

Statistics are important for workplace assessment

Susanne Frank-Steffensen, Staff Engineer, QM/HSE, Maersk Contractors

DURING THE PAST 6-8 years, Maersk Contractors experienced an increased focus on occupational health issues from both the authorities and its clients.

The company has met this continually through its Health and Safety Policy incorporating internal requirements for developing and implementing means of safeguarding its employees' working environment.

The Working Environment Management System, which is integrated in Maersk Contractors' General Management System, details the necessary requirements for carrying out work place assessments.

ple's perception of their working environment.

Another indication is the heavy physical work aspect and the ratings given by the individual groups onboard the rig (deck, drill floor, engine, administration, catering), catering personnel have more problems with the exposure to heavy physical work than the other groups.

ILLNESS STATISTICS

A significant element in Maersk Contractors' procedures for carrying out workplace assessments is the monitoring and analysis of illness statistics relating to individual rigs.

Illnesses in this context are defined as all types of illness being reported by personnel during their home period. It is very important to note that these

number of illness days compared to the other main groups of causes.

An initial explanation could be that problems with the musculoskeletal system obviously cause more restrictions especially to offshore personnel and consequently add to the number of illness days.

The group of back-related illness reports involves a higher number of individuals than the group including reports relating to "Leg/Knee/Foot" and has therefore been prioritized by Maersk Contractors as the subject of further analysis.

Focusing on the age of the persons who have reported back-related illnesses, there seems to be a higher frequency of such reports among younger personnel (see table on page 20).

Figures from the UK sector have been included for reference purpose.

Considering the back-related illness reports in relation to the person's age and length of service it can be added that this type of illness seems to be found among persons with a relatively short length of service.

Sixty percent of back-related illnesses are shown to be within the group of personnel with less than four years service.

Comparing the Danish sector with the UK sector of the North Sea, it would seem that there is a correlation, since approximately 56% of back-related illnesses in the UK sector are reported by persons with less than four years service.

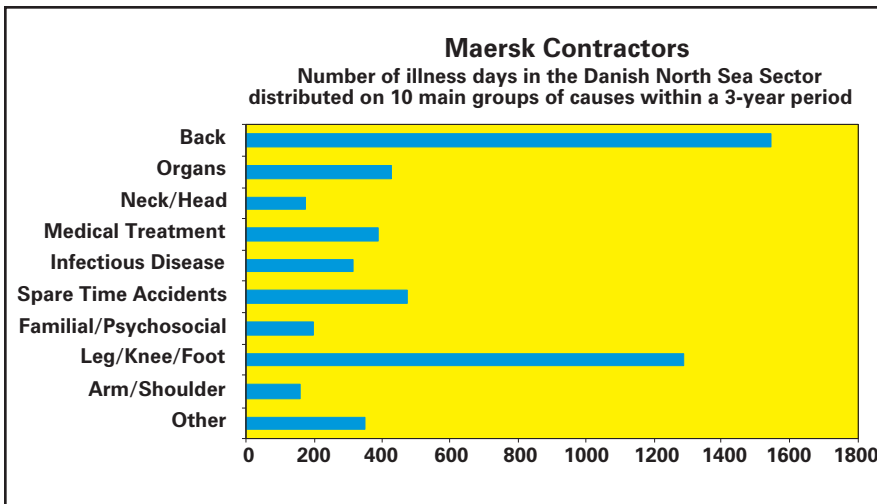
However, it should also be noted that there is a difference between age and length of service for offshore personnel in the Danish and the UK sectors.

Those in the UK sector are generally older with a shorter length of service than those in the Danish sector.

This age difference substantiates the indications that reports of back-related illnesses are predominant among younger personnel.

JOB FUNCTIONS

There was a concentration of back-



These assessments are supported by questionnaires that cover both physical and psychosocial working environment aspects and which all personnel are invited to complete.

The 395 questionnaires received from the company's North Sea rigs show high job satisfaction among offshore personnel.

The main concerns regarding physical working environment aspects are the general noise level and the indoor climate in the accommodation area.

Furthermore, it is noticeable that comfort onboard, which covers meals, newspapers, cabins, TV programs, internet access, etc., has great influence on peo-

reports of illnesses are not necessarily connected to the person's job and stay on the rig but may well originate from the person's previous work history or from activities that have taken place during the person's home period.

