Cases Nos: HT-11-442 and 443

Neutral Citation Number: [2012] EWHC 3449 (TCC)
IN THE HIGH COURT OF JUSTICE
QUEEN'S BENCH DIVISION
TECHNOLOGY AND CONSTRUCTION COURT

Royal Courts of Justice
Strand, London, WC2A 2LL

Date: 5th December 2012

Before:

MR JUSTICE AKENHEAD

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Between:

KEVIN BRYAN CLEIGHTONHILLS (a patient by his father and litigation friend Adrian Cleightonhills)	**Claimant**
- and -	
BEMBRIDGE MARINE LIMITED	**Defendant**
and	
MALCOM WALTER ELY (trading as M&J ELY/UNIT PROJECTS)	**First Third Party**
-and-	
MALCOM WALTER ELY (trading as M&J ELY/CDMC)	**Second Third Party**
-and-	
MARTLET ENGINEERING DESIGN LIMITED	**Third Third Party**
-and-	
PAUL BENNETT (trading as PB STRUCTURES)	**Fourth Third Party**
-and	
ALLEN FABRICATIONS LIMITED	**Fifth Third Party**
-and-	
GEOFFREY PETER MARTIN	**Sixth Third Party**

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Ronald Walker QC and Henry Charles (instructed by **Everatt & Company**) for the **Defendant**
Richard Lynagh QC and James Medd (instructed by **Kennedys**) for the **Fourth Third Party**
Jeffrey Terry (instructed by **DWF LLP**) for the **Fifth Third Party**
John Stenhouse (instructed through direct access) for the **Sixth Third Party**
Hearing dates: 5-8, 13-15 and 19-20 November 2012

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JUDGMENT

Mr Justice Akenhead:

1. Kevin Cleightonhills, a local young man of 21 at the time, was working as a yard hand in September 2006 at Bembridge Marine Ltd ("Bembridge"), a boatyard on the Isle of Wight. The son of a local policeman, he was a reliable and well liked employee. On 18 September towards the end of the working day, he was asked by Mr Jim Robinson, the managing director of Bembridge, to assist in manhandling a boat from an external grated first floor gantry platform ("the Platform") into the adjacent workshop. The Platform and the workshop had recently been designed and constructed, with the work being completed some 16 months earlier. As he pushed the boat in on its trolley, the floor grating moved beneath him and he fell beneath the gantry onto the floor some 11 to 12 feet below; the loose grating panel fell onto him. He suffered very severe traumatic brain injuries and will never be able to take up the job which he wanted which was in the Army.

2. After he commenced proceedings against his employer, Bembridge, in November 2006, judgment was entered against Bembridge shortly thereafter for damages to be assessed. The damages were agreed at £7,174,411.33, for which judgement was entered in January 2011; in addition to this, Bembridge was required to pay Mr Cleightonhills' costs which were subsequently agreed at £360,000.

3. Bembridge brought in six additional parties who were all involved to a greater or lesser extent in the design, construction or supply of the new building of which the first floor external gantry platform was a relatively minor element in structural terms.

The History

4. Bembridge is and was a family business, owned and run by the Robinson family, initially Arthur Robinson and later by his two sons, Jim and Tom. The business involves the supply, storage and maintenance of boats for customers together with the fitting out of new boats which are mostly rigid inflatable boats commonly known as "Ribs". The small town of Bembridge is on the east coast of the Isle of Wight and Embankment Road, on which this family business operates, overlooks the harbour. The showroom, on Embankment Road, fronts onto the road itself and the boatyard is in effect between the show room and the harbour. Contemporaneous photographs show a crowded yard with boats of different types and sizes stacked up to three high on racking in the boatyard itself; there are metal and wooden walkways from the land out into the harbour at which boats of various types are moored.

5. In about 2001, the Robinsons began to consider the replacement of an old wooden workshop with a new two-storey building, to be used for the repair, maintenance and fitting out of boats. Upon a personal recommendation Jim Robinson approached Mr Malcolm Ely who provided what he described in his brochure as "The Complete Design and Building Service"; he owned a company called Unit Projects Ltd ("Unit") which produced the first plans describing Unit as "The Complete Design, Build and Refurbishment Service For Office and Industrial Environments". These plans showed an entry from the road, with the first-floor at road level and the new ground floor below. This was not acceptable on planning grounds. By 2004, the plans had developed so as to provide a new ground and first floor at right angles to the road and the show room, together with the external Platform. To the right (on plan) the ground floor was to be joined to another show room, chandlery, office and kitchen. In

between this structure and the back of the road-side showroom there was a gap which was to comprise, at the ground floor, a ramp area to take boats into the new ground floor and above that there was to be on Unit's Drawing UPP 377 Revision J what was described as a "Durbar Platform". "Durbar" is a proprietary name for a sheet metal floor. The Platform was some 11-12 feet up from ground level. Access into the first-floor workshop was through a roller shutter door.

6. By early 2004, Mr Ely or Unit had retained RMA Structural Engineers Ltd ("RMA") to design the new building, which was to be an industrial type building, comprising steelwork with profiled cladding and roofing. RMA (which was later to change its name to Martlet Engineering Design Ltd, the Third Third Party) was, as the name implies, a firm of structural engineers of which Mr Richard Melcio was a director and the "RM" in the RMA name; he was a qualified and chartered structural engineer, being a member both of the Institute of Civil Engineers and the Institute of Structural Engineers. By April 2004 he was producing engineering drawings which were described as being designed by him, drawn by "RMK" and checked by "SS". He produced a number of such drawings of which the most relevant is Drawing No: 03715-02, which contained the following relevant information:

(a) These were detailed structural drawings which were dimensioned and to a scale of 1:50. They identified the precise size and dimension of each steel column and beam.

(b) For the first floor platform, the drawings also showed with precision the types and locations of columns and beams. There were essentially two columns with one beam between them and another beam from each column running to the top of a ground to first-floor column in the main new building. Additionally there were three steel cross beams specified.

(c) In place of the "Durbar Platform", he specified "Galvanised British Standard Grating 30 x 5 bars @41 mm Pitch". This was a reference to open mesh grating of a particular type, size and gauge.

(d) There were on the drawing "General Notes" which required the use of figured dimensions only and for existing dimensions relating to existing work to be checked on site by the contractor. There was a reference to "British Standards" which were listed; these included BS 5950 relating to the "Structural Use of Steelwork" but there was no reference to any British Standard relating to steel grating.

It is not clear what thought process went into the change from the "Durbar Platform" to the open metal grating, but it was resolved either by Mr Ely or Mr Melcio or by both of them. It is at least possible that he or they thought that it might allow more light into the lower kitchen and office and might drain better in terms of rain or snow.

7. It is probable that Jim Robinson in particular did talk to Mr Ely about Bembridge's requirements for this first floor platform, which were for the handling of boats weighing up to 1.5 tonnes, although the average boat would weigh 800 to 900 kg before it went into the workshop and up to 1.2 tonnes when it came out of the workshop fitted. It is likely that Mr Ely was told or became aware that the boats were likely to be lifted up on to the first floor platform by a substantial fork lift machine

and placed on a trolley (sometimes referred to as a "dolly"), before being manhandled into the building. It remains unclear as to the extent to which this information about the platform's precise uses was passed on to or picked up by Mr Melcio. Suffice it to say it must have been obvious to him that the Platform was going to be used somehow for getting boats into the first floor building. The Platform was clearly not intended simply as some sort of viewing or recreational veranda or balcony.

8. By May 2004, Mr Ely was seeking to put together a quotation to Bembridge for the design, construction and supply of the new building. To that end on a personal recommendation, he approached Mr Paul Bennett whose firm PB Structures ("PB"), the Fourth Third Party, was in business as steel erectors. Mr Bennett had been a self-employed steel erector specialising in the erection of agricultural and industrial steelwork units since 1989. He was and is a sole trader who employed two men. He is not an engineer and does not have any professional qualifications. Mr Ely provided him with four drawings, UP 377, and three RMA drawings including 03715-02. To enable Mr Paul Bennett to quote for the supply and erection of the steelwork, cladding and gutters, he approached Allen Fabrications Ltd ("AFL"), a specialist fabricator of steelwork, based in Evesham, with whom he had worked in the past. Mr Bennett had no capability of fabricating the steelwork himself. AFL, the Fifth Third Party, was a not insubstantial company with a turnover of about £2 million in 2004-5 and was a specialist steel fabrication company with experience and capability in handling, cutting, machining and welding steel sections of all sizes. They also had a capacity, both in-house and through some personnel not directly employed by them, to prepare and draft detailed fabrication and working drawings. Geoffrey Martin, the Sixth Third Party, was a former General Manager of AFL who was such an experienced draughtsman; he had ceased to work for AFL in about 2002 as an employee but was retained on a regular and frequent basis not only to provide such draughtsman services, but also to become involved in the procurement of steelwork and ancillary elements.

9. AFL first submitted a quote to Mr Bennett on 14 May 2004 for the supply of the building as called for on those four drawings. The quote makes it clear that "galvanised grating" was included but "handrailing", amongst other things, was excluded. This was because, somewhat surprisingly, there were no handrails provided for on Mr Melcio's drawings in circumstances in which, given that employees had access to the platform and there was an 11-12 feet drop, one might have expected to see handrails. Mr Bennett incorporated the words of AFL's quote in his quotation to Unit on 24 May 2004 but he, necessarily, also allowed for the erection of the building. Mr Bennett was asked again by Mr Ely in September 2004 to provide a new quotation. There were some minor changes to the requirements including for instance a requirement for GRP roof lights in the roof. Again, he approached AFL which quoted to him on 14 September 2004:

> "For the supply ex-works of a building: 5.3 m x 20.15 m x 6.7 m Portal (15° roof pitch). All generally as drawings UP 377, 03715-02, 03 and 04
>
> Our price is £31,910.00 + VAT
>
> Steelwork: As engineers drawings using Metsec cold rolled framing and floor beams.

Painted one coat of high build primer.

Including galvanised grating…

Exclusions: Fire protection…Handrailing, stairs, windows and doors…"

10. Again Mr Bennett incorporated this wording verbatim into his quotation to Unit on 16 September 2004, except that he quoted for the "supply, delivery and erection" of the building. His price was £44,410 plus VAT.

11. Several days later on 16 September 2004 Mr Ely quoted for the complete package of works which included the demolition of the existing building, site clearance, the installation of piling, the construction of ground beams and various items of brickwork and blockwork, the provision of windows and doors, suspended ceilings, electrical services, internal staircase and other facilities. The quotation was in the total sum of £109,500, although that may have been negotiated down to £106,000. It was clearly envisaged that Mr Ely would be responsible for providing or procuring the provision of all relevant design drawings and calculations. That quotation was accepted by Bembridge within several weeks. By an order dated 29 October 2004, Unit or Mr Ely accepted Mr Bennett's quotation of 16 September 2004, with installation being expected in January 2005 and completion within 3 to 4 weeks. By about this time Mr Melcio continued to be involved in a structural engineering capacity. It is likely that Mr Bennett then, informally or at least not in writing, accepted AFL's quotation of 14 September 2004. AFL (by their director Mr Sharp or otherwise) did not know or inquire as to the detailed uses to which the Platform was to be put. Mr Sharp said in evidence which I accept that there was nothing in the information supplied to AFL which put him on notice that there were any problems with the design.

