

# THE MV DERBYSHIRE

## PROLOGUE

We know much of this paper will find agreement with the Derbyshire Family Association: we hope all of it will. But it is the sole work and responsibility of Paul Lambert (Chairman of the Derbyshire Family Association) and Dave Ramwell (Captain), and it must not be taken as necessarily reflecting the views of any other party.

## SAFETY FIRST - COMMERCE SECOND

### INTRODUCTION

The "Derbyshire", an oil/bulk/ore (OBO) ship, loaded with 150,000 tons of iron ore and carrying 44 persons, disappeared in a typhoon she should have shrugged off with ease - and so quickly that not even a distress signal escaped.

### BACKGROUND

"Derbyshire" was supposedly well found, classed to highest standard and barely four years old. (In terms of working life, three, as she had been laid up at Stavanger for a year). Her crew consisted of competent, qualified men, she was fitted with the latest navigational equipment and all her papers were in order.

News of her loss in September 1980 prompted an instinctive reaction from seafarers: "She's too big to disappear ....."

Indeed, when nine year old "Mineral Diamond" disappeared in uncannily similar circumstances 11 years on, the subsequent inquiry, instituted by the Hong Kong Director of Marine, concluded: "..... it seems most likely that a major structural failure of her hull, which resulted in her breaking in two, is the cause of her sinking ....."

Events following the severe cracking of sistership, "Tyne Bridge", in 1982 were to prove "Derbyshire" and all her sisters were weak just forward of the accommodation superstructure, and in all but the first of the six ship series extemporaneous construction methods in the region of frame 65 introduced a potentially fatal flaw.

The UK Department of Transport recognised this in its first report after preliminary investigation of the loss of the "Derbyshire" conducted in 1985. The report was changed in 1986 to blame the weather. Parties who perceived possible compromise of their position in the 1985 version, were happier with the second - not surprising when it is known their input led to the change.

The only ill built and un-restored "Derbyshire" sister, in a collapsing and abandoned state, collided with Southern Ireland and, in doing so, precipitated the Formal Investigation of the loss of "Derbyshire" over six years earlier.

## **FORMAL INVESTIGATION**

Hopes, by those who lost loved ones in "Derbyshire", that the Formal Investigation would deliver the truth at last, were dashed when, by ignoring or trivialising the history of the damage throughout the fleet, and by failing to call crucial witnesses, the Court nursed "Lost in Bad Weather" over the finishing line well ahead of all other runners.

But the whitewash was at least blatant enough to excite the anger of others who, like most of the families^ knew they had just witnessed a cover-up. A formidable team, formed almost spontaneously by a shared burning desire for justice, joined forces with the Derbyshire Family Association. Together they forced a review of the Formal Investigation, captured the interest of the media (investigative programmes were broadcast on national stations, both TV and radio), wrote a book on the case, published articles, initiated questions and debates in both Houses of Parliament, and, most crucially, stemming from the initiative of Shaun Kent, working with John Jubb, located the wreck of the "Derbyshire" 2.8 miles deep.

The DFA and its helpers provided the wherewithal to find "Derbyshire" when others said it could not be done.

In searching the wider bulk carrier scene for any corroborative general evidence it was inevitable that this team would stumble on "the bulker problem"; it was too big to miss. Put simply the problem is: most bulk carriers are not strong enough to do the job for which they were built over the lifetime that was originally projected for them. Hundreds of seafarers have lost their lives as a result.

It is being argued by some that, regrettable as the losses are, the problem cannot be cured quickly. We, the two authors of this paper present the wherewithal to show that it can.

The "Derbyshire" is a separate case covered by separate argument; she was a new ship and only carried the ageing bulker problem in embryo. But our knowledge of the unacceptable toll of life, and our awareness that, through a profile raised by the "Derbyshire", we can make an impression, emboldens us - indeed, we feel, leaves us no alternative other than - to open this wider front in the battle for justice, in the interests of all who still sail in these coffin ships. If we complicate matters for ourselves, so be it..... we cannot just walk away.

