

THE MARKET FOR MARINE MAINTENANCE AND INSTALLATION – HOW TO OPTIMISE THE RESOURCES IN A CHANGING MARKET

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Abstract: This paper will look at how the market for installation and maintenance has developed over the last couple of years until now and give a view on how the market may develop.

In particular this paper will look at: (1) The potential to undertake alternative work for the marine contractors in parallel with the normal cable operations so that a reasonable revenue stream can be obtained for the contractor and a cost-effective price structure can be maintained for the customers. (2) There is potential for a cross utilisation between the maintenance and installation vessels based on the use of a universal spare cable concept, so peaks and troughs can be managed without leading to extended implementation time, increased cost and quality issues.

1. THE PAST - PRE BURST

The dramatic increase in deployment of fibre optic submarine systems in the late 90's, peaking at an annual figure of about 200.000 km, resulted in a huge capital investment in new vessels, mainly for the purpose of laying cable but also vessels having the primary target of the new PMA's (Private Maintenance Agreements) were built.

This resulted in more than 83 vessels in the market at end year 2002, peaking approximately 1½ year after the dot com bubble burst.

Not only the number of vessels increased but also the size and capabilities including burial techniques improved significant. The standard burial parameters went from 0,6 meters to 1 and 1,5 meters giving improved quality to the customers in terms of more reliable cable installations and better cable protection.

New entries were attracted to the market as the marine contractors enjoyed good return on their invested capital. So this was a time, which benefited all parties in the market ("the good old days").

2. THE PAST - AFTER THE BURST

After the dot com bubble burst in 2000 there was quite a backlog of installation works to be carried out therefore despite the still increasing number of vessels coming into the market this happened without any major impact on the market initially but in parallel with the market drying up for works and the vessels becoming under utilised the marine contractors looked for alternatives to get some revenues for their expensive assets.

World fleet Cable ships 2000 - 2008

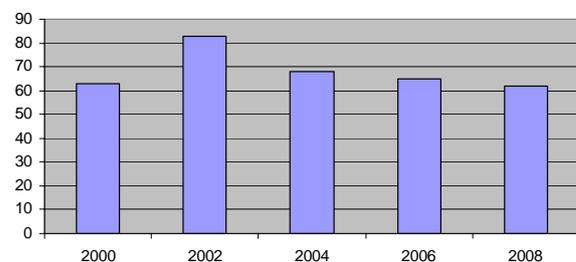


Figure 1: Development in the number of vessels in the World Fleet of cable vessels

As nobody knew how deep and how long the dip in the market would be, the first action was to try to ride the storm and stay in the market to be ready once the upturn hopefully would come.

The measures put in place mainly fell into 3 categories:

- Cost cutting such as reduced manning, lay-up and re-flagging to countries with lower cost.
- Seeking shelter in the maintenance business.
- Attempting to get similar works (which doesn't require any major investment) within the off shore oil & gas industry.

The below diagram shows the utilisation of the cable fleet by early 2004 where the industry were still hoping for the recovery to be just round the corner.

As it can be seen from the above diagram almost all the cable ships engaged in the marine market in the cable industry were working (more or less successfully) in the maintenance market.

Utilisation of Cable fleet

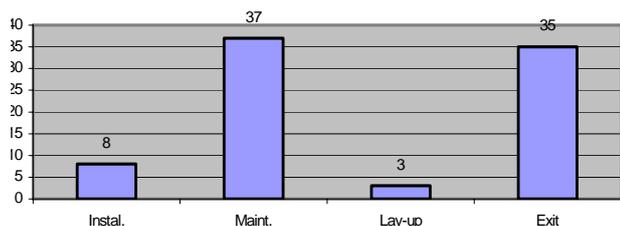


Figure 2: Main utilisation of the cable fleet by beginning 2004

The surplus of vessels available for maintenance were used by those customers who had shorter term contracts to cleverly play the market forces and getting very good deals on the maintenance services. The customers having the longer-term contracts didn't enjoy the same benefits.

During this period the size of the maintenance market didn't grow in terms of total revenue, actually due to the competition it saw a decline.