12. Mr Sharp of AFL then retained Mr Martin to prepare the fabrication and working drawings for the project as well as doing everything else necessary to facilitate that work, together with all requisite procurement requirements for AFL. Mr Martin, who was based in Herefordshire, made an arrangement to carry out a site survey on 8 December 2004. This was necessary not only because the drawing suggested that existing site dimensions needed to be checked but to be sure about the precise dimensions needed for the steelwork. He did so attend, as did Mr Bennett, for this purpose. Mr Martin was soon in touch with Mr Melcio and there were a number of telephone conversations. For instance on 10 December 2004 following such a conversation, he forwarded several sketches showing in effect that existing buildings somewhat impinged upon the new construction lines so that there would have to be some relatively minor alterations.

13. On 14 December 2004 Mr Melcio sent to Mr Martin 11 calculation sheets which showed in some detail loads for the different elements. For instance roof loads comprising coverings, frames, purlins and live loads were identified adding up to 1 Kn/m². On the 11th sheet loads for the platform were identified. There was a sketch plan with the loadings identified as:

"LL [Live Loads] = 5.0 Kn/m²

Floors say BSGs [British Standard Gratings] 30 x 3 bars @41 mm c/c [centres]

DL [Dead Load] = 0.21 Kn/m²

Total Load including Steels = 5.5 Kn/m²"

14. Mr Martin telephoned Mr Melcio to ask whether there had been a mistake in specifying gratings of 30 x 3 size when his drawing referred to 30 x 5 and was told to use the larger 30 x 5 gratings. On 5 January 2005, Mr Martin sent to Mr Melcio four general arrangement drawings and a full set of the fabrication detailed drawings for approval. All these drawings were prepared by him and they appear as AFL drawings, albeit drawn by "GM". These drawings and details were approved by Mr Melcio following some exchange of comments. Mr Martin expressed himself in these letters as writing "for Allen Fabrications Ltd" describing himself as a "Structural Draughtsman". Mr Martin expressed himself in letters as "we"; thus, in writing to Mr Melcio, he said that "we await your approval".

15. On about 19 January 2005, Mr Martin made a telephone call to Mr Melcio to ascertain the method which Mr Melcio wished to specify for securing the grating on the first floor platform to the main steel structure. Mr Melcio instructed Mr Martin that standard fixing clips as supplied by the specialist grating manufacturer were to be used. On that date in reliance on what he had been told by Mr Melcio, Mr Martin asked (on AFL fax transmission paper) ASD Metal Services in the West Midlands, as one of several specialist grating suppliers, to quote for the supply of the requisite galvanised grating allowing for "standard clips and fixings to suit the floor beams as shown on" an attached drawing, No A6156/FP1, which had been one of the drawings approved by Mr Melcio. ASD put in the lowest quotation on 25 January 2005 for the provision of "open steel flooring & clips to suit". On 28 January 2005, Mr Martin again on AFL paper sent an order to ASD accepting the quotation, delivery being required within 10 days. ASD were only stockists and the flooring and clips were themselves supplied by the manufacturer Lichtgitter UK Ltd. Mr Martin never actually believed that there was anything wrong with the loadings or design with which he had been provided or that there was anything which if implemented would give rise to any danger.

16. Meanwhile AFL had been fabricating steel for the project and Mr Bennett arranged for its collection from AFL and delivery to the Bembridge yard. This included the 8 gratings and the requisite fixings which had been delivered by ASD to AFL; the 26 clip fixings were in a bag and there were no instructions at all as to where the fixings should be placed. He commenced work in the latter half of January 2005 and the steel erection works were completed within about four weeks. He fixed all the clips which were dispatched to him for the gratings. Mr Martin was paid £2,375 by AFL for his services on this project, another steelwork job on the Isle of Wight and some computer network services at AFL's works. AFL submitted its invoice to Mr Bennett on 2 February 2005. Mr Bennett submitted his invoice to Mr Ely on 17 March 2005.

17. Mr Bennett never knew in any detail what the Platform was going to be used for, although he must have been aware generally that it was to be used to load and unload things which were going to go into and out of the first floor workshop. Initially, the opening into the first floor was only 1.5m high and it was only during his work on site that this was changed so that the opening became full height.

18. Mr Melcio's drawings and calculations had been submitted to the Building Control department of the Isle of Wight Council which had delegated the vetting and approval to a firm of local structural engineers, Tari Willis Associates, who approved the design and calculations. The local Building Inspectors carried out several inspections, their final one being on 12 May 2005 on completion.

19. The grated Platform was 4.371m (14.2 ft) long by 3.658m (11.98 ft) wide. There were eight gratings designed to be and actually placed on the steelwork. There were four beams primarily on which the gratings were to be placed albeit that the gratings at the building end would be taken up to a further beam which formed the floor of the opening. There were four grating panels closest to the opening into the new first floor workshop, of which two were 1 m wide and one was 985 mm wide and which spanned from the steelwork at the opening to the second Platform beam; these were 1.66m long. There was a smaller fill-in piece at the side. The edge or end of the gratings closest to the building has been referred to as the "trailing edge". There was a lip or step between the edge of the grating and the inside of the workshop; this was partly bridged by a piece of metal which Bembridge provided themselves after completion of the works. The other four panels, which spanned from the second to the fourth beam to the "leading edge", being the furthest from the building, were 2.711m (8.8 ft) long, with three being 1m wide and one being 0.658m wide. It was one of these panels (referred to by the experts as "Panel 3") which collapsed under Mr Cleightonhills. Panel 3 was the middle of the 1 m wide panels and was central in plan with the centre of the opening into the building.

20. The grating panels were to be and were held in place by the proprietary clips supplied by ASD. These clips were made of galvanised steel and comprised four parts, a 9mm bolt, a "Nyloc" nut which when tightened appropriately would not readily unthread, a 3mm thick and 70mm wide butterfly or saddle clip with a hole through it and a "tongue" piece with an oblong hole about 50 mm long. The "wings" of the butterfly clip looked at in profile were of different lengths with one being about twice as long as the other but with the ends of the wings, so to speak, hooked downwards. The gratings themselves were galvanised steel and comprised 28 transverse and some 26 longitudinal bars welded together. The gaps between the bars were some 100mm by 30 mm. The clips were intended to be fixed onto the underside of the top side of the steel cross beams, sometimes referred to as "I" beams by reason of their shape in profile. The wings of the clips were to be on top of the grating bars. The tongue piece which was to be dropped through the grating bars was to engage on the underside of the I beam and the bolt tightened with a socket spanner until the clip was sufficiently engaged.

21. Following completion of the works, Bembridge began to use its new facilities. Evidence was given by Bembridge witnesses that only 9 or possibly 10 or 11 boats were lifted onto and off the Platform, although additionally the Platform was used to shift materials and, for instance, engines into and out of the first floor workshop. The boat lifting operation was done by using an industrial size forklift truck with tines some 5- 5½ metres long. The forklift truck would pick up the boat in the yard by running the tines either side of the lower part of the hull, lift the boat to above the height of the platform, move the assembly forward and lower the boat onto the waiting trolley. The forklift driver would then withdraw the tines but then use them to push the boat, now on the wheeled trolley, more into the building entrance. Due to the

length of the tines however, the boat could not be fully pushed into the building and consequently the boat had to be manhandled into the building by three or four men. The exercise would be carried out in reverse when the boat was ready to be taken down but the boat on the trolley would have to be pushed by the men further out onto the platform until the tines could engage sufficiently to lift the boat up and then back to the ground level. There was clear evidence, which I accept, that the tines of the forklift truck did damage the grating and some of the clips and that Bembridge personnel were aware of this before the accident. The tines had "sacrificial" metal strips on the underside which could snag on the surface over which they were being pushed or pulled. There was also evidence which I accept that the hydraulic lowering and raising equipment on the forklift did not operate in a smooth but in a "jerky" manner, in consequence of which boats could be dropped or as Mr Arthur Robinson said to the Police "bounced" or being given a "good shove" (as he said in evidence) onto the trolley; Mr Jim Robinson referred to it as "bashing and bumping".

22. The trolley for use on the Platform was specifically designed and built by Bembridge itself. It was made of steel measuring some 3 m x 2 m and had four solid wheels 150 mm in diameter and 50 mm wide. Those wheels were not fixed to run only in one direction but were somewhat like supermarket trolley wheels which can turn 360° independently of each other. As Mr Pethick of Bembridge said after the accident, the trolley was difficult to move on the gantry, partly because the narrow wheels would get partly snagged in the apertures between the bars of the grating and partly because there was a slight gap between the end of the grating and the entrance into the building which was also slightly above the level of the Platform so that extra effort was needed to haul it in and out. On the trolley structure there were two beams of wood onto which boats would be lowered. No handrail or toe board was provided around the perimeter of the Platform.

23. After some 15 months of use, the tragic accident to Mr Cleightonhills occurred. There is, rightly on all the evidence, no issue as to the immediate cause of the accident. The clips holding Panel 3 were or had become loose or were no longer present. As Mr Cleightonhills tried to push the boat forward into the building, this effort exerted some horizontal or lateral force on Panel 3 which then moved away from the building towards the leading edge so that the panel was no longer supported by the third collateral beam (the third beam from the leading edge). Under his weight, the panel 3 rotated about the second collateral beam so that he fell between the second and third beams down to the ground, with the panel, wholly unrestrained by any fixings, falling through the same gap onto him.

24. Jim and Tom Robinson both gave evidence about the immediate aftermath with the ambulance and the young man's mother being called, his father being away on a sailing trip. Mr Arthur Robinson found five of the other clips (three nearest to the roller shutter door entrance) loose and tightened them up. He was later to tell the police that very few of the clips were tight. Several other clips were standing proud. One or two of the other clips were so deformed when the old grating was removed a socket wrench could not be used to get to the bolt head. The following day he was in the process of drilling several of the grating panels with a view to bolting them together when his son, Jim, required him to stop. Four clips were found immediately below the Platform close to where Mr Cleightonhills and Panel 3 fell. A fifth clip was found at ground level some days later which had been tidied or swept away some time

previously; it was under the steel wall of an adjacent storage building behind some plastic containers. There were 19 clips still in place on the Platform. Mr Jim Robinson accepted that one or two other clips could possibly have fallen off and simply been swept away, some time before the accident. Two of the other gratings were found to have visually noticeable indentations in them. No maintenance work or inspection of any sort had been done by or on behalf of Bembridge before the accident, although Mr Jim Robinson was planning to do some such work in about November 2006. Although Bembridge did operate a risk assessment system (which for instance enabled them to check the working loose of fixing bolts on pontoons), nothing had been put in place in relation to the Platform.