## **LOSSES IN BULK**

How could the late Doug Foy, retired seafarer turned marine journalist, pre-empt the classification societies, with their vast data banks, in warning of the inadequacy of bulk carrier design? It was November 1990 before Lloyd's Register conceded that the then current spate of losses signaled a need for investigation into the type. At the beginning of that same year one spokesman claimed those losses were "atypical", another told a BBC Interviewer, Lloyd's Register "don't believe the vessels have a fundamental design fault; they believe the ships' sides simply wear out because of corrosion and punishment they receive as cargo is loaded and unloaded".

Which prompts the question, if it was not the job of the classification society to foresee and cater or such corrosion wastage and natural punishment, then whose job was it? Perhaps the authors of "A

Ship Too Far; The Mystery of the Derbyshire" (one of them Dave Ramwell) touched on the truth: "The classification society system no longer works in today's fiercely competitive environment. It should be ended."

We think all the classification societies have fallen short of those standards which could reasonably be expected of them; that measures could have been taken much earlier and that, even now, their diagnosis does not properly disclose the severity of the malady.

During the five years before the International Association of Classification Societies (IACS) reviewed the safety and structural integrity of bulk carriers, losses averaged 10-per year and 700 seafarers died in the type. In 1990 the total bulk carrier fleet represented 7% of the world's fleet -and accounted for 57% of its casualties.

In the period 1980 to 1996 43 'standard' bulk carriers of over 20,000 dwt were lost in circumstances where structural failure could well have played a part. (Taking a 'standard' bulk carrier to be a vessel with a configuration where there is a single skin, transversely framed side, double bottom, with topside and hopper tanks running through the cargo holds). Other bulk carriers failed structurally but were fortunate enough not to be lost as a result.

The age of the ships varied - from only eight years to thirty nine years old. The average age was 18, with 78% of them fifteen years or over.

At the time of writing statistics (source: MARINE ENGINEERS' REVIEW, April '97) give 4,200 bulk carriers (of all configurations) of 150 m or more, 1,900 of these are fifteen years old or more.

As the MER points out, "..... the ships were built to class and international regulations that applied at the time of their construction."

But the plain fact is many of these ships were built when the classification societies knew, or ought to have known, those regulations were inadequate.

Track records spell out the only sure way of eradicating the danger posed by the fifteen year old bulk carrier – scrap it.

Recently IACS has claimed its Enhanced Survey Programme (ESP), started in 1993, has reduced bulker losses. We believe such reduction could have more to do with the raised level of awareness of the mortal dangers attaching to old bulkers. It is not a case any more of clapped out rustbuckets slipping quietly below the waves, with a "can't lose" owner recovering his "total loss" from the underwriters. Now the public increasingly demands an answer, and it harbours a sympathy for the seafarer that would countenance the spending of £ millions to investigate one "classic case" lying 2.8 miles down. This awareness, together with recent moves to update the marine insurance industry towards better actuarial practice, is the real medicine to start the cure.

To what extent, we wonder, was the "raised awareness factor" instrumental in dictating the fate of the "Nafsika M", last of the "Derbyshire" sisters? Despite her owners having spent thousands of dollars to (one would suppose) extend her life just two and a half years ago, she is now destined for breaking up in Bangladesh. Paul Lambert warned the major classification societies of the difficulties

in making such an old bulk carrier safe. He was rewarded with threats from the Greek lawyers of her owners with action against him in the civil and criminal court. That legal action may still be pending, but, in the meantime, given "Nafsika M's" implications for the "Derbyshire" case swivelling the spotlight on her, would any classification society now dare to put her in class unless she was absolutely seaworthy? Conversely, without such spotlight, would she have been granted a few more years to justify all that expenditure in the Gdansk shipyard?

Whatever the case with "Nafsika M", we believe the IACS' ESP is ineffective.

Early February 1997 the bulk carrier, "Leros Strength" sank off Norway, killing her 20 man Polish crew and sending 15 tons of oil ashore to foul the coast.

