

Naval architecture

Claims Review

The claims examples reproduced here have all featured in issues of The Claims Review and are all case studies which have either been paid by ITIC or where assistance has been provided. These examples should be invaluable in helping you to identify potential claims exposure within your business. ITIC recommends that you review your procedures continuously in order that you avoid these types of situations occurring to you and your business.

Turbine trouble

Ship owners entered an agreement to carry a number of wind turbines. They instructed one of ITIC's naval architecture members to carry out work to enable the vessel to load the highest possible number of wind turbines. The work involved the layout and design of supports to be welded in the holds.

The conversion works were carried out by a ship yard on the basis of the naval architect's design.

At the first load port, the ship owner found that due to a bulkhead the supports in the hold could only be used to load four turbines instead of the intended six.

The ship owners commenced carrying the wind turbines four at a time. They brought a claim against the naval architect for the costs of redesigning and rectifying the supports as well as the additional costs of performing more voyages.

The estimate for the rectification works was €40,000. The owner's estimated claim for additional expenses was €60,000. The owners made it clear that this figure would increase if many more voyages were performed with only four turbines on board.

ITIC arranged for an independent expert to review the position. The expert found a solution to the problem of the bulkhead which would only cost about €16,000. Discussions were held with the owners to reach a settlement agreement and arrange a suitable time to carry out the works which would enable the vessel to carry six turbines on the remaining voyages.

It became apparent that the economic benefit of arranging the works was marginal and the ship owners agreed to accept a payment of €26,750 to cover their additional costs, which was paid by ITIC.

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Outstanding invoices for a naval architect

A naval architect was instructed by a client to design a new rescue ship. It was built by a yard specified by the client. After the client took delivery of the ship, he began to notice cracks appearing in the hull. The yard repaired the cracks but they continued to appear. Meanwhile, the client withheld payment from both the architect and the yard until the problem was finally corrected to his satisfaction. ITIC advised the naval architect's client that the invoice was still payable, despite the current dispute. However, the client refused to pay. After long discussions with the client, ITIC instructed an expert naval architect to survey the vessel. The expert advised that the yard had not used the materials specified in the original designs. The hull had been created from a cheaper material which was far more prone to cracking than the material specified by the architect. With this evidence, ITIC demanded that the outstanding invoices be paid, as the matter was clearly a build issue and not a design one, and if the invoice was not paid, proceedings would be issued. The client then paid the outstanding fees.

The true cause of vessel instability?

A naval architect member of ITIC designed two vessels to be built to US Coastguard rules for work in the Gulf of Mexico. Shortly before the completion of the first vessel, the naval architect advised ITIC that he had made an error, the result of which was that the vessel would not meet the strict stability criteria.

As the delivery date was fast approaching, a solution to the problem was agreed between the naval architect and the ship builders. This involved the fitting of two new bulkheads. However, shortly after the rectification work commenced, it transpired that there was nothing wrong with the original design. The cause of the apparent failure to meet the stability criteria was due to the use of different versions of software. The hull model was generated on a new version of the software, while the analysis was generated on an older edition. Rectification work ceased immediately and the vessel was restored with some minor modifications to the original design. The shipyard made a claim of US\$95,000 for the unnecessary work carried out. ITIC indemnified the naval architect.





A sinking feeling

A naval architect was approached by a research and development company who had produced a prototype "wave power generator" (WPG), a floating device used to convert ocean wave energy into electricity using air pressure created by waves. The naval architect was engaged to provide the necessary design and stability approval for the prototype, as required by local regulations.

Prior to accepting the instruction, the naval architect provided to his client his standard trading conditions. Those included various liability exclusions and a clause limiting the liability of the architect to the amount of his fees.

Designs and drawings were approved by the architect, on the condition that the device was to be operated in "inshore and partially smooth areas" and was to be removed from service six months after being launched.

The scope of work continued to evolve and the architect was involved in re-designing the device to the client's budget constraints. Eventually, the device was launched and operated successfully for two months before partially sinking in heavy weather. The maritime authorities required the device

to be removed before it sank completely and became a navigational hazard.

The client subsequently issued proceedings against the naval architect alleging that they had failed to comply with terms of the design agreement, and claimed over US\$500,000 in damages. Lawyers were appointed by ITIC to act for the naval architect.

The lawyer's advice was that the naval architect had strong grounds on which to defend the claim and that his standard trading conditions would stand up to limit his liability to around US\$10,000. ITIC put up a robust defence for the naval architect, and the onus was put on the claimant to properly set out and evidence their claim. After some months of silence, the claimant's solicitors advised that the claimant had no further funds to pursue their claim, and would therefore be withdrawing it.

The incurred legal costs of US\$40,000 were covered by ITIC.

This is another claim which illustrates the importance of contracting under well drafted standard trading conditions, particularly where, as in this case, the work involves cutting-edge designs.

Another cracking claim...

A firm of naval architects were instructed to design a vessel to be used for a new ferry service.

When completed, the owners alleged that the vessel suffered from structural inadequacies, which included continued cracking of the hull. They said that it could not perform in certain weather conditions as they had requested it should do, even following repeated repairs. At one point the Maritime and Coastguard Agency had to reduce the amount of passengers the vessel could safely carry. Eventually, the ferry service was completely suspended and the owners commenced legal action against the naval architects for US\$600,000. This covered the cost of repairs, loss of use, loss of profits and diminution of value of the vessel. Expert evidence was obtained on behalf of the naval architect, but it was not particularly helpful to the defence.