25. The HSE carried out a detailed investigation in conjunction with the Police. There were interviews with and statements were taken from numerous people including a number of the witnesses at the trial of this case. The HSE had various in-house experts consider and investigate the incident. For instance Mr Shearon was critical of Mr Ely and Mr Melcio for not passing on information about the use of the Platform to Mr Martin; he was critical of Mr Ely for not being competent to carry out the role of a design and build contractor. He concluded that the platform was not fit for purpose although he would not have expected Bembridge to be aware of that; however he was critical of Bembridge for failing to have an effective maintenance regime in place to check that the panels and clips were correctly positioned and tightened.

26. After the accident, and after the investigations, the old grating was removed and a new sheeted surface was placed on the beams with handrails and toe boards around the perimeter. A hoist was placed within the workshop so that the boats could be hauled in mechanically.

27. After proceedings were commenced by Mr Cleightonhills against Bembridge, the latter issued third party proceedings against Mr Ely, RMA, Mr Bennett, AFL and Mr Martin. Having settled the main action, Bembridge settled its claims against Mr Ely and RMA in the summer of 2012 for £2m and £1.8m respectively plus costs.

The Witnesses

28. I found all the witnesses to be honest and they all tried to do their best. That said, I found some witnesses more reliable than others. As for Bembridge's actual witnesses, I found Jim Robinson to be a decent person who was genuinely upset and traumatised by the accident and who clearly took it very personally; I formed the view that he had sub-consciously at least underestimated the amount of use which the Platform had had. There was again a sub-conscious distancing by him from the causes of the accident. For instance, he said in evidence that he did not know what gratings were, which was very surprising for someone heavily involved in marine matters. Mr Arthur Robinson, his father, gave his evidence in a somewhat faltering way and in some respects it differed from the much more contemporaneous statements which he made some six years before. Whilst he was certainly trying to help, his recollection now was less good than it was then. As for Tom Robinson, I felt that he did not add much to what the other Bembridge witnesses said. Mr Pethick worked at the Bembridge yard and I felt that he gave his evidence in a straight manner. He provided some evidence of when and how the dents in the gratings occurred (Spring 2006 caused by the forklift tines).

29. I was very impressed with Mr Bennett as a witness. He gave every impression of being completely honest; he was clearly an experienced steel erector but he was not academically or professionally qualified. He patiently tried to answer all questions openly and fairly and I had no difficulty in believing him. Much was made by Mr Walker QC of his oral evidence that he knew that the platform was to be used occasionally for bringing boats in whereas his written statement said that he was not aware until after the accident of the intended use of the Platform. In my view, this does not undermine his basic honesty and I formed the view that his written statement was intended to relate to his ignorance of the detailed use to which the Platform was to be put.

30. Mr Sharp was the director of AFL in charge of the fabrication and supply contract in this case. He clearly was an educated man, having an engineering degree and again I have no difficulty in finding that he was honest and a decent witness. Mr Martin also was a wholly credible witness who was in any event not challenged as to credit.

31. As for the experts, whilst they all tried to assist the Court, I formed very clear favourable impressions about Dr Falcon and Mr Lumley who appeared as experts for Mr Bennett and AFL. They were both sufficiently experienced and gave their evidence in a straightforward, articulate and helpful way. Mr Lumley had hands-on experience of gratings and BS 4592. I was least impressed with Mr Marchant, who I considered lacked the necessary experience to provide a useful insight into what could reasonably be expected of steel erectors, steel fabricators and steel fabrication draughtsmen. He had to accept that he knew next to nothing about steel fabricators or how they operated. He had little or no recent relevant experience about steel construction. He had never specified gratings himself. He had no knowledge in practice of BS 4592. Unhelpfully, he produced a third report after his meetings with the other two experts and the production of their helpful joint statement which contained a number of matters which he had not raised clearly or otherwise with them beforehand. I had the impression that he was encouraged to produce his third report to "beef up" the case against the remaining third parties. For instance, in his first report, he was critical about Mr Bennett only for failing to fit some of the clips correctly and for failing to seek advice as to how many clips to fix and where; by the third report, he went very much further for instance suggesting that Mr Bennett should have requested a specification and checked that all relevant Standards had been consulted.

Discussion

32. The reality is that, as the facts and evidence demonstrated, the gratings were seriously overloaded and the clips alone would and did prove to be insufficient to restrain the gratings and in particular Panel 3 from moving laterally or horizontally along the top of the beams. Because each grating was resting only about 50 mm on the top of each beam, if the grating moved laterally more than 50 mm towards the leading edge, it would become unsupported by the beam at the rear end of the grating. There was clear evidence from Dr Falcon, which I accept, that the clips, if properly tightened, would provide some restraint against lateral movement. Although the clips were mainly deployed to prevent upward movement of the gratings, they would necessarily provide some resistance against horizontal movement. Dr Falcon did some tests on a test rig which demonstrated, amongst other things, that the horizontal load exerted by a person pushing a boat into the workshop would not in itself create a sufficient load to dislodge the clips on the leading edge of Panel 3. It also stands to reason that the

friction between the tightened clip and the beam will provide some resistance against horizontal movement, although there may be a debate about what load is sufficient to negate such frictional effect.

33. I accept the clear evidence of Mr Bennett that he used four clips on Panel 3, that he tightened them properly and that he did not over-tighten them. There is little doubt that 26 clips were delivered to site and, although no plan was provided to Mr Bennett as to where to the clips were to go, logic would suggest and suggested to him that four clips would be needed for each of the three largest grating panels at the leading edge. There was no suggestion from the HSE investigations that the clips remaining in place were in an obviously illogical configuration. Four clips were found to have fallen with Panel 3 (as was confirmed in the evidence of Chief Inspector Heelan, which was not challenged) and a reasonable inference is that these were the four clips from that panel. Indeed, the case was opened by Mr Walker QC on the basis that it was an obvious or fair inference that Mr Bennett had fitted four clips to Panel 3. Mr Ely told the HSE that he checked the fixings after Mr Bennett had finished and all fixings seemed to be tight and satisfactory.

34. There is overwhelming evidence, which I also accept, that the fixings became loose in use after the Platform was handed over to Bembridge. There are, as all experts accepted, two possible ways in which in practice the clips could have become loose in use, assuming that they were tightened initially. The first is that the gratings (which could not take the loads of 1 to 1½ tonnes of boat without deflection) must have been overloaded on the minimum 18 to 22 occasions when such loads were applied with boats going in and out; this would be magnified if and when the jerky, dropping or bouncing motion of the boats being lowered or dropped onto the trolley added an inevitable dynamic effect which would produce an even bigger load. One needs to bear in mind not only that the load from the boat onto the trolley was transferred to the gratings through four small wheels but also, that given the configuration of the openings between the steel bars of the gratings, the load might be transferred effectively more to some wheels than others. The effect of the overload was to induce upward deflections at either end with substantial pressure then being applied to the clips; in particular, there would be a tendency for the butterfly part of the clips to become distorted. Such distortions were found in a number of clips after the accident. Once the clips were no longer in their pristine form, they would not be providing nearly as much resistance as before they were overloaded. Permanent deflections were found in at least two panels. Mr Lumley suggests from photographs that Panel 3 was locally distorted and I accept his evidence in that regard. It is suggested that the trolley would not have been placed so that any of the wheels would be resting on Panel 3 and therefore that this effect could not have been relevant to what happened to Panel 3. However this suggestion is not borne out because the nature of the trolley with its separate wheels which could turn independently of each other 360° was such that it would be difficult to locate precisely in any event and once loaded, particularly if dynamically loaded the wheels could go in almost any direction.

35. Secondly, it was inevitable that the use of the long tined forklift truck would cause damage to the fixings. Physical damage to clips consistent with being scraped by the underside of the forklift truck's tines was found. There was some evidence given by Mr Pethick in any event of abuse by the forklift tines. The whole operation of using the forklift tines to push the loaded trolley into the building was fraught with the

danger of such damage. Mr Jim Robinson described the process which often would require the prongs of the tines to be resting against the trolley itself because one could not obtain any effective contact with a boat whose stern was sloping; the tines would then be close to the gratings.

36. One needs also to couple these two factors together with the inevitable lateral pressure likely to have been imposed on the fixings of the grating panels by the actual moving operation involved in shifting the loaded trolley on and off the Platform. The effect of the grating bars and the gaps between them interacting with the small heavily loaded wheels would make the operation one which would be difficult and which would inevitably put lateral pressure on the fixings at either ends of the grating panels.

37. The experts agreed (and I accept) that excessive stress arising from the application of the wheel loads (both static and dynamic) caused the panels to deform permanently. Mr Lumley was of the view (with which I agree) that damage to the gratings was probably progressive and cumulative in nature and continued on each loading and unloading on the Platform. Dr Falcon, on balance, considers that in relation to Panel 3 at least the two fixings on the leading edge were struck by the tines of the forklift truck and became disengaged. On the balance of probabilities, I accept his evidence because his testing demonstrated that, unless the fixings were fully dislodged, they would, so to speak, jam up against the "I" of the I Beam and actually mechanically prevent the grating moving forward across the leading edge. In effect, the fixings must have either been knocked off some time before the day of the tragedy or have been knocked off by the forklift truck on the day in question when it placed the boat onto the trolley which Mr Cleightonhills was then trying to shift. Of course, the four clips probably from Panel 3 were found below.

38. All the experts were to a greater or lesser extent critical of Mr Ely and RMA. The main and justified complaint is that either one or both of them failed to appreciate what the dynamic, lateral or horizontal and point loads were likely to be from the use to which Bembridge intended to use the Platform (1-1½ tonnes on a small-wheeled trolley, loaded by a forklift truck and then manhandled into the workshop). It is now (at least) abundantly clear that the grating itself was undersized, that there would foreseeably be significant horizontal forces generated by the horizontal moving of these loads and that something needed to be provided to limit or restrain such forces. It was in my judgment the fault and responsibility of both of them. Either one or other or both of them were aware of the uses required by Bembridge or not; if not, each of them should have asked and there is no reason to assume that the Robinsons would not have provided the information. If RMA knew, then it should have specified either a more substantial grating or a "durbar" type surface and in any event should have made provision for the lateral or horizontal movement forces which would be likely to be imposed by the intended use. Similarly, Mr Ely should have found out in some detail what the intended uses were and passed those on to RMA; either he did not pass them on or he passed them on in such an informal way that RMA simply did not understand or appreciate what they were.

39. The problem here (from which all the complaints made against the remaining Third Parties stem) is that RMA designed the Platform inadequately in that the loadings which it used were substantially less than those which could reasonably have been foreseen. The specified grating was undersized and was bound to distort in use, sooner or later. The fixing clips could not be relied upon to give substantial resistance

to horizontal loads beyond about 50 kg. The use of a long tined forklift truck, which was not a precision instrument, was likely sooner rather than later to damage, loosen or dislodge the clips in any event which could and would reduce such resistance as was provided by the clips. There was a relatively simple solution available in relation to horizontal movements which would have involved a requirement to provide restraint either on the top of the I beams themselves or on the underside of the grating; this would have stopped the gratings moving either beyond the middle of the top of the I beam or the edge of the I beam. If the grating could not move laterally, within reason it would not matter even if much higher horizontal loads were applied. This type of restraint is sometimes referred to as "edge protection".

