at a time. They also have longer home leaves. They often have different co-workers since they do not necessarily sail on the same vessel from tour to tour and even if they do, one or more of their co-workers may well change from time to time. There are many that have workmates from the Philippines or other countries. Some Danish vessels sail with completely Danish crews whilst others have crew from several different countries at the same time. The tours of foreign crew members are typically much longer than those of the Danes. Positions aboard very much depend on the duties to be performed and there is a clear hierarchical structure in the workplace. The Danish merchant fleet has a good international reputation and the average age of Danish vessels is very low from an international point of view. As is apparent, there are many factors that affect conditions at sea and hence the results of the survey. Even though the results of Parts III and IV of the report are generally presented by vessel type, the intention is not to make comparisons since there are such significant differences between vessel types that they are not immediately comparable. The fact that the sub-division into vessel types was made was to make it easier for shipowners and seamen to identify with the groups to which they themselves belong.

The survey has revealed a series of issues which seamen may feel are most important when it comes to their significance for well-being at sea. Such factors as recognition, the feeling of fellowship/community, the possibility of using one skills and the opportunity to learn something new were considered most important. But seaman also felt that such factors as the willingness of their superiors to listen to problems, the willingness of the company to listen and the ability of senior officers to pass on important information were also important.

The results of the questionnaire survey have been analyzed with respect to six areas (the *Six Golden Nuggets*, cf. the definition given in Sec.2.1) and four selected themes but in reality, these are naturally interconnected and should be viewed as a whole.

Influence on work

73% felt that they could influence what they did aboard and the figure was practically at the same level when it came to influence on decisions about their work whereas influence on the volume of work was right down at 60% with major variations between nationalities. Here the Danes and other West Europeans were generally low despite longer service and higher seniority in the hierarchy. Compared with the shore, being able to influence work is one of the areas which was low. Seamen felt in fact that they had greater influence on the volume of work than on average ashore. In answering the question of whether the company ashore responded/reacted to the crew's suggestions and wishes, the Danes and other West Europeans gave this a very low score (averages of 2.9 and 3.0). Compared with the result of the question on whether the company could be trusted to do what they said they would do, dealt with under the section on *predictability* in which the Danes also on average scored 2.9 and the West Europeans 3.1, this would appear to be an area that would merit closer consideration. Why were relations with the company rated so low and how could this be improved?

Meaningful work

There was the perception that work aboard was allocated fairly. Danes and East Europeans averaged 3.5 and 3.6, whilst Filipinos and other Asians were on 4.0, with other nationalities on 3.9. But this assessment was higher than ashore however, also when only considering Danes.

Overall, almost 80% agreed or agreed strongly with the statement that they felt motivated and involved in their work and the overall average for the statement was 3.9. There were however also great differences amongst the various nationalities. Filipinos, other Asians and seamen with relatively few years of service enjoyed telling other people about their work aboard than their co-workers, other nationalities or those with more years of service. Even though Danes were not highly placed in this assessment, they were only slightly lower than the average ashore.

The survey confirmed that administration and external inspections are seen as a problem for many masters and senior officers - the group that is primarily in contact with external bodies. Even though this does not indicate that officers suffer real stress, cf. section on *Demands*, this is something that apparently gives rise to frustration and influences the feeling of whether work is meaningful.

Predictability

The crews widely expressed that they knew what was expected of them aboard (4.0). Here, all the nationalities were by and large at the same level. If the questions on predictability are viewed more generally, Danes and other West Europeans agreed significantly less with the statements and felt less than the others that there was predictability about their jobs. There were also some differences amongst vessel types that these were mainly attributable to nationality differences.

There appeared to be relatively good interaction between the crew with respect to passing on information even though there were nationality differences here, too. The Filipinos, other Asians and East Europeans felt very much (4.1-4.2) that they receive the information they needed whereas the Danes and other West Europeans were more reticent (3.3 - 3.5 respectively). When it came to confidence in the company doing what they say they will do, the Filipinos had great confidence in their companies (4.2), whilst the confidence of the Danes and the other West Europeans was very low (2.9 and 3.1). This picture was also reflected across position

type since senior officers and masters had markedly less confidence in their companies than ratings and junior officers. There is room for improvement on this point.

Social support

84% felt that there were good relations aboard (average 4.0), the crew trusted each other and they felt very much (almost 85%) that they were treated fairly aboard (4.0). Again, there were marked differences among nationalities for this question, too. 71% stated that they often received support from their co-workers aboard. However, there was a tendency here for it to be typically the older people who listened to problems about work whereas the younger were supported in their duties. It is positive that the young get support at work but there may also be reason to check whether the older people need more support and backing at work.

There was widespread agreement that the company believed that they did a good job of work. There was less agreement about this, however, amongst masters and senior officers than in the other job categories. This was also reflected in the fact that Danes and other West Europeans had markedly less confidence in the company having confidence in the crew (3.7) than Filipinos, East Europeans and other Asians (4.4, 4.3 and 4.1 respectively).

Reward

Scores for responses to questions under *Reward* were generally slightly lower than under *Social support*. There was a median score for recognition (3.7), which Danes viewed slightly differently at 3.4, with the Filipinos and East Europeans both at 4.1. Feedback about work was not received so often from co-workers (3.2) and here too there were nationality differences.

There was extensive agreement amongst Filipinos and other Asians that the master gave individual crew members good opportunities to develop (4.0 and 4.1), whilst Danes and other West Europeans agreed much less (3.0 and 3.3). The same picture applied to immediate superiors.

Danes and other West Europeans felt considerably less than the other nationalities that their rewards matched their endeavours. However it should be noted that the question in *Social support* on fair treatment gave a high score of 3.9 for Danes and 4.1 for other West Europeans.

Demands

The results under *Demands* were more mixed. Generally there was not the same tendency for stress in working conditions ashore. It was primarily the Danes and senior officers and masters who felt that work backed up and who felt more that it was necessary to work very fast. But the figures were markedly lower than ashore, and 76% stated that they managed their work. There did not seem to be any indications that the number of dockings played a pronounced part in the perception of work accumulating. The overall view among respondents was that they could cope with their work (4.1). This applied for vessel type, nationality and job category and they felt they could make use of their skills and knowledge (86%) and that there were good opportunities for learning new things.

87% felt that they had the necessary skills and to a certain extent, that their co-workers had the necessary skills (67%). Crew with many years of service stated that they had significantly less confidence in co-workers' skills than those with less service had.

Even though one in five and one in six respectively felt that work took so much of their energy that it affected their private lives and that their friends and family told them that their work was having a negative impact on them, the proportion appears slightly lower than ashore even though working conditions are not otherwise comparable. So it is not the same as saying that there is no problem here.

A smaller proportion had problems sleeping, problems in relaxing, feeling irritable, tense and stressed out.

With respect to sleep and stress, there was a relatively high correlation between how often people woke up several times without being able to fall asleep again and the ability to relax.

Fellowship and social isolation

The atmosphere was good (86%) with a strong feeling of fellowship (82%) amongst co-workers aboard the ships. With respect to socializing with co-workers when off-duty, 86% stated there was also a good atmosphere aboard when off-duty but only 74% said so when questioned about whether they felt part of a community when off-duty aboard. The Filipinos spent most time with their co-workers and they also had the greatest tendency to prefer to be together with co-workers of the same nationality as themselves. Across job categories, it was clear that masters and senior officers did not spend so much time with their colleagues aboard when off-duty and did not to such an extent feel part of a community aboard but even so, they felt the atmosphere was just as good as for the others. There appeared also to be a difference in Danes' well-being in crews with few nationalities and crews with four or fewer nationalities.

Overall, 20% felt isolated at home because of their work whereas 16% felt there was a conflict between work and their home lives. Filipinos did not feel so much as the others that there was a conflict between home life and work and felt less isolated at home because of work, whereas the problem was more or less equally big for Danes and other nationalities. There is no doubt that this represents a major challenge and this area should be addressed to see whether there are identifiable areas that could improve conditions for seamen, not least when they are on home leave.

Management

With respect to the theme of *Management*, the picture was very mixed. The picture is characterised by Filipinos and other nationalities being markedly satisfied with management, with the Danes not being satisfied. In practically all questions about management, Danes were markedly lower. Other West Europeans were not so definitely satisfied with management, although slightly more than the Danes. This could indicate that Danes and other West Europeans demand much more of management than the other nationalities aboard. Another possible explanation could be that certain groups function better in the hierarchical system aboard.

Masters and immediate superiors were willing to listen to work problems. However, there was no pronounced satisfaction with the ability to coordinate instruction, attitudes, objectives and values among masters and immediate superiors. Neither was there pronounced agreement that initiatives were often taken to boost well-being. Masters and immediate superiors both have considerable impact on the mental working environment and so it is important for more work to be done on management as an area of action.

In general, it was felt that conflict solving was fair even though just 52% felt that the master was good at solving conflicts. Slightly fewer felt that their immediate superior was good at it. In contrast, immediate superiors scored slightly higher than the master when it came to offering help and support, feedback and recognition. But feedback and recognition are areas that should be higher and where the Danes were clearly more critical. Overall, 72% agreed that their master had the necessary skills, with more or less the same score for their immediate superior.

Off-duty time

The framework for complying with off-duty times was to a certain extent present with major variations across vessel types. 2/3 stated that compliance was possible all or much of the time and 2/3 complied much or all of

the time. Similarly, 69% felt that they could organize their work so as to take their off-duty time entitlement. But on the question about whether individuals could influence their time off-duty, only 48% said that this was so all or much of the time.

The survey shows that if the framework is in place and there is the possibility of organizing work so as to comply with off-duty times, there will be greater compliance. However this is not to say that the individuals that comply with off-duty times had to work much faster to be able to do so. Only a small percentage had drawn the attention of their immediate superior to contravention of off-duty time. Considering off-duty time compliance compared to the number of dockings, there would not immediately appear to be the expected correlation between them. Neither did there appear to be marked differences due to the watch system when it came to the framework and possibilities of off-duty time compliance. 18% stated that they had never or only a little of the time had their off-duty time entitlement whereas almost 6% stated that some or all of the time they had felt too tired to be able to work properly from a health and safety point of view.

About 1/5 worked more hours than they registered, rising to 1/3 of masters and senior officers. Working hours registered for other job categories were far more in accordance with the actual hours worked.

International surveys indicate major problems with off-duty times but there are variations with respect to the reason and the situation and this is quite clearly an area requiring further work. This survey is not nearly as detailed as some of the international studies but it does however give some indication of the need to take a more balanced view of the problem and how the various factors interact. It is an area which cannot be dealt with at the individual level alone but must be at the organisation/managerial level and there may be the need to look at the legislative framework.

Bullying, sexual harassment, threats of violence and violence

With respect to the theme of *Bullying, sexual harassment, threats of violence and violence*, there did not appear to be definite problems in these areas. Where problems are identified, they need to be taken seriously and work should be done to minimize and prevent such situations. 3% experienced bullying at least once a month, with 7% experiencing it now and then. This is an area that is much in focus ashore and which needs to be addressed at sea as well.

3.2 PERSONAL DATA, DISTRIBUTION BY VESSEL TYPE

As noted above, the results in the report are distributed by vessel type. So it is relevant to analyze the composition of individual vessel types with respect to the other personal data so as either to confirm or reject any differences between vessel types due to underlying differences in personal data. This section accordingly reviews vessel types distributed by the personal data requested and this also serves to emphasize how many different seamen have contributed differing personal data in their responses.

Considering vessel types and job categories, there were no marked differences (Q. 1.2 by vessel type). Passenger ships, however, had a lower percentage of senior officers than the other vessel types (except for bulkers) and a larger percentage of catering and service personnel.

Table 6: Question 1.2 - How did you sign on? (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
1.2 - What are you signed on as?	Master (Senior officer)	Count	30	2	38	3	23	13	40	149
		% in vessel type	11%	6%	7%	7%	8%	12%	13%	9%
	Senior officer	Count	60	4	96	10	31	26	53	280
		% in vessel type	21%	11%	19%	23%	10%	23%	18%	18%
	Junior officer	Count	59	4	167	7	26	25	27	315
		% in vessel type	21%	11%	33%	16%	9%	22%	9%	20%
	Ordinary seaman	Count	103	19	117	23	103	41	161	567
		% in vessel type	37%	54%	23%	52%	35%	36%	53%	36%
	Other/apprentice	Count	9	0	57	0	3	2	3	74
		% in vessel type	3%	0%	11%	0%	1%	2%	1%	5%
	Senior officer (Catering and service)	Count	2	1	7	1	5	1	1	18
		% in vessel type	1%	3%	1%	2%	2%	1%	0%	1%
	Catering and service	Count	19	5	28	0	106	5	16	179
		% in vessel type	7%	14%	5%	0%	36%	4%	5%	11%
Total			Count	282	35	510	44	297	113	1582
			% in vessel type	100%	100%	100%	100%	100%	100%	100%

Question type: Single response, vertical percentage calculation.

Nationality distribution, however, indicates major differences between vessel types (Q. 1.3 by vessel type). Especially on RORO, passenger and supply ships, there were markedly more Danes than on tankers and chemical tankers, bulkers and container vessels.

Table 7: Question 1.3 - What is your nationality? (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
1.3 - What nationality are you?	Danish	Count	71	7	180	39	253	89	195	834
		% in vessel type	26%	21%	37%	87%	85%	80%	66%	54%
	Filipino	Count	102	27	182	2	15	0	58	386
		% in vessel type	37%	79%	37%	4%	5%	0%	20%	25%
	East European	Count	73	0	33	4	18	0	18	146
		% in vessel type	26%	0%	7%	9%	6%	0%	6%	9%
	West European	Count	22	0	29	0	8	21	26	106
		% in vessel type	8%	0%	6%	0%	3%	19%	9%	7%
	Asian	Count	9	0	62	0	0	0	0	71
		% in vessel type	3%	0%	13%	0%	0%	0%	0%	5%
	Other	Count	0	0	0	0	2	1	0	3
		% in vessel type	0%	0%	0%	0%	1%	1%	0%	0%
Total	Count	277	34	486	45	296	111	297	1546	
	% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%	

Question type: Single response, vertical percentage calculation.

These major differences in the distribution of nationalities across vessel types may naturally have a great impact on any differences in the results for vessel types and where this is so in the report, it is commented upon.

With respect to the question about typical numbers of dockings, passenger ships came top, followed by RORO (not shown). There were no marked differences in the number of dockings reported by respondents amongst other types of vessel.

There was a very low percentage of women on the vessel types in general (not shown) at about 2%. On passenger ships, this percentage was considerably higher at 24%, due to catering and service personnel.

There were no great differences in the age distribution of crew members amongst vessel types (Q. 1.6 by vessel type). On the basis of the approximate average, the average age for all vessel types was late thirties to early forties. The highest was on passenger ships and coasters, special ships, dry cargo and other vessel types, with container vessels being the lowest.

Table 8: Question 1.6 – What is your age? (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
1.6 – How old are you?	18 - 24 years	Count	21	2	73	5	24	4	9	138
		% in vessel type	7%	6%	14%	11%	8%	4%	3%	9%
	25 - 29 years	Count	46	2	111	7	29	13	25	233
		% in vessel type	16%	6%	22%	16%	10%	12%	8%	15%
	30 - 39 years	Count	90	8	121	11	65	43	73	411
		% in vessel type	32%	24%	24%	24%	22%	39%	24%	26%
	40 - 49 years	Count	70	11	119	12	91	26	106	435
		% in vessel type	25%	32%	24%	27%	31%	23%	35%	28%
	50 - 59 years	Count	48	10	63	10	65	24	69	289
		% in vessel type	17%	29%	12%	22%	22%	22%	23%	18%
	60 years or over	Count	8	1	18	0	24	1	17	69
		% in vessel type	3%	3%	4%	0%	8%	1%	6%	4%
Total		Count	283	34	505	45	298	111	299	1575
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Approx. average age			39	44	37	39	43	40	44	40

Question type: Single response, vertical percentage calculation.

Approximate average age is based on the medians for each age interval. In the 60 or more interval, the average has been taken as 62.

There were no marked differences for vessel types and length of service at sea (not shown). With respect to length of service for the same company, crew on RORO, passenger and supply ships had slightly greater length of service than the crews on tankers and chemical tankers and bulkers (not shown).

With respect to the number of different nationalities aboard, container ships had the most, followed by tankers and chemical tankers (Q. 1.9 by vessel type). There were the fewest on RORO and coasters, special ships, dry cargo and other vessel types.

Table 9: Question 1.9 – How many nationalities does the crew of your current ship comprise? If you are not on board now, please state how many nationalities were on the ship you last sailed with (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
1.9 – How many nationalities does the crew of your current ship comprise? If you are not on board now, please state how many nationalities were on the ship you last sailed with.	1	Count	5	6	8	23	117	16	112	287
		% in vessel type	2%	18%	2%	52%	39%	14%	37%	18%
	2	Count	72	25	14	10	46	42	97	306
		% in vessel type	25%	74%	3%	23%	15%	38%	32%	19%
	3	Count	85	0	110	2	32	31	55	315
		% in vessel type	30%	0%	22%	5%	11%	28%	18%	20%
	4	Count	71	3	162	6	26	11	24	303
		% in vessel type	25%	9%	32%	14%	9%	10%	8%	19%
	More	Count	50	0	213	3	76	12	11	365
		% in vessel type	18%	0%	42%	7%	26%	11%	4%	23%
Total	Count		283	34	507	44	297	112	299	1576
	% in vessel type		100%	100%	100%	100%	100%	100%	100%	100%

Question type: Single response, vertical percentage calculation.

On supply ships by far the majority are employed by the company but the other types of vessel mainly have company employees aboard (Q. 1.11 by vessel type). On tankers, chemical tankers and bulkers, a large proportion is hired by the vessel. On passenger ships, the majority are also company employees and approx. 1/3 are on shift work. However, caution should be exercised about these figures since the respondents here may well have interpreted the question about shift working differently than intended.

Table 10: Question 1.11 – What are the terms of hire? (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
1.11 – What are the terms of your hire?	Shift work (can leave the ship when you are free)	Count	71	13	93	6	90	4	48	325
		% in vessel type	26%	41%	19%	14%	30%	4%	16%	21%
	Signed-on (stay on board also when not on duty and included in the standby team)	Count	26	4	53	13	69	21	56	241
		% in vessel type	9%	13%	11%	30%	23%	19%	19%	15%
	Employed by a shipping company (permanent employment, also employed during holidays and time off)	Count	137	7	334	28	147	100	191	944
		% in vessel type	49%	22%	67%	64%	50%	90%	64%	61%
	Employed on the ship (employed on contract that is valid for the period you are on board)	Count	120	15	110	3	30	3	60	340
		% in vessel type	43%	47%	22%	7%	10%	3%	20%	22%
	Don't know	Count	4	2	16	0	2	1	5	28
		% in vessel type	1%	6%	3%	0%	1%	1%	2%	2%
	Total	Count	278	32	499	44	296	111	297	1557

Question type: Single response, vertical percentage calculation.

On coasters, special ships, dry cargo and other vessel types, more than 33% were on a two shift watch (Q. 1.12 by vessel type). For supply ships, this was only 18%. Many aboard passenger ships had variable watch systems.

Table 11: Question 1.12 – Which watches do you take on? (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
1.12 - Which watches do you take on?	Two shift watches	Count	73	10	94	12	73	20	103	385
		% in vessel type	27%	32%	19%	27%	24%	18%	35%	25%
	Three shift watches	Count	58	10	142	15	23	31	45	324
		% in vessel type	21%	32%	28%	33%	8%	28%	15%	21%
	On-call watches	Count	36	4	49	2	8	12	24	135
		% in vessel type	13%	13%	10%	4%	3%	11%	8%	9%
	Variable watch systems	Count	23	2	69	7	114	31	43	289
		% in vessel type	8%	6%	14%	16%	38%	28%	15%	19%
	No watch duties	Count	78	5	131	8	65	18	75	380
		% in vessel type	29%	16%	26%	18%	22%	16%	26%	24%
	Don't know	Count	4	0	15	1	15	0	4	39
		% in vessel type	1%	0%	3%	2%	5%	0%	1%	3%
	Total	Count	272	31	500	45	298	112	294	1552
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%

Question type: Single response, vertical percentage calculation.

3.3 MENTAL WELL-BEING AT WORK

This section reviews the results for the areas called **the Six Golden Nuggets** (cf. Sec. 2.1). Since not all of the questions asked match the questions asked in shore-based surveys, a separate assessment was made with questions in the six areas being grouped. Various of the questions in the themes also describe the dimensions of the golden nuggets. So as to prevent repetition, the questions here have only been included under the themes. There is accordingly some interrelationship between the six first areas and the themes that are dealt with separately. By way of introduction, in each section there is a schedule of the questions grouped under each area and the questions included in the description of the theme are given for each theme.

First, however, there is a review of the results of the group of questions on **overall well-being**.

3.3.1 OVERALL WELL-BEING

The questionnaire included four questions that were together intended to identify overall well-being. These are given in the table below.

Table 12: Schedule of questions in the group of questions on overall job satisfaction

Question number	Question
2.1	How satisfied are you with your future prospects at work?
2.2	How satisfied are you with the working environment?
2.3	How satisfied are you with the way in which your skills are exploited?
2.4	How satisfied are you with your job as a whole, taking everything into account?

In Q. 2.1 on how satisfied people are with their future prospects at work, there was an overall average of 3.7 on the scale of 1-5. More than 2/3 were satisfied or very satisfied with their prospects whilst 10% were directly dissatisfied or very dissatisfied.

Table 13: Question 2.1 – How satisfied are you with your future prospects at work? (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
2.1 - How satisfied are you with your future prospects at work?	Very satisfied 5	Count	41	6	77	2	33	14	48	221
		% in vessel type	15%	19%	15%	5%	11%	12%	16%	14%
	Satisfied 4	Count	177	22	268	16	125	57	177	842
		% in vessel type	63%	69%	53%	36%	42%	50%	59%	54%
	Neither/nor 3	Count	39	2	82	16	72	26	46	283
		% in vessel type	14%	6%	16%	36%	24%	23%	15%	18%
	Dissatisfied 2	Count	6	1	36	7	35	3	15	103
		% in vessel type	2%	3%	7%	16%	12%	3%	5%	7%
	Very dissatisfied 1	Count	6	0	15	2	22	6	9	60
		% in vessel type	2%	0%	3%	5%	7%	5%	3%	4%
	Don't know	Count	10	1	24	1	8	7	6	57
		% in vessel type	4%	3%	5%	2%	3%	6%	2%	4%
Total	Count	279	32	502	44	295	113	301	1566	
	% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%	
	Average		3.9	4.1	3.7	3.2	3.4	3.7	3.8	3.7

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Distribution by vessel type showed a relatively large variation between vessel types when it came to satisfaction with future prospects at work. Here, bulkers were at the top with 88% of respondents stating they were very satisfied or satisfied, significantly higher than RORO and passenger ships, which were lowest for the types of vessel. For RORO, just 41% were very satisfied or satisfied. This applied to 54% of the crew on passenger ships. Tankers, chemical tankers and container ships were significantly higher than RORO and passenger ships.

71% were very satisfied or satisfied with the working environment in general (Q. 2.2 by vessel type), whilst 12% were very dissatisfied or dissatisfied. The overall average here was also 3.7.

Table 14: Question 2.2 – How satisfied are you with the working environment? (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
2.2 - How satisfied are you with the working environment?	Very satisfied 5	Count	33	4	77	1	40	7	43	205
		% in vessel type	12%	12%	15%	2%	14%	6%	14%	13%
	Satisfied 4	Count	187	23	292	28	133	66	178	907
		% in vessel type	68%	70%	58%	64%	45%	59%	59%	58%
	Neither/nor 3	Count	37	4	83	7	57	21	43	252
		% in vessel type	13%	12%	16%	16%	19%	19%	14%	16%
	Dissatisfied 2	Count	15	2	36	6	38	14	19	130
		% in vessel type	5%	6%	7%	14%	13%	13%	6%	8%
	Very dissatisfied 1	Count	4	0	11	2	28	3	13	61
		% in vessel type	1%	0%	2%	5%	9%	3%	4%	4%
Don't know	Count	0	0	5	0	0	0	5	10	
	% in vessel type	0%	0%	1%	0%	0%	0%	2%	1%	
Total		Count	276	33	504	44	296	111	301	1565
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.8	3.9	3.8	3.5	3.4	3.5	3.7	3.7

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

However, there were not quite as many marked variations between vessel types as for 2.1. Again, bulkers, tankers, chemical tankers and container ships were highest with 80, 82 and 73% respectively being very satisfied or satisfied, and were thus most satisfied with the working environment in general. Tankers, chemical tankers, container ships and coasters, special ships, dry cargo and other vessel types were significantly higher than passenger ships, where just 58% were very satisfied or satisfied, with 22% very dissatisfied for dissatisfied.

And for satisfaction with use of skills (Q. 2.3 by vessel type), the overall average was 3.7. 71% were very satisfied or satisfied with this statement. However, more than 10% were very dissatisfied of dissatisfied.

Table 15: Question 2.3 – How satisfied are you with the way in which your skills are exploited? (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
2.3 - How satisfied are you with the way in which your skills are exploited?	Very satisfied 5	Count	35	11	65	1	27	8	44	191
		% in vessel type	13%	32%	13%	2%	9%	7%	15%	12%
	Satisfied 4	Count	184	18	312	19	153	58	175	919
		% in vessel type	66%	53%	62%	43%	52%	52%	58%	59%
	Neither/nor 3	Count	32	1	78	18	64	31	51	275
		% in vessel type	12%	3%	15%	41%	22%	28%	17%	18%
	Dissatisfied 2	Count	19	2	36	6	31	11	20	125
		% in vessel type	7%	6%	7%	14%	11%	10%	7%	8%
	Very dissatisfied 1	Count	5	0	6	0	20	4	6	41
		% in vessel type	2%	0%	1%	0%	7%	4%	2%	3%
Don't know	Count	3	2	8	0	0	0	4	17	
	% in vessel type	1%	6%	2%	0%	0%	0%	1%	1%	
Total	Count	278	34	505	44	295	112	300	1568	
	% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%	
Average			3.8	4.2	3.8	3.3	3.5	3.5	3.8	3.7

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Bulkers achieved a very good average of 4.2 and were the highest scoring type of vessel. 85% or respondents stated that they were very satisfied or satisfied. Bulkers were followed by tankers, chemical tankers, container ships and coasters, special ships, dry cargo vessels and other vessel types with 3.8. These and the bulkers were significantly higher than RORO, passenger and supply ships.

79% stated that they were very satisfied or satisfied with their work, all in all (Q. 2.4 by vessel type). This statement was thus placed slightly higher than the preceding three questions, with an overall average of 3.9. 6% stated that all things being considered, they were very dissatisfied or dissatisfied with their job.

Table 16: Question 2.4 – How satisfied are you with your job as a whole, taking everything into account? (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
2.4 - How satisfied are you with your job as a whole, taking everything into account?	Very satisfied 5	Count	38	2	77	4	45	21	60	247
		% in vessel type	14%	6%	15%	9%	15%	19%	20%	16%
	Satisfied 4	Count	199	26	322	25	170	67	180	989
		% in vessel type	72%	79%	64%	56%	57%	59%	60%	63%
	Neither/nor 3	Count	26	2	66	12	63	15	44	228
		% in vessel type	9%	6%	13%	27%	21%	13%	15%	15%
	Dissatisfied 2	Count	12	1	29	4	8	8	11	73
		% in vessel type	4%	3%	6%	9%	3%	7%	4%	5%
	Very dissatisfied 1	Count	1	2	4	0	11	2	1	21
		% in vessel type	0%	6%	1%	0%	4%	2%	0%	1%
	Don't know	Count	2	0	6	0	1	0	4	13
		% in vessel type	1%	0%	1%	0%	0%	0%	1%	1%
Total		Count	278	33	504	45	298	113	300	1571
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.9	3.8	3.9	3.6	3.8	3.9	4.0	3.9

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

For the question on how satisfied respondents were with their jobs as a whole, there were no major differences between vessel types. The only significant difference was between passenger ships and coasters, special ships, dry cargo and other vessel types.

Overall for the four statements (Q. 2.1-2.4) on general well-being, this was highest for crew on bulkers, tankers and chemical tankers, container ships and coasters, special ships, dry cargo and other vessel types. These were all significantly higher than RORO and passenger ships. Tankers and chemical tankers were also significantly higher than supply ships.

3.3.2 OVERALL WELL-BEING – WHO IS THE MOST SATISFIED AND THE MOST DISSATISFIED OVERALL?

We made an analysis of how satisfied the crews on the individual types of vessel were in general. Other personal data is analyzed below so as to give better insight into the groups that were specifically more/less satisfied than others.

Considering general well-being by nationality, there were significant differences between them. The Filipinos were generally the most satisfied. Considering the four general questions on well-being, this group had an overall average of 4.1. Taken together, East Europeans and Asians were also highly satisfied at just slightly less than the Filipinos. Danes scored least of the groups for general well-being questions with an overall average of 3.5, whilst the West Europeans were slightly higher, although not significantly so. For each of the four general well-being questions, the Filipinos were highest for satisfaction whilst the Danes were the lowest of the five groups.

Table 17: Average for grouped questions on job satisfaction (by nationality)

	Danish	Filipino	East European	West European	Asian
2.1 - How satisfied are you with your future prospects at work?	3.5	4.1	3.6	3.7	3.8
2.2 - How satisfied are you with the working environment?	3.4	4.1	4.1	3.5	4.2
2.3 - How satisfied are you with the way in which your skills are exploited?	3.5	4.1	3.9	3.6	3.8
2.4 - How satisfied are you with your job as a whole, taking everything into account?	3.8	4.1	4.0	3.9	3.9
Total	3.5	4.1	3.9	3.7	3.9

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

On the basis of respondents' employment, the group of others/in training were the least satisfied overall. But they were significantly more satisfied that all the other groups (except for masters) when it came to satisfaction with future prospects (Q. 2.1) with a relatively high average of 4.1. Some of this could be explained in that when in training, respondents might have great expectations for the future but they will certainly feel that they are learning something new all of time. Another factor could be that they do not feel to the same extent that they have a reference framework in the workplace but there could also be other explanations. Senior officers (catering and service) were markedly lower than the other groups but since this group was relatively small, the difference between them and the other groups was not significant.

With respect to satisfaction with the working environment (Q. 2.2), others/in training again appeared the most satisfied. The least satisfied were senior officers, who scored significantly less than junior officers, ratings, catering and service and others/in training. Senior officers were least satisfied with the way their abilities were made use of (Q. 2.3) with an average of 3.5. The level of satisfaction here was significantly lower than amongst ratings and others/in training.

Table 18: Average for grouped questions on overall job satisfaction (by position aboard)

	Master (Senior officer)	Senior officer	Junior officer	Ordinary seaman	Other/apprentice	Senior officer (Catering and service)	Catering and service
2.1 - How satisfied are you with your future prospects at work?	3.8	3.6	3.7	3.8	4.1	3.0	3.6
2.2 - How satisfied are you with the working environment?	3.5	3.4	3.8	3.7	4.1	3.6	3.8
2.3 - How satisfied are you with the way in which your skills are exploited?	3.7	3.5	3.7	3.8	3.9	3.6	3.8
2.4 - How satisfied are you with your job as a whole, taking everything into account?	3.9	3.7	3.8	4.0	4.1	3.8	4.0
Total	3.7	3.6	3.7	3.8	4.1	3.5	3.8

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Satisfaction with work as a whole (Q. 2.4) again gave others/in training a relatively high average. But overall, ratings, catering and service personnel were well satisfied with their jobs, with an average of 4.0. These two groups were thus more satisfied with their jobs as a whole than with their future prospects (Q. 2.1), the working environment (Q. 2.2) and the way their skills were made use of (Q. 2.3) respectively.

There were no marked differences for the different age groups, different nationalities and job categories. The one significant difference for satisfaction with future prospects was for the 18-24 age bracket. They were significantly more satisfied than the 40-49 year-olds.

The 18-24 year-olds were significantly more satisfied with their working environment (Q. 2.2) than the other age groups.

There were no significant differences between the age groups for satisfaction with the way respondents' skills were made use of (Q. 2.3) and satisfaction with their jobs as a whole (Q. 2.4).

Table 19: Average for grouped questions on overall job satisfaction (by age group)

Age	18 - 24	25 - 29	30 - 39	40 - 49	50 - 59	60 or more
2.1 - How satisfied are you with your future prospects at work?	3.9	3.7	3.7	3.6	3.7	3.8
2.2 - How satisfied are you with the working environment?	4.1	3.8	3.6	3.6	3.6	3.5
2.3 - How satisfied are you with the way in which your skills are exploited?	3.8	3.8	3.7	3.6	3.7	3.6
2.4 - How satisfied are you with your job as a whole, taking everything into account?	4.0	3.9	3.8	3.8	3.9	3.9
Total	4.0	3.8	3.7	3.7	3.7	3.7

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Considering years of service at sea, neither were there marked differences in general satisfaction reflected in the four statements. For Q. 2.1, seamen with little service (less than 1 year) were however significantly more satisfied with their future prospects (Q. 2.1) than those who had been at sea for 10-20 years. With respect to satisfaction with the working environment, those with little service (less than 1 year) were significantly more satisfied than those who had been at sea for 6 years or more (6-10, 10-20 and more than 20 years). Apart from this, there were no significant differences between the groups ranked by years of service.

Table 20: Average for grouped questions on overall job satisfaction (by length of service)

Years	< 1	1 – 2	3 – 5	6 – 10	10 – 20	More than 20
2.1 - How satisfied are you with your future prospects at work?	3.9	3.9	3.7	3.6	3.6	3.7
2.2 - How satisfied are you with the working environment?	4.0	3.9	3.7	3.6	3.7	3.6
2.3 - How satisfied are you with the way in which your skills are exploited?	3.7	3.9	3.8	3.7	3.7	3.7
2.4 - How satisfied are you with your job as a whole, taking everything into account?	4.0	4.0	3.9	3.8	3.8	3.9
Total	3.9	3.9	3.8	3.7	3.7	3.7

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

There were no marked differences for years of service in the same company compared to the general well-being questions. With respect to future prospects (Q. 2.1), those with the least service (less than 1 year) were most satisfied and significantly more than those who had been at sea for 6-10 years and 10-20 years in the same company. For satisfaction with the working environment (Q. 2.2), those with the least service in the same company were the most satisfied, and were significantly more so than the rest except for those with 1-2 years of service with the same company. For job satisfaction as a whole (Q. 2.4), the two groups with least service in the same company were the most satisfied. The group with less than one year of service was significantly more satisfied with their work as a whole than the groups with 3-20 years of service.