REPORTED ILLNESSES

Looking at the illness reports received within a three-year period from offshore personnel (excluding catering) working on the company's rigs in the Danish sector of the North Sea, is there any significance in the reported causes of the illnesses?

Illnesses relating to "Back" and "Leg/Knee/Foot" show an excessive

Age Category	% of back-related illness reports related to number of personnel within the specific age category	
	Danish North Sea Sector	UK North Sea Sector
20 - 30 years	30%	23%
31 - 40 years	15%	16%
41 - 50 years	9%	6%
51 - 65 years	9%	0%

related illness reports within the groups Deck and Drill Floor onboard the rigs. This corresponds with the observations mentioned previously as a result of the higher percentage of younger personnel within these two groups.

Looking more closely at the different work functions within this period, it was found that for Deck the back-related illnesses were reported by Roustabouts.

Drill Floor back-related illnesses were mainly reported by Floorhands, Solid Control Operators and Assistant Drillers.

Within Engine most of the back-related illnesses were reported by Motormen.

RIG AUTOMATION

The number of back-related illness/incident reports registered among drill floor crews in the Danish and UK sectors over a two-year period were compiled. The rigs involved have been classified A, B and C based on the degree of automation and mechanization of drill floor equipment.

The fact that some of the rigs work 2/3 and have more personnel than the rigs working 3/3 has been taken into consideration and the number of reports registered for each rig has been adjusted accordingly.

Rig "C" has obtained the lowest frequency of back-related illnesses/inci-

dents registered within the two-year period compared to the other rigs classed "A" and "B".

This result is not what would have been expected considering all of the working environment improvements that have been made on rigs classed A and B to minimize employees' exposure to heavy physical work.

This is, however, more or less supported by the drill floor crews' rating of their perception of their working environment.

Considering the differences in the layout and equipment on the two drill floors, the drill crew on rig "A" was expected to have fewer problems with the physical working environment aspects, especially heavy physical work compared to rig "C".

This adds up to observations Maersk Contractors has made previously in connection with work place assessments, that the rig crews' rating of their perception of physical factors given in the questionnaires depends on the psychosocial working environment onboard the rig.

From that perspective the personnel on rig 'C' are more satisfied than the personnel on rig 'A'.

SUMMARY

Whether illness reports for five rigs covering a two and three year period provides sufficient statistical documentation for putting forward firm conclusions can be argued.

These statistics will be closely followed by Maersk Contractors during coming years but until then, the company has chosen to take the following indications into consideration:

- Back-related illnesses are the single most common cause of reported illnesses;
- A significant part of the back-related illness reports are registered from personnel within the 20-30 year age group;
- 60% of the back-related illnesses are registered from personnel with a length of service less than 4 years and 35% from personnel with less than one year's service;
- A high standard rig does not in itself equal a good working environment.

There will be many explanations as to the underlying causes of these back-related illness reports and which may not be directly related to work offshore.

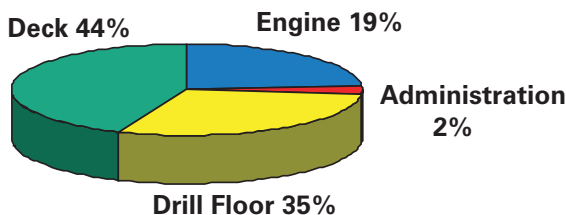
However, due to the consequences for both the persons involved and for the rig as a whole, Maersk Contractors has decided to set up a pilot project focusing on back-related illnesses.

The main purpose of this pilot project is to prevent backaches/injuries and reduce the number of back-related illness days. The pilot project's associated objectives are:

- To increase employee awareness of the connection between inappropriate use/movement of the body and the risk of backache/injuries, both when working offshore and during their home period carrying out other types of work and sports activities;
- That personnel experience an immediate benefit from using their body properly;
- To contact older personnel, if any, experiencing back problems but not reporting themselves ill and give them guidance;
- Establish an overview of whether the present induction of new employees should include ergonomics.

This approach of evaluating working environment data and statistics, followed up by a pilot program aimed at improving employees' working environment is considered exceptional within the Danish drilling industry.

In December 2003, Maersk Contractors received a special 'Working Environment Acknowledgement' from the Danish Energy Agency. ■



The distribution of back-related illness reports within a 3-year period in the Danish North Sea Sector indicates a concentration of reports within the Deck and Drill Floor groups.