The Responsibility of Mr Bennett, AFL and Mr Martin

40. Legally, the parties rightly accept that Mr Bennett, AFL and Mr Martin owed a duty of care to Mr Cleightonhills. Bembridge pleaded but no longer pursues an alternative case that these three parties owed it a duty of care; Mr Walker QC, without expressly and unequivocally abandoning his client's case on this has made it clear that he does not want this judgement to address the issue. If I had had to decide the issue, I would have held that there was no such a duty of care, involving as it would in effect a duty of care relating to economic loss, namely safeguarding Bembridge from the economic consequences of having to pay out damages to an employee.

41. There is some issue as to the scope of the duty of care owed by these third parties to Mr Cleightonhills. Mr Walker QC argued in opening that this duty or its scope was not in any way informed, circumscribed or defined (partly or at all) by the contracts under which all three of them were involved . He seemed to "row back" on this in closing somewhat. It is unnecessary to review the myriad authorities relied upon by the parties. My view is as follows:

(a) When one is concerned with a duty of care, particularly in a construction context involving duties owed by parties who are only involved at all by reason of the contracts which they have entered into, the Court needs to consider the contractual context in which such parties were involved in the first place.

(b) Whilst the scope of the duty of care owed to a party or person (who is not a party to the contract by which any given party is involved in the construction project) can not at least usually be circumscribed or limited by contractual exclusions or limitations of liability (at least of which the party to whom the duty is owed has not clearly been notified and such being ineffective in any event in cases involving personal injury), the Court needs to consider what the party owing the duty to the other was contractually engaged to do. It is always necessary to consider what the scope of a tortious duty of care is. That scope is primarily determinable by reference to what the party owing the duty is at least broadly employed to do or actually does. Thus, a joinery sub-contractor engaged to supply and install first floor windows in a house may well owe a duty of care to anyone, say, passing below to exercise care not to drop a window or hinges on them; it is on the site to install the windows. The scope of the tortious duty owed by that sub-contractor will not extend to any requirement to check that the foundations of the house were carefully designed or constructed. Thus, if the building subsides and injures a passerby, the sub-contractor is generally not going to be liable because the scope of its tortious and indeed contractual duty did not

involve it looking out for foundation problems. I say "generally" because there may be a possible liability in respect of dangers of which it actually becomes aware, even if those dangers arise out of some aspect for which it was not contractually responsible.

(c) It does not however follow that, simply because a party is in breach of the contract pursuant to which it is involved in the project in question, it will be in breach of a duty of care owed to someone who is not a party to that contract. This is because many breaches of contract are breaches of express or even implied terms which do not in themselves require the exercise of reasonable care. Thus, the joinery sub-contractor who carefully installs a window which is, say, not what was contractually specified will be in breach of its sub-contract but is not in breach of a duty of care which obviously involves the application of care.

42. Essentially in this case and on analysis, the complaint against each of these third parties involves a complaint that each failed to appreciate that that which each was employed to do or carry out was or might be dangerous unless something more than was expressly contractually specified or required was effected. Thus, in reality, the complaint is that each should have realised that the actually intended uses to which this Platform was to be put were such that, without more than was expressly specified, the Platform could fail in use and thus foreseeably cause injury to anyone who happened to be on it at the time.

43. It is necessary to consider the complaints made against each of the remaining third parties. In relation to Mr Bennett, these are predicated in Bembridge's Additional Claim on the basis that he "in the course of installing the platform, presumably knew what activities were to be carried out on the platform and was accordingly, or should have been, aware of the need for it to be safe and secure for that purpose" (Paragraph 30) and that in particular" he was under a duty to see that the gratings were securely fixed with an adequate number of clips" (Paragraph 31). The Particulars of Negligence are given in Paragraph 32:

"(a) Failing to secure all the grating to the steel framework structure adequately; inadequate numbers of clips were used, positioned such that they were liable to loosen, and so positioned as to provide no or inadequate resistance to the grating displacing laterally such as to cause the Claimant's accident;

(b) Failing to warn the Defendant of the inadequacy of the location and fixing of the platform gratings;

(c) Failing to ensure that the installation and fixing of the grating complied with BS 4592:1995.

(d) Failing in the circumstances to exercise reasonable skill and care."

Amended Further Information sought to answer a request 14 relating to sub-paragraph (b) asking whether it was alleged that Mr Bennett actually knew of this alleged inadequacy and, if so, to state all facts and matters relied upon. Additionally the question was asked (Request 18) whether it was "part of Bembridge's case that Mr Bennett ought to have appreciated that the design of the grating did not provide adequate resistance to the grating displacing laterally? If so, set forth all facts and

matters relied upon in support of this allegation." The Amended Reply was as follows:

> "14. A competent contractor should have realised that edge protection was required. Furthermore it is contended that:
>
> (1) Mr Bennett knew that the specific purpose for which the loading platform was required was to receive boats which would then be pushed into the adjacent workshop. He knew this because Mr Ely told him when he visited the site prior to providing a quotation for the job and/or because the same was perfectly obvious.
>
> (2) During his third visit Mr Bennett was shown boats on wheeled dollies and told that the maximum weight would be 1 tonne. He was therefore aware that heavy boats would be moved across the platform on dollies and therefore that the gratings would be subject to dynamic loads.
>
> (3) It should have been apparent to him (if he did not know) that the boats would be lifted on to the platform by fork lift truck.
>
> (4) It should have been apparent to him, from the foregoing, that clips on the surface of the platform were vulnerable to being knocked or displaced, whether by trolleys, boats or the forks of a fork lift truck.
>
> 18. No (in relation to the design of the individual gratings). However he should have been aware of the need for an edging strip or similar for the platform by reason of the facts and matters referred to in Reply 14 above."

44. The case against AFL and Mr Martin is pleaded (in Paragraph 34) on the basis that Mr Martin was aware that the platform was to be used to remove boats in and out of the building, that the boats would be manhandled by people working on the Platform and that the platform had to be safe and secure for those purposes. It is said that AFL and Mr Martin should have specified adequate and safe means for securing the Platform to the structure but failed to do so. Paragraph 36 contains the amended Particulars of Negligence pleaded against them:

> "(a) Failing to specify adequate and safe means for securing the platform to the structure; in particular failing to specify or provide for the platform to be restrained at its edges so as to prevent lateral movement of the platform when the same was subjected to horizontal forces, and so failing in disregard of the recommendations contained in BS 4592-1: 1995 (B.1) on which they were, alternatively ought to have been aware;
>
> (b) Failing to specify the appropriate number and location of fixings and failing to fabricate the same;
>
> (c) Failing to heed the use to which the platform was to be put, alternatively failing to ascertain such purpose, if they did not know it, and failing to ask for a specification or design brief and therefore failing to provide an adequate specification for the platform and grating fixings;

(d) Failing, contrary to the requirements of BS 4592-1: 1995, "Information to be supplied", to supply to ASD details of the loading for which the flooring was to be designed, and in particular the required details for wheel loading;

(e) Failing in the premises to exercise reasonable skill and care in the performance of their duties."

45. Mr Ely was not called as a witness and Bembridge rely upon what Mr Ely told the HSE after the accident. No good reason has been advanced as to why Mr Ely could not have been called as a witness and so it is that what he said to the HSE could not be tested by cross-examination. Mr Bennett gave unequivocal evidence that Mr Ely had not given him the information which Mr Ely told the HSE that he had, that he had not been shown boats on wheeled trolleys and that he had not been told or become aware that a forklift truck was to be used to place or remove boats on or from the Platform. Mr Ely provided a prepared statement which contained the information set out in the reply; however he gave different answers in his interview (Bundle E5/1552-3) when he said that all the information which was given to Mr Bennett was supplied by RMA. I have no hesitation in accepting Mr Bennett's evidence and it would be unsafe to accept the contradictory evidence of what Mr Ely said to the HSE.

46. I do accept however that Mr Bennett knew prior to his contract with Mr Ely that a Platform was to be provided and it must have been obvious that the Platform was there for a purpose, the most logical of which was that it would be used for getting various types of things into and out of the first floor workshop; it being a boatyard, it must have been reasonably foreseeable that boats of some sort and equipment such as engines might be passed over the Platform. What he did not know however was the size or weight of boats which would be placed on the Platform, how any boats would be got into and out of the first floor workshop, whether or not some sort of hoist would be used, whether human beings would go out onto the Platform, whether flat plates or runners might be placed on the grating to facilitate inward and outward movement, what sort of trolley if any (and with what types and sizes of wheels) might be used on the Platform. Mr Martin's state of knowledge was the same. The absence of any specified handrails would if anything have suggested that human beings were not intended at least routinely to go out onto the Platform.

47. Contractually, Mr Bennett was employed to supply and erect the steel structures and building shown on the drawings upon which he quoted. There is little room therefore for an all pervading implied term of reasonable suitability, because he was required contractually to provide what the drawings told him with some precision he had to provide. It can properly be said however that, where a construction contract does not spell out each and every thing which is to be provided, that which is not expressly specified but which is necessary must be reasonably suitable for what can otherwise be gleaned as the purposes for which the building or at least the unspecified element is to be used. Where those purposes are expressly spelt out in the contract documentation or where there is reliable evidence that those purposes (if not so spelt out) were communicated to the contractor prior to the contract, those will be the purposes to which reasonable suitability relates. An example might be the holding down bolts which hold the columns to plates cast into the foundations; if the precise size and type is not specified, the contractor will by implication have to provide holding down bolts of a size and type capable of accommodating the loads discernible from the contract drawings; those loads for instance might be the dead weight of the

column in question and the possible wind loads on the structure which might cause the column to flex. As in many cases, and indeed in this one, the structural engineer actually provided detailed calculations for all these types of load.

48. Mr Bennett was contractually obliged to provide the exact precise gratings which were specified on the drawings on the basis of which he had quoted and his quotation had been accepted. It was not open to him contractually to provide larger gauge gratings. However, no fixings were specified and it could be said that he had to provide fixings for the gratings which were reasonably suitable for their intended purposes. However, through Mr Martin, RMA in effect instructed and approved the use of standard fixings; there is no suggestion and rightly so that the clips provided were anything other than standard fixings for this type of grating. The fixings were those to be used on a standard basis for gratings of the type actually specified. Accordingly, it can not be said that the fixings were inherently unsuitable or were otherwise provided in breach of contract.

49. So far as the breaches of duty alleged against Mr Bennett in relation to the clips, these have simply not been established to anything approaching a balance of probabilities. Mr Bennett's evidence which I accept was that he used all 26 clips he was provided with and that he tightened them all up appropriately. Only 24 fixings were recovered after the accident, 19 still on platform, 4 on the floor and one which had been tidied away at some time before the accident. Jim Robinson accepted that it was at least possible that two others had been cleared up, presumably having fallen. Given the use of the forklift truck, it is distinctly possible that 3 had fallen or been taken off by Bembridge employees. What one can certainly say is that it has not been proved on a balance of probabilities that all 26 were not fitted by Mr Bennett. Mr Bennett said that he had fixed 4 clips to Panel 3 with two at each end. I accept that evidence, it being supported by the fact that 4 were found on the ground immediately after the accident. There was some suggestion that the fifth clip found later was probably one which Mr Bennett simply discarded and never used. However, there is also some evidence from Mr Lumley that the state of this clip was consistent with it having been repeatedly tightened, which itself might suggest that Bembridge personnel had tightened it and when the nut failed it was discarded by them. At best, it has simply not been proved that Mr Bennett did not fix this properly in the first place.