It is a fact that the revenue for some of the vessels in the market were/are insufficient to sustain over a long period .

Also for the few vessels left in the installation market the rates were barely enough to cover for the costs and the risk.

The market was clearly still not in balance.

3. CURRENT SITUATION

Such an imbalance can't last forever without some consequences, some of them potentially being very negative to the customers.

Whereas the period in the late 90's was characterised by huge capital investments in better and more capable vessels and tools, the post burst period have had almost no investment. Only necessary replacements have taken place, as the potential return on the invested capital has been seen as none or insufficient.

World Cable Ships average age

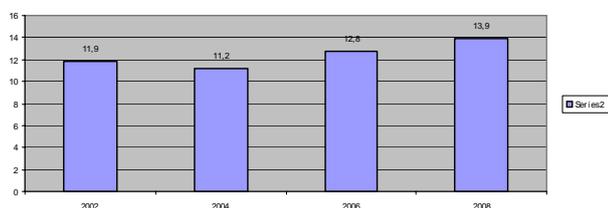


Figure 3: Development in average age for the cable fleet

As a result no new vessels have entered the market for years and there is no new cable ships planned. This means that the tools used to serve the customers are slowly but steadily growing old.

This may not be so bad as this is a sign of the market trying to reach a better balance and for ships in general the age of the world fleet (all types) is around 12 years. So in that respect the cable ships are more or less in line with this, but this is an average picture and the real impact should be seen on the different parts of the cable ships market.

As the dip in the market has been longer and deeper than most people had expected the marine contractors have had to look for more long terms measures to sort out the oversupply situation and to get some sustainable revenue.

With the recent boom in oil prices the offshore Oil & Gas marine market has rocketed to extremely high prices especially during the seasons with favourable weather. In order to serve this attractive market better a number of the newer and more capable cable ships have undertaken substantial and costly modifications and they are now making very good revenues.

In addition it seems that the cable market for installation is finally starting to pick up with more vessels going back into this market at improving rates.

The below diagram show the show the utilisation of the cable as of end 2006.

Utilisation of Cable fleet

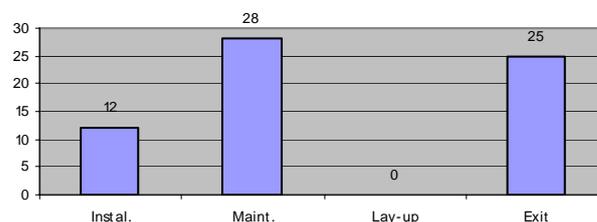


Figure 4: Main utilisation of the cable fleet by end 2006

The main change since 2004 show a sharp decline in vessels being available for maintenance, which is in a sense good for the contractors, as we are getting closer to a situation of balance. But looking closer at the figures behind there is a risk of this being accelerated and furthermore it will be the better ships leaving first and potentially expose the maintenance customers to a less capable service in the medium to long term.

4. FUTURE SITUATION

For the cable vessels employed in the offshore market it is expected to be a good and positive market for some years as long as the oil price stays high, so the likelihood of some of these vessels re-entering the cable market seems low. For the vessels having undertaken large modification to get into the offshore market they will only change back in case they see stable high prices for a longer period otherwise the cost of re-modifying the vessels will prohibit such a move.

Building new vessels ~ that doesn't seem very likely either, unless the contractors see stable prices at a reasonably high level on the long term basis, most companies will be scared of repeating the mistake made last time. Furthermore prices for ships have in the meantime gone up approximately 35 % due to increase in steel and yard prices. On top of that here will be the lead-time (two years or more) to have such vessel in place should anyone wish to take the risk.

So it seems that the market will have to play with the resources presently available (as shown as the red bar in fig 5) for the next couple of years.