- "Leros Strength" had been through the ESP.
- "Leros Strength" had been classed by RINA, the Italian classification society and an accredited member of IACS
- Transfer of "Leros Strength" from the American Bureau of Shipping had conformed to all reporting requirements laid down by IACS.

Just a few weeks later the bulker "Albion Two" was discovered broken in two on the seabed some 70 miles west of the tip of Brittany. She is now the grave of 25 men. She had been through the ESP.

When the sinking of a deliberately scuttled, loaded bulk carrier ("Gallant Dragon") takes six seconds, when a 22 year old bulker ("Trade Daring") simply snaps in two alongside whilst loading, when plates peel away from ships' sides, and when, over a period of only eighteen months, the deaths number nearly 300, with thousands over two decades .... then we think we are justified in demanding of IACS, and all who help keep these old bulker carriers in circulation; take more positive action, because the measures you have taken so far are clearly not enough.

### **NEW CRITERIA**

In December 1996 IACS ratified its decision requiring the corrugated bulkhead between holds No. 1 and No. 2 and the double bottom structure in way of No. 1 hold, to meet new criteria for single skin bulk carriers of 150 m in length or over, being, at the same time, fifteen years or more in age, and likely to carry cargo that includes material of bulk density  $lt/m^3$  or more.

This requirement was shaped by statistical indication that tonnage over fifteen years old was most at risk, and hold No. 1 was most likely to flood - making the corrugated transverse bulkhead between holds 1 and 2 the most structurally vulnerable. (Some 40% of the bulker losses involved water ingress to No. 1 hold). But, again, given the vast data banks of the classification societies, why did it appear to us that John Jubb, Welding Consultant, beat the whole maritime regulatory system to the draw on this one, when he was promoting awareness of the relative fragility of these connections during talks he gave (and still gives) on "Derbyshire" and bulk carriers, generally?

We believe most fifteen year old bulkers cannot be made safe without spending more than the ship

is worth. Tinkering about with bulkheads could even prolong the sickness by creating the impression that something positive is being done. You cannot make a silk purse out of an old sow's ear.

We believe all bulk carriers should be scrapped on their fifteenth 'birthday', unless the owner makes specific appeal on the grounds that his ship is well above average condition for her age. If the owner does so appeal there should be an initial and relatively cursory inspection by an independent suitably qualified professional to check whether the ship in fact tallies with her owner's optimistic assessment. If it does there should be a further inspection, this time of a thorough and rigorous nature, using the most sophisticated crack detecting and wear-down measuring instruments available. The ship would be taken out of service for as long as the inspectors 'considered necessary'. It would be for the owner to ensure his ship was brought to such condition as would best facilitate such survey.

This second survey would be carried out by an International Maritime Organisation (IMO), or IMO appointed, team. (It is envisaged the IMO would be "empowered" as in point 10 of the 30 point presentation attached). And we would suggest an owner be assisted with his survey costs should such IMO team agree to extending the life of his 15+ bulker, monies being taken from an IMO centrally administered fund created with levied contributions from the shipping industry and the marine insurance industry - both of which stand to gain from this policy in the long term.

The policy puts the onus on the shipowner and, if he believes his ship warrants it, encourages him to avail himself of such option. Conversely the rust bucket, cowboy will have little choice but to cut his losses (and, as a happy incidental, the seafarers' death rate in bulk carriers) by sending his ship to the scrapyards where he can at least get the price of other metal.

IACS may be making moves in the right direction, but the loss of "Leros Strength" and "Albion Two" do not inspire confidence in the effectiveness of those moves. More, much more, needs to be done. Old bulk carriers - rundown ships generally - are a global problem requiring a global strategy. Self regulation has failed; a radical, new approach is needed.

We believe safety at sea can be enhanced, and enhanced quickly, but it would require the implementation of "people orientated" policies, and these days such a bias is out of fashion. It would require safety first, commerce second.

We are certain that once such policies have been established, such commerce as grows out of the new regime will be on sounder and more profitable footing. And not in spite of, but because safety is the first consideration.