Table 21: Average for grouped questions on overall job satisfaction (by years of service for the company)

Years	< 1	1 – 2	3 – 5	6 – 10	10 – 20	More than 20
2.1 - How satisfied are you with your future prospects at work?	3.9	3.8	3.7	3.6	3.6	3.6
2.2 - How satisfied are you with the working environment?	4.0	3.8	3.6	3.6	3.6	3.4
2.3 - How satisfied are you with the way in which your skills are exploited?	3.8	3.8	3.7	3.6	3.6	3.7
2.4 - How satisfied are you with your job as a whole, taking everything into account?	4.0	4.0	3.8	3.8	3.8	3.9
Total	3.9	3.8	3.7	3.7	3.7	3.7

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Overall for the four questions, those with least service in the same company (less than 1 year) scored significantly higher averages than the rest of the groups, with the exception of the group with more than 1-2 years of service.

General satisfaction compared to the number of different nationalities in the crew showed that seamen in crews where there was only one nationality were the least satisfied compared to those working in crews with more than four different nationalities. These two groups were significantly lower for satisfaction than the groups with two, three and four different nationalities. However, as emphasized in section 4.1, there were no national differences.

Table 22: Average for grouped questions on overall job satisfaction (by nationalities in the crew)

	1	2	3	4	More
2.1 - How satisfied are you with your future prospects at work?	3.6	3.9	3.7	3.8	3.5
2.2 - How satisfied are you with the working environment?	3.5	3.7	3.8	3.8	3.6
2.3 - How satisfied are you with the way in which your skills are exploited?	3.5	3.7	3.8	3.8	3.6
2.4 - How satisfied are you with your job as a whole, taking everything into account?	3.8	3.9	4.0	4.0	3.7
Total	3.6	3.8	3.8	3.9	3.6

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

It is simply not possible to conclude that having more nationalities aboard has a negative or positive impact on well-being. It would appear then that the best number of nationalities should be between two, three or four.

Considering how often seamen have to get used to new co-workers aboard, there was no tendency for the more often this happened, the lower the level of well-being. The median group with every 3-6 weeks and every 6-8 weeks was significantly lower than the other groups.

Table 23: Average for grouped questions on overall job satisfaction (by the frequency that seamen had to work with new co-workers aboard who are unknown to them)

	More often than every 2 weeks	Every 3 to 6 weeks	Every 6 to 8 weeks	Every 2 to 4 months	Less
2.1 - How satisfied are you with your future prospects at work?	3.8	3.6	3.5	3.7	3.7
2.2 - How satisfied are you with the working environment?	3.8	3.5	3.6	3.8	3.6
2.3 - How satisfied are you with the way in which your skills are exploited?	3.8	3.6	3.6	3.7	3.7
2.4 - How satisfied are you with your job as a whole, taking everything into account?	3.9	3.8	3.7	3.9	4.0
Total	3.8	3.6	3.6	3.8	3.8

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Summary of who was most/least satisfied

Analysis of the group of questions on the overall satisfaction for the various personal data indicated that the most satisfied seamen were amongst the young, those in training, on their second tour and the Filipinos. The least satisfied were amongst the Danes, other West Europeans and senior officers.

3.3.3 INFLUENCE ON WORK

The first of the six areas deals with respondents' influence on their work. This is about individuals having influence on their own work and on the conditions under which they work. This might be working hours, who one is working with, choice of equipment or procedures, organization of work, etc. The table below lists the questions in this category.

Table 24: Schedule of grouped questions on influence on work

Question number	Question
3.9	The onshore company organisation responds/reacts to the suggestions and wishes of the crew.
3.10	The crew can express their opinions and feelings.
4.2	I have a great deal of influence on decisions about my work.
4.6	I can influence what I do onboard.
4.11	I have influence on my work load.

Questions about the extent to which respondents can influence compliance with off-duty time come under the theme of *Off-duty time*.

Considering the first question about whether companies react to suggestions and wishes of the crew (Q. 3.9 by vessel type), there was no widespread agreement on this. Only 45% agreed or agreed strongly and more than 20% disagreed or disagreed strongly. Accordingly, the overall average at 3.2 is somewhat lower than for the general questions above.

Table 25: Question 3.9 – The onshore company organisation responds/reacts to the suggestions and wishes of the crew (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
3.9 – The onshore company organisation responds/reacts to the suggestions and wishes of the crew.	Strongly agree 5	Count	18	0	33	2	6	3	20	82
		% in vessel type	6%	0%	7%	4%	2%	3%	7%	5%
	Agree 4	Count	143	26	210	8	70	29	128	614
		% in vessel type	51%	79%	42%	17%	24%	26%	43%	39%
	Neither/nor 3	Count	66	4	132	19	112	40	84	457
		% in vessel type	24%	12%	26%	41%	39%	36%	28%	29%
	Disagree 2	Count	30	2	76	11	52	16	33	220
		% in vessel type	11%	6%	15%	24%	18%	14%	11%	14%
	Strongly disagree 1	Count	9	1	19	4	35	14	20	102
		% in vessel type	3%	3%	4%	9%	12%	13%	7%	7%
Total	Don't know	Count	12	0	35	2	14	9	14	86
		% in vessel type	4%	0%	7%	4%	5%	8%	5%	6%
Total			Count	278	33	505	46	289	111	299
			% in vessel type	100%	100%	100%	100%	100%	100%	100%
Average				3.5	3.7	3.3	2.8	2.9	2.9	3.2

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Of the different types of vessel, bulkers were the most satisfied with an average of 3.7. With tankers and chemical tankers, container ships and coasters, special ships, dry cargo and other vessel types, they were significantly higher than RORO, passenger and supply ships. The crews on passenger ships, RORO and supply ships felt that their companies' response to suggestions and wishes were less than middling. This was relatively low compared to the other results of the survey. On RORO, as many as 1/3 disagreed or disagreed strongly with the statement, and passenger and supply ships also had a very high proportion of dissatisfied respondents with 30% and 27% respectively.

The Danes and other West Europeans scored an overall average of 2.9 and 3.0 respectively, with Filipinos and East Europeans having the highest averages of 3.8 and 3.7 respectively (not shown). Since Danes constitute a large proportion of the crews on RORO, supply and passenger ships, they therefore pulled down the overall averages for these.

The crews felt to a somewhat higher degree that they could express their feelings and opinions (Q. 3.10 by vessel type), with an overall average of 3.7 for the 70% who agreed or agreed strongly and the 10% who disagreed or disagreed strongly.

Table 26: Question 3.10 – The crew can express their opinions and feelings (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
3.10 – The crew can express their opinions and feelings.	Strongly agree 5	Count	34	7	56	4	20	7	55	183
		% in vessel type	12%	21%	11%	9%	7%	6%	18%	12%
	Agree 4	Count	184	26	301	23	157	63	167	921
		% in vessel type	66%	79%	59%	52%	54%	57%	55%	59%
	Neither/nor 3	Count	40	0	86	6	66	31	52	281
		% in vessel type	14%	0%	17%	14%	23%	28%	17%	18%
	Disagree 2	Count	14	0	42	11	36	7	14	124
		% in vessel type	5%	0%	8%	25%	12%	6%	5%	8%
	Strongly disagree 1	Count	1	0	11	0	14	3	9	38
		% in vessel type	0%	0%	2%	0%	5%	3%	3%	2%
Total	Don't know	Count	6	0	12	0	0	0	5	23
		% in vessel type	2%	0%	2%	0%	0%	0%	2%	1%
Total			Count	279	33	508	44	293	111	302
			% in vessel type	100%	100%	100%	100%	100%	100%	100%
Average				3.9	4.2	3.7	3.5	3.5	3.6	3.7

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

For bulkers, 100% agreed or agreed strongly that they could express their opinions and feelings. Bulkers had a high average of 4.2 and were thus significantly higher than both container, RORO, passenger and supply ships.

Tankers and chemical tankers were also relatively high with 78% agreeing or agreeing strongly with the statement and an average of 3.9, which was significantly higher than passenger and supply vessels. The Danes and the West Europeans felt they were less able than Filipinos, East Europeans and Asians to express their feelings and opinions, with averages of 3.5 and 3.6 respectively compared to 3.9 and 4.0 for Filipinos, East Europeans and Asians (not shown). This may help explain the fact that RORO, passenger and supply ships were lower than the others.

When it came to influence on respondents' decisions about their own work (Q. 4.2 by vessel type), the overall proportion of those who agreed or agreed strongly was at the same level as for 3.10 above, that is 70% with 10% disagreeing or disagreeing strongly and again the overall average was 3.7.

Table 27: Question 4.2 – I have a great deal of influence on decisions about my work (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
4.2 – I have a great deal of influence on decisions about my work.	Strongly agree 5	Count	41	6	89	6	25	12	52	231
		% in vessel type	15%	18%	18%	13%	8%	11%	17%	15%
	Agree 4	Count	165	24	306	23	132	68	159	877
		% in vessel type	59%	71%	60%	51%	44%	61%	53%	56%
	Neither/nor 3	Count	45	1	72	11	87	20	50	286
		% in vessel type	16%	3%	14%	24%	29%	18%	17%	18%
	Disagree 2	Count	15	3	26	5	33	9	23	114
		% in vessel type	5%	9%	5%	11%	11%	8%	8%	7%
	Strongly disagree 1	Count	8	0	3	0	16	2	9	38
		% in vessel type	3%	0%	1%	0%	5%	2%	3%	2%
	Don't know	Count	5	0	12	0	5	1	8	31
		% in vessel type	2%	0%	2%	0%	2%	1%	3%	2%
Total		Count	279	34	508	45	298	112	301	1577
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.8	4.0	3.9	3.7	3.4	3.7	3.8	3.7

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

However, there did not seem to be a large spread between vessel types. Passenger ships were lowest, and significantly so compared to all other vessel types except for RORO.

Considering Q. 4.2 compared to length of service in this sector and for the same company, there was a correlation between the longer respondents had been at sea and/or worked for the same company, the less influence they felt they had on decisions about their work (not shown). One's immediate reaction would be the opposite, that the more years of service, the greater the level of influence. It may therefore be a consideration that this is due to failure to meet respondents' expectations for greater influence in line with their increasing years of service. Some of the explanation could also be that Danes in general have more years of service than other nationalities whilst also generally giving lower responses than the other nationalities, cf. Q. 4.11 below for how Danes responded markedly lower (3.2) to the question about influence on the volume of their own work in which Filipinos and Asians were highest at 4.0 and 3.9 respectively.

73% felt that they did have influence on what they did aboard (Q. 4.6 by vessel type), whilst 9% disagreed or disagreed strongly with this. This was the same picture as for Q. 4.2 above which dealt with influence on decisions about one's own work. Considering only the group of Danes, responses to a similar question ashore, however, were far lower than at sea.

Table 28: Question 4.6 – I can influence what I do onboard (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
4.6 – I can influence what I do onboard.	Strongly agree 5	Count	47	6	68	8	32	19	57	237
		% in vessel type	17%	18%	13%	18%	11%	17%	19%	15%
	Agree 4	Count	161	19	303	22	155	72	174	906
		% in vessel type	58%	56%	60%	49%	52%	64%	58%	58%
	Neither/nor 3	Count	40	3	84	10	77	14	39	267
		% in vessel type	14%	9%	17%	22%	26%	13%	13%	17%
	Disagree 2	Count	18	6	33	3	26	3	21	110
		% in vessel type	6%	18%	7%	7%	9%	3%	7%	7%
	Strongly disagree 1	Count	5	0	3	2	8	3	5	26
		% in vessel type	2%	0%	1%	4%	3%	3%	2%	2%
	Don't know	Count	6	0	15	0	0	1	6	28
		% in vessel type	2%	0%	3%	0%	0%	1%	2%	2%
Total		Count	277	34	506	45	298	112	302	1574
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.8	3.7	3.8	3.7	3.6	3.9	3.9	3.8

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

There were no marked differences among vessel types. The crews on passenger ships felt that they had less influence (significant) than the other vessel types. Neither were there significant differences for nationalities (not shown).

Influence on the volume of respondents' work (Q. 4.11 by vessel type) was slightly lower than influence on what they did aboard. 60% felt that they did have influence on the volume of work whereas 18% disagreed or disagreed strongly with the statement. Overall, the average score for the statement was 3.5.

Table 29: Question 4.11 – I have influence on my work load (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
4.11 – I have influence on my work load.	Strongly agree 5	Count	38	5	57	6	20	12	34	172
		% in vessel type	14%	15%	11%	14%	7%	11%	11%	11%
	Agree 4	Count	147	21	277	18	101	48	154	766
		% in vessel type	53%	64%	55%	41%	34%	43%	51%	49%
	Neither/nor 3	Count	45	1	89	11	83	32	59	320
		% in vessel type	16%	3%	18%	25%	28%	29%	20%	20%
	Disagree 2	Count	33	6	53	6	63	17	39	217
		% in vessel type	12%	18%	10%	14%	21%	15%	13%	14%
	Strongly disagree 1	Count	8	0	19	3	26	3	12	71
		% in vessel type	3%	0%	4%	7%	9%	3%	4%	5%
	Don't know	Count	6	0	10	0	2	0	4	22
		% in vessel type	2%	0%	2%	0%	1%	0%	1%	1%
Total		Count	277	33	505	44	295	112	302	1568
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.6	3.8	3.6	3.4	3.1	3.4	3.5	3.5

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

The different types of vessel were more or less all at the same level although with passenger ships being significantly lower than the others. 41% had influence on their work here, whilst as many as 30% disagreed or disagreed strongly with this.

Considering Q. 4.11 compared to years of service for the same company, crew with the least service felt that they had the most influence on their work. There was a significant difference between groups with service of less than two years and those with more than ten years, cf. the comments above for Q. 4.2 The overall average for Danes was relatively low at 3.2, with the West Europeans being at 3.4, and the Filipinos and Asians very high at 4.0 and 3.9.

Summary for Influence on your work

Considering *influence on work* which was addressed by the five questions above, there were no marked

differences between vessels. However, the results do show that crew on passenger ships felt they had significantly less influence than was the case for tankers and chemical tankers, container and supply ships. Only 45% felt that their companies ashore reacted to suggestions and wishes from the crew. The results also showed that Danes and other West Europeans felt they had less influence on their work than the other nationalities; this despite the fact that the Danes generally had more years of service and were more senior in the hierarchy.

3.3.4 MEANINGFUL WORK

Meaningful work is about being able to relate work to certain values in which one believes. In contrast, work is said to be meaningless if it is only done for pay. It must be possible to see how what one has made relates to the overall product. That is how work becomes meaningful in addition to earning money. This is where values and objectives come into the picture.

The table below lists the questions relating to meaningful work.

Table 30: Schedule of questions in the group of questions about Meaningful work

Question number	Question
3.11	Work is distributed fairly.
4.16	I enjoy telling others about my work onboard.
4.22	I feel motivated for and dedicated to my job.
4.24	I have no problems with administration and inspections from outside bodies.

Considering the first question, 71% agreed or agreed strongly that duties were allocated fairly (Q. 3.11 by vessel type), whilst 8% disagreed or disagreed strongly with this. The statement had an overall average of 3.7.

Table 31: Question 3.11 – Work is distributed fairly (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
3.11 – Work is distributed fairly.	Strongly agree 5	Count	40	6	66	5	18	7	38	180
		% in vessel type	14%	18%	13%	11%	6%	6%	13%	11%
	Agree 4	Count	183	23	326	21	135	66	186	940
		% in vessel type	66%	68%	64%	48%	46%	59%	62%	60%
	Neither/nor 3	Count	39	3	75	16	85	26	47	291
		% in vessel type	14%	9%	15%	36%	29%	23%	16%	19%
	Disagree 2	Count	8	0	26	2	35	5	20	96
		% in vessel type	3%	0%	5%	5%	12%	5%	7%	6%
	Strongly disagree 1	Count	3	0	5	0	14	5	9	36
		% in vessel type	1%	0%	1%	0%	5%	5%	3%	2%
	Don't know	Count	6	2	10	0	5	2	1	26
		% in vessel type	2%	6%	2%	0%	2%	2%	0%	2%
Total		Count	279	34	508	44	292	111	301	1569
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.9	4.1	3.8	3.7	3.4	3.6	3.7	3.7

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

The crews aboard passenger and supply ships agreed least with the statement about the fairness of work allocation. Passenger ships differed significantly from tankers, chemical tankers, bulkers, container ships and coasters, special ships, dry cargo and other vessel types. Supply ships differed significantly from tankers and chemical tankers. The crews on bulkers, tankers and chemical tankers were most satisfied with the fairness of work allocation.

Danes and West Europeans agreed significantly less that work was allocated fairly. They scored overall averages of 3.5 and 3.6 respectively compared to Filipinos and Asians at 4.0 and East Europeans at 3.9 (not shown). The relatively low average for Danes had some impact on the relatively low averages for RORO, passenger and supply ships.

Seamen enjoyed talking about their work aboard somewhat less (Q. 4.16 by vessel type) with an overall average of 3.3. 47% enjoyed talking about their jobs while 19% disagreed or disagreed strongly with the statement.

Table 32: Question 4.16 – I enjoy telling others about my work onboard (by vessel type)

			Vessel type							
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	Total
4.16 – I enjoy telling others about my work onboard.	Strongly agree 5	Count	31	3	65	2	24	7	26	158
		% in vessel type	11%	9%	13%	5%	8%	6%	9%	10%
	Agree 4	Count	101	22	223	13	80	28	118	585
		% in vessel type	36%	67%	44%	30%	27%	25%	39%	37%
	Neither/nor 3	Count	85	3	140	11	107	50	106	502
		% in vessel type	31%	9%	28%	26%	36%	45%	35%	32%
	Disagree 2	Count	40	4	60	12	62	18	39	235
		% in vessel type	14%	12%	12%	28%	21%	16%	13%	15%
	Strongly disagree 1	Count	8	1	12	3	22	8	10	64
		% in vessel type	3%	3%	2%	7%	7%	7%	3%	4%
	Don't know	Count	12	0	6	2	3	0	2	25
		% in vessel type	4%	0%	1%	5%	1%	0%	1%	2%
Total		Count	277	33	506	43	298	111	301	1569
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.4	3.7	3.5	3.0	3.1	3.1	3.4	3.3

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

It was the crews of RORO, passenger and supplies ships who did not enjoy reporting on their work aboard so much. Passenger ships were significantly lower than both tankers and chemical tankers, bulkers, container ships and coasters, special ships, dry cargo and other vessel types. Respondents who most enjoyed reporting on their work aboard were the crews of bulkers and container ships although there were still 42% aboard container ships who disagreed or disagreed strongly or who neither agreed nor disagreed with the statement. Q. 4.16 was thus one of the areas measured in the survey that gained a relatively low overall score.

Considering Q. 4.16 and length of service both for the same company and within the sector as a whole, those who had been longest in the sector and in their companies agreed significantly less with the statement that they enjoyed telling other people about their work at sea, than the new entrants (not shown). This may reflect the fact that Danes were those who least enjoyed reporting on their work aboard (not shown), and were also those who generally had the greatest length of service at sea as well as for the same company.

It looks better for the next statement which asked respondents whether they felt motivated and involved in their work (4.22 by vessel type). Overall, 80% either agreed or agreed strongly with this statement, giving an overall average for the statement of 3.9.

Table 33: Question 4.22 – I feel motivated for and dedicated to my job (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
4.22 – I feel motivated for and dedicated to my job.	Strongly agree 5	Count	76	13	130	5	38	20	60	342
		% in vessel type	27%	38%	26%	11%	13%	18%	20%	22%
	Agree 4	Count	156	17	294	22	150	72	182	893
		% in vessel type	56%	50%	58%	50%	50%	65%	61%	57%
	Neither/nor 3	Count	32	1	53	5	66	11	36	204
		% in vessel type	11%	3%	10%	11%	22%	10%	12%	13%
	Disagree 2	Count	8	3	18	10	25	5	13	82
		% in vessel type	3%	9%	4%	23%	8%	5%	4%	5%
	Strongly disagree 1	Count	1	0	8	1	18	3	5	36
		% in vessel type	0%	0%	2%	2%	6%	3%	2%	2%
	Don't know	Count	6	0	4	1	1	0	3	15
		% in vessel type	2%	0%	1%	2%	0%	0%	1%	1%
Total		Count	279	34	507	44	298	111	299	1572
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			4.1	4.2	4.0	3.5	3.6	3.9	3.9	3.9

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Passenger ships and RORO were not as high as the rest of the ships with only slightly over 60% agreeing or agreeing strongly with the statement. Passenger ships were significantly lower than the rest of the vessel types (RORO excepted), and the same applied to RORO but not passenger and supply ships. The most motivated and involved were the crews of tankers and chemical tankers, bulkers and container ships, all of whom were significantly more so than RORO and passenger ships. For bulkers, 90% agreed or agreed strongly with the statement.

Considering Q. 4.22 for years of service in the same company, there were relatively large differences. There was a tendency for those that had been in the same company for the shortest time to feel most motivated and involved in their work (not shown). The same tendency applied when considering years of service in the sector, and not just for the same company (not shown).

Danes and West Europeans did not feel here that they were so highly motivated and involved. They scored overall averages of 3.7 and 3.8 respectively compared to Filipinos and Asians at 4.3 and East Europeans at 4.2 (not shown). This may be part of the explanation for RORO, passenger and supply ships being slightly lower and for those with longer service to be lower.

2/3 agreed or agreed strongly that administration and external inspections (Q. 4.24 by vessel type) were not a problem for them whilst more than 5% disagreed or disagreed strongly with this. This gave an overall average of 3.6.

Table 34: Question 4.24 – I have no problems with administration and inspections from outside bodies (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
4.24 – I have no problems with administration and inspections from outside bodies.	Strongly agree 5	Count	47	1	56	5	28	7	37	181
		% in vessel type	17%	3%	11%	11%	9%	6%	12%	12%
	Agree 4	Count	152	28	287	24	144	52	164	851
		% in vessel type	54%	82%	57%	55%	48%	47%	54%	54%
	Neither/nor 3	Count	25	1	72	8	71	24	46	247
		% in vessel type	9%	3%	14%	18%	24%	22%	15%	16%
	Disagree 2	Count	26	1	41	5	37	16	40	166
		% in vessel type	9%	3%	8%	11%	12%	14%	13%	11%
	Strongly disagree 1	Count	18	0	25	2	15	10	12	82
		% in vessel type	6%	0%	5%	5%	5%	9%	4%	5%
Total	Don't know	Count	13	3	22	0	3	2	3	46
		% in vessel type	5%	9%	4%	0%	1%	2%	1%	3%
Total			Count	281	34	503	44	298	111	1573
			% in vessel type	100%	100%	100%	100%	100%	100%	100%
Average				3.7	3.9	3.6	3.6	3.5	3.3	3.6

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Supply ships disagreed most, with an average of 3.3, which was significantly less than for tankers and chemical tankers, bulkers and container ships. Only 3% of crew on bulkers felt that it was a problem, giving them the highest average here although the difference was only significant for supply ships since the base figure for bulkers was relatively low.

Danes and the other West Europeans agreed markedly less with this statement than the other nationalities, here with averages of 3.3 and 3.4 (not shown). Considering the question on employment aboard, there was a clear difference between position aboard (Q. 4.24 by position aboard).

Table 35: Question 4.24 – I have no problems with administration and inspections from outside bodies (by vessel type)

			Position aboard							Total
			Master (Senior officer)	Senior officer	Junior officer	Ordinary seaman	Other/Apprentice	Senior officer (Catering and service)	Catering and service	
4.24 – I have no problems with administration and inspections from outside bodies.	Strongly agree 5	Count	9	17	44	66	15	2	28	
		% in position aboard	6%	6%	14%	12%	20%	11%	15%	
	Agree 4	Count	48	125	186	341	45	9	103	
		% in position aboard	33%	45%	59%	60%	61%	47%	56%	
	Neither/nor 3	Count	32	52	46	81	8	4	28	
		% in position aboard	22%	19%	15%	14%	11%	21%	15%	
	Disagree 2	Count	36	51	27	35	2	2	13	
		% in position aboard	24%	18%	9%	6%	3%	11%	7%	
	Strongly disagree 1	Count	21	33	6	15	1	1	5	
		% in position aboard	14%	12%	2%	3%	1%	5%	3%	
Total	Don't know	Count	1	1	6	29	3	1	8	
		% in position aboard	1%	9%	2%	5%	4%	5%	4%	
Total			Count	147	279	315	567	74	19	185
			% in position aboard	100%	100%	100%	100%	100%	100%	100%
Average				2.9	3.2	3.8	3.8	4.0	3.5	3.8

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

It was especially masters and senior officers that agreed less with the statement. This is interesting since it is specifically these groups who are in touch with external bodies. Considering the responses of masters and senior officers here compared to pressure of work and stress, there was no marked correlation which could indicate that problems with administration and inspections from external bodies could have an effect on pressure of work for ship's management (not shown). One hypothesis could be that they feel that this part of their work is not meaningful.

Summary for Meaningful work

Overall, there were high scores for meaningful work and fairness aboard for all types of vessel. Seamen were also generally motivated and involved in their work. Overall, crews on bulkers, container ships, tankers and chemical tankers found their work most meaningful. The lowest for *Meaningful work* were RORO and passenger ships. The explanation for the differences between the types of vessel has to be down to the

A Good Working Life at Sea

3.3 Mental well-being at work

sizeable nationality differences. Danes (and other West Europeans) agreed significantly less than the other nationalities with meaningful work. Masters and senior officers especially acknowledged that administration and inspections from external bodies were a problem but just as for the theme of *Demands*, there were no general tendencies aboard for stress, so the explanation is probably to be found in a feeling of frustration and their feeling that this part of their work is not meaningful.

3.3.5 PREDICTABILITY

Predictability is a fundamental need, meaning that we need information about what is going to happen in the immediate future. It is important be kept informed about planned changes in personnel, the introduction of new technology, major reorganization of work processes, etc. This does not necessarily mean predictability about what happens in a single day but about important changes that affect the future lives of individuals. Predictability is about getting the right information at the right time. What is important here is to avoid anxiety and not knowing. It is not that one should be able to predict the details of daily routines. Predictability is about the broad brush strokes.

The table below lists the questions that relate to predictability.

Table 36: Schedule of questions in the group of questions about Predictability

Question number	Question
3.2	One can trust that the shipping company will do what it says.
3.4	Senior officers are good at passing on important information to the rest of the crew.
3.6	The onboard crew are usually good at passing on information.
3.7	The onboard crew are usually good at passing on information to their senior officers.
4.17	I receive the information I need to do my job.
4.20	I know exactly what is expected of me.

Questions relating to ship management's ability to plan work and coordinate attitudes, goals and values for the work are addressed under the theme of *Management*.

Considering the first question, only slightly more than 50% agreed or agreed strongly that they could count on what the company says will happen actually doing so (Q. 3.2 by vessel type). 22% disagreed or disagreed strongly. All in all, this gave an average of 3.4, which is low compared with the survey's other results.

Table 37: Question 3.2 – One can trust that the shipping company will do what it says (by vessel type)

			Vessel type							
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	Total
3.2 – One can trust that the shipping company will do what it says.	Strongly agree 5	Count	44	11	83	2	17	5	23	185
		% in vessel type	16%	31%	16%	5%	6%	5%	8%	12%
	Agree 4	Count	142	14	218	6	88	23	138	629
		% in vessel type	51%	40%	43%	14%	30%	21%	46%	40%
	Neither/nor 3	Count	51	5	100	23	98	37	65	379
		% in vessel type	18%	14%	20%	52%	33%	33%	22%	24%
	Disagree 2	Count	26	5	70	12	63	29	46	251
		% in vessel type	9%	14%	14%	27%	21%	26%	15%	16%
	Strongly disagree 1	Count	9	0	22	1	29	14	19	94
		% in vessel type	3%	0%	4%	2%	10%	13%	6%	6%
	Don't know	Count	7	0	14	0	2	3	7	33
		% in vessel type	3%	0%	3%	0%	1%	3%	2%	2%
Total		Count	279	35	507	44	297	111	298	1571
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.7	3.9	3.5	2.9	3.0	2.8	3.3	3.4

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

The crews on bulkers showed they were reasonably confident about their companies, with more than 70% agreeing or agreeing strongly with the statement, corresponding to an average of 3.9, which was significantly

higher than for RORO, passenger and supply ships. Supply ships were right at the bottom of the different types of vessel with respect to confidence in their companies, with an average of 2.8. Just 40% disagreed or disagreed strongly with the statement. RORO and passenger ships had just as little confidence in their companies with 2.9 and 3.0 respectively on average, which for both (and supply ships) was significantly lower than for tankers and chemical tankers, bulkers and container ships.

Considering Q. 3.2 for job type, ratings, others/in training and catering and service had significantly more confidence in their companies than did masters and senior officers. The former scored averages of 3.6-3.8, whilst masters and senior officers scored relatively low averages of 3.1 and 3.0 respectively (not shown). One possible explanation may be that they are in close touch with the company and see more directly whether the company does what it says. On the other hand, this does indicate the need to investigate in more detail why masters and senior officers do not feel they can trust the company to do what it says it will.

There were marked differences between nationalities in the extent to which they trusted what the company said. Danes and other West Europeans were the most critical with overall averages of 2.9 and 3.1. The Filipinos and East Europeans had very great confidence in their companies with scores of 4.2 and 4.0 respectively (not shown). The relatively low average for Danes meant that RORO, passenger and supply ships were placed somewhat lower than the other types of vessel.

Considering the ability of senior officers to pass on important information to the rest of the crew (Q. 3.4 by vessel type), almost 3/4 agreed or agreed strongly with this statement, giving an overall average of 3.8.

Table 38: Question 3.4 – Senior officers are good at passing on important information to the rest of the crew (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
3.4 – Senior officers are good at passing on important information to the rest of the crew.	Strongly agree 5	Count	48	11	103	5	32	6	45	250
		% in vessel type	17%	32%	20%	11%	11%	5%	15%	16%
	Agree 4	Count	176	17	302	20	140	61	182	898
		% in vessel type	63%	50%	59%	44%	47%	55%	61%	57%
	Neither/nor 3	Count	35	1	61	10	59	17	37	220
		% in vessel type	13%	3%	12%	22%	20%	15%	12%	14%
	Disagree 2	Count	10	3	30	6	39	14	27	129
		% in vessel type	4%	9%	6%	13%	13%	13%	9%	8%
	Strongly disagree 1	Count	5	0	2	3	20	13	4	47
		% in vessel type	2%	0%	0%	7%	7%	12%	1%	3%
	Don't know	Count	6	2	10	1	7	0	4	30
		% in vessel type	2%	6%	2%	2%	2%	0%	1%	2%
Total		Count	280	34	508	45	297	111	299	1574
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.9	4.1	4.0	3.4	3.4	3.3	3.8	3.8

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Tankers, chemical tankers, bulkers and container ships agreed most with the statement, giving averages of from 3.9 - 4.1. All three were significantly higher than RORO, passenger and supply ships, where 55-60% agreed or agreed strongly that senior officers were good at passing on information.

Filipinos, East Europeans and Asians agreed markedly more strongly with Q. 3.4 than did the Danes. The former three groups scored high overall averages of 4.1-4.2, whilst the Danes and other West Europeans had averages of 3.5 and 3.7 respectively. The lower average scored by the Danes had some impact on the differences between the types of vessel noted above.

The extent to which the crew aboard were good at passing on information was at almost the same level as for senior officers (Q. 3.6 by vessel type). Slightly under 70% agreed or agreed strongly with the statement, which gave an overall average of 3.7.

Table 39: Question 3.6 – The onboard crew are usually good at passing on information (by vessel type)

		Vessel type							Coaster, special vessel, dry cargo vessel and other vessel type	Total
		Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship			
3.6 – The onboard crew are usually good at passing on information.	Strongly agree 5	Count	32	3	49	2	20	3	32	141
		% in vessel type	11%	9%	10%	4%	7%	3%	11%	9%
	Agree 4	Count	180	25	308	24	151	60	196	944
		% in vessel type	64%	76%	61%	53%	51%	54%	66%	60%
	Neither/nor 3	Count	42	3	101	15	85	31	52	329
		% in vessel type	15%	9%	20%	33%	29%	28%	17%	21%
	Disagree 2	Count	19	1	32	1	31	15	12	111
		% in vessel type	7%	3%	6%	2%	10%	13%	4%	7%
	Strongly disagree 1	Count	2	0	9	1	8	3	3	26
		% in vessel type	1%	0%	2%	2%	3%	3%	1%	2%
Don't know	Count	5	1	8	2	3	0	4	23	
	% in vessel type	2%	3%	2%	4%	1%	0%	1%	1%	
Total	Count	280	33	507	45	298	112	299	1574	
	% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%	
Average			3.8	3.9	3.7	3.6	3.5	3.4	3.8	3.7

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

There was none of the marked difference between types of vessel noted for Q. 3.4 above. Again, it was the passenger and supply ships that agreed least, with 56-57% agreeing or agreeing strongly that the crew aboard were good at passing on information and both figures were significantly lower than for tankers and chemical tankers, bulkers and container ships, which were the three types of vessel whose crews were best at passing on information.

Danes and other West Europeans were somewhat lower (significant) than the other nationalities with averages of 3.4-3.5 compared to 3.9-4.0 for Filipinos, East Europeans and Asians (not shown).

Considering how good crews were at passing on information to senior officers (Q. 3.7 by vessel type), there was no significant difference compared to how good crew were at passing on information to each other. Again, almost 70% agreed or agreed strongly with the statement, with the overall average here at 3.7, too.