World fleet Cable ships 2000 - 2008

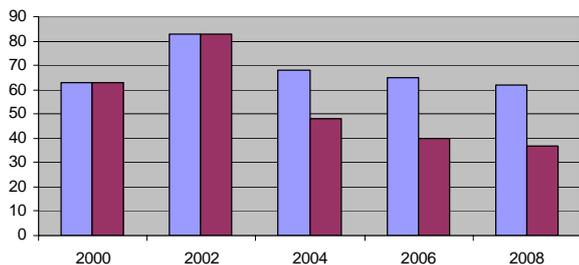


Figure 5: Development in the number of vessels and the number of vessels in reality available for the submarine cable business

The number of cable ships employed in the installation market is linked to the total number of cable kilometres being installed and with a likely increase of this market for the next 2 – 2½ year, more vessels will find their way into this market.

If the number of vessels for installation is or becomes insufficient the market forces will prevail and rates will go up very fast to reach equilibrium. Not a particularly positive outlook for the customers.

For the maintenance market there will be less and older vessel available only and nobody will have a large interest in improving this situation as long as a reasonable revenue can't be made.

So the dilemmas are:

- There is a need to maintain a capable service in the maintenance market
- There is a need to maintain reasonable and stable prices for the installation market. Unstable and increasing prices will make project forecasting and planning difficult.
- There is a need to avoid bottlenecks, which could severely delay project, in the installation market
- There is a need to secure the contractor reasonable revenue which will allow for long-term investments and improvements.

4.1. Do we have a solution?

As described earlier the industry should not expect any help from outside the industry so we are stuck for the time being with the resources we have.

Therefore we, the industry, have to solve this.

Looking at the diagram for cable utilisation of the cable fleet the main bulk of the resources are still used for maintenance. Often the maintenance vessels have a very low utilisation some almost none and some more occupied depend on location, however as a total is clear that there is an unused potential hidden here, which could be used for the installation market to avoid bottlenecks and undesirable price development.

Also it is clear and easy to understand that the maintenance customers would like to have the availability to a cable vessel if and when they need it without having to wait (at least for too long).

So is there a way to free up some of all the unused capacity to common benefit of the industry.

Yes, there might be several ways but I see at least two measures, which could mitigate the risk if maintenance vessels was allowed more freedom to undertake outside work in the installation market.

4.2. Mutual Assistance Scheme

The first thing is that looking at this on a vessel by vessel basis or on a contract by contract basis is unlikely to work as it will give insufficient service to the maintenance customers if the vessel really was to undertake serious outside work.

The old CMA's (Cable Maintenance Agreement) such as PIOCMA had a mutual support function, which was only aimed at disaster situations but the idea was good and could be brought into play in a much larger scheme.

If one takes a more global (per Ocean) view there is often an overlap between the footprints of the PMA's and the CMA's. You will find it's not unlikely that within a certain geographical area you will find not only one but two or more potentially under utilised vessels. Therefore by merging the resources in a more sophisticated mutual assistance scheme could give the answer to all of the dilemmas raised above.

4.3. Universal spare cable

The second thing that could be working either in parallel with the above or as a separate measure is the introduction of having a minimum level of "universal" spare cable permanently stored on the cable maintenance vessels.

This would mean that a maintenance vessel engaged in outside work don't need to return to base port in case that it has to undertake a repair urgently, this will save valuable time.

Also combining the concept of the universal spare cable with the mutual support scheme save a lot of time as transit to load a particular cable type often can be avoided.

The word “universal” doesn’t mean 100 %, but after having analysed the existing volume of cables on an ocean by ocean basis it’s our conclusion that it will be possible to serve up to 85 % or more of all modern repeatered systems (do not work for unrepeatered systems due to too many different types), which are the systems which are carrying most of the valuable traffic.

5. CONCLUSION

It’s clear that the marine part of our industry face some structural problems in the near future due to the fact that there has been no investment in new vessels made over the last 5 – 6 years due to insufficient, unstable and insecure return on capital.

Therefore the major players (customers, suppliers and contractors) should find a way (or ways) to solve the dilemmas as described in this paper, alternatively there is a great risk that the maintenance customers will suffer from a rapid declining service and ultimately they face the risk of the service being abandoned leaving them no alternative than to provide the service themselves – In which case the history will have turned full circle.

* All calculation is made on the basis of ASN internal database over the world fleet of cable ships, this may **not** cover everything as it only contain the vessels relevant to ASN to track and trace.