Some may think us arrogant for taking upon ourselves to advise the maritime establishment. Indeed we know we have entered territory that should rightly be occupied by others - but now we're here, we've looked around, and we seem to be on our own.

### **PROPOSALS - 30 POINT PLAN**

So - here is our 30 point plan to make things better ...

1. Damage arising from possible design flaws in a ship should be promulgated by M.

Notice, or other means, to alert others in similar ship type to their potential danger.

2. Should any party not so broadcast such possible danger, it shall count as having recklessly endangered life and attract meet penalty
3. An International Ship Data Base (ISDB) should be established to record the salient details of every ship. It should be managed by the International Maritime Organisation (IMO).
4. There should be a basic "core record" for each ship, and this core would reflect those conditions against which a good maritime insurance company would set its judgment as to what constitutes a "good risk". For example, criteria would include: ship's age; condition at last survey; history of insurance claims/accidents; number and nationality of crew; qualifications.
5. Anyone should have access to ISDB information provided they can prove good intent to the IMO. For example, parties engaged in safety exercises should have unimpeded access, but where suspicion of seeking knowledge to secure, say, commercial advantage over rivals exists, the IMO would have to be circumspect to greater degree. (Charges for information should be only that necessary to cover costs. There is philosophy behind the ISDB such that seeking to profit by it would compromise it as a "lifesaver").
6. Anyone having knowledge of what he/she considers to be a dangerous defect in a ship should have the right to cause such defect to be appropriately recorded with the ISDB. Should the IMO refuse to so record such alleged defect then the IMO should give to the complainant its written reasons. Such response would then, potentially, have the force of a legal document and a copy would be retained by the IMO.
7. Similarly, if an applicant is refused details he/she has requested from the ISDB, and same applicant is not satisfied with the IMO verbal explanation for refusal, then same applicant should be given a written letter detailing the reason(s) for such refusal.
8. The criteria as to what constitutes a seaworthy ship must be agreed between: the IMO. the marine insurance industry, maritime regulators, seafarers, seafarers' unions and professional bodies (e.g. Nautical Institute), ship-builders, shipowners and naval architects. In the event of disagreement the final arbiters would be the IMO in collaboration with the marine insurance industry.
9. There should be global standardisation of rules and regulations governing the building and operation of ships in order to stop the downward spiral of safety standards caused by solely profit related flag of convenience 'standards'.
10. The IMO, presently responsible for formulating and bringing to ratification, rules and regulations, should also be responsible for the implementation, and then policing, of such rules and regulations.

11. Where safety is concerned (e.g. reserves of stability in a damaged roro, or the current unacceptable rate of bulk carrier losses and associated deaths) there should be an agreed "fast track" towards implementation of necessary measures.
12. The classification society system is failing to protect life at sea to satisfactory level; it should be ended - along with the shipping industry's over reliance generally on self regulation. No replacement system should be profit orientated, inter-classification society competition having helped to drive standards down to present state.
13. Respective governments should 'take charge of issuing all licences and certificates through different shipping levels - from certifying the seafarer's qualifications to granting licence for a shipping company's formation.
14. Governments should ensure that the responsibility for both promoting and regulating the shipping industry does not reside with the same Government (or Government appointed) Department. (This has been done in the off shore UK oil industry. After the Piper Alpha explosion safety matters were removed from the Department of Energy and given to the Health and Safety Executive).
15. The current UK ship accident investigation body is the Marine Accident Investigation Branch of the Department of Transport. It cannot be seen as truly independent; there should be a Civil Maritime Authority (analogous to the Civil Aviation Authority (CAA)) recognised by all parties as being professionally impartial, and the CMA alone would make official investigation post accident.
16. Such CMA would count as "any party" within the context of point 2 of this presentation.
17. An individual, or a board of directors, should be named as being solely responsible for the efficient running of the ship(s) within their company, and an address should be given. Such address being the place where the responsible party can be accessed at all times by anybody having legitimate cause for enquiry. This should be a condition of their licence to operate as a shipping company.
18. Every ship must be appropriately insured and carry proof of insurance.
19. Underwriters should accelerate moves to update actuarial practice (still rooted in the days of Samuel Plimsoll) and simplify procedures after an accident. In associated legal proceedings, lawyers unnecessarily complicating or drawing out cases would be named and fined.
20. If, during insurance related, legal, or any other proceedings, there emerges information with the capacity to enhance safety elsewhere, that information shall be promulgated as per points 1 and 2 of this presentation.