Table 40: Question 3.7 – The onboard crew are usually good at passing on information to their senior officers (by vessel type)

			Vessel type							
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	Total
3.7 – The onboard crew are usually good at passing on information to their senior officers.	Strongly agree 5	Count	34	0	49	2	15	6	25	131
		% in vessel type	12%	0%	10%	5%	5%	5%	8%	8%
	Agree 4	Count	173	30	299	26	171	59	197	955
		% in vessel type	62%	91%	59%	59%	58%	53%	66%	61%
	Neither/nor 3	Count	41	1	98	15	79	29	53	316
		% in vessel type	15%	3%	19%	34%	27%	26%	18%	20%
	Disagree 2	Count	21	2	39	1	13	11	13	100
		% in vessel type	8%	6%	8%	2%	4%	10%	4%	6%
	Strongly disagree 1	Count	3	0	13	0	3	2	2	23
		% in vessel type	1%	0%	3%	0%	1%	2%	1%	1%
	Don't know	Count	7	0	10	0	16	5	10	48
		% in vessel type	3%	0%	2%	0%	5%	4%	3%	3%
Total		Count	279	33	508	44	297	112	300	1573
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.8	3.8	3.7	3.7	3.6	3.5	3.8	3.7

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

When it came to information passed from the crew to senior officers, vessel types with signed-on crew scored the same as for 3.6 on information among the crew. And again, it was the Danes and other West Europeans who agreed less than the others, giving an overall average of 3.5, whereas the others had very high averages of 3.9 and 4.0 (not shown).

Almost 12% disagreed or disagreed strongly that they got all the information they needed to do their work well (Q. 4.17 by vessel type), i.e. nearly one in eight. In contrast, 65% felt that they did receive enough information, giving an overall average of 3.6.

Table 41: Question 4.17 – I receive the information I need to do my job (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
4.17 – I receive the information I need to do my job.	Strongly agree 5	Count	40	8	74	2	15	6	43	188
		% in vessel type	14%	24%	15%	4%	5%	5%	14%	12%
	Agree 4	Count	167	20	287	20	124	48	162	828
		% in vessel type	60%	59%	57%	44%	42%	43%	54%	53%
	Neither/nor 3	Count	45	2	94	16	105	39	58	359
		% in vessel type	16%	6%	19%	36%	35%	35%	19%	23%
	Disagree 2	Count	16	2	43	7	38	14	28	148
		% in vessel type	6%	6%	8%	16%	13%	13%	9%	9%
	Strongly disagree 1	Count	5	0	6	0	15	4	7	37
		% in vessel type	2%	0%	1%	0%	5%	4%	2%	2%
	Don't know	Count	6	2	3	0	1	0	1	13
		% in vessel type	2%	6%	1%	0%	0%	0%	0%	1%
Total		Count	279	34	507	45	298	111	299	1573
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.8	4.1	3.8	3.4	3.3	3.3	3.7	3.6

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

There were no marked differences among vessel types. Again, passenger and supply ships and RORO were amongst the least satisfied. Here between 16% and 18% disagreed or disagreed strongly that they got the necessary information and just 47-49% agreed or agreed strongly. This also gave relatively low averages of 3.3-3.4. On bulkers, as many as 82% agreed that they got the necessary information, giving a very high average of 4.1. Tankers, chemical tankers and container ships all scored an average of 3.8. All three were significantly more in agreement that they got the necessary information than were the crews on RORO, passenger and supply ships.

Considering Q. 4.17 and years of service for the company and in the sector in general, there were significant differences between the "old" and the "new" hands. Those with least service felt more that they got all the information they needed than those with more service (not shown). This may be down to young people also feeling that they get the support they need, cf. Q. 4.12, and that the expectations for information and influence rise, and are regarded as more important, with increasing years of service.

The differences between different types of vessel and years of service may be due to marked nationality differences here. Danes scored an average of 3.3, whilst Filipinos, East Europeans and Asians scored relatively high averages of 4.1-4.2 respectively (not shown).

Even though almost one in eight disagreed or disagreed strongly that they received all the information they needed to do their work well, only 4% disagreed or disagreed strongly that they knew exactly what was expected of them (Q. 4.20 by vessel type). 82% agreed or agreed strongly with the statement. This gave an overall average of 4.0.

Table 42: Question 4.20 – I know exactly what is expected of me (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
4.20 – I know exactly what is expected of me.	Strongly agree 5	Count	57	5	78	4	51	25	51	271
		% in vessel type	20%	15%	16%	9%	17%	22%	17%	17%
	Agree 4	Count	186	27	333	29	177	61	202	1015
		% in vessel type	67%	79%	66%	67%	59%	54%	67%	65%
	Neither/nor 3	Count	19	1	59	8	52	21	30	190
		% in vessel type	7%	3%	12%	19%	17%	19%	10%	12%
	Disagree 2	Count	8	0	15	2	11	4	11	51
		% in vessel type	3%	0%	3%	5%	4%	4%	4%	3%
	Strongly disagree 1	Count	0	0	2	0	6	1	2	11
		% in vessel type	0%	0%	0%	0%	2%	1%	1%	1%
Don't know	Count	9	1	16	0	1	0	4	31	
	% in vessel type	3%	3%	3%	0%	0%	0%	1%	2%	
Total		Count	279	34	503	43	298	112	300	1569
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			4.1	4.1	4.0	3.8	3.9	3.9	4.0	4.0

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

There were no major differences by vessel type in the degree to which respondents were aware of what was expected of crew aboard. All scored very good averages. The reason for this may be down to various jobs aboard being determined by the duties involved. The only significant difference arose between tankers and chemical tankers and passenger ships. One explanation may be that passenger ships have significantly more groups of personnel that differ from other types of vessel.

Summary for Predictability

Overall for *Predictability*, it appears that there is more predictability about the jobs of the crews on tankers, chemical tankers and bulkers. Container ships were also at the high end. Coasters, special ships, dry cargo and other vessel types were more or less in the middle of the field whilst the crews on passenger and supply ships were those who had least predictability in their jobs. It should however be noted that there were no marked differences between types of vessel even though they were significant.

Here, too, much of the explanation for the differences between types of vessel may be down to nationality differences. Danes and other West Europeans agreed significantly less with practically all the statements in this area and therefore felt less that there was predictability in their jobs than Filipinos, East Europeans and other Asian countries.

The general picture is one of relatively good communication aboard from senior officers as well as the crew in general. However, only just over 50% agreed that they could trust the company to do what it says it will. This indicates that this is an area that requires further work. Even though about 11% did not feel they got the information that was necessary for doing their jobs properly, only 4% did not know exactly what was expected of them.

3.3.6 SOCIAL SUPPORT

Support may be practical and psychological. What is important is that it comes at the right time and just when it is needed. Support can come from co-workers as well as managers. It is absolutely critical that people can record on support from co-workers and management when they need it. There may be many kinds of support, for example practical support with help and advice or emotional or financial support.

The table below lists the questions relating to *Social support*.

Table 43: Schedule of questions in the group of questions about Social support

Question number	Question
3.1	The company trusts that the crew will do their jobs onboard well.
3.8	In general, the crew onboard your ship trusts each other.
4.5	I don't have to deal with other people's personal problems onboard.
4.8	Colleagues onboard cooperate well with each other.
4.12	I often receive support and help from my colleagues.
4.13	My colleagues are often willing to listen to my problems about work.
4.19	In general, I am treated fairly onboard.

Questions relating to support from the master and immediate superiors are addressed under the theme of *Management* later on in the report.

Just 80% agreed with the first question which asked whether the company trusted the crew aboard to do a good job of work (Q. 3.1 by vessel type). 6% did not think this was so. This gave a relatively high average of 3.9. There was thus substantial agreement that the company had confidence in the crew.

Table 44: Question 3.1 – The company trusts that the crew will do their jobs onboard well (by vessel type)

			Vessel type							
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	Total
3.1 – The company trusts that the crew will do their jobs onboard well.	Strongly agree 5	Count	69	13	99	5	58	18	54	316
		% in vessel type	25%	38%	20%	11%	19%	16%	18%	20%
	Agree 4	Count	174	17	307	24	149	67	194	932
		% in vessel type	62%	50%	61%	53%	50%	60%	64%	59%
	Neither/nor 3	Count	19	1	57	9	68	18	28	200
		% in vessel type	7%	3%	11%	20%	23%	16%	9%	13%
	Disagree 2	Count	9	2	25	4	18	5	15	78
		% in vessel type	3%	6%	5%	9%	6%	4%	5%	5%
	Strongly disagree 1	Count	2	1	7	1	3	2	2	18
		% in vessel type	1%	3%	1%	2%	1%	2%	1%	1%
	Don't know	Count	8	0	10	2	2	2	8	32
		% in vessel type	3%	0%	2%	4%	1%	2%	3%	2%
Total		Count	281	34	505	45	298	112	301	1576
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			4.1	4.1	3.9	3.7	3.8	3.9	4.0	3.9

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

There were no marked differences between vessel types. Tankers and chemical tankers joined the bulkers as those that most felt that the company trusted their work, with 86-88% agreeing or agreeing strongly and with a high average of 4.1. RORO and passenger ships showed least agreement amongst the vessel types and both were significantly lower than tankers and chemical tankers.

In considering 3.1 across job types, ratings, those in training/other and catering and service had significantly more confidence that the company trusted the crew aboard to do a good job than did masters and senior officers. The former had averages of 4.1-4.2, whilst masters and senior officers were significantly lower with an average of 3.7 (not shown).

From a nationality point of view, there were major differences between nationalities with the average for Danes and other West Europeans at 3.7, whilst the Filipinos, East Europeans and Asians were higher at 4.1-4.4 (not shown).

When considering whether the crew aboard trusted each other in general, 78% agreed with this, whilst 6% disagreed (Q. 3.8 by vessel type). This also gave a relatively high average of 3.9.

Table 45: Question 3.8 – In general, the crew onboard your ship trust each other (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
3.8 – In general, the crew onboard your ship trusts each other.	Strongly agree 5	Count	44	3	64	3	28	13	63	218
		% in vessel type	16%	9%	13%	7%	9%	12%	21%	14%
	Agree 4	Count	183	30	300	24	212	69	191	1009
		% in vessel type	65%	88%	59%	55%	72%	62%	64%	64%
	Neither/nor 3	Count	35	1	85	16	42	22	29	230
		% in vessel type	12%	3%	17%	36%	14%	20%	10%	15%
	Disagree 2	Count	8	0	36	1	10	6	13	74
		% in vessel type	3%	0%	7%	2%	3%	5%	4%	5%
	Strongly disagree 1	Count	2	0	5	0	4	0	1	12
		% in vessel type	1%	0%	1%	0%	1%	0%	0%	1%
Total	Don't know	Count	10	0	17	0	0	1	3	31
		% in vessel type	4%	0%	3%	0%	0%	1%	1%	2%
Total			Count	282	34	507	44	296	111	1574
			% in vessel type	100%	100%	100%	100%	100%	100%	100%
Average				4.0	4.1	3.8	3.7	3.8	4.0	3.9

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

As many as 97% of the crew on bulkers agreed or agreed strongly with the statement, giving this vessel type a high average of 4.1. However, there was no significant difference from other vessel types here (since the base figure for bulkers was too small). There was also a high level of agreement amongst the crew on tankers, chemical tankers and coasters, special ships, dry cargo and other vessel types that they trusted each other, with 81% and 85% agreement respectively. Coasters, special ships, dry cargo and other vessel types were significantly higher than container and passenger ships, whilst tankers and chemical tankers were significantly higher than container ships. The lowest were thus RORO, passenger, container and supply ships, although they did not actually have low averages.

There were no marked differences for nationalities (not shown).

However, there were divided opinions about how often one should be involved with other people's personal problems aboard (4.5 by vessel type). 45% agreed or agreed strongly that they did not wish to be involved whilst 31% disagreed or disagreed strongly. It is not possible to conclude whether wishing to get involved with other people's personal problems is positive or negative. Some people might think it would be a problem whereas others would like to help out and support co-workers with personal problems.

Table 46: Question 4.5 – I don't have to deal with other people's personal problems onboard (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
4.5 – I don't have to deal with other people's personal problems onboard.	Strongly agree 5	Count	29	2	54	2	24	8	25	144
		% in vessel type	10%	6%	11%	4%	8%	7%	8%	9%
	Agree 4	Count	98	21	200	15	90	19	117	560
		% in vessel type	35%	64%	40%	33%	30%	17%	39%	36%
	Neither/nor 3	Count	48	3	104	18	75	33	70	351
		% in vessel type	17%	9%	21%	40%	25%	30%	23%	22%
	Disagree 2	Count	63	6	100	7	80	34	67	357
		% in vessel type	23%	18%	20%	16%	27%	31%	22%	23%
	Strongly disagree 1	Count	26	1	36	3	25	17	17	125
		% in vessel type	9%	3%	7%	7%	8%	15%	6%	8%
Total	Don't know	Count	13	0	12	0	3	0	5	33
		% in vessel type	5%	0%	2%	0%	1%	0%	2%	2%
Total			Count	277	33	506	45	297	111	1570
			% in vessel type	100%	100%	100%	100%	100%	100%	100%
Average				3.2	3.5	3.3	3.1	3.0	3.2	3.2

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Respondents on supply ships become involved in other people's personal problems to a greater extent than for crew on other vessel types. 46% disagreed or disagreed strongly with the statement and so were significantly less in agreement than for tankers and chemical tankers, bulkers, container ships and coasters, special ships,

dry cargo and other vessel types. There was accordingly a somewhat mixed picture of the extent to which people should become involved with co-workers' personal problems. This may be due, as noted above, to some people finding it a good thing whereas other people do not. There were no significant differences with respect to the level of response for similar questions ashore but there were major variations from sector to sector.

Considering Q. 4.5 for length of service with the same company, there was a tendency for those with longest service to become more involved in other people's personal problems (Q. 4.5).

Table 47: Question 4.5 – I don't have to deal with other people's personal problems onboard (length of service)

			1.8 – How long have you been employed by your present shipping company?					
			Less than 1 year	1 - 2 years	3 - 5 years	6 - 10 years	10 - 20 years	More than 20 years
4.5 – I don't have to deal with other people's personal problems onboard.	Strongly agree 5	Count	44	25	26	23	19	8
		% in years of service in the company	17%	10%	10%	7%	6%	5%
	Agree 4	Count	109	104	91	106	120	37
		% in years of service in the company	41%	42%	34%	33%	38%	22%
	Neither/nor 3	Count	62	52	67	78	66	28
		% in years of service in the company	23%	21%	25%	25%	21%	16%
	Disagree 2	Count	31	39	61	80	79	65
		% in years of service in the company	12%	16%	23%	25%	25%	38%
	Strongly disagree 1	Count	8	16	13	28	34	30
		% in years of service in the company	3%	7%	5%	9%	11%	18%
	Don't know	Count	11	10	6	3	0	3
		% in years of service in the company	4%	4%	2%	1%	0%	2%
Total		Count	265	246	264	318	318	171
		% in years of service in the company	100%	100%	100%	100%	100%	100%
Average			3.6	3.4	3.2	3.1	3.0	2.6

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

As many as 56% of those with more than twenty years of service disagreed with the statement, giving an overall low average of 2.6. This was significantly lower than for the others. It appears that if one has personal problems, one should go to the "oldies". They were also those who had the highest rank aboard. The same tendency was apparent when taking into account years of service in the sector and not just the company (not shown).

There were very considerable nationality differences for Q. 4.5. The Danes disagreed most, giving a low average of 2.8 whilst the Filipinos agreed most, with an average of 3.8. The other nationalities were all distributed between them (not shown). This difference was to be expected since Danes account for a large proportion of seamen with lengthy service.

Collaboration amongst co-workers on the ship (Q. 4.8 by vessel type) was very good. 84% further there were good relations between co-workers while less than 4% disagreed or disagreed strongly with this. This gave a relatively high overall average of 4.0.

Table 48: Question 4.8 – Colleagues onboard cooperate well with each other (by vessel type)

			Vessel type						
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type
4.8 – Colleagues onboard cooperate well with each other.	Strongly agree 5	Count	66	8	82	9	52	21	67
		% in vessel type	24%	24%	16%	20%	18%	19%	22%
	Agree 4	Count	182	22	343	25	188	69	188
		% in vessel type	65%	67%	68%	57%	64%	62%	62%
	Neither/nor 3	Count	21	1	57	10	41	16	33
		% in vessel type	8%	3%	11%	23%	14%	14%	11%
	Disagree 2	Count	4	2	10	0	9	5	9
		% in vessel type	1%	6%	2%	0%	3%	5%	3%
	Strongly disagree 1	Count	3	0	7	0	6	0	2
		% in vessel type	1%	0%	1%	0%	2%	0%	1%
	Don't know	Count	3	0	6	0	0	0	3
		% in vessel type	1%	0%	1%	0%	0%	0%	1%
Total		Count	279	33	505	44	296	111	302
		% in vessel type	100%	100%	100%	100%	100%	100%	100%
Average			4.1	4.1	4.0	4.0	3.9	4.0	4.0

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

There was practically no difference amongst the various types of vessel as to whether respondents felt they got on well with their co-workers. However, tankers and chemical tankers were significantly higher than passenger ships, even know the difference was relatively small.

There were no major differences when distributed by nationality (not shown).

With respect to support and help from co-workers (Q. 4.12 by vessel type), this was slightly lower than for cooperation above. 71% stated that they often received help and support whereas 9% often did not. This gave an overall average of 3.7.

Table 49: Question 4.12 – I often receive support and from my colleagues (by vessel type)

			Vessel type							Coaster, special vessel, dry cargo vessel and other vessel type	Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship			
4.12 – I often receive support and help from my colleagues.	Strongly agree 5	Count	48	5	60	5	23	15	41	197	
		% in vessel type	17%	15%	12%	11%	8%	14%	14%	13%	
	Agree 4	Count	185	23	282	28	171	51	179	919	
		% in vessel type	67%	68%	56%	62%	58%	46%	59%	58%	
	Neither/nor 3	Count	23	1	109	8	70	37	55	303	
		% in vessel type	8%	3%	22%	18%	24%	33%	18%	19%	
	Disagree 2	Count	13	3	35	1	24	5	22	103	
		% in vessel type	5%	9%	7%	2%	8%	5%	7%	7%	
	Strongly disagree 1	Count	5	2	9	2	8	3	2	31	
		% in vessel type	2%	6%	2%	4%	3%	3%	1%	2%	
	Don't know	Count	3	0	11	1	1	0	3	19	
		% in vessel type	1%	0%	2%	2%	0%	0%	1%	1%	
Total		Count	277	34	506	45	297	111	302	1572	
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%	
Average			3.9	3.8	3.7	3.8	3.6	3.6	3.8	3.7	

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

The level of support and help from co-workers was generally greatest aboard tankers and chemical tankers with 85% agreeing or agreeing strongly with the statement, and a relatively high average of 3.9. This was significantly higher than on container ships, passenger and supply ships.

Considering Q. 4.12 and length of service for the same company, those who had the least service found they received the most support and help from their co-workers (not shown). The average for crew with less than one year of service was 4.0, which was significantly higher than for crew with more than five years of service (averages of 3.6-3.7). This may be something to do with Danes and other West Europeans agreeing significantly less than other nationalities with 3.6-3.7 on average compared to 3.9-4.1 for the others (not shown).

69% felt that their co-workers were often willing to listen to their work problems (Q. 4.13 by vessel type), whilst 7% disagreed or disagreed strongly with the statement. This gave an overall average of 3.7.

Table 50: Question 4.13 – My colleagues are often willing to listen to my problems about work (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
4.13 – My colleagues are often willing to listen to my problems about work.	Strongly agree 5	Count	38	8	58	5	21	12	42	184
		% in vessel type	14%	25%	12%	11%	7%	11%	14%	12%
	Agree 4	Count	176	20	286	23	170	57	161	893
		% in vessel type	64%	63%	57%	51%	58%	51%	53%	57%
	Neither/nor 3	Count	40	1	104	9	79	30	62	325
		% in vessel type	14%	3%	21%	20%	27%	27%	21%	21%
	Disagree 2	Count	11	3	26	5	14	6	17	82
		% in vessel type	4%	9%	5%	11%	5%	5%	6%	5%
	Strongly disagree 1	Count	4	0	7	2	4	3	7	27
		% in vessel type	1%	0%	1%	4%	1%	3%	2%	2%
Don't know	Count	7	0	23	1	7	4	13	55	
	% in vessel type	3%	0%	5%	2%	2%	4%	4%	4%	
Total		Count	276	32	504	45	295	112	302	1566
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.9	4.0	3.8	3.5	3.7	3.6	3.7	3.7

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Crew on bulkers and tankers and chemical tankers were generally most willing to listen to each other's work-related problems, although there were only significant differences between tankers and chemical tankers and passenger ships.

Respondents felt very much that they were treated fairly aboard (Q. 4.19 by vessel type). 85% agreed or agreed strongly with the statement. 5% did not feel that they were treated fairly. This gave an overall average of 4.0.

Table 51: Question 4.19 – In general, I am treated fairly onboard (by vessel type)

			Vessel type							
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	Total
4.19 – In general, I am treated fairly onboard.	Strongly agree 5	Count	49	4	82	5	41	21	60	262
		% in vessel type	18%	11%	16%	12%	14%	19%	20%	17%
	Agree 4	Count	199	28	359	25	189	69	199	1068
		% in vessel type	72%	80%	71%	58%	63%	62%	66%	68%
	Neither/nor 3	Count	14	0	44	11	42	16	21	148
		% in vessel type	5%	0%	9%	26%	14%	14%	7%	9%
	Disagree 2	Count	9	1	10	2	21	4	16	63
		% in vessel type	3%	3%	2%	5%	7%	4%	5%	4%
	Strongly disagree 1	Count	2	0	2	0	3	2	3	12
		% in vessel type	1%	0%	0%	0%	1%	2%	1%	1%
Don't know	Count	5	2	10	0	2	0	3	22	
	% in vessel type	2%	6%	2%	0%	1%	0%	1%	1%	
Total		Count	278	35	507	43	298	112	302	1575
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			4.0	4.1	4.0	3.8	3.8	3.9	4.0	4.0

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

There were no major differences between types of vessel. RORO and passenger ships was slightly lower than the rest, with 77% on passenger ships agreeing strongly or agreeing and an average of 3.8 which was significantly lower than tankers and chemical tankers and container ships.

Summary for Social support

Overall, it was apparent for the area of *Social support* that relations between co-workers were good, they trusted each other and were treated fairly aboard. They also felt very much that the company trusted them to do a good job of work although masters and senior officers felt slightly less so than the other job categories. Danes and other West Europeans believed markedly less that the company had confidence in the crew than the other nationalities, despite the fact that this is where there was the closest contact with the company.

Generally, co-workers provided the good level of help and support and there was a tendency for the young to get support and the older to provide it. Danes and other West Europeans felt less than the other nationalities that they got help and support from their co-workers.

3.3.7 REWARD

One of the absolutely critical factors in the mental working environment is for individuals to feel that they are treated fairly. Most people have a very clear idea that reward should be in line with the efforts you make. If you do not get rewarded correctly, there are many people who will just do less so as to "balance the books". It is important for rewards to match the input. Otherwise it is seen as unfair. Reward may be financial, recognition and appreciation or the possibility of career development as part of the job. All three forms of rewards are significant for employees.

The table below lists the questions relating to *Reward*.

Table 52: Schedule of questions in the group of questions about Reward

Question number	Question
3.5	One receives recognition for a job well done.
4.14	My colleagues often talk to me about how well I do my job.
5.6	My master often makes efforts to provide good development opportunities for individual crew members.
6.6	My immediate superior often makes efforts to provide good development opportunities for individual crew members.

Questions relating to the willingness of ship management to listen to work problems and the amount of feedback on one's work come under the theme of *Management*. Fairness is also dealt with in Q. 3.11 in the area of *Meaningful work* and 4.19 for *Social support*. In general, crew felt fairly treated (4.0) and there were no significant differences between the nationalities for this question, but there were large differences between the nationalities for the question about whether work was distributed fairly, giving an average of 3.7.

Considering the first question, 2/3 felt that they received recognition for a good job of work (Q. 3.5 by vessel type) whereas 11% disagreed or disagreed strongly with this statement.

Table 53: Question 3.5 – One receives recognition for a job well done (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
3.5 – One receives recognition for a job well done.	Strongly agree 5	Count	44	6	76	4	25	7	47	209
		% in vessel type	16%	18%	15%	9%	8%	6%	16%	13%
	Agree 4	Count	169	24	268	23	121	60	176	841
		% in vessel type	61%	71%	53%	52%	41%	53%	59%	54%
	Neither/nor 3	Count	42	2	103	9	98	31	44	329
		% in vessel type	15%	6%	20%	20%	33%	27%	15%	21%
	Disagree 2	Count	15	2	40	8	37	10	19	131
		% in vessel type	5%	6%	8%	18%	12%	9%	6%	8%
	Strongly disagree 1	Count	4	0	11	0	14	5	7	41
		% in vessel type	1%	0%	2%	0%	5%	4%	2%	3%
	Don't know	Count	3	0	8	0	2	0	7	20
		% in vessel type	1%	0%	2%	0%	1%	0%	2%	1%
Total		Count	277	34	506	44	297	113	300	1571
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.9	4.0	3.7	3.5	3.4	3.5	3.8	3.7

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

88% of crew on bulkers agreed that they got recognition for a good job of work, giving a relatively high a overall average of 4.0. This was significantly higher than for passenger and supply ships. Under half the crew on passenger ships felt that they received recognition for a good job of work whilst 17% disagreed or disagreed strongly with this. Overall, passenger ships scored a relatively low average of 3.4, which was significantly lower than the other vessel types with the exception of RORO and supply ships.

Danes and other West Europeans felt much less that they gained recognition for doing a good job of work (not shown). They achieved relatively low overall averages of 3.4 and 3.6 respectively, whilst Filipinos and East Europeans were perfectly satisfied with the amount of recognition they received with a high average of 4.1. This marked difference may help explain the differences between types of vessel.

Only 38% felt that co-workers often told them how well they did their work (Q. 4.14 by vessel type), that is, receive feedback on their work. 19% disagreed or disagreed strongly with the statement. The statement scored an overall average of 3.2, which seems relatively low on the face of it. Work in some job categories and for some types of vessel is more isolated than others and such jobs will naturally be at the bottom end of the scale. Similar questions ashore show that dealing with feedback and recognition between co-workers is a challenge. 38.2% responded here that their co-workers seldom or never received this kind of feedback.

Table 54: Question 4.14 – My colleagues often talk to me about how well I do my job (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
4.14 – My colleagues often talk to me about how well I do my job.	Strongly agree 5	Count	18	2	28	2	5	1	15	71
		% in vessel type	6%	6%	6%	5%	2%	1%	5%	5%
	Agree 4	Count	109	21	173	8	61	30	126	528
		% in vessel type	39%	60%	34%	18%	21%	27%	42%	34%
	Neither/nor 3	Count	97	6	185	24	139	52	111	614
		% in vessel type	35%	17%	37%	55%	47%	47%	37%	39%
	Disagree 2	Count	30	4	84	6	61	15	30	230
		% in vessel type	11%	11%	17%	14%	21%	14%	10%	15%
	Strongly disagree 1	Count	8	0	17	2	21	7	12	67
		% in vessel type	3%	0%	3%	5%	7%	6%	4%	4%
	Don't know	Count	15	2	19	2	10	6	8	62
		% in vessel type	5%	6%	4%	5%	3%	5%	3%	4%
Total		Count	277	35	506	44	297	111	302	1572
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.4	3.6	3.2	3.0	2.9	3.0	3.3	3.2

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Crew on bulkers, tankers and chemical tankers got the most feedback from their co-workers, significantly more than on passenger and supply ships, which were amongst the lowest.

Danes reported that they were less likely than the other nationalities to find their co-workers often telling them what a good job they were doing (not shown). They scored an overall average of 2.9, whilst Filipinos and other Asians scored 3.7 and 3.6 respectively. The lower figure for Danes may be down to the fact that they were under-represented among ratings and junior officers.

Considering the question on whether the master ensures that individual crew members have good opportunities to develop, (Q. 5.6 by vessel type), almost half (49%) agreed or agreed strongly with this statement. 15% disagreed. The statement had an overall average of 3.5.

Table 55: Question 5.6 – My master often makes efforts to provide good development opportunities for individual crew members (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
5.6 – My master often makes efforts to provide good development opportunities for individual crew members.	Strongly agree 5	Count	33	8	76	2	16	6	32	173
		% in vessel type	12%	26%	15%	4%	5%	5%	11%	11%
	Agree 4	Count	135	16	203	9	57	28	135	583
		% in vessel type	49%	52%	41%	20%	19%	25%	46%	38%
	Neither/nor 3	Count	51	5	120	12	96	37	65	386
		% in vessel type	19%	16%	24%	26%	33%	33%	22%	25%
	Disagree 2	Count	17	2	48	11	50	17	26	171
		% in vessel type	6%	6%	10%	24%	17%	15%	9%	11%
	Strongly disagree 1	Count	8	0	12	5	22	9	7	63
		% in vessel type	3%	0%	2%	11%	8%	8%	2%	4%
Total	Don't know	Count	29	0	34	7	52	16	26	164
		% in vessel type	11%	0%	7%	15%	18%	14%	9%	11%
		Count	273	31	493	46	293	113	291	1540
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.7	4.0	3.6	2.8	3.0	3.1	3.6	3.5

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

However, there were marked differences for the different types of vessel. At the top were bulkers with 77% thinking that the master often ensures that individual members of crew have good opportunities for development, giving an overall average of 4.0. Tankers and chemical tankers, coasters, special ships, dry cargo and other vessel types and container ships were also at the top although not as high as bulkers. All four groups thus agreed significantly more with the statement than RORO, passenger and supply ships. Between 24 and 30% of the crews on the three latter agreed that the master provided good development opportunities for members of crew.

Filipinos and other Asians felt to a great extent that the master ensured that individuals had good opportunities for development, giving overall high averages of 4.0 and 4.1 respectively. The Danes were markedly less in agreement with the statement with an average of 3.0, whilst other West Europeans scored an average of 3.3 and East Europeans an average of 3.7 (not shown). The major differences between the nationalities may help explain the differences between types of vessel.

52% agreed or agreed strongly that their immediate superior often ensured good opportunities for individual members of crew to develop (Q. 6.6 by vessel type), whilst 16% disagreed or disagreed strongly with this. This gave an overall average of 3.5. This was at the same level as for statement 5.6 above which dealt with the same topic, but for the master instead of the immediate superior.

Table 56: Question 6.6 – My immediate superior often makes efforts to provide good development opportunities for individual crew members (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
6.6 – My immediate superior often makes efforts to provide good development opportunities for individual crew members.	Strongly agree 5	Count	31	5	52	3	15	4	17	127
		% in vessel type	15%	16%	13%	9%	6%	5%	8%	10%
	Agree 4	Count	114	24	206	11	51	25	86	517
		% in vessel type	54%	75%	51%	31%	20%	29%	40%	42%
	Neither/nor 3	Count	29	0	82	13	99	32	54	309
		% in vessel type	14%	0%	20%	37%	40%	38%	25%	25%
	Disagree 2	Count	13	2	31	8	43	11	30	138
		% in vessel type	6%	6%	8%	23%	17%	13%	14%	11%
	Strongly disagree 1	Count	5	1	4	0	26	7	11	54
		% in vessel type	2%	3%	1%	0%	10%	8%	5%	4%
	Don't know	Count	19	0	26	0	15	6	18	84
		% in vessel type	9%	0%	6%	0%	6%	7%	8%	7%
Total		Count	211	32	401	35	249	85	216	1229
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.8	3.9	3.7	3.3	2.9	3.1	3.3	3.5

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

However, the overall average of 3.5 covers marked differences between the types of vessel. On passenger ships, just 27% agreed that their immediate superior often ensured that individuals had good opportunities for development whereas as many as 28% disagreed with the statement. Overall, passenger ships scored a relatively low average of 2.9. RORO and supply ships were also placed at the low end with 3.3 and 3.1 respectively on average. Tankers and chemical tankers, bulkers and container ships were at the relatively high end. Aboard container ships, tankers and chemical tankers, about 2/3 agreed with the statement, although this was more than 90% for bulkers. Tankers, chemical tankers and bulkers were significantly higher than the other vessel types, with the exception of container ships.

Here, too, Danes agreed markedly less, with an overall average of 3.0, whilst Filipinos and other Asians scored an average of 3.9 (not shown). Again, this might help explain the differences between types of vessel.

Summary for Reward

It was apparent in summarizing the area of *Reward* that even though the majority (67%) felt that they received acknowledgement for work well done, only 38% found that their co-workers gave them feedback about how well they had done their work. 11% felt that they did not received recognition for good work and on passenger ships, less than half felt they got recognition for this.

For the various types of vessel, respondents did not all agree that the master provided individual members of crew with good opportunities for development, with passenger and supply ships having the lowest figures.

Danes (and partly other West Europeans) generally agreed less with all the statements in this section, thus feeling significantly less than the other nationalities that their rewards matched their efforts.

3.3.8 DEMANDS

Demands in the workplace may be quantitative and qualitative. Quantitative demands relate to the relationship between the scope of duties/work and the time available for attending to them. If there is too little time, it results in working fast, great pressure of work, many tasks being left unfinished which then accumulate, long working hours, poor quality or assignments being passed on to others. Qualitative demands relate for example to how difficult it is to undertake an assignment. Quantitative demands must be suitable. This means that people should not have too much or too little to do. Qualitative demands must also match the person. Work should not be too difficult or too easy. Finally, demands must be clear. People must know when work has been done well enough.

The table below lists the questions relating to the category of *Demands*.

Table 57: Schedule of questions in the group of questions about Demands

Question number	Question
4.1	My work is evenly distributed so it doesn't accumulate.
4.3	I don't need to work very quickly.
4.7	I feel I have a good overall grasp of my work.
4.9	I have time for all my tasks.
4.15	I can use my knowledge and skills in my onboard work.
4.21	I have opportunities to learn new things through my work.
4.23	The pace of work onboard is not too high during the working day.
4.25	I feel I have the necessary skills
4.26	I feel my colleagues have the necessary skills.
7.3	I don't feel my work takes so much out of me that it affects my home life.
7.4	My family and friends never tell me that my work has a negative impact on my mood.
11.1	How often do you sleep badly?
11.2	How often do you feel exhausted?
11.3	How often do you have problems getting to sleep?
11.4	How often do you feel physically exhausted?
11.5	How often do you wake up too early without being able to get back to sleep again?
11.6	How often do you feel tired?
11.7	How often do you wake up several times and have trouble getting back to sleep again?
11.8	How often do you have problems relaxing?
11.9	How often do you feel/are you irritable?
11.10	How often do you feel/are you tense?
11.11	How often do you feel/are you stressed?

The questions for this area also included questions about quality of sleep, feeling burned out and stressed out since these can show that work is too demanding. Further, there is a correlation between the theme of *Off-duty time*, since compliance with off-duty time can lead to extensive demands, such as working fast, and lack of compliance with off-duty time can be due to the high level of demands making it difficult to find enough time in the working day.