50. There is some evidence that several clips closest to the opening into the workshop were found after the accident to be incorrectly located but it is likely that these were clips which were re-fixed by Mr Arthur Robinson immediately after the accident. The experts were agreed that the clips positioned at the trailing edge were positioned where there was a gap between the floor panel and the supporting beam and so would be prone to loosening as the floor deflected. However, even if this amounted to bad workmanship, the experts agreed (and I accept) that it was not present at Panel 3 or any of the other panels at the leading edge.

51. There was some suggestion that the configuration of the fixings was wrong and inappropriate in that the butterfly clips should have been used to hold adjacent panels together with one wing of each butterfly over a bar of adjacent panels. Based on the expert evidence however, I do not consider that this would have been an appropriate thing to do and it would not have prevented the accident in any event because the panels would still be effectively unrestrained by such clips once the horizontal loading exceeded about 50 kg. Mr Marchant did not in reality criticise Mr Bennett for not

using overlapping clips. Additionally, such clips would have been just as prone in any event to be knocked off by a forklift tine. In all probability, Mr Bennett fixed two clips to each end of the long panels attaching them to the underlying I beams and he tightened them sufficiently without over-tightening them. That configuration on the expert evidence cannot have been and was not a careless one for a steel erector to use.

52. The reality is that the only even arguable case (and this applies to AFL and Mr Martin also) involves an assertion that they should all have appreciated that significant horizontal loads in use (a) were likely and (b) needed to be catered for in effect by edge protection. This necessarily requires it to be established on the balance of probabilities either that they knew relatively precisely how the Platform was to be used or that they should have found out, with a further variant being that one or other or all of them should have warned about the risks of not providing edge protection.

53. There was much discussion about the applicability of BS 4592-1: 1995 ("Industrial type metal flooring, walkways and stair treads"). The experts accepted that this was the correct standard; with some minor qualifications they all agreed that the platform design should have been in accordance, amongst others, with BS 4592, in relation to the gratings. They also agree that RMA contrary to British Standards did not consider or allow for any concentrated or point loads such as would be imposed on the grating by heavily laden trolley wheels. They were agreed that the Platform floor had inadequate stiffness and strength for the proposed usage with regard to static and dynamic concentrated loads. They were also in agreement that no guidance is given in British Standards or in normal reference documents as to what the likely design horizontal load might be on such a floor.

54. Whilst the experts were in agreement that the overall engineering responsibility for securing compliance with the British Standards rested with RMA, Dr Falcon and Mr Lumley considered and I accept that in practice the overall responsibility for the floor including the fixings and the need for making decisions about whether edge protection should be provided rested with RMA. Mr Marchant believed that AFL should have provided a safe floor; that is putting it much too high when considering a case in tort.

55. Much of the difference between the experts rested on differing interpretations of BS 4592. One needs to bear in mind that this case is one involving allegations of negligence and simply because a party has not strictly complied with a requirement of a British Standard does not mean that it is necessarily in breach of its duty of care, although of course it can be evidence thereof. Extraordinarily, neither Mr Marchant nor Dr Falcon had come across BS 4592 in practice albeit that Mr Lumley had used it. They all agree however that RMA should have been aware of it and that Mr Bennett can not be criticised for not being aware of it.

56. Relevant parts of BS 4592 are:

> "1 Scope
>
> This part of BS 4592 specifies requirements for aluminium and steel…open bar gratings intended for use in flooring, walkways and stair treads…
>
> NOTE 2 Annex B gives recommendations for the installation of gratings.

4. Information to be supplied

The following information to be supplied by the purchaser shall be fully documented. Both the definitive requirements specified throughout the standard and the following documented items shall be satisfied before a claim of compliance with the standard can be made and verified:

a) where appropriate, scale plans of the area to be covered…

b) type of grating…and the depth required if known…

e) loading for which the flooring, walkway or stair treads are to be designed (see Table 3). For wheel loading, the tread area, maximum wheel load and direction of travel will need to be stated. For other concentrated loads (see Table 3) the concentrated load area will need to be stated…

j) method of fixing (clips or welding, see Annex B)…

9 Performance

Table 3-Loads

Use of grating	UDL kN/m²	Concentrated load (at 1.0 m centres over squares of 300 mm side) kN
Light duty Access limited to one person	3.0	1.0
General duty Regular two-way pedestrian traffic is	5.0	1.0
Heavy duty High density pedestrian traffic	7.5	1.0

NOTE 1 Gratings to take vehicle loads travelling at 90°…shall either have pressed bars, or transverse bars…

NOTE 2 For vehicular traffic, unfactored wheel loads may have the permissible stress increased by 10%...

ANNEX B (informative)

Recommendations for the installation of gratings

B.1 General

Gratings should be fixed or contained in such a manner that they will not move laterally or away from their supporting members. The minimum extension of grating over supports should be 25 mm.

Where it is possible for gratings to move in the direction of span away from their supporting structure, the design of either the gratings or the structure should include a suitable method of minimising movement. For instance, gratings may be designed to include either small pieces of flat bar or angle section fixed to them in such a manner as to restrict their movement by having them protrude below the bottom surface of the gratings at a distance of not more than 10 mm away from the edges of their supporting structure. Alternatively, the supporting structure may be designed to include small pieces of flat bar attached to its top surface in such a manner and position as to prevent the gratings moving significantly in any direction when not fixed down…

B.2 Fixing clips

All gratings should be fixed securely to the supporting structure using not less than two clips for each grating where panels are connected together, or four clips for each grating where panels are not connected together. Fixing clips should be used for all continuous band gratings and for shaped gratings where any side or edge of the grating may be subject to uplift as a result of a non-uniform imposed load. Wherever practicable, the clips should be designed so that they may be fixed or removed by persons working from the surface of the grating secured by those clips. The projection for the clip above the grating surface should be not greater than the thickness of the clip or 4 mm, whichever is the lesser. The minimum thickness of the clip should normally be 3 mm…

Fixing bolts should be supplied with either a lock nut or a cap washer to retain the nut, or have the fixing clips designed to retain the nut.

In areas where grating deflections are at their extremes or where grating is known to be subject to high levels of vibration, more positive methods of fixing should be used, such as direct fixing of grating to supports by either welding to or bolting through their supports. Other methods of positive fixings recommended in lieu of friction grip fixing clips are drilling and tapping of supporting steelwork, welding studs or bosses to the supports, or driving studs into the supports using an appropriate tool…"

57. Whatever the above means, no criticism, based on the experts' evidence, can be levelled against Mr Bennett for not having regard to BS 4592. It is clear that the Standard is primarily concerned with the gratings themselves. It is not as such a

British standard for the fixing of gratings but is a standard which deals with what the gratings themselves should comprise. Not quoted above, Paragraphs 5 to 8 deal with materials, sizes, permissible tolerances and how the grating is to be manufactured. Annex B is headed "informative" which suggests that it is there to inform and not necessarily to bind. He at least legitimately sub-contracted out the whole of the fabrication exercise to AFL and would not be liable for any error on AFL's part which he could not reasonably be expected to pick up. There was no such error.

58. There was a major discussion during the trial as to what Paragraph 4 meant. It applies to information "to be supplied by the purchaser" but there is no definition of "purchaser". In the context of this case, the purchaser could arguably be Bembridge which has in one sense purchased the gratings which went on to the platform; it could be Ely which purchased it from Mr Bennett, Mr Bennett purchasing from AFL, AFL purchasing from ASD or ASD purchasing from Lichtgitter What it in all probability means is that the seller of the grating can not put forward or "claim" the grating as complying with BS 4592 unless the purchaser has supplied the listed documented information. I would not however take it as meaning that a purchaser is in some way obliged to provide all 13 heads of listed information. Still less can it be said that the purchaser was necessarily in breach of its duty of care to a third party if it did not list such information. If, as here, the structural engineer has specified a precisely dimensioned grating and directed the use of standard fixings, a purchaser could not be criticised as careless simply for placing an order with stockists for such a grating; it would be necessarily implicit that the specified grating was what was required and would be sufficient for the loads for which the designing structural engineer had designed and specified the grating.

59. Moving on to Annex B, Paragraph B.1 makes it clear that it is a design matter to guard against the movement of gratings away from their supporting structure. It makes it clear that fixing (with clips) "or" containment can be provided to restrict lateral movement. There is no doubt that generally clip fixings should be used in any event and Paragraph B.1 envisages that fixings may provide some restraint against lateral movement, presumably and particularly where the horizontal loads on the gratings are to be relatively small. It is only if the fixings alone will not prevent lateral movement of the gratings that the designer needs to make provision for something else such as edge protection or restraint.

60. Paragraph B.2 makes it clear that the use of four fixings for gratings is acceptable. It envisages that the clips shall be fixed from above. Where in effect it is known that the gratings will deflect significantly, other types of fixing are suggested. The reality is that the designer should specify a sufficiently robust grating for the loadings for which it can and should be allowing.

61. One needs to consider the various contractual and-as it turned out-actual roles undertaken by the individual third parties. First, Mr Bennett, undertook to Mr Ely that he would supply, deliver and erect the two-storey building and Platform in accordance with the drawings. He in fact sub-contracted (so far as is material to this case) everything except the erection to AFL which he had no reason to believe was anything other than a competent steel fabricator. AFL technically at least sub-sub-contracted to Mr Martin the procurement of the gratings and the preparation of such fabrication and working drawings as were necessary to enable it to fabricate everything necessary to enable Mr Bennett to erect what he had contractually

undertaken to provide to Mr Ely. Mr Martin in effect on behalf of AFL did a site dimension check, liaised with the structural engineer RMA as necessary, prepared the fabrication and working drawings and secured approval for them from RMA; then again on behalf of AFL he procured the grating and the standard fixings from ASD. There can be no real suggestion that each of them did not do what they were respectively employed to do.

62. One must have regard to the practical but contractual constraints which these three parties were required to work under. Thus, there was no design provision made by RMA or Mr Ely for edge protection. BS 4592 highlights that this is a design matter and, as the experts properly accept, this was primarily at least the responsibility of RMA to specify; indeed, I accept the evidence of Dr Falcon and Mr Lumley that it was solely RMA's responsibility. Thus it could be said that they were all entitled to assume that it, was not required, even if they had thought about it, which it is clear that none of them actually did. Indeed, Mr Martin said (in evidence which I accept) that he had never come across gratings being so restrained and that he would not as merely a detail draughtsman, design in a new element such as this into his fabrication or working drawings. The contract drawings did not specifically require them to provide edge protection; BS 4592 was not amongst the British Standards expressly referred to on the drawings. The reference to "British Standard" gratings was or can be taken as referring to BS 4592 but the beams were specified precisely both as to size and length; there was no requirement for flat bar to be welded to the top of the specified I beams. There was nothing on the drawings or by way of any other information given to them to suggest that significant lateral movement of the gratings could be expected which standard fixings could not accommodate. Even the loading calculations sent by RMA to Mr Martin did not do so. They specified live and dead loads and there is no hint or suggestion that significant horizontal loads were either expected by the designer, that is RMA, or needed to be guarded against by the steelwork contractor, steel fabricator or steelwork draughtsman.