It became apparent that the owners were suffering from financial difficulties, in part due to the fact that the ferry service could not run. On this basis, ITIC instructed lawyers to make an application for security for costs (to cover the defence costs incurred in the event that the owners became bankrupt) in the sum

of \$.75,000. Legal costs and expert witness fees had already exceeded \$.40,000 and were estimated to exceed \$.100,000 if the matter progressed to a full trial.

The application was granted in ITIC's favour, but unfortunately only to the sum of £25,000, as the Judge had some sympathy with the claimant's argument that they were in financial dire straits due to the mistake of the naval architect. Despite pleading poverty, the owners did manage to obtain the funds and pay them into court.

The naval architect was left in an awkward situation, whereby, if the matter progressed to full trial, even if they were successful in defending the claim completely (which was very unlikely in light of the expert evidence received) the costs alone could have been in excess of £100,000 and there was only £25,000 security.

The Judge suggested that the parties would benefit if they could reach a settlement between themselves, and after a full day of negotiations, the original claim of US\$600,000 plus costs was settled for US\$230,000 plus costs (which were a further US\$100,000).



A floating but listing restaurant

A naval architect was appointed to design a barge, that was intended to be used as a floating restaurant. Once in place, stability issues occurred stemming from the fact that the architect had failed to take into account the weight of the vessel's mooring system and access footbridge, and this led to a visible list.

The cost of the necessary repair provided by the barge owner came to €25,000, which the naval architect felt was fair and reasonable, and that the suggested repair would correct the barge's list.

The repairs were duly carried out at the architect's expense, which was reimbursed by ITIC.



Architect's oversight

A naval architect entered into a contract with a shipyard to design the structure and access arrangements for new lifeboats and their davits to be fitted to a specific vessel. The naval architect undertook the design analysis using data received from the manufacturer of the lifeboats and produced design drawings. The naval architect understood that the yard would seek classification society approval of these designs before commencing the build work under the terms of the yard's contract with the ship owner.

However, due to time restraints and pressure from the ship owner, the yard decided to commence building prior to obtaining approval from the classification society. The lifeboat support structure was manufactured and installed by the yard according to the naval architect's design. The yard subsequently noticed that the davits were flexing under operation even without the lifeboats.

An internal investigation within the naval architect's office determined that an error had occurred whereby figures had been entered incorrectly into their computer programme. Information provided by the lifeboat manufacturer in kNm had not been converted into kNmm as required by the naval architect's computer programme. The result was that calculations were out by a factor of 1000. This error was not identified during the naval architect's quality assurance process and as a result, the structural platform, as designed and built, was not fit for purpose.

The yard raised a formal complaint advising the naval architect that the work on the davit support structure had to be rectified because of their error. A few months later they claimed that rectification had cost £350,000.

ITIC assessed the claim and was also able to raise arguments that the contract terms excluded some components of the claim and that the yard should not have commenced construction before the classification society had approved the designs.

A settlement was eventually agreed at £255,000.

You don't have to make a mistake to be sued...

One of the benefits of insurance with ITIC is the cover provided for defence costs. As a naval architect you could receive a claim from a vessel owner for a case you worked on even if you were not negligent in your design. The following claims examples demonstrate that even if you are not responsible for the original design of a vessel, there is still the possibility that you could be involved in legal proceedings, which will be costly and very time consuming.

An architect in Australia was contracted to design the hull and rigging for a new yacht. Another naval architecture firm was contracted to design the interior. The yacht was completed and delivered to the owner. However, during a party on board one of the guests became ill and decided to go to sleep early. When he awoke, in the middle of the night, he fell down a small set of stairs inside the yacht.

The guest suffered damage to his back and hip and as a result sued all parties involved with the yacht. The parties included the

owner, the builder, the surveyor and the two naval architecture companies. Legal counsel was appointed by ITIC to defend the naval architect who was insured by ITIC. Despite the fact that any design fault on the interior of the vessel had no relation to the work carried out by the architect insured by ITIC, they were jointly sued in the amount of US\$1 million. Lawyers spent over US\$150,000 and 7 years attempting to obtain a judgement of removing the naval architect from the proceedings.

A costly event, for something that was not even the architect's fault.





Not a negligent design

A Canadian naval architect contracted to provide design advice for the modification to a refrigeration system in the refrigeration-compressor room of a fishing vessel.

The modifications were completed by a local yard, but unfortunately the vessel had to make several unscheduled returns to port because the refrigeration system was not working correctly and modification/repairs were urgently required.

The owner of the fishing vessel alleged that over an 18 month period the failure of the refrigeration system had caused lost fishing time, and a resulting

loss of profit of CA\$1,500,000, plus rectification costs of CA\$ 350,000. The owner alleged that the loss was due to both poor design and failure to properly perform and supervise the work.

A local lawyer was appointed and instructed to file for discontinuance on behalf of the naval architect on the basis that any faults in the refrigeration system resulted from the installation and the failure of the project manager to oversee the work, and not from the design. This was accepted and the naval architect was successfully removed from the proceedings, but had to bear his own costs of CA\$40,346, which were reimbursed by ITIC.

Trouble with tugs

A naval architect's client commissioned the design later, the client contacted the naval architect and asked him to update the specification.

various defects in the revised specification had caused delays in the building of the tugs and

ITIC investigated the claim which was found to be without merit. After negotiations the client offered to accept a settlement of US\$500,000. This was

felt to be excessive and the claim was finally However, the legal costs and experts' fees incurred in their defence amounted to US\$150,000.

Without cover the naval architect would have had to fund these fees himself.

One of the main reasons why professional liability insurance is so important is that even when a claim does not succeed, the costs of defending it can be substantial.



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