Considering the first question, 71% agreed or agreed strongly that their work was evenly distributed and that it did not accumulate (Q. 4.1 by vessel type). However, all of 13% (corresponding to one in eight) disagreed. This gave an overall average of 3.7. Compared to life ashore, conditions at sea are really good since here 25.8% on average felt that they always or often felt that work accumulated and 35.3% said that they had never or seldom experienced this.

Table 58: Question 4.1 – My work is evenly distributed so it doesn't accumulate (by vessel type)

			Vessel type						Coaster, special vessel, dry cargo vessel and other vessel type	Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship		
4.1 – My work is evenly distributed so it doesn't accumulate.	Strongly agree 5	Count	40	11	75	4	28	8	29	195
		% in vessel type	14%	32%	15%	9%	9%	7%	10%	12%
	Agree 4	Count	165	18	305	29	173	44	186	920
		% in vessel type	59%	53%	60%	66%	58%	39%	62%	58%
	Neither/nor 3	Count	34	3	64	5	50	34	57	247
		% in vessel type	12%	9%	13%	11%	17%	30%	19%	16%
	Disagree 2	Count	30	0	47	5	40	19	24	165
		% in vessel type	11%	0%	9%	11%	13%	17%	8%	10%
	Strongly disagree 1	Count	7	0	8	1	7	5	5	33
		% in vessel type	3%	0%	2%	2%	2%	4%	2%	2%
Don't know	Count	2	2	6	0	0	2	1	13	
	% in vessel type	1%	6%	1%	0%	0%	2%	0%	1%	
Total		Count	278	34	505	44	298	112	302	1573
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.7	4.3	3.8	3.7	3.6	3.3	3.7	3.7

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

On supply ships, as many as 21% disagreed that work was evenly distributed, scoring an overall low average of 3.3. Respondents on supply ships agreed significantly less with the statement than on the other vessel types with the exception of RORO (since RORO was based on a relatively low figure and would therefore require great differences for it to be significant). There were none amongst the crews on bulkers who disagreed with the statement but as many as 85% that agreed, and bulkers were therefore significantly higher than the other vessel types, again with the exception of RORO.

Danes and West Europeans found that work accumulated more than the other nationalities (not shown). Danes and West Europeans scored averages of 3.4 and 3.6 respectively, whilst the other nationalities averaged 4.0-4.1. At the same time, senior officers and masters found significantly more than ratings and junior officers that work accumulated (not shown). Since Danes account for a large proportion of senior officers and masters, this was natural.

Considering length of service for the same company, there was significantly greater agreement by new entrants that had worked for less than one year that work was evenly distributed than for those who had been employed longer. They scored a relatively high average of 4.0. The same applied when looking at years of service, not just for the same company but for the whole sector, i.e. how long people had served at sea (not shown). The nationality differences noted above may be part of the explanation.

Considering the extent to which work was evenly distributed compared to how many dockings respondents stated their ship had had, there were no significant differences here (not shown). Crew on ships with many dockings thus did not feel that their work accumulated more than on those ships which did dock frequently. Neither was this the case when passenger ships were taken out of the equation.

20% felt that it was necessary to work very fast (Q. 4.3 by vessel type), and even though it has to be characterized as being a relatively high proportion, the figure is significantly lower than the average ashore of 49.2% meaning always or often and 11.5%, which corresponds to seldom or never. At sea, 55% did not feel that it was necessary to work very fast. This gave an overall average of 3.4.

Table 59: Question 4.3 – I don't need to work very quickly (by vessel type).

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
4.3 – I don't need to work very quickly.	Strongly agree 5	Count	23	3	44	4	20	10	36	140
		% in vessel type	8%	9%	9%	9%	7%	9%	12%	9%
	Agree 4	Count	141	26	270	23	81	36	152	729
		% in vessel type	51%	76%	53%	52%	27%	32%	50%	46%
	Neither/nor 3	Count	59	4	102	12	92	36	71	376
		% in vessel type	21%	12%	20%	27%	31%	32%	24%	24%
	Disagree 2	Count	43	1	74	4	69	24	28	243
		% in vessel type	15%	3%	15%	9%	23%	22%	9%	15%
	Strongly disagree 1	Count	10	0	14	1	33	5	12	75
		% in vessel type	4%	0%	3%	2%	11%	5%	4%	5%
	Don't know	Count	2	0	4	0	2	0	2	10
		% in vessel type	1%	0%	1%	0%	1%	0%	1%	1%
Total		Count	278	34	508	44	297	111	301	1573
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.4	3.9	3.5	3.6	3.0	3.2	3.6	3.4

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Respondents aboard passenger ships had most often to work very fast, with 34% saying they disagreed with the statement and the lowest average of 3.0. Passenger ships were significantly lower than the rest of the vessel types, with the exception of supply ships. Neither did crew on supply ships especially feel that it was not necessary to work very fast, giving an average here of 3.2, which was significantly lower than bulkers, container ships and coasters, special ships, dry cargo and other vessel types.

For ships with fewer than one docking every six days, respondents felt significantly less that it was necessary to work very fast than for ships that docked more frequently (not shown).

Filipinos agreed most that it was not necessary to work very fast (not shown). They scored a relatively high average of 3.9, whilst the Danes and other West Europeans were markedly lower with 3.2 and 3.0 respectively.

As noted for Q. 4.1 above, it was primarily masters and senior officers who felt that work accumulated. These were also the same groups that felt more (significant) than others that it was necessary to work very fast (Q. 4.3 by job aboard).

Table 58: Question 4.3 – I don't need to work very quickly (by position aboard)

			Position aboard						
			Master (Senior officer)	Senior officer	Junior officer	Ordinary seaman	Other/Apprentice	Senior officer (Catering and service)	Catering and service
4.3 – I don't need to work very quickly.	Strongly agree 5	Count	7	15	25	62	12	1	18
		% in position aboard	5%	5%	8%	11%	16%	6%	10%
	Agree 4	Count	55	95	150	320	41	7	70
		% in position aboard	37%	34%	48%	56%	56%	39%	38%
	Neither/nor 3	Count	44	84	87	108	13	4	40
		% in position aboard	30%	30%	28%	19%	18%	22%	22%
	Disagree 2	Count	32	66	47	53	6	5	34
		% in position aboard	22%	24%	15%	9%	8%	28%	18%
	Strongly disagree 1	Count	8	20	5	19	1	1	21
		% in position aboard	5%	7%	2%	3%	1%	6%	11%
	Don't know	Count	2	0	1	5	0	0	2
		% in position aboard	1%	0%	0%	1%	0%	0%	1%
Total		Count	148	280	315	567	73	18	185
		% in position aboard	100%	100%	100%	100%	100%	100%	100%
Average			3.1	3.1	3.5	3.6	3.8	3.1	3.2

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

The fact that catering and service personnel also very much thought that they had to work very fast reflects the same responses for the passenger ships above. Some passenger ships have short crossing times and little time in harbour which cuts down on the time for making and serving food and cleaning.

Considering the statement compared to seamen's years of service in the same company and in the same sector, there were significant differences between the two groups with those with short service (less than 1 year) at 3.7 on average, whilst those with over 20 years of service averaged 3.1 (not shown). This also corresponded to the nationality differences noted above.

Even though every fifth respondent felt that it was necessary to work very fast, as noted above, more than 90% felt that they had a good grasp of their work (Q. 4.7 by vessel type). This gave an overall average of 4.1.

Table 61: Question 4.7 – I feel I have a good overall grasp of my work (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
4.7 – I feel I have a good overall grasp of my work.	Strongly agree 5	Count	59	10	105	8	55	23	79	339
		% in vessel type	21%	29%	21%	18%	19%	21%	26%	22%
	Agree 4	Count	199	22	357	28	218	72	200	1096
		% in vessel type	72%	65%	70%	64%	73%	64%	66%	70%
	Neither/nor 3	Count	9	1	33	7	21	12	18	101
		% in vessel type	3%	3%	7%	16%	7%	11%	6%	6%
	Disagree 2	Count	5	1	7	1	2	2	2	20
		% in vessel type	2%	3%	1%	2%	1%	2%	1%	1%
	Strongly disagree 1	Count	1	0	1	0	1	3	1	7
		% in vessel type	0%	0%	0%	0%	0%	3%	0%	0%
Don't know	Count	3	0	4	0	0	0	1	8	
	% in vessel type	1%	0%	1%	0%	0%	0%	0%	1%	
Total	Count	276	34	507	44	297	112	301	1571	
	% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%	
Average		4.1	4.2	4.1	4.0	4.1	4.0	4.2	4.1	

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

For all types of vessel, respondents had a pronounced feeling of having a good overall grasp of their work. There were no marked differences. However, supply ships were significantly lower than coasters, special ships, dry cargo and other vessel types.

76% stated that they agreed or agreed strongly that they could cope with their work (Q. 4.9 by vessel type), whilst 8%, or almost one in twelve, did not feel they could cope with all their work.

Table 62: Question 4.9 – I have time for all my tasks (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
4.9 – I have time for all my tasks.	Strongly agree 5	Count	40	10	88	5	55	18	56	272
		% in vessel type	14%	29%	17%	11%	19%	16%	19%	17%
	Agree 4	Count	182	22	322	27	141	52	178	924
		% in vessel type	66%	65%	64%	60%	48%	47%	59%	59%
	Neither/nor 3	Count	30	1	53	9	73	24	47	237
		% in vessel type	11%	3%	10%	20%	25%	22%	16%	15%
	Disagree 2	Count	15	1	33	3	23	14	11	100
		% in vessel type	5%	3%	7%	7%	8%	13%	4%	6%
	Strongly disagree 1	Count	5	0	7	1	4	3	8	28
		% in vessel type	2%	0%	1%	2%	1%	3%	3%	2%
	Don't know	Count	5	0	3	0	0	0	1	9
		% in vessel type	2%	0%	1%	0%	0%	0%	0%	1%
	Total	Count	277	34	506	45	296	111	301	1570
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.9	4.2	3.9	3.7	3.7	3.6	3.9	3.8

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

The crews on bulkers felt strongly that they had the time for their work, with 94% agreeing. Tankers and chemical tankers, container ships and coasters, special ships, dry cargo and other vessel types were also in the upper part with 78% and 80% respectively agreeing and a relatively high average of 3.9. RORO, passenger and supply ships came slightly lower, although none of them was low. Passenger and supply ships were significantly lower than bulkers, whilst supply ships were significantly lower than container ships.

For the various nationalities, Filipinos and East Europeans most agreed that they had the time for their work (not shown). They scored high averages of 4.1 and 4.0 respectively, whilst the Danes and West Europeans were significantly lower at 3.7.

86% felt that they could use their skills and abilities in their duties aboard (Q. 4.15 by vessel type), whereas just 4% disagreed or disagreed strongly with the statement. Overall, the statement scored an average of 4.0, i.e. they felt that their skills and abilities could make a good contribution.

Table 63: Question 4.15 – I can use my knowledge and skills on my onboard work (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
4.15 – I can use my knowledge and skills in my onboard work.	Strongly agree 5	Count	64	10	116	4	23	20	76	313
		% in vessel type	23%	29%	23%	9%	8%	18%	25%	20%
	Agree 4	Count	199	24	343	29	183	72	187	1037
		% in vessel type	72%	71%	68%	66%	61%	65%	62%	66%
	Neither/nor 3	Count	8	0	32	3	61	14	24	142
		% in vessel type	3%	0%	6%	7%	20%	13%	8%	9%
	Disagree 2	Count	2	0	9	6	19	3	11	50
		% in vessel type	1%	0%	2%	14%	6%	3%	4%	3%
	Strongly disagree 1	Count	1	0	2	0	11	2	2	18
		% in vessel type	0%	0%	0%	0%	4%	2%	1%	1%
Don't know	Count	2	0	4	2	1	0	1	10	
	% in vessel type	1%	0%	1%	5%	0%	0%	0%	1%	
Total		Count	276	34	506	44	298	111	301	1570
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			4.2	4.3	4.1	3.7	3.6	3.9	4.1	4.0

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Most vessel types scored well in this category with an average of 4.0. However aboard RORO and passenger ships, they did not feel that so much use was made of their skills and abilities as for the other types of vessel.

Filipinos, East Europeans and other Asians agree strongly that they could make use of their skills and abilities aboard (not shown). They scored high the overall averages of 4.1-4.2, which were significantly higher than the Danes at 3.8, although this was a somewhat high average, too.

More than 75% of the seamen stated that they had the opportunity to learn something new in their work (Q. 4.21 by vessel type). 8% disagreed or disagreed strongly with the statement. This gave an overall average of 3.9.

Table 64: Question 4.21 – I have opportunities to learn new things through my work (by vessel type)

			Vessel type							
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	Total
4.21 – I have opportunities to learn new things through my work.	Strongly agree 5	Count	77	4	134	6	31	27	63	342
		% in vessel type	28%	12%	26%	13%	10%	24%	21%	22%
	Agree 4	Count	162	27	307	19	101	61	176	853
		% in vessel type	58%	79%	61%	42%	34%	54%	59%	54%
	Neither/nor 3	Count	32	1	41	11	99	19	38	241
		% in vessel type	11%	3%	8%	24%	33%	17%	13%	15%
	Disagree 2	Count	4	2	17	6	46	3	13	91
		% in vessel type	1%	6%	3%	13%	15%	3%	4%	6%
	Strongly disagree 1	Count	1	0	4	3	18	2	6	34
		% in vessel type	0%	0%	1%	7%	6%	2%	2%	2%
Don't know	Count	3	0	3	0	2	0	4	12	
	% in vessel type	1%	0%	1%	0%	1%	0%	1%	1%	
Total		Count	279	34	506	45	297	112	300	1573
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			4.1	4.0	4.1	3.4	3.3	4.0	3.9	3.9

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Most of the crews on the various types of vessel clearly stated that they had the opportunity to learn something new in their work. However, the crews on passenger and RORO ships did not feel there was so much

opportunity for this. On passenger ships, only 44% said so compared to 56% on RORO. Overall, these types of vessel scored relatively low averages of 3.3 and 3.4 respectively, which was significantly lower than other vessel types.

Considering years of service, there was the tendency for the longer seamen had been in the sector and in the same company, the less they said it was possible to learn something new (not shown). Here there were significant differences between the "new" and the "old". The differences also applied to nationalities in which Danes were least in agreement that they had the opportunity to learn something new, with an overall average of 3.6 (not shown). This was significantly lower than Filipinos, other Asians and East Europeans with averages of 4.1-4.2.

One in six disagreed or disagreed strongly that the pace of work during the working day was not too high (Q. 4.23 by vessel type), whilst 61% agreed or agreed strongly with the statement. Overall, the statement scored an average of 3.5, which was in line with statement 4.3 above, about whether it was necessary to work very fast. The average here was 3.4. The average for those in agreement thus supported the results for statement 4.3 as well as 4.23.

Table 65: Question 4.23 – The pace of work onboard is not too high during the working day (by vessel type)

			Vessel type							
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	Total
4.23 – The pace of work onboard is not too high during the working day.	Strongly agree 5	Count	29	3	37	4	23	12	38	146
		% in vessel type	10%	9%	7%	9%	8%	11%	13%	9%
	Agree 4	Count	154	26	275	28	105	45	173	806
		% in vessel type	55%	76%	55%	62%	35%	40%	57%	51%
	Neither/nor 3	Count	57	4	104	8	81	34	53	341
		% in vessel type	21%	12%	21%	18%	27%	30%	18%	22%
	Disagree 2	Count	26	0	59	3	63	17	25	193
		% in vessel type	9%	0%	12%	7%	21%	15%	8%	12%
	Strongly disagree 1	Count	8	0	13	2	23	3	11	60
		% in vessel type	3%	0%	3%	4%	8%	3%	4%	4%
	Don't know	Count	4	1	14	0	3	1	1	24
		% in vessel type	1%	3%	3%	0%	1%	1%	0%	2%
Total	Count	278	34	502	45	298	112	301	1570	
	% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%	
Average			3.6	4.0	3.5	3.6	3.1	3.4	3.7	3.5

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

29% of crew on passenger ships felt they had to work too fast whilst 43% agreed or agreed strongly that this was not the case. Overall, passenger ships scored a relatively low average of 3.1, which was significantly lower than the other vessel types, except for supply ships. Only on bulkers were they especially in agreement with the statement, with a figure of 85% and an average of 4.0. However, bulkers were not significantly higher than the other types of vessel except for passenger and supply ships.

Considering Q. 4.23 compared to seamen's length of service for the same company, it was those with fewer than five years of service that most agreed that the pace of work was not too high (not shown). They came significantly higher than those with service of more than five years. The top and bottom of the range were crew with less than one year of service with an overall average of 3.8, and crew with more than twenty years service with an overall average of 3.2. For years of service in the entire sector, there were significant differences between the very "new" entrants who had been in the sector for less than a year and those who had been there for more than five years.

Regarding nationality, Danes agreed significantly less with the question which could help explain the differences between types of vessel and the "years of service" groups. The Danes scored an average of 3.3, whilst Filipinos and the other Asians scored averages of 3.9 and 3.8 respectively.

These seamen felt extensively that they had the necessary skills (Q. 4.25 by vessel type). 87% agreed or agreed strongly with this, whilst 3% did not feel they have the necessary skills, which is regarded as a low figure.

Table 66: Question 4.25 – I feel I have the necessary skills (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
4.25 – I feel I have the necessary skills.	Strongly agree 5	Count	56	2	95	5	66	27	53	304
		% in vessel type	20%	6%	19%	11%	22%	24%	18%	19%
	Agree 4	Count	194	28	328	35	201	71	201	1058
		% in vessel type	69%	82%	65%	78%	68%	64%	67%	67%
	Neither/nor 3	Count	18	2	39	3	17	4	37	120
		% in vessel type	6%	6%	8%	7%	6%	4%	12%	8%
	Disagree 2	Count	5	2	20	2	6	5	5	45
		% in vessel type	2%	6%	4%	4%	2%	5%	2%	3%
	Strongly disagree 1	Count	0	0	2	0	0	4	0	6
		% in vessel type	0%	0%	0%	0%	0%	4%	0%	0%
	Don't know	Count	8	0	20	0	5	0	3	36
		% in vessel type	3%	0%	4%	0%	2%	0%	1%	2%
	Total	Count	281	34	504	45	295	111	299	1569
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			4.1	3.9	4.0	4.0	4.1	4.0	4.0	4.0

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

There were no significant differences for the different types of vessel. Crews generally all felt that they very much had the necessary skills.

When it came to the question on whether co-workers had the necessary skills (4.26 by vessel type), they were not quite as convinced as for their own skills. 2/3 agreed or agreed strongly with the statement here, whilst 12% disagreed. Overall, the statement scored an average of 3.6, which was significantly lower than for statement 4.25. Respondents thus had greater confidence in their own skills compared to those of their co-workers. It should however be noted that the figure for the statement was not decidedly low.

Table 6759: Question 4.26 – I feel my colleagues have the necessary skills (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
4.26 – I feel my colleagues have the necessary skills.	Strongly agree 5	Count	38	1	40	4	36	11	33	163
		% in vessel type	14%	3%	8%	9%	12%	10%	11%	10%
	Agree 4	Count	155	22	252	28	187	62	179	885
		% in vessel type	56%	65%	50%	64%	63%	56%	60%	56%
	Neither/nor 3	Count	45	6	98	9	49	23	55	285
		% in vessel type	16%	18%	19%	20%	17%	21%	18%	18%
	Disagree 2	Count	25	5	74	1	16	11	24	156
		% in vessel type	9%	15%	15%	2%	5%	10%	8%	10%
	Strongly disagree 1	Count	5	0	22	2	2	4	2	37
		% in vessel type	2%	0%	4%	5%	1%	4%	1%	2%
Total		Count	11	0	20	0	5	0	7	43
		% in vessel type	4%	0%	4%	0%	2%	0%	2%	3%
		Average	3.7	3.6	3.4	3.7	3.8	3.6	3.7	3.6

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

There were no marked differences for the various vessel types as to whether respondents felt that their co-workers had the necessary skills. Crews on container ships did however have less confidence in their co-workers than other ships, with an average of 3.4. This was significantly lower than for the crews on tankers and chemical tankers, passenger ships and coasters, special ships, dry cargo and other vessel types.

Considering Q. 4.26 for years of service in the same company, there was a tendency for the longer respondents had been in the same company, the less they tended to feel that their co-workers had the necessary skills (not shown). Crew with less than one year of service scored a relatively high overall average of 3.9, whilst the lowest figure was for crew with more than twenty years of service in the same company, with 3.4 on average. The

latter group had significantly less confidence in the skills of their co-workers than crew with less than two years of service. For years of service in the sector as a whole, there were significant differences between those with less than five years of service and those with more (not shown). Part of the explanation could possibly be that younger co-workers typically have less experience than the older but that could hardly explain all the difference.

64% did not feel that their work took so much out of them that it affected their private lives (Q. 7.3 by vessel type). At the other end of the scale, as many as 18%, or almost one in five, disagreed or disagreed strongly with the statement, i.e. they felt that work took so much of their energy that it did affect their private lives. Taken in isolation, this may be regarded as a high proportion but compared with conditions ashore where the figure was 33.8%, conditions at sea appear pretty good.

Table 68: Question 7.3 – I don't feel my work takes so much out of me that it affects my home life (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
7.3 – I don't feel my work takes so much out of me that it affects my home life.	Strongly agree 5	Count	37	2	58	5	29	16	60	207
		% in vessel type	13%	6%	11%	12%	10%	14%	20%	13%
	Agree 4	Count	152	25	252	26	146	48	159	808
		% in vessel type	54%	74%	50%	60%	49%	43%	53%	51%
	Neither/nor 3	Count	43	4	76	8	61	26	38	256
		% in vessel type	15%	12%	15%	19%	20%	23%	13%	16%
	Disagree 2	Count	28	3	86	0	36	17	31	201
		% in vessel type	10%	9%	17%	0%	12%	15%	10%	13%
	Strongly disagree 1	Count	14	0	24	4	23	4	9	78
		% in vessel type	5%	0%	5%	9%	8%	4%	3%	5%
	Don't know	Count	6	0	12	0	3	0	5	26
		% in vessel type	2%	0%	2%	0%	1%	0%	2%	2%
Total		Count	280	34	508	43	298	111	302	1576
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.6	3.8	3.5	3.7	3.4	3.5	3.8	3.6

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

There were no marked differences between vessel types. However, coasters, special ships, dry cargo and other vessel types were significantly higher than container and passenger ships.

2/3 agreed or agreed strongly that their family and friends never told them that their work had a negative impact on their mood (Q. 7.4 by vessel type). In contrast, 17% disagreed or disagreed strongly with this statement, corresponding to one in six.

Table 69: 7.4 – My family and friends never tell me that my work has a negative impact on my mood (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
7.4 – My family and friends never tell me that my work has a negative impact on my mood.	Strongly agree 5	Count	41	2	78	8	48	19	71	267
		% in vessel type	15%	6%	15%	18%	16%	17%	24%	17%
	Agree 4	Count	137	21	241	27	146	42	162	776
		% in vessel type	50%	62%	48%	61%	49%	38%	54%	49%
	Neither/nor 3	Count	42	5	67	4	47	28	24	217
		% in vessel type	15%	15%	13%	9%	16%	25%	8%	14%
	Disagree 2	Count	35	6	82	2	34	14	26	199
		% in vessel type	13%	18%	16%	5%	11%	13%	9%	13%
	Strongly disagree 1	Count	12	0	17	3	18	5	12	67
		% in vessel type	4%	0%	3%	7%	6%	5%	4%	4%
Don't know	Count	9	0	22	0	4	3	7	45	
	% in vessel type	3%	0%	4%	0%	1%	3%	2%	3%	
Total		Count	276	34	507	44	297	111	302	1571
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.6	3.6	3.6	3.8	3.6	3.5	3.9	3.6

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

It looked slightly better for the crews on coasters, special ships, dry cargo and other vessel types than for the other vessel types. 77% agreed with the statement, whilst 13% disagreed. Overall, coasters, special ships, dry cargo and other vessel types averaged 3.9, which was relatively high and significantly higher than container and passenger ships.

The following questions, 11.1-11.11, deal with sleep and tiredness for the respondent's last four weeks aboard. These questions were intended to give a picture of whether too much is being demanded of seamen, which then affects their sleep and sleep patterns thus causing stress and symptoms of stress.

73% had never or only rarely slept badly (Q. 11.1 by vessel type). 5% stated that they always or much of the time slept badly. 30% responded 'sometimes'. A very sizable percentage had thus slept badly to a certain extent during the period.

Table 70: Question 11.1 – How often do you sleep badly? (by vessel type)

			Vessel type							
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	Total
11.1 – How often do you sleep badly?	Never	Count	42	2	60	7	63	24	42	240
		% in vessel type	15%	6%	12%	16%	21%	21%	14%	15%
	Sometimes	Count	111	11	229	18	108	42	133	652
		% in vessel type	40%	33%	45%	41%	36%	38%	44%	41%
	Some of the time	Count	95	18	158	12	63	26	100	472
		% in vessel type	34%	55%	31%	27%	21%	23%	33%	30%
	Much of the time	Count	15	2	42	6	43	16	19	143
		% in vessel type	5%	6%	8%	14%	14%	14%	6%	9%
	Always	Count	5	0	10	1	10	4	3	33
		% in vessel type	2%	0%	2%	2%	3%	4%	1%	2%
	Don't know	Count	8	0	8	0	11	0	6	33
		% in vessel type	3%	0%	2%	0%	4%	0%	2%	2%
Total		Count	276	33	507	44	298	112	303	1573
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.6	3.4	3.6	3.5	3.6	3.6	3.6	3.6

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. The average was calculated in reverse, with "Never" scoring 5, "Always" scoring 1, and so on. "Don't knows" not included in the averages.

There were no marked or significant differences for vessel types.

61% had never or only occasionally felt exhausted (Q. 11.2, by vessel type), whilst 10% felt tired much or all of the time. 27% felt exhausted some of the time.

Table 71: Question 11.2 – How often do you feel exhausted? (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
11.2 – How often do you feel exhausted?	Never	Count	45	4	51	7	47	23	58	235
		% in vessel type	16%	13%	10%	16%	16%	21%	19%	15%
	Sometimes	Count	140	16	241	18	124	36	143	718
		% in vessel type	50%	50%	48%	40%	42%	32%	48%	46%
	Some of the time	Count	64	12	159	10	78	30	70	423
		% in vessel type	23%	38%	31%	22%	26%	27%	23%	27%
	Much of the time	Count	12	0	38	9	41	18	17	135
		% in vessel type	4%	0%	8%	20%	14%	16%	6%	9%
	Always	Count	3	0	5	1	7	2	4	22
		% in vessel type	1%	0%	1%	2%	2%	2%	1%	1%
Don't know	Count	15	0	12	0	0	2	8	37	
	% in vessel type	5%	0%	2%	0%	0%	2%	3%	2%	
Total		Count	279	32	506	45	297	111	300	1570
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.8	3.8	3.6	3.5	3.5	3.6	3.8	3.7

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. The average was calculated in reverse, with "Never" scoring 5, "Always" scoring 1, and so on. "Don't knows" not included in the averages.

There were no marked differences between vessel types. However, the crews on passenger and RORO ships were slightly more often exhausted than on other ships. For passenger ships, there was a significant difference compared to tankers and chemical tankers and coasters, special ships, dry cargo and other types of vessel.

Barely 1/4 never had difficulty sleeping (Q. 11.3 by vessel type), whilst 42% only occasionally had difficulty. On the other hand at the other end of the scale, 8% always or much of the time had problems falling asleep.

Table 72: Question 11.3 – How often do you have problems getting to sleep? (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
11.3 – How often do you have problems getting to sleep?	Never	Count	72	2	98	13	90	32	71	378
		% in vessel type	26%	6%	19%	30%	30%	29%	24%	24%
	Sometimes	Count	129	16	231	16	98	42	131	663
		% in vessel type	46%	50%	45%	36%	33%	38%	44%	42%
	Some of the time	Count	56	14	126	10	68	23	73	370
		% in vessel type	20%	44%	25%	23%	23%	21%	24%	24%
	Much of the time	Count	12	0	32	4	23	7	13	91
		% in vessel type	4%	0%	6%	9%	8%	6%	4%	6%
	Always	Count	4	0	10	1	11	6	5	37
		% in vessel type	1%	0%	2%	2%	4%	5%	2%	2%
Don't know	Count	6	0	11	0	7	2	7	33	
	% in vessel type	2%	0%	2%	0%	2%	2%	2%	2%	
Total		Count	279	32	508	44	297	112	300	1572
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
			3.9	3.6	3.8	3.8	3.8	3.8	3.9	3.8

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. The average was calculated in reverse, with "Never" scoring 5, "Always" scoring 1, and so on. "Don't knows" not included in the averages.

There were no marked or significant differences for vessel types.

68% never or only occasionally felt physically exhausted (Q. 11.4 by vessel type). 6% felt physically exhausted much or all of the time. Compared with Q. 11.2 which asked how often the respondent felt exhausted, there was more or less agreement between these two, although Q. 11.4 was slightly (significantly) above Q. 11.2, i.e. people slightly more often felt physically tired than exhausted. This can be interpreted as indicating that physical tiredness is more pronounced than mental fatigue. However, as noted above, the difference was small.

Table 73: Question 11.4 – How often do you feel physically exhausted? (by vessel type)

			Vessel type							
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	Total
11.4 – How often do you feel physically exhausted?	Never	Count	74	5	102	12	68	32	99	392
		% in vessel type	27%	16%	20%	27%	23%	29%	33%	25%
	Sometimes	Count	128	10	234	15	125	42	118	672
		% in vessel type	46%	32%	46%	34%	42%	38%	39%	43%
	Some of the time	Count	61	13	122	13	78	26	52	365
		% in vessel type	22%	42%	24%	30%	26%	23%	17%	23%
	Much of the time	Count	8	0	28	2	16	8	15	77
		% in vessel type	3%	0%	6%	5%	5%	7%	5%	5%
	Always	Count	0	0	5	0	5	2	3	15
		% in vessel type	0%	0%	1%	0%	2%	2%	1%	1%
	Don't know	Count	8	3	13	2	5	2	14	47
		% in vessel type	3%	10%	3%	5%	2%	2%	5%	3%
Total		Count	279	31	504	44	297	112	301	1568
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			4.0	3.7	3.8	3.9	3.8	3.9	4.0	3.9

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. The average was calculated in reverse, with "Never" scoring 5, "Always" scoring 1, and so on. "Don't knows" not included in the averages.

There were no marked differences between vessel types although crews on coasters, special ships, dry cargo and other vessel types were significantly less physically tired than crews on container and passenger ships.

11% woke up early without being able to fall asleep again always or much of the time (Q. 11.5 by vessel type), which would appear at a very high figure. However, 66% never or only occasionally did so.

Table 74: Question 11.5 – How often do you wake up too early without being able to get back to sleep again? (by vessel type)

type/			Vessel type							Coaster, special vessel, dry cargo vessel and other vessel type	Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship			
11.5 – How often do you wake up too early without being able to get back to sleep again?	Never	Count	91	4	103	18	95	35	81	427	
		% in vessel type	33%	13%	20%	41%	32%	32%	27%	27%	
	Sometimes	Count	112	13	226	11	98	38	117	615	
		% in vessel type	40%	41%	44%	25%	33%	34%	39%	39%	
	Some of the time	Count	50	13	114	5	46	23	64	315	
		% in vessel type	18%	41%	22%	11%	15%	21%	21%	20%	
	Much of the time	Count	15	2	41	8	32	14	28	140	
		% in vessel type	5%	6%	8%	18%	11%	13%	9%	9%	
	Always	Count	2	0	15	0	11	1	6	35	
		% in vessel type	1%	0%	3%	0%	4%	1%	2%	2%	
	Don't know	Count	8	0	9	2	15	0	6	40	
		% in vessel type	3%	0%	2%	5%	5%	0%	2%	3%	
Total		Count	278	32	508	44	297	111	302	1572	
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%	
Average			4.0	3.6	3.7	3.9	3.8	3.8	3.8	3.8	

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. The average was calculated in reverse, with "Never" scoring 5, "Always" scoring 1, and so on. "Don't knows" not included in the averages.

Here again there were no marked differences between vessel types. The crews on tankers and chemical tankers were significantly less likely than those on container vessels to wake up early without being able to fall asleep again.

58% never or only occasionally felt tired (Q. 11.6 by vessel type). However, 12% felt tired all or much of the time. Compared with Q. 11.2 and Q. 11.4, which asked how often respondents felt exhausted or physically exhausted, responses to this statement were significantly lower, i.e. seamen felt significantly more tired than exhausted or physically exhausted.

Table 75: Question 11.6 – How often do you feel tired? (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
11.6 – How often do you feel tired?	Never	Count	15	1	16	2	11	16	27	88
		% in vessel type	5%	3%	3%	5%	4%	14%	9%	6%
	Sometimes	Count	159	20	270	20	140	44	163	816
		% in vessel type	57%	65%	53%	45%	47%	39%	54%	52%
	Some of the time	Count	66	9	155	11	91	33	76	441
		% in vessel type	24%	29%	31%	25%	31%	29%	25%	28%
	Much of the time	Count	25	1	49	9	45	16	27	172
		% in vessel type	9%	3%	10%	20%	15%	14%	9%	11%
	Always	Count	3	0	8	0	6	3	3	23
		% in vessel type	1%	0%	2%	0%	2%	3%	1%	1%
	Don't know	Count	10	0	8	2	4	0	6	30
		% in vessel type	4%	0%	2%	5%	1%	0%	2%	2%
Total		Count	278	31	506	44	297	112	302	1570
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.6	3.7	3.5	3.4	3.4	3.5	3.6	3.5

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. The average was calculated in reverse, with "Never" scoring 5, "Always" scoring 1, and so on. "Don't knows" not included in the averages.

Passenger and RORO vessels crew were the most frequently tired with 17% and 20% respectively stating that they were tired much or all of the time compared to the other vessel types. Passenger ships were significantly lower than tankers and chemical tankers and coasters, special ships, dry cargo and other vessel types.