63. In effect, the evidence of Dr Falcon and Mr Lumley (which I accept) is to the effect that it would not be normal practice for steel fabrication companies like AFL or draughtsmen like Mr Martin to question the structural design to which they were each required to work. Essentially, their job would be and would be perceived by them to involve putting into effect what the structural engineer's design required. Whilst they might reasonably be expected to pick up any obvious error in that design (a beam or column missing for instance), they would not be expected to cross check and ascertain what the unexpressed design assumptions (if any) were. An example of an obvious error was the identification by RMA in its loading calculations of a different size grating to that specified on the issued drawings; Mr Martin did pick that up and checked with RMA what was intended and he was told that the larger grating was to be the one to be used. Similarly, he noticed that fixings had not been specified for the gratings and so, properly, he telephoned Mr Melcio to ascertain what his intentions were and was told to procure the standard fixings. The function of fabrication and working drawings is to enable first the fabricator to fabricate with the necessary precision or to procure precisely what is required and secondly the erection contractor to have detailed instructions as to what and where steel pieces need to be placed. They are not intended to involve a re-design of the specified work. In this case, AFL and Mr Martin produced some 69 detailed fabrication drawings of multi-member assemblies, beams, brackets, bracing members, door heads and posts, rafters,

stanchions, side braces, ties and window edges as well as four general arrangement drawings to enable the steelwork to be assembled on-site.

64. The one area (Dr Falcon describing it as the only exception) where steel fabricators (including AFL and Mr Martin in this case) have to exercise their own skill and judgement is in the detail design of connections between pieces of steel. It is often the case (as here) that details of the connections are not provided in the structural engineer's design but that the structural engineer (as here) provides detailed loading calculations which it has used in its design in order for the fabricator to provide for connections between (mainly) beams, columns and other steel members which are strong enough to accommodate without failure all the expected loads. Thus, dead loads (such as the basic weight of floors) and live loads (such as those involved with particular proposed usage of the building, for instance working equipment) will be given to the steel fabricator and its draughtsmen to enable them to do this exercise. There is a material difference between the provision of connection details and the provision of edge protection (see below) designed to restrain horizontal movement of gratings; the connections are usually and clearly not detailed on the structural engineer's drawings and it is obvious that connections have to be provided between the steel elements to transfer the loads; that is not the case (as here) where no horizontal loads are specified to hint or suggest that some provision needs to be made to restrain movement generated by such loads. Put another way, the need to provide for steel connections is obvious whilst it is not obvious that edge protection is required. Essentially, Mr Martin's role was to produce the fabrication and working drawings as well as to procure proprietary parts.

65. However, it is common practice (and indeed happened here) that all of the fabrication and working drawings were submitted to RMA for approval and were approved. This provides an opportunity for the structural engineer who designed the overall structure to vet and check so that its design intentions are being implemented.

66. What the primary complaint really comes down to is whether Mr Bennett, AFL and/or Mr Martin should have known, ascertained or otherwise found out what the precise uses for the Platform were intended to be and should have appreciated that the Platform was in fact materially under-designed for the actually intended uses. I am satisfied and indeed it appears from all the documents available to these three parties that there was nothing on the documents which would in itself have alerted otherwise reasonably competent and careful parties in their respective positions to the fact that the Platform was under-designed. This is at least inferentially corroborated by the fact that the RMA drawings were approved by the local authority and by the structural engineer which it retained for that purpose.

67. Therefore, whilst certainly Mr Bennett and Mr Martin were aware that the site was a boatyard and they were aware in very broad terms that the Platform was likely to be used for loading and unloading of boats, they were not aware of the size or weight of the boats, what type of trolley if any would be used, whether any further work or equipment would be deployed to facilitate any boat movements (such as a hoist (such as was used after the accident) or steel or aluminium plates or sheeting on the gratings) or whether people would need routinely to have to go onto the Platform to manhandle boats. AFL's actual knowledge was more limited but I infer from the drawings which referred to Bembridge Outboards and from the fact that Mr Martin worked very closely with AFL that it knew only what Mr Martin knew. They could all

be forgiven for not appreciating that people routinely might be working on the Platform by reason of the absence of handrails which is a very basic precaution which one might have expected any competent structural engineering designer, design and build contractor indeed boatyard operator to have insisted upon. They could all be forgiven for assuming that the boats were going to be relatively small given the height of the original opening into the first floor workshop; 1.5 m (just under 5 feet) would not obviously allow 1.5 tonne boats on trailers to enter. If the boats were small and people were unlikely routinely to be working on the Platform, there would be no red flashing lights or danger signals to parties like Mr Bennett, Mr Martin or AFL that any significant horizontal loadings would be applied to the surface of the gratings which could or would foreseeably give rise to danger to people or to failure of the surface.

68. It would not have been obvious to parties such as AFL, Mr Martin or Mr Bennett that there was any real risk that the clip fixings would be subjected to major mechanical damage or failure. Firstly, they would have had and had no reason to believe that the specified gratings were insufficient to take (without deflection) the loadings which were likely to be put on them; thus, for instance, a sailing dinghy weighing, say, 80 kg would not have caused any deflection of the specified and installed gratings. Secondly, they would have had and had no reason to anticipate that a wholly unsuitable trolley arrangement would be deployed; there would be no good reason to assume that small wheeled trolleys would be used which would have a tendency to get stuck or snagged in the gaps between the bars of the gratings. Thirdly, they would have had and had no reason to anticipate that a forklift truck would be deployed in such a way that it would knock off the fixings; even if they had realised that a forklift truck might be used to lift boats on and off the platform on to a trolley, the tines would not be expected to run along the gratings themselves.

69. I have formed the very clear view on the facts that each of Mr Bennett, AFL and Mr Martin exercised all the reasonable care and skill which might reasonably have been expected of them in and about doing what they were employed to do and what they actually did in connection with the provision of work, services or materials for the Platform. I have no doubt, on the evidence available in this case, that the real problem here and the cause of the tragic accident was the failure on the part of Mr Ely and RMA to understand, appreciate and provide for the likely horizontal or lateral loads foreseeably (by them) likely to be applied by the specific uses to which the Platform was in fact to be put. The RMA design simply does not allow for the foreseeable horizontal movements to which the grating would be subjected, for the foreseeable loads to be applied to the grating not only by the weight of the boats but by the dynamic loads caused by the boats being dropped onto the trolley and then dragged over the holes in the grating, or for the damage to which the Platform was to be subject by the particular forklift truck and its method of operation. If RMA and Mr Ely between them had taken on board these uses, the overwhelming probability is that the structural design would necessarily have been very much more robust and have provided for positive mechanical restraint against horizontal movement; indeed the probability is that the grating as such would not have been deployed and the parties would have reverted to a steel sheet such as the durbar arrangement previously specified.

70. There can be no criticism of these three parties for not warning people further up the line that there was a potential problem because they can not on the facts be criticised for failing to appreciate that there was any need to warn at all. The same point can be made about the allegation that one or more of them should have called for a specification; that might only have been necessary if it was not reasonably clear from the documentation with which they were each provided what it was they were supposed to provide. It was clear and would have seemed so. There is also a very real doubt that, if a "warning" or request for a specification had been communicated to RMA or Mr Ely, either of them would have done anything about it. They certainly did nothing about the handrail for the Platform which was specifically raised with them. Bembridge has simply not established on the balance of probabilities that, if an appropriate warning or request had been communicated, anything different would have happened. It would have been open to Bembridge to call Mr Ely or Mr Melcio to bolster its case in this regard on causation but it did not do so. In the circumstances it would be wrong for the court to infer that anything different would have happened.

71. A number of legal points have been taken which in all probability do not arise in the light of the factual findings which I have made. However, I will refer to the more important ones for completeness. There was initially substantial argument about the liability in tort of a party which delegates its contractual functions in whole or in part to a sub-contractor; Mr Walker QC argued in opening for instance that AFL owed a non-delegable duty of care to Mr Cleightonhills and that AFL could not avoid liability if and to the extent Mr Martin (to whom it had delegated certain functions) had been negligent. This was essentially an argument about nothing because it had eventually, rightly, to be accepted that, whilst one can not as such delegate or transfer over to someone else a duty of care owed to a third party, one might discharge that duty effectively by delegating or sub-contracting some functions to an apparently competent and independent delegate or sub-contractor. Depending on the facts, the delegator may, in the discharge of its tortious duty to the third party, need to check or supervise the activities or work of the delegate.

72. The well-known case of **Clay v AJ Crump & Sons and others** [1963] 1 QB 533 was heavily relied on by Bembridge's Counsel in support of an argument that it can not be an answer to a charge of negligence that the party in question relied on others. In my judgment that is putting the matter far too high. This Court of Appeal case was concerned with personal injuries suffered by a workman on a construction site when sitting in a site hut beside a dangerous wall which collapsed on to the hut. An architect was appointed to plan and supervise amongst other things the demolition at an existing site; demolition contractors were appointed to clear the site in accordance with the architect's plan. The architect sanctioned or approved a request that a wall to be demolished should be left standing for the time being, the architect approving this in a telephone conversation with the demolition contractor's director by saying "if it was safe to do so"; the director said that it was safe, relying upon his foreman's opinion. Whilst the architect subsequently visited the site he never inspected the wall; however, the wall was left standing in a dangerous condition which would have been apparent to anyone making a proper inspection. The demolition contractor having left, a building contractor arrived with its director personally examining the wall which did not reveal its dangerous condition and it then placed its site hut adjacent to the wall. The first instance judge found the demolition contractor, the building contractor and

the architect liable to the injured person. They all appealed. The Court of Appeal dismissed the appeal.

73. Ormerod LJ recited some of the factual findings including that the architect failed to exercise appropriate care "when he allowed the variation of his plan and instructions by suspending the removal of the wall without inspecting what had been done, without giving instructions about support and without inspecting what had been done when the demolition contractors left the site and strangers were coming upon it". He went on at pages 558-9 to say:

> "…the architect, instead of going himself to look at the wall to decide whether it was safe to be left, spoke to the demolition contractor, who in turn took the opinion of the foreman, and the architect acted on that opinion. Having come to a decision that the wall could be left, he appears not to have taken any further step to satisfy himself of its safety, although it is abundantly clear that there were opportunities for him to examine it. There can be no doubt on these facts that the architect was negligent. No one has suggested that the wall, left as it was, was safe…The architect chose to rely upon the opinion of the demolition contractor. This must have been wrong if the evidence called before the judge is anything to go by. And, for my part, I can see no reason why it should be said that because an architect, instead of making sure for himself, accepts the opinion of another man whose opinion is given either negligently or certainly without sufficient examination, the architect is free from liability. He has done nothing more, as I see it, than appoint an agent to act for him to give a decision which it was his duty to give himself…"

Upjohn LJ also recited some of the evidence such as (page 565) that the architect had never even bothered to refresh his mind by looking at the wall and that he had never even referred to the plan which, if he had done so, would have put them on notice that therewould be or might be a problem. He went on at page 560 to say that the architect:

> "…was in a complete and in a literal sense in blind breach of his duty to the owner. He took not one of the steps which it was his bounden duty to take before permitting the wall to remain standing. He cannot, of course, escape that duty by putting the onus on to [the demolition contractor's director]."