Confidentiality or other judicious precaution shall, as far as possible protect the interests of parties specific to the case, but, whatever, the promulgation of such

information must take precedence.

21. When standards have been internationally agreed they must be treated as minimum; enhancement above the benchmark should be encouraged.

For example, the UK DOT cites roros as meeting the highest standards - and they do. But presently agreed standards, where they address matters of reserve buoyancy and stability in the event of accident, are themselves too low.

Again, the US has decreed above minimum standards for the construction of tankers sailing in US waters, in deference to environmental safety. This has pushed up general standards as owners anticipating trade with the US have to meet those US standards. Also, a ship not complying with these enhanced standards would lose resale value vis a vis one that did.

22. Anyone having legitimate cause for concern over matters relating to safety should never be discouraged from expressing such concern for fear of adverse consequences. Any party threatening such adverse consequence in order to protect their own position, or for any other reason, should be severely penalised.

23. A system for the confidential reporting of "near misses" (akin to that run by the CAA) should be established internationally. (The Nautical Institute runs such a scheme voluntarily; it could serve as a model).

24. The location of "Derbyshire" 2.8 miles down demonstrates that a ship need never be "lost" again - only "missing pending location".

Where a foundering has similar controversial connotations to "Derbyshire's" case, or where forensic examination of the wreckage could usefully add to the store of scientific maritime knowledge, then such wreckage investigation should proceed under the authority of the CMA proposed in point 15 of this presentation. Findings should be made public in every case, or, if there is compelling reason for secrecy, such reason should be given as fully as possible. The usual "... It will not serve the public interest..." will no longer be acceptable.

25. Following such wreck examination by the CMA there should first be published the CMA findings; but these should be regarded in the first instance as 'draft' only; responses from various and acknowledged expert individuals and organisations shall be fully considered and the draft, if appropriate, amended and published in 'final' version.

Where there is disagreement between parties this should be noted with, as appropriate, explanations to support opposing views to those published in the body of the final version, and such views shall be published as an annex to and integral part of same final CMA publication. (In event of similar accident this will alert parties involved to all likelihood. Such a mechanism, had it been in place, would have long ago accelerated moves to improve bulk carrier safety and saved many hundreds of lives).

26. The proposed CMA should undertake the monitoring of quality control at shipyards, mainly by un-announced spot checks. Regular reports on the different yards should be sent to the IMO by the CMA (and its equivalent in other countries, using the same criteria by which to make judgment).

The IMO should publish the names of any shipbuilders who fall so short of good practice as to compromise safety.

27. If inspection of a ship reveals evidence of bad practices at her builders (for example, welding rods, found during repairs, which were used in the building as 'fillers' in a weld), then it should be investigated by the CMA and the builders brought to account.

In each such event the CMA would report to the IMO, and as soon as possible where the CMA judges other contemporaneously built ships from the same yard could have been similarly the subject of bad practice.

28. Records of all shipyard related reports should be retained by the IMO, and yards should be aware that bad practices could adversely affect future cases involving ships built at their yards, especially in legal context.

29. If statistics alone indicate patterns giving cause for concern (e.g. excessive losses in the older sections of the bulk carrier fleet, and in the fishing fleet) then this should be sufficient reason for the IMO to mount appropriate investigations. Any protests resulting from such initiative should be made in writing, and protesters should be aware that attempts to compromise safety, by seeking excessive accommodation of factors conducive to profit for example, would meet with severe penalties.

(Again, had such facility been in place 10 years ago hundreds of lives would have been saved).

30. The IMO alone, using its ISDB and established ground rules, shall 'decide what constitutes "fair treatment", and then it will ensure global implementation of same.

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