It looked a little better when the question was how often respondents had woken several times and had difficulty falling asleep again (Q. 11.7, by vessel type). 68% had never or only occasionally experienced this whereas 9% did so the whole or much of the time. Compared with Q. 11.5 which asked how often respondents had woken early without being able to fall asleep again, the two statements were more or less the same level and there was also a large correlation between them.¹

Table 76: 11.7 – How often do you wake up several times and have trouble getting back to sleep again? (by vessel type)

			Vessel type							
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	Total
11.7 – How often do you wake up several times and have trouble getting back to sleep again?	Never	Count	93	7	142	19	107	36	102	506
		% in vessel type	33%	22%	28%	43%	36%	33%	34%	32%
	Sometimes	Count	113	9	197	10	87	41	113	570
		% in vessel type	41%	28%	39%	23%	29%	37%	38%	36%
	Some of the time	Count	52	11	111	4	57	19	50	304
		% in vessel type	19%	34%	22%	9%	19%	17%	17%	19%
	Much of the time	Count	8	3	35	8	23	10	22	109
		% in vessel type	3%	9%	7%	18%	8%	9%	7%	7%
	Always	Count	3	0	9	1	7	1	4	25
		% in vessel type	1%	0%	2%	2%	2%	1%	1%	2%
	Don't know	Count	9	2	15	2	17	3	10	58
		% in vessel type	3%	6%	3%	5%	6%	3%	3%	4%
Total	Count	278	32	509	44	298	110	301	1572	
	% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%	
Average			4.1	3.7	3.9	3.9	3.9	3.9	4.0	3.9

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. The average was calculated in reverse, with "Never" scoring 5, "Always" scoring 1, and so on. "Don't knows" not included in the averages.

On bulkers, they apparently awoke more often and had difficulty falling asleep again. However, there was no significant difference from the other vessel types. Further, there were no marked or significant differences between types of vessel.

75% never or only occasionally had problems relaxing (Q. 11.8 by vessel type), whilst 6% did so much or all of the time. The statement had a relatively high correlation with Q. 11.7 above². There was thus a correlation

¹ The correlation coefficient between 11.5 and 11.7 was 0.74 (Pearson) and was significant at the 0.01 level.

² The correlation coefficient between 11.5 and 11.7 was 0.582 (Pearson) and was significant at the 0.01 level.

between how often respondents awoke several times without being able to fall asleep again and how often they had problems relaxing. There was also a relatively high correlation between Q. 11.8 and Q. 11.10, which asked how often people had felt or been tense³. There was thus a correlation between how often people had difficulty relaxing and how often they had been or felt tense. Statement 1.10 is addressed later in the section.

Table 77: Question 11.8 – How often do you have problems relaxing? (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
11.8 – How often do you have problems relaxing?	Never	Count	103	12	180	19	121	50	122	607
		% in vessel type	37%	38%	36%	42%	41%	45%	41%	39%
	Sometimes	Count	105	7	186	8	107	36	109	558
		% in vessel type	38%	22%	37%	18%	36%	32%	36%	36%
	Some of the time	Count	39	13	103	10	44	17	42	268
		% in vessel type	14%	41%	20%	22%	15%	15%	14%	17%
	Much of the time	Count	15	0	18	6	14	8	17	78
		% in vessel type	5%	0%	4%	13%	5%	7%	6%	5%
	Always	Count	1	0	5	0	4	1	2	13
		% in vessel type	0%	0%	1%	0%	1%	1%	1%	1%
	Don't know	Count	15	0	15	2	7	0	8	47
		% in vessel type	5%	0%	3%	4%	2%	0%	3%	3%
Total		Count	278	32	507	45	297	112	300	1571
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			4.1	4.0	4.1	3.9	4.1	4.1	4.1	4.1

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. The average was calculated in reverse, with "Never" scoring 5, "Always" scoring 1, and so on. "Don't knows" not included in the averages.

There were no marked or significant differences for vessel types.

72% never or only occasionally felt or had been irritable (Q. 11.9 by vessel type), whilst 5% did so always or much of the time. For Q. 11.9, there was a relatively high correlation with Q. 11.10, i.e. there was a correlation between how often people felt irritable and how often they felt tense.⁴

Table 78: Question 11.9 – How often do you feel/are you irritable? (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
11.9 – How often do you feel/are you irritable?	Never	Count	77	5	119	9	68	26	75	379
		% in vessel type	28%	16%	23%	20%	23%	23%	25%	24%
	Sometimes	Count	131	15	226	17	155	48	155	747
		% in vessel type	47%	47%	45%	39%	52%	43%	51%	48%
	Some of the time	Count	49	8	113	11	49	25	41	296
		% in vessel type	18%	25%	22%	25%	16%	23%	14%	19%
	Much of the time	Count	7	2	20	5	17	9	15	75
		% in vessel type	3%	6%	4%	11%	6%	8%	5%	5%
	Always	Count	0	0	3	0	1	0	4	8
		% in vessel type	0%	0%	1%	0%	0%	0%	1%	1%
	Don't know	Count	15	2	26	2	7	3	12	67
		% in vessel type	5%	6%	5%	5%	2%	3%	4%	4%
Total	Count	279	32	507	44	297	111	302	1572	
	% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%	
Average			4.1	3.8	3.9	3.7	3.9	3.8	4.0	3.9

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. The average was calculated in reverse, with "Never" scoring 5, "Always" scoring 1, and so on. "Don't knows" not included in the averages.

There were no marked or significant differences for vessel types

72% never or only occasionally felt or had been tense (Q. 11.10 by vessel type), whilst 5% did so always or much of the time. As is apparent from the above, there is a relatively high correlation between how often people have been or felt tense and how often they have been or felt irritable and have had problems in

³ The correlation coefficient between 11.85 and 11.10 was 0.595 (Pearson) and was significant at the 0.01 level.

⁴ The correlation coefficient between 11.9 and 11.10 was 0.691 (Pearson) and was significant at the 0.01 level.

relaxing. Further, there is another relatively high correlation between Q. 11.10 and Q. 11.11, which shows how often respondents have felt or been stressed out,⁵ i.e. a correlation between stress and tension.

Table 79: Question 11.10 – How often do you feel/are you tense? (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
11.10 – How often do you feel/are you tense?	Never	Count	66	5	109	10	79	28	91	388
		% in vessel type	24%	16%	21%	22%	27%	25%	30%	25%
	Sometimes	Count	139	16	239	21	142	49	136	742
		% in vessel type	50%	50%	47%	47%	48%	44%	45%	47%
	Some of the time	Count	47	11	113	8	52	22	52	305
		% in vessel type	17%	34%	22%	18%	18%	20%	17%	19%
	Much of the time	Count	9	0	21	4	16	9	7	66
		% in vessel type	3%	0%	4%	9%	5%	8%	2%	4%
	Always	Count	0	0	4	0	1	0	3	8
		% in vessel type	0%	0%	1%	0%	0%	0%	1%	1%
	Don't know	Count	17	0	22	2	6	4	12	63
		% in vessel type	6%	0%	4%	4%	2%	4%	4%	4%
Total		Count	278	32	508	45	296	112	301	1572
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			4.0	3.8	3.9	3.9	4.0	3.9	4.1	4.0

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. The average was calculated in reverse, with "Never" scoring 5, "Always" scoring 1, and so on. "Don't knows" not included in the averages.

There were no marked or significant differences for vessel types.

73% had never or only occasionally been or felt stressed whilst 5% did so much or all of the time (Q. 11.11 by vessel type). As is apparent from the above, there is a correlation between the frequency of stress and the frequency of tension.

Table 80: Question 11.11 – How often do you feel/are you stressed? (by vessel type)

			Vessel type							
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	Total
11.11 – How often do you feel/are you stressed?	Never	Count	88	4	111	15	92	38	107	455
		% in vessel type	31%	12%	22%	34%	31%	34%	35%	29%
	Sometimes	Count	110	17	233	21	131	48	128	688
		% in vessel type	39%	50%	46%	48%	44%	43%	42%	44%
	Some of the time	Count	57	13	125	3	49	15	44	306
		% in vessel type	20%	38%	25%	7%	17%	14%	15%	19%
	Much of the time	Count	11	0	18	5	17	7	7	65
		% in vessel type	4%	0%	4%	11%	6%	6%	2%	4%
	Always	Count	0	0	6	0	1	1	1	9
		% in vessel type	0%	0%	1%	0%	0%	1%	0%	1%
	Don't know	Count	14	0	15	0	6	2	15	52
		% in vessel type	5%	0%	3%	0%	2%	2%	5%	3%
Total		Count	280	34	508	44	296	111	302	1575
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			4.0	3.7	3.9	4.0	4.0	4.1	4.2	4.0

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. The average was calculated in reverse, with "Never" scoring 5, "Always" scoring 1, and so on. "Don't knows" not included in the averages.

It was the crews of coasters, special ships, dry cargo and other types of vessel who felt themselves least stressed. This was significantly better than container ships.

When asked about their general health, seamen felt it was very good (12.1 by vessel type). 91% agreed or agreed strongly that their health was good. Just 3% disagreed or disagreed strongly with this statement. Overall, the average was high at 4.3.

⁵ The correlation coefficient between 11.10 and 11.11 was 0.634 (Pearson) and was significant at the 0.01 level.

Table 81: Question 12.1 – Overall, I am in good health (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
12.1 – Overall, I am in good health.	Strongly agree 5	Count	118	15	190	12	95	31	107	568
		% in vessel type	43%	44%	38%	27%	32%	28%	36%	36%
	Agree 4	Count	139	18	275	26	168	71	165	862
		% in vessel type	50%	53%	55%	59%	57%	63%	55%	55%
	Neither/nor 3	Count	9	0	22	5	21	5	13	75
		% in vessel type	3%	0%	4%	11%	7%	4%	4%	5%
	Disagree 2	Count	3	1	11	1	10	4	9	39
		% in vessel type	1%	3%	2%	2%	3%	4%	3%	2%
	Strongly disagree 1	Count	0	0	1	0	0	1	2	4
		% in vessel type	0%	0%	0%	0%	0%	1%	1%	0%
Don't know	Count	7	0	4	0	2	0	5	18	
	% in vessel type	3%	0%	1%	0%	1%	0%	2%	1%	
Total		Count	276	34	503	44	296	112	301	1566
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			4.4	4.4	4.3	4.1	4.2	4.1	4.2	4.3

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Health was generally good for all vessel types. Passenger and supply ships were slightly lower (significantly) than tankers and chemical tankers.

There were also very few chronic health conditions (such as allergy, asthma, etc.) which affected respondents' perception of the working environment (12.2 by vessel type). Only 82% agreed or agreed strongly with this whereas 8% disagreed or disagreed strongly. Overall, the statement had a high average of 4.2.

Table 82: Question 12.2 – I have no chronic health problems (such as allergies, asthma, etc), which affect my experience of the working environment (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
12.2 – I have no chronic health problems (such as allergies, asthma, etc.), which affect my experience of the physical working environment.	Strongly agree 5	Count	137	13	209	16	116	48	124	663
		% in vessel type	50%	38%	42%	36%	39%	43%	41%	43%
	Agree 4	Count	98	8	206	20	120	46	120	618
		% in vessel type	36%	24%	41%	44%	41%	41%	40%	40%
	Neither/nor 3	Count	15	1	34	3	25	11	27	116
		% in vessel type	6%	3%	7%	7%	8%	10%	9%	7%
	Disagree 2	Count	12	4	22	2	17	4	16	77
		% in vessel type	4%	12%	4%	4%	6%	4%	5%	5%
	Strongly disagree 1	Count	4	3	14	3	16	2	6	48
		% in vessel type	1%	9%	3%	7%	5%	2%	2%	3%
Don't know	Count	6	5	13	1	1	1	6	33	
	% in vessel type	2%	15%	3%	2%	%	1%	2%	2%	
Total		Count	272	34	498	45	295	112	299	1555
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			4.3	3.8	4.2	4.0	4.0	4.2	4.2	4.2

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Bulkers were low compared to the other vessel types but the difference was not significant because of the low numbers of bulkers. In contrast, passenger ships were significantly lower than tankers and chemical tankers.

Summary for Demands

With respect to *Demands*, respondents very much had the feeling of being able to cope with their work in all vessel types and that they overwhelmingly achieved their tasking. Work did thus not generally get left undone and there was no necessity to work very fast. But especially for Danes and senior officers and masters, the picture was more mixed. The pace of work aboard passenger ships was seen as significantly higher than on the rest of the vessels. Here it was also the Danes who felt the pace of work was high. Compared with the average ashore, the demands from the pace of work were considerably lower at sea.

People felt that they could use their abilities and skills aboard and they had the opportunity to learn about something new although passenger ships were significantly lower than other types of ship. The majority of respondents felt that they had the necessary skills and were able to assess the extent that their co-workers also had the necessary skills. Crew with many years of service stated that they had significantly less confidence in their workplace skills than those with less service had.

Every fifth respondent felt that work took so much of their energy that it affected their home lives whereas one in six found that their friends and family had told them that their work had a negative effect on their mood.

About 10% had problems sleeping while around 5% had had problems with relaxing, feeling irritable, tense and stressed out. With respect to sleep and stress, there was a relatively high correlation between how often people woke up several times without being able to fall asleep again and the ability to relax.

PART IV. THEMES

4.1 – THEME: FELLOWSHIP AND SOCIAL ISOLATION

When individual seamen do not feel part of the community, that they do not have good relations with their co-workers or with their immediate superiors and management, it results in isolation. It is important for general well-being that people are part of a community. Social isolation may therefore be the direct reason for a poor level of well-being and so it is important for this to be focused on. Social isolation can also arise in periods of home leave. This section investigates fellowship/a sense of community and social isolation on vessels but also at home, together with the actual person that possibly feels socially isolated. This theme relates closely to the section on social support and should be regarded as further exploring this.

The table below gives the questions dealt with under this theme.

Table 83: Schedule of questions on the theme: Fellowship and social isolation

Question number	Question
4.4	There is a good atmosphere between myself and my colleagues.
4.10	I feel I am part of a community on board my ship.
7.1	There are no conflicts between my work and home life, so that I would rather be "both places at once"
7.2	My work does not cause me to feel socially isolated at home.
8.1	In my leisure time onboard I am often together with my colleagues.
8.2	In my leisure time onboard, I primarily prefer to be together with colleagues of the same nationality as myself.
8.3	In my leisure time onboard there is a good atmosphere between myself and my colleagues.
8.4	In my leisure time onboard I feel I am part of a community.

Considering the first question most co-workers felt the atmosphere was very good (Q. 4.4 by vessel type). As many as 86% agreed or agreed strongly with this. However, 4% disagreed or disagreed strongly but overall the statement had a relatively high average of 4.0.

Table 84: Question 4.4 – There is a good atmosphere between myself and my colleagues (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
4.4 – There is a good atmosphere between myself and my colleagues.	Strongly agree 5	Count	64	7	98	6	63	25	73	336
		% in vessel type	23%	21%	19%	14%	21%	22%	24%	21%
	Agree 4	Count	178	26	344	27	190	66	193	1024
		% in vessel type	64%	76%	68%	61%	64%	59%	64%	65%
	Neither/nor 3	Count	21	0	40	7	39	15	24	146
		% in vessel type	8%	0%	8%	16%	13%	13%	8%	9%
	Disagree 2	Count	11	1	13	4	1	4	11	45
		% in vessel type	4%	3%	3%	9%	%	4%	4%	3%
	Strongly disagree 1	Count	0	0	3	0	3	2	0	8
		% in vessel type	0%	0%	1%	0%	1%	2%	0%	1%
Total	Don't know	Count	3	0	7	0	1	0	1	12
		% in vessel type	1%	0%	1%	0%	0%	0%	0%	1%
Total			Count	277	34	505	44	297	112	302
			% in vessel type	100%	100%	100%	100%	100%	100%	100%
Average				4.1	4.1	4.0	3.8	4.0	4.0	4.0

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Respondents on all types of vessel generally agreed that there was a good atmosphere amongst their co-workers. RORO were slightly lower than the others however but the difference was not significant. There were no marked differences between the nationalities (not shown).

They felt they were very much part of a community aboard (Q. 4.10 by vessel type). 82% stated that they agreed with this statement. This is also related to the fact that there was a good atmosphere aboard together with good relations, as reported above under *Social support*⁶. 5% felt that they were not part of a community aboard.

Table 85: Question 4.10 – I feel I am part of a community on board my ship (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
4.10 – I feel I am part of a community on board my ship.	Strongly agree 5	Count	48	12	89	8	57	23	82	319
		% in vessel type	18%	34%	18%	18%	19%	21%	27%	20%
	Agree 4	Count	193	20	303	27	181	68	181	973
		% in vessel type	70%	57%	60%	61%	61%	61%	60%	62%
	Neither/nor 3	Count	23	1	80	6	37	16	26	189
		% in vessel type	8%	3%	16%	14%	12%	14%	9%	12%
	Disagree 2	Count	7	1	19	3	15	4	5	54
		% in vessel type	3%	3%	4%	7%	5%	4%	2%	3%
	Strongly disagree 1	Count	1	1	9	0	7	0	5	23
		% in vessel type	0%	3%	2%	0%	2%	0%	2%	1%
Total	Don't know	Count	2	0	7	0	0	0	3	12
		% in vessel type	1%	0%	1%	0%	0%	0%	1%	1%
Total			Count	274	35	507	44	297	111	302
			% in vessel type	100%	100%	100%	100%	100%	100%	100%
Average				4.0	4.2	3.9	3.9	3.9	4.0	4.1

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Respondents on all types of vessel felt very much that they were part of a community. Especially on bulkers, where 92% agreed, but also on coasters, special ships, dry cargo and other vessel types, they felt very much part of a community. This was significantly more pronounced than amongst the crews on container and passenger ships.

Combining Q. 4.10 with the question about accumulation of work from the section on *Demands* gives a small (significant) tendency towards those feeling that work accumulated, also feeling less as part of the community

⁶ The correlation coefficients between 4.10 and 4.4 and 4.8 respectively were 0.534 and 0.574 (Pearson) and were significant at the 0.01 level.

aboard⁷ (Q. 4.1 taken with Q. 4.10).

Table 86: Question 4.1 – My work is evenly distributed so it doesn't accumulate (as per Q. 4.10)

			4.10 – I feel I am part of a community on board my ship.					
			Strongly agree 5	Agree 4	Neither nor 3	Disagree 2	Strongly disagree 1	Don't know
4.1 – My work is evenly distributed so it doesn't accumulate.	Strongly agree 5	Count	125	63	5	0	0	0
		% within 4.10	39%	6%	3%	0%	0%	0%
	Agree 4	Count	146	672	80	19	5	4
		% within 4.10	46%	68%	42%	35%	22%	36%
	Neither nor 3	Count	24	145	58	12	6	2
		% within 4.10	8%	15%	31%	22%	26%	18%
	Disagree 2	Count	18	84	35	22	6	2
		% within 4.10	6%	9%	18%	41%	26%	18%
	Strongly disagree 1	Count	5	12	10	1	5	0
		% within 4.10	2%	1%	5%	2%	22%	0%
	Don't know	Count	2	6	2	0	1	3
		% within 4.10	1%	1%	1%	0%	4%	27%
Total		Count	320	982	190	54	23	11
		% within 4.10	100%	100%	100%	100%	100%	100%
Average			4.2	3.7	3.2	2.9	2.5	3.3

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

This indicates that when work is not evenly distributed, it may have some impact on fellowship and a sense of community.

Investigating the interrelationship between how much it is necessary to work very fast and the sense of community aboard shows a small (significant) tendency towards those that felt it was necessary to work too fast (Q. 4.3 taken with Q. 4.10), feeling less part of the community aboard, cf. the table below.⁸

Table 87: Question 4.3 – I don't need to work very quickly (as per Q. 4.10)

			4.10 – I feel I am part of a community aboard my ship.					
			Strongly agree 5	Agree 4	Neither/nor 3	Disagree 2	Strongly disagree 1	Don't know
4.3 – I don't need to work very quickly.	Strongly agree 5	Count	88	44	7	1	0	1
		% in 4.10	28%	4%	4%	2%	0%	8%
	Agree 4	Count	124	527	60	15	5	3
		% in 4.10	39%	54%	32%	28%	23%	25%
	Neither/nor 3	Count	64	228	71	13	2	0
		% in 4.10	20%	23%	37%	24%	9%	0%
	Disagree 2	Count	35	142	40	19	7	2
		% in 4.10	11%	14%	21%	35%	32%	17%
	Strongly disagree 1	Count	9	39	12	6	8	0
		% in 4.10	3%	4%	6%	11%	36%	0%
	Don't know	Count	0	4	0	0	0	6
		% in 4.10	0%	0%	0%	0%	0%	50%
Total		Count	320	984	190	54	22	12
		% in 4.10	100%	100%	100%	100%	100%	100%
Average			3.8	3.4	3.1	2.7	2.2	3.5

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

This indicates a correlation between pressure of work and the feeling of fellowship and being part of a community in general.

As is apparent from Sec. 3.3.2, there was a difference in general well-being depending on how many nationalities were serving aboard. The difference was not large but it does indicate that crews with 2-4 nationalities seem generally to thrive a little better than crews where there is only one nationality or where there are more than four nationalities aboard. It should be noted that in more than 90% of the cases where

⁷ The correlation coefficient between 4.1 and 4.10 was 0.379 (Pearson) and was significant at the 0.01 level.

⁸ The correlation coefficient between 4.3 and 4.10 was 0.279 (Pearson) and was significant at the 0.01 level.

there was only one nationality aboard, they were Danes. Danes were generally less satisfied than the other nationalities and therefore it cannot just be assumed that crews with a single nationality do better than others.

For this reason, a general picture of a multicultural crew will also be misleading since practically all non-Danes are, as noted above, part of crews with more than a single nationality. A more accurate picture may be had from considering the two groups separately.

Considering first the Danes, the picture is one of crews with few nationalities feeling more as part of a community (Q. 4.10 distributed for nationalities aboard)⁹.

Table 88: Question 4.10 – I feel I am part of a community on board my ship (by nationalities aboard)

			1.9 – How many nationalities does the crew of your current ship comprise?				
			1	2	3	4	More
4.10 – I feel I am part of a community on board my ship.	Strongly agree 5	Count	57	34	23	11	22
		% in number of nationalities	21%	19%	18%	11%	14%
	Agree 4	Count	164	106	78	59	78
		% in number of nationalities	62%	59%	60%	58%	48%
	Neither/nor 3	Count	29	29	18	25	41
		% in number of nationalities	11%	16%	14%	25%	25%
	Disagree 2	Count	7	9	9	4	13
		% in number of nationalities	3%	5%	7%	4%	8%
	Strongly disagree 1	Count	7	1	2	2	7
		% in number of nationalities	3%	1%	2%	2%	4%
	Don't know	Count	2	0	0	0	1
		% in number of nationalities	1%	0%	0%	0%	1%
Total	Count	266	179	130	101	162	
	% in number of nationalities	100%	100%	100%	100%	100%	
Average			4.0	3.9	3.9	3.7	3.6

Question type: Single response, vertical percentage calculation. Filter: Danish nationality

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

The interrelationship (as stated with the correlation coefficient in the footnote) was not so strong however although still significant so there were limited grounds for concluding that the fewer nationalities aboard, the greater the sense of fellowship felt by the Danes. However there were very sizable differences as to whether there was a single nationality aboard, or more than three.

Considering non-Danes, there were no differences in the feeling of fellowship for Q. 4.10 compared to the number of nationalities in the crew (not shown).

Considering the relationship between home life and work, 2/3 agreed or agreed strongly that there was no conflict between them (Q. 7.1 by vessel type). However, 16% did feel that there was.

⁹ The correlation coefficient between 1.9 and 4.10 was 0.166 (Pearson) and was significant at the 0.01 level.

Table 89: Question 7.1 – There are no conflicts between my work and home life, so that I would rather be "both places at once" (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
7.1 – There are no conflicts between my work and home life, so that I would rather be "both places at once".	Strongly agree 5	Count	51	5	73	8	50	24	61	272
		% in vessel type	18%	15%	14%	18%	17%	22%	20%	17%
	Agree 4	Count	142	23	240	23	144	40	159	771
		% in vessel type	51%	68%	48%	52%	48%	36%	53%	49%
	Neither/nor 3	Count	41	2	80	8	56	21	40	248
		% in vessel type	15%	6%	16%	18%	19%	19%	13%	16%
	Disagree 2	Count	28	4	69	4	32	17	27	181
		% in vessel type	10%	12%	14%	9%	11%	15%	9%	12%
	Strongly disagree 1	Count	12	0	29	1	12	8	11	73
		% in vessel type	4%	0%	6%	2%	4%	7%	4%	5%
Don't know	Count	5	0	14	0	4	0	2	25	
	% in vessel type	2%	0%	3%	0%	1%	0%	1%	2%	
Total		Count	279	34	505	44	298	110	300	1570
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.7	3.9	3.5	3.8	3.6	3.5	3.8	3.6

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

There were no great differences between types of vessel. The figure was lowest for crew on container ships with barely one in five thinking there was a conflict between their work and home lives. This was significantly lower than for coasters, special ships, dry cargo and other vessel types.

Filipinos and West Europeans agreed significantly more that there was no conflict between work and home life than Danes and other nationalities. The Filipinos and the West Europeans scored relatively high overall averages of 3.9 and 3.8 respectively, whilst the Danes and other nationalities scored an average of 3.5, with 3.2 for other Asians (not shown).

65% agreed or agreed strongly that it did not make them feel isolated at home (Q. 7.2 by vessel type). In contrast, as many as 20% disagreed or disagreed strongly with this. Even though the overall average of 3.6 may not seem low, the fact that every fifth respondent felt isolated at home because of their work is regarded as a very high figure.

Table 90: Question 7.2 – My work does not cause me to feel socially isolated at home (by vessel type)

			Vessel type							Coaster, special vessel, dry cargo vessel and other vessel type	Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship			
7.2 – My work does not cause me to feel socially isolated at home.	Strongly agree 5	Count	40	4	67	9	40	17	59	236	
		% in vessel type	14%	12%	13%	20%	13%	15%	20%	15%	
	Agree 4	Count	143	25	232	24	172	41	151	788	
		% in vessel type	51%	74%	46%	53%	58%	37%	50%	50%	
	Neither/nor 3	Count	37	0	71	3	48	23	41	223	
		% in vessel type	13%	0%	14%	7%	16%	21%	14%	14%	
	Disagree 2	Count	46	5	106	6	19	22	40	244	
		% in vessel type	16%	15%	21%	13%	6%	20%	13%	15%	
	Strongly disagree 1	Count	9	0	24	3	16	6	5	63	
		% in vessel type	3%	0%	5%	7%	5%	5%	2%	4%	
Don't know	Count	5	0	7	0	3	2	4	21		
	% in vessel type	2%	0%	1%	0%	1%	2%	1%	1%		
Total	Count	280	34	507	45	298	111	300	1575		
	% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%		
Average			3.6	3.8	3.4	3.7	3.7	3.4	3.7	3.6	

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

On passenger ships, "only" 12% of respondents felt isolated at home because of their work. This may naturally reflect the fact that crews on passenger ships typically do not have such long tours of duty as on other types of vessel or they work shifts. Compared to the others, coasters, special ships, dry cargo and other vessel types also had relatively low percentages, which was significant compared to container and supply ships.

Filipinos were also significantly more in agreement with the question than Danes, East Europeans and other Asians. The Filipinos scored a relatively high overall average of 3.8, whilst the Danes and other nationalities had averages of 3.5-3.6. Other Asians achieved an average of 3.2 (not shown).

Considering social lives when off-duty aboard, 57% agreed or agreed strongly that they were often together with their co-workers (Q. 8.1 by vessel type), whilst 18% disagreed with this. This gave an overall average of 3.5. It was not possible to clearly determine here whether being with one's co-workers is positive or negative. Some people prefer more private lives than others so the question cannot determine positive or negative trends ; it merely contributes to our knowledge about how much people interact with their co-workers in their time off.

Table 91: Question 8.1 – In my leisure time on board, I am often together with my colleagues (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
8.1 - In my leisure time onboard I am often together with my colleagues.	Strongly agree 5	Count	30	8	56	2	26	3	38	163
		% in vessel type	11%	24%	11%	5%	9%	3%	13%	10%
	Agree 4	Count	154	21	232	13	108	53	154	735
		% in vessel type	56%	62%	46%	30%	37%	47%	51%	47%
	Neither/nor 3	Count	50	4	125	15	71	27	59	351
		% in vessel type	18%	12%	25%	35%	24%	24%	20%	22%
	Disagree 2	Count	27	0	66	11	45	20	36	205
		% in vessel type	10%	0%	13%	26%	15%	18%	12%	13%
	Strongly disagree 1	Count	14	1	23	2	20	9	10	79
		% in vessel type	5%	3%	5%	5%	7%	8%	3%	5%
Total	Don't know	Count	2	0	5	0	21	0	4	32
		% in vessel type	1%	0%	1%	0%	7%	0%	1%	2%
		Count	277	34	507	43	291	112	301	1565
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.6	4.0	3.5	3.0	3.3	3.2	3.6	3.5

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

On bulkers, respondents very often spent time with their co-workers in their leisure time, with 85% agreeing or agreeing strongly and an overall average of 4.0. On RORO, supply ships and passenger ships, time spent with co-workers in off-duty hours was not so widespread and was significantly less than for bulkers, tankers, chemical tankers and coasters, special ships, dry cargo and other vessel types. Considering the shift system that crew are on (two and three shift watches, on-call, rotating watch systems or not standing watches), there were no differences between these with respect to how often they spent time with their co-workers in their leisure time aboard (not shown).

Filipinos and other Asians spent markedly more time with their co-workers aboard in their leisure time, giving relatively high averages of 4.0 and 3.8 respectively. The Danes and West Europeans spent least time with their co-workers, scoring a relatively low average of 3.2, (not shown).

Masters and senior officers may be considered to have jobs in which they have to take decisions that can be unpopular and where they do not mix and socialize with their co-workers. So it was felt relevant to investigate whether these job categories differed in being more isolated and whether they spent less time with their colleagues in their leisure time.

Considering Q. 8.1, there were in fact very great differences in how often they spent time with their colleagues in their time off viewed with respect to job categories (Q. 8.1 by position aboard).

Table 92: Question 8.1 – In my leisure time on board, I am often together with my colleagues (by position aboard)

			Position aboard						
			Master (Senior officer)	Senior officer	Junior officer	Ordinary seaman	Other/apprentice	Senior officer (Catering and service)	Catering and service
8.1 - In my leisure time onboard I am often together with my colleagues.	Strongly agree 5	Count	6	12	26	78	19	2	22
		% in position aboard	4%	4%	8%	14%	26%	12%	12%
	Agree 4	Count	46	87	155	305	39	6	107
		% in position aboard	31%	31%	49%	55%	53%	35%	58%
	Neither/nor 3	Count	48	89	84	89	11	5	26
		% in position aboard	32%	32%	27%	16%	15%	29%	14%
	Disagree 2	Count	34	55	42	55	3	2	12
		% in position aboard	23%	20%	13%	10%	4%	12%	6%
	Strongly disagree 1	Count	8	32	8	20	2	1	9
		% in position aboard	5%	11%	3%	4%	3%	6%	5%
	Don't know	Count	6	5	0	12	0	1	9
		% in position aboard	4%	2%	0%	2%	0%	6%	5%
Total		Count	148	280	315	559	74	17	185
		% in position aboard	100%	100%	100%	100%	100%	100%	100%
Average			3.1	3.0	3.5	3.7	3.9	3.4	3.7

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Whilst ratings and crew in training stated that they are very often spent time with their co-workers in their time off (3.7 and 3.9 respectively on average), senior officers and masters spent significantly less time with their colleagues when off-duty aboard, with 3.0 and 3.1 respectively on average.

47% of respondents (almost half) preferred being with co-workers of the same nationality in their leisure time aboard (Q. 8.2 by vessel type). 25% replied neither/nor which may be seen as an expression of their indifference to nationality and finally 23% disagreed or disagreed strongly with the statement. It was not possible to determine whether they disagreed with the statement about only spending time with co-workers of the same nationality or whether they actually preferred being co-workers of other nationalities.

Table 93: Question 8.2 – In my leisure time onboard, I primarily prefer to be together with colleagues of the same nationality as myself (by vessel type)

			Vessel type							
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	Total
8.2 - In my leisure time onboard, I primarily prefer to be together with colleagues of the same nationality as myself.	Strongly agree 5	Count	38	0	66	8	28	17	27	184
		% in vessel type	14%	0%	13%	18%	10%	15%	9%	12%
	Agree 4	Count	110	19	208	14	60	41	97	549
		% in vessel type	39%	56%	41%	31%	20%	37%	32%	35%
	Neither/nor 3	Count	58	3	117	12	93	26	80	389
		% in vessel type	21%	9%	23%	27%	32%	23%	27%	25%
	Disagree 2	Count	47	9	88	4	47	19	52	266
		% in vessel type	17%	26%	17%	9%	16%	17%	17%	17%
	Strongly disagree 1	Count	13	1	19	3	31	6	23	96
		% in vessel type	5%	3%	4%	7%	11%	5%	8%	6%
Don't know	Count	13	2	8	4	34	2	21	84	
	% in vessel type	5%	6%	2%	9%	12%	2%	7%	5%	
Total		Count	279	34	506	45	293	111	300	1568
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.4	3.3	3.4	3.5	3.0	3.4	3.2	3.3

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

The crews on passenger ships showed less preference than the others for spending time with co-workers of the same nationality as themselves. Passenger ships were significantly lower than tankers and chemical tankers, container and supply ships. The difference may reflect the fact that there are many more Danes aboard passenger ships than there are on tankers and chemical tankers, container and supply ships, so people can afford to be more indifferent. Another explanation might be that there are smaller cultural differences for the various nationalities on passenger ships because they sail local routes with nationalities associated with their destinations.

Considering the question of nationality, Filipinos appeared to be the group that most preferred being with others of the same nationality as themselves, with an overall average of 3.5. Other Asians and West and East

Europeans scored overall averages of 2.9, 3.1 and 3.1 respectively, whilst the Danes' average was 3.3 (not shown). These nationality differences may also help explain the differences between vessel types.

There was an excellent atmosphere amongst co-workers in their leisure time aboard (Q. 8.3 by vessel type). 86% agreed or agreed strongly with this. Just 2% felt that the atmosphere was not good, which is regarded as very low. This gave an overall average of 4.0. This was on level with Q. 4.4, which addressed the atmosphere in general, not just in leisure time aboard.