Davies LJ said at page 572:

> "I cannot for myself see how the architect is entitled to say:" I ought to have examined the wall and I ought to have seen that it was dangerous; but I am entitled to be absolved from liability, since the demolition contractor or the builders ought also to have seen the wall was dangerous and should have taken steps to deal with it."

74. In my view, one must be careful from cases such as the **Clay v Crump** case not to cherry pick principles of law from what was (as in many cases) a fact sensitive decision. It is not authority for the proposition that a professional party or a contractor or sub-contractor can not discharge its duty of care at least to a significant extent by retaining apparently competent parties down the line to carry out some of the duties which it has contractually assumed. There may still be a responsibility to check with care what the delegate has done but the extent of the check may be very much more

limited in some cases than in others. Thus, a contractor may sub-contract work but in fact will supervise the sub-contractor and, if reasonably careful supervision would have prevented personal injury to a third party, then the contractor will be liable for its own failure carefully to supervise the sub-contractor; that is because in effect it has not delegated its supervision of the sub-contractor. The position might be different where there is a design and build contract and the contractor delegates the design to qualified architects or engineers; whilst it could be said that the contractor retains within its tortious responsibility to third parties some responsibility to check what the architect or engineer produces, the extent and scope of the check may be very limited and may not extend for instance to checking the detailed design calculations. If however it discovers that the professional has done no calculations at all when calculations would be expected but nonetheless allows the structure in question to be erected, it may be in breach of its tortious duty to a third party.

75. In the context of the current case, one can not criticise (in a tortious sense) Mr Bennett for sub-contracting the fabrication and supply of all the steelwork. This was a specialist operation and it was only sensible for him to have sub-contracted it. Whilst Mr Bennett could theoretically be criticised for failing to pick up some obvious error made by AFL, such as the provision of wood screws instead of holding down bolts for the columns, it would be difficult so to criticise him for failing to appreciate that an apparently substantial steel connection plate was insufficient to take the design loads transferring from a beam to a column. If, as is properly accepted, Mr Bennett can not himself be criticised for not knowing of the applicability of BS 4592, it is then not fair or possible to criticise him for failing to appreciate that edge restraint should be provided for on the top of the I beams or on the underside of the gratings. One can not, similarly, criticise AFL for delegating the preparation of fabrication and working drawings and procurement of the gratings and fixings to Mr Martin; however, if Mr Martin had ordered balsa wood gratings instead of the steel gratings specified, one could criticise AFL for failing to pick up on that at least during the delivery process. Both in the case of Mr Bennett and AFL they were delegating to an organisation or person respectively who they had no reason to believe was anything other than competent.

76. There was some debate about the duty to warn. In **Plant Construction PLC v Clive Adams Associates** [2000] BLR 137, the Court had to consider whether a contractual duty to warn had arisen in circumstances in which temporary support for a roof proved inadequate leading to a collapse. This propping was installed by a sub-contractor as directed by the client but it was found that the propping should have been recognised as inadequate by any competent engineer or contractor and indeed it was so recognised. May LJ reviewed the law, such as it was, in relation to duties to warn; for instance there were decisions of other Official Referees in which it was decided that contractors were required to warn of defects in design which they believed to exist (e.g. **Victoria University of Manchester v Wilson** (1984) 1 Const LJ 162). At page 147 he sought to provide some analysis of the scope of the implied duty of skill and care and at page 148 accepted that the implied term extended to giving warnings about the risk of personal injury. However, the case related to actual knowledge of the danger. The Court of Appeal expressly reserved "for future consideration circumstances where (a) the contractor did not know, but arguably ought to have known, that the design was dangerous, and (b) where there was a design

defect, of which the contractor knew or ought to have known, which was not dangerous."

77. In **Aurum Investments Ltd v Avonforce Ltd** [2000] EWHC 184 (TCC), Dyson J (as he then was) addressed another contractual case about warnings. He reviewed the **Plant Construction** case and said this:

> "11. So far as counsel's researches show, all the cases in which the question whether a contractor is under a duty to warn his client has been considered are ones where what was in issue was the safety or suitability of what the contractor was himself being asked to undertake. It has now been held by the Court of Appeal that if the duty to warn arises, it is part of the duty to act with the skill and care of an ordinarily competent contractor. What is to be expected of such a contractor will depend on the particular facts of the case. The facts of the *Plant* case show that, where a contractor is asked to do work, he is likely to be under a duty to warn his client if he knows that the work is dangerous, and that duty will not be negatived by the fact that the client is being advised by a professional person who knows, or ought himself to know, that the work is dangerous.
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> 12. Thus, if Advanced had been instructed to carry out underpinning work which it knew to be unsuitable and dangerous, it would seem to follow from *Plant* that it would have been under a contractual duty to warn Avonforce, notwithstanding that Avonforce was being advised by KHP. No reasonably competent contractor would have failed to warn in such circumstances. It is interesting to note that at (1999) 69 ConLR 106 at 124 May LJ left over for future consideration circumstances where -
>
> (a) the contractor did not know, but arguably ought to have known, that the design was dangerous, and (b) where there was a design defect, of which the contractor knew or ought to have known, which was not dangerous.
>
> This shows the cautious and incremental approach that has been adopted in this area of the law."

78. In my view, there can be little doubt that a failure to warn in the case of potential danger to human beings may give rise to a breach of any duty of care owed to a third party by a party who knows of the danger. I use the word "may" because it is necessary always to review all the circumstances and there might be circumstances which justify not warning. Where the parties are in contract, the duty to warn may extend to dangers of which the party in question should have been aware by reason of its involvement. Thus, a surveyor contractually appointed may owe his client a duty of care and will often be under an obligation carefully to ascertain whether there is a danger in the structure being surveyed; failure to advise or warn of the danger may well still give rise to liability even if the surveyor is in fact unaware of the danger. In purely tortious circumstances, any duty to warn may not in fact extend to warning the class of persons who might be affected by the danger; it may be limited to warning the party with whom the person required to warn is in contract or to warning the local authority.

79. In conclusion on this topic, I consider that an obligation to warn may arise in the context of a tortious duty of care, certainly in the case of a danger to people, known to exist by the person who it is said should be giving a warning. This will depend on all the facts and the circumstances including what function and role the person said to be required to warn is fulfilling. All other aspects of the law relating to whether duties of care exist at all and the scope of such duties apply to the issue of whether warnings should be given. It is at least possible that where someone is charged, contractually, with an obligation to ascertain or check whether designs or works are safe for human beings, his or her tortious duty of care may extend to warning or advising about inherent dangers of which he or she should have been aware.

80. In my judgement overall, Bembridge has simply failed to establish that Mr Bennett, AFL or Mr Martin were in breach of the duty of care which they owed to Mr Cleightonhills. In the case of Mr Bennett, there was nothing careless in his provision, location and fixing of the steel clips; he can not properly be criticised for failing to warn Bembridge of the inadequacy of the location and fixing of the platform gratings because there was nothing in itself wrong with such location and fixing because the gratings were put in exactly the position specified and the fixings of the relevant Panel 3 were in terms of numbers and locations consistent with the requirements of good practice and BS 4592. The installation and fixing of the grating complied with BS 4592; the problem was not with the installation and fixing but it was with the design for which Mr Bennett had no responsibility and which he neither knew nor could reasonably be expected to have known was deficient. He properly sub-contracted the supply and fabrication of the steel work, including the gratings, to AFL. He did not know the specific and precise purposes of the Platform (heavy loads, small wheeled trolleys, aggressive use of forklift truck, routine presence of people on the Platform). He was entitled to assume, and was certainly not careless in assuming, that Mr Ely and RMA between them would have spelt out precisely what they wanted and what was required in the drawings upon which they asked him to quote. He can not be criticised for failing to be aware of the need for an edging strip because neither was it clear or discernible from all the information provided to him and indeed to Mr Martin that there would be material horizontal loads which could or would foreseeably cause the gratings to move nor was it in practice or under his contract incumbent on him to question the design to which he was being required to work.

81. In relation to AFL and Mr Martin, similar considerations arise. There was nothing in all the information which they had obtained which suggested that edge protection was required. This was because the precise gratings were specified and they had no reason to believe that they were insufficiently robust to accommodate all the loads which the apparently competent chartered structural engineer, RMA, had specified. RMA specifically directed Mr Martin and in effect AFL to use standard clips; there was no reason in practice for Mr Martin or AFL to believe that the use of the specified gratings and the specifically identified clips would do anything other than fulfil precisely what RMA was calling for. They had no reason to believe that compliance with their respective contracts would or might even foreseeably lead to danger to people. They did not specify an inappropriate number and location of fixings; so far as is material, sufficient fixings were provided and indeed installed generally and for Panel 3. The suggestion that they can be criticised for failing to ask for a specification or design brief is not justified on the facts. The drawings and the loading calculations, as amplified by conversations between Mr Martin and Mr Melcio, made it clear

precisely what was required; indeed, Mr Melcio availed himself of the opportunity of vetting and approving the fabrication and working drawings prepared by Mr Martin on behalf of AFL to ensure that they did represent what was required. For reasons given elsewhere, I do not consider that, carelessly or otherwise, they failed to act in accordance with Paragraph 4 of BS 4592.

Miscellaneous Matters

82. In the light of my findings, it is unnecessary to consider what I would have found by way of apportionment as between Mr Bennett, AFL and Mr Martin; it would be invidious to do so because I would have to make theoretical assumptions as to the basis on which they might have been found liable. However, if I had found any of them liable, I would have found that there was some contributory negligence on the part of Bembridge. This would have related to its failure to appreciate or do anything about the facts that the forklift was damaging and had damaged the clips on the grating and that the gratings themselves had distorted by reason of their being overloaded, coupled with the fact that it was clearly allowing personnel out onto the Platform to manhandle boats at least into the first floor workshop. Additionally, Bembridge designed a trolley which was simply unsuitable for the Platform, it being small-wheeled and one which, given the small wheel sizes and the 360° wheel turn, would be difficult to manhandle without putting substantial pressure on the gratings as must have been obvious. Mr Jim Robinson said that he was planning before the accident to have a critical look at the Platform in the less busy season after September 2006. I would have inferred from that that he realised there was at least a risk that something needed to be done; I appreciate and accept however that neither he nor his fellow directors actually anticipated any serious accident. Their contributory negligence is tempered somewhat by the facts that the Platform had only been newly designed and built 15 or 16 months before the accident and that they would not have assumed that their requirements had been ignored, overlooked or at least not catered for by Mr Ely and RMA.