Table 94: 8.3 – In my leisure time onboard, there is a good atmosphere between myself and my colleagues (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
8.3 - In my leisure time onboard there is a good atmosphere between myself and my colleagues.	Strongly agree 5	Count	55	2	82	7	52	14	65	277
		% in vessel type	20%	6%	16%	16%	18%	13%	22%	18%
	Agree 4	Count	196	30	349	28	170	77	214	1064
		% in vessel type	70%	86%	69%	64%	58%	69%	71%	68%
	Neither/nor 3	Count	17	0	57	9	45	18	14	160
		% in vessel type	6%	0%	11%	20%	15%	16%	5%	10%
	Disagree 2	Count	4	1	9	0	4	2	2	22
		% in vessel type	1%	3%	2%	0%	1%	2%	1%	1%
	Strongly disagree 1	Count	2	0	4	0	2	0	3	11
		% in vessel type	1%	0%	1%	0%	1%	0%	1%	1%
	Don't know	Count	7	2	6	0	19	1	3	38
		% in vessel type	2%	6%	1%	0%	7%	1%	1%	2%
Total		Count	281	35	507	44	292	112	301	1572
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			4.1	4.0	4.0	4.0	4.0	3.9	4.1	4.0

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

There were no marked or significant differences for vessel types.

Like the rest of the crew, masters and senior officers also felt that there was a good atmosphere aboard. There were no differences for job categories (not shown).

74% felt part of a community in their leisure time aboard (Q. 8.4 by vessel type), while 7% disagreed or disagreed strongly with the statement. Altogether, the statement scored an average of 3.8, which was slightly lower (significant) than for fellowship aboard in general in Q. 4.10. This may be a function of respondents not feeling they are so much together with their co-workers in their time off, cf. Q. 8.1 above.

Table 95: 8.4 – In my leisure time onboard, I feel I am part of a community (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
8.3 - In my leisure time onboard there is a good atmosphere between myself and my colleagues.	Strongly agree 5	Count	55	2	82	7	52	14	65	277
		% in vessel type	20%	6%	16%	16%	18%	13%	22%	18%
	Agree 4	Count	196	30	349	28	170	77	214	1064
		% in vessel type	70%	86%	69%	64%	58%	69%	71%	68%
	Neither/nor 3	Count	17	0	57	9	45	18	14	160
		% in vessel type	6%	0%	11%	20%	15%	16%	5%	10%
	Disagree 2	Count	4	1	9	0	4	2	2	22
		% in vessel type	1%	3%	2%	0%	1%	2%	1%	1%
	Strongly disagree 1	Count	2	0	4	0	2	0	3	11
		% in vessel type	1%	0%	1%	0%	1%	0%	1%	1%
Total	Don't know	Count	7	2	6	0	19	1	3	38
		% in vessel type	2%	6%	1%	0%	7%	1%	1%	2%
Average			4.1	4.0	4.0	4.0	4.0	3.9	4.1	4.0

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

On coasters, special ships, dry cargo and other vessel types, respondents felt more part of a community in their leisure time with 87% agreeing or agreeing strongly, giving an overall relatively high average of 4.1. This was significantly higher than tankers and chemical tankers, container, passenger and supply ships.

The Danes and other West Europeans felt less that they were part of a community in their leisure time aboard, with an overall average of 3.7 compared to 4.2 for Filipinos, who were highest (not shown).

For all job categories, there were again differences between ship management and other crew members (Q. 8.4 distributed for on job category).

Table 96: Question 8.4 – In my leisure time onboard, I feel I am part of a community (by position aboard)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
8.4 - In my leisure time onboard I feel I am part of a community.	Strongly agree 5	Count	50	3	82	6	43	14	79	277
		% in vessel type	18%	9%	16%	14%	15%	13%	26%	18%
	Agree 4	Count	169	30	272	22	140	70	183	886
		% in vessel type	61%	86%	54%	50%	48%	63%	61%	56%
	Neither/nor 3	Count	34	1	103	11	64	22	31	266
		% in vessel type	12%	3%	20%	25%	22%	20%	10%	17%
	Disagree 2	Count	13	0	35	3	17	3	2	73
		% in vessel type	5%	0%	7%	7%	6%	3%	1%	5%
	Strongly disagree 1	Count	5	1	12	0	8	3	3	32
		% in vessel type	2%	3%	2%	0%	3%	3%	1%	2%
Total	Don't know	Count	8	0	2	2	20	0	3	35
		% in vessel type	3%	0%	0%	5%	7%	0%	1%	2%
Average			3.9	4.0	3.7	3.7	3.7	3.8	4.1	3.8

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Senior officers and masters felt less (significant) that they were part of a community in their leisure time than junior officers, ratings, cadets, catering and service, with averages of 3.5-3.6 compared to 3.8-4.1.

Considering Q. 8.4 (for Danes) compared with the number of nationalities aboard, Danes serving in crews with 1-2 nationalities scored an average of 3.8, whilst this fell significantly to 3.4-3.5 for 4 or more nationalities (Q. 8.4 by number of nationalities aboard)¹⁰.

¹⁰ The correlation coefficient between 4.1 and 4.10 was 0.379 (Pearson) and it was significant at the 0.01 level.

Table 97: Question 8.4 – In my leisure time onboard, I feel I am part of a community (by nationalities aboard)

			Position aboard						
			Master (Senior officer)	Senior officer	Junior officer	Ordinary seaman	Other/apprentice	Senior officer (Catering and service)	Catering and service
8.4 - In my leisure time onboard I feel I am part of a community.	Strongly agree 5	Count	13	25	47	123	22	3	44
		% in position aboard	9%	9%	15%	22%	29%	16%	24%
	Agree 4	Count	74	142	187	339	43	8	101
		% in position aboard	50%	51%	59%	61%	57%	42%	55%
	Neither/nor 3	Count	39	71	63	58	8	4	26
		% in position aboard	27%	25%	20%	10%	11%	21%	14%
	Disagree 2	Count	11	25	12	18	2	1	4
		% in position aboard	7%	9%	4%	3%	3%	5%	2%
	Strongly disagree 1	Count	4	13	5	3	0	1	5
		% in position aboard	3%	5%	2%	1%	0%	5%	3%
Don't know	Count	6	5	1	17	0	2	5	
	% in position aboard	4%	2%	0%	3%	0%	11%	3%	
Total		Count	147	281	315	558	75	19	185
		% in position aboard	100%	100%	100%	100%	100%	100%	100%
Average			3.6	3.5	3.8	4.0	4.1	3.6	4.0

Question type: Single response, vertical percentage calculation. Filter: Danish nationality

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

The correlation (coefficient) between the two questions however was not so strong to enable it to be clearly concluded that the fewer nationalities there are aboard, the greater Danes' sense of community when off-duty. But there were very large differences if there were 1-2 nationalities aboard, or more than three.

Considering Q. 8.4 and comparing the number of nationalities aboard for non-Danes, the same differences did not arise. However, crews with more than four nationalities agreed significantly less that they felt part of a community when off-duty (3.9 on average) than those with one or two nationalities (average of 4.2).

Considering Q. 4.25 (*I feel I have the necessary skills*) compared to whether respondents felt part of a community when off-duty aboard (Q. 8.4), there was a small but significant correlation between them.¹¹ This would indicate that the more that respondents feel that they possess the necessary skills, the more they feel part of a community aboard when off-duty. But since the correlation was so small, it would be dangerous to conclude this.

Considering also Q. 4.26 (*I feel that my colleagues have the necessary skills*) compared to how often respondents spent time with their co-workers in their time off aboard (Q. 8.1), there was a small correlation between these but there was too little basis for concluding that the more they felt that their co-workers had the necessary skills, the more often they spent time with them in their leisure time aboard.¹²

In considering whether there was a good atmosphere amongst co-workers aboard when off-duty (Q. 8.3), there was also a small correlation with Q. 4.26¹³, although this was slightly stronger than the above. There was a slight tendency for the more respondents felt that their co-workers had the necessary skills, the better they felt the atmosphere was. The same applied to the extent to which respondents felt part of a community when off-duty aboard. There was also a slight tendency for the more they felt that their colleagues had the necessary skills, the more they felt part of a community.¹⁴

This indicates that there is a certain correlation and there could be tendency for those who are highly professional to also have a good sense of fellowship with their co-workers in their free time. Further study would be required to determine this with greater certainty.

¹¹ The correlation coefficient between 4.25 and 8.4 was 0.126 (Pearson) and was significant at the 0.01 level.

¹² The correlation coefficient between 4.26 and 8.1 was 0.239 (Pearson) was significant at the 0,01 level.

¹³ The correlation coefficient between 4.27 and 8.3 was 0.334 (Pearson) was significant at the 0,01 level.

¹⁴ The correlation coefficient between 4.28 and 8.4 was 0.308 (Pearson) was significant at the 0,01 level.

The impact of working fast and work mounting up on social lives when off-duty may be analyzed by combining Q. 4.1 on accumulation of work and 4.3 on the pace of work with Q. 8.1, 8.3 and 8.4. The table below gives the averages for the four questions on off-duty time and social lives according to how much respondents agreed that work was evenly distributed so that it did not all accumulate (Q. 8.1, 8.3 and 8.4 distributed by Q. 4.1).

Table 98: Question 8.1, 8.3 and 8.4 – Leisure time and social life aboard (as per Q. 4.1)

	4.1 – My work is evenly distributed so it doesn't accumulate.				
	Strongly agree 5	Agree 4	Neither nor 3	Disagree 2	Strongly disagree 1
8.1 - In my leisure time onboard I am often together with my colleagues.	4.0	3.5	3.2	2.9	2.5
8.3 - In my leisure time onboard there is a good atmosphere between myself and my colleagues.	4.4	4.0	3.9	3.8	3.6
8.4 - In my leisure time onboard I feel I am part of a community.	4.4	3.9	3.7	3.4	3.1

Question type: Single answer

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

The frequency of respondents spending time with their co-workers in their time off-duty aboard (8.1) varied according to how evenly their work was distributed. There was a (significant) tendency towards the more work accumulated, the less time was spent with co-workers when off-duty.¹⁵

There was also a small but significant tendency towards the more that work backed up, the less respondents felt that there was a good atmosphere amongst co-workers in leisure time aboard (Q. 8.3)¹⁶. This closely related to whether respondents felt less part of a community the more that their work backed up (Q. 8.4).¹⁷

The extent to which work rates affect time off-duty and social lives aboard is given below (Q. 8.1, 8.3 and 8.4 compared to Q. 4.3).

Table 99: Question 8.1, 8.3 and 8.4 – Leisure time and social life aboard (as per Q. 4.3)

	4.3 – I don't need to work very quickly.				
	Strongly agree 5	Agree 4	Neither nor 3	Disagree 2	Strongly disagree 1
8.1 - In my leisure time onboard I am often together with my colleagues.	3.9	3.6	3.3	3.2	3.0
8.3 - In my leisure time onboard there is a good atmosphere between myself and my colleagues.	4.4	4.1	4.0	3.9	3.8
8.4 - In my leisure time onboard I feel I am part of a community.	4.4	3.9	3.7	3.6	3.4

Question type: Single answer

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Again there was a small tendency for respondents who were less in agreement that it was not necessary to work fast, to spend less of their off-duty time with their co-workers, and to think there was not such a good atmosphere as their co-workers and to feel less than the others that they were part of a community when off-duty.¹⁸

Summary for Fellowship and social isolation

For the theme of *Fellowship and social isolation*, respondents felt there was a very high level of fellowship

¹⁵ The correlation coefficient between 4.1 and 8.1 was 0.303 (Pearson) and was significant at the 0.01 level.

¹⁶ The correlation coefficient between 4.1 and 8.3 was 0.252 (Pearson) and was significant at the 0,01 level.

¹⁷ The correlation coefficient between 4.1 and 8.4 was 0.320 (Pearson) and was significant at the 0,01 level.

¹⁸ The correlation coefficient between 4.3 and 8.1, 8.3 and 8.4 was 0.231, 0.201 and 0.273 (Pearson) and was significant at the 0.01 level.

aboard. 86% and in general felt that there was a good atmosphere aboard and similarly, 86% felt there was a good atmosphere when off-duty aboard. 82% generally felt part of a community aboard although only 74% agreed when asked whether they felt a sense of fellowship aboard in their leisure time. This is not the same as saying however that respondents necessarily spend time together when off-duty aboard. Only 57% agreed with this. The Filipinos most often spent time with their co-workers aboard when off-duty and were also the least to feel isolated and were those to see the fewest conflicts between work and home life.

As many as 20% felt that work made them feel socially isolated at home. This was a high proportion and this is an area that would merit further investigation. Not much research has been done in this area but a survey by Cardiff University¹⁹ indicates various problems as a result of social isolation both aboard and at home, including the fact that seamen feel that they lead separate lives; one at sea and another at home and that it can be very difficult to handle the transition between the two.

For all the job categories, it appeared that masters and senior officers did not so often spend time with their colleagues aboard in their leisure time and so did not feel to such extent that they were part of a community in their time off aboard, compared with the other job categories, but otherwise they felt just as much as the others that the atmosphere was good. Some might feel that it is "cold on top" or more isolated by way of less social interaction with colleagues and less of a feeling of fellowship. Danes were placed significantly lower than other nationalities for these questions.

Of the various nationalities aboard, it appeared that the Danes showed a tendency to do best socially in crews with few nationalities. It is not possible to simply conclude that the greater the number of nationalities, the less Danes thrive socially but there was a significant difference in the social well-being of Danes in crews with few nationalities and in crews with many nationalities.

Analyses of fellowship and isolation with respect to the accumulation of work and higher rate of work indicated that there was a certain correlation between working too fast /accumulation of work and fellowship aboard. However, previously it was shown that there were nationality differences with Danes and other West Europeans spending less time with their co-workers. Danes were also the group that most felt that work backed up and that they had to work very fast. Considering the Danes and other nationalities separately, however, revealed the same tendencies as in the overall picture below, namely a certain correlation between pressure/accumulation of work and social lives and fellowship aboard. The correlation between working fast/accumulation of work and fellowship aboard also applied to all the nationalities.

¹⁹ Lost at Sea and Lost at Home: the Predicament of Seafaring Families, 2003, Michelle Thomas.

4.2 – THEME: MANAGEMENT

Good management is an important part of well-being to sea. This theme addresses management on the basis of the results of the questions on management in the survey. Management splits into consideration of masters and immediate superiors, so the same questions are repeated for the two groups. Questions on the theme of *Management* are listed in the table below.

Table 100: Schedule of questions on the theme of Management

Question number	Question
3.3	Onboard conflicts are settled fairly.
4.18	I do not get conflicting instructions from my superiors.
5.1	My master is often willing to listen to my problems about work.
5.2	I often receive support and help from my master.
5.3	My master often talks to me about how well I do my job.
5.4	My master has a great deal of influence on the psychological working environment onboard.
5.5	The two masters associated with the vessel try to coordinate their approach, values and goals regarding onboard work.
5.7	My master often takes initiatives which prioritise well-being onboard.
5.8	My master is good at planning work.
5.9	My master has the necessary skills.
5.10	My master is good at settling conflicts.
6.1	My immediate superior is often willing to listen to my problems about work.
6.2	I often receive support and help from my immediate superior.
6.3	My immediate superior often talks to me about how well I do my job.
6.4	My immediate superior has a great deal of influence on the psychological working environment onboard.
6.5	My immediate superiors associated with the vessel try to coordinate their approach, values and goals regarding onboard work.
6.7	My immediate superior often takes initiatives which prioritise wellbeing onboard.
6.8	My immediate superior is good at planning the work.
6.9	My immediate superior has the necessary skills.
6.10	My immediate superior is good at settling conflicts.
6.11	My immediate superior has a great deal of influence on the working environment onboard.
6.12	My immediate superior listens to the crew's ideas and suggestions.

Various of the questions were also about the scope of the areas of *Social support* and *Reward*.

Turning first to the question on conflict management, 69% felt that these were resolved fairly (Q. 3.3 by vessel type), whilst approx. 9% did not feel this was so.

Table 101: Question 3.3 – Onboard conflicts are settled fairly (by vessel type)

			Vessel type							
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	Total
3.3 – Onboard conflicts are settled fairly.	Strongly agree 5	Count	44	6	84	2	18	4	33	191
		% in vessel type	16%	18%	17%	4%	6%	4%	11%	12%
	Agree 4	Count	179	20	291	23	139	64	174	890
		% in vessel type	64%	59%	58%	50%	47%	58%	58%	57%
	Neither/nor 3	Count	34	3	82	13	92	28	55	307
		% in vessel type	12%	9%	16%	28%	31%	25%	18%	20%
	Disagree 2	Count	11	5	28	4	26	11	22	107
		% in vessel type	4%	15%	6%	9%	9%	10%	7%	7%
	Strongly disagree 1	Count	0	0	3	3	17	3	8	34
		% in vessel type	0%	0%	1%	7%	6%	3%	3%	2%
Don't know	Count	11	0	18	1	4	1	8	43	
	% in vessel type	4%	0%	4%	2%	1%	1%	3%	3%	
Total	Count	279	34	506	46	296	111	300	1572	
	% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%	
Average			4.0	3.8	3.9	3.4	3.4	3.5	3.7	3.7

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

On tankers and chemical tankers, according to 80% of the crew, conflicts are resolved fairly. Tankers and chemical tankers were thus the types of ship that were best placed here and also with a relatively high average of 4.0. They were also significantly higher than the other types of vessel (except for container ships). The crews on container and bulkers also agreed strongly that conflicts were resolved fairly with about 75% agreeing or agreeing strongly with the statement and with averages of 3.9 and 3.8 respectively. Passenger and supply ships were placed at the low end. Just 53 - 54% there felt that conflicts were resolved fairly whilst 15% disagreed or disagreed strongly with this.

Danes were somewhat less in agreement that conflicts were resolved fairly than were the other nationalities. Danes scored an overall average of 3.5, whilst the other nationalities were relatively high with 3.9-4.0 on average (not shown).

The overall average for whether crew received consistent instructions from their superiors (Q. 4.18 by vessel type) was 3.5 which was the same as for Q. 4.11 above. However, there were as many as 18% who received contradictory information on all the vessels (18% – practically 1/5 – disagreed or disagreed strongly with the statement).

Table 102: Question 4.18 – I do not get conflicting instructions from my superiors (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
4.18 – I do not get conflicting instructions from my superiors.	Strongly agree 5	Count	32	1	53	4	14	10	36	150
		% in vessel type	12%	3%	11%	9%	5%	9%	12%	10%
	Agree 4	Count	155	21	263	18	122	42	145	766
		% in vessel type	56%	64%	53%	40%	41%	38%	48%	49%
	Neither/nor 3	Count	43	6	94	9	79	31	69	331
		% in vessel type	16%	18%	19%	20%	27%	28%	23%	21%
	Disagree 2	Count	30	5	65	7	61	23	32	223
		% in vessel type	11%	15%	13%	16%	20%	21%	11%	14%
	Strongly disagree 1	Count	5	0	8	6	18	4	13	54
		% in vessel type	2%	0%	2%	13%	6%	4%	4%	3%
Don't know	Count	11	0	17	1	4	2	7	42	
	% in vessel type	4%	0%	3%	2%	1%	2%	2%	3%	
Total	Count	276	33	500	45	298	112	302	1566	
	% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%	
Average			3.7	3.5	3.6	3.2	3.2	3.3	3.5	3.5

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

The crews on tankers and chemical tankers and container ships had the most consistent instructions with about 66% agreeing with the statement, so tankers and chemical tankers were significantly higher than passenger and supply ships. (Tankers and chemical tankers were also significantly higher than RORO). Coasters, special

ships, dry cargo and other vessel types were also significantly higher than passenger ships. More than 25% of respondents on passenger and RORO ships felt that they received contradictory instructions (disagreed or disagreed strongly with the statement).

The Danes and other West Europeans were markedly less in agreement for Q. 4.18 than the other nationalities, with an overall average of 3.3-3.4 compared to the averages for the others of 3.8-3.9 (not shown). This affected vessels types such as RORO, passenger and supply ships because of the large percentage of Danes on such ships.

70% felt that their masters were willing to listen to their work problems (Q. 5.1 by vessel type), whilst 6% disagreed or disagreed strongly with the statement. This gave an overall average of 3.9. This could probably be improved if a comparison is made with average shore-based figures in which 75.5% stated that their immediate superiors were always or often willing to listen to employees' work problems (for the sake of good order, it should be noted that this question was not asked in quite the same way).

Table 103: Question 5.1 – My master is often willing to listen to my problems about work (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
5.1 – My master is often willing to listen to my problems about work.	Strongly agree 5	Count	58	6	111	7	34	12	71	299
		% in vessel type	21%	19%	22%	16%	12%	11%	24%	19%
	Agree 4	Count	142	20	268	18	126	57	152	783
		% in vessel type	52%	63%	54%	40%	43%	51%	52%	51%
	Neither/nor 3	Count	31	2	56	12	86	23	30	240
		% in vessel type	11%	6%	11%	27%	29%	21%	10%	16%
	Disagree 2	Count	12	2	24	3	14	5	12	72
		% in vessel type	4%	6%	5%	7%	5%	5%	4%	5%
	Strongly disagree 1	Count	4	2	3	2	2	4	4	21
		% in vessel type	1%	6%	1%	4%	1%	4%	1%	1%
	Don't know	Count	27	0	33	3	30	10	24	127
		% in vessel type	10%	0%	7%	7%	10%	9%	8%	8%
Total		Count	274	32	495	45	292	111	293	1542
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			4.0	3.8	4.0	3.6	3.7	3.7	4.0	3.9

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Tankers and chemical tankers, container ships and coasters, special ships, dry cargo and other types of vessel were those where the master was most willing to listen to work problems. There was a very high average here for all types of vessel. Passenger and supply ships were slightly lower (significant) with an average of 3.7, but it should be noted that they were not at the low end.

The Danes were slightly less in agreement with an average of 3.8 than Filipinos, other Asians and East Europeans, who scored an average of 4.0-4.3. Other West Europeans scored an overall average of 3.9 (not shown).

59% agreed or agreed strongly that they often received help and support from their masters (Q. 5.2 by vessel type) whilst 10% did not feel that this was so.

Table 104: Question 5.2 – I often receive support and help from my master (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
5.2 – I often receive support and help from my master.	Strongly agree 5	Count	38	6	80	5	23	10	53	215
		% in vessel type	14%	19%	16%	11%	8%	9%	18%	14%
	Agree 4	Count	145	23	239	11	85	52	138	693
		% in vessel type	53%	74%	48%	25%	29%	47%	47%	45%
	Neither/nor 3	Count	45	1	92	18	124	26	54	360
		% in vessel type	16%	3%	19%	41%	42%	23%	18%	23%
	Disagree 2	Count	15	1	47	3	22	13	17	118
		% in vessel type	5%	3%	10%	7%	8%	12%	6%	8%
	Strongly disagree 1	Count	5	0	7	2	9	2	9	34
		% in vessel type	2%	0%	1%	5%	3%	2%	3%	2%
Total	Don't know	Count	25	0	29	5	29	8	22	118
		% in vessel type	9%	0%	6%	11%	10%	7%	8%	8%
		Count	273	31	494	44	292	111	293	1538
Average			3.8	4.1	3.7	3.4	3.3	3.5	3.8	3.7

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

On bulkers, 94% felt that they often got help and support from the master and with an overall average of 4.1, bulkers were the type of vessel to score highest in this category, significantly higher than RORO, passenger and supply ships. Passenger ships scored lowest of these types of vessel. Barely 37% there felt that they received help and support from the master. 43% stated neither/nor. Overall, passenger ships scored a relatively low average of 3.3. The relatively large differences between vessel types should also be seen in the light of how crew are organized on individual types of vessel; for some of them it is more natural to be in day-to-day contact with the master than on others.

The relatively large differences between vessel types may also be a function of the very large differences amongst nationalities. The Danes were significantly less in agreement in that they more often got help and support from their masters than the other nationalities, scoring an average of 3.4 compared to the average of 3.8 (and 4.1 for other Asians) (not shown).

Masters told crew just as much about how well they were working (Q. 5.3 by vessel type) as did co-workers with each other (cf. Q. 4.14 in the section on Social support). This statement also scored an overall average of 3.2. As for Q. 4.14, some groups of jobs were more isolated than others but there were also great differences in how often individual crew were in contact with their masters.

Table 105: Question 5.3 – My master often talks to me about how well I do my job (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
5.3 – My master often talks to me about how well I do my job.	Strongly agree 5	Count	18	2	34	3	8	1	23	89
		% in vessel type	7%	6%	7%	7%	3%	1%	8%	6%
	Agree 4	Count	84	17	140	4	37	32	107	421
		% in vessel type	31%	55%	28%	9%	13%	29%	37%	27%
	Neither/nor 3	Count	97	6	177	22	135	45	86	568
		% in vessel type	36%	19%	36%	50%	46%	41%	29%	37%
	Disagree 2	Count	34	3	90	8	61	12	43	251
		% in vessel type	12%	10%	18%	18%	21%	11%	15%	16%
	Strongly disagree 1	Count	8	1	14	4	22	10	10	69
		% in vessel type	3%	3%	3%	9%	8%	9%	3%	4%
Total	Don't know	Count	32	2	39	3	29	11	23	139
		% in vessel type	12%	6%	8%	7%	10%	10%	8%	9%
		Count	273	31	494	44	292	111	292	1537
Average			3.3	3.6	3.2	2.9	2.8	3.0	3.3	3.2

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

On passenger ships, 28% disagreed or disagreed strongly that their masters often talked with them about how well they did their work whilst only 15% agreed or agreed strongly. With an average of 2.8, passenger ships

were significantly lower than the other vessel types with the exception of RORO and supply ships. This may be due to the fact that certain groups of personnel have limited contact with the master.

The Danes were significantly less in agreement with Q. 5.3 than Filipinos and other Asians (not shown). The Danes scored an average of 2.9, whilst Filipinos and the other Asians scored averages of 3.4 and 3.7 respectively. East and the West Europeans both scored an average of 3.2. These differences may also help explain the differences between the types of vessel.

There was wide agreement that the master has great influence on the mental working environment (Q. 5.4 by vessel type). Almost 3/4 agreed with this, giving an overall average of 4.0.

Table 106: Question 5.4 – My master has a great deal of influence on the psychological working environment onboard (by vessel type)

Vessel type/			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
5.4 – My master has a great deal of influence on the psychological working environment onboard.	Strongly agree 5	Count	69	11	136	8	43	28	67	362
		% in vessel type	25%	35%	28%	18%	15%	25%	23%	24%
	Agree 4	Count	152	18	254	13	124	49	160	770
		% in vessel type	55%	58%	51%	30%	42%	45%	55%	50%
	Neither/nor 3	Count	26	2	57	9	67	14	35	210
		% in vessel type	9%	6%	12%	20%	23%	13%	12%	14%
	Disagree 2	Count	7	0	15	8	27	7	8	72
		% in vessel type	3%	0%	3%	18%	9%	6%	3%	5%
	Strongly disagree 1	Count	0	0	5	3	6	2	3	19
		% in vessel type	0%	0%	1%	7%	2%	2%	1%	1%
	Don't know	Count	20	0	27	3	25	10	19	104
		% in vessel type	7%	0%	5%	7%	9%	9%	7%	7%
Total		Count	274	31	494	44	292	110	292	1537
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			4.1	4.3	4.1	3.4	3.6	3.9	4.0	4.0

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

For tankers and chemical tankers, bulkers, container and supply ships and coasters, special ships, dry cargo and other vessel types, the master is seen as having significantly greater influence than on RORO and passenger ships. There were no significant differences between the former vessel types. Neither were there marked differences between nationalities (not shown).

It is not possible to definitely conclude that it was a good thing for there to be widespread agreement that the master has great influence on the mental working environment aboard. This depends on individual masters and how they focus on the working environment. On the other hand, there is great potential in such widespread unanimity that the master has great influence on the mental working environment aboard. This means that it is important for the master to be equipped for the task and to handle it with care. There was somewhat less agreement that the two masters associated with the vessel endeavoured to coordinate their attitudes, values and objectives for work aboard (Q. 5.5 by vessel type). Here, only half agreed or agreed strongly with a statement whereas 16% disagreed or disagreed strongly. This gave an overall average of 3.4.

Table 107: Question 5.5 – The two masters associated with the vessel try to coordinate their approach, values and goals regarding onboard work (by vessel type)

			Vessel type							
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	Total
5.5 – The two masters associated with the vessel try to coordinate their approach, values and goals regarding onboard work.	Strongly agree 5	Count	36	4	51	2	17	4	30	144
		% in vessel type	13%	13%	10%	5%	6%	4%	10%	9%
	Agree 4	Count	128	20	229	16	98	20	114	625
		% in vessel type	47%	63%	46%	36%	34%	18%	39%	41%
	Neither/nor 3	Count	41	1	90	9	68	33	63	305
		% in vessel type	15%	3%	18%	20%	23%	30%	22%	20%
	Disagree 2	Count	19	5	50	3	32	24	36	169
		% in vessel type	7%	16%	10%	7%	11%	22%	12%	11%
	Strongly disagree 1	Count	12	1	18	6	19	9	16	81
		% in vessel type	4%	3%	4%	14%	7%	8%	5%	5%
	Don't know	Count	37	1	57	8	57	20	34	214
		% in vessel type	14%	3%	12%	18%	20%	18%	12%	14%
Total		Count	273	32	495	44	291	110	293	1538
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.7	3.7	3.6	3.1	3.3	2.8	3.4	3.4

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

There were marked differences between vessel types in assessing coordination by the masters. The crew of supply ships disagreed most with the statement, with 1/3 disagreeing or disagreeing strongly. Only 22% agreed or agreed strongly. Supply ships were thus significantly lower than other vessel types except for RORO with a low average of 2.8. RORO and passenger ships were thus also relatively low with 3.1 and 3.3 respectively on average. Crews of tankers and chemical tankers, bulkers and container ships were most in agreement with the statement, even though the average figures were not at the high end of the survey in general.

The marked differences between types of vessel may be a function of the big differences between the nationalities. The Danes were markedly less in agreement with the statement, with a relatively low average of 3.0, with Filipinos, other Asians and East Europeans scoring a somewhat higher average of 3.9, 4.0 and 3.9 respectively. Other West Europeans scored an overall average of 3.3 (not shown).

It should be noted that there were really many who stated "Don't know" to this question, especially on supply and passenger ships, i.e. there were many who could make no judgment on this. This may be due to some of the crew knowing little or nothing about this. At the same time, it has to be assumed that the proportion that agree or disagree strongly based their reactions on irregularities observed aboard that they put down to lack of coordination.

The same trend is evident when it comes to whether the master often takes initiatives to prioritize well-being in the workplace (Q. 5.7 by vessel type). 55% felt this was so whilst 14% disagreed. Overall, this gave the same average of 3.5.

Table 108: Question 5.7 – My master often takes initiatives which prioritise well-being onboard (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
5.7 – My master often takes initiatives which prioritise well-being onboard.	Strongly agree 5	Count	46	7	65	3	20	5	46	192
		% in vessel type	17%	23%	13%	7%	7%	5%	16%	13%
	Agree 4	Count	125	22	244	13	86	35	128	653
		% in vessel type	46%	71%	49%	29%	30%	32%	44%	43%
	Neither/nor 3	Count	50	2	99	10	77	30	58	326
		% in vessel type	18%	6%	20%	22%	27%	27%	20%	21%
	Disagree 2	Count	16	0	38	10	33	20	22	139
		% in vessel type	6%	0%	8%	22%	11%	18%	8%	9%
	Strongly disagree 1	Count	5	0	16	3	28	9	11	72
		% in vessel type	2%	0%	3%	7%	10%	8%	4%	5%
Total	Don't know	Count	31	0	32	6	45	11	26	151
		% in vessel type	11%	0%	6%	13%	16%	10%	9%	10%
Total			Count	273	31	494	45	289	110	1533
			% in vessel type	100%	100%	100%	100%	100%	100%	100%
Average				3.8	4.2	3.7	3.1	3.2	3.1	3.5

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

The same pattern also applied when the results were distributed by vessel type. Again it was the tankers and chemical tankers, bulkers, container ships and coasters, special ships, dry cargo and other vessel types that did best whilst RORO, passenger and supply ships were at the bottom. And again, the Danes agreed markedly less than the Filipinos and other Asians with an overall average of 3.1, compared to 4.1 for the Filipinos and other Asians (not shown), which may help explain the differences between vessel types. Other West Europeans achieved an average of 3.4.

56% agreed or agreed strongly that the master was good at planning work (Q. 5.8 by vessel type). 10% disagreed or disagreed strongly and this gave an overall average of 3.6. 12% stated "Don't know" and it is to be assumed that this 12% had not had much contact with the master but rather their immediate superiors.

Table 109: Question 5.8 – My master is good at planning work (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
5.8 – My master is good at planning work.	Strongly agree 5	Count	48	8	71	2	16	6	47	198
		% in vessel type	17%	25%	14%	5%	5%	5%	16%	13%
	Agree 4	Count	140	18	248	15	77	31	141	670
		% in vessel type	51%	56%	50%	34%	26%	28%	48%	44%
	Neither/nor 3	Count	45	5	85	12	103	38	52	340
		% in vessel type	16%	16%	17%	27%	35%	34%	18%	22%
	Disagree 2	Count	12	1	33	3	25	18	17	109
		% in vessel type	4%	3%	7%	7%	9%	16%	6%	7%
	Strongly disagree 1	Count	4	0	10	3	12	4	8	41
		% in vessel type	1%	0%	2%	7%	4%	4%	3%	3%
Total	Don't know	Count	26	0	46	9	59	14	28	182
		% in vessel type	9%	0%	9%	20%	20%	13%	10%	12%
Total			Count	275	32	493	44	292	111	1540
			% in vessel type	100%	100%	100%	100%	100%	100%	100%
Average				3.9	4.0	3.8	3.3	3.3	3.2	3.6

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Compared to the other vessel types, the crews on passenger and supply ships and RORO were relatively low when it came to the question on the master's ability to plan work. On supply ships, 20% disagreed or disagreed strongly that the master was good at planning, whilst 33% agreed or agreed strongly. RORO, passenger and supply ships were all significantly lower than tankers and chemical tankers, bulkers and container ships. On bulkers, 80% agreed or agreed strongly with the statement, whilst only 3% disagreed or disagreed strongly, giving a relatively high average of 4.0.

The Danes agreed markedly less with the statement. They scored an overall average of 3.3, whilst Filipinos, East Europeans and other Asians scored an average of 4.1, with the other West Europeans at 3.6 (not shown). This may help explain the differences between vessel types noted above.

There was very extensive agreement that masters had the necessary skills (Q. 5.9 by vessel type), with 72% agreeing or agreeing strongly. However, 6% disagreed with the statement. This gave an overall average of 4.0.

Table 110: Question 5.9 – My master has the necessary skills (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
5.9 – My master has the necessary skills.	Strongly agree 5	Count	60	9	122	5	54	16	67	333
		% in vessel type	22%	29%	25%	11%	18%	15%	23%	22%
	Agree 4	Count	144	19	255	26	137	52	148	781
		% in vessel type	53%	61%	52%	58%	47%	47%	51%	51%
	Neither/nor 3	Count	28	2	49	7	45	24	32	187
		% in vessel type	10%	6%	10%	16%	15%	22%	11%	12%
	Disagree 2	Count	15	1	29	0	13	5	14	77
		% in vessel type	5%	3%	6%	0%	4%	5%	5%	5%
	Strongly disagree 1	Count	3	0	4	2	5	2	4	20
		% in vessel type	1%	0%	1%	4%	2%	2%	1%	1%
Don't know	Count	24	0	35	5	38	11	28	141	
	% in vessel type	9%	0%	7%	11%	13%	10%	10%	9%	
Total		Count	274	31	494	45	292	110	293	1539
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			4.0	4.2	4.0	3.8	3.9	3.8	4.0	4.0

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

There were no marked or significant differences for vessel types. They all had very considerable confidence in the master's skills.

The master's ability to manage conflicts (Q. 5.10 by vessel type) did not rate so highly. Here, just 52% felt that the master was good at dealing with conflicts, whilst 12% disagreed or disagreed strongly. Overall, the statement scored an average of 3.5, which was below the average for the other areas both for the master and for the survey in general. It should be noted that a relatively high proportion responded "Don't know", which would probably be the crew who were not in frequent contact with the master, or who had not experienced conflicts needing resolution.

Table 111: Question 5.10 – My master is good at settling conflicts (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
5.10 – My master is good at settling conflicts.	Strongly agree 5	Count	47	5	71	4	16	7	37	187
		% in vessel type	17%	16%	14%	9%	5%	6%	13%	12%
	Agree 4	Count	122	22	217	12	95	26	115	609
		% in vessel type	45%	71%	44%	27%	33%	23%	39%	40%
	Neither/nor 3	Count	49	2	93	11	78	36	64	333
		% in vessel type	18%	6%	19%	25%	27%	32%	22%	22%
	Disagree 2	Count	13	0	31	4	31	16	24	119
		% in vessel type	5%	0%	6%	9%	11%	14%	8%	8%
	Strongly disagree 1	Count	6	0	16	6	18	11	13	70
		% in vessel type	2%	0%	3%	14%	6%	10%	4%	5%
Don't know	Count	37	2	66	7	54	16	41	223	
	% in vessel type	14%	6%	13%	16%	18%	14%	14%	14%	
Total		Count	274	31	494	44	292	112	294	1541
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.8	4.1	3.7	3.1	3.3	3.0	3.5	3.5

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

The master's ability to manage conflicts was lowest for RORO and supply ships. Passenger ships were also at the low end here. All three were relatively low with between 17 – 24% respondents disagreeing or disagreeing strongly and all three were significantly lower than tankers and chemical tankers, bulkers and container ships. On bulkers, as many as 87% agreed with the statement and none disagreed. Bulkers were therefore best with

respect to the ability of the master to manage conflicts. However, there were no significant differences between bulkers and tankers and chemical tankers and container ships.

Danes agreed markedly less that their masters were good at resolving conflicts than did the Filipinos and the other nationalities. Danes scored a relatively low overall average of 3.2, whilst Filipinos, other Asians and East Europeans scored a relatively high average of 4.0-4.1. Other West Europeans scored an overall average of 3.5 (not shown).

Immediate superiors were very willing to listen to respondents' work problems (Q. 6.1 by vessel type). 79% agreed or agreed strongly. 6% disagreed and overall the statement scored a relatively high average of 3.9.

Table 112: Question 6.1 – My immediate superior is often willing to listen to my problems about work (by vessel type)

			Vessel type							
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	Total
6.1 – My immediate superior is often willing to listen to my problems about work.	Strongly agree 5	Count	49	4	72	8	34	11	31	209
		% in vessel type	23%	13%	18%	22%	14%	13%	15%	17%
	Agree 4	Count	128	25	266	19	131	52	135	756
		% in vessel type	60%	78%	66%	53%	53%	61%	63%	62%
	Neither/nor 3	Count	21	0	36	7	53	8	20	145
		% in vessel type	10%	0%	9%	19%	21%	9%	9%	12%
	Disagree 2	Count	5	2	9	2	16	4	10	48
		% in vessel type	2%	6%	2%	6%	6%	5%	5%	4%
	Strongly disagree 1	Count	2	1	5	0	9	8	3	28
		% in vessel type	1%	3%	1%	0%	4%	9%	1%	2%
	Don't know	Count	8	0	14	0	5	2	14	43
		% in vessel type	4%	0%	3%	0%	2%	2%	7%	3%
Total		Count	213	32	402	36	248	85	213	1229
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			4.1	3.9	4.0	3.9	3.7	3.7	3.9	3.9

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

There were no marked differences between vessel types. Passenger and supply ships were slightly below the other vessel types. However, although this was still not low, it was significantly lower than tankers, chemical tankers and bulkers. Passenger ships were also significantly lower than coasters, special ships, dry cargo and other vessel types.

Danes were slightly less in agreement (significant) than the others, with an overall average of 3.7, while the others scored averages of 4.0-4.1 (not shown).

A slightly more mixed picture arose when respondents had to answer whether they often got help and support from their immediate superior (Q. 6.2 by vessel type). 68% felt that this was so whereas 10% did not. All in all, this gave an average of 3.7 which was at the same level as for the same question addressing the master (Q. 5.2).

Table 113: Question 6.2 – I often receive support and help from my immediate superior (by vessel type)

			Vessel type							
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	Total
6.2 – I often receive support and help from my immediate superior.	Strongly agree 5	Count	44	4	61	7	23	7	26	172
		% in vessel type	21%	13%	15%	21%	9%	9%	12%	14%
	Agree 4	Count	124	21	253	15	98	47	102	660
		% in vessel type	58%	68%	63%	44%	40%	57%	48%	54%
	Neither/nor 3	Count	26	3	52	9	76	15	59	240
		% in vessel type	12%	10%	13%	26%	31%	18%	28%	20%
	Disagree 2	Count	10	2	21	3	30	3	14	83
		% in vessel type	5%	6%	5%	9%	12%	4%	7%	7%
	Strongly disagree 1	Count	2	1	8	0	15	8	2	36
		% in vessel type	1%	3%	2%	0%	6%	10%	1%	3%
Total	Don't know	Count	6	0	6	0	4	2	11	29
		% in vessel type	3%	0%	1%	0%	2%	2%	5%	2%
		Count	212	31	401	34	246	82	214	1220
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	
Average			4.0	3.8	3.9	3.8	3.3	3.5	3.7	3.7

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Respondents on passenger ships did not feel so much as the other vessel types that they got help and support from their immediate superiors, with just 49% agreeing or agreeing strongly with this statement and 18% disagreeing or disagreeing strongly. Passenger ships were significantly lower than the other vessel types with the exception of RORO and supply ships. Immediate superiors on tankers and chemical tankers were relatively good at providing health and support, here giving an overall average of 4.0, which was significantly higher than passenger ships, supply ships and coasters, special ships, dry cargo and other vessel types.

The explanation for the differences between types of vessel could to a certain extent be done to nationality differences. Again, Danes agreed least with 3.4 on average, with Filipinos, East and West Europeans gaining relatively good averages of 3.8-3.9. Other Asians achieved an average of 4.2 (not shown).

47% of respondents agreed or agreed strongly that their immediate superior often told them how well they were doing their work (Q. 6.3 by vessel type), whilst 19% disagreed or disagreed strongly with this. This gave an overall average of 3.3. Compared to Q. 5.3 which addresses the same issue but the master instead of the immediate superior, the averages were by and large the same (3.2 and 3.3). One might have expected immediate superiors to be closer to individual crew and that this would therefore give a pronounced difference between Q. 5.3 and Q. 6.3. This was not so and this might be something that immediate superiors should take action on.

Table 114: Question 6.3 – My immediate superior often talks to me about how well I do my job (by vessel type)

			Vessel type							
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	Total
6.3 – My immediate superior often talks to me about how well I do my job.	Strongly agree 5	Count	19	1	33	4	13	6	13	89
		% in vessel type	9%	3%	8%	11%	5%	7%	6%	7%
	Agree 4	Count	98	21	177	10	62	31	81	480
		% in vessel type	46%	66%	44%	28%	25%	38%	38%	39%
	Neither/nor 3	Count	56	3	110	14	91	26	75	375
		% in vessel type	27%	9%	27%	39%	37%	32%	35%	31%
	Disagree 2	Count	22	4	55	6	52	7	30	176
		% in vessel type	10%	13%	14%	17%	21%	9%	14%	14%
	Strongly disagree 1	Count	3	1	9	0	23	8	7	51
		% in vessel type	1%	3%	2%	0%	9%	10%	3%	4%
Don't know	Count	13	2	17	2	5	4	9	52	
	% in vessel type	6%	6%	4%	6%	2%	5%	4%	4%	
Total		Count	211	32	401	36	246	82	215	1223
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.5	3.6	3.4	3.4	3.0	3.3	3.3	3.3

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

None of the vessel types were especially positive. Passenger ships were the type of vessel where crew least found that their immediate superior often told them how well they were doing their work. Only 31% agreed with this, whilst just as many disagreed. Crew on passenger ships agreed significantly less with the statement than crew on the other types of vessel, with the exception of RORO and supply ships.

Danes felt significantly less that their immediate superior often praised their work (not shown). They scored a relatively low average of 3.0, whilst Filipinos and other Asians scored 3.6 and 3.9, with East Europeans and other West Europeans scoring averages of 3.4 and 3.3 respectively. This could help explain the differences between types of vessel.

The same applies for Q. 6.4, which addressed immediate superiors instead of the master. Here, however, respondents were less in agreement than before (significant) with an overall average of 3.8.

Table 115: Question 6.4 – My immediate superior has a great deal of influence on the psychological working environment onboard (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
6.4 – My immediate superior has a great deal of influence on the psychological working environment onboard.	Strongly agree 5	Count	35	3	74	8	32	18	26	196
		% in vessel type	17%	9%	18%	24%	13%	22%	12%	16%
	Agree 4	Count	121	26	239	16	122	41	109	674
		% in vessel type	57%	81%	59%	47%	49%	49%	51%	55%
	Neither/nor 3	Count	33	0	56	6	52	16	45	208
		% in vessel type	16%	0%	14%	18%	21%	19%	21%	17%
	Disagree 2	Count	9	2	13	2	26	1	17	70
		% in vessel type	4%	6%	3%	6%	10%	1%	8%	6%
	Strongly disagree 1	Count	2	1	5	2	9	3	6	28
		% in vessel type	1%	3%	1%	6%	4%	3%	3%	2%
Don't know	Count	11	0	15	0	7	4	12	49	
	% in vessel type	5%	0%	4%	0%	3%	5%	6%	4%	
Total	Count	211	32	402	34	248	83	215	1225	
	% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%	
Average			3.9	3.9	3.9	3.8	3.6	3.9	3.7	3.8

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

There was not nearly such a great difference between vessels as for Q. 5.4. Passenger ships were significantly lower than tankers and chemical tankers and container ships, while container ships were significantly higher than coasters, special ships, dry cargo and other vessel types. Neither were there marked differences between nationalities (not shown).

With respect to the ability of immediate superiors to coordinate attitudes, values and objectives for work done aboard (Q. 6.5 by vessel type), there was no widespread unanimity about this. Only 60% agreed or agreed strongly with this whereas 12% disagreed or disagreed strongly. The total average was 3.6.

Table 116: Question 6.5 – My immediate superiors associated with the vessel tries to coordinate their approach, values and goals regarding onboard work (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
6.5 – My immediate superiors associated with the vessel try to coordinate their approach, values and goals regarding onboard work.	Strongly agree 5	Count	28	2	41	3	15	5	18	112
		% in vessel type	13%	6%	10%	9%	6%	6%	8%	9%
	Agree 4	Count	123	25	226	20	99	34	103	630
		% in vessel type	58%	81%	56%	57%	40%	40%	48%	51%
	Neither/nor 3	Count	22	1	73	8	74	22	38	238
		% in vessel type	10%	3%	18%	23%	30%	26%	18%	19%
	Disagree 2	Count	12	0	24	2	31	8	30	107
		% in vessel type	6%	0%	6%	6%	12%	10%	14%	9%
	Strongly disagree 1	Count	3	2	8	2	15	5	5	40
		% in vessel type	1%	6%	2%	6%	6%	6%	2%	3%
	Don't know	Count	23	1	32	0	15	10	21	102
		% in vessel type	11%	3%	8%	0%	6%	12%	10%	8%
Total		Count	211	31	404	35	249	84	215	1229
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.9	3.8	3.7	3.6	3.3	3.4	3.5	3.6

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

On tankers and chemical tankers, superiors were best at coordinating, with 72% agreeing or agreeing strongly with the statement, and a relatively high average of 3.9, which was significantly higher than for immediate superiors on passenger ships, supply ships, coasters, special ships, dry cargo and other vessel types. Passenger ships were relatively low with just 46% agreeing strongly or agreeing with the statement and 19% disagreeing or disagreeing strongly.

Danes and other West Europeans agreed markedly less with the statement. They scored overall averages of 3.3 and 3.4, whilst the others scored averages of 3.9-4.1 (not shown). This may help explain the differences between vessel types noted above.

The extent to which immediate superiors often took initiatives to boost well-being in the workplace (Q. 6.7 by vessel type) was at the same level as statement 5.7, which referred to the master. 51% felt that their immediate superior often took the initiative to promote well-being in the workplace, whereas 17% disagreed.

Table 117: Question 6.7 – My immediate superior often takes initiatives which prioritise well-being onboard (by vessel type)

type)			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
6.7 – My immediate superior often takes initiatives which prioritise wellbeing onboard.	Strongly agree 5	Count	27	4	42	3	14	6	11	107
		% in vessel type	13%	13%	11%	9%	6%	7%	5%	9%
	Agree 4	Count	114	21	199	10	62	28	87	521
		% in vessel type	54%	66%	50%	29%	25%	33%	41%	43%
	Neither/nor 3	Count	35	2	91	16	89	19	60	312
		% in vessel type	17%	6%	23%	47%	36%	23%	28%	25%
	Disagree 2	Count	14	4	32	2	45	14	35	146
		% in vessel type	7%	13%	8%	6%	18%	17%	16%	12%
	Strongly disagree 1	Count	4	1	10	1	30	9	7	62
		% in vessel type	2%	3%	3%	3%	12%	11%	3%	5%
Total		Count	212	32	400	34	249	84	213	1224
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
		Average		3.8	3.7	3.6	3.4	2.9	3.1	3.3

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

There were no marked differences between vessel types. Passenger and supply ships were very low with 30% and 27% disagreeing or disagreeing strongly with the statement and overall averages of 2.9 and 3.1 respectively. Both were significantly lower than tankers and chemical tankers, bulkers and container ships. Passenger ships were also significantly lower than coasters, special ships, dry cargo and other vessel types.

Danes were significant less in agreement on this question than the other nationalities (not shown). The Danes scored a relatively low average of 3.0, whilst the Filipinos and other Asians at the high end scored very high averages of 3.9 and 3.8 respectively. Again, this could help explain the difference between vessel types.

Q. 6.8 (My Immediate superior is good at planning the work) shares the same tendency as for Q. 5.8 which related to the master. This, too, gave an overall average of 3.6.

Table 118: Question 6.8 – My Immediate superior is good at planning the work (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
6.8 – My immediate superior is good at planning the work.	Strongly agree 5	Count	40	4	56	4	19	7	22	152
		% in vessel type	19%	13%	14%	12%	8%	8%	10%	12%
	Agree 4	Count	118	24	225	17	88	40	105	617
		% in vessel type	56%	77%	56%	50%	36%	48%	49%	50%
	Neither/nor 3	Count	27	2	57	9	88	13	41	237
		% in vessel type	13%	6%	14%	26%	36%	16%	19%	19%
	Disagree 2	Count	13	0	34	1	29	11	23	111
		% in vessel type	6%	0%	8%	3%	12%	13%	11%	9%
	Strongly disagree 1	Count	3	1	8	1	13	7	12	45
		% in vessel type	1%	3%	2%	3%	5%	8%	6%	4%
	Don't know	Count	10	0	22	2	10	5	11	60
		% in vessel type	5%	0%	5%	6%	4%	6%	5%	5%
	Total	Count	211	31	402	34	247	83	214	1222
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.9	4.0	3.8	3.7	3.3	3.4	3.5	3.6

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

The best people for planning work were immediate superiors on bulkers, container ships and tankers and chemical tankers, with between 70% and 90% agreeing or agreeing strongly with this. Passenger and supply ships were not so much in agreement with the statement about immediate superiors with just 43% and 57% agreeing or agreeing strongly and an average of 3.3 and 3.4, respectively.

Here too, the Danes were markedly less in agreement with the statement. They scored an overall average of 3.3, whilst the Filipinos, other Asians and East Europeans scored averages of 3.9-4.0. Other Asians achieved an average of 3.6 (not shown). This may help explain the differences between vessel types noted above.

Immediate superiors partly had the necessary skills (Q. 6.9 by vessel type). 73% agreed with the statement whilst 9% disagreed, giving an overall average of 3.8. Respondents felt that the skills of immediate superiors were lower than those of the master as reported for Q. 5.9 with an average of 4. The difference was significant.²⁰ However, it should be noted that 3.8 is not a bad average, just lower than for the master.

Table 119: Question 6.9 – My immediate superior has the necessary skills (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
6.9 – My immediate superior has the necessary skills.	Strongly agree 5	Count	47	2	73	6	34	13	26	201
		% in vessel type	22%	6%	18%	18%	14%	16%	12%	16%
	Agree 4	Count	118	27	228	22	133	43	113	684
		% in vessel type	56%	84%	57%	65%	54%	52%	53%	56%
	Neither/nor 3	Count	17	1	48	3	45	12	42	168
		% in vessel type	8%	3%	12%	9%	18%	14%	20%	14%
	Disagree 2	Count	17	2	27	1	16	5	15	83
		% in vessel type	8%	6%	7%	3%	6%	6%	7%	7%
	Strongly disagree 1	Count	1	0	4	0	8	8	7	28
		% in vessel type	0%	0%	1%	0%	3%	10%	3%	2%
	Don't know	Count	11	0	19	2	11	2	12	57
		% in vessel type	5%	0%	5%	6%	4%	2%	6%	5%
Total	Count	211	32	399	34	247	83	215	1221	
	% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%	
Average			4.0	3.9	3.9	4.0	3.7	3.6	3.7	3.8

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

There was widespread agreement aboard tankers, chemical tankers and RORO that immediate superiors had the necessary skills, with 78 – 82% agreeing and an average of 4.0. However there were only significant differences between tankers, chemical tankers and supply ships and coasters, special ships, dry cargo and other vessel types.

With respect to the ability of immediate superiors to manage conflicts (Q. 6.10 by vessel type), things looked slightly worse. 48% of respondents felt that their immediate superior was good at resolving conflicts, whilst 14% disagreed. Overall this gave a relatively low average of 3.4, which was slightly lower (although still significant) than the ability of the master to resolve conflicts, which scored 3.5.²¹

²⁰ The difference was tested for significance by t-test at the 0.01 level.

²¹ The difference was tested for significance by t-test at the 0.01 level.

Table 120: Question 6.10 – My immediate superior is good at settling conflicts (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
6.10 – My immediate superior is good at settling conflicts.	Strongly agree 5	Count	32	4	45	5	17	4	16	123
		% in vessel type	15%	12%	11%	16%	7%	5%	7%	10%
	Agree 4	Count	98	22	173	8	69	28	71	469
		% in vessel type	47%	67%	43%	25%	28%	34%	33%	38%
	Neither/nor 3	Count	36	2	96	7	87	22	62	312
		% in vessel type	17%	6%	24%	22%	35%	27%	29%	25%
	Disagree 2	Count	9	2	26	7	32	13	27	116
		% in vessel type	4%	6%	6%	22%	13%	16%	13%	9%
	Strongly disagree 1	Count	2	1	7	1	29	8	12	60
		% in vessel type	1%	3%	2%	3%	12%	10%	6%	5%
Don't know	Count	33	2	56	4	14	8	27	144	
	% in vessel type	16%	6%	14%	13%	6%	10%	13%	12%	
Total		Count	210	33	403	32	248	83	215	1224
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.8	3.8	3.6	3.3	3.1	3.1	3.3	3.4

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

There were very sizable differences between types of vessel. The lowest were passenger and supply ships with 25% disagreeing or disagreeing strongly that their immediate superior was good at resolving conflicts. The overall average was 3.1, which was relatively low. Passenger and supply ships were both significantly lower than tankers and chemical tankers, bulkers and container ships. Tankers, chemical tankers and bulkers were the two groups whose crew were highly satisfied with their immediate superiors' conflict management, both scoring an average of 3.8.

There were also major differences between nationalities. The Danes scored a relatively low average of 3.1, whilst Filipinos, other Asians and East Europeans scored a somewhat better average of 3.8-3.9. Other Asians achieved an average of 3.4 (not shown).

With respect to the ability of immediate superiors to influence the working environment in general (Q. 6.11 by vessel type), this was at the same level as for the mental environment (Q. 6.4) noted above. Some 70% agreed or agreed strongly that their immediate superiors had great influence. 6% did not think this was so.

Table 121: Question 6.11 – My immediate superior has a great deal of influence on the working environment onboard (by vessel type)

Vessel type/			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
6.11 – My immediate superior has a great deal of influence on the working environment onboard.	Strongly agree 5	Count	34	1	66	4	35	16	25	181
		% in vessel type	16%	3%	16%	12%	14%	20%	12%	15%
	Agree 4	Count	118	31	249	17	104	39	101	659
		% in vessel type	56%	97%	62%	52%	42%	48%	47%	54%
	Neither/nor 3	Count	35	0	53	9	79	17	52	245
		% in vessel type	17%	0%	13%	27%	32%	21%	24%	20%
	Disagree 2	Count	5	0	13	2	16	2	15	53
		% in vessel type	2%	0%	3%	6%	6%	2%	7%	4%
	Strongly disagree 1	Count	2	0	5	0	8	2	8	25
		% in vessel type	1%	0%	1%	0%	3%	2%	4%	2%
	Don't know	Count	16	0	17	1	7	6	15	62
		% in vessel type	8%	0%	4%	3%	3%	7%	7%	5%
Total		Count	210	32	403	33	249	82	216	1225
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.9	4.0	3.9	3.7	3.6	3.9	3.6	3.8

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

On tankers, chemical tankers and container ships, immediate superiors had significantly greater influence on the working environment than immediate superiors did on passenger ships and coasters, special ships, dry cargo and other vessel types. There were no marked differences amongst nationalities although the Danes and West Europeans were slightly lower than other nationalities (not shown).

70% of respondents agreed or agreed strongly that their immediate superior was willing to listen to the ideas and proposals from the crew (Q. 6.12 by vessel type), whilst 9% disagreed or disagreed strongly. The statement scored an overall average of 3.8.

Table 122: Question 6.12 – My immediate superior listens to the crew's ideas and suggestions (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
6.12 – My immediate superior listens to the crew's ideas and suggestions.	Strongly agree 5	Count	42	4	64	6	27	15	28	186
		% in vessel type	20%	13%	16%	19%	11%	18%	13%	15%
	Agree 4	Count	126	25	242	12	110	40	110	665
		% in vessel type	60%	78%	60%	38%	45%	47%	51%	54%
	Neither/nor 3	Count	19	1	54	9	67	11	38	199
		% in vessel type	9%	3%	13%	28%	27%	13%	18%	16%
	Disagree 2	Count	8	2	13	3	23	5	14	68
		% in vessel type	4%	6%	3%	9%	9%	6%	7%	6%
	Strongly disagree 1	Count	1	0	9	2	16	10	7	45
		% in vessel type	0%	0%	2%	6%	7%	12%	3%	4%
	Don't know	Count	15	0	20	0	3	4	18	60
		% in vessel type	7%	0%	5%	0%	1%	5%	8%	5%
Total		Count	211	32	402	32	246	85	215	1223
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			4.0	4.0	3.9	3.5	3.4	3.6	3.7	3.8

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Least willing to listen were immediate superiors on passenger ships, where just 56% agreed or agreed strongly with the statement, whilst 16% disagreed or disagreed strongly. The average was 3.4. This was significantly lower than tankers and chemical tankers, bulkers and container ships, which were the three types of vessel where managers were most willing to listen.

The Danes felt significantly less than the other nationalities than their immediate superiors were willing to listen to ideas and suggestions from the crew. The Danes scored an overall average of 3.5, with 3.8 for West Europeans. The other nationalities scored a very high average of 4.0. The Danes thus had a rather negative impact on the overall average for the question for RORO, passenger and supply ships than for the others due to the high proportion of Danes on these types of vessel.

Summary for Management

In an overall assessment of *Management*, there were some positive things but also some areas that could be improved. Masters and immediate superiors were willing to listen to work problems. However, there was no pronounced satisfaction with the ability to coordinate instruction, attitudes, objectives and values among masters and immediate superiors. Neither was there pronounced agreement that initiatives were often taken to boost well-being.

Masters and immediate superiors had considerable influence on the mental working environment. There is great potential in this as so it is important to do more work on management as an area of action. However, the results do reflect very different outcomes amongst the different nationalities. For practically all questions under this theme, the Danes and partly other West Europeans were markedly lower than the other nationalities. This could indicate that these make different demands on management that are not satisfied aboard to the same extent. This applied especially to the abilities of masters and immediate superiors with respect to conflict management, coordinating attitudes and values, planning work and initiatives for well-being which the Danes (and partly other West Europeans) were markedly less in agreement with than the other nationalities

4.3 – THEME: OFF-DUTY TIME

There is much debate in the sector on off-duty time and compliance with this. Off-duty time has also been subject to international attention and research. In this section, we analyze the status of off-duty time compliance and whether there are differences as to who is best able to comply with it. The table below gives the questions relating to off-duty time

Table 123: Schedule of questions on the off-duty theme

Question number	Question
11.12	I had influence on the observance of my resting time.
11.13	I observed my resting period.
11.14	The frameworks for observing resting periods was in place.
11.15	We were able to organise the work so we were able to observe our resting periods.
11.16	I have informed my immediate superior about any resting period infringements.
11.17	How often have you felt too tired to carry out your work responsibilities in terms of safety and health?
11.18	Do your registered working hours match the time you actually work?

The questions also relate especially to the questions in the area of *Demands*, in that highly demanding work and the pace of work may be significant for off-duty time compliance. There are also references especially to the questions of tiredness and sleep.

First, there was no marked agreement on the question on whether within the past four weeks aboard respondents had been able to influence off-duty time compliance (Q. 11.12 by vessel type). Just 48% felt that they always or much of the time could influence off-duty time whereas 28% felt they could never or only occasionally do so. This therefore gave an average of 3.3.

Table 124: Question 11.12 – I had influence on the observance of my resting time (by vessel type)

			Vessel type							
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	Total
11.12 – I had influence on the observance of my resting time.	Always	Count	35	2	79	13	84	37	60	310
		% in vessel type	13%	6%	16%	30%	28%	33%	20%	20%
	Much of the time	Count	73	9	166	17	62	35	87	449
		% in vessel type	26%	26%	33%	40%	21%	31%	29%	29%
	Some of the time	Count	56	13	108	3	44	16	50	290
		% in vessel type	20%	38%	21%	7%	15%	14%	17%	18%
	Sometimes	Count	66	7	86	5	33	14	41	252
		% in vessel type	24%	21%	17%	12%	11%	13%	14%	16%
	Never	Count	26	3	40	4	50	7	49	179
		% in vessel type	9%	9%	8%	9%	17%	6%	16%	11%
	Don't know	Count	23	0	25	1	23	3	14	89
		% in vessel type	8%	0%	5%	2%	8%	3%	5%	6%
Total		Count	279	34	504	43	296	112	301	1569
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
	Average		3.1	3.0	3.3	3.7	3.4	3.7	3.2	3.3

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Crew on supply ships had significantly greater influence on compliance than they did on tankers and chemical tankers, bulkers, container ships and coasters, special ships, dry cargo and other ships, with almost 2/3 on supply ships stating *always* or *much of the time*.

Filipinos and other Asians were significantly lower on influence on off-duty time compliance than Danes and other nationalities with an overall average of 2.9 and 3.0 compared to 3.4 for Danes and 3.9 for other West Europeans (not shown). This had a certain impact on the fact that supply ships (and partly RORO and passenger ships) were higher than the others.

For Q. 11.13, 2/3 responded that they had their off-duty time entitlement always or much of the time, whereas 18% stated that they never or seldom did so. This gave an overall average of 3.8.

Table 125: Question 11.13 – I observed my resting period (by vessel type)

			Vessel type							
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	Total
11.13 – I observed my resting period.	Always	Count	65	3	114	18	158	49	78	485
		% in vessel type	23%	9%	23%	40%	53%	43%	26%	31%
	Much of the time	Count	97	11	221	20	71	34	96	550
		% in vessel type	35%	33%	44%	44%	24%	30%	32%	35%
	Some of the time	Count	37	9	75	2	28	15	46	212
		% in vessel type	13%	27%	15%	4%	9%	13%	15%	13%
	Sometimes	Count	54	8	73	2	22	7	51	217
		% in vessel type	19%	24%	14%	4%	7%	6%	17%	14%
	Never	Count	16	2	17	2	9	6	17	69
		% in vessel type	6%	6%	3%	4%	3%	5%	6%	4%
	Don't know	Count	11	0	6	1	9	2	11	40
		% in vessel type	4%	0%	1%	2%	3%	2%	4%	3%
Total		Count	280	33	506	45	297	113	299	1573
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.5	3.2	3.7	4.1	4.2	4.0	3.6	3.8

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

There were, however marked differences on off-duty time compliance between vessel types. Crew on passenger, RORO and supply ships were best at off-duty compliance. Here, between 74 and 84% stated that they always or much of the time took their off-duty entitlement. The lowest figure was for bulkers, where barely 42% reported off-duty compliance always or much of the time. Crew aboard tankers and chemical tankers were at the low end for compliance with off-duty time, and tankers, chemical tankers and bulkers with significantly less compliant for off-duty time than RORO, passenger and supply ships.

Regarding numbers of dockings, there were no tendencies for respondents with few dockings to have greater compliance for off-duty time than those with many dockings (not shown). It appeared to be best for those that had 1-4 dockings a day with an overall average of 4.2. This was significantly higher than for those with fewer dockings. More details in the summary

This fits well with the fact that crews on passenger ships comply with their off-duty time, since these vessels typically dock frequently. But if passenger ships are taken out of the equation, there is still no tendency for the number of dockings to give rise to problems with off-duty time compliance (Q. 11.13 by dockings).

Table 126: Question 11.13 – I observed my resting period (by number of dockings)

			1.4 – How often does your ship usually call into port?				
			5 or more times a day	1-4 times a day	Once every 2 days	Once every 3 to 5 days	Less than once every 6 days
11.13 – I observed my resting period.	Always	Count	15	29	23	83	162
		% in 1.4	39%	34%	18%	20%	29%
	Much of the time	Count	10	27	50	173	208
		% in 1.4	26%	32%	40%	41%	37%
	Some of the time	Count	5	14	19	64	74
		% in 1.4	13%	16%	15%	15%	13%
	Sometimes	Count	1	5	21	66	96
		% in 1.4	3%	6%	17%	16%	17%
	Never	Count	5	8	8	18	21
		% in 1.4	13%	9%	6%	4%	4%
	Don't know	Count	2	2	5	15	6
		% in 1.4	5%	2%	4%	4%	1%
Total		Count	38	85	126	419	567
		% in 1.4	100%	100%	100%	100%	100%
Average			3.8	3.8	3.5	3.6	3.7

Question type: Single response, vertical percentage calculation. Passenger ships have been excluded.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Respondents who docked every second day were slightly lower than the others but the differences were not significant.

Filipinos were markedly less compliant for off-duty time than Danes and other nationalities. Less than 50% of Filipinos complied with their off-duty time all or much of the time whereas the same applied to more than 70% of the Danes and others (not shown). This may help explain the differences between vessel types.

Considering Q. 4.3 about when it was necessary to work very fast in conjunction with Q. 11.13 on compliance with off-duty time, there was no tendency towards the need to work very fast to be able to comply with off-duty time.

Another angle is whether there is a correlation between sleep problems and compliance or lack of compliance with off-duty time. Or in other words: does off-duty time compliance mean that one is more stressed to and has sleep problems? Or did lack of compliance with off-duty time mean greater problems with stress and sleep?

If crews are sub-divided into groups that get their time off-duty (all or much of the time) and those that do not (none of the time or seldom), minor differences do arise between these with respect to sleep. The differences are in favour of those that enjoy off-duty time compliance.

Table 127: Questions 11.1-11.11 (by off-duty time compliance)

	11.13 – I observed my resting period.	
	Always or much of the time	Sometimes or never
11.1 – How often do you sleep badly?	3.7	3.4
11.2 – How often do you feel exhausted?	3.7	3.6
11.3 – How often do you have problems getting to sleep?	3.9	3.6
11.4 – How often do you feel physically exhausted?	3.9	3.8
11.5 – How often do you wake up too early without being able to get back to sleep again?	3.9	3.6
11.6 – How often do you feel tired?	3.6	3.4
11.7 – How often do you wake up several times and have trouble getting back to sleep again?	4.1	3.7
11.8 – How often do you have problems relaxing?	4.2	3.9
11.9 – How often do you feel/are you irritable?	4.0	3.8
11.10 – How often do you feel/are you tense?	4.1	3.8
11.11 – How often do you feel/are you stressed?	4.1	3.8

Question type: Single response, average calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Respondents who had complied with their off-duty time had higher averages for all questions. This indicates that individual crew members have fewer problems with sleep and stress than those who did not observe their off-duty time. The differences were not so marked but were significant in most instances. If passenger ships are excluded from these calculations, we get the same result and it is accordingly not these groups of personnel who are influencing the results (not shown).

Within the framework of this survey, it appears that there is an interrelationship between non-compliance with off-duty time and stress and sleep problems. Whereas it appears not to be proven that complying with off-duty time gives rise to sleep and stress problems.