83. Overall, given the fact that even if Mr Bennett, AFL or Mr Martin had been found liable they were not, as between all the protagonists, primarily to blame, in relative terms as between them and Bembridge, I would have said that Bembridge had been contributorily negligent to the extent of about 20%; this is by reference to a hypothesis that Mr Bennett, AFL and Mr Martin were liable also. This becomes a somewhat academic exercise in the light of my findings. A more interesting academic point is whether the 20% should attach to the full amount of the damages and costs which it had to pay out to the unfortunate victim or to the balance left after deducting the contributions made by the settlement of the third-party claims against Mr Ely and RMA. On balance I would have said that it should relate to the full amount because it is to that amount that the 20% responsibility relates. The exercise would therefore leave the amount to be borne by any of the remaining third parties found liable to be the total sum paid to the victim, less 20% of the contributory negligence and less the payments made to Mr Ely and RMA. This is subject to the points which are made in Paragraphs 84 to 86 below.

84. Another issue which generated much discussion and reference to authorities was how the Court should go about fixing contributions for those third parties against whom liability is established. Section 2 of the Civil Liability (Contribution) Act 1978 states:

"(1) Subject to subsection (3) below, in any proceedings for contribution under section 1 above the amount of the contribution recoverable from any person shall be such as may be found by the court to be just and equitable having regard to the extent of that person's responsibility for the damage in question.

(2) Subject to subsection (3) below, the court shall have power in any such proceedings to exempt any person from liability to make contribution, or to direct that the contribution to be recovered from any person shall amount to a complete indemnity."

85. I consider that this must mean broadly what it says. The contribution must be such that it is just and equitable having regard to the contributing tortfeasor's responsibility for the damage; sub-section (2) makes it clear that this contribution can be anything between 0 and 100%. Thus, if there is one defending tortfeasor before the Court, the Court can fix a contribution which reflects that party's responsibility. The Court does not have to fix 100% (subject to contributory negligence by the claiming tortfeasor). The issue arises in relation to other tortfeasors who are not before the Court. If there are only two possible tortfeasors and they are both before the Court, there is no problem and the Court can fix a contribution for the defending tortfeasor to bear. There is authority (although under the 1935 Act) for the proposition that the Court can not fix a contribution taking into account the mere possibility that another party might if sued be liable (**Maxfield v Llewellyn** [1961] 1 WLR 1119. That is logical even under the newer Act because in order to fix a contribution to be paid by a party by reference "to the extent of that person's responsibility for the damage" one should or can have regard to other people's responsibility for the damage; however, to do that the Court has to be satisfied on the balance of probabilities that those other people would if sued have also been responsible in tort for the same damage. There are potential problems however at least arguably where one or more of the people are insolvent because it might be said to be unfair (or not "just and equitable") for the tortfeasor seeking contribution so to speak to bear the risk of that insolvency. However, I would not see that as problematic but merely a factor which the Court can take into account. Thus, where the claiming tortfeasor is the author of its own misfortune, say, in having employed a contractor which was under-insured and of little inherent worth but which was also liable in tort for the same damage, it may well be that the Court will not consider it unjust or inequitable if it fixes a contribution against the tortfeasor before the court which is lower than it would have been but leaves the claiming tortfeasor so to speak with a share of the loss otherwise attributable to that contractor's responsibility.

86. One then must consider what the Court should do in fixing contributions against tortfeasors who are before the court in circumstances where, as in this case, the claiming tortfeasor has settled with two parties, Mr Ely and RMA. On the evidence before this Court, and if I had had to fix contributions as against them I would have found that between them they were liable and responsible for 60% of the loss; this is on the assumption that Mr Bennett, AFL and Mr Martin were also liable. The 60% would have been fixed because, between them, they were primarily liable and at best the others would only have been very much secondarily at fault (if at all) for failing to pick up their much more serious defaults. However, Bembridge chose to settle with Mr Ely and RMA for just over 50% of the total amount due to Mr Cleightonhills; there being no evidence that Mr Ely and RMA were insolvent and because Bembridge chose to retain Mr Ely at least without securing contractually adequate insurance

cover, I would have fixed any contribution due from Mr Bennett, AFL and Mr Martin by reference to the fact that Mr Ely and RMA were liable for 60%; put another way, subject to contributory negligence on the part of Bembridge, the total contribution could not exceed 40%. This adds to the potential difficulty as to how to deal with the contributory negligence of Bembridge but, if, as here, Bembridge's own contribution was 20% of the overall liability to the unfortunate victim, that would leave, without any arithmetical difficulty, the remaining 20% to be paid for by any other tortfeasors who were liable.

87. The final interesting issue before the Court was whether AFL should be treated as vicariously liable for Mr Martin, albeit that he had since 2002 been self-employed. Reference was made to **JGE v Trustees of the Portsmouth Roman Catholic Diocesan Trust** [2012] 1 All ER 723, [2012] EWCA Civ 938 and **Viasystems (Tyneside) Ltd v Thermal Transfer (Northern) Ltd** [2006] QB 510. In the **Viasystems** case, a two-person Court of Appeal (May and Rix LJJ) had to consider the case where the first defendant engaged to install air conditioning in a factory sub-contracted ducting work to the second defendant; the ducting work was carried out by a fitter and mate (Mr Strang) supplied to the second defendant by the third defendants on a labour only basis under the supervision of a fitter working for the second defendant; the mate negligently caused flooding. The Court of Appeal allowed the appeal holding that the second defendant was vicariously liable for the mate's negligence albeit that the mate was contractually employed by the third defendant. May LJ said:

> "16. In my view, *Denham's* case,, applying the principles in the *Mersey Docks* case, relevantly states and illustrates those elements of principles most relevant to the present appeal. To look for a transfer of a contract of employment is, in a case such as this, no more than a distracting device; in the present case a misleading one. Darren Strang's employment was not transferred. The inquiry should concentrate on the relevant negligent act and then ask whose responsibility it was to prevent it. Who was entitled, and perhaps theoretically obliged, to give orders as to how the work should or should not be done? In my view, "entire and absolute control" is not, at least since the *Mersey Docks* case, a necessary precondition of vicarious liability.
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> 17. In the present appeal, Mr Prynne QC, for the third defendants, correctly formulated the question to determine vicarious liability, substantially as I have outlined it, as who was entitled to exercise control over the relevant act or operation of Darren Strang. He submitted, again I think correctly, that consent to any transfer was not a determinative factor in this case. He suggested that the judge looked at what Mr Horsley did, rather than what he was entitled to do.
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> 18. The relevant negligent act was Darren Strang crawling through the duct. This was a foolish mistake on the spur of the moment. I have said that a central question is: who was entitled, *and perhaps in theory obliged*, to give orders as to how the work should or should not be done? Here there is no suggestion, on the facts found by the judge, that either Mr Horsley or Mr Megson had any real opportunity to prevent Darren's momentary foolishness. The judge specifically acquitted Mr Horsley of personal negligence: and we should proceed on the footing that Mr Megson was not personally negligent either. Vicarious liability

is liability imposed by a policy of the law upon a party who is not personally at fault. So the core question on the facts of this case is who was entitled, and in theory, if they had had the opportunity, obliged, so to control Darren as to stop him crawling through the duct. In my judgment, the only sensible answer to that question in this case is that both Mr Megson and Mr Horsley were entitled, and in theory obliged, to stop Darren's foolishness. Mr Megson was the fitter in charge of Darren. Mr Horsley was the foreman on the spot. They were both entitled and obliged to control Darren's work, including the act which was his negligence. The second defendants, through Mr Horsley, would, I think, have qualified for vicarious liability, if it had been Mr Megson who foolishly crawled through the duct. It makes no difference to a sensible analysis that it was Darren who was negligent, and that Mr Megson in some respects was interposed. But neither is there any good sense in saying that, because Mr Horsley was relevantly entitled to control Darren, Mr Megson was not: and vice versa."

88. In **JGE**, Ward LJ in an extremely well researched judgment in a sex abuse case reviewed the law on vicarious liability. He said at Paragraphs 69 and 70:

> "69. There being no single test, what one has to do is marshal various tests which should cumulatively point either towards an employer/employee relationship or away from one. Adopting that approach confirms that which is accepted as the common ground, namely, that Father Baldwin is not a true employee. The test may yet be useful to see whether he can be said to be an independent contractor, for if he is, the law is clear: the employer is *not* vicariously liable for the torts of his independent contractor. I am satisfied that Father Baldwin is no more a true independent contractor than he is an employee. For a start, he has no contractual relationship with his bishop. He is hardly a person in business on his own account with a free hand to carry out the job, if it is a job, as and when he wishes.
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> 70. Whilst it may be useful to carry out some sort of comparative exercise for the purpose of ascertaining how close the relationship of Father Baldwin and the bishop is to a relationship of employer/employee as opposed to that of employer/ independent contractor, my judgment is that one should concentrate on the extent to which, if at all, he is in a position akin to employment. The cases analysed in the immediately preceding paragraphs should be noted with a view to abstracting from them, if it is possible, the essence of being an employee. To distil it to a single sentence I would say that an employee is one who is paid a wage or salary to work under some, if only slight, control of his employer in his employer's business for his employer's business. The independent contractor works in and for his own business at his risk of profit or loss."

He listed in Paragraph 72 various "appropriate signposts which may point to vicarious liability": control by the 'employer' of the 'employee', control by the contractor of itself, organisation (how far the activity carried out by the 'employee' is a central part of the 'employer's business), whether the activity carried out by the 'employee' is integrated into the organisational structure of the 'employer' and the extent to which the 'employee' is in business on his own account..

89. These cases were reviewed by the Supreme Court in another sex abuse case **The Catholic Child Welfare Society & Ors v Various Claimants & The Institute of the Brothers of the Christian Schools & Ors** [2012] UKSC 56, which was handed down after the argument in this case. At Paragraph 11, Lord Phillips adopted an approach which does not focus solely on control (focusing on what Rix LJ said in the **Viasystems** case:

> "Accordingly, what one was looking for was:
>
> > "a situation where the employee in question, at any rate for relevant purposes, is so much a part of the work, business or organisation of both employers that it is just to make both employers answer for his negligence. "

He also proceeded on the basis that one was looking for a relationship which was "akin to that of employer and employee".

90. If I had to decide the issue in this case, I would have decided that the relationship between Mr Martin and AFL was akin to that of employer and employee and that therefore AFL would have been vicariously liable for material negligence on the part of Mr Martin (none in fact being found here). Most of his work was for AFL, he had an office, albeit shared, at AFL, he presented himself, doubtless with the knowledge and consent of AFL, as working for AFL (examples being the numerous drawings prepared by him on AFL templates and orders being sent out by him as if he was an employee of AFL), he was not presented by AFL as being a sub-contractor, at least he was generally directed by Mr Sharp, albeit left to get on with the job and he was doing work which was part of the core business of AFL. He was in effect seconding himself to AFL. He was not insured himself but AFL was insured for self-employed individuals under the direct control and supervision of AFL. Certainly, Mr Sharp was in a position to control and supervise Mr Martin.

Decision

91. There being no material breaches of duty established on the facts against either Mr Bennett, AFL or Mr Martin, the case against them is dismissed. There will be judgment for them as against Bembridge. The third party type proceedings brought by Mr Bennett against AFL are consequentially dismissed.