The framework for off-duty time compliance (Q. 11.14 by vessel type) was significantly higher than influence on complying with off-duty time (Q. 11.12), with 66% feeling all or much of the time that the framework was in place. 15% felt that the framework was never or very rarely in place. This gave an overall average of 3.9.

Table 128: Question 11.14 – The framework for observing resting periods was in place (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
11.14 – The frameworks for observing resting periods was in place.	Always	Count	83	6	149	19	160	52	90	559
		% in vessel type	30%	18%	30%	43%	54%	46%	30%	36%
	Much of the time	Count	90	11	170	17	69	31	99	487
		% in vessel type	32%	32%	34%	39%	23%	27%	33%	31%
	Some of the time	Count	37	10	85	3	31	15	49	230
		% in vessel type	13%	29%	17%	7%	10%	13%	16%	15%
	Sometimes	Count	45	2	63	2	21	6	36	175
		% in vessel type	16%	6%	13%	5%	7%	5%	12%	11%
	Never	Count	8	5	18	2	7	7	19	66
		% in vessel type	3%	15%	4%	5%	2%	6%	6%	4%
	Don't know	Count	14	0	18	1	9	2	6	50
		% in vessel type	5%	0%	4%	2%	3%	2%	2%	3%
Total		Count	277	34	503	44	297	113	299	1567
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			3.7	3.3	3.8	4.1	4.2	4.0	3.7	3.9

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

The framework for off-duty compliance did however vary somewhat across the different types of vessel. Aboard passenger ships, the framework was most especially in place and figures were significantly higher than the other vessel types, except for RORO and supply ships, which were also in the top three. RORO and supply ships were significantly higher than bulkers.

Other Asians and East and West Europeans were significantly higher than the Danes and Filipinos here, with overall averages of 4.1-4.3 for 3.8 and 3.6 respectively for Danes and Filipinos (not shown).

Overall, the ability to organize work so as to maintain off-duty compliance (Q. 11.15 by vessel type) was at the same level as for the framework for compliance (Q. 11.14) above. Some 70% agreed or agreed strongly that the framework was in place whilst 15% disagreed or disagreed strongly.

Table 129: Question 11.15 – We were able to organise the work so we were able to observe our resting periods (by vessel type)

			Vessel type							Coaster, special vessel, dry cargo vessel and other vessel type	Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship			
11.15 – We were able to organise the work so we were able to observe our resting periods.	Always	Count	82	5	125	21	156	46	88	523	
		% in vessel type	30%	15%	25%	47%	53%	41%	29%	33%	
	Much of the time	Count	118	18	222	13	61	31	95	558	
		% in vessel type	43%	53%	44%	29%	21%	28%	32%	36%	
	Some of the time	Count	29	5	76	4	31	13	42	200	
		% in vessel type	10%	15%	15%	9%	11%	12%	14%	13%	
	Sometimes	Count	29	3	47	2	22	11	29	143	
		% in vessel type	10%	9%	9%	4%	7%	10%	10%	9%	
	Never	Count	14	3	23	2	10	8	29	89	
		% in vessel type	5%	9%	5%	4%	3%	7%	10%	6%	
	Don't know	Count	5	0	9	3	14	2	18	51	
		% in vessel type	2%	0%	2%	7%	5%	2%	6%	3%	
Total		Count	277	34	502	45	294	111	301	1564	
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%	
Average			3.8	3.6	3.8	4.2	4.2	3.9	3.7	3.8	

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

Again, the crews on passenger and RORO ships were those that had the best opportunity for taking their time off-duty with more than 75% always or much of the time being able to organize their work so they could do so. However, RORO vessels were not significantly higher than all other vessel types here whereas passenger ships were significantly above them, except for RORO and supply ships.

Other Asians and East Europeans were placed higher than Danes and Filipinos with an average of 4.1 compared to 3.8 for Danes and Filipinos.

A correlation analysis shows a very high correlation between compliance with off-duty time and influence on complying with off-duty time and whether the framework was in place together with the opportunity for organizing work so that respondents could take their time off, which is of course perfectly natural.²² The survey shows that if the right framework is in place and there is the possibility of organizing work so as to comply with off-duty times, there will be greater compliance.

There was less evidence to show whether immediate superiors had been notified of any off-duty time infringements. Here, all vessel types were placed far lower than for the other questions. There are several ways of interpreting this. It could possibly be due to off-duty time infringement being so much part of the culture so that people do not think to draw attention to it. Another interpretation could be that people who do not experience off-duty time infringement just answered "never", thus bringing down the average figure.

Table 130: Question 11.16 – I have informed my immediate superior about any resting period infringements (by vessel type)

type)			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
11.16 – I have informed my immediate superior about any resting period infringements .	Always	Count	36	2	131	5	50	21	28	273
		% in vessel type	13%	6%	26%	11%	17%	19%	9%	17%
	Much of the time	Count	36	10	97	5	21	9	30	208
		% in vessel type	13%	30%	19%	11%	7%	8%	10%	13%
	Some of the time	Count	39	8	71	4	31	5	29	187
		% in vessel type	14%	24%	14%	9%	10%	4%	10%	12%
	Sometimes	Count	45	9	79	6	36	21	39	235
		% in vessel type	16%	27%	16%	14%	12%	19%	13%	15%
	Never	Count	109	4	92	20	132	42	155	554
		% in vessel type	39%	12%	18%	45%	44%	38%	52%	35%
	Don't know	Count	13	0	32	4	27	14	18	108
		% in vessel type	5%	0%	6%	9%	9%	13%	6%	7%
Total		Count	278	33	502	44	297	112	299	1565
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			2.4	2.9	3.2	2.2	2.3	2.4	2.1	2.6

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. "Don't knows" not included in the averages.

77% stated in response to the next question that they never or only occasionally felt too tired to work properly from a health and safety point of view (Q. 11.17 by vessel type), whereas 6% reported that they did so all or much of the time. There was no direct interrelationship between correlation coefficients for Q. 11.17 and the others (Q. 11.1-11.11). The greatest (significant) correlation with Q. 11.17 was how often people had felt or been stressed out.²³ However, this was not as strong as for the other correlations noted above.

²² The correlation coefficient between 11.13 and 11.12, 11.14 and 11.15 respectively was 0.508, 0.687 and 0.608 (Pearson) and was significant at the 0.01 level.

²³ The correlation coefficient between 11.17 and 11.11 was 0.430 (Pearson) and was significant at the 0.01 level.

Table 131: Question 11.17 – How often have you felt too tired to carry out your work responsibilities in terms of health and safety? (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
11.17 – How often have you felt too tired to carry out your work responsibilities in terms of safety and health?	Never	Count	132	10	213	23	161	69	173	781
		% in vessel type	48%	29%	43%	52%	54%	62%	57%	50%
	Sometimes	Count	76	8	153	10	82	26	69	424
		% in vessel type	28%	24%	31%	23%	28%	23%	23%	27%
	Some of the time	Count	45	9	81	8	25	6	35	209
		% in vessel type	16%	26%	16%	18%	8%	5%	12%	13%
	Much of the time	Count	3	5	27	1	15	3	10	64
		% in vessel type	1%	15%	5%	2%	5%	3%	3%	4%
	Always	Count	6	0	8	0	3	5	3	25
		% in vessel type	2%	%	2%	%	1%	5%	1%	2%
	Don't know	Count	14	2	18	2	10	2	11	59
		% in vessel type	5%	6%	4%	5%	3%	2%	4%	4%
Total		Count	276	34	500	44	296	111	301	1562
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%
Average			4.2	3.7	4.1	4.3	4.3	4.4	4.4	4.2

Question type: Single response, vertical percentage calculation.

The average is based on a scale of five for responses, with 5 being the highest possible average and 1 the lowest. The average was calculated in reverse, with "Never" scoring 5, "Always" scoring 1, and so on. "Don't knows" not included in the averages.

On bulkers, we see that the crew have more often felt too tired to do their work properly from a health and safety point of view. 15% responded that they did so all or much of the time. Even though the base figure for bulkers was low, the phenomenon was even so significantly more widespread amongst crews than on the other vessel types, with the exception of container and RORO vessels.

As was apparent from Q. 11.13 above, 2/3 stated that during the previous four weeks aboard, they had always or much of the time complied with their off-duty time. On the other hand, 18% responded that they had never or only occasionally done so. This agrees closely with the responses to the question on whether registered working hours were in accordance with the time they had actually worked (11.18 by vessel type). 20% responded that they had worked more.

Table 132: Question 11.18 – Do your registered working hours match the time you actually work? (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
11.18 - Do your registered working hours match the time you actually work?	Yes	Count	211	30	386	37	234	80	208	1186
		% in vessel type	78%	94%	79%	84%	80%	72%	70%	77%
	No. I work more.	Count	56	2	98	5	49	27	69	306
		% in vessel type	21%	6%	20%	11%	17%	24%	23%	20%
	No. I work less.	Count	4	0	3	2	10	4	21	44
		% in vessel type	1%	0%	1%	5%	3%	4%	7%	3%
Total		Count	271	32	487	44	293	111	298	1536
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%

Question type: Single response, vertical percentage calculation.

On supply ships and coasters, special ships, dry cargo and other vessel types, a slightly greater percentage worked more than for all the vessel types as a whole.

Considering off-duty time compliance compared to the number of dockings, there would not immediately appear to be the expected correlation between them. Neither did watch systems make a marked difference when it came to the framework and opportunity for off-duty time compliance (not shown). This is most surprising since there is a very clear perception in the sector and in international research (cf. preferences in the summary) to indicate that there is such a relationship. The results therefore suggest closer consideration, methodologically as well as on what other possible explanations might be. This is clearly an area that should be investigated in more detail in order to further document the results.

Considering job category, there was a relatively large difference in compliance with off-duty time (11.18, by position aboard).

Table 133: Question 11.18 – Do your registered working hours match the time you actually work? (by position aboard)

			Position aboard						
			Master (Senior officer)	Senior officer	Junior officer	Ordinary seaman	Other/apprentice	Senior officer (Catering and service)	Catering and service
11.18 - Do your registered working hours match the time you actually work?	Yes	Count	97	169	248	457	60	12	148
		% in position aboard	67%	61%	79%	84%	85%	71%	84%
	No. I work more.	Count	46	104	62	64	9	5	18
		% in position aboard	32%	37%	20%	12%	13%	29%	10%
	No. I work less.	Count	2	5	3	23	2	0	11
		% in position aboard	1%	2%	1%	4%	3%	0%	6%
Total	Count	145	278	313	544	71	17	177	
	% in position aboard	100%	100%	100%	100%	100%	100%	100%	

Question type: Single response, vertical percentage calculation.

Masters and senior officers clearly differed. Just 67% and 61% respectively had recorded working hours that matched the hours they actually worked. Some 1/3 of masters and more than 1/3 of senior officers worked more than the working hours recorded. Working hours registered for other job categories were far more in accordance with the actual hours worked.

Since a large percentage of masters and senior officers were Danish, the above naturally meant that the working hours registered by foreign crew members were more likely than the Danes to be in accordance with the actual figures (not shown).

Summary for Off-duty time/Rest

In summarizing the theme of *Off-duty hours*, the picture we see is that while the framework may be in place to a certain extent, there are major variations between the various types of vessel and that individual seamen did not feel that they could influence their hours off-duty.

There were certain problems in complying with off-duty times with 20% working more than the hours they recorded and with the figure for senior officers and masters being up to as much as 33%. Similarly, 18% stated that they never or only occasionally took their off-duty time entitlement whereas almost 6% reported that all or much of the time they felt too tired to work properly from a health and safety point of view. International surveys report a higher figure (37%) for those reporting that when working, they had represented a danger for the vessel's safety and an even higher percentage, that their personal safety had been in danger.²⁴ There are several surveys reporting that many seamen fall asleep on duty or become very sleepy.^{25, 26} This survey does not clearly confirm that docking frequently is significant for compliance with off-duty time. This is a somewhat surprising result since several international surveys indicate that docking is one of the factors involved. Although the Cardiff survey indicates that there are differences between shorter tours with many dockings or longer tours with the opportunity for more rest. The surveys also indicate however that there is no single factor that is decisive but rather what is important is the interaction of several factors.

This survey further showed a correlation between non-compliance with off-duty time and stress and sleep problems, in line with the international surveys; and it further showed that it was not necessary to work fast to comply with off-duty times.

The off-duty hour regulations are very complicated and consist of a combination of legislation and various rules and exceptions adopted in collective agreements. Seahealth Denmark is aware of at least one company that recorded lawful discrepancies as illegal infringements of the off-duty rules. This adds to the complexity. So it may well be that the complexity means that there may be people who feel that the rules have been broken

²⁴ Report by the International Transport Federation (ITF), 1998. Survey of 2,500 seamen of 60 nationalities working under 63 flags.

²⁵ Seafarer Fatigue, Cardiff University, 2006. Andy Smith, Paul Allen and Emma Wadsworth.

²⁶ Factors contributing to fatigue and its frequency in bridge work, Accident Investigation Board, Finland, 2008.

without this actually being so; on the other hand there was a considerable percentage who said that there were problems with complying with their off-duty time. This is clearly an area on which more work needs to be done.

The results also indicated that what is required is a more balanced look at the problem and interrelated factors. It is an area which cannot be dealt with at the individual level but must be at the organisational/managerial level and there may be the need to look at the legislative framework that is extremely complicated.

4.4 – THEMES. BULLYING, SEXUAL HARASSMENT, THREATS OF VIOLENCE AND VIOLENCE

Bullying, sexual harassment, threats of violence and violence are phenomena that exist to some extent or other in all sectors and have an extensive impact on people who are victims of these. This section is intended to show whether bullying, sexual harassment, threats of violence and violence exist in the shipping sector and if so, how widespread the phenomena are. The topics addressed are:

- Bullying
- Unwanted sexual advances
- Threats of violence
- Violence

Questions on the theme of Management are listed in the table below.

Table 134: Schedule of questions about the themes of bullying, sexual harassment, threats of violence and violence

Question number	Question
13.1	In the last 12 months have you been the victim of bullying onboard?
13.2	In the last 12 months, have you felt yourself to be the object of unwanted sexual attention onboard?
13.3	In the last 12 months, have you been subject to threats of violence onboard?
13.4	In the last 12 months, have you been the victim of physical violence onboard?
16	Who were you bullied by?
17	Who showed unwanted sexual attention towards you?
18	Who threatened you with violence?
19	Who was physically violent towards you?

Considering the first question, by far the majority, 90%, had not been subjected to bullying within the past 12 months (Q. 13.1 by vessel type). Unfortunately, there were individuals who suffered bullying daily and weekly. 3% experienced bullying at least once a month whilst 7% experienced it now and then. The figures were more or less the same as the average ashore.

Table 135: Question 13.1 – In the last 12 months, have you been the victim of bullying onboard? (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
13.1 – In the last 12 months have you been the victim of bullying onboard?	Yes, everyday	Count	1	0	3	2	1	2	4	13
		% in vessel type	0%	0%	1%	5%	0%	2%	1%	1%
	Yes, weekly	Count	1	2	5	0	4	1	7	20
		% in vessel type	0%	6%	1%	0%	1%	1%	2%	1%
	Yes, monthly	Count	0	0	5	0	3	0	9	17
		% in vessel type	0%	0%	1%	0%	1%	0%	3%	1%
	Yes, now and again	Count	11	0	21	3	39	14	16	104
		% in vessel type	4%	0%	4%	7%	13%	13%	5%	7%
	No	Count	261	32	463	39	252	94	266	1407
		% in vessel type	95%	94%	93%	89%	84%	85%	88%	90%
Total		Count	274	34	497	44	299	111	302	1561
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%

Question type: Single response, vertical percentage calculation.

There were no major fluctuations between vessel types. However, passenger and supply ships reported a slightly higher proportion reporting bullying now and then.

Considering the person doing the bullying (Q. 16 by vessel type), it was mainly from a superior (61%) compared to co-workers (48%). Bullying was rarely done by lower ranks or customers.

Table 136: Question 16 – Who were you bullied by? (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
16. Who were you bullied by?	Co-workers	Count	9	0	12	1	25	5	15	66
		% in vessel type	75%	0%	36%	25%	63%	36%	47%	48%
	A superior	Count	4	2	23	3	20	11	20	84
		% in vessel type	33%	100%	70%	75%	50%	79%	63%	61%
	A subordinate	Count	2	0	5	0	1	1	3	12
		% in vessel type	17%	0%	15%	0%	3%	7%	9%	9%
	Customers	Count	0	0	0	0	10	2	0	11
		% in vessel type	0%	0%	0%	0%	25%	14%	0%	8%
	Total	Count	12	2	33	4	40	14	32	137
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%

Question type: Single response, vertical percentage calculation. The percentages and totals are based on the number of respondents.

The same picture applied for all vessel types with bullying primarily being done by co-workers and superiors.

With respect to unwanted sexual advances aboard (Q. 13.2 by vessel type), fewer respondents felt bothered by this than for bullying as above. 98% answered that they had not been subjected to unwanted sexual advances within the past twelve months. 1% stated that they experienced it at least once a month.

Table 137: Question 13.2 – In the last 12 months, have you felt yourself to be the object of unwanted sexual attention onboard? (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
13.2 – In the last 12 months, have you felt yourself to be the object of unwanted sexual attention onboard?	Yes, everyday	Count	1	0	2	0	3	0	2	8
		% in vessel type	0%	0%	0%	0%	1%	0%	1%	1%
	Yes, weekly	Count	0	0	4	0	0	0	0	4
		% in vessel type	0%	0%	1%	0%	0%	0%	0%	0%
	Yes, monthly	Count	1	0	1	0	3	0	2	7
		% in vessel type	0%	0%	0%	0%	1%	0%	1%	0%
	Yes, now and again	Count	3	2	5	0	5	0	0	15
		% in vessel type	1%	6%	1%	0%	2%	0%	0%	1%
	No	Count	268	32	485	44	285	111	298	1523
		% in vessel type	98%	94%	98%	100%	96%	100%	99%	98%
Total		Count	273	34	497	44	296	111	302	1557
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%

Question type: Single response, vertical percentage calculation.

There were no marked or significant differences for vessel types.

Unwelcome sexual advances are made primarily by co-workers and superiors (Q. 17 by vessel type), with 63% and 56% respectively.

138: Question 17 – Who showed unwanted sexual attention towards you? (by vessel type)

			Vessel type				Total
			Tanker and chemical tanker	Container	Passenger ship	Coaster, special vessel, dry cargo vessel and other vessel type	
17. Who showed unwanted sexual attention towards you?	Co-workers	Count	2	5	11	2	19
		% in vessel type	50%	50%	92%	50%	63%
	Asuperior	Count	3	5	5	4	17
		% in vessel type	75%	50%	42%	100%	57%
	Asubordinate	Count	0	3	3	0	7
		% in vessel type	0%	30%	25%	0%	23%
	Customers	Count	0	0	3	0	3
		% in vessel type	0%	0%	25%	0%	10%
Total	Count	4	10	12	4	30	

Question type: Single response, vertical percentage calculation. The percentages and totals are based on the number of respondents. Certain vessel types are not represented for this question and are thus not included here.

The same pattern applied to each of the vessel types.

97% had not been subjected to threats of violence within the past 12 months (Q. 13.3 by vessel type). Less than 1% experienced it at least once a month.

Table 139: Question 13.3 – In the last 12 months, have you been subject to threats of violence onboard? (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
13.3 – In the last 12 months, have you been subject to threats of violence onboard?	Yes, everyday	Count	1	0	0	0	0	0	0	1
		% in vessel type	0%	0%	0%	0%	0%	0%	0%	0%
	Yes, weekly	Count	1	0	2	0	2	0	0	5
		% in vessel type	0%	0%	0%	0%	1%	0%	0%	0%
	Yes, monthly	Count	0	0	2	0	2	0	0	4
		% in vessel type	0%	0%	0%	0%	1%	0%	0%	0%
	Yes, now and again	Count	4	2	9	2	14	6	5	42
		% in vessel type	1%	6%	2%	5%	5%	5%	2%	3%
	No	Count	267	32	486	42	280	105	296	1508
		% in vessel type	98%	94%	97%	95%	94%	95%	98%	97%
Total		Count	273	34	499	44	298	111	301	1560
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%

Question type: Single response, vertical percentage calculation.

There were no marked or significant differences between vessel types. However, amongst the crews on RORO, passenger and supply ships there was also a slightly greater proportion who had experienced threats of violence than for the other types of vessel.

Threats of violence (18 by vessel type) were made by co-workers, superiors, lower ranks and customers (although least from lower ranks).

Table 140: Question 18 – Who threatened you with violence? (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
18. Who threatened you with violence?	Co-workers	Count	3	0	2	2	4	2	4	16
		% in vessel type	75%	0%	18%	100%	22%	33%	80%	33%
	A superior	Count	2	2	5	0	3	2	0	13
		% in vessel type	50%	100%	45%	0%	17%	33%	0%	27%
	A subordinate	Count	0	0	5	0	1	2	1	9
		% in vessel type	0%	0%	45%	0%	6%	33%	20%	19%
	Customers	Count	0	0	0	1	12	1	0	14
		% in vessel type	0%	0%	0%	50%	67%	17%	0%	29%
Total		Count	4	2	11	2	18	6	5	48

Question type: Single response, vertical percentage calculation. The percentages and totals are based on the number of respondents.

For container ships, there were a slightly greater proportion of threats from lower ranks than amongst other vessel types.

Still fewer had been subjected to direct physical violence aboard within the past 12 months (Q. 13.4 by vessel type) than bullying and threats of violence. 99% agreed with this. This thus left 1% who had to some extent or other been subjected to physical violence.

Table 141: Question 13.4 – In the last 12 months, have you been the victim of physical violence onboard? (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
13.4 – In the last 12 months, have you been the victim of physical violence onboard?	Yes, everyday	Count	1	0	0	0	0	0	0	1
		% in vessel type	0%	0%	0%	0%	0%	0%	0%	0%
	Yes, weekly	Count	1	0	2	0	2	0	0	5
		% in vessel type	0%	0%	0%	0%	1%	0%	0%	0%
	Yes, monthly	Count	0	0	2	0	2	0	0	4
		% in vessel type	0%	0%	0%	0%	1%	0%	0%	0%
	Yes, now and again	Count	0	2	1	2	2	0	2	9
		% in vessel type	0%	6%	0%	5%	1%	0%	1%	1%
	No	Count	270	32	495	42	293	111	299	1542
		% in vessel type	99%	94%	99%	95%	98%	100%	99%	99%
Total		Count	272	34	500	44	299	111	301	1561
		% in vessel type	100%	100%	100%	100%	100%	100%	100%	100%

Question type: Single response, vertical percentage calculation.

There were no marked or significant differences between vessel types.

Physical violence came primarily from immediate superiors (Q. 19 by vessel type). However, the base figure was so small that very great uncertainty attaches to the figures.

Table 142: Question 19 – Who was physically violent towards you? (by vessel type)

			Vessel type					Total	
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship		
19. Who was physically violent towards you?	Co-workers	Count	1	0	1	2	0	4	
		% in vessel type	100%	0%	20%	100%	0%	31%	
	A superior	Count	0	2	3	0	2	7	
		% in vessel type	0%	100%	60%	0%	67%	54%	
	A subordinate	Count	0	0	3	0	0	3	
		% in vessel type	0%	0%	60%	0%	0%	23%	
	Customers	Count	0	0	0	0	2	2	
		% in vessel type	0%	0%	0%	0%	67%	15%	
	Total		Count	1	2	5	2	3	13

Question type: Single response, vertical percentage calculation. The percentages and totals are based on the number of respondents. Certain vessel types are not represented for this question and are thus not included here.

Summary of Bullying, sexual harassment, threats of violence and violence

Overall, none of the areas of *Bullying, sexual harassment, threats of violence and violence* appeared to be a widespread problem. Where problems are identified, they should be taken seriously and work should be done to minimize and prevent such situations. 3% experienced bullying at least once a month, with 7% experiencing it now and then. This is an area that is much in focus ashore and which needs to be addressed at sea as well.

PART V. WHAT FACTORS DOES WELL-BEING DEPEND ON?

We analyzed the above to see the status of mental well-being amongst seamen in the Danish merchant fleet. The 'temperature' was taken and some areas were identified as possible areas of input for further work on boosting well-being amongst seamen.

In this section, we endeavour to identify the factors that are actually significant for well-being, i.e. which factors have the greatest effect on well-being and can be maintained or improved. We also identify the factors that influence why people apply to particular companies for employment.

This was asked directly in Q. 9. When asked to give the three most important reasons for selecting the company that employs them now, there were three clear favourites. The first favourite was pay. 44% gave this as one of the three most important reasons. The next highest figure went to tour duration which was also an important factor, with 39% support. Vessel type came in third on the list with 32%. 25% regarded the waters they are to serve in as important. 20% considered the company's reputation when choosing which company they want to work for, although only 7% went for recommendations. The possibility of career development and continuity training had support from 20% as one of the most important motives for choice of company. One in six gave the company's HR policy as a motive.

Almost 10% felt it was important for some of the seamen in the company to be of the same nationality as themselves. This is interesting and also corresponds to the responses of Q. 8.2, which showed that 47% preferred being with co-workers of the same nationality as themselves in their time off-duty.

Table 143: Question 9 – What made you choose your present company Select the three most important reasons for choice of company (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
9. What made you choose the shipping line you work for now? Select the three most important reasons for choosing a particular company.	Vessel type	Count	82	8	119	9	74	68	86	447
		% in vessel type	36%	32%	29%	20%	25%	61%	31%	32%
	Sailing area	Count	41	2	38	24	143	8	91	348
		% in vessel type	18%	8%	9%	55%	48%	7%	33%	25%
	Pay	Count	105	19	173	17	103	62	129	608
		% in vessel type	46%	76%	42%	39%	35%	56%	47%	44%
	The shipping company's personnel policy	Count	49	16	96	2	19	6	44	233
		% in vessel type	22%	64%	23%	5%	6%	5%	16%	17%
	Signing-on period	Count	65	8	113	29	130	62	141	547
		% in vessel type	29%	32%	27%	66%	44%	56%	51%	39%
	Opportunity for promotion	Count	48	2	88	3	16	10	22	188
		% in vessel type	21%	8%	21%	7%	5%	9%	8%	13%
	Opportunity for career development and continuing education	Count	46	10	146	2	12	28	38	281
		% in vessel type	20%	40%	35%	5%	4%	25%	14%	20%
	Position aboard	Count	18	1	29	8	50	3	24	132
		% in vessel type	8%	4%	7%	18%	17%	3%	9%	9%
	Reputation	Count	44	1	165	2	12	26	34	285
		% in vessel type	19%	4%	40%	5%	4%	23%	12%	20%
	Recommendations	Count	14	0	28	2	24	4	27	99
		% in vessel type	6%	0%	7%	5%	8%	4%	10%	7%
	There are quite a few sailors in the shipping company who have the same nationality as me.	Count	30	0	40	5	10	16	27	128
		% in vessel type	13%	0%	10%	11%	3%	14%	10%	9%
	There are quite a few sailors in the shipping company who have another nationality than mine.	Count	8	0	9	0	0	1	5	23
		% in vessel type	4%	0%	2%	0%	0%	1%	2%	2%
	Other	Count	22	1	49	1	59	6	19	158
		% in vessel type	10%	4%	12%	2%	20%	5%	7%	11%
	Don't know	Count	13	0	13	3	26	3	11	69
		% in vessel type	6%	0%	3%	7%	9%	3%	4%	5%
Total			226	25	416	44	295	111	277	1395

Question type: Single response, vertical percentage calculation. The percentages and totals are based on the number of respondents.

Distributed by vessel type, there was more or less agreement on the most prevalent reasons. For passenger ships, vessel type was not one of the most representative. This may be due to the fact that for many crew on passenger ships, the type of vessel is a given. The waters they sail in and length of tour were more important than pay. For the crews on container ships, pay was still the most Important but type of ship did not figure in the top 3. Instead, recommendations and the opportunity for career development and continuity training were strongly represented here.

When it came to what creates jobs satisfaction, there were other factors that were important (Q. 10 by vessel type). The factors that contributed most to job satisfaction, with about 50% agreement, were the responsibilities of the job, the atmosphere and good co-workers aboard. Recognition at work was also an important factor here (46%). More than 25% attached considerable value to the kind of work they did. 20% stated that good relations with their managers were one of the three most important factors whereas one in six stated that management style in general was an important factor.

Table 144: Question 10 – Select the three factors that make for greatest job satisfaction (by vessel type)

			Vessel type							Total
			Tanker and chemical tanker	Bulk carrier	Container	RORO	Passenger ship	Supply ship	Coaster, special vessel, dry cargo vessel and other vessel type	
10. Name the three factors which are most important in giving you job satisfaction.	Recognition at work	Count	99	4	200	25	120	54	129	631
		% in vessel type	45%	20%	49%	57%	41%	49%	49%	46%
	Responsibility at work	Count	106	7	217	13	140	67	147	697
		% in vessel type	48%	35%	53%	30%	48%	60%	55%	51%
	Job status	Count	26	0	61	6	28	12	23	156
		% in vessel type	12%	0%	15%	14%	10%	11%	9%	11%
	Management style	Count	46	10	90	8	28	12	30	224
		% in vessel type	21%	50%	22%	18%	10%	11%	11%	16%
	Atmosphere onboard	Count	99	6	183	29	176	62	136	690
		% in vessel type	45%	30%	44%	66%	60%	56%	51%	51%
	The nature of work	Count	49	2	109	8	77	41	70	355
		% in vessel type	22%	10%	26%	18%	26%	37%	26%	26%
	Good relations between colleagues	Count	109	11	186	26	173	48	132	684
		% in vessel type	50%	55%	45%	59%	59%	43%	50%	50%
	Good relations with your superiors	Count	59	10	82	7	50	10	41	259
		% in vessel type	27%	50%	20%	16%	17%	9%	15%	19%
	Good relations with the ship owner's	Count	37	7	34	4	13	6	18	119
		% in vessel type	17%	35%	8%	9%	4%	5%	7%	9%
	Other	Count	3	0	24	2	19	4	16	68
		% in vessel type	1%	0%	6%	5%	7%	4%	6%	5%
Total		Count	220	20	412	44	292	111	265	1365

Question type: Single response, vertical percentage calculation. The percentages and totals are based on the number of respondents.

For all vessels, these factors were the most significant for generating job satisfaction.

The above was thus the seamen's own view of what created job satisfaction for them. These assessments have been investigated further by making a statistical analysis of the causal relationships in the present data. We did so on the basis of the responses in question groups 3-8 which form the basis for the *six golden nuggets*. The correlation between these questions and the general questions on well-being (Q. 2.1-2.4) was investigated using a multiple regression analysis. By assuming that the four general well-being questions are an overall objective for general well-being, they can be subsumed into a single factor.²⁷

The analysis calculates the magnitude of the influence individual statement in question groups 3-8 have on overall well-being. The model thus derived can then indicate the factors which can be prioritized in working further on well-being at sea.²⁸

The factors that appear as having real significance for overall well-being fit well with the results derived for Q. 10 above. Ten factors especially appear to be significant and with a high level of Influence. These are listed here with the most influential listed first.

²⁷ Factor analysis allows the four questions to be subsumed into a single factor which can then be used as a dependent variable in a multiple regression analysis.

²⁸ The multiple regression analysis has an R^2 (coefficient of determination) of 0.705, which is a rather high coefficient.

Table 145: The 10 statements that have the greatest influence on the overall well-being

Question number	Question
4.22	I feel motivated for and dedicated to my job.
6.1	My immediate superior is often willing to listen to my problems about work.
3.5	One receives recognition for a job well done.
8.4	In my leisure time onboard I feel I am part of a community.
3.9	The onshore company organisation responds/reacts to the suggestions and wishes of the crew.
4.15	I can use my knowledge and skills in my onboard work.
3.1	The company trusts that the crew will do their jobs onboard well.
4.10	I feel I am part of a community on board my ship.
3.4	Senior officers are good at passing on important information to the rest of the crew.
4.12	I often receive support and help from my colleagues.

The most important factor for well-being was not surprising, that people felt motivated and involved in their work (Q. 4.22). This belongs in the category of *Meaningful work*, and as was apparent in that section, the overall average for 4.22 was a relatively high 3.9.

Next it is important that an immediate superior is willing to listen to the work problems of individuals (Q. 6.1). This was also the case for most, with an average of 3.9, as stated in the section on *Reward*.

Recognition also appears here again (Q. 3.5). As was reported for Q. 10 above, practically every second respondent gave recognition as one of the three most important factors for job satisfaction. The analysis supports this and it is therefore important to acknowledge good work done by crew. This does happen to a certain extent as was reported under *Reward*, with an overall average of 3.7.

Being part of a community when on and off-duty was also important (Q. 8.4 and Q. 4.10). This is in agreement with the feelings of half the respondents who stated that it was important to have good relations with their co-workers (in Q. 10). Both questions come under the category of *Social support*, and as reported in this section, respondents also had a very good sense of fellowship with their co-workers. There was an overall average of 3.8 for Q. 8.4, whereas it was even higher for Q. 4.10 at 4.0.

There are two areas in which good relations with the company appear as one of the ten statements. First, it is important for company organisations ashore to respond/react to proposals and wishes from the crew (Q. 3.9) and secondly, for the company to trust the crew to do a good job of work (Q. 3.1). Accordingly, it is important for the company to listen to suggestions and wishes whilst also demonstrating confidence in their employees aboard their vessels. With regard to confidence, companies score a relatively high average figure of 3.9 for this, as also reported in the chapter on *Social support*. With regard to listening to the crew's proposals and wishes, the feeling we get is that companies do not show this to such a great extent. The overall average here was relatively low at 3.2, as reported in the section on *Influence*.

The ability of senior officers to pass on important information (Q. 3.4) also had a great impact on well-being. People therefore feel the need to be kept informed. This need was also met to a certain extent. Q. 3.4 gave an average of 3.8, cf. section on *Predictability*.

Finally, it is important to have the opportunity to learn something new at work (Q. 4.21), i.e. work must include challenges and development potential. The statement scored a relatively high overall average of 3.9, cf. section on *Demands*.

Since there was a relatively high rate of satisfaction amongst seamen, it is natural for the figures for factors that have a major impact on their satisfaction also to be relatively high. It should be noted however that to achieve even greater satisfaction, there is still room for improvement for these factors.